Command Line Interface and Interactive Mode Reference

AWS Schema Conversion Tool

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AWS Schema Conversion Tool: CLI Reference

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Chapter 1. Overview

This document describes the AWS Schema Conversion Tool (AWS SCT) command line interface (CLI) commands. It also provides examples of CLI commands.

Chapter 2. Getting CLI scenarios

You can get the most commonly used AWS SCT usage scenarios with the **GetCliScenario** command. This command saves the selected template or all available templates to the specified directory. The template contains the complete set of necessary commands to run a custom script. Make sure that you correct the paths in the files, connections to the databases, object names, and so on. Also, remove unnecessary commands or expand an existing script with other commands from the specification.

Templates of the most common AWS SCT scenarios are available in the chapter CLI scenarios templates.

Syntax:

```
GetCLIScenario
   [-type: 'templateType']
   -directory: 'directory'
/
```

Where:

directory	The path to a directory to save the AWS SCT CLI template. The default value depends on the OS version. Mandatory parameter. The description of the OS paths can be found in OS file system paths for commands chapter.
templateType	Type of scenario which template will be saved to the specified directory. The parameter is optional. If the parameter is missing, all available templates will be saved.

Possible values:

BTEQScriptConversion	AWS SCT creates the **BTEQScriptConversionTemplate.scts** file. This file includes conversion BTEQ, FastExport, FastLoad and MultiLoad scripts to RSQL. Saving scripts after conversion. Saving of Assessment report about scripts conversion as PDF and CSV files.
ConversionApply	AWS SCT creates the **ConversionTemplate.scts** file. This file includes conversion scripts for several schemas. Applying them to database. Saving SQL of the converted schemas. Saving an Assessment report as PDF and CSV files.
DMS	AWS SCT creates the **DMSMigrationTemplate.scts** file. This file includes the scripts for conversion and apply schema. Creation DMS endpoint. Creation DMS task. Start DMS task.
DMS&Local	AWS SCT creates the **DMS&LocalMigrationTemplate.scts** file. This file includes the scripts for conversion and apply schema. Register DMS agent. Creation DMS task. Start DMS task.

GenericAppConversion	AWS SCT creates the **GenericApplicationConversionTemplate.scts** file. This file includes the scripts for generic specific application conversion usage scenario.
LanguageSpecificAppConversion	AWS SCT creates the **LanguageSpecificApplicationConversionTemplate.scts** file. This file includes the scripts for Language specific application conversion usage scenario.
RedshiftAgent	AWS SCT creates the **DWHDataMigrationTemplate.scts** file. This file includes the scripts for conversion and apply schema. Register Redshift agent, data migration (Creation of different tasks, start tasks, waiting until all tasks will be finished).
ReportCreation	AWS SCT creates the **ReportCreationTemplate.scts** file. This file includes the scripts for creation of Assessment report for several schemas. Saving it to PDF and CSV files.
SQLScriptConversion	AWS SCT creates the **SQLScriptConversionTemplate.scts** file. This file includes the scripts for conversion SQLPlus/TSQL scripts to PL/SQL. Saving scripts after conversion. Saving of Assessment report about scripts conversion to PDF and CSV format.
Informatica	AWS SCT creates the **InformaticaConversionTemplate.scts** file. This file includes all necessary commands to perform Configuration connections, Informatica conversion, saving conversion results and saving Assessment report in PDF and CSV formats.
HadoopMigration	AWS SCT creates the **HadoopMigrationTemplate.scts** file. This file contains all the necessary commands to perform a typical Hadoop cluster migration to Amazon EMR.
HadoopResumeMigration	AWS SCT creates the **HadoopResumeMigrationTemplate.scts** file. This file contains a scenario to resume an interrupted Hadoop cluster to Amazon EMR migration.
OozieConversion	AWS SCT creates the **OozieConversionTemplate.scts** file. This file includes the complete set of commands to run the conversion from Apache Oozie to AWS Step Functions.

Examples:

```
# 1.
GetCLIScenario
    -type: 'ConversionApply'
    -directory: 'C:\temp\template'
/

# 2.
GetCLIScenario
    -directory: 'C:\temp\template'
/
```

Chapter 3. Script command mode

This chapter describes all available commands and their parameters that you can use to work with AWS SCT in a script command mode. In this mode, you can use script file that contains all possible commands described in the Commands syntax chapter.

To use **AWSSchemaConversionToolBatch.jar**, complete the following prerequisites.

1. Download and install the latest version of Amazon Corretto 11. For more information, see Downloads for Amazon Coretto 11 in the *Amazon Corretto 11 User Guide*.
2. Download and install the latest version of AWS SCT. For more information, see Installing AWS SCT in the *AWS Schema Conversion Tool User Guide*.
3. Make sure that the **app** folder of your AWS SCT installation path includes the `AWSSchemaConversionToolBatch.jar`, `RunSCTBatch.cmd`, and `RunSCTBatch.sh` files. In Windows, the default installation path is `C:\Program Files\AWS Schema Conversion Tool\`. You can run the AWS SCT CLI commands from this folder in the command prompt. Alternatively, you can add the path to the `RunSCTBatch` file in the **PATH** environment variable on your operating system. After you update the **PATH** environment variable, you can run AWS SCT CLI scripts from any folder. The command syntax is described following.

You can get the basic information of a batch file using the following parameters when calling it in the console:

Call signature	Information level
java -jar AWSSchemaConversionToolBatch.jar -info all	Batch file version and build.
java -jar AWSSchemaConversionToolBatch.jar -info version	Batch file version.
java -jar AWSSchemaConversionToolBatch.jar -info build	Batch file build.

There are **two ways** to run a script file in the script command mode.

The recommended **first way** to run the AWS SCT CLI is to use **RunSCTBatch.cmd** or **RunSCTBatch.sh** depending on user operation system. By default, this file is appeared after AWS SCT application installation in the following directory:

Windows OS	Unix systems
C:\Program Files\AWS Schema Conversion Tool\app\RunSCTBatch.cmd	/opt/aws-schema-conversion-tool/lib/app/runSCTBatch.sh

Syntax:

RunSCTBatch.cmd
--pathtoscts: '*pathtoscts*'
[--sourceLogin '*sourceLogin*']
[--sourcePassword '*sourcePassword*']
[--targetLogin '*targetLogin*']

```
[--targetPassword 'targetPassword']
[--messagelevel 'messagelevel']
[--highlightvalue 'highlightvalue']
[--userarguments 'userArguments']
[--pathtoembeddedjava 'pathToEmbeddedJava']
[--pathtosct 'pathToSct']
```

Where:

pathtoscts	Path to SCT scenario (SCTS) script. Mandatory parameter.
sourceLogin, *sourcePassword*	Passing the username and password for the source server (commands AddSource and ConnectSource). Used only in pairs. Impossible send only username or only password. If the username and password are already specified in the batch, but those specified via command line parameters have higher precedence and those specified via command line arguments will be used. Optional parameters.
targetLogin, *targetPassword*	Passing the username and password for the target server (commands AddTarget and ConnectTarget). Used only in pairs. Impossible send only username or only password. If the username and password are already specified in the batch, but those specified via command line parameters have higher precedence and those specified via command line arguments will be used. Optional parameters.
messageLevel	Determines the level of information output in the console. Optional parameter. This parameter depends entirely on the main message module, which consists of many submodules. Setting the message level for the console means that it is necessary to set the message level of all submodules to the same value. Supported values, starting from the minimum level of information to the maximum, are: • MANDATORY • CRITICAL • ERROR • WARNING • INFO • DEBUG • TRACE Values are case insensitive. The default value is **CRITICAL**.

highlightValue	Determines whether to enable highlighting of errors and messages or not. Optional parameter. Supported values are **yes** and **no**. The default value is **no**.
userArguments	Custom Java arguments, that used for JVM configuration *-Xmx4096m, -Dfile.encoding=UTF-8, -XX:+UseParallelGC*, etc. Optional parameter.
pathToEmbeddedJava	Path to custom JAVA if user prefer use own java instead of that to supplied with AWS SCT. Optional parameter.
pathToSct	Path to **AWSSchemaConversionToolBatch.jar** if it is placed in directory differ from default. Optional parameter.

Examples:

```
# 1.
RunSCTBatch.cmd
    --pathtoscts "C:\MyScenario.scts"
/

# 2.
RunSCTBatch.cmd
    --pathtoscts "C:\MyScenario.scts"
    --sourcelogin "login"
    --sourcepassword "password"
    --targetlogin "login"
    --targetpassword "password"
    --messagelevel "DEBUG"
    --highlightvalue "yes"
    --userarguments "-Xmx4096m"
    --pathtoembeddedjava "C:\Program Files\Amazon Corretto\jdk11.0.13_8\bin\java.exe"
    --pathtosct "C:\Temp\AWSSchemaConversionToolBatch.jar"
/
```

The **second way** to run the AWS SCT CLI is to use **AWSSchemaConversionToolBatch.jar**.

Syntax:

java
-jar AWSSchemaConversionToolBatch.jar
-type scts
-script '*inputFile*'
[-sourceLogin '*sourceLogin*']
[-sourcePassword '*sourcePassword*']
[-targetLogin '*targetLogin*']
[-targetPassword '*targetPassword*']
[-messagelevel '*messagelevel*']
[-highlight '*highlightValue*']

Where:

inputFile	Scenario file with commands for AWS SCT. File extension must be **scts** (for example, *myscript.scts*). Mandatory parameter.
sourceLogin	Login for source database.
sourcePassword	Login password for source database.
targetLogin	Login for target database.
targetPassword	Login password for target database.

messageLevel	Determines the level of information output in the console. Optional parameter. This parameter depends entirely on the main message module, which consists of many submodules. Setting the message level for the console means that it is necessary to set the message level of all submodules to the same value. Supported values, starting from the minimum level of information to the maximum, are: • MANDATORY • CRITICAL • ERROR • WARNING • INFO • DEBUG • TRACE Values are case insensitive. The default value is **CRITICAL**. Main message module has the following submodules: • General • Loader • Parser • Printer • Resolver • Telemetry • Converter • Type mapping • User Interface • Controller • Compare schema • Clone datacenter • Application Analyzer The level of information output to the console cannot be higher than the value set in the global settings for this submodule. For example: if in main message module level for submodule **Loader** was set to **MANDATORY** level, and you start the console with **messageLevel** equal to **ERROR**, information output in console for this module will still be at the level **MANDATORY**.

highlightValue	Determines whether to enable highlighting of errors and messages or not. Supported values are **yes** and **no**. The default value is **no**.

3.1. Commands and parameters

Syntax:

Command1 [-parameter1: <value>] [-parameter2: <value>] ... [-parameterN: <value>]
/
Command2 [-parameter1: <value>] [-parameter2: <value>] ... [-parameterN: <value>]
/
CommandN [-parameter1: <value>] [-parameter2: <value>] ... [-parameterN: <value>]
/
or
Command1
  [-parameter1: <value>]
  [-parameter2: <value>]
  ...
  [-parameterN: <value>]
/
Command2
  [-parameter1: <value>]
  [-parameter2: <value>]
  ...
  [-parameterN: <value>]
/
CommandN
  [-parameter1: <value>]
  [-parameter2: <value>]
  ...
  [-parameterN: <value>]
/
or
Command1 [-parameter: <value>] [-parameter: <value>] ... [-parameter: <value>]
  [-parameter: <value>]
  [-parameter: <value>]
  ...
  [-parameter: <value>]
/
Command2 [-parameter: <value>] [-parameter: <value>] ... [-parameter: <value>]
  [-parameter: <value>]
  [-parameter: <value>]
  ...
  [-parameter: <value>]
/
CommandN [-parameter: <value>] [-parameter: <value>] ... [-parameter: <value>]

```
    [-parameter: <value>]
    [-parameter: <value>]
    ...
    [-parameter: <value>]
/
```

Where:

Command1, ..., CommandN	Script commands are described in the Commands syntax chapter.
-parameter1: <value>, ..., -parameterN: <value>	Parameter name and its value that defines command properties. Described in the Commands syntax chapter. Parameter value is enclosed in single-quotes, any single-quotes that are part of the value must be escaped with the backslash character (\) . You can specify environment variable as parameter value with using the following mask: ***${Environment variable}***. In this case, the value is taken from the specified variable. For example: <**Command**> -**name**: 'MyName1' -**location**: '${MY_PATH}' You can pass only **one** environment variable as parameter value. Spaces to the left and right of the environment variable marker are ignored.

Letter register for command, parameter and environmental variable name are case insensitive. It can be lowercase, uppercase or mixed.

Each command has its own set of mandatory parameters. If any of mandatory parameters aren't defined and default values aren't supplied for them, then an error is occurred in a log file along with the name of these parameters and particular command they belong to.

In such a case AWS SCT displays the following error message: "*Parameter* `parameter` *isn't specified for command `Command`*".

Also, if parameter value is incorrect or more than one environment variable supplied, and there is no other special message, then AWS SCT displays the following error message: *"Value for parameter* `parameter` *is invalid or does not represent an existing environment variable"*.

3.2. Comments

Comments describe the purpose and use of command segments. There are two types of comments – **single line** comments and **multiline** comments.

3.2.1. Single line comments

Single line comments begin with a number sign character (#) anywhere on a line and extend to the end of the line.

Syntax:

[#Comment text]

Command [-parameter1:'*value*'] [-parameter2:'*value*>'] ... [-parameterN:'*value*'] **[#Comment text]**

[#Comment text]

Or the following variant:

[#Comment text]

Command **[#Comment text]**

[#Comment text]

[-parameter1:'*value*'] **[#Comment text]**

[#Comment text]

Where:

Comment text	Some single line comment text.

3.2.2. Multiline comments

Multiline comments begin with symbols «/*» at the beginning of the line and end with symbols «*/» at the beginning of another line. Between symbols «/*» and «*/» could be one or more lines of text of comment.

Syntax:

[/*
This is a multiline comment text
*/]

Command [-parameter1:'*value*'] [-parameter2:'*value*'] ... [-parameterN:'*value*']

*[/
This is a multiline comment text
*/]

Or the following variant:

[/*

```
This is a multiline comment text
*/]

Command
[/*
This is a multiline comment text
*/]

[-parameter1:'value']

[/*
This is a multiline comment text
*/]
```

Where

This is a multiline comment text	Some multiline comment text.

3.3. Object path for commands

An object path represents a path to a specific type of object or to a specific object by name.

Object path can be specified in two ways: either by using object tree path or object name path semantics. Each of these described below in this chapter in details.

3.3.1. Object hierarchy

Important detail is that in AWS SCT each database vendor has its own specific hierarchy of object categories. These hierarchies are hard-coded in form of XML object trees, divided by database vendors, and are presented in Appendix Object hierarchy trees (XML). Also, object type path diagrams, derived from those XML object trees, are presented in Appendix Object hierarchy diagrams.

Due to the multi-server architecture, that is the ability to specify multiple source or target servers, it is required that each object path despite of its notation (either explicitly in object tree path or by name in object name path) must be started from the general (root) «**Servers**» category, with the name of the particular server **Connection** in place.

There is a specific path hierarchy detail regarding Redshift (vendor: REDSHIFT) only when it is selected as a target server. In such a case there is a special server pseudo-value, without a category, that is automatically generated and placed after the root category «**Servers**» (and its value) in order to specify the exact Redshift or Glue server to use.

Next screenshot illustrates some of the above-mentioned details:

Pay attention to the «Server name (for Redshift/Glue)» pseudo-value - it is the one we're talking about. It isn't the subject to be manually inserted into an object path by the user - this self-constructed object path will be not valid. The valid way is only through a «server» parameter, see description further.

Next logic is used to construct mentioned server pseudo-value:

Redshift	**Glue**
[user_name]@[host]:[port]/[database]	AWS Glue - [region_name]

Where:

[user_name]	Database user name.
[host]	Server name or IP address.
[port]	Server port.
[database]	Database name.
[region_name]	AWS Glue region name.

There is a set of commands that use path parameters (tree, name or within a filter) and require this server pseudo-value to be embedded within an object path to explicitly specify Redshift or Glue server to use. Hence, this value is auto-generated by the Core and substituted automatically using the value of the first Redshift or Glue server depending on a particular command needs where this tree or name path is supplied to.

The following table describes the server precedence (which one is selected first by the Core) especially for those commands where Redshift is potentially crossing with Glue:

Command	**Default server**	**Crossed with Glue**
LoadTargetTreeNode	Redshift	Yes
ApplyToTarget	Redshift	No
SaveTargetSQL	Redshift	No
SaveTargetSQLbyStage	Redshift	No
SaveTargetSQLbyObject	Redshift	No

Command	Default server	Crossed with Glue
ReloadTargetTreeNode	Redshift	No
PrintTargetTreeNodeChildren	Redshift	Yes
SaveOnS3	Glue	No
SaveToLocalFolder	Glue	No

Also, these commands have a special parameter «**server**» to override default server selection, performed by the Core and described above.

3.3.2. Object tree path

You can compose the object tree path using the following logic. It consists of an object category and name pairs, connected with a dot. Each pair in a chain composed by mask: **object_category.object_name**.

Make sure that the object path specified through a **treePath** notation **starts** with one of the following top categories depending on the database vendor that you use: **Servers**, **noSQL Clusters**, or **ETL.** For example, **Servers.ORACLE.Schemas.%.**

Make sure that the object path specified through a **treePath** notation **ends** with an object tree category name, percent character (%) or an object name mask. For example, **Servers.ORACLE.Schemas.TEST.Functions.**

It is forbidden to use the percent character (%) inside the **Connection (Server) Name**. Make sure that your **Connection (Server) Name** is exact and unambiguous.

Object names in tree path are **case sensitive**.

The percent character (%) wildcard represents zero, one, or multiple unknown characters and is used to mask the undesirable or unknown parts of object names.

If the Core requires an object path to be exact, without any object name parts hidden through the percent character wildcard(%), but receives an object path that contains the wildcards - it searches for all objects in an object tree that correspond to the name mask and collects them into a logical array. Then, it processes each path from this array separately, because any of them now is an exact path to an object.

The following table includes the examples of composed object type paths:

Top category	Object tree path
Servers	• Servers.ORACLE.Schemas.TEST_ORA_SCH1.Functions."89 CaseSensitiveName"; • Servers.ORACLE.Schemas.TEST_%.Functions.FNC_GET_OBJ_TYPE; • Servers.ORACLE.Schemas.TEST_SCHEMA.Functions; • Servers.ORACLE.Schemas.%.Views.%; • Servers.ORACLE.Schemas.ODS%.Tables.raw%; • Servers.ORACLE.Schemas.TST_USR%.Tables.%*COST.Constraints.PK*%_COSTS; • Servers.MSSQL.Databases."AdventureWorks".Schemas.dbo.SQL scalar functions.%; • Servers.MSSQL.Databases."AdventureWorksDW".Schemas.Sales; • Servers.MSSQL.Databases."Adventure%".Schemas.dbo.Procedures.%; • Servers.ORACLE.Server Level Objects.Contexts.SDO_SEM_CTX_SESSION; • Servers.REDSHIFT.Schemas.aws_netezza_ext.
noSQL Clusters	• noSQL Clusters.CASSANDRA_25; • noSQL Clusters.SourceCassandra.Datacenters; • noSQL Clusters.Srv_CASSANDRA2.Keyspaces.NEW_DWH.Functions.fnc_%; • noSQL Clusters.CASSANDRA_1.Keyspaces.cas_dwh.Tables.table_1.Indexes.IDX_25; • noSQL Clusters.DYNAMODB38; • noSQL Clusters.DynamoDB_serv1.Tables.MyTab2; • noSQL Clusters.Srv_DynamoDB.Tables.tbl_%.Indexes; • noSQL Clusters.Srv_Dynamo5.Tables.%.Triggers.
ETL	• ETL.TEST_SSIS_server; • ETL.SSIS_new.Packages. PKG_%; • ETL.SSIS_source.Packages.PKG_NEW_CALC.Package tasks; • ETL.SSIS_source.Connection managers.%; • ETL.Srv_GLUE.Package scripts.%; • ETL.Srv_GLUE_3.Databases.New_DB%.Tables.TBL_%; • ETL.SSIS.Parameters; • ETL.GLUE_Endpoint5.Scripts; • ETL.SSIS.Parameters.SourcePath; • ETL.GLUE_Endpoint5.Triggers."trg_costs_6".

3.3.3. Object name path

An object name path can be composed by simply adding object names (according to a vendor-

specific object hierarchy) separated by a dot character (.), without a need to specify the types of these objects within a path. Thus, particular **namePath** contains as many levels as number of dots + 1.

Unlike object tree path semantics, there is no need to specify object type tree node (category) within a path pair, only object names.

Object **namePath** parts (names) will be raised to uppercase by the Core to properly search and work with them, that is considered as case insensitive ones. If object name within a **namePath** is enclosed in double quotation marks, then it considered as case sensitive one and used «AS-IS» for search and comparison operations.

Object path specified through a **namePath** notation must end up either with a percent sign (%) or an object name mask.

Depending on a database vendor, some categories within an object tree appear to contain only other categories, and thus cannot have any dedicated objects within. These are called **nested categories** and can be presented within the particular **namePath** just by omitting their name. It means that within particular **namePath** ONLY (!) **nested categories** could be represented as two dots in a row: "..". So, any other object besides **nested categories** can't be represented by two dots in a row. Samples of **namePaths** with **nested categories** within are in the table below.

If some level in the **namePath** is masked with a single percent sign (%) character - this means it includes **NOT ONLY** all objects with a name, **BUT** the all **nested categories** (which could be represented as two dots in a row) as well.

Nested category examples table:

treePath	**namePath**	**Nested categories**
Servers.ORACLE.Schemas.SCHEMA1.Queuing.Tables.AQ_MESSAGE_TAB	ORACLE.SCHEMA1..AQ_MESSAGE_TAB	Queuing
Servers.ORACLE.Server Level Objects.Contexts.KCG_CTF_SESSION	ORACLE..KCG_CTF_SESSION	Server Level Objects
Servers.ORACLE.Schemas.SCHEMA1.Scheduler.Programs.MY_PROGRAM1	ORACLE.SCHEMA1..MY_PROGRAM1	Scheduler

Important detail is, if the **namePath** specifies a path of only **two levels deep** and that level, due to a database vendor, represents a nested category - it must obligatorily be specified with a single percent sign (%), as it couldn't just be empty string otherwise.

Examples of composed object name paths:

namePath	Comments
ORACLE.TEST_%.FNC_GET_OBJ_TYPE	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2:** All objects that match case insensitive name mask "TEST_%" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects with case insensitive name "FNC_GET_OBJ_TYPE" on the third level.
ORACLE.TEST_ORA_SCH1."CaseSensitiveName"	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects with case insensitive name "TEST_ORA_SCH1" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects with case sensitive name "CaseSensitiveName" on the third level.
ORACLE.TEST_%.FNC_GET_OBJ_TYPE	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects that match case insensitive name mask "TEST_%" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects with case insensitive name "FNC_GET_OBJ_TYPE" on the third level.
ORACLE.%SCHEMA%.%TEST%	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects that match case insensitive name mask "%SCHEMA%" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects that match case insensitive name mask "%TEST%" on the third level.
ORACLE.%ScHeMa%.fnc%	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects that match case insensitive name mask "%ScHeMa%" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects that match case insensitive name mask "fnc%" on the third level.
ORACLE."%Bank%"..%	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects that match case sensitive name mask "%Bank%" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) nested categories on the third level; • **Scope 4**: All corresponding (to scope 2) objects on the fourth level.

namePath	Comments
ORACLE.%_account.%.%	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects that match case insensitive name mask "%_account" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects and nested categories on the third level; • **Scope 3**: All corresponding (to scope 2) objects on the fourth level.
ORACLE..SDO%	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All nested categories on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects that match case insensitive name mask "SDO%" on the third level.
ORACLE.%.SDO%	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects and nested categories on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects that match case insensitive name mask "SDO%" on the third level.
ORACLE.%	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects and nested categories on the second level of the object hierarchy.
ORACLE.ODS%."pkg_%".%	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects that match case insensitive name mask "ODS%" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects that match case sensitive name mask "pkg_%" on the third level; • **Scope 4**: All corresponding (to scope 2) objects on the fourth level.
MSSQL."AdventureWorks".dbo	• **Scope 1**: All objects that match case insensitive server name "MSSQL" on the first level of the object hierarchy; • **Scope 2**: All objects that match case sensitive name "AdventureWorks" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) objects that match case insensitive name "dbo" on the third level.

namePath	Comments
ORACLE.GSM_USER..AQ_MESSAGE%."Queue_%".test_rec%	• **Scope 1**: All objects that match case insensitive server name "ORACLE" on the first level of the object hierarchy; • **Scope 2**: All objects that match case insensitive name "GSM_USER" on the second level of the object hierarchy; • **Scope 3**: All corresponding (to scope 1) nested categories (categories that contain only other categories) on the third level; • **Scope 4**: All corresponding (to scope 2) objects that match case insensitive name mask "AQ_MESSAGE%" on the fourth level; • **Scope 5**: All corresponding (to scope 3) objects that match case sensitive name mask "Queue_%" on the fifth level; • **Scope 6**: All corresponding (to scope 4) objects that match case insensitive name mask "test_rec%" on the sixth level.

Since object name path is a chain of object names separated by dot, every link in this chain is mapped to the proper level of an object tree (see XML object trees), from left to right.

The leftmost link in a chain maps to the root of an object tree.

Each link in a chain is either an exact object name or masked object name.

The rightmost link in a chain (object name) means to scope this object and all its descendants. There is no need to specify ".%" to directly highlight you want to scope also all descendants of this object.

To collect the scope properly, each level in the object tree must be filtered out (from left to right) by a corresponding object name (masked object name) taken from the object name path.

By default, object name considered to be case insensitive, while it isn't quoted in a double quotes. Double-quoted names are case sensitive.

The percent sign (percent sign character (%)) wildcard represents zero, one, or multiple unknown characters and is used to mask the undesirable or unknown parts of object names.

In case if the Core requires an object path to be exact, that is without any object name parts hidden through percent sign character (%) wildcard, but receives object path containing percent sign character (%) wildcards - it searches for all objects in an object tree that correspond to the name mask and collect them into a logical array. Then, it processes each path from this array separately, because any of them now is an exact path to object.

3.3.4. Object path loading algorithm

To perform certain activities (for example, the Convert command) with a set of objects defined by an object tree path, the internal object tree model require to be properly pre-load by the components of such path.

Loading process performed through a series of implicit calls to the LoadSourceTreeNode command

(the LoadTargetTreeNode command for the target database).

Notice, this command has several parameters, some of them are stable for pre-loading purposes (server and partially processMode), while other ones (path and recursionDepth) might change during object path processing.

First of all, there is a need to clarify the terms chain link or node, which are equivalently mentioned below in this chapter:

Semantics	**Object path chain**			
	chain link	**chain link**	**chain link**	**chain link**
tree path	obj_cat1.obj_name1	obj_cat2.obj_name2	obj_cat3.obj_name3	obj_cat4.obj_name4
	obj_cat1.obj_name1.obj_cat2.obj_name2.obj_cat3.obj_name3.obj_cat4.obj_name4			
name path	obj_name1	obj_name2	obj_name3	obj_name4
	obj_name1.obj_name2.obj_name3.obj_name4			

Object path chain loading performed link-by-link from left to right according to the next logic:

- **processMode** parameter value depends on database vendor and the particular object category within a path. For object categories indicated in the table below, process mode value set to EXTENDED:

DB vendor	**Object category**
Oracle	Packages
IBM Db2	Modules

For any other object category process mode value set to MAIN.

If object path presented in the name path semantics, than for all nodes except the rightmost one, the value of **processMode** parameter explicitly set to EXTENDED.

- **path** parameter value: path (from root) to the current node link (see full object hierarchy in the Object hierarchy diagrams Appendix for tree path) in the object path chain. Its ending depends on whether an object name in the rightmost link (node) specified either by exact name or masked using the percent sign (%) wildcard. If it specified with an exact object name (that is without masking with the percent sign (%) wildcard), then the path parameter value includes this name. Otherwise, parameter value includes only object category of this link. If object path presented in the name path semantics and object name within the link is masked with the percent sign (%) wildcard, then such node completely excludes from the path value (together with the preceding point).
- **recursionDepth** parameter value is either 1 or -1, depending on the next conditions.
  For any object path link where object name specified with exact name (that is without masking it with the percent sign (%) wildcard) the recursionDepth param value is 1.
  For a weakly-specified object path link (that is having object name specified by mask using the percent sign (%) wildcard), if forceLoad parameter is set to false then the recursionDepth parameter value is -1.

Important detail is, the last (rightmost) link of an object path chain (**obj_cat.obj_name** or simply **obj_name** for name path) in a path does not require pre-loading, because loading the previous node with a value of either 1 or -1 for the recursionDepth parameter already loads it.
The process of loading an object path terminates after processing the first link (node) with a weakly-specified object name in the path.
Due to performance reasons, each object tree node that needs to be loaded as part pre-loading algorithm, must be checked whether it has been loaded before, or not, specifically whether it was previously loaded explicitly by issuing LoadSourceTreeNode (for target LoadTargetTreeNode) command or implicitly as part of other command running.
Only if the tree node of interest has not been loaded before, then it is loaded by the implicit call of LoadSourceTreeNode (for target LoadTargetTreeNode) command.
If the command that initiated an object path parsing process was invoked with **forceLoad** parameter is set to true, then the rightmost node of the path (the last **obj_category** or **obj_category.obj_name** pair in a path, defined explicitly or determined by the Core from a name path) must be forcibly loaded from database, with no additional checks.
Otherwise, if the **forceLoad** parameter is set to false, or not specified at all, then, the rightmost node inherits the same loading logic as described above.

Let's review some examples of how to parse an object path for object tree nodes loading purposes.

Example 1 (tree path, forceLoad: false):

Schemas.TEST_SCHEMA.Functions

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_SCHEMA	MAIN	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database (because **forceLoad**: false), depending on the current state of the node (already loaded or not).

Example 2 (tree path, forceLoad: true):

Schemas.TEST_SCHEMA.Functions

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_SCHEMA	MAIN	1
2	Functions			Schemas.TEST_SCHEMA.Functions	MAIN	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Functions** is forcibly loaded from the database (because **forceLoad**: true).

Example 3 (tree path, forceLoad: false):

Schemas.TEST_SCHEMA.Packages.PKG_TEST2.Public procedures.%

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_ORA_PG	MAIN	1
2	Packages	PKG_TEST2	Exact	Schemas.TEST_ORA_PG. Packages.PKG_TEST2	EXTENDED	1

Node **Schema.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_TEST2** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Example 4 (tree path, forceLoad: true):

Schemas.TEST_SCHEMA.Packages.PKG_TEST2.Public procedures.%

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_SCHEMA	MAIN	1
2	Packages	PKG_TEST2	Exact	Schemas.TEST_SCHEMA. Packages.PKG_TEST2	EXTENDED	1
3	Public procedures			Schemas.TEST_SCHEMA. Packages.PKG_TEST2. Public procedures	MAIN	1

Node **Schema.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_TEST2** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Public procedures** is forcibly loaded from the database (because **forceLoad** is set to true).

Example 5 (tree path, forceLoad: false):

Schemas.TEST_SCHEMA.Procedures.%

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_SCHEMA	MAIN	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Example 6 (tree path, forceLoad: true):

Schemas.TEST_SCHEMA.Procedures.%

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_SCHEMA	MAIN	1
2	Procedures			Schemas.TEST_SCHEMA. Procedures	MAIN	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Procedures** is forcibly loaded from the database (because **forceLoad** is set to true).

Example 7 (tree path, forceLoad: false):

Schemas.TEST_SCHEMA.Packages.PKG_TEST%.Public procedures.%

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_SCHEMA	MAIN	1
2	Packages	PKG_TEST%	Weak	Schemas.TEST_SCHEMA. Packages	EXTENDED	-1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the

current state of the node (already loaded or not).

Node **Packages** may, or may not, be loaded from the database, depending on the current state of this node (already loaded or not).

Example 8 (tree path, forceLoad: true):

Schemas.TEST_SCHEMA.Packages.PKG_TEST%.Public procedures.%

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_SCHEMA	MAIN	1
2	Packages	PKG_TEST%	Weak	Schemas.TEST_SCHEMA. Packages.PKG_TEST%	EXTENDED	1
3	Public procedures			Schemas.TEST_SCHEMA. Packages.PKG_TEST%. Public procedures	MAIN	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Nodes in category **Packages** that fall under the **PKG_TEST%** masked-name might, or might not, be loaded from the database, depending on their current states (already loaded or not).

Nodes **Public procedures** which are part of the proper nodes in category **Packages** that fall under the **PKG_TEST%** masked-name are forcibly loaded from the database (because **forceLoad** is set to true).

Example 9 (tree path, forceLoad: false):

Schemas.TEST_SCHEMA.Packages.PKG_NESTED.Public types.T_BANK

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_SCHEMA	MAIN	1
2	Packages	PKG_NESTED	Exact	Schemas.TEST_SCHEMA. Packages.PKG_NESTED	EXTENDED	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_NESTED** may, or may not, be loaded from the database, depending on the current state of this node (already loaded or not).

Example 10 (tree path, forceLoad: true):

Schemas.TEST_SCHEMA.Packages.PKG_NESTED.Public types.T_BANK

Object path				LoadSourceTreeNode		
Level	**Node**	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	Schemas	TEST_SCHEMA	Exact	Schemas.TEST_SCHEMA	MAIN	1
2	Packages	PKG_NESTED	Exact	Schemas.TEST_SCHEMA. Packages.PKG_NESTED	EXTENDED	1
3	Public types	T_BANK	Exact	Schemas.TEST_SCHEMA. Packages.PKG_NESTED. Public types.T_BANK	MAIN	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_NESTED** may, or may not, be loaded from the database, depending on the current state of this node (already loaded or not).

Node **Public types.T_BANK** is forcibly loaded from the database (because **forceLoad** is set to true).

Example 11 (name path, forceLoad: false):

TEST_SCHEMA.PKG_TEST2.FNC_GETSUMRESULT

Object path			LoadSourceTreeNode		
Level	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	TEST_SCHEMA	Exact	TEST_SCHEMA	MAIN	1
2	PKG_TEST2	Exact	TEST_SCHEMA.PKG_TEST2	EXTENDED	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_TEST2** may, or may not, be loaded from the database, depending on the

current state of this node (already loaded or not).

Example 12 (name path, forceLoad: true):

TEST_SCHEMA.PKG_TEST2.FNC_GETSUMRESULT

Object path			LoadSourceTreeNode		
Level	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	TEST_SCHEMA	Exact	TEST_SCHEMA	MAIN	1
2	PKG_TEST2	Exact	TEST_SCHEMA.PKG_TEST2	EXTENDED	1
3	FNC_GETSUMRESULT	Exact	TEST_SCHEMA.PKG_TEST2.FNC_GETSUMRESULT	MAIN	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_TEST2** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Public functions.FNC_GETSUMRESULT** (or "Private functions.FNC_GETSUMRESULT", depends on name resolving) is forcibly loaded from the database (because **forceLoad** is set to true).

Example 13 (name path, forceLoad: false):

TEST_SCHEMA.PKG_TEST%

Object path			LoadSourceTreeNode		
Level	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	TEST_SCHEMA	Exact	TEST_SCHEMA	MAIN	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of this node (already loaded or not).

Example 14 (name path, forceLoad: true):

TEST_SCHEMA.PKG_TEST%

Object path			LoadSourceTreeNode		
Level	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	TEST_SCHEMA	Exact	TEST_SCHEMA	MAIN	1

2	PKG_TEST%	Weak	Schemas.TEST_SCHEMA. Packages.PKG_TEST%	EXTENDED	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Nodes in category **Packages** (or other categories, depends on name resolving) that fall under the **PKG_TEST%** masked-name are forcibly loaded from the database (because **forceLoad** is set to true).

Example 15 (name path, forceLoad: false):

TEST_SCHEMA.PKG_NESTED_GLOBAL

Object path			**LoadSourceTreeNode**		
Level	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	TEST_SCHEMA	Exact	TEST_SCHEMA	MAIN	1
2	PKG_NESTED_GLOBAL	Exact	TEST_SCHEMA. PKG_NESTED_GLOBAL	EXTENDED	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_NESTED_GLOBAL** may, or may not, be loaded from the database, depending on the current state of this node (already loaded or not).

Example 16 (name path, forceLoad: true):

TEST_SCHEMA.PKG_NESTED_GLOBAL

Object path			**LoadSourceTreeNode**		
Level	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	TEST_SCHEMA	Exact	TEST_SCHEMA	MAIN	1
2	PKG_NESTED_GLOBAL	Exact	TEST_SCHEMA. PKG_NESTED_GLOBAL	EXTENDED	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_NESTED_GLOBAL** is forcibly loaded from the database (because **forceLoad** is set to true).

Example 17 (name path, forceLoad: false):

TEST_SCHEMA.PKG_NESTED_GLOBAL.T_BANK

Object path			LoadSourceTreeNode		
Level	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	TEST_SCHEMA	Exact	TEST_SCHEMA	MAIN	1
2	PKG_NESTED_GLOBAL	Exact	TEST_SCHEMA. PKG_NESTED_GLOBAL	EXTENDED	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_NESTED_GLOBAL** may, or may not, be loaded from the database, depending on the current state of this node (already loaded or not).

Example 18 (name path, forceLoad: true):

TEST_SCHEMA.PKG_NESTED_GLOBAL.T_BANK

Object path			LoadSourceTreeNode		
Level	**Name**	**Name weakness**	**path**	**processMode**	**recursionDepth**
1	TEST_SCHEMA	Exact	TEST_SCHEMA	MAIN	1
2	PKG_NESTED_GLOBAL	Exact	TEST_SCHEMA. PKG_NESTED_GLOBAL	EXTENDED	1
3	T_BANK	Exact	TEST_SCHEMA. PKG_NESTED_GLOBAL. T_BANK	MAIN	1

Node **Schemas.TEST_SCHEMA** may, or may not, be loaded from the database, depending on the current state of the node (already loaded or not).

Node **Packages.PKG_NESTED_GLOBAL** may, or may not, be loaded from the database, depending on the current state of this node (already loaded or not).

Node **Public types.T_BANK** (or Private types.T_BANK, depends on name resolving) is forcibly loaded from the database (because **forceLoad** is set to true).

3.4. OS file system paths for commands

A **path** is a slash-separated list of directory names followed by either a **directory name** or a **file name**. A **directory** is the same as a **folder**.

The **Windows** convention is to use a **backward slash** (\) as the separator in a path. **UNIX** systems (e.g. **Linux**) use a **forward slash** (/).

A **working directory,** in terms of **AWS SCT CLI**, is a **directory** from which either a command or a scenario of commands runs.

There are two types of OS file system paths - **absolute** and **relative** ones. Both of them are described below.

3.4.1. Absolute paths

An **absolute** or **full path** points to the same location in **a file system**, regardless of the current **working directory**, and begins with a **drive letter** followed by a colon, such as **D:**, for **Windows** system, and begins with a **forward slash** followed by a **root directory**, such as **/root**, for **UNIX** systems (e.g. **Linux**).

Here are some examples of **absolute paths**:

For Windows:	***C:\sctData\Project_1\reports.csv*.**
For **Linux:**	*/root/user/Project_1/reports.csv*.

3.4.2. Relative paths

A **relative** path**,** in terms of **AWS SCT CLI**, starts from current **working directory**, avoiding the need to provide the **absolute** path. A **file name** can be considered as a **relative path** as well as a slash-separated **list of directory names** or a slash-separated **list of directory names** followed by a **file name**.

Here are some examples of **relative paths**:

For Windows:	***reports.csv \sctData\Project_1\reports.csv \sctData\Project_1***
For **Linux:**	***reports.pdf*** ***/sctData/Project_1/reports.pdf*** ***/sctData/Project_1/***

To get an **absolute path** to a file or a directory when a value of a command parameter is **relative path**, it is necessary to **concatenate** current **working directory** and the given relative path which is the value of a command parameter.

For example, if current **working directory** is **C:\sctProjects** and given from parameter **relative path** is just a file name - **reports.pdf** then **absolute path** will be ***C:\sctProjects\reports.pdf***

3.5. Commands syntax

3.5.1. Working with project

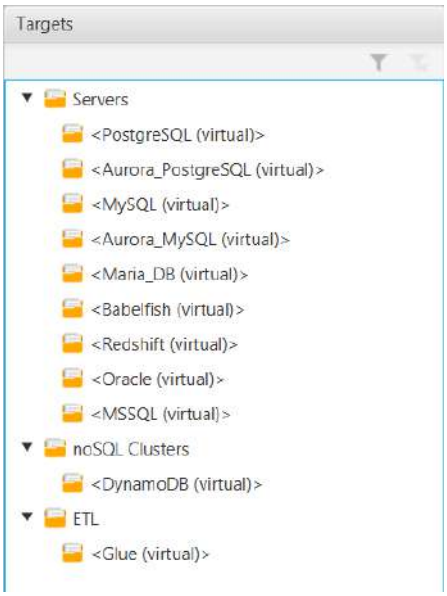
3.5.1.1. Create project

This command creates a new Project.

AWS SCT includes a set of virtual targets created within the new project. You can use these virtual targets to convert database objects and code without establishing connection to a real database.
AWS SCT creates virtual targets for all supported vendors. You can use these virtual targets as regular target databases. For example, you can convert your source code or create assessment reports. For more information about available target vendors, see AddTarget.
Virtual targets have some restrictions:

- You can't delete virtual targets from target tree.
- You can't apply the converted code to a virtual target database.
- Virtual targets remain in the target tree after you connect to a real target database.
  Virtual target names are generated by mask: **<vendor_name (virtual)>**.

The following image shows the actual target tree with virtual targets:



Syntax:

```
CreateProject
   [-name: 'projectName']
   [-directory: 'projectDirectory']
/
```

Where:

projectName	The name of the project to create. Optional parameter. Make sure that your name doesn't contain any of the following reserved characters: • Asterisk (*); • Question mark (?); • Less-than sign (<); • Colon (:); • Greater-than sign (>); • Vertical bar (|); • Double quotation mark ("); • Slash (/); • Backslash (\ ). If you omit this parameter, then the project name is generated using the following mask: AWS Schema Conversion Tool Project<N>, where <N> is the last value of an existing project in the directory `projectDirectory` + 1. The last value starts from 0. Examples of the system-generated project names: 'AWS Schema Conversion Tool Project1', 'AWS Schema Conversion Tool Project2', ..., 'AWS Schema Conversion Tool ProjectN'
projectDirectory	The file system path to a directory to save project files. Depends on OS version. Optional parameter. Default value for Windows is: C:\Users\%CURRENT_USER%\AWS Schema Conversion Tool\Projects.

Example:

```
CreateProject
    -name: 'Project1'
    -directory: 'D:\MyProject'
/
```

3.5.1.2. Open project

This command opens an existing project from a project directory.

Syntax:

OpenProject
-file: '*projectFilePath*'
/

Where:

projectFilePath	The file system path to a project file. Depends on OS version. Mandatory parameter. The description of the OS paths is in the OS file system paths for commands chapter. Make sure that your file extension is **sct**. If your file has another extension, AWS SCT raises an error.

Example:

```
OpenProject
    -file: 'D:\MyProject\MyProject.sct'
/
```

3.5.1.3. Save project

This command saves the project to predefined location. Project files location is taken from the currently opened project. The command has no parameters.

Syntax:

SaveProject
/

3.5.2. Add server commands

3.5.2.1. Add source

This command adds a server as a source node and connects to the source database according to the specified parameters.

Before you can use this command, make sure that you run CreateProject or OpenProject command.

Syntax:

AddSource
[-name: '*sourceName*']
-vendor: '*sourceVendor*'
[-connectionType: '*connectionType*']
[-secretName: '*secretName*']
[-host: '*hostName*']

```
    [-port: 'hostPort']
    [-database: 'databaseName']
    [-serviceName: 'serviceName']
    [-user: 'userName']
    [-password: 'password']
    [-encryptPassword: 'encryptPassword']
    [-tnsAlias: 'tnsAlias']
    [-tnsFilePath: 'tnsFilePath']
    [-tnsConnectIdentifier: 'tnsConnectIdentifier']
    [-processMode: 'processMode']
    [-windowsAuthentication: 'useWindowsAuthentication']
    [-ldapAuthentication: 'useLdapAuthentication']
    [-charset: 'charset']
    [-useSSL: 'useSSL']
    [-encryptData: 'encryptData']
    [-sslAuthentication: 'sslAuthentication']
    [-encryptConnection: 'encryptConnection']
    [-trustServerCertificate: 'trustServerCertificate']
    [-requireSSL: 'requireSSL']
    [-verifyServerCertificate: 'verifyServerCertificate']
    [-keyStoreAlias: 'keyStoreAlias']
    [-trustStoreAlias: 'trustStoreAlias']
    [-ignoreErrors: 'ignoreErrors']
    [-role: 'roleName']
    [-warehouse: 'warehouseName']
    [-privateKeyPath: 'privateKeyPath']
    [-passPhrase: 'passPhrase']
    [-sqlPool: 'sqlPool']
    [-oAuthType: 'oAuthType']
    [-keyPath: 'keyPath']
    [-mappingsFolder: 'mappingsFolder']
    [-useKerberos: 'useKerberos']
    [-kerberosJaasFile: 'kerberosJaasFile']
    [-encodeConnectionInfo: 'encodeConnectionInfo']
    [-maxConnections: 'maxConnections']
    [-idleTimeout: 'idleTimeout']
    [-loginTimeout: 'loginTimeout']
    [-driverSettings: 'driverSettings']
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

<table>
<tr><td>sourceName</td><td>Source connection name. Optional parameter.

If this parameter is omitted then default value is substituted, depending on vendor (parameter <code>-vendor</code>).

Default values are listed in the Source server default names appendix.</td></tr>
<tr><td>sourceVendor</td><td>Source database vendor. Mandatory parameter.

<table>
<tr><th colspan="2">Possible values:</th></tr>
<tr><td>ORACLE</td><td>Oracle Database</td></tr>
<tr><td>MSSQL</td><td>Microsoft SQL Server</td></tr>
<tr><td>POSTGRESQL</td><td>PostgreSQL</td></tr>
<tr><td>DB2LUW</td><td>IBM Db2 LUW</td></tr>
<tr><td>DB2ZOS</td><td>IBM Db2 for z/OS</td></tr>
<tr><td>TERADATA</td><td>Teradata</td></tr>
<tr><td>NETEZZA</td><td>IBM Netezza</td></tr>
<tr><td>GREENPLUM</td><td>Greenplum Database</td></tr>
<tr><td>REDSHIFT</td><td>Amazon Redshift</td></tr>
<tr><td>AZURE_MSSQL</td><td>Azure SQL Database</td></tr>
<tr><td>SYBASE_ASE</td><td>Sybase ASE</td></tr>
<tr><td>VERTICA</td><td>Vertica</td></tr>
<tr><td>CASSANDRA</td><td>Apache Cassandra</td></tr>
<tr><td>SNOWFLAKE</td><td>Snowflake</td></tr>
<tr><td>AZURE_SYNAPSE</td><td>Azure Synapse</td></tr>
<tr><td>SSIS</td><td>SQL Server Integration Services</td></tr>
<tr><td>GOOGLE_BIGQUERY</td><td>Google BigQuery</td></tr>
<tr><td>INFORMATICA</td><td>Informatica PowerCenter</td></tr>
<tr><td>APACHE_OOZIE</td><td>Apache Oozie</td></tr>
</table>

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
</table>

<table>
<tr><td>connectionType</td><td>Connection type, depends on vendor. Optional parameter.

<table><tr><th colspan="2">Possible values for ORACLE:</th></tr><tr><td>basic_service_name</td><td>Require to specify value for <code>-serviceName</code> parameter.</td></tr><tr><td>basic_sid</td><td>Unique database identifier.</td></tr><tr><td>tns_alias</td><td>Require to specify value for both <code>-tnsAlias</code> and <code>-tnsFilePath</code> parameters.</td></tr><tr><td>tns_connect_identifier</td><td>Require to specify value for <code>-tnsConnectIdentifier</code> parameter.</td></tr></table>
The default value is basic_sid. For vendors other than ORACLE this parameter can be omitted.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>secretName</td><td>The name of the AWS Secret to get the secret values of the source database at the AWS Secrets Manager. The AWS Secret, if configured properly, contains five key-value pairs.

<table><tr><th>Field</th><th>Required</th></tr><tr><td>host</td><td>optional</td></tr><tr><td>port</td><td>optional</td></tr><tr><td>dbname</td><td>optional</td></tr><tr><td>username</td><td>mandatory</td></tr><tr><td>password</td><td>mandatory</td></tr></table>
Your AWS Secret in AWS Secrets Manager can store values for the username, password, host, port and dbname fields. If AWS SCT CLI can retrieve these values, the application uses these values. If you explicitly set these values in your CLI script, AWS SCT CLI uses them instead of the values from the AWS Secret.

Value of the dbname field of the secret for ORACLE could be used as either the value of the database parameter or the value of the serviceName parameter, depending on the value of the connectionType parameter.</td></tr>
<tr><td>hostName</td><td>Connection host: server name or IP address.</td></tr>
<tr><td>hostPort</td><td>Connection port.</td></tr>
<tr><td>databaseName</td><td>Database name. For vendor parameter is set to MSSQL or AZURE_MSSQL it is the same as instance name.</td></tr>
<tr><td>serviceName</td><td>Service name. Used for ORACLE vendor, when connectionType is set to basic_service_name.</td></tr>
<tr><td>userName</td><td>Database user name.</td></tr>
</table>

password	Database or Cluster password. Optional parameter.
encryptPassword	Boolean flag to determine whether to encrypt password. Optional parameter. Used only for vendor "SYBASE_ASE" (SAP ASE). Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
tnsAlias	Transparent Network Substrate (TNS) database connection alias, which is specified in the TNSNAMES.ORA file. Mandatory if `-vendor` parameter is set to **ORACLE** and `-connectionType` parameter is set to **tns_alias**.
tnsFilePath	Entire OS file system path, including the file name, to the file TNSNAMES.ORA file (contains connection information for Oracle services). Mandatory if `-vendor` parameter is set to **ORACLE** and `-connectionType` parameter is set to **tns_alias**.
tnsConnectIdentifier	Transparent Network Substrate (TNS) names connect identifier for Oracle Database. Mandatory if `-vendor` parameter is set to **ORACLE** and `-connectionType` parameter is set to **tns_connect_identifier**.
processMode	Process mode, the value that defines how detailed the tree loading (schema and their category objects) should be done. **Possible values:** *main* — Load only objects and main properties. *extended* — Fully load object and all properties. The default value is **main**. You can use this parameter to load tree at the moment when the connection occurs. If you want to load the tree more deeply, use the LoadSourceTreeNode command. Values are case insensitive, leading and trailing spaces are ignored.
useWindowsAuthentication	Boolean flag indicating whether to use Windows authentication as a database connection type, which eliminates the use of `-user` and `-password` parameters. This parameter is optional. Only used for MS SQL Server (MSSQL) or Azure SQL (AZURE_MSSQL) vendors. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.

useLdapAuthentication	LDAP Authentication connection type. Used only for TERADATA vendor. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
charSet	Charset value. Used only for SYBASE_ASE vendor. The default value is an empty string.
useSSL	Use SSL encryption when connecting to a database. For the REDSHIFT **vendor**, the value for this parameter must be set to **true**. If the value is **true** then `-password` parameter becomes optional. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
encryptData	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
sslAuthentication	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
encryptConnection	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
trustServerCertificate	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
requireSSL	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
verifyServerCertificate	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
keyStoreAlias	Key store alias.
trustStoreAlias	Trust store alias.
ignoreErrors	Boolean flag to indicate whether to ignore errors or not. Used only for DB2LUW vendor. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
roleName	Role name. Used to provide the necessary privileges for a user. Actual for SNOWFLAKE vendor.
warehouseName	The name of the data warehouse you want to use to run queries against. Actual for the SNOWFLAKE vendor.

privateKeyPath	Private key path. Optional parameter. Actual for the SNOWFLAKE vendor.
passPhrase	Password phrase for private key path. Optional parameter. Actual for the SNOWFLAKE vendor.
sqlPool	Azure Synapse SQL Pool. Optional parameter. Actual for the AZURE_SYNAPSE vendor.
oAuthType	Connection type. The parameter is available only for the GOOGLE_BIGQUERY vendor. Optional parameter. The supported value is **service-based** only. The default value is **service-based**.
keyPath	Path to the JSON file with keys. The parameter is available only for the GOOGLE_BIGQUERY vendor. This parameter is mandatory if the vendor parameter is set to GOOGLE_BIGQUERY.
mappingsFolder	OS file system path to the directory with Informatica XML files that contain data about mappings or to the directory with Apache Oozie files. Mandatory if you set the `-vendor` parameter to INFORMATICA or APACHE_OOZIE. Description of the OS paths can be found in chapter OS file system paths for commands.
useKerberos	Boolean flag to determine whether to use Kerberos authentication. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
kerberosConfigFile	OS file system path to a Kerberos config file. This parameter is mandatory if `-useKerberos` parameter is set to `true`. Description of the OS paths is in the chapter OS file system paths for commands.
kerberosCacheFile	OS file system path to a Kerberos cache file. This parameter is mandatory if `-useKerberos` parameter is set to `true`. Description of the OS paths is in the chapter OS file system paths for commands.
kerberosJaasFile	OS file system path to a JAAS login configuration file for Kerberos authentication. Optional parameter. This parameter is mandatory if `-useKerberos` parameter is set to `true`. Description of the OS paths is in the chapter OS file system paths for commands.

encodeConnectionInfo	Boolean flag to determine whether to encode the connection information. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
maxConnections	The maximum number of active connections to the server at the same time. Optional parameter.
idleTimeout	The minimum amount of time a connection can be idle before it is closed on the server. If a new connection is needed during this idle period, the connection will be reused instead of creating a new one. Optional parameter.
loginTimeout	The maximum time, in seconds, that JDBC driver is waiting for a response while attempting to connect to a database. Optional parameter.

driverSettings

JSON object containing a set of JDBC driver settings. Optional parameter.

These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the property's value, respectively.
Settings values are given as JSON strings, specifically, enclosed in double quotation marks.

The following characters are reserved in JSON and must be properly escaped to be used in strings:

Character	**Escape sequence**
Backspace	is replaced with (`\b`)
Form feed	is replaced with (`\f`)
Newline	is replaced with (`\n`)
Carriage return	is replaced with (`\r`)
Tab	is replaced with (`\t`)
Single quote	is replaced with (`\'`)
Double quote	is replaced with (`\"`)
Backslash	is replaced with (`\\`)

In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool).

At least one setting value must be set within the settings JSON object.

JDBC driver settings object template:

```
{
  "setting1_name": "setting1_value",
  "setting2_name": "setting2_value",
  "setting3_name": "setting3_value",
  ...
  "settingN_name": "settingN_value"
}
```

Where:

Description of the OS paths can be found in chapter OS file system paths for commands.

useKerberos

Boolean flag to determine whether to use Kerberos authentication.

Supported values are `true` and `false`. The default value is `false`.

Values are case insensitive, leading and trailing spaces are ignored.

kerberosJaasFile	OS file system path to a JAAS login configuration file for Kerberos authentication. Optional parameter. This parameter is mandatory if `-useKerberos` parameter is set to `true`. Description of the OS paths is in the chapter OS file system paths for commands.
encodeConnectionInfo	Boolean flag to determine whether to encode the connection information. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
maxConnections	The maximum number of active connections to the server at the same time. Optional parameter.
idleTimeout	The minimum amount of time a connection can be idle before it is closed on the server. If a new connection is needed during this idle period, the connection will be reused instead of creating a new one. Optional parameter.
loginTimeout	The maximum time, in seconds, that JDBC driver is waiting for a response while attempting to connect to a database. Optional parameter.

driverSettings

JSON object containing a set of JDBC driver settings. Optional parameter.

These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the property's value, respectively.
Settings values are given as JSON strings, specifically, enclosed in double quotation marks.

The following characters are reserved in JSON and must be properly escaped to be used in strings:

Character	**Escape sequence**
Backspace	is replaced with (`\b`)
Form feed	is replaced with (`\f`)
Newline	is replaced with (`\n`)
Carriage return	is replaced with (`\r`)
Tab	is replaced with (`\t`)
Single quote	is replaced with (`\'`)
Double quote	is replaced with (`\"`)
Backslash	is replaced with (`\\`)

In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool).

At least one setting value must be set within the settings JSON object.

JDBC driver settings object template:

```
{
  "setting1_name": "setting1_value",
  "setting2_name": "setting2_value",
  "setting3_name": "setting3_value",
  ...
  "settingN_name": "settingN_value"
}
```

Where:

property1_name	Name of the first property.
property2_name	Name of the second property.
property3_name	Name of the third property.
propertyN_name	Name of the N-th property.

If driver path isn't specified in the settings, the connection fails. Use the SetGlobalSettings command to provide a path to a proper JDBC driver.

Examples:

```
# 1.
AddSource
    -name: 'MySource'
    -vendor: 'ORACLE'
    -host: '1.1.1.1'
    -port: '1521'
    -database: 'ORCL'
    -user: 'test_user'
    -password: 'mypassword'
/

# 2.
AddSource
    -name: 'MySource_GOOGLE_BIGQUERY'
    -vendor: 'GOOGLE_BIGQUERY'
    -oAuthType: 'service-based'
    -keyPath: 'C:\my_path_to_keys\my_keys.json'
/
```

3.5.2.2. Add target

This command adds server as a target node and establishes a connection to the target database according to the specified parameters.

Before using this command, run the CreateProject or OpenProject command.

Syntax:

AddTarget
[-name: '*targetName*']
-vendor: '*targetVendor*'
[-connectionType: '*connectionType*']
[-secretName: '*secretName*']
[-host: '*hostName*']
[-port: '*hostPort*']
[-database: '*databaseName*']
[-serviceName: '*serviceName*']
[-user: '*userName*']
[-password: '*password*']
[-encryptPassword: '*encryptPassword*']
[-tnsAlias: '*tnsAlias*']
[-tnsFilePath: '*tnsFilePath*']
[-tnsConnectIdentifier: '*tnsConnectIdentifier*']
[-processMode: '*processMode*']
[-windowsAuthentication: '*useWindowsAuthentication*']
[-charset: '*charset*']

```
    [-useSSL: 'useSSL']
    [-encryptData: 'encryptData']
    [-sslAuthentication: 'sslAuthentication']
    [-encryptConnection: 'encryptConnection']
    [-trustServerCertificate: 'trustServerCertificate']
    [-requireSSL: 'requireSSL']
    [-verifyServerCertificate: 'verifyServerCertificate']
    [-keyStoreAlias: 'keyStoreAlias']
    [-trustStoreAlias: 'trustStoreAlias']
    [-privateKeyPath: 'privateKeyPath']
    [-passPhrase: 'passPhrase']
    [-useGlue: 'useGlue']
    [-profile: 'profileName']
    [-accessKey: 'accessKey']
    [-secretKey: 'secretKey']
    [-region: 'awsRegion']
    [-s3Path: 's3Path']
    [-mappingsFolder: 'mappingsFolder']
    [-useKerberos: 'useKerberos']
    [-kerberosJaasFile: 'kerberosJaasFile']
    [-encodeConnectionInfo: 'encodeConnectionInfo']
    [-maxConnections: 'maxConnections']
    [-idleTimeout: 'idleTimeout']
    [-loginTimeout: 'loginTimeout']
    [-driverSettings: 'driverSettings']
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

targetName	Target connection name. Optional parameter. If this parameter is omitted then the default value is substituted, depending on vendor (parameter `-vendor`). Default values listed in the Target server default names appendix.

targetVendor

Target database vendor. Mandatory parameter.

Possible values:	
ORACLE	Oracle Database
MSSQL	Microsoft SQL Server
POSTGRESQL	PostgreSQL
MYSQL	MySQL
AURORA_MYSQL	Amazon Aurora MySQL
AURORA_POSTGRESQL	Amazon Aurora PostgreSQL
REDSHIFT	Amazon Redshift
MARIA_DB	MariaDB
GLUE	AWS Glue
GLUE_STUDIO	AWS Glue Studio
DYNAMODB	Amazon DynamoDB
BABELFISH	Babelfish for Aurora PostgreSQL
INFORMATICA	Informatica PowerCenter
STEP_FUNCTIONS	AWS Step Functions

Values are case insensitive, leading and trailing spaces are ignored.

connectionType

Connection type, depends on vendor. Optional parameter.

Possible values for vendor ORACLE:	
basic_service_name	Require to specify value for the `-serviceName` parameter.
basic_sid	Unique database identifier.
tns_alias	Require to specify value for both `-tnsAlias` and `-tnsFilePath` parameters.
tns_connect_identifier	Require to specify value for `-tnsConnectIdentifier` parameter.

The default value is **basic_sid**. For vendors other than ORACLE this parameter can be omitted.

Values are case insensitive, leading and trailing spaces are ignored.

<table>
<tr><td>secretName</td><td>The name of the AWS Secret to get the secret values of the target database at the AWS Secrets Manager.

The AWS Secret, if configured properly, contains five key-value pairs, which are used by this command:

<table><tr><th>field</th><th>required</th></tr><tr><td>host</td><td>optional</td></tr><tr><td>port</td><td>optional</td></tr><tr><td>dbname</td><td>optional</td></tr><tr><td>username</td><td>mandatory</td></tr><tr><td>password</td><td>mandatory</td></tr></table>
Values of the mandatory fields ("username" and "password") are used as the values for the <code>-user</code> and <code>-password</code> command parameters. Values of the both <code>-user</code> and <code>-password</code> command parameters are ignored, even if they were passed when the command was invoked.

Values of the optional fields ("host", "port" and "dbname") are used as the values for the <code>-host</code>, <code>-port</code> and <code>-database</code> command parameters. If any field from optional fields ("host", "port" and "dbname") is missing from the AWS Secret, then its value is taken from the appropriate <code>-host</code>, <code>-port</code> and <code>-database</code> command parameter.

The value of the "dbname" field from the AWS Secret for the ORACLE vendor is used either as the value of the <code>-database</code> parameter or the value of the <code>-serviceName</code> parameter, depending on the value of the <code>-connectionType</code> parameter.</td></tr>
<tr><td>hostName</td><td>Connection host: server name or IP address.</td></tr>
<tr><td>hostPort</td><td>Connection port.</td></tr>
<tr><td>databaseName</td><td>Database name. For MSSQL vendor parameter it is the same as instance name.</td></tr>
<tr><td>serviceName</td><td>Service name. Used for ORACLE vendor, when <code>-connectionType</code> is set to basic_service_name.</td></tr>
<tr><td>userName</td><td>Database user name.</td></tr>
<tr><td>password</td><td>Database password. Optional parameter.</td></tr>
<tr><td>encryptPassword</td><td>Boolean flag to determine whether to encrypt password. Optional parameter.

Used only for vendor "SYBASE_ASE" (SAP ASE).

Supported values are <code>true</code> and <code>false</code>. The default value is <code>false</code>.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
</table>

tnsAlias	Transparent Network Substrate (TNS) database connection alias, which is specified in the TNSNAMES.ORA file. Mandatory if `-vendor` parameter is set to ORACLE and `-connectionType` parameter is set to **tns_alias**.
tnsFilePath	Entire OS file system path, including the file name, to the file TNSNAMES.ORA file (contains connection information for Oracle services). Mandatory if `-vendor` parameter is set to ORACLE and `-connectionType` parameter is set to **tns_alias**.
tnsConnectIdentifier	Transparent Network Substrate (TNS) names connect identifier for Oracle Database. Mandatory if `-vendor` parameter is set to ORACLE and `-connectionType` parameter is set to **tns_connect_identifier**.
processMode	Process mode, the value that defines how detailed the tree loading (schema and their category objects) should be done. **Possible values:** *main* — Load only objects and main properties. *extended* — Fully load object and all properties. The default value is **main**. This parameter allows to load tree at the moment when the connection occurs. If you want to load the tree more deeply, use LoadTargetTreeNode command. Values are case insensitive, leading and trailing spaces are ignored.
useWindowsAuthentication	Boolean flag indicating whether to use Windows authentication as a database connection type, which eliminates the use of `-user` and `-password` parameters. This parameter is optional. Only used for MS SQL Server (MSSQL) or Azure SQL (AZURE_MSSQL) vendors. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
charSet	Charset value. Used only for vendor "SYBASE_ASE". The default value is an empty string.
useSSL	Use SSL encryption when connecting to database. For REDSHIFT vendor, the value for this parameter must be set to **true**. If the value is **true**, then the `-password` parameter becomes optional. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.

encryptData	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
sslAuthentication	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
encryptConnection	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
trustServerCertificate	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
requireSSL	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
verifyServerCertificate	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
keyStoreAlias	Key store alias.
trustStoreAlias	Trust store alias.
privateKeyPath	OS file system path to file with Private Key. Optional parameter. Description of the OS paths can be found in chapter OS file system paths for commands.
passPhrase	Password phrase for Private Key. Optional parameter.
useGlue	Determines whether it is necessary to use the AWS Glue connection or not. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
profileName	Name of the AWS profile previously created with the CreateAWSProfile command. Optional parameter. The default value for this parameter is taken from the project setting "project_environment" (see Common project settings matrix appendix). When an existing AWS profile name is passed to this parameter (or taken from the project settings), the following parameters can be omitted since they are taken from the profile: `-accessKey`, `-secretKey`, `-region`, `-s3Path`. In case if these parameters are provided explicitly: any of these parameters cannot be specified separately, they all must be provided together. Values are case insensitive, leading and trailing spaces are ignored.

accessKey	Access Key ID used for an IAM user or the AWS account root user. Actual for vendor "STEP_FUNCTIONS". The default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.
secretKey	Secret Access Key used for an IAM user or the AWS account root user. Actual for vendor "STEP_FUNCTIONS". The default value for this parameter is taken either from the current AWS profile (project setting "project_environment", see Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.
awsRegion	AWS region available for an AWS account. Actual for vendors: "DYNAMODB", "STEP_FUNCTIONS". List of all regions available at this link. The default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile. Values are case insensitive, leading and trailing spaces are ignored.
s3Path	Path to an Amazon S3 folder. Actual for vendors: "REDSHIFT", "STEP_FUNCTIONS". The default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

mappingsFolder	OS file system path to the directory for saving modified Informatica XML files. Mandatory if the `-vendor` parameter is set to "INFORMATICA". Description of the OS paths can be found in chapter OS file system paths for commands.
useKerberos	Boolean flag to determine whether to use Kerberos authentication. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
kerberosJaasFile	OS file system path to a JAAS login configuration file for Kerberos authentication. Optional parameter. This parameter is mandatory if `-useKerberos` parameter is set to `true`. Description of the OS paths is in the chapter OS file system paths for commands.
encodeConnectionInfo	Boolean flag to determine whether to encode the connection information. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
maxConnections	The maximum number of active connections to the server at the same time. Optional parameter.
idleTimeout	The minimum amount of time a connection can be idle before it is closed on the server. If a new connection is needed during this idle period, the connection will be reused instead of creating a new one. Optional parameter.
loginTimeout	The maximum time, in seconds, that JDBC driver is waiting for a response while attempting to connect to a database. Optional parameter.

driverSettings

JSON object containing a set of JDBC driver settings. Optional parameter.

These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the property's value, respectively.
Settings values are given as JSON strings, specifically, enclosed in double quotation marks.

The following characters are reserved in JSON and must be properly escaped to be used in strings:

Character	**Escape sequence**
Backspace	is replaced with (`\b`)
Form feed	is replaced with (`\f`)
Newline	is replaced with (`\n`)
Carriage return	is replaced with (`\r`)
Tab	is replaced with (`\t`)
Single quote	is replaced with (`\'`)
Double quote	is replaced with (`\"`)
Backslash	is replaced with (`\\`)

In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool).

At least one setting value must be set within the settings JSON object.

JDBC driver settings object template:

```
{
  "setting1_name": "setting1_value",
  "setting2_name": "setting2_value",
  "setting3_name": "setting3_value",
  ...
  "settingN_name": "settingN_value"
}
```

Where:

property1_name	Name of the first property.
property2_name	Name of the second property.
property3_name	Name of the third property.
propertyN_name	Name of the N-th property.

If the driver path isn't specified in the settings, the connection fails. Use the SetGlobalSettings command to provide a path to a proper JDBC driver.

Examples:

```
AddTarget
    -name: 'MyTarget'
    -vendor: 'POSTGRESQL'
    -host: '2.2.2.2'
    -port: '5432'
    -database: 'TESTDB'
    -user: 'test_user'
    -password: 'mypassword'
/
```

3.5.2.3. Add source cluster

This command adds server as a source cluster node and establishes a connection with it according to the specified parameters.

Before using this command, any one of the CreateProject or OpenProject commands must be executed.

Syntax:

AddSourceCluster
[-name: '*sourceName*']
-vendor: '*sourceVendor*'
-host: '*hostName*'
-port: '*hostPort*'
-user: '*userName*'
-password: '*password*'
[-useSSL: '*useSSL*']
[-privateKeyPath: '*privateKeyPath*']
[-passPhrase: '*passPhrase*']
/

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

sourceName	Source cluster connection name. Optional parameter. If this parameter is omitted then the default value is substituted, depending on the vendor (parameter `-vendor`). Default values listed in Appendix Source server default names.

sourceVendor	Source cluster vendor. Mandatory parameter. **Allowable values:** HADOOP Apache Hadoop Values are case insensitive, leading and trailing spaces are ignored.
hostName	Connection host: server name or IP address. Mandatory parameter.
hostPort	Connection port. Mandatory parameter.
userName	Cluster user name. Mandatory parameter.
password	Cluster password. Mandatory parameter.
useSSL	Use SSL encryption when connecting to the cluster. Optional parameter. If the value is "true" then `-password` parameter becomes optional. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
privateKeyPath	OS file system path to file with Private Key. Mandatory if `-useSSL` parameter is set to "true", otherwise optional. Description of the OS paths can be found in chapter OS file system paths for commands.
passPhrase	Password phrase for Private Key. Mandatory if `-useSSL` parameter is set to "true", otherwise optional.

3.5.2.4. Add target cluster

This command adds server as a target cluster node and establishes a connection with it according to the specified parameters.

Before using this command, any one of the CreateProject or OpenProject commands must be executed.

Syntax:

AddTargetCluster
[-name: '*targetName*']
-vendor: '*targetVendor*'
[-secretName: '*secretName*']
-host: '*hostName*'
-port: '*hostPort*'
-user: '*userName*'
-password: '*password*'
[-useSSL: '*useSSL*']
[-privateKeyPath: '*privateKeyPath*']
[-passPhrase: '*passPhrase*']

```
    [-s3Name: 's3Name']
    [-profile: 'profileName']
    -accessKey: 'accessKey'
    -secretKey: 'secretKey'
    -region: 'awsRegion'
    -s3Path: 's3Path'
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

targetName	Target cluster connection name. Optional parameter. If this parameter is omitted then the default value is substituted, depending on the vendor (parameter `-vendor`). Default values listed in Appendix Target server default names.
targetVendor	Target database vendor. Mandatory parameter. **Allowable values:** AMAZON_EMR — Amazon EMR Values are case insensitive, leading and trailing spaces are ignored.
hostName	Connection host: server name or IP address. Mandatory parameter.
hostPort	Connection port. Mandatory parameter.
userName	Cluster user name. Mandatory parameter.
password	Cluster password. Mandatory parameter.
useSSL	Use SSL encryption when connecting to the cluster. Optional parameter. If the value is "true" then `-password` parameter becomes optional. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
privateKeyPath	OS file system path to file with Private Key. Mandatory if `-useSSL` parameter is set to "true", otherwise optional. Description of the OS paths can be found in chapter OS file system paths for commands.
passPhrase	Password phrase for Private Key. Mandatory if `-useSSL` parameter is set to "true", otherwise optional.

s3Name	The name of the target S3 cluster node. Optional parameter. The default value is "S3".
profileName	Name of the AWS profile previously created with the CreateAWSProfile command. Optional parameter. The default value for this parameter is taken from the project setting "project_environment" (see Appendix Common project settings matrix). When an existing AWS profile name is passed to this parameter (or taken from the project settings), the following parameters can be omitted since they are taken from the profile: `-accessKey`, `-secretKey`, `-region`, `-s3Path`. In case if these parameters are provided explicitly: any of these parameters cannot be specified separately, they all must be provided together. Values are case insensitive, leading and trailing spaces are ignored.
accessKey	Access Key ID used for an IAM user or the AWS account root user. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.
secretKey	Secret Access Key used for an IAM user or the AWS account root user. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

awsRegion	AWS region available for an AWS account. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. List of all regions available at this link. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile. Values are case insensitive, leading and trailing spaces are ignored.
s3Path	Path to an Amazon S3 folder. This parameter is mandatory if there is no AWS profile specified either explicitly through the "profile" parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

3.5.3. Connect commands

3.5.3.1. Connect source

This command establishes connection to the already added source server. All connection parameters must be specified.

Before using this command, run the AddSource command.

Syntax:

ConnectSource
-name: '*sourceName*'
[-connectionType: '*connectionType*']
[-secretName: '*secretName*']
[-host: '*hostName*']
[-port: '*hostPort*']
[-database: '*databaseName*']
[-serviceName: '*serviceName*']
[-user: '*userName*']

```
    [-password: 'password']
    [-encryptPassword: 'encryptPassword']
    [-tnsAlias: 'tnsAlias']
    [-tnsFilePath: 'tnsFilePath']
    [-tnsConnectIdentifier: 'tnsConnectIdentifier']
    [-windowsAuthentication: 'useWindowsAuthentication']
    [-ldapAuthentication: 'useLdapAuthentication']
    [-charset: 'charset']
    [-useSSL: 'useSSL']
    [-encryptData: 'encryptData']
    [-sslAuthentication: 'sslAuthentication']
    [-encryptConnection: 'encryptConnection']
    [-trustServerCertificate: 'trustServerCertificate']
    [-requireSSL: 'requireSSL']
    [-verifyServerCertificate: 'verifyServerCertificate']
    [-keyStoreAlias: 'keyStoreAlias']
    [-trustStoreAlias: 'trustStoreAlias']
    [-ignoreErrors: 'ignoreErrors']
    [-role: 'roleName']
    [-warehouse: 'warehouseName']
    [-privateKeyPath: 'privateKeyPath']
    [-passPhrase: 'passPhrase']
    [-sqlPool: 'sqlPool']
    [-oAuthType: 'oAuthType']
    [-keyPath: 'keyPath']
    [-mappingsFolder: 'mappingsFolder']
    [-useKerberos: 'useKerberos']
    [-kerberosJaasFile: 'kerberosJaasFile']
    [-encodeConnectionInfo: 'encodeConnectionInfo']
    [-maxConnections: 'maxConnections']
    [-idleTimeout: 'idleTimeout']
    [-loginTimeout: 'loginTimeout']
    [-driverSettings: 'driverSettings']
/
```

Where:

sourceName	Source connection name, which you previously created with the AddSource command. Mandatory parameter.

<table>
<tr><td>connectionType</td><td>Connection type, depends on vendor. Optional parameter.

<table><tr><th colspan="2">Possible values for vendor ORACLE:</th></tr><tr><td>basic_service_name</td><td>Require to specify value for <code>-serviceName</code> parameter.</td></tr><tr><td>basic_sid</td><td>Unique database identifier.</td></tr><tr><td>tns_alias</td><td>Require to specify value for both <code>-tnsAlias</code> and <code>-tnsFilePath</code> parameters.</td></tr><tr><td>tns_connect_identifier</td><td>Require to specify value for <code>-tnsConnectIdentifier</code> parameter.</td></tr></table>
The default value is basic_sid. For vendors other than ORACLE this parameter can be omitted.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>secretName</td><td>The name of the AWS Secret to get the secret values of the source database from the AWS Secrets Manager.

The AWS Secret, if configured properly, contains five key-value pairs.

<table><tr><th>field</th><th>required</th></tr><tr><td>host</td><td>optional</td></tr><tr><td>port</td><td>optional</td></tr><tr><td>dbname</td><td>optional</td></tr><tr><td>username</td><td>mandatory</td></tr><tr><td>password</td><td>mandatory</td></tr></table>
Values of the mandatory fields ("username" and "password") are used as the values for the <code>-user</code> and <code>-password</code> command parameters. Values of the both <code>-user</code> and <code>-password</code> command parameters are ignored, even if they were passed when the command was invoked.

Values of the optional fields ("host", "port" and "dbname") are used as the values for the <code>-host</code>, <code>-port</code> and <code>-database</code> command parameters. If any field from optional fields ("host", "port" and "dbname") is missing from the AWS Secret, then its value is taken from the appropriate <code>-host</code>, <code>-port</code> and <code>-database</code> command parameter.

The value of the "dbname" field from the AWS Secret for the "ORACLE" vendor is used either as the value of the <code>-database</code> parameter or the value of the <code>-serviceName</code> parameter, depending on the value of the <code>-connectionType</code> parameter.</td></tr>
<tr><td>hostName</td><td>Connection host: server name or IP address.</td></tr>
<tr><td>hostPort</td><td>Connection port.</td></tr>
</table>

databaseName	Database name. For MSSQL or AZURE_MSSQL `-vendor` parameters it is the same as instance name.
serviceName	Service name. Used for ORACLE vendor, when `-connectionType` is set to **basic_service_name**.
userName	Database user name.
password	Database password. Optional parameter.
encryptPassword	Boolean flag to determine whether to encrypt password. Optional parameter. Used only for vendor "SYBASE_ASE" (SAP ASE). Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
tnsAlias	Transparent Network Substrate (TNS) database connection alias, which is specified in the TNSNAMES.ORA file. Mandatory if `-vendor` parameter is set to ORACLE and `-connectionType` parameter is set to **tns_alias**.
tnsFilePath	Entire OS file system path, including the file name, to the file TNSNAMES.ORA file (contains connection information for Oracle services). Mandatory if `-vendor` parameter is set to ORACLE and `-connectionType` parameter is set to **tns_alias**.
tnsConnectIdentifier	Transparent Network Substrate (TNS) names connect identifier for Oracle Database. Mandatory if `-vendor` parameter is set to ORACLE and `-connectionType` parameter is set to **tns_connect_identifier**.
processMode	Process mode, the value that defines how detailed the tree loading (schema and their category objects) should be done. **Possible values:** *main* — Load only objects and main properties. *extended* — Fully load object and all properties. The default value is *main*. You can use the default parameter to load the tree when the connection occurs. If you want to load the tree more deeply, use LoadSourceTreeNode command. Values are case insensitive, leading and trailing spaces are ignored.

useWindowsAuthentication	Boolean flag indicating whether to use Windows authentication as a database connection type, which eliminates the use of `-user` and `-password` parameters. This parameter is optional. Only used for MS SQL Server (MSSQL) or Azure SQL (AZURE_MSSQL) vendors. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
useLdapAuthentication	LDAP Authentication connection type. Used only for TERADATA vendor. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
charSet	Charset value. Used only for SYBASE_ASE vendor. The default value is an empty string.
useSSL	Use SSL encryption when connecting to database. For REDSHIFT vendor, value for this parameter must be set to **true**. If the value is **true** then `-password` parameter becomes optional. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
encryptData	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
sslAuthentication	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
encryptConnection	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
trustServerCertificate	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
requireSSL	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
verifyServerCertificate	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
keyStoreAlias	Key store alias.
trustStoreAlias	Trust store alias.

ignoreErrors	Boolean flag to indicate whether to ignore errors or not. Used only for DB2LUW vendor. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
roleName	Role name. Used to provide the necessary privileges for a user. Actual for the SNOWFLAKE vendor.
warehouseName	Warehouse name you want to use to run queries against. Actual for the SNOWFLAKE vendor.
privateKeyPath	Private key path. Optional parameter. Actual for the SNOWFLAKE vendor. Description of the OS paths can be found in chapter OS file system paths for commands.
passPhrase	Password phrase for private key path. Optional parameter. Actual for the SNOWFLAKE vendor.
sqlPool	Azure Synapse SQL Pool. Optional parameter. Actual for the AZURE_SYNAPSE vendor.
oAuthType	Connection type. The parameter is available only for the GOOGLE_BIGQUERY vendor. Optional parameter. The supported value is **service-based**. The default value is **service-based**.
keyPath	Path to the JSON file with keys. The parameter is available only for the GOOGLE_BIGQUERY vendor. This parameter is mandatory if the vendor parameter is set to GOOGLE_BIGQUERY. Description of the OS paths is in the chapter OS file system paths for commands.
mappingsFolder	OS file system path to the directory with Informatica XML files that contain data about mappings or to the directory with Apache Oozie files. Mandatory if the `-vendor` parameter is set to "INFORMATICA" or "APACHE_OOZIE". Description of the OS paths can be found in chapter OS file system paths for commands.

useKerberos	Boolean flag to determine whether to use Kerberos authentication. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
kerberosJaasFile	OS file system path to a JAAS login configuration file for Kerberos authentication. Optional parameter. This parameter is mandatory if `-useKerberos` parameter is set to `true`. Description of the OS paths is in the chapter OS file system paths for commands.
encodeConnectionInfo	Boolean flag to determine whether to encode the connection information. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
maxConnections	The maximum number of active connections to the server at the same time. Optional parameter.
idleTimeout	The minimum amount of time a connection can be idle before it is closed on the server. If a new connection is needed during this idle period, the connection will be reused instead of creating a new one. Optional parameter.
loginTimeout	The maximum time, in seconds, that JDBC driver is waiting for a response while attempting to connect to a database. Optional parameter.

driverSettings

JSON object containing a set of JDBC driver settings. Optional parameter.

These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the property's value, respectively.
Settings values are given as JSON strings, specifically, enclosed in double quotation marks.

The following characters are reserved in JSON and must be properly escaped to be used in strings:

Character	**Escape sequence**
Backspace	is replaced with (`\b`)
Form feed	is replaced with (`\f`)
Newline	is replaced with (`\n`)
Carriage return	is replaced with (`\r`)
Tab	is replaced with (`\t`)
Single quote	is replaced with (`\'`)
Double quote	is replaced with (`\"`)
Backslash	is replaced with (`\\`)

In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool).

At least one setting value must be set within the settings JSON object.

JDBC driver settings object template:

```
{
  "setting1_name": "setting1_value",
  "setting2_name": "setting2_value",
  "setting3_name": "setting3_value",
  ...
  "settingN_name": "settingN_value"
}
```

Where:

property1_name	Name of the first property.
property2_name	Name of the second property.
property3_name	Name of the third property.
propertyN_name	Name of the N-th property.

If the driver path isn't specified in the settings, the connection fails. Use the SetGlobalSettings command to provide a path to a proper JDBC driver.

Example:

```
ConnectSource
    -name: 'MySource_GOOGLE_BIGQUERY'
    -oAuthType: 'service-based'
    -keyPath: 'C:\my_path_to_keys\my_keys.json'
/
```

3.5.3.2. Connect target

This command establishes connection to the already added target server. All connection parameters must be specified.

Before using this command, run the AddTarget command.

Syntax:

ConnectTarget
-name: '*targetName*'
[-connectionType: '*connectionType*']
[-secretName: '*secretName*']
[-host: '*hostName*']
[-port: '*hostPort*']
[-database: '*databaseName*']
[-serviceName: '*serviceName*']
[-user: '*userName*']
[-password: '*password*']
[-encryptPassword: '*encryptPassword*']
[-tnsAlias: '*tnsAlias*']
[-tnsFilePath: '*tnsFilePath*']
[-tnsConnectIdentifier: '*tnsConnectIdentifier*']
[-windowsAuthentication: '*useWindowsAuthentication*']
[-charset: '*charset*']
[-useSSL: '*useSSL*']
[-encryptData: '*encryptData*']
[-sslAuthentication: '*sslAuthentication*']
[-encryptConnection: '*encryptConnection*']
[-trustServerCertificate: '*trustServerCertificate*']
[-requireSSL: '*requireSSL*']
[-verifyServerCertificate: '*verifyServerCertificate*']
[-keyStoreAlias: '*keyStoreAlias*']
[-trustStoreAlias: '*trustStoreAlias*']
[-privateKeyPath: '*privateKeyPath*']
[-passPhrase: '*passPhrase*']
[-useGlue: '*useGlue*']

```
    [-profile: 'profileName']
    [-accessKey: 'accessKey']
    [-secretKey: 'secretKey']
    [-region: 'awsRegion']
    [-s3Path: 's3Path']
    [-mappingsFolder: 'mappingsFolder']
    [-useKerberos: 'useKerberos']
    [-kerberosJaasFile: 'kerberosJaasFile']
    [-encodeConnectionInfo: 'encodeConnectionInfo']
    [-maxConnections: 'maxConnections']
    [-idleTimeout: 'idleTimeout']
    [-loginTimeout: 'loginTimeout']
    [-driverSettings: 'driverSettings']
/
```

Where:

<table>
<tr><td>targetName</td><td>Target connection name, previously created with the AddTarget command. Mandatory parameter.</td></tr>
<tr><td>connectionType</td><td>Connection type, depends on vendor. Optional parameter.

<table><tr><td colspan="2">Possible values for vendor ORACLE:</td></tr><tr><td>basic_service_name</td><td>Require to specify value for <code>-serviceName</code> parameter.</td></tr><tr><td>basic_sid</td><td>Unique database identifier.</td></tr><tr><td>tns_alias</td><td>Require to specify value for both <code>-tnsAlias</code> and <code>-tnsFilePath</code> parameters.</td></tr><tr><td>tns_connect_identifier</td><td>Require to specify value for <code>-tnsConnectIdentifier</code> parameter.</td></tr></table>
The default value is basic_sid. For vendors other than ORACLE this parameter can be omitted.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
</table>

<table>
<tr><td>secretName</td><td>The name of the AWS Secret to get the secret values of the source database from the AWS Secrets Manager.

The AWS Secret, if configured properly, contains five key-value pairs.

<table><tr><th>field</th><th>required</th></tr><tr><td>host</td><td>optional</td></tr><tr><td>port</td><td>optional</td></tr><tr><td>dbname</td><td>optional</td></tr><tr><td>username</td><td>mandatory</td></tr><tr><td>password</td><td>mandatory</td></tr></table>
Values of the mandatory fields ("username" and "password") are used as the values for the <code>-user</code> and <code>-password</code> command parameters. Values of the both <code>-user</code> and <code>-password</code> command parameters are ignored, even if they were passed when the command was invoked.

Values of the optional fields ("host", "port" and "dbname") are used as the values for the <code>-host</code>, <code>-port</code> and <code>-database</code> command parameters. If any field from optional fields ("host", "port" and "dbname") is missing from the AWS Secret, then its value is taken from the appropriate <code>-host</code>, <code>-port</code> and <code>-database</code> command parameter.

The value of the "dbname" field from the AWS Secret for the ORACLE vendor is used either as the value of the <code>-database</code> parameter or the value of the <code>-serviceName</code> parameter, depending on the value of the <code>-connectionType</code> parameter.</td></tr>
<tr><td>hostName</td><td>Connection host: server name or IP address.</td></tr>
<tr><td>hostPort</td><td>Connection port.</td></tr>
<tr><td>databaseName</td><td>Database name. For <code>-vendor</code> parameter set to MSSQL it is the same as instance name.</td></tr>
<tr><td>serviceName</td><td>Service name. Used for vendor ORACLE, when <code>-connectionType</code> is set to basic_service_name.</td></tr>
<tr><td>userName</td><td>Database user name.</td></tr>
<tr><td>password</td><td>Database password. Optional parameter.</td></tr>
<tr><td>encryptPassword</td><td>Boolean flag to determine whether to encrypt password. Optional parameter.

Used only for vendor "SYBASE_ASE" (SAP ASE).

Supported values are <code>true</code> and <code>false</code>. The default value is <code>false</code>.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
</table>

tnsAlias	Transparent Network Substrate (TNS) database connection alias, which is specified in the TNSNAMES.ORA file. Mandatory if the `-vendor` parameter is set to ORACLE and `-connectionType` parameter is set to **tns_alias**.
tnsFilePath	Entire OS file system path, including the file name, to the file TNSNAMES.ORA file (contains connection information for Oracle services). Mandatory if the `-vendor` parameter is set to ORACLE and `-connectionType` parameter is set to **tns_alias**.
tnsConnectIdentifier	Transparent Network Substrate (TNS) names connect identifier for Oracle Database. Mandatory if the `-vendor` parameter is set to ORACLE and `-connectionType` parameter is set to **tns_connect_identifier**.
useWindowsAuthentication	Boolean flag indicating whether to use Windows authentication as a database connection type, which eliminates the use of `-user` and `-password` parameters. This parameter is optional. Only used for MS SQL Server (MSSQL) or Azure SQL (AZURE_MSSQL) vendors. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
charSet	Charset value. Used only for SYBASE_ASE vendor. The default value is an empty string.
useSSL	Use SSL encryption when connecting to database. For REDSHIFT vendor, the value for this parameter must be set to **true**. If the value is **true** then `-password` parameter becomes optional. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
encryptData	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
sslAuthentication	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
encryptConnection	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
trustServerCertificate	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.

requireSSL	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
verifyServerCertificate	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
keyStoreAlias	Key store alias.
trustStoreAlias	Trust store alias.
privateKeyPath	OS file system path to file with Private Key. Optional parameter. Description of the OS paths can be found in chapter OS file system paths for commands.
passPhrase	Password phrase for Private Key. Optional parameter.
useGlue	Determines whether it is necessary to use the AWS Glue connection or not. Supported values are: `true` and `false`. Due to the fact that ConnectTarget command establishes connection to **the already added target server**, the supported values for the `-useGlue` parameter depend on the connection parameters values used in the AddTarget command. If `-useGlue` is set to **false** in the AddTarget command, then the possible values for `-useGlue` in the ConnectTarget command are **true** or **false**. If `-useGlue` is set to **true** in the AddTarget command, then the only possible value for `-useGlue` in the ConnectTarget command is **true**. Values are case insensitive, leading and trailing spaces are ignored.
profileName	Name of the AWS profile previously created with the CreateAWSProfile command. Optional parameter. The default value for this parameter is taken from the project setting "project_environment" (see Appendix Common project settings matrix). When an existing AWS profile name is passed to this parameter (or taken from the project settings), the following parameters can be omitted since they are taken from the profile: `-accessKey`, `-secretKey`, `-region`, `-s3Path`. In case if these parameters are provided explicitly: any of these parameters cannot be specified separately, they all must be provided together. Values are case insensitive, leading and trailing spaces are ignored.

accessKey	Access Key ID used for an IAM user or the AWS account root user. Actual for vendor "STEP_FUNCTIONS". The default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.
secretKey	Secret Access Key used for an IAM user or the AWS account root user. Actual for vendor "STEP_FUNCTIONS". The default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.
awsRegion	AWS region available for an AWS account. Used for "DYNAMODB", "STEP_FUNCTIONS" vendors. List of all regions available at this link. The default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile. Values are case insensitive, leading and trailing spaces are ignored.
s3Path	Path to Amazon S3 folder. Used for "REDSHIFT", "STEP_FUNCTIONS" vendors. The default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

mappingsFolder	OS file system path to the directory for saving modified Informatica XML files. Mandatory if you set the `-vendor` parameter to INFORMATICA. Description of the OS paths can be found in chapter OS file system paths for commands.
useKerberos	Boolean flag to determine whether to use Kerberos authentication. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
kerberosJaasFile	OS file system path to a JAAS login configuration file for Kerberos authentication. Optional parameter. This parameter is mandatory if `-useKerberos` parameter is set to `true`. Description of the OS paths is in the chapter OS file system paths for commands.
encodeConnectionInfo	Boolean flag to determine whether to encode the connection information. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
maxConnections	The maximum number of active connections to the server at the same time. Optional parameter.
idleTimeout	The minimum amount of time a connection can be idle before it is closed on the server. If a new connection is needed during this idle period, the connection will be reused instead of creating a new one. Optional parameter.
loginTimeout	The maximum time, in seconds, that JDBC driver is waiting for a response while attempting to connect to a database. Optional parameter.

driverSettings

JSON object containing a set of JDBC driver settings. Optional parameter.

These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the property's value, respectively.
Settings values are given as JSON strings, specifically, enclosed in double quotation marks.

The following characters are reserved in JSON and must be properly escaped to be used in strings:

Character	**Escape sequence**
Backspace	is replaced with (`\b`)
Form feed	is replaced with (`\f`)
Newline	is replaced with (`\n`)
Carriage return	is replaced with (`\r`)
Tab	is replaced with (`\t`)
Single quote	is replaced with (`\'`)
Double quote	is replaced with (`\"`)
Backslash	is replaced with (`\\`)

In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool).

At least one setting value must be set within the settings JSON object.

JDBC driver settings object template:

```
{
  "setting1_name": "setting1_value",
  "setting2_name": "setting2_value",
  "setting3_name": "setting3_value",
  ...
  "settingN_name": "settingN_value"
}
```

Where:

property1_name	Name of the first property.
property2_name	Name of the second property.
property3_name	Name of the third property.
propertyN_name	Name of the N-th property.

If the driver path isn't specified in the settings, the connection fails. Use the SetGlobalSettings command to provide a path to a proper JDBC driver.

3.5.3.3. Connect source cluster

This command establishes a connection to an already added source cluster. All connection parameters must be specified.

Before using this command, the AddSourceCluster command must be executed to add a source cluster node.

Syntax:

```
ConnectSourceCluster
   -name: 'sourceName'
   [-password: 'password']
   [-privateKeyPath: 'privateKeyPath']
   [-passPhrase: 'passPhrase']
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

sourceName	The name of the source cluster connection which you previously created with the AddSourceCluster command. Mandatory parameter.
password	Cluster password. This parameter is optional if the `-useSSL` parameter was set to "true" when creating a connection to the source cluster, otherwise it is mandatory.
privateKeyPath	OS file system path to file with Private Key. This parameter is mandatory if the `-useSSL` parameter was set to "true" when creating a connection to the source cluster, otherwise it is optional. Description of the OS paths can be found in chapter OS file system paths for commands.
passPhrase	Password phrase for Private Key. This parameter is mandatory if the `-useSSL` parameter was set to "true" when creating a connection to the source cluster, otherwise it is optional.

3.5.3.4. Connect target cluster

This command establishes a connection to an already added target cluster. All connection parameters must be specified.

Before using this command, the AddTargetCluster command must be executed to add a target cluster node.

Syntax:

```
ConnectTargetCluster
   -name: 'targetName'
   [-password: 'password']
   [-privateKeyPath: 'privateKeyPath']
   [-passPhrase: 'passPhrase']
   -s3Name: 's3Name'
   [-profile: 'profileName']
   -accessKey: 'accessKey'
   -secretKey: 'secretKey'
   -region: 'awsRegion'
   -s3Path: 's3Path'
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

targetName	The name of the target cluster connection which you previously created with the AddTargetCluster command. Mandatory parameter.
password	Cluster password. This parameter is optional if the `-useSSL` parameter was set to "true" when creating a connection to the source cluster, otherwise it is mandatory.
privateKeyPath	OS file system path to file with Private Key. This parameter is mandatory if the `-useSSL` parameter was set to "true" when creating a connection to the source cluster, otherwise it is optional. Description of the OS paths can be found in chapter OS file system paths for commands.
passPhrase	Password phrase for Private Key. This parameter is mandatory if the `-useSSL` parameter was set to "true" when creating a connection to the source cluster, otherwise it is optional.
s3Name	The name of the target S3 cluster node. Mandatory parameter.

profileName	Name of the AWS profile previously created with the CreateAWSProfile command. Optional parameter. The default value for this parameter is taken from the project setting "project_environment" (see Appendix Common project settings matrix). When an existing AWS profile name is passed to this parameter (or taken from the project settings), the following parameters can be omitted since they are taken from the profile: `-accessKey`, `-secretKey`, `-region`, `-s3Path`. In case if these parameters are provided explicitly: any of these parameters cannot be specified separately, they all must be provided together. Values are case insensitive, leading and trailing spaces are ignored.
accessKey	Access Key ID used for an IAM user or the AWS account root user. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.
secretKey	Secret Access Key used for an IAM user or the AWS account root user. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

awsRegion	AWS region available for an AWS account. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. List of all regions available at this link. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile. Values are case insensitive, leading and trailing spaces are ignored.
s3Path	Path to an Amazon S3 folder. This parameter is mandatory if there is no AWS profile specified either explicitly through the "profile" parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

3.5.4. Working with cluster

3.5.4.1. Add source cluster HDFS

This command adds HDFS part to the source cluster. Before using this command, the AddSourceCluster command must be executed to add a source cluster node.

Syntax:

AddSourceClusterHDFS
-cluster: '*sourceClusterName*'
[-name: '*hdfsNodeName*']
[-host: '*hostName*']
-port: '*hostPort*'
-user: '*userName*'
-password: '*password*'
[-createTunnel: '*createTunnel*']
[-localPort: '*localPort*']
[-remoteHost: '*remoteHost*']
[-remotePort: '*remotePort*']

```
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

sourceClusterName	The name of the source cluster previously created using the AddSourceCluster command. Mandatory parameter.
hdfsNodeName	The name of the source HDFS cluster node. Optional parameter.
hostName	Connection host: server name or IP address. Optional if the `-createTunnel` parameter is set to "true" (then automatically treated as "localhost").
hostPort	Connection port. Mandatory parameter.
userName	Cluster user name. Mandatory parameter.
password	Cluster password. Mandatory parameter.
createTunnel	Boolean flag indicating whether to create an SSH tunnel when connecting to HDFS or not. Optional parameter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
localPort	Local HDFS connection port. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.
remoteHost	An internal name or IP-address of cluster node host that runs an HDFS service. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.
remotePort	An internal port number on cluster node host that is used by the HDFS service. Optional parameter. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.

3.5.4.2. Connect source cluster HDFS

This command establishes a connection to an already added source cluster HDFS.

Syntax:

```
ConnectSourceClusterHDFS
   -name: 'hdfsNodeName'
   -password: 'password'
```

```
/
```

Where:

hdfsNodeName	The name of the source cluster HDFS connection which you previously created with the AddSourceClusterHDFS command. Mandatory parameter.
password	Cluster password. Mandatory parameter.

3.5.4.3. Add source cluster Hive

This command adds Hive database part to the source cluster. Before using this command, the AddSourceCluster command must be executed to add a source Cluster node.

Syntax:

```
AddSourceClusterHive
   -cluster: 'sourceClusterName'
   [-name: 'hiveNodeName']
   [-host: 'hostName']
   -port: 'hostPort'
   -user: 'userName'
   -password: 'password'
   [-createTunnel: 'createTunnel']
   [-localPort: 'localPort']
   [-remoteHost: 'remoteHost']
   [-remotePort: 'remotePort']
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

sourceClusterName	The name of the source cluster previously created using the AddSourceCluster command. Mandatory parameter.
hiveNodeName	The name of the source Hive cluster node. Optional parameter.
hostName	Connection host: server name or IP address. Optional if the `-createTunnel` parameter is set to "true" (then automatically treated as "localhost").
hostPort	Connection port. Mandatory parameter.
userName	Cluster user name. Mandatory parameter.
password	Cluster password. Mandatory parameter.

createTunnel	Boolean flag indicating whether to create an SSH tunnel when connecting to HDFS or not. Optional parameter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
localPort	Local HDFS connection port. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.
remoteHost	An internal name or IP-address of cluster node host that runs an HDFS service. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.
remotePort	An internal port number on cluster node host that is used by the HDFS service. Optional parameter. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.

3.5.4.4. Connect source cluster Hive

This command establishes a connection to an already added source cluster Hive.

Syntax:

```
ConnectSourceClusterHive
   -name: 'hiveNodeName'
   -password: 'password'
/
```

Where:

hiveNodeName	The name of the source cluster Hive connection which you previously created with the AddSourceClusterHive command. Mandatory parameter.
password	Cluster password. Mandatory parameter.

3.5.4.5. Add target cluster HDFS

This command an HDFS to the target cluster. Before using this command, the AddTargetCluster command must be executed to add a target cluster node.

Syntax:

```
AddTargetClusterHDFS
   -cluster: 'targetClusterName'
   [-name: 'hdfsNodeName']
   -host: 'hostName'
```

```
    -port: 'hostPort'
    -user: 'userName'
    -password: 'password'
    [-createTunnel: 'createTunnel']
    [-localPort: 'localPort']
    [-remoteHost: 'remoteHost']
    [-remotePort: 'remotePort']
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

targetClusterName	The name of the target cluster previously created using the AddTargetCluster command. Mandatory parameter.
hdfsNodeName	The name of the target HDFS cluster node. Optional parameter.
hostName	Connection host: server name or IP address. Optional if the `-createTunnel` parameter is set to "true" (then automatically treated as "localhost").
hostPort	Connection port. Mandatory parameter.
userName	Cluster user name. Mandatory parameter.
password	Cluster password. Mandatory parameter.
createTunnel	Boolean flag indicating whether to create an SSH tunnel when connecting to HDFS or not. Optional parameter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
localPort	Local HDFS connection port. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.
remoteHost	An internal name or IP-address of cluster node host that runs an HDFS service. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.
remotePort	An internal port number on cluster node host that is used by the HDFS service. Optional parameter. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.

3.5.4.6. Connect target cluster HDFS

This command establishes a connection to an already added target cluster HDFS.

Syntax:

```
ConnectTargetClusterHDFS
   -name: 'hdfsNodeName'
   -password: 'password'
/
```

Where:

hdfsNodeName	The name of the target cluster HDFS connection which you previously created with the AddTargetClusterHDFS command. Mandatory parameter.
password	Cluster password. Mandatory parameter.

3.5.4.7. Add target cluster Hive

This command adds a Hive database to the target cluster. Before using this command, the AddTarget command must be executed to add a target cluster node.

Syntax:

```
AddTargetClusterHive
   -cluster: 'targetClusterName'
   [-name: 'hiveNodeName']
   [-host: 'hostName']
   -port: 'hostPort'
   -user: 'userName'
   -password: 'password'
   [-createTunnel: 'createTunnel']
   [-localPort: 'localPort']
   [-remoteHost: 'remoteHost']
   [-remotePort: 'remotePort']
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

targetClusterName	The name of the target cluster previously created using the AddTargetCluster command. Mandatory parameter.
hiveNodeName	The name of the target Hive cluster node. Optional parameter.
hostName	Connection host: server name or IP address. Optional if the `-createTunnel` parameter is set to "true" (then automatically treated as "localhost").

hostPort	Connection port. Mandatory parameter.
userName	Cluster user name. Mandatory parameter.
password	Cluster password. Mandatory parameter.
createTunnel	Boolean flag indicating whether to create an SSH tunnel when connecting to HDFS or not. Optional parameter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
localPort	Local HDFS connection port. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.
remoteHost	An internal name or IP-address of cluster node host that runs an HDFS service. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.
remotePort	An internal port number on cluster node host that is used by the HDFS service. Optional parameter. Mandatory if `-createTunnel` parameter is set to "true", otherwise optional.

3.5.4.8. Connect target cluster Hive

This command establishes a connection to an already added target cluster Hive.

Syntax:

```
ConnectTargetClusterHive
   -name: 'hiveNodeName'
   -password: 'password'
/
```

Where:

hiveNodeName	The name of the target cluster Hive connection which you previously created with the AddTargetClusterHive command. Mandatory parameter.
password	Cluster password. Mandatory parameter.

3.5.4.9. Add target cluster S3 bucket

This command adds an S3 bucket to the target cluster. Before using this command, the AddTarget command must be executed to add a target cluster node.

Syntax:

```
AddTargetClusterS3
   -cluster: 'targetClusterName'
   [-name: 's3NodeName']
   [-profile: 'profileName']
   -accessKey: 'accessKey'
   -secretKey: 'secretKey'
   -region: 'awsRegion'
   -s3Path: 's3Path'
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

targetClusterName	The name of the target cluster previously created using the AddTargetCluster command. Mandatory parameter.
s3NodeName	The name of the target S3 cluster node. Optional parameter. The default value is "S3". If the name isn't passed, it will be generated automatically from the template.
profileName	Name of the AWS profile previously created with the CreateAWSProfile command. Optional parameter. The default value for this parameter is taken from the project setting "project_environment" (see Appendix Common project settings matrix). When an existing AWS profile name is passed to this parameter (or taken from the project settings), the following parameters can be omitted since they are taken from the profile: `-accessKey`, `-secretKey`, `-region`, `-s3Path`. If the value of any of these parameters is passed explicitly, it will override the corresponding value obtained from the AWS profile. Values are case insensitive, leading and trailing spaces are ignored.
accessKey	Access Key ID used for an IAM user or the AWS account root user. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

secretKey	Secret Access Key used for an IAM user or the AWS account root user. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.
awsRegion	AWS region available for an AWS account. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. List of all regions available at this link. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile. Values are case insensitive, leading and trailing spaces are ignored.
s3Path	Path to an Amazon S3 folder. This parameter is mandatory if there is no AWS profile specified either explicitly through the "profile" parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

3.5.4.10. Connect target cluster S3 bucket

This command establishes a connection to an already added target cluster S3 bucket.

Syntax:

ConnectTargetClusterS3
-name: '*s3NodeName*'

```
    [-profile: 'profileName']
    -accessKey: 'accessKey'
    -secretKey: 'secretKey'
    -region: 'awsRegion'
    -s3Path: 's3Path'
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

s3NodeName	The name of the target S3 cluster node which you previously created with the AddTargetClusterS3 command. Mandatory parameter. If the name isn't passed, it will be generated automatically from the template.
profileName	Name of the AWS profile previously created with the CreateAWSProfile command. Optional parameter. The default value for this parameter is taken from the project setting "project_environment" (see Appendix Common project settings matrix). When an existing AWS profile name is passed to this parameter (or taken from the project settings), the following parameters can be omitted since they are taken from the profile: `-accessKey`, `-secretKey`, `-region`, `-s3Path`. If the value of any of these parameters is passed explicitly, it will override the corresponding value obtained from the AWS profile. Values are case insensitive, leading and trailing spaces are ignored.
accessKey	Access Key ID used for an IAM user or the AWS account root user. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

secretKey	Secret Access Key used for an IAM user or the AWS account root user. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.
awsRegion	AWS region available for an AWS account. This parameter is mandatory if there is no AWS profile specified either explicitly through the `-profile` parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. List of all regions available at this link. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile. Values are case insensitive, leading and trailing spaces are ignored.
s3Path	Path to an Amazon S3 folder. This parameter is mandatory if there is no AWS profile specified either explicitly through the "profile" parameter or implicitly through the current AWS profile. Otherwise the parameter is optional. Default value for this parameter is taken either from the current AWS profile (project setting "project_environment", Appendix Common project settings matrix) or profile that is explicitly passed in the `-profile` parameter. An explicitly passed value to this parameter overrides the one obtained from an AWS profile.

3.5.4.11. Start migration

This command performs a migration (move source objects to the target endpoint and adjust their respective settings) on the scope defined by one of its path parameters.

Migration is performed according to the server mapping, previously added by the command AddServerMapping.

Syntax:

Migrate
-filter: '*filterName*'
-treePath: '*treePath*'
[-forceLoad: '*forceLoad*']
[-forceMigrate: '*forceMigrate*']
/

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

filterName	Name of the filter previously created with CreateFilter command. This parameter is mandatory if the `-treePath` parameter isn't specified. Only filters that contain collection of treePaths are allowed. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path. A path to the specific type of object or object name (object type-name chain). This parameter is mandatory if `-filter` parameter isn't specified.
forceLoad	Boolean flag that indicates whether to use forced object tree loading logic during an object path processing. Optional parameter. More info about this parameter can be found in the Object path loading algorithm chapter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, spaces are ignored.
forceMigrate	Boolean flag that indicates whether to continue the migration process if the migration mapping contains paths to HDFS folders and/or Hive tables that refer to the same object. Optional parameter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, spaces are ignored.

The path to at least one of the above-mentioned parameters, including `-filter`, has to be specified in a command call. Otherwise, there is nothing to migrate. If more than one path parameter passed at a time, an exception is thrown.

In case if a named filter is used (`-filter` parameter value) to define the conversion scope, this filter's "origin" property value should be "source", since conversion process allowed only in direction from source to target database. Thus, an exception is thrown if the mentioned "origin" property value isn't "source" (that is "target").

Migrate command affects only the scope that is most recently defined by its parameters.

Before migrating a set of objects defined by one of the Migrate command parameters, the core must properly load the internal object tree model. All the details about this process are fully described in the Object path loading algorithm chapter.

If an object path to convert passed in via the `-treePath` parameter, then there is a single path to preload. Otherwise, if the scope for conversion is defined by a named filter (`-filter` parameter), then there is a collection of paths to preload and each path within this collection is analyzed and preloaded separately.

3.5.4.12. Resume migration

This command resumes an interrupted migration, previously launched by the Migrate command. The command doesn't have parameters. If there is currently no interrupted migration then nothing happens.

Syntax:

```
ResumeMigration
/
```

3.5.5. Server mapping commands

3.5.5.1. Add server mapping

This command adds a server mapping, which AWS SCT uses for object conversion.

You can use two separate command syntaxes to specify connection between the source and target servers. They couldn't be mixed in sense of their parameters.

Syntax 1:

```
AddServerMapping
   -sourceTreePath: 'sourceTreePath'
   -targetTreePath: 'targetTreePath'
/
```

Where:

sourceTreePath	The source object tree path (object category-name chain). Mandatory parameter.
targetTreePath	The target object tree path (object category-name chain). Mandatory parameter.

Syntax 2:

```
AddServerMapping
   -sourceNamePath: 'sourceNamePath'
   -targetNamePath: 'targetNamePath'
/
```

Where:

sourceNamePath	The source object name path (object name chain). Mandatory parameter.
targetNamePath	The target object name path (object name chain). Mandatory parameter.

The depth of the target path always equals one.

The ultimate depth of the source path that you specify depends on the database vendor.

Review the source path ultimate depth details in the following table:

Path depth	Level	Vendor	Path pattern
1	Server	Microsoft SSIS	treePath (NoSQL): Servers.*sourceName*
		Apache Cassandra	treePath (ETL): ETL.*sourceName*
		Informatica PowerCenter	namePath: *sourceName*
2	Schema / Component	Oracle Database	treePath (OLTP / OLAP): Servers.*sourceName*.Schemas.*schema_name* namePath (OLTP / OLAP): treePath (Big Data): Cluster.*sourceName.hdfs_name*.HDFS
		PostgreSQL	
		MySQL	
		IBM Db2 LUW	
		IBM Db2 for z/OS	
		Amazon Redshift	
		Teradata	
		Greenplum	
		Vertica	
		Google BigQuery	
		Apache Hadoop	

Path depth	Level	Vendor	Path pattern
2	Database / Component	Microsoft SQL Server	treePath (OLTP / OLAP): Servers.*sourceName*.Databases.*database_name*.Schemas.*schema_name* namePath (OLTP / OLAP): *sourceName.database_name.schema_name* treePath (Big Data): Clusters.*sourceName.hive_name*.Databases.*database_name*
		Azure SQL Database	
		Azure Synapse Analytics	
		SAP ASE (Sybase ASE)	
		Netezza	
		Snowflake	
		Apache Hadoop	

The preceding table describes the **ultimate depth** of the source path. You can also pass a shorter path. This defines a wider range of objects for conversion or migration.

Examples:

```
# 1.
AddServerMapping
    -sourceTreePath: 'Clusters.HADOOP_SRC.HDFS_SOURCE.HDFS.tmp.testcsv'
    -targetTreePath: 'Clusters.EMR_TARGET.HDFS_TARGET'
/

# 2.
AddServerMapping
    -sourceTreePath: 'Clusters.HADOOP_SRC.HIVE_SOURCE.Databases.testdb'
    -targetTreePath: 'Clusters.EMR_TARGET.HIVE_TARGET'
/
```

3.5.5.2. Modify server mapping

This command modifies server mapping, which AWS SCT uses for object conversion.

You can use two separate command syntaxes. They can't be mixed in sense of their parameters.

Syntax 1:

```
ModifyServerMapping
   -sourceTreePath: 'sourceTreePath'
   -newTargetTreePath: 'newTargetTreePath'
/
```

Where:

sourceTreePath	The source object tree path or object category-name chain. Mandatory parameter. Make sure that you created this tree path using the AddServerMapping command.
newTargetTreePath	The target object tree path or object category-name chain. Mandatory parameter.

Syntax 2:

```
ModifyServerMapping
   -sourceNamePath: 'sourceNamePath'
   -newTargetNamePath: 'newTargetNamePath'
/
```

Where:

sourceNamePath	The source object name path or object name chain. Mandatory parameter. Make sure that you created this name path using the AddServerMapping command.
newTargetNamePath	Target object name path or object name chain. Mandatory parameter.

3.5.5.3. Delete server mapping

This command deletes the existing server mapping.

You can use two separate command syntaxes.

Syntax 1:

```
DeleteServerMapping
   -sourceTreePath: 'sourceTreePath'
/
```

Where:

sourceTreePath	The source object tree path or object category-name chain. Mandatory parameter. Make sure that you created this tree path using the AddServerMapping command.

Syntax 2:

```
DeleteServerMapping
   -sourceNamePath: 'sourceNamePath'
/
```

Where:

sourceNamePath	Source object name path or object name chain. Mandatory parameter. Make sure that you created this name path using the AddServerMapping command.

3.5.6. Load tree commands

3.5.6.1. Load source tree

Use this command to load the tree after connection (AddSource or ConnectSource command). This command loads only Schemas level objects. If you want to load Schema tree, run LoadSourceTreeNode command.

Before using this command, run AddSource or ConnectSource command.

Syntax:

```
LoadSourceTree
   -sourceName: 'sourceName'
   [-processMode: 'processMode']
/
```

Where:

sourceName	The source name that clearly identifies the source connection added by the AddSource command. Mandatory parameter.
processMode	The value that defines how detailed should be loading done. Possible values: **MAIN, EXTENDED**. **MAIN** - loads only object and main properties of it. **EXTENDED** - fully loads object and all properties of it. The default value is **MAIN**.

Examples:

```
# 1.
LoadSourceTree
    -sourceName: 'MySource'
    -processMode: 'EXTENDED'
/
```

3.5.6.2. Load target tree

This command loads the tree after connection. This command loads only Schemas level objects. If you want to load Schema tree, use LoadTargetTreeNode command.

Before using this command run ConnectTarget command.

Syntax:

```
LoadTargetTree
   -targetName: 'targetName'
   [-processMode: 'processMode']
/
```

Where:

targetName	name that clearly identifies the target connection added by command AddTarget. Mandatory parameter.
processMode	value that defines how detailed should be loading done. Possible values: **MAIN, EXTENDED**. **MAIN** - loads only object and main properties of it. **EXTENDED** - fully loads object and all properties of it. The default value is **MAIN**.

Examples:

```
# 1.
LoadTargetTree
    -targetName: 'MyTarget'
    -processMode: 'EXTENDED'
/
```

3.5.6.3. Load source tree node

Use this command to load specific object or category after connection. This command loads tree node according to the recursion depth and process mode and could be used for loading metadata tree and then save project with some metadata there.

Before using this command, run AddSource or ConnectSource command.

Syntax:

```
LoadSourceTreeNode
   [-processMode: 'processMode']
   [-recursionDepth: 'recursionDepth']
   -treePath: 'treePath'
   -namePath: 'namePath'
/
```

Where:

processMode	value that defines how detailed should be loading done. Possible values: **MAIN, EXTENDED**. **MAIN** - loads only object and main properties of it. **EXTENDED** - fully loads object and all properties of it. The default value is **MAIN**.
recursionDepth	value that defines how deep to load the tree. You can use only integer values. For example, if selected to load all schemas with recursion Depth 1, it will load only Schema names + 1 level down to table names. Recursion Depth -1 loads full tree. Note that performance may degraded when full tree is loaded. The default value is 1.
treePath	path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter. Path in this command can be used only with exact names without percent sign character (%).
namePath	path to a specific object name (name chain). The usage is described in Object name path chapter. Path in this command can be used only with exact names without percent sign character (%).

Examples:

```
# 1.
LoadSourceTreeNode
    -processMode: 'EXTENDED'
    -treePath: 'Servers.ORA_TEST.Schemas'
/

# 2.
LoadSourceTreeNode
    -processMode: 'EXTENDED'
    -namePath: 'ORA_TEST.TEST_ORA_PG.PKG_MAIN'
    -recursionDepth: '2'
/
```

3.5.6.4. Load target tree node

This command loads specific object or category after connection. This command loads tree node according to the recursion depth and process mode and could be used for loading metadata tree and then save project with some metadata there.

Before using this command run ConnectTarget command.

Syntax:

LoadTargetTreeNode
[-processMode: '*processMode*']
[-recursionDepth: '*recursionDepth*']
-treePath: '*treePath*'
-namePath: '*namePath*'
[-server: '*server*']
/

Where:

processMode	value that defines how detailed should be loading done. Possible values: **MAIN, EXTENDED**. **MAIN** - loads only object and main properties of it. **EXTENDED** - fully loads object and all properties of it. The default value is **MAIN**.
recursionDepth	value that defines how deep to load the tree. You can use only integer values. For example, if selected to load all schemas with recursion Depth 1, it will load only Schema names + 1 level down to table names. Recursion Depth -1 loads full tree. Note that performance may degraded when full tree is loaded. The default value is 1.
treePath	path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter. Path in this command can be used only with exact names without percent sign character (%).
namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter. Path in this command can be used only with exact names without percent sign character (%).
server	defines root address in tree, it is used only for Redshift. It is optional attribute, if you don't specify it, first server node will be used to search.

Examples:

```
# 1.
LoadTargetTreeNode
    -treePath: 'Servers.ORA_TEST.Schemas."MySchema1".Tables'
/

# 2.
LoadTargetTreeNode
    -namePath: 'ORA_TEST."MySchema1"'
    -recursionDepth: '2'
/
```

3.5.7. Working with AWS Profile

3.5.7.1. Create AWS Profile

You can specify your own AWS profile, which defines parameters such as Access Key, Secret Key and region.

Syntax:

CreateAWSProfile
[-name: '*profileName*']
-region: '*region*'
-accessKey: '*accessKey*'
-secretKey: '*secretKey*'
[-s3Path: '*s3Path*']

```
/
```

Where:

profileName	profile name in quotes (for example 'MyProfileName1'). Name must not contain the following reserved characters: • Asterisk (*) • Question mark (?) • Less-than sign (<) • Colon (:) • Greater-than sign (>) • Vertical bar (|) • Double quotation mark (") • Slash (/) • Backslash (\ ) Mandatory parameter.
region	AWS Region available for account (only for DYNAMODB vendor). All regions available at this link (link). You should use field <Region>. Mandatory parameter.
accessKey	Access Key ID used for an IAM user or the AWS account root user. Mandatory parameter.
secretKey	Secret Access Key used for an IAM user or the AWS account root user. Mandatory parameter.
s3Path	AWS S3 bucket name (only for REDSHIFT vendor). The default value is empty value (-**s3Path:** '')

Examples:

```
CreateAWSProfile
    -name: 'AWSProfile1'
    -region: 'us-gov-west-1'
    -accessKey: 'ACC'
    -secretKey: 'SEC'
    -s3Path: 's3://bucket1'
/
```

3.5.7.2. Modify AWS Profile

You can modify already created AWS profile, which defines parameters such as Access Key, Secret Key and region. If profile with specified name doesn't exists then an error must be thrown. Old parameter value must be taken if it's not specified in this command.

Syntax:

CreateAWSProfile
-name: '*profileName*'
[-newName: '*newProfileName*']
[-region: '*region*']
-accessKey: '*accessKey*'
-secretKey: '*secretKey*'
[-s3Path: '*s3Path*']
/

Where:

profileName	profile name that was created according to the CreateAWSProfile chapter. Mandatory parameter.
newProfileName	new profile name. Optional parameter.
region	AWS Region available for account (Only for **<*vendorName*> - DYNAMODB**). All regions available at this link (link). You should use field <Region>. Mandatory parameter.
accessKey	Access Key ID used for an IAM user or the AWS account root user.
secretKey	Secret Access Key used for an IAM user or the AWS account root user.
s3Path	AWS S3 bucket name.

Examples:

```
ModifyAWSProfile
    -name: 'AWSProfile1'
    -s3Path: 's3://bucketNew'
/
```

3.5.7.3. Delete AWS Profile

You can delete already created AWS profile, which defines parameters such as Access Key, Secret Key and region. If profile with specified name doesn't exists then an error must be thrown.

Syntax:

DeleteAWSProfile
-name: '*profileName*'
/

Where:

profileName	profile name that was created according to the CreateAWSProfile chapter. Mandatory parameter.

Examples:

```
DeleteAWSProfile
    -name: 'AWSProfile1'
/
```

3.5.7.4. Set Project AWS Profile

This command defines, which AWS profile must be used in current project for subsequent commands.

Syntax:

SetAWSProfile
-name: '*profileName*'
/

Where:

profileName	profile name that was created according to the CreateAWSProfile chapter. Mandatory parameter.

Examples:

```
SetAWSProfile
    -name: 'AWSProfile1'
/
```

3.5.8. Security settings

3.5.8.1. Generate Trust Store and Key Store

This command generates new Trust and Key store. If the minimum required parameters are missing in the command and default values aren't defined for them, then an error must be thrown with name of these parameters that aren't specified.

Syntax:

GenerateTrustKeyStore
-keyName: '*keyName*'
-keyPassword: '*keyPassword*'
-trustName: '*trustName*'
-trustPassword: '*trustPassword*'
-location: '*location*'

```
/
```

Where:

keyName, *trustName*	key store and trust store name. Name must contain only Latin letters, numbers, and the characters: • Tilde (~) • At sign (@) • Number sign (#) • Dollar sign ($) • Percent sign (%) • Circumflex (^) • Minus (-) • Underline (_) • Opening / closing parenthesis (( )) • Opening / closing brace ({ }) • Backquote (`) • Apostrophe (') Mandatory parameter.
keyPassword, *trustStorePassword*	key store and trust store password. Must be at least 8 characters long and include a minimum or three of the following mix of character types: uppercase, lowercase, numbers, non-alphanumeric symbols (for example: • Exclamation mark (!) • At sign (@) • Number sign (#) • Dollar sign ($) • Percent sign (%) • Circumflex (^) • Ampersand (&) • Asterisk (*) • Less-than sign (<) • Greater-than sign (>) • Minus (-) Mandatory parameter.

location	path on file system without file name. Depends on OS version. Path can't contain any of the following characters: • Asterisk (*) • Question mark (?) • Less-than sign (<) • Vertical bar (|) • Greater-than sign (>) • Double quotation mark (") Mandatory parameter.

Examples:

```
GenerateTrustKeyStore
    -keyName: 'MyKey1'
    -keyPassword: '********'
    -trustName: 'MyTrust1'
    -trustPassword: '********'
    -location: 'e:\temp'
/
```

3.5.8.2. Load Trust Store

This command loads Trust Store in current project. If the minimum required parameters are missing in the command and default values aren't defined for them, then an error must be thrown with name of these parameters that aren't specified.

Syntax:

LoadTrustStore
-name: '*trustStoreName*'
-password: '*trustStorePassword*'
-file: '*file*'
/

Where:

trustStoreName	trust store key name that was created according to the Generate Trust Store and Key Store chapter. Mandatory parameter.
trustStorePassword	trust store password. Mandatory parameter.
file	path on file system with file name. Depends on OS version. Mandatory parameter. For more information, see OS file system paths for commands.

Examples:

```
LoadTrustStore
    -name: 'MyTrust1'
    -password: '********'
    -file: 'e:\temp\mytrust'
/
```

3.5.8.3. Load Key Store

This command loads Key Store in current project. If the minimum required parameters are missing in the command and default values aren't defined for them, then an error must be thrown with name of these parameters that aren't specified.

Syntax:

LoadKeyStore
-name: '*KeyStoreName*'
-password: '*KeyStorePassword*'
-file: '*file*'
/

Where:

KeyStoreName	key store name that was created according to the Generate Trust Store and Key Store chapter. Mandatory parameter.
KeyStorePassword	key store password. Mandatory parameter.
file	path on file system with file name. Depends on OS version. Mandatory parameter. For more information, see OS file system paths for commands.

Examples:

```
LoadKeyStore
    -name: 'MyKey1'
    -password: '********'
    -file: 'e:\temp\mykey'
/
```

3.5.8.4. Forget Trust Store

This command forgets already created or loaded Trust Store in current project.

Syntax:

ForgetTrustStore
-name: '*trustStoreName*'
/

Where:

trustStoreName	trust store key name that was created according to the Generate Trust Store and Key Store chapter. Mandatory parameter.

Examples:

```
ForgetTrustStore
    -name: 'MyKey1'
/
```

3.5.8.5. Forget Key Store

This command forgets already created or loaded Key Store in current project.

Syntax:

ForgetKeyStore
-name: '*keyStoreName*'
/

Where:

keyStoreName	store key name that was created according to the Generate Trust Store and Key Store chapter. Mandatory parameter.

Examples:

```
ForgetKeyStore
    -name: 'MyKey1'
/
```

3.5.9. Filter commands

3.5.9.1. Create filter

This command creates a named object filter which can be used further for source or/and target object scope filtering activities.

Syntax:

CreateFilter
-name: '*filterName*'
-origin: '*filterOrigin*'
-objects: '*objectsArray*'
/

Where:

filterName	Name of the filter to create.
filterOrigin	Filter apply side: either **source** or **target**. Represents database engine (conversion pair side) to apply filter on. Values are case insensitive, spaces are ignored.
objectsArray	JSON object array with the sets of object tree filters. Each filter object contains mandatory **path** property, one of (or both) optional object filtering parameters: **name** or/and **mask**, as well as several other attributes used to filter out an object scope more precisely.

All command parameters are mandatory, an exception (error) is thrown if any of them aren't set.

Each object in a set of object tree filters (JSON value of «objects» parameter) represents a single object tree filter, and consists of the parts described in table below:

Property name	JSON data type	Required	Description
type	String	Mandatory	Filter type: either **include** or **exclude**. Include filter lists the templates for objects to be filtered. Exclude filter lists the templates for objects to be excluded from the scope, respectively.
treePath	String	Mandatory if `-namePath` isn't specified.	Object tree path, defines a proprietary object path in a form of category-name chain, according to the vendor object hierarchy (see Object hierarchy diagrams).
namePath	String	Mandatory if `-treePath` isn't specified.	Object name path, defines an object path in a form of name chain, according to the vendor object hierarchy (see Object hierarchy diagrams).
subCategory	Array of strings	Optional	List of sub-categories to filter out of the main (rightmost) object category, specified either by `-treePath` or `-namePath` property.

Property name	JSON data type	Required	Description
name	Array of strings	Optional	List of exact object names to filter out. Each name within this array considered as case insensitive one, unless it is enclosed in double quotation marks. Pay attention to shield double quotation marks with the backslash character (\), because they reside within a JSON string. If **subCategory** property is specified, these object names applicable to the sub-categories of the main (rightmost) object category, specified either by `-treePath` or `-namePath` property. Otherwise (subCategory is empty), names specified in this parameter used to filter out the main (rightmost) object category.
mask	Array of strings	Optional	List of object name masks to apply and filter out. Each mask within this array considered as case insensitive one, unless it is enclosed in double quotation marks. This actual only for general type of masks, not for ones specified through a regular expression. Pay attention to shield the qouble-quote signs with the backslash character (\), because they reside within a JSON string. If **subCategory** property is specified, these object name masks applicable to the sub-categories of the main (rightmost) object category, specified either by `-treePath` or `-namePath` property. Otherwise (subCategory is empty), name masks specified in this parameter used to filter out the main (rightmost) object category.

<table>
<tr><th>Property name</th><th>JSON data type</th><th>Required</th><th>Description</th></tr>
<tr><td>status</td><td>Array of strings</td><td>Optional</td><td>List of object states used to filter out the general object scope:

<table><tr><th colspan="2">Possible values:</th></tr><tr><td>converted</td><td>Objects that have been previously converted to the target database.</td></tr><tr><td>not_converted</td><td>Objects that have not been previously converted to the target database.</td></tr><tr><td>has_actions</td><td>Objects that have been previously converted to the target database and have some action items (AIs).</td></tr><tr><td>has_no_actions</td><td>Objects that have been previously converted to the target database and have not any action items (AIs).</td></tr><tr><td>encrypted</td><td>Objects which source bodies are wrapped (encrypted).</td></tr><tr><td>not_encrypted</td><td>Objects which source bodies aren’t wrapped (not encrypted).</td></tr></table>
Any of these values can be combined with each other within single array. Values are case insensitive, leading and trailing spaces are ignored.

If subCategory property is specified, these object statuses applicable to the sub-categories of the main (rightmost) object category, specified either by <code>-treePath</code> or <code>-namePath</code> property.

Otherwise (subCategory is empty), statuses specified in this parameter used to filter out the main (rightmost) object category.</td></tr>
</table>

The important notice is, only the **type** and **treePath** / **namePath** properties are **mandatory**.

Make sure that you specify one of the `-treePath` or `-namePath` properties. If you specify both these properties, an error message that you can use only one path identifier at a time to determine the object scope. Other properties are optional and you can skip them.

Either `-treePath` or `-namePath` property determines a general scope of objects to filter out after the named filter they’re a part of will be applied.

If both **name** and **mask** parameter arrays are specified within the same filter, and each of them

appeals and filters the general scope of objects (determined either by `-treePath` or `-namePath`), then two resulting object name sub-scopes are merged using distinct principle into a single one.

Object tree (include) filter template 1:

```
{
  "type": "include",
  "treePath": "object_tree_path",
  "name": ["name1", "name2", ..., "nameN"],
  "mask": ["mask1", "mask2", ..., "maskN"]
}
```

Where:

include	filter type, include.
object_tree_path	Object tree path.
name1, name2, ..., nameN	Exact object names to filter out.
mask1, mask2, ..., maskN	Object name masks to apply and filter out.

Object tree (exclude) filter template 2:

```
{
  "type": "exclude",
  "namePath": "object_name_path",
  "name": ["name1", "name2", ..., "nameN"],
  "mask": ["mask1", "mask2", ..., "maskN"]
}
```

Where:

include	filter type, exclude.
object_name_path	Object name path.
name1, name2, ..., nameN	Exact object names to filter out.
mask1, mask2, ..., maskN	Object name masks to apply and filter out.

Object tree (include) filter template 3:

```
{
  "type": "include",
  "treePath": "object_tree_path",
  "subCategory": ["sub_category1", "sub_category2", ..., "sub_categoryN"],
  "name": ["name1", "name2", ..., "nameN"],
  "mask": ["mask1", "mask2", ..., "maskN"]
}
```

Where:

include	filter type, include.
object_tree_path	Object tree path.
sub_category1, sub_category2, ..., sub_categoryN	Sub-categories to filter out of the main (rightmost) object category, specified by *object_tree_path*.
name1, name2, ..., nameN	Exact object names to filter out in the sub-categories (*sub_category1, sub_category2, ..., sub_categoryN*) of the main (rightmost) object category, specified by *object_tree_path*.
mask1, mask2, ..., maskN	Object name masks to apply and filter out in the sub-categories (*sub_category1, sub_category2, ..., sub_categoryN*) of the main (rightmost) object category, specified by *object_tree_path*.

Object tree (exclude) filter template 4:

```
{
  "type": "exclude",
  "namePath": "object_name_path",
  "subCategory": ["sub_category1", "sub_category2", ..., "sub_categoryN"],
  "name": ["name1", "name2", ..., "nameN"],
  "mask": ["mask1", "mask2", ..., "maskN"],
  "status": ["status1", "status2", ..., "statusN"]
}
```

Where:

include	filter type, exclude.
object_name_path	Object name path.
sub_category1, sub_category2, ..., sub_categoryN	Sub-categories to filter out of the main (rightmost) object category, specified by *object_name_path*.
name1, name2, ..., nameN	Exact object names to filter out in the sub-categories (*sub_category1, sub_category2, ..., sub_categoryN*) of the main (rightmost) object category, specified by *object_name_path*.
mask1, mask2, ..., maskN	Object name masks to apply and filter out in the sub-categories (*sub_category1, sub_category2, ..., sub_categoryN*) of the main (rightmost) object category, specified by *object_tree_path*.
status1, status2, ..., statusN	Object statuses to apply and filter out in the sub-categories (*sub_category1, sub_category2, ..., sub_categoryN*) of the main (rightmost) object category, specified by *object_tree_path*.

Object tree (include) filter template 5:

```
{
  "type": "include",
```

```
  "treePath": "object_tree_path",
  "subCategory": ["sub_category1", "sub_category2", ..., "sub_categoryN"],
  "name": ["name1", "name2", ..., "nameN"],
  "mask": ["mask1", "mask2", ..., "maskN"],
  "status": ["status1", "status2", ..., "statusN"]
}
```

Where:

include	filter type, include.
object_name_path	Object tree path.
sub_category1, sub_category2, ..., sub_categoryN	Sub-categories to filter out of the main (rightmost) object category, specified by *object_tree_path*.
name1, name2, ..., nameN	Exact object names to filter out in the sub-categories (*sub_category1, sub_category2, ..., sub_categoryN*) of the main (rightmost) object category, specified by *object_tree_path*.
mask1, mask2, ..., maskN	Object name masks to apply and filter out in the sub-categories (*sub_category1, sub_category2, ..., sub_categoryN*) of the main (rightmost) object category, specified by *object_tree_path*.
status1, status2, ..., statusN	Object statuses to apply and filter out in the sub-categories (*sub_category1, sub_category2, ..., sub_categoryN*) of the main (rightmost) object category, specified by *object_tree_path*.

Composite template example:

```
[{
    "type": "include",
    "treePath": "<object_tree_path1>",
    "name": ["name1", "name2", ..., "nameN"]
},
{
    "type": "include",
    "namePath": "<object_name_path1>",
    "mask": ["mask1", "mask2", ..., "maskN"]
},
{
    "type": "include",
    "treePath": "<object_tree_path2>",
    "subCategory": ["sub_category1", "sub_category2", ..., "sub_categoryN"],
    "name": ["name1", "name2", ..., "nameN"]
},
{
    "type": "include",
    "namePath": "<object_name_path2>",
    "mask": ["mask1", "mask2", ..., "maskN"],
    "status": ["status1", "status2", ..., "statusN"]
},
{
    "type": "filter_type",
    "treePath": "<object_tree_path>",
    "subCategory": ["sub_category1", "sub_category2", ..., "sub_categoryN"],
    "name": ["name1", "name2", ..., "nameN"],
```

```
    "mask": ["mask1", "mask2", ..., "maskN"],
    "status": ["status1", "status2", ..., "statusN"]
},
{
    "type": "filter_type",
    "namePath": "<object_name_path>",
    "subCategory": ["sub_category1", "sub_category2", ..., "sub_categoryN"],
    "name": ["name1", "name2", ..., "nameN"],
    "mask": ["mask1", "mask2", ..., "maskN"],
    "status": ["status1", "status2", ..., "statusN"]
}]
```

As for object name mask, you can use special wildcard characters and regular expression patterns to determine the object name in the object tree.

Using the percent sign character (%) wildcard, which represents zero, one, or multiple characters in a pattern, you can mask the undesirable or unknown parts of object names.

A regular expression is a sequence of characters that forms a search pattern.

Regular expression support implemented through the **Pattern** Java class, please refer to its description for more info - desc.

When you search for specific object name in an object tree, you can use this search pattern to describe what you are searching for in a more detailed manner, than simply masking symbols using the percent sign character (%) wildcard.

Regular expression can be single character, or a more complicated pattern.

To use a regular expression as an object name template simple type regexp: at the start of the mask property value:

regexp
regexp: *regular_expression*

Where:

regular expression	Regular expression to match an object name with.

Each object filter can contain none, one or more regular expression masks.

If your expression needs to search for one of the special characters you can use a backslash (\) to escape them. Backslashes in strings need to be escaped themselves, so two backslashes are needed to escape special characters. For example, to search for one or more question marks you can use the following expression: "\\?".

Also, note that regular expression string need to be a valid JSON string.

Flags in the regular expression concept change how the search is performed. For example, a special flag can be used to indicate that the search should be case insensitive. The Core does not allow any flags to be passed in conjunction with regular expression pattern.

Some of those flags can be replaced through specification of match modes inside the regular expression. Putting match mode at the start of the regular expression also changes its behavior:

- **(?i)** makes the regex case insensitive.
- **(?s)** for "single line mode" makes the dot match all characters, including line breaks.
- **(?m)** for "multi-line mode" makes the caret and dollar match at the start and end of each line in the subject string.

To specify multiple modes, they can be put together as in (?ismx).

In order to discover more about using regular expressions in pattern matching, please visit the next resources: link1 | link2 | link3.

Please find **CreateFilter** command examples below.

Create filter example 1:

```
CreateFilter
    -name: 'TestFilter1'
    -origin: 'source'
    -objects:'[{
                "type": "include",
                "namePath": "Schemas.TEST_ORA%.Procedures.%",
                "name": ["p_PROC_1","\"CaseSensitiveProc\""],
                "mask": ["PROC_%","regexp:^\\s*P_\\d{3}test\\d*\\s*$"]
               },
               {
                "type": "exclude",
                "treePath": "Schemas.ORA_SCHEMA1.Tables.%",
                "name": ["TABLE1","\"tAbLe2\""]
                },
                {
                "type": "include",
                "treePath": "Schemas.TEST_SCHEMA2.Functions.%",
                "status": ["not_converted","not_encrypted"]
                },
                {
                "type": "exclude",
                "treePath": "Schemas.TEST_ORA%.Views.VW_%"
                }]'
/
```

Where:

Summary:	Filter with name "TestFilter1" consists of four sub-filters and applied on the source DB side.

Sub-filter 1:	Object **filter1-scope** determined using treePath "Schemas.TEST_ORA%.Procedures.%", that is all objects (%) in the **Procedures** category. Sub-filter scope used to **include** objects to the general scope. 1. Object **filter1-scope** filtered out using a set of exact object names: "p_PROC_1", "CaseSensitiveProc" (case sensitive). 2. Object **filter1-scope** filtered out using a set of object name masks: "PROC_%", "regexp:^\s*P_\d{3}test\d*\s*$" (regular expression). 3. Objects filtered in **steps 1-2** merged into the single **filter1-scope**.
Sub-filter 2:	Object **filter2-scope** determined using treePath "Schemas.ORA_SCHEMA1.Tables.%", that is all objects (%) in the **Tables** category. Sub-filter scope used to **exclude** objects from the general scope. 1. Object **filter2-scope** filtered out using a set of exact object names: "TABLE1", "tAbLe2" (case sensitive).
Sub-filter 3:	Object **filter3-scope** determined using treePath "Schemas.TEST_SCHEMA2.Functions.FNC_GET_%", that is objects with name mask "FNC_GET_%" in the **Functions** category. Sub-filter scope used to **include** objects to the general scope. 1. Object **filter3-scope** filtered out by objects that have not been previously converted to the target database (**not_converted**) and which source bodies aren't wrapped (**not_encrypted**).
Sub-filter 4:	Object **filter4-scope** determined using treePath "Schemas.TEST_ORA%.Views.VW_%", that is objects with name mask "VW_%" in the **Views** category. Sub-filter scope used to **exclude** objects from the general scope.
General scope:	Determined by formula: DISTINCT (filter1-scope + filter3-scope - filter2-scope - filter4-scope).

Create filter example 2:

```
CreateFilter
    -name: 'TargetFilter23'
    -origin: 'target'
    -objects: '[{
                "type": "include",
                "namePath": "test_ora%",
                "subCategory": ["Procedures", "Functions", "Tables"],
                "mask": ["%bank%", "\"%account%\", "TAB%"],
                "status": ["has_actions"]
                },
                {
                "type": "exclude",
                "treePath": "Schemas.test_ora%.Tables",
                "mask": ["TABLE2%","\"%objectTEST%\","%test%"]
                },
                {
                "type": "include",
```

```
                "namePath": "ods_schema.vw_%",
                "subCategory": ["Views"],
                "status": ["has_no_actions"]
                }]'
/
```

Where:

Summary:	Filter with name "TargetFilter23" consists of three sub-filters and applied on the target DB side.
Sub-filter 1:	Object **filter1-scope** determined using namePath "test_ora%", and corresponding sub-categories: **Procedures**, **Functions**, **Tables**. Sub-filter scope used to **include** objects to the general scope. 1. Object **filter1-scope** filtered out using a set of object name masks: "%bank%", "%account%" (case sensitive), "TAB%". 2. Objects filtered in **step 1** filtered out by those with object status "**has_actions**", that is objects that have previously been converted and have some action items (AIs).
Sub-filter 2:	Object **filter2-scope** determined using treePath "Schemas.test_ora%.Tables", that is all objects in the **Tables** category. Sub-filter scope used to **exclude** objects from the general scope. 2. Object **filter2-scope** filtered out using a set of object name masks: "TABLE%", "%objectTEST%" (case sensitive), "%test%".
Sub-filter 3:	Object **filter3-scope** determined using namePath "ods_schema.vw_%", that is objects with exact name "ods_schema" on the first level of object tree hierarchy, name mask "vw_%"on the second one (level), and corresponding subcategory "Views". Sub-filter scope used to **include** objects to the general scope. 1. Object **filter3-scope** filtered out by objects with status "**has_no_actions**", that is objects that have previously been converted and have not any action items (AIs).
General scope:	Determined by formula: DISTINCT (filter1-scope + filter3-scope - filter2-scope).

Create filter example 3:

```
CreateFilter
    -name: 'ObjScope76'
    -origin: 'source'
    -objects: '[{
                "type": "include",
                "namePath": "SCHEMA1.pkg_%",
                "subCategory": ["Public procedures","Public functions","Private procedures"],
                "name": ["PRC_INIT", "\"fnc_get_status_code\"","CALCULATE_VALS"],
                "status": ["not_converted"]
```

```
                },
                {
                "type": "include",
                "treePath": "Schemas.SCHEMA2",
                "subCategory": ["Packages"],
                "name": ["PKG_KZ_RECALC"],
                "mask": ["\"%calc_sum%\"","regexp:^.*(bank|account).*$"],
                "status": ["not_encrypted"]
                },
                {
                "type": "include",
                "treePath": "Schemas.TEST_ORA%.Scheduler.Jobs","name": ["\"testJob1\"","StartBilling"],
                "status": ["converted"]
                },
                {
                "type": "include",
                "namePath": "SCHEMA2..AQ_MESSAGE_TAB..TEST_QUEUE%.%RECIPIENT_1",
                "status": ["has_actions"]
                }]'
 /
```

Where:

Summary:	Filter with name "ObjScope76" consists of four sub-filters and applied on the source DB side.
Sub-filter 1:	Object **filter1-scope** determined using namePath "SCHEMA1.pkg_%", and corresponding sub-categories: **Public procedures**, **Public functions, Private procedures**. Sub-filter scope used to **include** objects to the general scope. 1. Object **filter1-scope** filtered out using a set of exact object names: "PRC_INIT", "fnc_get_status_code" (case sensitive), "CALCULATE_VALS". 2. Objects filtered in **step 1** filtered out by those with object status "**not_converted**", that is objects that have not been previously converted to the target database.
Sub-filter 2:	Object **filter2-scope** determined using treePath "Schemas.SCHEMA2", and corresponding subcategory **Packages**. Sub-filter scope used to **include** objects to the general scope. 1. Object **filter2-scope** filtered out using exact object name: "PKG_KZ_RECALC". 2. Object **filter2-scope** filtered out using a set of object name masks: "%calc_sum%" (case sensitive), "regexp:^.**(bank|account).**$" (regular expression). 3. Objects filtered in **steps 1-2** merged into the single **filter2-scope**. 4. Objects filtered in **step 3** filtered out by those which source bodies aren't wrapped (**not_encrypted**).

Sub-filter 3:	Object **filter3-scope** determined using treePath "Schemas.TEST_ORA%.Scheduler.Jobs". Sub-filter scope used to **include** objects to the general scope. 1. Object **filter3-scope** filtered out using a set of exact object names: "testJob1" (case sensitive), "StartBilling". 2. Objects filtered in **step 1** filtered out by those with object status "**converted**", that is objects that have been previously converted to the target database.
Sub-filter 4:	Object **filter1-scope** determined using namePath "SCHEMA2..AQ_MESSAGE_TAB..TEST_QUEUE%.%RECIPIENT_1". Sub-filter scope used to **include** objects to the general scope. 1. Object **filter1-scope** filtered out by objects with status "**has_actions**", that is objects that have previously been converted to the target database and have some action items (AIs).
General scope:	Determined by formula: DISTINCT (filter1-scope + filter2-scope + filter3-scope + filter4-scope).

It is important to note, that each filter object among an object tree filters array is used to filter the same initial scope of objects. Hence, after all filters been applied, and an object name appears more than once, only unique occurrences of such object names should be left in general scope.

3.5.9.2. Set permanent filter

This command is intended for importing an AWS SCT user interface (UI) filter file (or its contents) and applying it as session permanent filter. This filter further acts as an additional filter on top of source or target object scope, defined either by a named filter (see CreateFilter command), treePath or namePath, for all respective commands that require such scope definition.

Syntax:

```
SetPermanentFilter
   -origin: 'filterOrigin'
   [-file 'filterFile']
   [-json 'filterJSON']
/
```

Where:

filterOrigin	Filter apply side: either **source** or **target**. Mandatory parameter. Represents database engine (conversion pair side) to apply filter on. Values are case insensitive, spaces are ignored.

filterFile	The OS file system path to an AWS SCT UI filter file (*.json), exported through the **Export** button in the **Filter** window. For more information, see OS file system paths for commands. Mandatory if `-json` parameter isn't set.
filterJSON	Content of an AWS SCT UI filter file (*.json), exported through the **Export** button in the **Filter** window. Mandatory if `-file` parameter isn't set.

Please find UI filter format description and related examples in Appendix UI filter format description.

3.5.9.3. Discard permanent filter

This command is used to reset the session filter previously set using the SetPermanentFilter command.

There are no command parameters.

Syntax:

```
DiscardPermanentFilter
/
```

3.5.10. Report generation commands

This chapter describes commands intended to generate various reports in AWS SCT.

3.5.10.1. Create report

This command generates conversion assessment report in current project. You can specify filter name (-filter: '*filterName*'), that lists the objects to be converted, for which the report will be generated. Another variant, you can explicitly define the `-treePath` or `-namePath` for object(s) in the tree. Before using this command, run ConnectSource or AddSource command.

Syntax:

```
CreateReport
   [-filter: 'filterName']
   [-treePath: 'treePath']
   [-namePath: 'namePath']
   [-forceLoad: 'forceLoad']
/
```

Where:

filterName	Name of the filter previously created with the CreateFilter command.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.

namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter.
forceLoad	Boolean flag that indicates whether to use forced object tree loading logic during object path processing. Optional parameter. Valid values include **true** and **false**. If parameter is not specified, then the default value is **false**. Values are case insensitive, spaces are ignored. For more information, see Object path loading algorithm.

At least one of `-filter`, `-treepath` or `-namePath` parameters must be specified in the command. If more than one parameter from set passed at a time, an exception (error) is thrown.

If named filter is used (`-filter` parameter value) to define a scope, this filter's **origin** property value should be **source**, because the process is allowed only for the source database. Thus, an exception (error) must be thrown if the **origin** property value isn't **source** (for example, **target**).

Before report creation the core must properly load the internal object tree model. All details about this process are fully described in the Object path loading algorithm chapter.

If an object path to create report passed in through either `-treePath` or `-namePath` parameter - there is a single path to preload. Otherwise, if the scope for save defined by a named filter (`-filter` parameter), then there is collection of paths to preload and, thus, each path within this collection has to be analyzed and preloaded separately.

3.5.10.2. Create server level objects report

This command creates report for server level objects.

Syntax:

```
CreateServerLevelObjectsReport
   [-sourceName: 'sourceName']
/
```

Where:

sourceName	source connection name, previously created with AddSource command.

3.5.10.3. Save report to PDF

This command saves conversion assessment report to PDF. You can explicitly specify a filter (-filter: '*filterName*'), that lists the objects to be converted, for which the report will be generated. Another variant, you can explicitly define the `-treePath` or `-namePath` for object(s) in the tree, depending on vendor.

The use of this command is only available for paths defined for source.

Syntax:

SaveReportPDF
[-filter: '*filterName*']
[-treePath: '*treePath*']
[-namePath: '*namePath*']
-file: '*filePath*'
/

Where:

filterName	Name of the filter previously created with the CreateFilter command. Optional parameter.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter. Optional parameter.
namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter. Optional parameter.
filePath	path with file name. Mandatory parameter. For mor information, see OS file system paths for commands.

If you don't specify one of `-filter`, `-treePath` or `-namePath` parameter, then this command will save all objects involved in the transformation.

Examples:

```
# 1.
SaveReportPDF
    -treePath: 'Servers.ORA_TEST.Schemas.TEST_ORA_PG.Packages.PKG_NESTED_TABLE_GLOBAL.Public types'
    -file: 'e:\temp\myreport.pdf'
/

# 2.
SaveReportPDF
    -namePath: 'ORA_TEST.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL'
    -file: 'e:\temp\myreport.pdf'
/
```

3.5.10.4. Save report to CSV

This command saves conversion assessment report to CSV. You can explicitly specify a filter (-filter: '*filterName*'), that lists the objects to be converted, for which the report will be generated. Another variant, you can explicitly define the `-treePath` or `-namePath` for object(s) in the tree, depending on vendor.

The use of this command is only available for paths defined for source.

Syntax:

SaveReportCSV

```
    [-filter: 'filterName']
    [-treePath: 'treePath']
    [-namePath: 'namePath']
    [-directory: 'directory']
    [-file: 'filePath']
/
```

Where:

filterName	Name of the filter previously created with CreateFilter command.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter.
directory	Path to folder, where report will be saved. This parameter is mandatory if `-file` parameter isn't specified. Use this parameter when the command applies to **Schema Conversion (OLTP, OLAP, noSQL, ETL), Scripts Conversion**. For more information, see OS file system paths for commands.
filePath	Path with file name, in which report will be saved. This parameter is mandatory if the `-directory` parameter isn't specified. Use this parameter when the command applies to **AppConversion**. For more information, see OS file system paths for commands.

At least one of `-file` or `-directory` parameters should be specified in the command. If more than one parameter from set passed at a time, an exception (error) is thrown.

If this command is performed through the `-directory` parameter and don't specify one of `-filter`, `-treePath` or `-namePath` parameter, then this command will save all objects involved in the transformation.

If this command is performed through the `-file` parameter, then one of `-filter`, `-treePath` or `-namePath` must be specified.

Examples:

```
# 1.
SaveReportCSV
    -treePath: 'Servers.ORA_TEST.Schemas.TEST_ORA_PG.Packages.PKG_NESTED_TABLE_GLOBAL.Public types'
    -directory: 'e:\temp'
/

# 2.
SaveReportCSV
    -namePath: 'ORA_TEST.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL'
    -directory: 'e:\temp'
/

# 3.
SaveReportCSV
    -treePath: 'Servers.TERADATA.Scripts.BTEQ Scripts.c:\my_scripts'
```

```
    -directory: 'c:\my_scripts'
/

# 4.
SaveReportCSV
    -treePath: 'Servers.ORACLE.Applications.Pro*C.ProC_App1'
    -file: 'c:\Temp\AppConversion\Reports\ProC_report.csv'
/
```

3.5.10.5. Save server level objects report to PDF

Use this command to save server level objects report in PDF.

Syntax:

SaveServerLevelObjectsReportPDF
-sourceName: '*sourceName*'
-file: '*filePath*'
/

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
filePath	Path with file name. Mandatory parameter. For more information, see OS file system paths for commands.

Examples:

```
# 1.
SaveServerLevelObjectsReportPDF
    -sourceName: 'MY_SOURCE'
    -file: 'e:\temp\myrep1.pdf'
/
```

3.5.10.6. Save server level objects report to CSV

Use this command to save server level objects report in CSV.

Syntax:

SaveServerLevelObjectsReportCSV
-sourceName: '*sourceName*'
-file: '*filePath*'
/

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
filePath	Path to folder, where report will be saved. Mandatory parameter. For more information, see OS file system paths for commands.

Examples:

```
# 1.
SaveServerLevelObjectsReportCSV
    -sourceName: 'MY_SOURCE'
    -directory: 'e:\temp'
/
```

3.5.10.7. Create Combined Wizard Report

This command creates combined Report for Oracle or Microsoft SQL Server as combined scenario in wizard. The command produces one zip archive along the specified path with one XML file, three PDF reports (migration, optimization and server level reports) and CSV reports for each target vendor.

Syntax:

CreateCombinedWizardReport
-server: '*serverHost*'
-port: '*serverPort*'
-vendor: '*dbaseVendor*'
[-user: '*userName*']
[-password: '*password*']
[-encryptPassword: '*encryptPassword*']
[treePath: '*treePath*']
[-namePath: '*namePath*']
[filter: '*filterName*']
[-connectionType: '*connectionType*']
[-secretName: '*secretName*']
[-sid: '*sid*']
[-serviceName: '*serviceName*']
[-tnsAlias: '*tnsAlias*']
[-tnsFilePath: '*tnsFilePath*']
[-tnsConnectIdentifier: '*tnsConnectIdentifier*']
[-useSSL: '*useSSL*']
[-encryptData: '*encryptData*']
[-sslAuthentication: '*sslAuthentication*]'
[-encryptConnection: '*encryptConnection*]'
[-filter: '*filterName*']
[-trustCertificate: '*trustCertificate*']
[-requireSSL: '*requireSSL*']
[-verifyCertificate: '*verifyCertificate*']

```
    [-keyName: 'keyName']
    [-trustName: 'trustName']
    -directory: 'directoryPath'
    [-windowsAuthentication: 'useWindowsAuthentication']
    [-useKerberos: 'useKerberos']
    [-kerberosJaasFile: 'kerberosJaasFile']
    [-encodeConnectionInfo: 'encodeConnectionInfo']
    [-maxConnections: 'maxConnections']
    [-idleTimeout: 'idleTimeout']
    [-loginTimeout: 'loginTimeout']
    [-driverSettings: 'driverSettings']
/
```

Where:

serverHost	The host name or IP address of the machine hosting the database. Mandatory parameter.
serverPort	The port number that the database LISTENER is listening on, in range 0-65535. Leading and trailing spaces are ignored. Mandatory parameter.
dbVendor	The source database vendor abbreviation (see abbreviations description here). Mandatory parameter. **Possible values:** **oracle** Oracle Database. **mssql** Microsoft SQL Server. The default value for this parameter is **oracle**. Values are case insensitive, leading and trailing spaces are ignored.
userName	The user name used to access the source database. For Oracle Database (**dbvendor** = **oracle**): If `-useSSL` is **false** then mandatory parameter. If `-useSSL` is **true** and `-sslAuthentication` is **false** then mandatory parameter. If `-useSSL` is **true** and `-sslAuthentication` is **true** this parameter isn't required. For Microsoft SQL Server (**dbvendor** = **mssql**): If `-useSSL` is **true** then mandatory parameter.

password	The password used to access the source database. For Oracle Database (**dbvendor** = **oracle**): If `-useSSL` is **false** then mandatory parameter. If `-useSSL` is **true** and `-sslAuthentication` is **false** then mandatory parameter. If `-useSSL` is **true** and `-sslAuthentication` is **true** this parameter isn't required. For Microsoft SQL Server (**dbvendor** = "**mssql**") if **useSSL** = "true" then mandatory parameter.
encryptPassword	Boolean flag to determine whether to encrypt the password. Optional parameter. Used only for vendor "SYBASE_ASE" (SAP ASE). Supported values are `true` and `false`. The default value is `false`. If **useSSL** = "false" then mandatory parameter. If **useSSL** = "true" and **sslAuthentication** = "false" then mandatory parameter. If **useSSL** = "true" and **sslAuthentication** = "true" this parameter is not required. For Microsoft SQL Server (**dbvendor** = "**mssql**") if **useSSL** = "true" then mandatory parameter.
encryptPassword	Boolean flag to determine whether to encrypt the password. Optional parameter. Used only for vendor "SYBASE_ASE" (SAP ASE). Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path. A path to a specific type of object or object name (object type-name chain). This parameter is mandatory if neither `-filter` nor `-namePath` parameter is specified. A minimum level of objects that you can use for the `-treePath` is Schema. This means that you can choose all schemas, one schema, or a set of schemas. For `-treePath`, use a server name. For example: -treePath: '**Servers.ORA1**.Schemas.DB1'. **ORA1** is a name with which connection will be established. The name corresponds to the **Connection name** on **GUI**. This is a custom name and is set by the user.

namePath	Object name path. A path to a specific object name (name chain). This parameter is mandatory if neither `-filter` nor `-treePath` parameter is specified. A minimum level of objects that you can use for the `-namePath` is Schema. This means that you can choose all schemas, one schema, or a set of schemas. For `-namePath`, use server name. For example: -namePath: '**MSSQL1**.DB1.dbo'. **MSSQL1** is a name with which connection will be established. The name corresponds to the **Connection name** on **GUI**. This is a custom name and is set by the user.
filterName	The name of the filter that you previously created with the CreateFilter command. This parameter is mandatory if neither of path parameters (`-treePath` or `-namePath`) is specified. A minimum level of objects that you can use for the `-filter` is Schema. This means that you can choose all schemas, one schema, or a set of schemas. For `-filter`, use a unique server name. For example: '**Servers.ORA1. ...**', where **ORA1** specifies the particular server. Values are case insensitive, leading and trailing spaces are ignored.
directoryPath	The OS file system path to the directory for saving report files (migration, optimization and server level reports). Mandatory parameter. For more information, see OS file system paths for commands.
connectionType	The connection type used to connect to a database. For SQL Server, you can use only one connection type: **basic_sid**. For Oracle Database, you can use the following values for this parameter. **Possible values:** *basic_sid* — Basic, using SID. *basic_service_name* — Basic, using Service Name. *tns_alias* — TNS, using alias. Dependent parameters must be specified: tnsAlias, tnsFilepath *tns_connect_identifier* — TNS, using connect identifier. Dependent parameter must be specified: tnsIdentifier. Mandatory parameter. The default value is *basic_sid*. Values are case insensitive, leading and trailing spaces are ignored.

secretName

The name of the **AWS Secret** to get the **secret values** of a database at the **AWS Secrets Manager**.
An example of the name of the **AWS Secret:**
ALL.SOURCE.ORACLE_19
An example of the **AWS command** to get the **secret values** of the **ALL.SOURCE.ORACLE_19** secret:
aws secretsmanager get-secret-value --secret-id ALL.SOURCE.ORACLE_19
Besides others, the response of this type of **AWS command** contains of a **SecretString** section.
In the **SecretString** section, there are 5 pairs **field:value** which are used by **AWS SCT CLI**:

field	value
host	optional
port	optional
dbname	optional
username	mandatory
password	mandatory

Values of the **mandatory** fields (**username** and **password**) must be taken from the **SecretString** and used. Values of the both **user** and **password parameters** of the command must be **ignored**, even if they are present.

Values of the **optional** fields (**host, port** and **dbname**) must be taken from the **SecretString** and used**,** if they are present in the **SecretString**. If any field from **optional** fields (**host, port** and **dbname**) is absent in the **SecretString** it should be used values of the appropriate **parameters**.

Value of the **dbname** field of the **secret** for **ORACLE** could be used as either the value of the **sid** parameter or the value of the **serviceName** parameter depending on value of the **connectionType** parameter.

Attention! If any value from the **SecretString** is used it is necessary to put an appropriate string to the log file with the name of the **SCT CLI command** and a list of the fields from the **SecretString** (**only names of the fields without values**) which were used.

sid

Name that uniquely identifies a specific instance of a database. Depends on a database vendor specified in the `-vendor` parameter.

For Oracle Database it is a system identifier (SID), and for MS SQL Server engines it is a full instance name.

serviceName	Oracle service name that specifies the database used for the connection. The service name is a string that is the global database name - a name that is comprised of the database name and domain name, for example: *sales.us.acme.com*. Mandatory if `-vendor` parameter is set to **oracle** and `-connectionType` parameter is set to **basic_service_name**.
tnsAlias	Transparent Network Substrate (TNS) database connection alias, which is specified in the TNSNAMES.ORA file. Mandatory if `-vendor` parameter is set to **oracle** and `-connectionType` parameter is set to **tns_alias**.
tnsFilePath	Entire OS file system path, including the file name, to the file TNSNAMES.ORA file (contains connection information for Oracle services). Mandatory if `-vendor` parameter is set to **oracle** and `-connectionType` parameter is set to **tns_alias**.
tnsConnectIdentifier	Transparent Network Substrate (TNS) names connect identifier for Oracle Database. Mandatory if `-vendor` parameter is set to **oracle** and `-connectionType` parameter is set to **tns_connect_identifier**.
useSSL	Boolean flag to use Secure Socket Layer (SSL) to encrypt a connection to the database. Optional parameter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored. For Oracle Database (**dbvendor** = **oracle**): If `-useSSL` is **false** then `-username` and `-password` are mandatory. If `-useSSL` is **true** and `-sslAuthentication` is **false**, `-username`, `-password` and `-trustName` are mandatory. If `-useSSL` is **true** and `-sslAuthentication` is **true** then `-trustName` and `-keyName` are mandatory, but `-username` and `-password` aren't required. For Microsoft SQL Server (**dbvendor** = **mssql**) if `-useSSL` is **true** then `-username` and `-password` are mandatory.
encryptData	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.

sslAuthentication	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored. For Oracle Database (**dbvendor** = **oracle**): If `-useSSL` is **true** and `-sslAuthentication` is **false**, `-username`, `-password` and `-trustName` are mandatory. If `-useSSL` is **true** and `-sslAuthentication` is **true** then `-trustName` and `-keyName` are mandatory, but `-username` and `-password` aren't required.
encryptConnection	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
trustCertificate	Supported values are **true** and **false**. The default value is **true**. Values are case insensitive, leading and trailing spaces are ignored.
requireSSL	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
verifyCertificate	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
keyName	Certificate Key Store name. Optional parameter. For Oracle Database (**dbvendor** = **oracle**): If `-useSSL` is **true** and `-sslAuthentication` is **true** then `-keyName` become mandatory.
trustName	Certificate Trust Store name. if **trustCertificate** is **true trustName** should not take part in connection. If **trustCertificate** is **true** and **trustName** is specified - **trustName** should be ignored. If **trustCertificate** is **false trustName** become mandatory.
useWindowsAuthentication	Boolean flag indicating whether to use Windows authentication as a database connection type, which eliminates the use of `-user` and `-password` parameters. This parameter is optional. Only used for MS SQL Server (MSSQL) or Azure SQL (AZURE_MSSQL) vendors. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
useKerberos	Boolean flag to determine whether to use Kerberos authentication. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.

kerberosJaasFile	OS file system path to a JAAS login configuration file for Kerberos authentication. Optional parameter. This parameter is mandatory if `-useKerberos` parameter is set to `true`. Description of the OS paths is in the chapter OS file system paths for commands.
encodeConnectionInfo	Boolean flag to determine whether to encode the connection information. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
maxConnections	The maximum number of active connections to the server at the same time. Optional parameter.
idleTimeout	The minimum amount of time a connection can be idle before it is closed on the server. If a new connection is needed during this idle period, the connection will be reused instead of creating a new one. Optional parameter.
loginTimeout	The maximum time, in seconds, that JDBC driver is waiting for a response while attempting to connect to a database. Optional parameter.

driverSettings

JSON object containing a set of JDBC driver settings. Optional parameter.

These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the property's value, respectively.
Settings values are given as JSON strings, specifically, enclosed in double quotation marks.

The following symbols are reserved in JSON and must be properly escaped to be used in strings:

Symbol	**Escape sequence**
Backspace	is replaced with (`\b`)
Form feed	is replaced with (`\f`)
Newline	is replaced with (`\n`)
Carriage return	is replaced with (`\r`)
Tab	is replaced with (`\t`)
Single quote	is replaced with (`\'`)
Double quote	is replaced with (`\"`)
Backslash	is replaced with (`\\`)

In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool).

At least one setting value must be set within the settings JSON object.

JDBC driver settings object template:

```
{
  "setting1_name": "setting1_value",
  "setting2_name": "setting2_value",
  "setting3_name": "setting3_value",
  ...
  "settingN_name": "settingN_value"
}
```

Where:

property1_name	Name of the first property.
property2_name	Name of the second property.
property3_name	Name of the third property.
propertyN_name	Name of the N-th property.

Examples:

```
# 1.
CreateCombinedWizardReport
    -vendor: 'ORACLE'
    -connectionType: 'BASIC_SERVICE_NAME'
    -server: 'ec2-12-345-678-90.eu-west-1.compute.amazonaws.com'
    -port: '1521'
    -serviceName: 'pdb'
    -user: 'user1'
    -password: '0123456789'
    -treePath: 'Servers.ORA1.Schemas.DB1'
    -directory: 'c:\MultiserverCLI'
/

# 2.
CreateCombinedWizardReport
    -sid: 'GOLD_TEST_SS_PG'
    -password: '0123456789'
    -port: '1433'
    -vendor: 'MSSQL'
    -server: 'ec2-12-34-56-78.eu-west-1.compute.amazonaws.com'
    -user: 'user1'
    -namePath: 'MSSQL.DB1.dbo'
    -directory: 'c:\MultiserverCLI\CreateCombinedWizardReport'
/
```

3.5.10.8. Create Aggregated Report

This command creates a multiserver assessment report. You can use this report to determine the best target direction for your overall environment.
A multiserver assessment report evaluates multiple servers based on input that you provide for each schema definition that you want to assess. Your schema definition contains database server connection parameters and the full name of each schema.
After assessing each schema, AWS SCT produces a summary, aggregated assessment report for database migration across your multiple servers. This report shows the estimated complexity for each possible migration target.

Syntax:

CreateAggregatedReport
-directory: '*directory*'
-projectName: '*projectName*'
-connectionsFile: '*connectionsFile*'
[-createProjects: '*createProjects*']
[-addMappingRules: '*addMappingRules*']
/

Where:

directory	Location where the aggregated report file structure will be created. Mandatory parameter. For more information, see OS file system paths for commands.
projectName	The name of the top-level directory in the specified location. Mandatory parameter.

connectionsFile	The CSV file with database connection parameters. Mandatory parameter. Make sure that your CSV file includes the following values: **Name** - The text label that helps identify your database. AWS SCT displays this text label in the assessment report. **Description** - An optional value, where you can provide additional information about the database. **Secret Manager Key** - The name of the secret that stores your database credentials in the AWS Secrets Manager. To use Secrets Manager, make sure that you store AWS profiles in AWS SCT. **Server IP** - The Domain Name Service (DNS) name or IP address of your source database server. **Port** - The Domain Name Service (DNS) name or IP address of your source database server. **Service Name** - If you use a service name to connect to your Oracle database, the name of the Oracle service to connect to. **Database name** - The database name. For Oracle databases, use the Oracle System ID (SID). **Source Engine** - The type of your source database. Use one of the following values: • AZURE_MSSQL for a Microsoft Azure SQL database. • DB2ZOS for an IBM Db2 for z/OS database. • DB2LUW for an IBM Db2 LUW database. • GREENPLUM for a Greenplum database. • MSSQL for a Microsoft SQL Server database. • MYSQL for a MySQL database. • NETEZZA for a Netezza database. • ORACLE for an Oracle database. • POSTGRESQL for a PostgreSQL database. • REDSHIFT for an Amazon Redshift database. • SNOWFLAKE for a Snowflake database. • SYBASE_ASE for an SAP ASE database. • TERADATA for a Teradata database. • VERTICA for a Vertica database. **Schema Names** - The names of the database schemas to include in the assessment report. For Microsoft Azure SQL, Microsoft SQL Server, Netezza, SAP ASE, and Snowflake, use the following format of the schema name: db_name.schema_name. In the preceding example, replace db_name with the name of the source database. Then replace schema_name with the name of the source schema. Enclose database or schema names that include a dot in double quotation marks as shown following: "database.name"."schema.name".

	Separate multiple schema names by using semicolons as shown following: Schema1;Schema2. The database and schema names are case sensitive. Use the percent (%) as a wildcard to replace any number of any symbols in the database or schema name. The example preceding uses the percent (%) as a wildcard to include all schemas from the employees database in the assessment report. **Use Windows Authentication** - If you use Windows Authentication to connect to your Microsoft SQL Server database, enter true. For more information, see Using Windows Authentication when using Microsoft SQL Server as a source. **Login** - The user name to connect to your source database server. **Password** - The password to connect to your source database server. **Use SSL** - If you use Secure Sockets Layer (SSL) to connect to your source database, enter true. **Trust store** - The trust store to use for your SSL connection. **Key store** - The key store to use for your SSL connection. **SSL authentication** - If you use SSL authentication by certificate, enter true. **Target Engines** - The target database platforms. Use the following values to specify one or more targets in the assessment report: • AURORA_MYSQL for an Aurora MySQL-Compatible database. • AURORA_POSTGRESQL for an Aurora PostgreSQL-Compatible database. • BABELFISH for a Babelfish for Aurora PostgreSQL database. • MARIA_DB for a MariaDB database. • MSSQL for a Microsoft SQL Server database. • MYSQL for a MySQL database. • ORACLE for an Oracle database. • POSTGRESQL for a PostgreSQL database. • REDSHIFT for an Amazon Redshift database. Separate multiple targets by using semicolons as shown following: MYSQL;MARIA_DB. The number of targets affects the time it takes to run the assessment.
createProjects	Creates migration projects after generating the assessment report. Optional parameter. Supported values are **false** and **true**. The default value is **false**.
addMappingRules	Adds mapping rules to each project and save the source database metadata in the project. *addMappingRules* depends on *createProjects*. If *createProjects* is missing or false, *addMappingRules* is ignored. Optional parameter. Supported values are **false** and **true**. The default value is **false**.

The following table describe possible engines for input connections:

Source database	Target database
Amazon Redshift	Amazon Redshift

Source database	Target database
Greenplum	Amazon Redshift
IBM Db2 for z/OS	Amazon Aurora MySQL-Compatible Edition (Aurora MySQL), Amazon Aurora PostgreSQL-Compatible Edition (Aurora PostgreSQL), MySQL, PostgreSQL
IBM Db2 LUW	Aurora MySQL, Aurora PostgreSQL, MariaDB, MySQL, PostgreSQL
Microsoft Azure SQL	Aurora MySQL, Aurora PostgreSQL, MySQL, PostgreSQL
Microsoft SQL Server	Aurora MySQL, Aurora PostgreSQL, Amazon Redshift, Babelfish for Aurora PostgreSQL, MariaDB, Microsoft SQL Server, MySQL, PostgreSQL
MySQL	Aurora PostgreSQL, MySQL, PostgreSQL

By default, AWS SCT generates an aggregated report for all source databases and a detailed assessment report for each schema name in a source database.
With the createProjects option set to true, AWS SCT creates an empty project for each source database. AWS SCT also creates assessment reports as described earlier.
After you analyze these assessment reports and choose migration destination for each source database, add target databases to these empty projects.
With the addMappingRules option set to true, AWS SCT creates a project for each source database.

These projects include the following information:

- Your source database and a virtual target database platform.
- A mapping rule for this source-target pair.
- A database migration assessment report for this source-target pair.
- Source schema metadata, which enables you to use this AWS SCT project in an offline mode.

3.5.10.9. Create Migration Report

This command creates a migration status report, indicating current status and progress of the migration.

Migration itself is launched via the Migrate command according to the server mapping, previously added by the AddServerMapping command.

Syntax:

```
CreateMigrationReport
   -filter: 'filterName'
   -treePath: 'treePath'
   -directory: 'directory'
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

filterName	The name of the filter previously created with the CreateFilter command. This parameter is mandatory if the `-treePath` parameter isn't specified. You can use only filters that contain collection of treePaths. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path. A path to a specific type of object or object name (object type-name chain). This parameter is mandatory if `-filter` parameter isn't specified.
directory	The OS file system path to a directory to save report files. Depends on OS version. Mandatory parameter. For more information, see OS file system paths for commands.

The path to at least one of the above-mentioned parameters, including `-filter`, has to be specified in a command call. Otherwise, there is nothing to migrate. If more than one path parameter passed at a time, an exception is thrown.

If a named filter is used (`-filter` parameter value) to define the migration report scope, this filter's **origin** property value should be **source**. An exception is thrown if the mentioned **origin** property value isn't **source** (For example, **target**).

3.5.11. Convert command

This command performs an object conversion on the scope defined by one of its path parameters.

Conversion is performed according to the server mapping, previously added by the AddServerMapping command.

Syntax:

```
Convert
   [-filter: 'filterName']
   [-treePath: 'treePath']
   [-namePath: 'namePath']
   [-forceLoad: 'forceLoad']
/
```

Where:

filterName	Name of the filter previously created with the CreateFilter command. This parameter is mandatory if neither of path parameters (`-treePath` or `-namePath`) is specified. Values are case insensitive, leading and trailing spaces are ignored.

treePath	Object tree path. A path to the specific type of object or object name (object type-name chain). This parameter is mandatory if neither `-filter` nor `-namePath` parameter is specified.
namePath	Object name path. A path to the specific object name (name chain). This parameter is mandatory if neither `-filter` nor `-treePath` parameter is specified.
forceLoad	Boolean flag that indicates whether to use forced object tree loading logic during an object path processing. Optional parameter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored. More info about this parameter can be found in the Object path loading algorithm chapter.

The path to at least one of the above-mentioned parameters, including `-filter`, has to be specified in a command call. Otherwise, there is nothing to convert.

If more than one path parameter passed at a time, an exception (error) is thrown.

In case if a named filter is used (`-filter` parameter value) to define the conversion scope, this filter's **origin** property value should be **source**, because the conversion process is allowed only in direction from source to target database. Thus, an exception (error) must be thrown if the **origin** property value isn't **source** (For example, **target**).

Convert command affects only the scope most recently defined by its parameters.

Before converting a set of objects defined by one of the Convert command parameters, the core must properly load the internal object tree model. All details about this process fully described in the Object path loading algorithm chapter.

If an object path to convert passed in through either `-treePath` or `-namePath` parameter - there is a single path to preload. Otherwise, if the scope for conversion is defined by a named filter (`-filter` parameter), then there is a collection of paths to preload and each path within this collection is analyzed and preloaded separately.

3.5.12. Apply to target command

This command applies converted code to target server.

To run this command AddTarget or ConnectTarget command should be described before. Connection should be established!

Syntax:

ApplyToTarget
[-filter: '*filterName*']
[-treePath: '*treePath*']
[-namePath: '*namePath*']
[-overwriteExtensionPack: '*overwriteExtensionPack*']
[-server: '*server*']
[-useSourceSide: '*useSourceSide*']
[-awsProfile: '*awsProfile*']
[-S3BucketFilePath: '*S3BucketFilePath*']
/

Where:

filterName	Name of the filter previously created with CreateFilter command.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in Object name path chapter. At least one of `-filter`, `-treePath` or `-namePath` parameters must be specified in the command. If more than one parameter from set passed at a time, an exception (error) is thrown.
overwriteExtensionPack	Extension Pack Overwrite Mode. Possible values are **true** and **false**. The default value is **true**. If value is **false** then Extension Pack will be created, if it doesn't exist but if it exists new version will not be written. If value is **true** then Extension Pack will be created, if it doesn't exist and if it exists, latest version will be written.
server	Defines root address in tree, it is used only for target vendor - **REDSHIFT**. It is optional attribute, if you don't specify it, first server node will be used to search.

<table>
<tr><td>useSourceSide</td><td>Possible values are true and false.

If value is true then all target objects that correspond to the object(s) on the source must be applied to the target server. The default value is false.

If filter id used to define the scope of objects, then origin property must be source if parameter <code>-useSourceSide</code> is true and target if parameter <code>-useSourceSide</code> is false, otherwise an exception (error) is thrown.

For example, we would like to convert and apply the following objects from Oracle to PostgreSQL:

<table>
<tr><td rowspan="2">Source objects</td><td>Server</td><td>Schema</td><td>Package</td><td>Public types</td></tr>
<tr><td>ORA</td><td>TEST_ORA_PG</td><td>PKG_NESTED_TABLE_GLOBAL</td><td>T_BANK
TR_BIC
T_BANK_BIC</td></tr>
<tr><td rowspan="2">Converted objects</td><td>Server</td><td>Schema</td><td colspan="2">User defined types</td></tr>
<tr><td>POST</td><td>test_ora_pg</td><td colspan="2">pkg_nested_table_globalt_bankr
pkg_nested_table_globalt_bank_bicr
pkg_nested_table_globaltr_bicr</td></tr>
</table>

For applying to target with -useSourceSide: 'false' or without specifying this parameter you should know the new object names that were formed after conversion: pkg_nested_table_globalt_bankr, pkg_nested_table_globalt_bank_bicr, pkg_nested_table_globaltr_bicr. Often, the user cannot know what names will be after conversion. And for this reason, it would be easier to apply these objects by using source objects names. It is possible, when you set <code>-useSourceSide</code> to true.</td></tr>
<tr><td>awsProfile</td><td>AWS profile name that was configured using CreateAWSProfile command. Optional parameter. If this parameter isn't specified must be used profile that was set using SetAWSProfile command. Parameter is required when -overwriteExtensionPack: 'true' and target is REDSHIFT.</td></tr>
<tr><td>S3BucketFilePath</td><td>AWS S3 bucket path with file name. Optional parameter. If this parameter isn't specified, must be used s3Path that was specified using CreateAWSProfile command. Parameter is required when -overwriteExtensionPack: 'true' and target is REDSHIFT.</td></tr>
</table>

The following table shows the difference between two ways of using `-useSourceSide` parameter.

-useSourceSide: '**false**' (default)	**Convert** -namePath: '*ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK*' / **ApplyToTarget** -namePath: '*POST.test_ora_pg.pkg_nested_table_globalt_bankr*' /
-useSourceSide: '**true**'	**Convert** -namePath: '*ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK*' / **ApplyToTarget** -namePath: 'ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK' -useSourceSide: 'true' /

Examples:

```
# 1.
ApplyToTarget
    -treePath: 'Servers.ORA.Schemas.test_ora_pg.User defined types.pkg_nested_table_global$t_bank'
/

# 2.
ApplyToTarget
    -namePath: 'POST.test_ora_pg.pkg_nested_table_global$t_bank'
    -overwriteExtensionPack: true
/
```

3.5.13. Save script commands

3.5.13.1. Save source to SQL

This command saves selected source object(s) to SQL file (*.sql)

Syntax:

SaveSourceSQL
[-filter: '*filterName*']
[-treePath: '*treePath*']
[-namePath: '*namePath*']
-file: '*filePath*'
[-forceLoad: '*forceLoad*']
/

Where:

filterName	Name of the filter previously created with CreateFilter command. Filter property **origin** must be **source**, otherwise an exception (error) is thrown.

treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter.
filePath	A path with file name. Mandatory parameter. For more information, see OS file system paths for commands.
forceLoad	Boolean flag that indicates whether to use forced object tree loading logic during an object path processing. Optional parameter. Supported values are: `true` and `false`. If parameter is not specified, then the default value is **false**. Values are case insensitive, spaces are ignored. For more information, see Object path loading algorithm.

Make sure that you specify at least one of `-filter`, `-treePath` or `-namePath` parameters in the command. If you pass more than one parameter from the set at a time, AWS SCT throws an exception.

If you use a named filter (`-filter` parameter value) to define a saved scope, make sure that the value of the **origin** property for this filter is **source**, because this process is allowed only for source database. Thus, an exception (error) must be thrown if mentioned **origin** property value isn't **source** (For example, **target**).

Before saving a set of objects defined by one of the save command parameters, the core must properly load the internal object tree model. All details about this process fully described in the Object path loading algorithm chapter.

If an object path to save passed in through either `-treePath` or `-namePath` parameter - there is a single path to preload. Otherwise, if the scope for save defined by a named filter (`-filter` parameter), then there is collection of paths to preload. Therefore, each path within this collection has to be analyzed and preloaded separately.

Examples:

```
# 1.
SaveSourceSQL
    -treePath: 'Servers.ORA.Schemas.TEST_ORA_PG.Packages.PKG_NESTED_TABLE_GLOBAL'
    -file: 'e:\temp\script.sql'
/

# 2.
SaveSourceSQL
    -namePath: 'ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL'
    -file: 'e:\temp\script.sql'
/
```

3.5.13.2. Save source to SQL by stage

This command saves selected source object(s) to several SQL files split by objects.

Syntax:

```
SaveSourceSQLbyStage
   [-filter: 'filterName']
   [-treePath: 'treePath']
   [-namePath: 'namePath']
   -directory: 'directory'
   [-forceLoad: 'forceLoad']
/
```

Where:

filterName	Name of the filter previously created with CreateFilter command. Filter property **origin** must be **source**, otherwise an exception (error) is thrown. Object path specified in filter must be only treePath, otherwise an exception (error) is thrown ("Specified filter object path must be only treePath")
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter.
directory	A path to file system without file name. Depends on the OS version. Mandatory parameter. For more information, see [OS file system paths for commands].
forceLoad	Boolean flag that indicates whether to use forced object tree loading logic during an object path processing. Optional parameter. Supported values are: `true` and `false`. If parameter isn't specified, then the default value is **false**. Values are case insensitive, spaces are ignored. More information about this parameter can be found in the Object path loading algorithm chapter.

Make sure that you specify at least one of `-filter`, `-treePath` or `-namePath` parameters in the command. If you pass more than one parameter from the set at a time, AWS SCT throws an exception.

If you use a named filter (`-filter` parameter value) to define a saved scope, make sure that the value of the **origin** property for this filter is **source**, because this process is allowed only for source database. Thus, an exception (error) must be thrown if mentioned **origin** property value isn't **source** (For example, **target**).

Before saving a set of objects defined by one of the save command parameters, the core must properly load the internal object tree model. All details about this process fully described in the Object path loading algorithm chapter.

If an object path to save passed in through either `-treePath` or `-namePath` parameter - there is a single path to preload. Otherwise, if the scope for save defined by a named filter (`-filter` parameter), then there is collection of paths to preload. Therefore, each path within this collection has to be analyzed and preloaded separately.

Examples:

```
# 1.
SaveSourceSQLbyStage
    -treePath: 'Servers.ORA.Schemas.TEST_ORA_PG.Packages'
    -directory: 'e:\temp'
/
```

3.5.13.3. Save source to SQL by statement

This command saves selected source object(s) to several SQL files split by statements.

Syntax:

SaveSourceSQLbyStatement
[-filter: '*filterName*']
[-treePath: '*treePath*']
[-namePath: '*namePath*']
-directory: '*directory*'
[-forceLoad: '*forceLoad*']
/

Where:

filterName	Name of the filter previously created with CreateFilter command. Filter property **origin** must be **source**, otherwise an exception (error) is thrown. Object path specified in filter must be only treePath, otherwise an exception (error) is thrown ("Specified filter object path must be only treePath")
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter.
directory	A path to file system without file name. Depends on OS version. Mandatory parameter. For more information, see OS file system paths for commands.
forceLoad	Boolean flag that indicates whether to use forced object tree loading logic during an object path processing. Optional parameter. Supported values are: `true` and `false`. If parameter is not specified, then the default value is **false**. Values are case insensitive, spaces are ignored. More information about this parameter can be found in the Object path loading algorithm chapter.

Make sure that you specify at least one of `-filter`, `-treePath` or `-namePath` parameters in the command. If you pass more than one parameter from the set at a time, AWS SCT throws an exception.

If you use a named filter (`-filter` parameter value) to define a saved scope, make sure that the value of the **origin** property for this filter is **source**, because this process is allowed only for source database. Thus, an exception (error) must be thrown if mentioned **origin** property value isn't **source** (For example, **target**).

Before saving a set of objects defined by one of the save command parameters, the core must properly load the internal object tree model. All details about this process fully described in the Object path loading algorithm chapter.

If an object path to save passed in through either `-treePath` or `-namePath` parameter - there is a single path to preload. Otherwise, if the scope for save defined by a named filter (`-filter` parameter), then there is collection of paths to preload. Therefore, each path within this collection has to be analyzed and preloaded separately.

Examples:

```
# 1.
SaveSourceSQLbyStatement
    -treePath: 'Servers.ORA.Schemas.TEST_ORA_PG.Packages'
    -directory: 'e:\temp'
/
```

3.5.13.4. Save target to SQL

This command saves selected target object(s) to SQL file (*.sql)

Syntax:

SaveTargetSQL
[-filter: '*filterName*']
[-treePath: '*treePath*']
[-namePath: '*namePath*']
-file: '*filePath*'
[-server: '*server*']
[-useSourceSide: '*useSourceSide*']
/

Where:

filterName	Name of the filter previously created with CreateFilter command.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter.
filePath	A path to file system without file name. Depends on OS version. Mandatory parameter. For more information, see OS file system paths for commands.
server	Defines root address in tree. It is used only for Redshift. It is optional attribute, if you don't specify it, first server node will be used to search.
useSourceSide	Possible values are **true** and **false**. If value is **true** then all objects on target that correspond to the object (s) on the source must be saved to file. The default value is **false**.

If filter id used to define the scope of objects, then **origin** property must be **source** if parameter `-useSourceSide` is **true** and **target** if parameter `-useSourceSide` is **false**, otherwise an exception (error) is thrown.

For example, we would like to convert and apply the following objects from Oracle to PostgreSQL:

Source objects	**Server**	**Schema**	**Package**	**Public types**
	ORA	TEST_ORA_PG	PKG_NESTED_TABLE_GLOBAL	T_BANK TR_BIC T_BANK_BIC
Converted objects	**Server**	**Schema**	**User defined types**	
	POST	test_ora_pg	pkg_nested_table_globalt_bankr pkg_nested_table_globalt_bank_bicr pkg_nested_table_globaltr_bicr	

For saving with `-useSourceSide` is set to **false** or without specifying this parameter you should know the new object names that were formed after conversion: **pkg_nested_table_globalt_bankr, pkg_nested_table_globalt_bank_bicr, pkg_nested_table_globaltr_bicr.** Often, the user cannot know what names will be after conversion. And for this reason, it would be easier to save these objects by using source objects names. It is possible, when you set `-useSourceSide` to **true**.

The following table shows the difference between two ways:

-useSourceSide: 'false' (default)	**Convert** -namePath: '*ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK*' / **ApplyToTarget** -namePath: '*POST.test_ora_pg.pkg_nested_table_global$t*' /
-useSourceSide: 'true'	**Convert** -namePath: '*ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK*' / **ApplyToTarget** -namePath: '*ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK*' -useSourceSide: 'true' /

Make sure that you specify at least one of `-filter`, `-treePath` or `-namePath` parameters in the command. If you pass more than one parameter from the set at a time, AWS SCT throws an exception.

Examples:

```
# 1.
SaveTargetSQL
    -treePath: 'Servers.POST.Schemas.test_ora_pg.User defined types.pkg_nested_table_global$t_bank'
    -file: 'e:\temp\script.sql'
/

# 2.
SaveTargetSQL
    -namePath: 'POST.test_ora_pg.pkg_nested_table_global$t_bank'
    -file: 'e:\temp\script.sql'
/

# 3.
SaveTargetSQL
    -namePath: 'ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK'
    -file: 'e:\temp\script.sql'
    -useSourceSide: 'true'
/
```

3.5.13.5. Save target to SQL by stage

This command saves selected target object(s) to several SQL files split by objects.

Syntax:

SaveTargetSQLbyStage
[-filter: '*filterName*']
[-treePath: '*treePath*']
[-namePath: '*namePath*']
-directory: '*directory*'
[-server: '*server*']
[-useSourceSide: '*useSourceSide*']
/

Where:

filterName	Name of the filter previously created with CreateFilter command.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter.
directory	A path to file system without file name. Depends on OS version. Mandatory parameter. For more information, see OS file system paths for commands.
server	Defines root address in tree, it is used only for Redshift. It is optional attribute, if you don't specify it, first server node will be used to search.

useSourceSide	Possible values are **true** and **false**. If value is **true** then all objects on target that correspond to the object (s) on the source must be saved to file. The default value is **false**.

If filter id used to define the scope of objects, then **origin** property must be **source** if parameter `-useSourceSide` is **true** and **target** if parameter `-useSourceSide` is **false**, otherwise an exception (error) is thrown.

For example, we would like to convert and save to SQL the following objects from Oracle to PostgreSQL:

Source objects	**Server**	**Schema**	**Package**	**Public types**
	ORA	TEST_ORA_PG	PKG_NESTED_TABLE_GLOBAL	T_BANK TR_BIC T_BANK_BIC
Converted objects	**Server**	**Schema**	**User defined types**	
	POST	test_ora_pg	pkg_nested_table_globalt_bankr pkg_nested_table_globalt_bank_bicr pkg_nested_table_globaltr_bicr	

To save script with `-useSourceSide` is set to **false** or without specifying this parameter you should know the new object names that were formed after conversion: **pkg_nested_table_globalt_bankr, pkg_nested_table_globalt_bank_bicr, pkg_nested_table_globaltr_bicr.** Often, the user cannot know what names will be after conversion. And for this reason, it would be easier to save these objects by using source objects names. It is possible, when you set `-useSourceSide` to **true**.

The following table shows the difference between two ways:

-useSourceSide: 'false' (default)	**Convert** -namePath: '*ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK*' / **SaveTargetSQLbyStage** -namePath: 'POST.test_ora_pg.pkg_nested_table_globalt_bankr' -directory: 'e:\temp' /

-useSourceSide: 'true'	**Convert** -namePath: '*ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK*' / **SaveTargetSQLbyStage** -namePath: 'ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK' -directory: 'e:\temp' -useSourceSide: 'true' /

Make sure that you specify at least one of `-filter`, `-treePath` or `-namePath` parameters in the command. If you pass more than one parameter from the set at a time, AWS SCT throws an exception.

Examples:

```
# 1.
SaveTargetSQLbyStage
    -treePath: 'Servers.POST.Schemas.test_ora_pg'
    -directory: 'e:\temp'
/

# 2.
SaveTargetSQLbyStage
    -namePath: 'POST.test_ora_pg'
    -directory: 'e:\temp'
/

# 3.
SaveTargetSQLbyStage
    -namePath: 'ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK'
    -directory: 'e:\temp'
    -useSourceSide: 'true'
/
```

3.5.13.6. Save target to SQL by statement

This command saves selected target object(s) to several SQL files split by statements.

Syntax:

SaveTargetSQLbyStatement
[-filter: '*filterName*']
[-treePath: '*treePath*']
[-namePath: '*namePath*']
-directory: '*directory*'
[-server: '*server*']
[-useSourceSide: '*useSourceSide*']

```
/
```

Where:

filterName	Name of the filter previously created with CreateFilter command.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in the Object name path chapter.
directory	A path to file system without file name. Depends on OS version. Mandatory parameter. For more information, see OS file system paths for commands.
server	Defines root address in tree, it is used only for Redshift. It is optional attribute, if you don't specify it, first server node will be used to search.
useSourceSide	Possible values are **true** and **false**. If value is **true** then all objects on target that correspond to the object (s) on the source must be saved to file. The default value is **false**.

If filter id used to define the scope of objects, then **origin** property must be **source** if parameter `-useSourceSide` is **true** and **target** if parameter `-useSourceSide` is **false**, otherwise an exception (error) is thrown.

For example, we would like to convert and save to SQL the following objects from Oracle to PostgreSQL:

Source objects	**Server**	**Schema**	**Package**	**Public types**
	ORA	TEST_ORA_PG	PKG_NESTED_TABLE_GLOBAL	T_BANK TR_BIC T_BANK_BIC
Converted objects	**Server**	**Schema**	**User defined types**	
	POST	test_ora_pg	pkg_nested_table_globalt_bankr pkg_nested_table_globalt_bank_bicr pkg_nested_table_globaltr_bicr	

To save script with `-useSourceSide` is set to **false** or without specifying this parameter you should know the new object names that were formed after conversion: **pkg_nested_table_globalt_bankr, pkg_nested_table_globalt_bank_bicr, pkg_nested_table_globaltr_bicr.** Often, the user cannot know what names will be after conversion. And for this reason, it would be easier to save these objects by using source objects names. It is possible, when you set `-useSourceSide` to **true**.

The following table shows the difference between two ways:

-useSourceSide: 'false' (default)	**Convert** -namePath: '*ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK*' / **SaveTargetSQLbyStatement** -namePath: 'POST.test_ora_pg.pkg_nested_table_globalt_bankr' -directory: 'e:\temp' /
-useSourceSide: 'true'	**Convert** -namePath: '*ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK*' / **SaveTargetSQLbyStatement** -namePath: 'ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK' -directory: 'e:\temp' -useSourceSide: 'true' /

Make sure that you specify at least one of `-filter`, `-treePath` or `-namePath` parameters in the command. If you pass more than one parameter from the set at a time, AWS SCT throws an exception. Error message: "In command SaveTargetSQLbyStatement must be specified one parameter from: *filter*, *treepath*, *namePath*.

Examples:

```
# 1.
SaveTargetSQLbyStatement
    -treePath: 'Servers.POST.Schemas.test_ora_pg'
    -directory: 'e:\temp'
/

# 2.
SaveTargetSQLbyStatement
    -namePath: 'POST.test_ora_pg'
    -directory: 'e:\temp'
/

# 3.
SaveTargetSQLbyStatement
    -namePath: 'ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL.T_BANK'
    -directory: 'e:\temp'
    -useSourceSide: 'true'
/
```

3.5.13.7. Save on S3

This command will save selected object files to AWS S3 folder.

Syntax:

```
SaveOnS3
   -treePath: 'treePath'
/
```

Where:

<table>
<tr><td>treePath</td><td>Object type-name chain on a tree node. Mandatory parameter. Full tree path consists of two parts:

<table><tr><th>Path part</th><th>Description</th></tr><tr><td>Servers.targetName</td><td>Where targetName is a target node name that clearly identifies the target connection added by command AddTarget. Used to point on a specific server.</td></tr><tr><td>Glue_treePath</td><td>Where Glue_treePath is a valid object tree path on an AWS Glue node associated with a Redshift server which specified by targetName in the first part or is a valid object tree path on an AWS Glue or AWS Glue Studio as a server. Full AWS Glue or AWS Glue Studio object tree description can be found in Appendix AWS Glue object diagram or XML version AWS Glue XML object tree.</td></tr></table>
Both parts of the path are connected to each other through a dot symbol. To understand why there is no need to explicitly specify AWS Glue or AWS Glue Studio node, see Object hierarchy.</td></tr>
</table>

Examples:

```
# 1. Save all converted Python Shell scripts on S3
SaveOnS3
    -treePath: 'Servers.MY_SERV.Scripts.Python Shell'
/

# 2. Save script "test_ora_pg_tester_qa_p_binary_double_in" on S3
SaveOnS3
    -treePath: 'Servers.MY_SERV.Scripts.test_ora_pg_tester_qa_p_binary_double_in'
/

# 3. Save all configured ETL jobs on S3
SaveOnS3
    -treePath: 'Servers.MY_SERV.ETL Jobs'
/

# 4. Save configured ETL job "p_binary_double_in" on S3
SaveOnS3
    -treePath: 'Servers.MY_SERV.ETL Jobs.p_binary_double_in'
/
```

```
For AWS Glue Studio as a server:

# 5. Save all converted DAGs scripts on S3
SaveOnS3
    -treePath: 'Servers.MY_SERV.DAGs'
/

# 6. Save script "POC" on S3
SaveOnS3
    -treePath: 'Servers.MY_SERV.DAGs.POC'
/

# 7. Save all configured ETL jobs on S3
SaveOnS3
    -treePath: 'Servers.MY_SERV.ETL Jobs'
/

# 8. Save configured ETL job "POC" on S3
SaveOnS3
    -treePath: 'Servers.MY_SERV.ETL Jobs.POC'
/
```

3.5.13.8. Save AWS Glue Script(s) to local folder

This command saves selected **AWS Glue** or **AWS Glue Studio** objects to several files split by objects.

Syntax:

SaveToLocalFolder
-treePath: '*treePath*'
-directory: '*destDirectory*'
/

Where:

<table>
<tr><td>treePath</td><td>Object type-name chain on a tree node. Mandatory parameter. Full tree path consists of two parts:

<table><tr><th>Path part</th><th>Description</th></tr><tr><td>Servers.targetName</td><td>Where targetName is a target node name that clearly identifies the target connection added by command AddTarget. Used to point on a specific server.</td></tr><tr><td>Glue_treePath</td><td>Where Glue_treePath is a valid object tree path on an AWS Glue node associated with a Redshift server which specified by targetName in the first part or is a valid object tree path on an AWS Glue or AWS Glue Studio as a server. Full AWS Glue or AWS Glue Studio object tree description can be found in Appendix AWS Glue object diagram or XML version AWS Glue XML object tree.</td></tr></table>
Both parts of the path are connected to each other through a dot symbol. To understand why there is no need to explicitly specify AWS Glue or AWS Glue Studio node, see Object hierarchy.</td></tr>
<tr><td>destDirectory</td><td>OS file system path to a directory on source node to save AWS Glue or AWS Glue Studio objects into. Depends on OS version. Mandatory parameter. For more information, see OS file system paths for commands</td></tr>
</table>

Examples:

```
# 1. Save all converted Spark subcategory scripts to "D:\glue_objects"
SaveToLocalFolder
    -treePath: 'Servers.MY_SERV.Scripts.Spark'
    -directory: 'D:\glue_objects'
/

# 2. Save script "test_ora_pg_tester_qa_p_binary_double_in" to "e:\glue_scripts"
SaveToLocalFolder
    -treePath: 'Servers.MY_SERV.Scripts.test_ora_pg_tester_qa_p_binary_double_in'
    -directory: 'e:\glue_scripts'
/

# 3. Save all configured ETL jobs to "c:\ETL\jobs"
SaveToLocalFolder
    -treePath: 'Servers.MY_SERV.ETL Jobs'
    -directory: 'c:\ETL\jobs'
/

# 4. Save configured ETL job "p_binary_double_in" to "c:\ETL\jobs"
SaveToLocalFolder
    -treePath: 'Servers.MY_SERV.ETL Jobs.p_binary_double_in'
    -directory: 'c:\ETL\jobs'
/

For AWS Glue Studio as a server:

# 5. Save all converted Spark subcategory scripts to "D:\glue_objects"
SaveToLocalFolder
    -treePath: 'Servers.MY_SERV.DAGs'
```

```
    -directory: 'D:\glue_objects'
/

# 6. Save script "POC" to "e:\glue_scripts"
SaveToLocalFolder
    -treePath: 'Servers.MY_SERV.DAGs.POC'
    -directory: 'e:\glue_scripts'
/

# 7. Save all configured ETL jobs to "c:\ETL\jobs"
SaveToLocalFolder
    -treePath: 'Servers.MY_SERV.ETL Jobs'
    -directory: 'c:\ETL\jobs'
/

# 8. Save configured ETL job "POC" to "c:\ETL\jobs"
SaveToLocalFolder
    -treePath: 'Servers.MY_SERV.ETL Jobs.POC'
    -directory: 'c:\ETL\jobs'
/
```

3.5.13.9. Save target Informatica XML

This command saves the transformed target Informatica XML file(s). The ultimate depth of the target path is two (**Files** level). AWS SCT saves the mapping files in the directory that you specified in the AddTarget command using the `-mappingsFolder` parameter.

Syntax:

SaveTargetInformaticaXML
[-filter: '*targetFilterName*']
[-treePath: '*targetTreePath*']
[-namePath: '*targetNamePath*']
/

Where:

targetFilterName	The name of the filter that you created using the CreateFilter command. You can use only filters with the **target** origin. This parameter is mandatory if you don't specify the `-treePath` or `-namePath` parameters. Values are case insensitive, leading and trailing spaces are ignored.
targetTreePath	Object tree path. A path to the specific type of object or object name (object type-name chain) on the **target** node. This parameter is mandatory if you don't specify the `-filter` or `-namePath` parameters.
targetNamePath	Object name path. A path to the specific object name (name chain) on the **target** node. This parameter is mandatory if you don't specify the `-filter` or `-treePath` parameters.

3.5.13.10. Save related objects to CSV

This command saves related object(s) into the CSV file (*.csv) file after conversion.

Syntax:

```
SaveRelatedObjectsToCSV
   [-filter: 'filter']
   [-treePath: 'treePath']
   [-namePath: 'namePath']
   [-csvFile: 'csvFile']
   [-csvCommentDelimiter: 'csvCommentDelimiter']
/
```

Where:

filter	The name of the filter previously created with CreateFilter command. Filter property **origin** must be **source**, otherwise an exception (error) is thrown.
treePath	The path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	The path to a specific object name (name chain). The usage is described in the Object name path chapter.

<table>
<tr><td>csvFile</td><td>The path with the CSV file name. Mandatory parameter. For more information, see OS file system paths for commands.

Make sure that the CSV file has the following structure.

<table>
<tr><td>sourceServer</td><td>The name of the source server.</td></tr>
<tr><td>sourceDatabase</td><td>The name of the database on the source server.</td></tr>
<tr><td>sourceSchema</td><td>The name of the schema on the source server.</td></tr>
<tr><td>sourceObjectType</td><td>The name of the type of the object on the source server.</td></tr>
<tr><td>sourceObjectname</td><td>The name of the object on the source server.</td></tr>
<tr><td>sourceComment</td><td>Additional information about the current object. For tables, this is the list of fields and their data types. For functions or procedures, this is the list of their parameters, separated by csvCommentDelimiter parameter.</td></tr>
<tr><td>targetServer</td><td>The name of the target server.</td></tr>
<tr><td>targetDatabase</td><td>The name of the database on the target server.</td></tr>
<tr><td>targetSchema</td><td>The name of the schema on the target server.</td></tr>
<tr><td>targetObjectType</td><td>The name of the type of the object on the target server.</td></tr>
<tr><td>targetObjectname</td><td>The name of the object of the target server.</td></tr>
<tr><td>targetComment</td><td>Additional information about the current object. For tables, this is the list of fields and their data types. For functions or procedures, this is the list of their parameters, separated by csvCommentDelimiter parameter. If some information for current vendor is absent the respective field will be empty. For example, for ORACLE vendor sourceDatabase and targetDatabase fields are empty.</td></tr>
</table>
</td></tr>
<tr><td>csvCommentDelimiter</td><td>The value delimiter used to separate values of the both sourceComment and targetComment fields of the CSV file. Optional parameter.</td></tr>
</table>

Make sure that you specify at least one of `-filter`, `-treePath` or `-namePath` parameters in the command. If you pass more than one parameter from the set at a time, AWS SCT throws an exception.

If you use a named filter (`-filter` parameter value) to define a saved scope, make sure that the value of the **origin** property for this filter is **source**, because this process is allowed only for source database. Thus, an exception (error) must be thrown if mentioned **origin** property value isn't **source** (For example, **target**).

Before saving a set of objects defined by one of the save command parameters, the core must properly load the internal object tree model. All details about this process fully described in the Object path loading algorithm chapter.

If an object path to save passed in through either `-treePath` or `-namePath` parameter - there is a single path to preload. Otherwise, if the scope for save defined by a named filter (`-filter` parameter), then there is collection of paths to preload. Therefore, each path within this collection has to be analyzed and preloaded separately.

Examples:

```
# 1.
SaveRelatedObjectsToCSV
    -treePath: 'Servers.ORA.Schemas.TEST_ORA_PG.Packages.PKG_NESTED_TABLE_GLOBAL'
    -csvFile: 'e:\temp\Project1RelatedObjects.csv'
/

# 2.
SaveRelatedObjectsToCSV
    -namePath: 'ORA.TEST_ORA_PG.PKG_NESTED_TABLE_GLOBAL'
    -csvFile: 'e:\temp\Project1RelatedObjects.csv'
    -csvCommentDelimiter: ','
/
```

3.5.14. Refresh object tree commands

3.5.14.1. Refresh source objects from database

Use this command to reload specific object or category on source database after connection (see ConnectSource). This command loads tree node, according to the recursion depth and process mode and could be used for loading metadata tree and then save project with some metadata there.

Before using this command run ConnectSource command.

Syntax:

ReloadSourceTreeNode
[-processMode: '*processMode*']
[-recursionDepth: '*recursionDepth*']
[-treePath: '*treePath*']
[-namePath: '*namePath*']

```
/
```

Where:

processMode	value that defines how detailed should be loading done. Possible values are MAIN and EXTENDED. MAIN loads only object and main properties of it. EXTENDED fully loads object and all properties of it. The default value is MAIN.
recursionDepth	value that defines how deep need to load tree. You can use only integer values. For example, if selected to load all schemas with recursion Depth 1, it will load only Schema names + 1 level down to table names. Recursion Depth -1 loads full tree. Note that performance may degraded when full tree is loaded. The default value is 1.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in Object tree path chapter. Path in this command can be used only with exact names without percent sign character (%).
namePath	A path to a specific object name (name chain). The usage is described in Object name path chapter. Path in this command can be used only with exact names without percent sign character (%). Make sure that you specify at least one of `-treePath` or `-namePath` parameters in the command. If you pass more than one parameter from the set at a time, AWS SCT throws an exception.

Examples:

```
# 1.
ReloadSourceTreeNode
    -processMode: 'EXTENDED'
    -treePath: 'Servers.ORA_TEST.Schemas'
/

# 2.
ReloadSourceTreeNode
    -processMode: 'EXTENDED'
    -namePath: 'ORA_TEST.TEST_ORA_PG.PKG_MAIN'
    -recursionDepth: '2'
/
```

3.5.14.2. Refresh target objects from database

Use this command to reload specific object or category on target database after connection using the ConnectTarget command. This command loads tree node, according to the recursion depth and process mode and could be used for loading metadata tree and then save project with some metadata there.

Before using this command run ConnectTarget command.

Syntax:

ReloadSourceTreeNode
[-processMode: '*processMode*']
[-recursionDepth: '*recursionDepth*']
[-treePath: '*treePath*']
[-namePath: '*namePath*']
[-server: '*server*']
/

Where:

processMode	value that defines how detailed should be loading done. Possible values are MAIN and EXTENDED. MAIN loads only object and main properties of it. EXTENDED fully loads object and all properties of it. The default value is MAIN.
recursionDepth	value that defines how deep need to load tree. You can use only integer values. For example, if selected to load all schemas with recursion Depth 1, it will load only Schema names + 1 level down to table names. Recursion Depth -1 loads full tree. Note that performance may degraded when full tree is loaded. The default value is 1.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in Object tree path chapter. Path in this command can be used only with exact names without percent sign character (%).
namePath	A path to a specific object name (name chain). The usage is described in Object name path chapter. Path in this command can be used only with exact names without percent sign character (%). Make sure that you specify at least one of `-treePath` or `-namePath` parameters in the command. If you pass more than one parameter from the set at a time, AWS SCT throws an exception.
server	Defines root address in tree, it is used only for Redshift. It is optional attribute, if you don't specify it, first server node will be used to search.

Examples:

```
# 1.
LoadTargetTreeNode
    -treePath: 'Servers.ORA_TEST.Schemas."MySchema1".Tables'
/

# 2.
LoadTargetTreeNode
    -namePath: 'ORA_TEST."MySchema1"'
    -recursionDepth: '2'
/
```

3.5.15. Settings & properties commands

3.5.15.1. Change global settings

This command is needed to set global setting values.

There are two versions of the **SetGlobalSettings** command syntax.

The first one allows to set a bunch of setting values and save them permanently at once in order for further use of updated values in new projects.

While the second version also allows to set multiple setting values at once, in addition it provides an option to separately specify the "save" (permanently) flag for each particular setting.

Only one version of **SetGlobalSettings** command can be used to set up the setting values, that is mixing syntax elements of different command versions isn't allowed and result in an error.

The SaveGlobalSettings command is used to save changed global setting values.

The Global settings matrices are available in appendices.

Version 1 syntax:

```
SetGlobalSettings
   -settings: 'settingsObject'
   [-save: 'saveSettings']
/
```

Where:

<table>
<tr><td>settingsObject</td><td>JSON object containing a set of global settings. Mandatory parameter.

These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the setting's value, respectively.
Setting values are given as JSON strings, specifically, enclosed in double quotation marks, except those which are JSON objects / arrays.

The following characters are reserved in JSON and must be properly escaped to be used in strings:

<table><tr><th>Character</th><th>Escape sequence</th></tr><tr><td>Backspace</td><td>is replaced with (<code>\b</code>)</td></tr><tr><td>Form feed</td><td>is replaced with (<code>\f</code>)</td></tr><tr><td>Newline</td><td>is replaced with (<code>\n</code>)</td></tr><tr><td>Carriage return</td><td>is replaced with (<code>\r</code>)</td></tr><tr><td>Tab</td><td>is replaced with (<code>\t</code>)</td></tr><tr><td>Single quote</td><td>is replaced with (<code>\'</code>)</td></tr><tr><td>Double quote</td><td>is replaced with (<code>\"</code>)</td></tr><tr><td>Backslash</td><td>is replaced with (<code>\\</code>)</td></tr></table>
In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool).

All setting names are checked for belonging to the "global" set of settings, an error is raised if this check fails.

At least one setting must be set within the settings JSON object value.</td></tr>
<tr><td>saveSettings</td><td>Boolean flag which indicates whether to save the specified scope of settings into the settings file. Optional parameter.

Supported values are <code>true</code> and <code>false</code>. The default value is <code>false</code>.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
</table>

Settings JSON object template:

```
{
  "setting1_name": "setting1_value",
  "setting2_name": "setting2_value",
  "setting3_name": "setting3_json_value",
  ...
  "settingN_name": "settingN_value",
  "settingM_name": "settingM_json_value"
}
```

Where:

settingN_name	Name of the N-th setting.
settingM_name	Name of the M-th setting.
settingN_value	Value of the N-th setting.
settingN_json_value	JSON value (object {} or array []) of the N-th setting.
settingM_json_value	JSON value (object {} or array []) of the M-th setting.

Version 2 syntax:

```
SetGlobalSettings
   -settings: 'settingsArray'
/
```

Where:

settingsArray	JSON array of objects containing a set of global settings. Mandatory parameter. These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the setting's value, respectively. Setting values are given as JSON strings, specifically, enclosed in double quotation marks, except those which are JSON objects / arrays. The following characters are reserved in JSON and must be properly escaped to be used in strings: **Character** / **Escape sequence** *Backspace* is replaced with (`\b`) *Form feed* is replaced with (`\f`) *Newline* is replaced with (`\n`) *Carriage return* is replaced with (`\r`) *Tab* is replaced with (`\t`) *Single quote* is replaced with (`\'`) *Double quote* is replaced with (`\"`) *Backslash* is replaced with (`\\`) In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool). All setting names are checked for belonging to the "global" set of settings, an error is raised if this check fails. At least one setting must be set within the settings JSON object value.

Settings JSON object array template:

```
[
  {
    "name": "setting1_name",
    "value": "setting1_value"
  },
  {
    "name": "setting2_name",
    "value": "setting2_value",
    "save": "setting2_save_flag"
  },
  {
    "name": "setting2_name",
    "value": setting2_json_value,
    "save": "setting2_save_flag"
  },
  ...
  {
    "name": "settingN_name",
    "value": "settingN_value",
    "save": "settingN_save_flag"
  },
  {
    "name": "settingM_name",
    "value": settingM_json_value
  }
]
```

Where:

settingN_name	Name of the N-th setting. Mandatory attribute.
settingM_name	Name of the M-th setting. Mandatory attribute.
settingN_value	Value of the N-th setting. Mandatory attribute.
settingM_json_value	JSON value (object {} or array []) of the M-th setting. Mandatory attribute.
settingN_save_flag	Boolean flag indicating to save the setting value into the proper settings file, or not. Optional attribute.

The SaveGlobalSettings command can be used to save all the changed setting values.

Global settings and their default values are given in the Appendix Global settings matrices.

Project settings and their default values are given in the Appendix Project settings matrix.

There is an important thing to take into consideration when it comes to work with JSON values of some settings.

If the setting has a composite JSON object as its value, where each part of this object represents some kind of related sub-setting, then such value must be set in a holistic manner. That means, all the sub-settings must be gathered (merged) into a single JSON object and further assigned as master setting's value. That means, all the sub-settings and their values must be gathered (merged) into a single JSON object and this object be further assigned to the parent setting as its value.

These actions are necessary in order to prevent different sub-settings from overwriting each other while setting them.

Let's review above-mentioned logic on example for **sourceTreeSettingsModels** sub-setting (for **targetTreeSettingsModels** is similarly):

Setting name: **tree_settings_for_show**.

Engine: MSSQL (MS SQL Server, see abbreviations description here).

Sub-setting components presented in the table below:

Setting	Vendor	Description	Sub-setting value
tree_settings_for_show	MS SQL Server	Hide empty schemas. **JSON object value**.	`{"sourceTreeSettingsModels": { "MSSQL": { "hideEmpty": true } } }`
tree_settings_for_show	MS SQL Server	Hide empty databases. **JSON object value**.	`{"sourceTreeSettingsModels": {"MSSQL": {"hideEmptyDb": true} } }`
tree_settings_for_show	MS SQL Server	Hide system schemas. **JSON object value**.	`{"sourceTreeSettingsModels": {"MSSQL": {"systemSchemas": [ "master", "model", "msdb", "tempdb" ] } } }`
tree_settings_for_show	MS SQL Server	Hide user-defined schemas. **JSON object value**.	`{"sourceTreeSettingsModels": {"MSSQL": {"userDefinedSchemas": [ "user_schema1", "user_schema2" ] } } }`

The consolidated JSON value is:

```
{
  "sourceTreeSettingsModels": {
    "MSSQL": {
```

```
      "hideEmpty": true,
      "hideEmptyDb": true,
      "systemSchemas": [
        "master",
        "model",
        "msdb",
        "tempdb"
      ],
      "userDefinedSchemas": [
        "user_schema1",
        "user_schema2"
      ]
    }
  }
}
```

Some common (project) settings might contain JSON value intended for use with multiple vendors. In such case, before setting the value, the current value of such a setting must be read.

Then, this value could be extended (or modified) with the new vendor sub-section and be properly assigned as common (project) setting value.

Otherwise, there is a risk to overwrite other vendors existing settings while trying to set particular one.

3.5.15.2. Change project settings

This command is needed to set project setting values.

There are two versions of the **SetProjectSettings** command syntax.

The first one allows to set a bunch of setting values according to one page and then save them permanently at once in order for further use of updated values in new projects.

While the second version allows to set multiple setting for different pages at once, in addition it provides an option to separately specify the "save" (permanently) flag for each particular setting.

Only one version of **SetProjectSettings** command can be used to set up the setting values, that is mixing syntax elements of different command versions isn't allowed and result in an error.

The SaveProject command is used to save changed project settings values.

Version 1 syntax:

SetProjectSettings
  [-page: '*settingsPage*']
  -settings: '*settingsObject*'
/

Where:

settingsPage	Settings page for which the settings will be set. Optional parameter. The default value is determined by a pair of source and target vendors taken from the current (active) server mapping.
settingsObject	JSON object containing a set of project settings. Mandatory parameter. These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the setting's value, respectively. Setting values are given as JSON strings, specifically, enclosed in double quotation marks, except those which are JSON objects / arrays. The following characters are reserved in JSON and must be properly escaped to be used in strings: **Character** / **Escape sequence** *Backspace* is replaced with (\b) *Form feed* is replaced with (\f) *Newline* is replaced with (\n) *Carriage return* is replaced with (\r) *Tab* is replaced with (\t) *Single quote* is replaced with (\') *Double quote* is replaced with (\") *Backslash* is replaced with (\\ ) In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool). At least one project setting must be set within the settings JSON object value.

Accordance between setting page and settings described in Appendix Project settings matrix.

Settings JSON object template:

```
{
  "setting1_name": "setting1_value",
  "setting2_name": "setting2_value",
  "setting3_name": "setting3_json_value",
  ...
  "settingN_name": "settingN_value",
  "settingM_name": "settingM_json_value"
}
```

Where:

settingN_name	Name of the N-th setting.
settingM_name	Name of the M-th setting.

settingN_value	Value of the N-th setting.
settingN_json_value	JSON value (object {} or array []) of the N-th setting.
settingM_json_value	JSON value (object {} or array []) of the M-th setting.

Version 2 syntax:

```
SetGlobalSettings
   -settings: 'settingsArray'
/
```

Where:

settingsArray	JSON array of objects containing a set of project settings. Mandatory parameter. These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the setting's value, respectively. Setting values are given as JSON strings, specifically, enclosed in double quotation marks, except those which are JSON objects / arrays. The following characters are reserved in JSON and must be properly escaped to be used in strings: **Character** / **Escape sequence** *Backspace* is replaced with (`\b`) *Form feed* is replaced with (`\f`) *Newline* is replaced with (`\n`) *Carriage return* is replaced with (`\r`) *Tab* is replaced with (`\t`) *Single quote* is replaced with (`\'`) *Double quote* is replaced with (`\"`) *Backslash* is replaced with (`\\`) In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool). At least one project setting must be set within the settings JSON object value.

Settings JSON object array template:

```
[
  {
```

```
    "page": "settingPage1",
    "name": "setting1_name",
    "value": "setting1_value"
  },
  {
    "page": "settingPage2",
    "name": "setting2_name",
    "value": "setting2_value"
  },
  ...
  {
    "page": "settingPageN",
    "name": "settingN_name",
    "value": "settingN_value"
  }
]
```

Where:

settingPageN	Name of the N-th page. Mandatory attribute.
settingN_name	Name of the N-th setting. Mandatory attribute.
settingM_name	Name of the M-th setting. Mandatory attribute.
settingN_value	Value of the N-th setting. Mandatory attribute.
settingM_json_value	JSON value (object {} or array []) of the M-th setting. Mandatory attribute.

Accordance between setting page and settings described in Appendix Project settings matrix.

3.5.15.3. Save global settings

This command is needed to save global settings.

There are no command parameters.

Syntax:

SaveGlobalSettings
/

3.5.15.4. Change Source properties

This command is used to set the SCT metadata tree properties of the particular source server, specified by source connection name.

All the properties set by this command are saved along with the Project by using the SaveProject command.

A complete list of server properties by vendor can be viewed in Appendix Server properties matrices.

Syntax:

```
SetSourceProperties
   -name: 'sourceName'
   -properties: 'propertiesObject'
/
```

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
propertiesObject	JSON object containing a set of source server SCT metadata tree properties. Mandatory parameter. These settings presented as object attribute key-value pairs, where key is the particular setting name and value is the property's value, respectively. Properties values are given as JSON strings, specifically, enclosed in double quotation marks, except those which are JSON objects / arrays. The following characters are reserved in JSON and must be properly escaped to be used in strings: **Character** / **Escape sequence** *Backspace* is replaced with (`\b`) *Form feed* is replaced with (`\f`) *Newline* is replaced with (`\n`) *Carriage return* is replaced with (`\r`) *Tab* is replaced with (`\t`) *Single quote* is replaced with (`\'`) *Double quote* is replaced with (`\"`) *Backslash* is replaced with (`\\`) In order to proper escape JSON string value you can use online a JSON escape tool (e.g. FreeFormatter JSON escape tool). At least one property value must be set within the settings JSON object value.

Settings JSON object template:

```
{
   "property1_name": "property1_value",
   "property2_name": "property2_value",
   "property3_name": "property3_value",
   ...
   "propertyN_name": "propertyN_value"
```

```
}
```

Where:

property1_name	Name of the first property.
property2_name	Name of the second property.
property3_name	Name of the third property.
propertyN_name	Name of the N-th property.
property1_value	Value of the first property.
property2_value	Value of the second property.
property3_value	Value of the third property.
propertyN_value	Value of the N-th property.

3.5.16. Statistic commands (for DWH only)

3.5.16.1. Collect source statistics (for DWH only)

This command collects statistic for Datawarehouse. Statistic loads from database.

Syntax:

```
CollectSourceStats
   -treePath: 'treePath'
   [-namePath: 'namePath']
   [-clearFlag: 'clearFlag']
/
```

Where:

treePath	Schema path (object type-name chain). The usage is described in the Object tree path chapter.
namePath	Schema name (name chain). The usage is described in the Object name path chapter.
clearFlag	Defined, must be cleared old statistic or not. Possible values are **true** and **false**. The default value is **true**.

3.5.16.2. Upload source statistics (for DWH only)

This command uploads statistic for Datawarehouse. Statistic loads from file.

Syntax:

```
UploadSourceStats
```

```
    -file: 'statsFile'
    [-treePath: 'treePath']
    [-namePath: 'namePath']
    [-clearFlag: 'clearFlag']
/
```

Where:

statsFile	File path with file name, that contains statistic. For more information see OS file system paths for commands.
treePath	Schema path (object type-name chain). The usage is described in the Object tree path chapter.
namePath	Schema name (name chain). The usage is described in the Object name path chapter.
clearFlag	Defined, must be cleared old statistic or not. Possible values are **true** or **false**. The default value is **true**.

3.5.17. Working with SQL Scripts

This section describes commands for working with SQL script(s).

3.5.17.1. Load SQL Script

This command loads SQL script(s) of a certain type from the selected directory.

Syntax:

```
LoadScript
    -sourceName: 'sourceName'
    -directory: 'directoryPath'
    [-variableFormat: 'variableFormat']
    [-scriptType: 'scriptType']
/
```

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
directoryPath	OS file system path to a directory that contains SQL scripts for load. Depends on OS version. Mandatory parameter. Description of the OS paths is in the chapter OS file system paths for commands.

<table>
<tr>
<td>scriptType</td>
<td>Source script type. Optional parameter.

<table>
<tr><th>Possible values:</th></tr>
<tr><td>BTEQ</td></tr>
<tr><td>FastLoad</td></tr>
<tr><td>FastExport</td></tr>
<tr><td>MultiLoad</td></tr>
<tr><td>Shell</td></tr>
<tr><td>SQLPlus</td></tr>
<tr><td>TSQL</td></tr>
</table>

Default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

<table>
<tr><th colspan="2">Conversion pair</th><th rowspan="2">Default script type</th></tr>
<tr><th>Source</th><th>Target</th></tr>
<tr><td>Oracle</td><td>PostgreSQL</td><td>SQLPlus</td></tr>
<tr><td>Oracle</td><td>AuroraPostgreSQL</td><td>SQLPlus</td></tr>
<tr><td>MS SQL Server</td><td>AuroraPostgreSQL</td><td>TSQL</td></tr>
<tr><td>MS SQL Server</td><td>PostgreSQL</td><td>TSQL</td></tr>
<tr><td>MS SQL Server</td><td>Babelfish</td><td>TSQL</td></tr>
<tr><td>Teradata</td><td>Redshift (use_aws_glue=false)</td><td>BTEQ</td></tr>
<tr><td>Teradata</td><td>Redshift + Glue (use_aws_glue=true)</td><td>BTEQ</td></tr>
</table>

If parameter is omitted then default values apply. If chosen value is inappropriate regarding source-target details highlighted in above-mentioned table, the command fails with an error.

Values are case insensitive, leading and trailing spaces are ignored.</td>
</tr>
<tr>
<td>variableFormat</td>
<td>Regular expression (Java dialect) that describes placeholder or a set of placeholders within the script to be further replaced with the exact value(s) imported through the ImportScriptVariables command.

Effective for next SQL script types: "BTEQ", "FastLoad", "FastExport", "MultiLoad", "Shell".

Optional parameter. Value for this parameter is case insensitive and is empty by default. Leading and trailing spaces are ignored.</td>
</tr>
</table>

3.5.17.2. Apply settings for SQL Script

This command applies conversion settings for SQL script(s).

Syntax:

```
ApplyScriptSettings
   -sourceName: 'sourceName'
   -script: 'scriptPath'
   -scriptType: 'scriptType'
   -database: 'currentDatabase'
   -schema: 'currentSchema'
   -autocommit: 'autocommit'
/
```

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
scriptPath	OS file system path to a script file or to a directory on source node that contains SQL scripts. Depends on OS version. Mandatory parameter. Also, there is an option to pass in Script category name instead of OS file system path to a particular script (directory). For general example, "SQL Scripts" or "BTEQ Scripts", but the particular Script category name must be determined according to the source vendor. In such a case will be scoped all scripts that persist within the specified Script category. Find the list of Script categories that you can pass in this parameter in the Script category and script type correspondence appendix in the Script category column.

scriptType

Source script type. Optional parameter.

Possible values:
BTEQ
FastLoad
FastExport
MultiLoad
Shell
SQLPlus
TSQL

Default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

Conversion pair		**Default script type**
Source	**Target**	
Oracle	PostgreSQL	SQLPlus
Oracle	AuroraPostgreSQL	SQLPlus
MS SQL Server	AuroraPostgreSQL	TSQL
MS SQL Server	PostgreSQL	TSQL
MS SQL Server	Babelfish	TSQL
Teradata	Redshift (use_aws_glue=false)	BTEQ
Teradata	Redshift + Glue (use_aws_glue=true)	BTEQ

If parameter is omitted then default values apply. If chosen value is inappropriate regarding source-target details highlighted in above-mentioned table, the command fails with an error.

If Script category name is passed to the **script** parameter instead of an OS file system path, then the value for **scriptType** parameter is checked for correspondence with the specified Script category.

The complete list of Script categories and their corresponding Script types can be viewed in Appendix Script category and script type correspondence.

Values are case insensitive, leading and trailing spaces are ignored.

currentDatabase

Database name that used for transformation (can be skipped if current database vendor doesn't have database level).

currentSchema

Schema name that used for transformation (can be skipped if current database vendor doesn't have database level).

autocommit	Autocommit mode. Actual for pairs: Oracle-PostgreSQL, Oracle-AuroraPostgreSQL. See parameters pair in (***targetVendor***, ***targetVendor***) in CreateProject command. Optional parameter. **Possible values:** enable disable inherit Default value for parameter is **inherit**. Values are case insensitive, leading and trailing spaces are ignored.

3.5.17.3. Convert SQL Script

This command converts the scoped SQL script(s) to target dialect.

Syntax:

```
ConvertScript
   -sourceName: 'sourceName'
   -script: 'scriptPath'
   [-scriptType: 'scriptType']
   [-targetType: 'targetType']
   -sourceDataFileLocation: 'sourceDataFileLocation'
   -host: 'hostAddress'
   -user: 'userName'
   -manifestFileS3Bucket: 'manifestFileS3Bucket'
   -s3Bucket: 's3Bucket'
/
```

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.

scriptPath	OS file system path to a script file or to a directory on source node that contains SQL scripts. Depends on OS version. Mandatory parameter. Also, there is an option to pass in Script category name instead of OS file system path to a particular script (directory). For general example, "SQL Scripts" or "BTEQ Scripts", but the particular Script category name must be determined according to the source vendor. In such a case will be scoped all scripts that persist within the specified Script category. The complete list of Script categories allowed to pass in to this parameter can be viewed in Appendix Script category and script type correspondence ("Script category" column).

scriptType

Source script type. Optional parameter.

Possible values:
BTEQ
FastLoad
FastExport
MultiLoad
Shell
SQLPlus
TSQL

The default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

Conversion pair		**Default script type**
Source	**Target**	
Oracle	PostgreSQL	SQLPlus
Oracle	AuroraPostgreSQL	SQLPlus
MS SQL Server	AuroraPostgreSQL	TSQL
MS SQL Server	PostgreSQL	TSQL
MS SQL Server	Babelfish	TSQL
Teradata	Redshift (use_aws_glue=false)	BTEQ
Teradata	Redshift + Glue (use_aws_glue=true)	BTEQ

If parameter is omitted then default values apply. If chosen value is inappropriate regarding source-target details highlighted in above-mentioned table, the command fails with an error.

If Script category name is passed to the **script** parameter instead of an OS file system path, then the value for **scriptType** parameter is checked for correspondence with the specified Script category.

Find the list of Script categories and their corresponding Script types in the Script category and script type correspondence appendix.

Values are case insensitive, leading and trailing spaces are ignored.

targetType

Target script type. Optional parameter.

Supported value	Category (target tree)
Shell	Shell
PGSQL	SQL Scripts
Spark	Spark
RSQL	RSQL Scripts
PythonShell	Python Shell

The following table describes default values for this parameter depending on selected target vendor (*targetVendor*, CreateProject command) and **use_aws_glue** project setting:

Conversion pair		Default script type
Source	**Target**	
Oracle	PostgreSQL	PGSQL
Oracle	AuroraPostgreSQL	PGSQL
MS SQL Server	AuroraPostgreSQL	PGSQL
MS SQL Server	PostgreSQL	PGSQL
MS SQL Server	Babelfish	PGSQL
MS SQL Server DW	Redshift + Glue (use_aws_glue=true)	PythonShell
Oracle DW	Redshift + Glue (use_aws_glue=true)	Spark
Teradata	Redshift + Glue (use_aws_glue=true)	Spark
Teradata	Redshift + Glue (use_aws_glue=false)	RSQL

If parameter is omitted then default values apply. If chosen value is inappropriate for the selected target vendor, the command fails with an error.

Values are case insensitive, leading and trailing spaces are ignored.

sourceDataFileLocation

Location where source data files stored, that is files that contain data to be loaded by converted script into target tables.

The parameter is effective and mandatory only if **scriptType** parameter set to either **FastLoad** or **MultiLoad**, otherwise ignored.

Possible values:	
host_address	Remote host machine.
S3_bucket	AWS S3 bucket.

Values are case insensitive, leading and trailing spaces are ignored.

hostAddress	URL address or IP address of the remote host with the location of the source data files. Mandatory if **sourceDataFileLocation** parameter set to **host_address**, otherwise ignored.
userName	Username that will be used to log on to the host system and execute the remote command (the user login name must be the same as the login that was used to add the public key to the host's authorized keys file). Usernames must begin with a lower-case letter or an underscore, followed by lower case letters, digits, underscores, or dashes. They can end with a dollar sign. Mandatory if **sourceDataFileLocation** parameter set to **host_address**, otherwise ignored.
manifestFileS3Bucket	AWS S3 bucket where the manifest file will be placed. Mandatory if **sourceDataFileLocation** parameter set to either **host_address** or **S3_bucket**, otherwise ignored. If the value for this parameter isn't set (empty value), then the value is taken from the currently active AWS profile (see SetAWSProfile command), and if there is no active AWS profile currently set or the required value is missing in the active profile - an error is thrown.
s3Bucket	AWS S3 bucket with the location of the data source files. Mandatory if **sourceDataFileLocation** parameter set to **S3_bucket**, otherwise ignored. If the value for this parameter isn't set (empty value), then the value is taken from the currently active AWS profile (see SetAWSProfile command), and if there is no active AWS profile currently set or the required value is missing in the active profile - an error is thrown.

3.5.17.4. Create SQL Script report

This command creates a report for selected SQL script(s).

Syntax:

```
CreateScriptReport
   -sourceName: 'sourceName'
   -script: 'scriptPath'
   [-scriptType: 'scriptType']
   [-targetType: 'targetType']
/
```

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
scriptPath	OS file system path to a script file or to a directory on source node that contains SQL scripts. Depends on OS version. Mandatory parameter. Also, there is an option to pass in Script category name instead of OS file system path to a particular script (directory). For general example, "SQL Scripts" or "BTEQ Scripts", but the particular Script category name must be determined according to the source vendor. In such a case will be scoped all scripts that persist within the specified Script category. Find the list of Script categories that you can pass in this parameter in the Script category and script type correspondence appendix in the "Script category" column.

scriptType

Source script type. Optional parameter.

Possible values:
BTEQ
FastLoad
FastExport
MultiLoad
Shell
SQLPlus
TSQL

The default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

Conversion pair		**Default script type**
Source	**Target**	
Oracle	PostgreSQL	SQLPlus
Oracle	AuroraPostgreSQL	SQLPlus
MS SQL Server	AuroraPostgreSQL	TSQL
MS SQL Server	PostgreSQL	TSQL
MS SQL Server	Babelfish	TSQL
Teradata	Redshift (use_aws_glue=false)	BTEQ
Teradata	Redshift + Glue (use_aws_glue=true)	BTEQ

If parameter is omitted then default values apply. If chosen value is inappropriate regarding source-target details highlighted in above-mentioned table, the command fails with an error.

If Script category name is passed to the **script** parameter instead of an OS file system path, then the value for **scriptType** parameter is checked for correspondence with the specified Script category.

Find the list of Script categories and their corresponding Script types in the Script category and script type correspondence appendix.

Values are case insensitive, leading and trailing spaces are ignored.

targetType>

Target script type. Optional parameter.

Supported value	Category (target tree)
Shell	Shell
PGSQL	SQL Scripts
Spark	Spark
RSQL	RSQL Scripts
PythonShell	Python Shell

The following table describes default values for this parameter depending on selected target vendor (*targetVendor*, CreateProject command) and **use_aws_glue** project setting:

Conversion pair		Default script type
Source	**Target**	
Oracle	PostgreSQL	PGSQL
Oracle	AuroraPostgreSQL	PGSQL
MS SQL Server	AuroraPostgreSQL	PGSQL
MS SQL Server	PostgreSQL	PGSQL
MS SQL Server	Babelfish	PGSQL
MS SQL Server DW	Redshift + Glue (use_aws_glue=true)	PythonShell
Oracle DW	Redshift + Glue (use_aws_glue=true)	Spark
Teradata	Redshift + Glue (use_aws_glue=true)	Spark
Teradata	Redshift + Glue (use_aws_glue=false)	RSQL

If parameter is omitted then default values apply. If chosen value is inappropriate for the selected target vendor, the command fails with an error.

Values are case insensitive, leading and trailing spaces are ignored.

3.5.17.5. Save SQL Script

This command generates and saves a report for the selected SQL Scripts.

Syntax:

```
SaveScript
   -targetName: 'targetName'
   -script: 'scriptPath'
   [-targetType: 'targetType']
   -output: 'outputPath'
   [-overwrite: 'overwriteFlag']
```

```
/
```

Where:

targetName	Target connection name, previously created with AddTarget command. Mandatory parameter.
scriptPath	OS file system path to a script file or to a directory on target node to save SQL scripts. Depends on OS version. Mandatory parameter. Also, there is an option to pass in Script category name instead of OS file system path to a particular script (directory). For general example, "SQL Scripts" or "Shell", but the particular Script category name must be determined according to the target vendor. In such a case will be scoped all scripts that persist within the specified Script category. The complete list of Script categories allowed to pass in to this parameter can be viewed in Appendix Script category and script type correspondence ("Script category" column).

targetType

Target script type. Optional parameter.

Supported value	Category (target tree)
Shell	Shell
PGSQL	SQL Scripts
Spark	Spark
RSQL	RSQL Scripts
PythonShell	Python Shell

The default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

Conversion pair		Default script type
Source	**Target**	
Oracle	PostgreSQL	PGSQL
Oracle	AuroraPostgreSQL	PGSQL
MS SQL Server	AuroraPostgreSQL	PGSQL
MS SQL Server	PostgreSQL	PGSQL
MS SQL Server	Babelfish	PGSQL
MS SQL Server DW	Redshift + Glue (use_aws_glue=true)	PythonShell
Oracle DW	Redshift + Glue (use_aws_glue=true)	Spark
Teradata	Redshift + Glue (use_aws_glue=true)	Spark
Teradata	Redshift + Glue (use_aws_glue=false)	RSQL

If parameter is omitted then default values apply. If chosen value is inappropriate for the selected target vendor, the command fails with an error.

Values are case insensitive, leading and trailing spaces are ignored.

outputPath

OS file system path to a file or directory. Depends on OS version. Mandatory parameter.

If output file or files with the same names already exist and the value for this parameter is set to `false`, then an exception (error) is thrown.

overwriteFlag

Boolean flag which indicates whether to overwrite existing files.

Valid values are: `true` or `false`. The default value is `false`.

Values are case insensitive, leading and trailing spaces are ignored.

3.5.17.6. Delete source SQL Script

This command clears previously loaded source SQL script(s) tree, and removes all child nodes.

Syntax:

```
DeleteSourceScript
   -sourceName: 'sourceName'
   -script: 'scriptPath'
   [-scriptType: 'scriptType']
/
```

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
scriptPath	OS file system path to a script file or to a directory on source node that contains SQL scripts. Depends on OS version. Mandatory parameter. Also, there is an option to pass in Script category name instead of OS file system path to a particular script (directory). For general example, "SQL Scripts" or "BTEQ Scripts", but the particular Script category name must be determined according to the source vendor. In such a case will be scoped all scripts that persist within the specified Script category. Find the list of Script categories that you can pass in this parameter in the Script category and script type correspondence appendix in the Script category column.

scriptType

Source script type. Optional parameter.

Possible values:
BTEQ
FastLoad
FastExport
MultiLoad
Shell
SQLPlus
TSQL

The default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

Conversion pair		**Default script type**
Source	**Target**	
Oracle	PostgreSQL	SQLPlus
Oracle	AuroraPostgreSQL	SQLPlus
MS SQL Server	AuroraPostgreSQL	TSQL
MS SQL Server	PostgreSQL	TSQL
MS SQL Server	Babelfish	TSQL
Teradata	Redshift (use_aws_glue=false)	BTEQ
Teradata	Redshift + Glue (use_aws_glue=true)	BTEQ

If parameter is omitted then default values apply. If chosen value is inappropriate regarding source-target details highlighted in above-mentioned table, the command fails with an error.

If Script category name is passed to the **script** parameter instead of an OS file system path, then the value for **scriptType** parameter is checked for correspondence with the specified Script category.

Find the list of Script categories and their corresponding Script types in the Script category and script type correspondence appendix.

Values are case insensitive, leading and trailing spaces are ignored.

3.5.17.7. Delete target SQL Script

This command clears previously converted target SQL script(s) tree, and removes all child nodes.

Syntax:

```
DeleteTargetScript
   -targetName: 'targetName'
   -script: 'scriptPath'
   [-scriptType: 'scriptType']
/
```

Where:

targetName	Target connection name, previously created with AddTarget command. Mandatory parameter.
scriptPath	OS file system path to a script file or to a directory on target node that contains SQL scripts. Depends on OS version. Mandatory parameter. Also, there is an option to pass in Script category name instead of OS file system path to a particular script (directory). For general example, "SQL Scripts" or "Shell", but the particular Script category name must be determined according to the target vendor. In such a case will be scoped all scripts that persist within the specified Script category. Find the list of Script categories that you can pass in this parameter in the Script category and script type correspondence appendix in the Script category column.

scriptType

Target script type. Optional parameter.

Possible values:
BTEQ
FastLoad
FastExport
MultiLoad
Shell
SQLPlus
TSQL

The default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

Conversion pair		**Default script type**
Source	**Target**	
Oracle	PostgreSQL	PGSQL
Oracle	AuroraPostgreSQL	PGSQL
MS SQL Server	AuroraPostgreSQL	PGSQL
MS SQL Server	PostgreSQL	PGSQL
MS SQL Server	Babelfish	PGSQL
MS SQL Server DW	Redshift + Glue (use_aws_glue=true)	PythonShell
Oracle DW	Redshift + Glue (use_aws_glue=true)	Spark
Teradata	Redshift + Glue (use_aws_glue=true)	Spark
Teradata	Redshift + Glue (use_aws_glue=false)	RSQL

If parameter is omitted then default values apply. If chosen value is inappropriate for the selected target vendor, the command fails with an error.

Values are case insensitive, leading and trailing spaces are ignored.

3.5.17.8. Refresh SQL Script

This command refreshes source SQL script(s) tree.

Syntax:

```
RefreshScript
   -sourceName: 'sourceName'
   -script: 'scriptPath'
   [-scriptType: 'scriptType']
```

```
/
```

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
scriptPath	OS file system path to a script file or to a directory on source node that contains SQL scripts. Depends on OS version. Mandatory parameter. Also, there is an option to pass in Script category name instead of OS file system path to a particular script (directory). For general example, "SQL Scripts" or "BTEQ Scripts", but the particular Script category name must be determined according to the source vendor. In such a case will be scoped all scripts that persist within the specified Script category. Find the list of Script categories that you can pass in this parameter in the Script category and script type correspondence appendix in the Script category column.

scriptType

Source script type. Optional parameter.

Possible values:
BTEQ
FastLoad
FastExport
MultiLoad
Shell
SQLPlus
TSQL

Default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

Conversion pair		**Default script type**
Source	**Target**	
Oracle	PostgreSQL	SQLPlus
Oracle	AuroraPostgreSQL	SQLPlus
MS SQL Server	AuroraPostgreSQL	TSQL
MS SQL Server	PostgreSQL	TSQL
MS SQL Server	Babelfish	TSQL
Teradata	Redshift (use_aws_glue=false)	BTEQ
Teradata	Redshift + Glue (use_aws_glue=true)	BTEQ

If parameter is omitted then default values apply. If chosen value is inappropriate regarding source-target details highlighted in above-mentioned table, the command fails with an error.

If Script category name is passed to the **script** parameter instead of an OS file system path, then the value for **scriptType** parameter is checked for correspondence with the specified Script category.

Find the list of Script categories and their corresponding Script types in the Script category and script type correspondence appendix.

Values are case insensitive, leading and trailing spaces are ignored.

3.5.17.9. Import variables for SQL Script

This command imports variable values data for source SQL script(s) from a file.

Syntax:

```
ImportScriptVariables
   -sourceName: 'sourceName'
   -script: 'scriptPath'
   [-scriptType: 'scriptType']
   -variablesFile: 'variablesFile'
/
```

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
scriptPath	OS file system path to a script file or to a directory on source node that contains SQL scripts. Depends on OS version. Mandatory parameter. Also, there is an option to pass in Script category name instead of OS file system path to a particular script (directory). For general example, "SQL Scripts" or "BTEQ Scripts", but the particular Script category name must be determined according to the source vendor. In such a case will be scoped all scripts that persist within the specified Script category. Find the list of Script categories that you can pass in this parameter in the Script category and script type correspondence appendix in the Script category column.

<table>
<tr><td>scriptType</td><td>Source script type. Optional parameter.

<table>
<tr><th>Possible values:</th></tr>
<tr><td>BTEQ</td></tr>
<tr><td>FastLoad</td></tr>
<tr><td>FastExport</td></tr>
<tr><td>MultiLoad</td></tr>
<tr><td>Shell</td></tr>
<tr><td>SQLPlus</td></tr>
<tr><td>TSQL</td></tr>
</table>

Default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

<table>
<tr><th colspan="2">Conversion pair</th><th>Default script type</th></tr>
<tr><th>Source</th><th>Target</th><th></th></tr>
<tr><td>Oracle</td><td>PostgreSQL</td><td>SQLPlus</td></tr>
<tr><td>Oracle</td><td>AuroraPostgreSQL</td><td>SQLPlus</td></tr>
<tr><td>MS SQL Server</td><td>AuroraPostgreSQL</td><td>TSQL</td></tr>
<tr><td>MS SQL Server</td><td>PostgreSQL</td><td>TSQL</td></tr>
<tr><td>MS SQL Server</td><td>Babelfish</td><td>TSQL</td></tr>
<tr><td>Teradata</td><td>Redshift (use_aws_glue=false)</td><td>BTEQ</td></tr>
<tr><td>Teradata</td><td>Redshift + Glue (use_aws_glue=true)</td><td>BTEQ</td></tr>
</table>

If parameter is omitted then default values apply. If chosen value is inappropriate regarding source-target details highlighted in above-mentioned table, the command fails with an error.

If Script category name is passed to the script parameter instead of an OS file system path, then the value for scriptType parameter is checked for correspondence with the specified Script category.

Find the list of Script categories that you can pass in this parameter in the Script category and script type correspondence appendix in the Script category column.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>variablesFile</td><td>OS file system path to a file containing variable values data.

Depends on OS version. Mandatory parameter.</td></tr>
</table>

3.5.17.10. Export variables for SQL Script

This command exports variable values data for source SQL script(s) into a file.

Syntax:

```
ExportScriptVariables
   -sourceName: 'sourceName'
   -script: 'scriptPath'
   [-scriptType: 'scriptType']
   -variablesFile: 'variablesFile'
/
```

Where:

sourceName	Source connection name, previously created with AddSource command. Mandatory parameter.
scriptPath	OS file system path to a script file or to a directory on source node that contains SQL scripts. Depends on OS version. Mandatory parameter. Also, there is an option to pass in Script category name instead of OS file system path to a particular script (directory). For general example, "SQL Scripts" or "BTEQ Scripts", but the particular Script category name must be determined according to the source vendor. In such a case will be scoped all scripts that persist within the specified Script category. Find the list of Script categories that you can pass in this parameter in the Script category and script type correspondence appendix in the Script category column.

<table>
<tr><td>scriptType</td><td>Source script type. Optional parameter.

<table>
<tr><th>Possible values:</th></tr>
<tr><td>BTEQ</td></tr>
<tr><td>FastLoad</td></tr>
<tr><td>FastExport</td></tr>
<tr><td>MultiLoad</td></tr>
<tr><td>Shell</td></tr>
<tr><td>SQLPlus</td></tr>
<tr><td>TSQL</td></tr>
</table>

Default value for this parameter depends on particular conversion pair, and can be obtained from the table below:

<table>
<tr><th colspan="2">Conversion pair</th><th>Default script type</th></tr>
<tr><th>Source</th><th>Target</th><th></th></tr>
<tr><td>Oracle</td><td>PostgreSQL</td><td>SQLPlus</td></tr>
<tr><td>Oracle</td><td>AuroraPostgreSQL</td><td>SQLPlus</td></tr>
<tr><td>MS SQL Server</td><td>AuroraPostgreSQL</td><td>TSQL</td></tr>
<tr><td>MS SQL Server</td><td>PostgreSQL</td><td>TSQL</td></tr>
<tr><td>MS SQL Server</td><td>Babelfish</td><td>TSQL</td></tr>
<tr><td>Teradata</td><td>Redshift (use_aws_glue=false)</td><td>BTEQ</td></tr>
<tr><td>Teradata</td><td>Redshift + Glue (use_aws_glue=true)</td><td>BTEQ</td></tr>
</table>

If parameter is omitted then default values apply. If chosen value is inappropriate regarding source-target details highlighted in above-mentioned table, the command fails with an error.

If Script category name is passed to the script parameter instead of an OS file system path, then the value for scriptType parameter is checked for correspondence with the specified Script category.

The complete list of Script categories and their corresponding Script types can be viewed in Appendix Script category and script type correspondence.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>variablesFile</td><td>OS file system path to save variable values data into.

Depends on OS version. Mandatory parameter.</td></tr>
</table>

3.5.18. Data migration using DMS (OLTP)

This chapter describes commands to work with DataMigration feature using DMS.

Available only for OLTP databases.

All commands described in this chapter require an active AWS profile to be set (see SetAWSProfile command). Also, this profile must have connection credentials to the DMS replication instance.

3.5.18.1. Create DMS Endpoint

This command creates a new DMS Endpoint using the specified parameters.

Syntax:

```
CreateDMSEndpoint
   -name: 'endpointName'
   -serverName: 'serverName'
   -origin: 'endpointOrigin'
   [-database: 'databaseName']
   -replicationInstance: 'replicationInstance'
/
```

Where:

endpointName	Name of the Endpoint to create (the name used to uniquely identify the Endpoint). Mandatory parameter. Identifiers must begin with a letter and must contain only ASCII letters, digits, and hyphens. They can't end with a hyphen, or contain two consecutive hyphens.
serverName	Source or target connection name, previously created with AddSource or AddTarget command.
endpointOrigin	Type of endpoint. Supported values are **source** and **target**. Mandatory parameter. Indicates whether this Endpoint is a source or target endpoint. Values are case insensitive, leading and trailing spaces are ignored.
databaseName	Name of the endpoint database. Optional parameter.
replicationInstance	Name of the replication instance to associate Endpoint with. Mandatory parameter.

3.5.18.2. Create DMS Task

This command creates a new DMS replication Task using the specified parameters.

Syntax:

```
CreateDMSTask
    -name: 'taskName'
    -filter: 'filterName'
    -treePath: 'treePath'
    -namePath: 'namePath'
    -replicationInstance: 'replicationInstance'
    -sourceEndpoint: 'sourceEndpoint'
    -targetEndpoint: 'targetEndpoint'
    [-includeLOB: 'includeLOB']
    [-maxLOBSize: 'maxLOBSize']
    [-lobChunkSize: 'lobChunkSize']
    [-enableLogging: 'enableLogging']
    [-prepMode: 'prepMode']
    [-migrationType: 'migrationType']
    [-cdcStartTime: 'cdcStartTime']
    -stopTaskAfterFullLoad: 'stopTaskAfterFullLoad'
    -file: 'filePathSaveTableMapping'
/
```

Where:

taskName	The name of the task to create. This field can contain only alphanumeric characters and hyphens. Mandatory parameter. Task name must begin with a letter; must contain only ASCII letters, digits, and hyphens; and must not end with a hyphen or contain two consecutive hyphens.
filterName	Name of the filter previously created with CreateFilter command. You can process only tables. This parameter is mandatory if neither of path parameters (**treePath** or **namePath**) is specified. Filter property **origin** must be set to **source**, otherwise an exception (error) is thrown.
treePath	Object tree path. A path to a specific type of object or object name (object type-name chain). You can process only tables. This parameter is mandatory if neither **filterName** nor **namePath** parameter is specified.
namePath	Object name path. A path to a specific object name (name chain). You can process only tables. This parameter is mandatory if neither **filterName** nor **treePath** parameter is specified.
replicationInstance	Name of the replication instance to associate Task with. Mandatory parameter.

sourceEndpoint	Name of the source Endpoint to be used (see CreateDMSEndpoint command). Mandatory parameter.
targetEndpoint	Name of the target Endpoint to be used (see CreateDMSEndpoint command). Mandatory parameter.
includeLOB	Include LOB columns in replication setting. Optional parameter. **Possible values:** **exclude_lob** — LOB columns are excluded from the migration. **full_lob** — Migrate complete LOBs regardless of size. AWS DMS migrates LOBs piecewise in chunks controlled by the Max LOB size (see **maxLOBSize** below) parameter. This mode is slower than using Limited LOB mode. **limited_lob** — Truncate LOBs to the value of the Max LOB size (see **maxLOBSize** below) parameter. This mode is faster than using Full LOB mode. Values are case insensitive, leading and trailing spaces are ignored. Default value is **exclude_lob**.
maxLOBSize	Maximum LOB size, in kilobytes (KB). Optional parameter. In Limited LOB Mode (see *includeLOB* parameter above), LOB columns that exceed the setting of maxLOBSize are truncated to the specified maxLOBSize value. Actual only if *includeLOB* equal to **limited_lob**. The default value is 32.
lobChunkSize	LOB chunk size, in kilobytes (KB). Optional parameter. The default value is 64. Actual only if *includeLOB* equal to **full_lob**.
enableLogging	Turns on logging in Amazon CloudWatch. Boolean value `true` or `false`. Optional parameter. Values are case insensitive, leading and trailing spaces are ignored. The default value is `true`.
prepMode	Target table preparation mode. Optional parameter. **Possible values:** **do_nothing** — Data and metadata of the target tables aren't changed. **drop_and_create** — The tables are dropped and new tables are created in their place. **truncate_before_load** — Tables are truncated without affecting table metadata. Values are case insensitive, leading and trailing spaces are ignored. The default value is **do_nothing**.

migrationType	Migration method (type) to use. Optional parameter. In AWS DMS, you can migrate the existing data to the target database or send the ongoing changes to the target database in addition to the migrated data. **Possible values:** **full_load** — Migrate existing data. **cdc** — Replicate data changes only. **full_load_and_cdc** — Migrate existing data and replicate ongoing changes. Values are case insensitive, leading and trailing spaces are ignored. The default value is **full_load**.
cdcStartTime	Indicates the start time for a change data capture (CDC) operation. Optional parameter. Actual only if *migrationType* is **cdc**. Date format MMM/dd/yyyy/HH:mm:ss. If this parameter is omitted then it means, that the current start time of the task will be taken.
stopTaskAfterFullLoad	Stop task after full load completes strategy. Optional parameter. Actual only if *migrationType* equal to **full_load_and_cdc**. **Possible values:** **do_not_stop** — Don't stop the task but immediately apply cached changes and continue on. **before_changes_applied** — Stop a task before cached changes are applied. **after_changes_applied** — Stop a task after a full load completes and cached changes are applied. Values are case insensitive, leading and trailing spaces are ignored. The default value is **do_not_stop**.
filePathSaveTableMapping	OS file system path to a file to save **Table Mapping** in JSON format. Depends on OS version. Description of the OS paths is in the chapter OS file system paths for commands. Optional parameter. If the parameter is **not empty** the **Table Mapping** should be saved by the **filePath**. If the parameter is **empty** nothing should happen. The structure of JSON format is equal the structure of JSON format of the appropriate JSON file from ExportTransformationRulesForDMS command.

3.5.18.3. Start DMS Task

This command starts the DMS Task.

Syntax:

```
StartDMSTask
   -name: 'taskName'
/
```

Where:

taskName	The name of the task to start. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateDMSTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.18.4. Delete DMS Task

This command deletes an existing DMS Task.

Syntax:

```
DeleteDMSTask
   -name: 'taskName'
/
```

Where:

taskName	The name of the task to delete. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateDMSTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.18.5. Stop DMS Task

This command stops an existing DMS Task.

Syntax:

```
StopDMSTask
   -name: 'taskName'
/
```

Where:

taskName	The name of the task to stop. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateDMSTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.18.6. Resume DMS Task

This command resumes an existing DMS Task.

Syntax:

```
ResumeDMSTask
   -name: 'taskName'
/
```

Where:

taskName	The name of the task to resume. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateDMSTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.18.7. Save DMS Task Log

This command saves an existing DMS Task log.

File name must be the following: ***taskName*.log**

Syntax:

```
SaveDMSTaskLog
   -name: 'taskName'
   -directory: 'directoryPath'
/
```

Where:

taskName	The name of the task to save. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateDMSTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.
directoryPath	OS file system path to the directory for saving log file. Mandatory parameter. For more information, see OS file system paths for commands.

3.5.19. Data migration using Local & DMS (OLTP)

This chapter describes commands for data migration of OLTP databases using Local and DMS agents.

To use all commands described in this chapter, set up an active AWS profile (see SetAWSProfile command). Make sure that this profile has connection credentials to the DMS replication instance.

3.5.19.1. Register OLTP Agent

This command registers a new replication Agent.

Syntax:

```
RegisterOLTPAgent
   -name: 'agentName'
   -host: 'agentHost'
   -port: 'agentPort'
   -password: 'agentPassword'
   [-useSSL: 'useSSL']
   [-keyName: 'keyName']
   [-trustName: 'trustName']
/
```

Where:

agentName	The name of the agent to create (the name used to uniquely identify the agent). Also known as description of an the agent. Maximum length is 255 characters. Mandatory parameter. Names can contain only alphanumeric characters, the whitespace character, underscore (_) sign, hash sign (#), and ampersand sign (&). The agent name can't start with or end with a whitespace character, although whitespace is allowed inside the name.
agentHost	The host name or IP address of the computer of the agent (the machine where you installed the DMS agent). Mandatory parameter.
agentPort	The port number that the agent is listening to. The value should be in range 0-65535. Mandatory parameter.
agentPassword	The password used to access the agent. The maximum length of a password is 30 characters. You can't use the backslash symbol (\) in your password. Mandatory parameter.

useSSL	Use Secure Socket Layer (SSL) to encrypt a connection to the agent. Optional parameter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
keyName	Certificate Key Store name. Optional parameter. Logically depends on *useSSL* parameter.
trustName	Certificate Trust Store name. Mandatory if *useSSL* parameter is set to `true`. Logically depends on *useSSL* parameter.

3.5.19.2. Refresh OLTP Agent

This command is used to refresh an agent by its name.

Syntax:

```
RefreshOLTPAgent
   -name: 'agentName'
/
```

Where:

agentName	The name of the agent to refresh. Mandatory parameter. Use an existing agent name, which you previously created with the RegisterOLTPAgent command. Otherwise, if an agent with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.3. Refresh all OLTP Agents

This command refreshes all agents and doesn't require parameters.

Syntax:

```
RefreshAllOLTPAgents
/
```

3.5.19.4. Unregister OLTP Agent

This command unregisters a registered agent by its name.

Syntax:

```
UnregisterOLTPAgent
   -name: 'agentName'
/
```

Where:

agentName	The name of the registered agent to unregister. Mandatory parameter. Use an existing agent name, which you previously created with the RegisterOLTPAgent command. Otherwise, if an agent with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.5. Delete OLTP Agent

This command deletes an unregistered agent by its name.

Syntax:

```
DeleteOLTPAgent
   -name: 'agentName'
/
```

Where:

agentName	The name of the unregistered agent to delete. Mandatory parameter. When the registration of an agent fails, use this command to delete this unregistered agent. Use an existing agent name, which you previously created with the RegisterOLTPAgent command. Otherwise, if an agent with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.6. Wait OLTP Agent

This command waits until the status of the agent becomes equal to the specified status.

Syntax:

```
WaitOLTPAgent
   -name: 'agentName'
   -status: 'waitStatus'
   -timeout: 'waitTimeout'
/
```

Where:

agentName	The name of the agent, which status is expected to change. Use an existing agent name, which you previously created with the RegisterOLTPAgent command. Otherwise, if an agent with the specified name doesn't exist, AWS SCT raises an error.
waitStatus	Agent status to wait for. **Possible values:** active running stopped failed unknown recovering waiting_for_recovery failed_to_recover Values are case insensitive, leading and trailing spaces are ignored.
waitTimeout	Maximal wait time in seconds. Leading and trailing spaces are ignored.

All command parameters are mandatory, an exception (error) is thrown if any of them aren't set.

3.5.19.7. Create Local DMS Task

This command creates a new Local & DMS replication Task. A registered replication Agent is required to create a Local & DMS replication Task, otherwise, if there is no such Agent - it raises the appropriate error indicating an Agent is required.

Syntax:

```
CreateLocalDMSTask
  -name: 'taskName'
  -agent: 'agentName'
  -filter: 'filterName'
  -treePath: 'treePath'
  -namePath: 'namePath'
  [-description: 'taskDescription']
  -replicationInstance: 'replicationInstance'
  [-enableLogging: 'enableLogging']
  -roleIAM: 'roleIAM'
  [-prepMode: 'prepMode']
  [-migrationType: 'migrationType']
```

```
    [-S3Bucket: 'S3Bucket']
    [-useSnowball: 'useSnowball']
    [-jobName: 'jobName']
    [-jobS3Bucket: 'jobS3Bucket']
    [-includeLOB: 'includeLOB']
    [-maxLOBSize: 'maxLOBSize']
    [-compressionFormat: 'compressionFormat']
    [-useProxy: 'useProxy']
    [-useS3Proxy: 'useS3Proxy']
    [-useSnowballProxy: 'useSnowballProxy']
    [-proxyHost: 'proxyHost']
    [-proxyPort: 'proxyPort']
    [-proxyUser: 'proxyUser']
    [-proxyPassword: 'proxyPassword']
    [-proxyScheme: 'proxyScheme']
    [-file: 'filePathSaveTableMapping']
/
```

Where:

taskName	Name of the DMS replication Task to create. Mandatory parameter. The task name must begin with a letter; must contain only ASCII letters, digits, and hyphens; and must not end with a hyphen or contain two consecutive hyphens.
agentName	Name of the replication Agent, previously registered by RegisterOLTPAgent command. Mandatory parameter.
filterName	Name of the filter previously created with CreateFilter command. You can process only tables. This parameter is mandatory if neither of path parameters (*treePath* or *namePath*) is specified. Filter property **origin** must be set to **source**, otherwise an exception (error) is thrown. Exception text: "Specified filter origin must be "source".
treePath	Object tree path. A path to a specific type of object or object name (object type-name chain). You can process only tables. This parameter is mandatory if neither *filterName* nor *namePath* parameter is specified.
namePath	Object name path. A path to a specific object name (name chain). You can process only tables. This parameter is mandatory if neither *filterName* nor *treePath* parameter is specified.
taskDescription	Description of the Task (specifically, what this task is intended for). Value for this parameter is **empty** by default. Optional parameter.
replicationInstance	Name of the replication instance to associate the Task with. Mandatory parameter.

enableLogging	Turns on logging in Amazon CloudWatch. Boolean value `true` or `false`. The default value is `true`. Optional parameter. Values are case insensitive, leading and trailing spaces are ignored. For more information about CloudWatch, see How Amazon CloudWatch works.
roleIAM	Predefined IAM role that has permissions to access the Amazon S3 bucket data. Mandatory parameter. For more information about the permissions required to access an Amazon S3 bucket, see Prerequisites when using S3 as a source for AWS DMS.
prepMode	Target table preparation mode. Optional parameter. **Supported values:** **do_nothing** — Data and metadata of the target tables aren't changed. **drop_and_create** — The tables are dropped and new tables are created in their place. **truncate_before_load** — Tables are truncated without affecting table metadata. Default value for parameter is **truncate_before_load**. Values are case insensitive, leading and trailing spaces are ignored.
migrationType	Migration method (type) to use. Optional parameter. In AWS DMS, you can migrate the existing data to the target database or send the ongoing changes to the target database in addition to the migrated data. **Supported values:** **full_load** — Migrate existing data. **cdc** — Migrate existing data and replicate ongoing changes. **full_load_and_cdc** — Replicate data changes only. Default value for parameter is **full_load**. Values are case insensitive, leading and trailing spaces are ignored.
S3Bucket	Name of an S3 bucket to upload data into, if **useSnowball** parameter set to `false`. Optional parameter. If the value for this parameter isn't set, then the value is taken from the current active AWS profile (see SetAWSProfile command).

useSnowball	Boolean flag to use Snowball. Optional parameter. Supported values are `true` or `false`. The default value is `false`. If this value is set to `false`, then data is uploaded directly to the S3 bucket. Values are case insensitive, leading and trailing spaces are ignored.
jobName	Snowball Edge job name, configured in the Snowball Edge console. Mandatory if *useSnowball* parameter is set to `true`.
jobS3Bucket	Name of an S3 bucket configured for Snowball Edge job in the Snowball Edge console. Mandatory if *useSnowball* parameter is set to `true`.
includeLOB	Include LOB columns in replication setting. Optional parameter. **Supported values:** **exclude_lob** — LOB columns are excluded from the migration. **limited_lob** — Truncate LOBs to the value of the Max LOB size (see *maxLOBSize* below) parameter. The default value is **exclude_lob**. Values are case insensitive. Leading and trailing spaces are ignored.
maxLOBSize	Maximum LOB size, in kilobytes (KB). The default value is 32. Optional parameter. In the Limited LOB Mode (see *includeLOB* parameter before), LOB columns that exceed the setting of maxLOBSize are truncated to the specified *maxLOBSize* value.
compressionFormat	File format for those files that will be loaded to S3 bucket. Optional parameter. **Allowable values:** **gzip** — Use Gzip - popular (and free) algorithm for data compression. **no_compression** — Load files in raw, without any compression. The default value for parameter is **gzip**. Values are case insensitive. Leading and trailing spaces are ignored.
useProxy	Boolean flag to use proxy server. Optional parameter. Supported values are: `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
useS3Proxy	Determine if S3 proxy settings will be used. Logically depends on *useProxy* parameter. Optional parameter. Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.

useSnowballProxy	Determine if Snowball Edge proxy settings will be used. Logically depends on *useProxy* parameter. Optional parameter. Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
proxyHost	Proxy host. Logically depends on *useProxy* parameter. Mandatory parameter if *useS3Proxy* or *useSnowballProxy* is set to `true`.
proxyPort	Proxy port. Logically depends on *useProxy* parameter. Mandatory parameter if *useS3Proxy* or *useSnowballProxy* is set to `true`.
proxyUser	Proxy username. Optional parameter. Logically depends on *useProxy* parameter. Enabled if *useS3Proxy* or *useSnowballProxy* is set to `true`.
proxyPassword	Proxy password. Optional parameter. Logically depends on *useProxy* parameter. Enabled if *useS3Proxy* or *useSnowballProxy* is set to `true`.
proxyScheme	The scheme to use to connect to the proxy server. Optional parameter. Enabled if *useS3Proxy* or *useSnowballProxy* is set to `true`. Logically depends on `useProxy` parameter. Supported values are **http**, **https**. The default value is **http**. Values are case insensitive. Leading and trailing spaces are ignored.
filePathSaveTableMapping	OS file system path to a file to save **Table Mapping** in JSON format. Depends on OS version. Description of the OS paths is in the chapter OS file system paths for commands. Optional parameter. If the parameter is **not empty** the **Table Mapping** should be saved by the **filePath**. If the parameter is **empty** nothing should happen. The structure of JSON format is equal the structure of JSON format of the appropriate JSON file from ExportTransformationRulesForDMS command.

3.5.19.8. Delete Local DMS Task

This command deletes an existing Local & DMS replication Task.

Syntax:

```
DeleteLocalDMSTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the Task to delete. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalDMSTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.9. Refresh Local DMS Task

This command is used to refresh the Local & DMS replication Task.

Syntax:

```
RefreshLocalDMSTask
   -name: 'taskName'
/
```

Where:

taskName	The name of the task to refresh. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalDMSTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.10. Refresh all Local DMS Tasks

This command is used to refresh all Local & DMS replication Tasks.

There are no command parameters.

Syntax:

```
RefreshAllLocalDMSTasks
/
```

3.5.19.11. Start Local DMS Task

This command is used to start the Local & DMS replication task.

Syntax:

```
StartLocalDMSTask
   -name: 'taskName'
/
```

Where:

taskName	The name of the task to start. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalDMSTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.12. Stop Local DMS Task

This command is used to stop the Local & DMS replication Task.

Syntax:

```
StopLocalDMSTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the Task to stop. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalDMSTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.13. Wait Local DMS Task

This command will wait till the Local & DMS Task's status become equal to the specific one.

Syntax:

```
WaitLocalDMSTask
   -name: 'taskName'
   -type: 'taskType'
   -status: 'waitStatus'
   -timeout: 'waitTimeout'
/
```

Where:

taskName	Name of the Task whose status is expected to change to the specified one. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalDMSTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

taskType	Type of the Task. Mandatory parameter. **Possible values** **main** **local** **remote** Values are case insensitive, leading and trailing spaces are ignored.
waitStatus	Task status to wait for. Mandatory parameter. **Possible values** **creating** **running** **stopped** **stopping** **deleting** **failed** **starting** **ready** **modifying** **testing** **unknown** **pending** **paused** **error** **not_exist** **recovery** Values are case insensitive, leading and trailing spaces are ignored.
waitTimeout	Maximal waiting time in seconds (sec). Optional parameter. Leading and trailing spaces are ignored.

3.5.19.14. Test Local DMS Task

This command is used to test connection for Local & DMS replication Task.

Syntax:

```
TestLocalDMSTask
```

```
    -name: 'taskName'
/
```

Where:

taskName	The name of the task to test connection for. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalDMSTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.15. Save Local DMS Task log

This command saves log files for Local & DMS replication Task and its Agent to the specified folder.

Syntax:

```
SaveLocalDMSTaskLog
    -name: 'taskName'
    -directory: 'directoryPath'
/
```

Where:

taskName	The name of the task to save log files for. Mandatory parameter.
directoryPath	OS file system path to the directory for saving log files in CSV format. Mandatory parameter. For more information, see OS file system paths for commands.

3.5.19.16. Create Local Task

This command creates a new DMS replication Task. A registered replication Agent is required to create a DMS replication Task, otherwise, if there is no such Agent - it raises the appropriate error indicating an Agent is required.

Syntax:

```
CreateLocalTask
    -name: 'taskName'
    -agent: 'agentName'
    -filter: 'filterName'
    -treePath: 'treePath'
    -namePath: 'namePath'
    [-description: 'taskDescription']
    [-enableLogging: 'enableLogging']
    -migrationType: 'migrationType'
```

```
    [-S3Bucket: 'S3Bucket']
    [-includeLOB: 'includeLOB']
    [-maxLOBSize: 'maxLOBSize']
    [-compressionFormat: 'compressionFormat']
    [-bucketFolder: 'bucketFolder']
    [-dataFormat: 'dataFormat']
    [-addColumnName: 'addColumnName']
    [-csvDelimiter: 'csvDelimiter']
    [-csvRowDelimiter: 'csvRowDelimiter']
    [-parquetVersion: 'parquetVersion']
    [-encodingType: 'encodingType']
    [-dictPageSize: 'dictPageSize']
    [-rowGroupSize: 'rowGroupSize']
    [-dataPageSize: 'dataPageSize']
    [-maxFileSize: 'maxFileSize']
    [-cdcInsertsOnly: 'cdcInsertsOnly']
    [-rfc4180: 'rfc4180']
    [-encryptionMode: 'encryptionMode']
    [-encryptionKMSKeyId: 'encryptionKMSKeyId']
    [-cannedAclForObjects: 'cannedAclForObjects']
    [-enableStatistics: 'enableStatistics']
    [-file: 'filePathSaveTableMapping']
    [-useProxy: 'useProxy']
    [-useS3Proxy: 'useS3Proxy']
    [-useSnowballProxy: 'useSnowballProxy']
    [-proxyHost: 'proxyHost']
    [-proxyPort: 'proxyPort']
    [-proxyUser: 'proxyUser']
    [-proxyPassword: 'proxyPassword']
    [-proxyScheme: 'proxyScheme']
/
```

Where:

taskName	Name of the DMS replication Task to create. Mandatory parameter. A Task name must begin with a letter; must contain only ASCII letters, digits, and hyphens; and must not end with a hyphen or contain two consecutive hyphens.
agentName	Name of the replication Agent, previously registered by RegisterOLTPAgent command. Mandatory parameter.
filterName	Name of the filter previously created with CreateFilter command. You can process only tables. This parameter is mandatory if neither of path parameters *treePath* or *namePath* is specified. Filter property **origin** must be set to **source**, otherwise an exception (error) is thrown.

treePath	Object tree path. A path to a specific type of object or object name (object type-name chain). You can process only tables. This parameter is mandatory if neither *filterName* nor *namePath* parameter is specified.
namePath	Object name path. A path to a specific object name (name chain). You can process only tables. This parameter is mandatory if neither *filterName* nor *treePath* parameter is specified.
taskDescription	Description of the Task (specifically what this task is intended for). Value for this parameter is **empty** by default. Optional parameter.
enableLogging	Turns on logging in Amazon CloudWatch. Boolean value `true` or `false`. The default value is `false`. Optional parameter. Values are case insensitive, spaces are ignored. For more information about CloudWatch, see How Amazon CloudWatch works.
migrationType	Migration mode (type) to use. Mandatory parameter. In AWS , you can migrate the existing data to the target database or send ongoing changes to the target database in addition to the migrated data. **Possible values:** **full_load** — Migrate existing data. **cdc** — Replicate data changes only. **full_load_and_cdc** — Migrate existing data and replicate ongoing changes. The default value is **full_load**. Values are case insensitive, leading and trailing spaces are ignored.
S3Bucket	Name of the S3 bucket where S3 target objects are created as .csv or .parquet files. If the value for this parameter isn't set, then the value is taken from the current active AWS profile (see SetAWSProfile command).
includeLOB	Include LOB columns in replication setting. Optional parameter. **Possible values:** **exclude_lob** — LOB columns are excluded from the migration. **limited_lob** — Truncate LOBs to the value of the Max LOB size (see *maxLOBSize* below) parameter. The default value is **exclude_lob**. Values are case insensitive. Leading and trailing spaces are ignored.

maxLOBSize	Maximum LOB size, in kilobytes (KB). The default value is 32. Optional parameter. In Limited LOB Mode (see *includeLOB* parameter above), LOB columns that exceed the setting of maxLOBSize are truncated to the specified *maxLOBSize* value.
compressionFormat	File format for those files that will be loaded to S3 bucket. Optional parameter. **Possible values:** **gzip** — Use Gzip - popular (and free) algorithm for data compression. **no_compression** — Load files in raw, without any compression. The default value is **no_compression**. Values are case insensitive. Leading and trailing spaces are ignored.
bucketFolder	Folder name in the **S3 bucket**. Optional parameter. Value for this parameter is taken from the **AWS profile** by default. If provided, target objects are created as .csv or .parquet files in the path[s3Bucket]/[bucketFolder]/schema_name/table_name/. If this parameter isn't specified, then the path used is [s3Bucket]/schema_name/table_name/.
dataFormat	Output format for the files that AWS DMS uses to create S3 objects. AWS DMS supports either .csv or .parquet files. The .parquet files have a binary columnar storage format with efficient compression options and faster query performance. Optional parameter. **Supported values:** **csv** — Comma separated values format. **parquet** — Apache Parquet columnar storage format. Default value for parameter is **csv**. Values are case insensitive, leading and trailing spaces are ignored. For more information about Apache Parquet columnar storage format, see Apache Parquet and Parquet Internals.
addColumnName	Boolean flag to add a header (containing column names) to a comma separated value (CSV) file. Optional parameter. Supported values are: `true` or 'false'. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored. Logically depends on *dataFormat* (CSV) parameter.
csvDelimiter	Field delimiter used to separate columns in a comma separated value (CSV) files. The default value is **","** (comma). Logically depends on *dataFormat* (CSV) parameter.
csvRowDelimiter	Delimiter used to separate rows in a comma separated value (CSV) files. The default value is **"\n"** (newline). Logically depends on *dataFormat* (CSV) parameter.

<table>
<tr><td>parquetVersion</td><td>Apache Parquet format version to use. Optional parameter.

<table><tr><th colspan="2">Supported values:</th></tr><tr><td>parquet_1_0</td><td>Apache Parquet version 1.0.</td></tr><tr><td>parquet_2_0</td><td>Apache Parquet version 2.0.</td></tr></table>
Default value for parameter is parquet_1_0. Logically depends on dataFormat (PARQUET) parameter. Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>encodingType</td><td>The Parquet encoding type to use. Optional parameter.

<table><tr><th colspan="2">Supported values:</th></tr><tr><td>plain</td><td>No encoding. Data is stored in raw, unencoded form.</td></tr><tr><td>plain_dictionary</td><td>This dictionary encoding builds a dictionary of values encountered in a given column. The dictionary is stored in a dictionary page for each column chunk.</td></tr><tr><td>rle_dictionary</td><td>This dictionary encoding uses a combination of bit-packing and run-length encoding to more efficiently store repeating values.</td></tr></table>
Default value for parameter is rle_dictionary. Logically depends on dataFormat (PARQUET) parameter. Values are case insensitive, leading and trailing spaces are gnored.</td></tr>
<tr><td>dictPageSize</td><td>Parquet dictionary page size. Value of integer type. The default value is 1024000. Optional parameter. Logically depends on dataFormat (PARQUET) parameter. For more information about Apache Parquet columnar storage format, see Parquet Internals.</td></tr>
<tr><td>rowGroupSize</td><td>Parquet row group size. Value of integer type. The default value is 10024. Optional parameter. Logically depends on dataFormat (PARQUET) parameter. For more information about Apache Parquet columnar storage format, see Parquet Internals.</td></tr>
<tr><td>dataPageSize</td><td>Parquet data page size. Value of integer type. The default value is 1024000. Optional parameter. Logically depends on dataFormat (PARQUET) parameter. For more information about Apache Parquet columnar storage format, see Parquet Internals.</td></tr>
<tr><td>maxFileSize</td><td>Maximum data file size (kilobytes). Value of integer type. The default value is 1048576. Optional parameter. Logically depends on dataFormat parameter, when its value set to csv.</td></tr>
<tr><td>cdcInsertsOnly</td><td>Boolean flag to only generate inserts for replication data changes. Optional parameter. Valid values are: <code>true</code> or <code>false</code>. The default value is <code>false</code>. Values are case insensitive, leading and trailing spaces are ignored. Logically depends on migrationMode parameter.</td></tr>
</table>

<table>
<tr><td>rfc4180</td><td>Boolean flag to set behavior to comply with RFC for data migrated to Amazon S3 using .csv file format only. Optional parameter. Valid values are <code>true</code> or <code>false</code>. The default value is <code>true</code>. Values are case insensitive, leading and trailing spaces are ignored. When this value is set to <code>true</code> using Amazon S3 as a target, if the data has quotation marks or newline characters in it, AWS DMS encloses the entire column with an additional pair of double quotation marks ("). Every quotation mark within the data is repeated twice. This formatting complies with RFC 4180.</td></tr>
<tr><td>encryptionMode</td><td>Server-side encryption mode to use. Optional parameter.

<table><tr><th colspan="2">Supported values:</th></tr><tr><td>none</td><td>Do not use encryption.</td></tr><tr><td>sse_s3</td><td>Server-side encryption with Amazon S3-managed encryption keys.</td></tr><tr><td>sse_kms</td><td>Use AWS KMS customer master keys (CMKs) to encrypt Amazon S3 objects.</td></tr></table>
The default value is sse_s3. Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>encryptionKMSKeyId</td><td>Amazon Resource Name (ARN) for the AWS KMS key used to encrypt data. Mandatory if encryptionMode parameter set to sse_kms.

For more information, see Creating AWS KMS keys to encrypt Amazon S3 target objects.</td></tr>
<tr><td>cannedAclForObjects</td><td>Value that enables AWS DMS to specify a predefined (canned) access control list for objects created in the S3 bucket as .csv or .parquet files. Optional parameter.

<table><tr><th>Supported values:</th></tr><tr><td>none</td></tr><tr><td>private</td></tr><tr><td>public_read</td></tr><tr><td>public_read_write</td></tr><tr><td>authenticated_read</td></tr><tr><td>aws_exec_read</td></tr><tr><td>bucket_owner_read</td></tr><tr><td>bucket_owner_full_control</td></tr></table>
Default value for parameter is none. Values are case insensitive, leading and trailing spaces are ignored. For more info, see Canned ACL.</td></tr>
</table>

enableStatistics	Enable statistics about .parquet file pages and row groups. Supported values are `true` or `false`. The default value is `true`. Values are case insensitive, leading and trailing spaces are ignored.
filePathSaveTableMapping	OS file system path to a file to save **Table Mapping** in JSON format. Depends on OS version. Description of the OS paths is in the chapter OS file system paths for commands. Optional parameter. If the parameter is **not empty** the **Table Mapping** should be saved by the **filePath**. If the parameter is **empty** nothing should happen. The structure of JSON format of the file is equal the structure of JSON format of the appropriate JSON file from ExportTransformationRulesForDMS command.
useProxy	Boolean flag to use proxy server. Optional parameter. Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
useS3Proxy	Determine if S3 proxy settings will be used. Logically depends on **useProxy** parameter. Optional parameter.Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
useSnowballProxy	Determine if Snowball Edge proxy settings will be used. Logically depends on *useProxy* parameter. Optional parameter. Supported values are: `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
proxyHost	Proxy host. Logically depends on *useProxy* parameter. Mandatory parameter if *useS3Proxy* or *useSnowballProxy* is set to `true`.
proxyPort	Proxy port. Logically depends on *useProxy* parameter. Mandatory parameter if *useS3Proxy* or *useSnowballProxy* is set to `true`.
proxyUser	Proxy username. Optional parameter. Logically depends on *useProxy* parameter.Enabled if *useS3Proxy* or *useSnowballProxy* is set to `true`.
proxyPassword	Proxy password. Optional parameter. Logically depends on *useProxy* parameter.Enabled if *useS3Proxy* or *useSnowballProxy* is set to `true`.
proxyScheme	The scheme to use to connect to the proxy server. Optional parameter. Enabled if *useS3Proxy* or *useSnowballProxy* is set to `true`. Logically depends on *useProxy* parameter. Allowed values are **http**, **https**. The default value is **http**. Values are case insensitive. Leading and trailing spaces are ignored.

3.5.19.17. Delete Local Task

This command deletes an existing DMS replication Task.

Syntax:

DeleteLocalTask

```
    -name: 'taskName'
/
```

Where:

taskName	The name of the DMS replication task to delete. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.18. Refresh Local Task

This command is used to refresh the DMS replication Task.

Syntax:

```
RefreshLocalTask
    -name: 'taskName'
/
```

Where:

taskName	The name of the DMS replication task to refresh. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.19. Refresh all Local Tasks

This command is used to refresh all DMS replication Tasks.

There are no command parameters.

Syntax:

```
RefreshAllLocalTasks
/
```

3.5.19.20. Start Local Task

This command is used to start the DMS replication Task.

Syntax:

```
StartLocalTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the DMS replication Task to start. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.21. Stop Local Task

This command is used to stop the DMS replication Task.

Syntax:

```
StopLocalTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the DMS replication Task to stop. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.22. Test Local Task

This command is used to test connection for DMS replication Task.

Syntax:

```
TestLocalTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the DMS replication Task to test connection for. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.19.23. Save Local Task log

This command saves log files for DMS replication Task and its Agent to the specified folder.

Syntax:

```
SaveLocalTaskLog
   -name: 'taskName'
   -directory: 'directoryPath'
/
```

Where:

taskName	Name of the DMS replication Task to save log files for. Mandatory parameter. Use an existing task name, which you previously created with the CreateLocalTask command. Otherwise, if a task with the specified name doesn't exist, AWS SCT raises an error.
directoryPath	OS file system path to the directory for saving log files in CSV format. Mandatory parameter. Description of the OS paths is in OS file system paths for commands chapter.

3.5.20. Data migration using AWS Data Extractors (DWH)

This chapter describes Data Extraction using AWS Data Extractor. Available only for DWH.

3.5.20.1. Register OLAP Agent

This command registers a new Data Extractor Agent.

Syntax:

```
RegisterOLAPAgent
   -name: 'agentName'
   -host: 'agentHost'
   -port: 'agentPort'
   [-useSSL: 'useSSL']
   [-keyName: 'keyName']
   [-trustName: 'trustName']
   [-parameters: 'agentParameters']
```

```
    [-timeout: 'timeout']
/
```

Where:

agentName	Name of the Data Extractor Agent to create. Mandatory parameter. Value for this parameter is **empty** by default. Also known as "description" of an Agent. Maximum length is 255 characters. Names can contain only alphanumeric characters and the whitespace character, underscore (_) sign, hash sign (#), and ampersand sign (&). Agent name can't start with or end with a whitespace character, although whitespace is allowed inside the name.
agentHost	Host name or IP address of the computer of the Data Extractor Agent. Mandatory parameter. Value for this parameter is **empty** by default.
agentPort	Port number that the Data Extractor Agent is listening to in range 0-65535. Mandatory parameter. Value for this parameter is **empty** by default. Leading and trailing spaces are ignored.
useSSL	Boolean flag to use Secure Socket Layer (SSL) to encrypt a connection to the Data Extractor Agent. Optional parameter. Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
keyName	Certificate Key Store name.
trustName	Certificate Trust Store name. Mandatory if *useSSL* parameter is set to `true`.

agentParameters	JSON array with the sets of parameters and values. Optional parameter. Syntax is as follows:
	
	`'[`
	`{"parameter_name1": "value1"},`
	`{"parameter_name2": "value2"},`
	`...`
	`{"parameter_nameN": "valueN"}`
	`]'`

timeout	Timeout in sec. Optional parameter. The default value is 30 sec.

Important! Combination *agentName*, *agentHost*, *agentPort* used to uniquely identify the Agent.

3.5.20.2. Unregister OLAP Agent

This command is used to unregister an Agent by its name.

Syntax:

```
UnregisterOLAPAgent
   -name: 'agentName'
   -host: 'agentHost'
   -port: 'agentPort'
/
```

Where:

agentName	Name of the Data Extractor Agent to unregister. Mandatory parameter. Must be an existing Data Extractor Agent name, previously created by RegisterOLAPAgent command. Otherwise, if an Agent with the specified name does not exist, an error is raised.
agentHost	Host name or IP address of the computer of the Data Extractor Agent. Mandatory parameter. Value for this parameter is **empty** by default.
agentPort	Port number that the Data Extractor Agent is listening to in range 0-65535. Mandatory parameter. Value for this parameter is **empty** by default. Leading and trailing spaces are ignored.

Important! Combination *agentName*, *agentHost*, *agentPort* used to uniquely identify the Agent.

3.5.20.3. Refresh OLAP Agent

This command is used to ping a Data Extractor Agent.

Syntax:

```
RefreshOLAPAgent
   -name: 'agentName'
   -host: 'agentHost'
   -port: 'agentPort'
/
```

Where:

agentName	Name of the Data Extractor Agent. Mandatory parameter. Must be an existing Data Extractor Agent name, previously created by RegisterOLAPAgent command. Otherwise, if an Agent with the specified name does not exist, an error is raised.
agentHost	Host name or IP address of the computer of the Data Extractor Agent. Mandatory parameter. Value for this parameter is **empty** by default.

agentPort	Port number that the Data Extractor Agent is listening to in range 0-65535. Mandatory parameter. Value for this parameter is **empty** by default. Leading and trailing spaces are ignored.

Important! Combination *agentName*, *agentHost*, *agentPort* used to uniquely identify the Agent.

3.5.20.4. Refresh all OLAP Agents

This command is used to refresh (ping) all Data Extractor Agents for a specific source server.

There are no command parameters.

Syntax:

RefreshAllOLAPAgents
/

3.5.20.5. Create OLAP Task

This command creates a new local Extractor Task.

Syntax:

CreateOLAPTask
-name: '*taskName*'
-filter: '*filterName*'
-treePath: '*treePath*'
-namePath: '*namePath*'
-migrationType: '*migrationType*'
[-extractLOBs: '*extractLOBs*']
[-enableLogging: '*enableLogging*']
[-loggingLevel: '*loggingLevel*']
[-delimiter: '*delimiterCharacter*']
[-compressionFormat: '*compressionFormat*']
[-nullString: '*nullString*']
[-sortingStrategy: '*sortingStrategy*']
[-tempSchema: '*tempSchema*']
[-outFileSize: '*outFileSize*']
[-S3Bucket: '*S3Bucket*']
[-S3Folder: '*S3Folder*']
[-S3LobBucket: '*S3LobBucket*']
[-S3LobFolder: '*S3LobFolder*']
[-useRTRIM: '*useRTRIM*']
[-keepFiles: '*keepFiles*']
[-useAutoBalancing: '*useAutoBalancing*']
[-freezingInterval: '*freezingInterval*']
[-maxErrors: '*maxErrors*']

```
    [-acceptInvChars: 'acceptInvChars']
    [-blanksAsNull: 'blanksAsNull']
    [-emptyAsNull: 'emptyAsNull']
    [-truncateColumns: 'truncateColumns']
    [-compUpdate: 'compUpdate']
    [-statUpdate: 'statUpdate']
    [-noLoad: 'noLoad']
    [-snowballDevice: 'snowballDevice']
    [-snowballFileSize: 'snowballFileSize']
    [-useProxy: 'useProxy']
    [-proxyProtocol: 'proxyProtocol']
    [-proxyHost: 'proxyHost']
    [-proxyPort: 'proxyPort']
    [-proxyUser: 'proxyUser']
    [-proxyPassword: 'proxyPassword']
    [-keepFilesOnS3: keepFilesOnS3]
    [-useCurrentSourceConnection: 'useCurrentSourceConnection']
    [-connectionType: 'connectionType']
    [-secretName: 'secretName']
    [-host: 'host']
    [-port: 'serverPort']
    [-database: 'databaseName']
    [-serviceName: 'serviceName']
    [-user: 'username']
    [-password: 'password']
    [-tnsAlias: 'tnsAlias']
    [-tnsFilePath: 'tnsFilePath']
    [-tnsConnectIdentifier: 'tnsConnectIdentifier']
    [-useSSL: 'useSSL']
    [-sslAuthentication: 'sslAuthentication']
    [-keyStoreAlias: 'keyStoreAlias']
    [-trustStoreAlias: 'trustStoreAlias']
    [-serverCertificate: 'serverCertificate']
    [-userCertificate: 'userCertificate']
    [-timeout: 'timeout']
    [-s3EndpointType: 's3EndpointType']
    [-s3VpcEndpoint: 's3VpcEndpoint']
    [-awsRoleArn: 'awsRoleArn']
    [-awsRegion: 'awsRegion']
    [-encryptionType: 'encryptionType']
/
```

Where:

taskName	Name of the Data Migration Task to create. This field can contain only alphanumeric characters and hyphens. Mandatory parameter.

filterName	Name of the filter previously created with CreateFilter command. You can process only tables. This parameter is mandatory if neither of path parameters (*treePath* or *namePath*) is specified. Filter property **origin** must be set to **source**, otherwise an exception (error) is thrown. Exception text: "Specified filter origin must be "source".
treePath	Object tree path. A path to a specific type of object or object name (object type-name chain). You can process only tables. This parameter is mandatory if neither *filterName* nor *namePath* parameter is specified.
namePath	Object name path. A path to a specific object name (name chain). You can process only tables. This parameter is mandatory if neither *filterName* nor *treePath* parameter is specified.
migrationType	Migration method (type) to use. Mandatory parameter. **Possible values** **extract_only** — Extract only. **extract_upload** — Extract and upload. **extract_upload_copy** — Extract, upload and copy. The default value for parameter is **extract_only**. Values are case insensitive, leading and trailing spaces are ignored.
extractLOBs	Boolean flag to extract large objects. Optional parameter. Valid values are `true` or `false`. The default value is `true`. If set to `false`, then reduces the amount of data to extract. Values are case insensitive, leading and trailing spaces are ignored.
enableLogging	Turn on task logging (Boolean flag) to see detailed information about a task. Task log can be used to debug problems. Optional parameter. Supported values are `true` or `false`. The default value is `true`. Values are case insensitive, leading and trailing spaces are ignored.

<table>
<tr><td>loggingLevel</td><td>Level of detail to expose in Task log. Each level includes all messages from the previous level. Mandatory if the enableLogging parameter is set to <code>true</code>, optional otherwise.

<table><tr><th colspan="2">Possible values</th></tr><tr><td>error</td><td>The smallest amount of detail</td></tr><tr><td>warning</td><td></td></tr><tr><td>info</td><td></td></tr><tr><td>debug</td><td></td></tr><tr><td>trace</td><td>The largest amount of detail</td></tr></table>
The default value for parameter is trace.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>delimiterCharacter</td><td>Specifies the single ASCII character that is used to separate fields in the input file, such as a pipe character (|), a comma (,), or a tab (\t). Non-printing ASCII characters are supported. ASCII character can also be represented in octal, using the format '\ddd', where 'd' is an octal digit (0-7).</td></tr>
<tr><td>compressionFormat</td><td>Specifies the compression format of input file or files.

<table><tr><th colspan="2">Possible values</th></tr><tr><td>no_compression</td><td>No compression</td></tr><tr><td>gzip</td><td>GZIP compression format</td></tr><tr><td>bzip2</td><td>BZIP2 compression format</td></tr><tr><td>zstd</td><td>ZSTD compression format</td></tr></table>
Default value: gzip</td></tr>
<tr><td>nullString</td><td>Determines NULL AS 'nullString'. 'nullString' will be substituted with the entered value. It means that load fields match inputed string as NULL. Inputed string can be any string. If data includes a null terminator, also referred to as NUL (UTF-8 0000) or binary zero (0x000), COPY treats it as an end of record (EOR) and terminates the record. If a field contains only NUL, you can use NULL AS to replace the null terminator with NULL by specifying '\0' or '\000' (for example, NULL AS '\0' or NULL AS '\000'). If a field contains a string that ends with NUL and NULL AS is specified, the string is inserted with NUL at the end. Do not use '\n' (newline) for the 'nullString' value. Amazon Redshift reserves '\n' for the use as a line delimiter.

The default 'nullString' is '\N'.</td></tr>
</table>

sortingStrategy	If an extract fails, sorting the output allows the extract to restart from the point of failure. Choose one of the sorting option if there is a chance the extract process might be interrupted. **Possible values** **sorting_after_fail** — Sorting after first fail **sorting** — Sorting if possible **never** — Never sorting The default value is **sorting_after_fail**.
tempSchema	Schema name on the source server in which Extractor is able to create temporary objects.
outFileSize	Size (in bytes) of each chunk in modules uploaded to the bucket on S3. Valid values range from 10485760 to 1073741824. Default value: 10485760.
S3Bucket	Name of an S3 bucket to upload data into. Mandatory if *migrationType* parameter set to **extract_upload** or **extract_upload_copy**, otherwise optional. If the value for this parameter isn't set, then the value is taken from the current active AWS profile (see SetAWSProfile command).
S3Folder	Name of the folder in an S3 bucket to store the data. Mandatory if *migrationType* parameter set to **extract_upload** or **extract_upload_copy**, otherwise optional.
S3LobBucket	Name of an S3 bucket to upload LOB data into. Mandatory if *migrationType* parameter set to **extract_upload** or **extract_upload_copy**, and **extractLOBs** parameter set to `true`. If the value for this parameter isn't set, then the value is taken from the current active AWS profile (see SetAWSProfile command).
S3LobFolder	Name of the folder in an S3 bucket to store the Large Object (LOB) data. Optional parameter. Mandatory if *migrationType* parameter set to **extract_upload** or **extract_upload_copy**, and **extractLOBs** parameter set to `true`.
useRTRIM	Determines whether to remove all spaces from the right end or not. Optional parameter. Valid values for this parameter are `true` or `false`. The default value is `true`. Values are case insensitive, leading and trailing spaces are ignored.

keepFiles	Determines whether to keep files locally after upload to Amazon S3 or not. Optional parameter. Valid values for this parameter are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
useAutoBalancing	Determines whether to use subtask auto-balancing between agents or not. Optional parameter. Supported values for this parameter are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
freezingInterval	The interval, in minutes, during which the subtask can remain in the "frozen" state while waiting for the rebalance operation to complete. Optional parameter. Actual if *useAutoBalancing* parameter is set to `true`. The default value is 10.
maxErrors	The maximum possible number of errors at which the download will not be fail. Optional parameter. If the load returns the *maxErrors* number of errors or greater, the load fails.
acceptInvChars	This option enables loading data into VARCHAR columns even if the data contains invalid UTF-8 characters. Optional parameter. When *acceptInvChars* is specified, COPY replaces each invalid UTF-8 character with a string of equal length consisting of the character specified by replacement char. Valid values for this parameter are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
blanksAsNull	This option determines how to load blank fields which only consist of white space characters. Valid values for this parameter are `true` or `false`. The default value is `true`. Value of `true` means to load blank fields as NULL, otherwise, if `false`, load the space characters AS IS. Values are case insensitive, leading and trailing spaces are ignored.
emptysAsNull	Possible values are `true` or `false`. If set to `true`, Amazon Redshift loads empty CHAR and VARCHAR fields as NULL. The default value is `true`.

truncateColumns	This option truncates data in columns to the appropriate number of characters so that it fits the column specification. This option applies only to columns with a VARCHAR or CHAR data type, and rows 4 MB or less in size. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
compUpdate	This option controls whether compression encodings are automatically applied during a copy operation. Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
statUpdate	This option governs automatic computation and refresh of optimizer statistics at the end of a successful copy command. Supported values are `true` and `false`. The default value is `true`, and it means that statistics are updated automatically if the table is initially empty. Values are case insensitive, leading and trailing spaces are ignored.
noLoad	This option checks the validity of the data file without actually loading the data. Supported values are `true` and `false`. The default value is `true`, and it means that file loading will be checked on errors before running the actual data load. Values are case insensitive, leading and trailing spaces are ignored.
snowballDevice	Specifies snowball device that is used to transfer data to Amazon S3.
snowballFileSize	Size (in bytes) of each chunk in modules uploaded to the bucket on Snowball. Zero is autodetect value. Supported values range from 10485760 to 1073741824. Actual if *snowballDevice* is specified. Default value: 10485760.
useProxy	Boolean flag to use proxy server. Optional parameter. Actual if *migrationType* parameter set to **extract_upload** or **extract_upload_copy**. Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
proxyProtocol	Specifies proxy protocol. Allowed values are: HTTP, HTTPS.
proxyHost	Proxy host. Mandatory if *useProxy* is set to `true`.
proxyPort	Proxy port. Mandatory if *useProxy* is set to `true`.
proxyUser	Proxy username. Optional parameter. Actual if *useProxy* parameter set to `true`.

proxyPassword	Proxy password. Optional parameter. Actual if *useProxy* parameter is set to `true`.
keepFilesOnS3	Determines whether to keep files on Amazon S3 after copying to Amazon Redshift or not. Actual if *migrationType* parameter is set to **extract_upload_copy**. Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
useCurrentSourceConnection	Use current source connection. Supported values are `true` or `false`. The default value is `true`.
connectionType	Connection type for vendor ORACLE. **Possible values** **BASIC_SERVICE_NAME** **BASIC_SID** **TNS_ALIAS** **TNS_CONNECT_IDENTIFIER** The default value is **BASIC_SID**. For **TNS_ALIAS** need to specify **tnsAlias** and **tnsFilePath**. For **TNS_CONNECT_IDENTIFIER** need to specify **tnsConnectIdentifier**. For **BASIC_SERVICE_NAME** need to specify **serviceName**. For other values of vendor this parameter can be omitted.

<table>
<tr><td>secretName</td><td>The name of the AWS Secret to get the secret values of a database at the AWS Secrets Manager. An example of the name of the AWS Secret: ALL.SOURCE.ORACLE_19
An example of the AWS command to get the secret values of the ALL.SOURCE.ORACLE_19 secret: aws secretsmanager get-secret-value --secret -id ALL.SOURCE.ORACLE_19
Besides others, the response of this type of AWS command contains of a SecretString section. In the SecretString section, there are 5 pairs "field":"value" which are used by AWS SCT CLI:

<table><tr><td>host</td><td>optional</td></tr><tr><td>port</td><td>optional</td></tr><tr><td>dbname</td><td>optional</td></tr><tr><td>username</td><td>mandatory</td></tr><tr><td>password</td><td>mandatory</td></tr></table>
Your AWS Secret in AWS Secrets Manager can store values for the username, password, host, port and dbname fields. If AWS SCT CLI can retrieve these values, the application uses these values. If you explicitly set these values in your CLI script, AWS SCT CLI uses them instead of values from the AWS Secret.

Value of the dbname field of the secret for ORACLE could be used as either the value of the sid parameter or the value of the serviceName parameter depending on value of the connectionType parameter.

Attention! If any value from the SecretString is used it is necessary to put an appropriate string to the log file with the name of the AWS SCT CLI command and a list of the fields from the SecretString (only names of the fields without values) which were used.</td></tr>
<tr><td>host</td><td>Server name or IP address.</td></tr>
<tr><td>port</td><td>Port.</td></tr>
<tr><td>databaseName</td><td>Database name.</td></tr>
<tr><td>serviceName</td><td>Used for source vendor "ORACLE", when connectionType is BASIC_SERVICE_NAME</td></tr>
<tr><td>username</td><td>User name.</td></tr>
<tr><td>password</td><td>Password.</td></tr>
<tr><td>tnsAlias</td><td>Transparent Network Substrate (TNS) database connection alias, which is specified in the TNSNAMES.ORA file.

Mandatory if vendor parameter set to ORACLE and connectionType parameter set to tns_alias.</td></tr>
</table>

tnsFilePath	Entire OS file system path, including the file name, to the file TNSNAMES.ORA file (contains connection information for Oracle services). Mandatory if *vendor* parameter set to ORACLE and *connectionType* parameter set to **tns_alias**.
tnsConnectIdentifier	Transparent Network Substrate (TNS) names connect identifier for Oracle Database. Mandatory if *vendor* parameter is set to ORACLE and *connectionType* parameter is set to **tns_connect_identifier**.
useSSL	Boolean flag to use Secure Socket Layer (SSL) to encrypt a connection to the database. Optional parameter. Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored. For Oracle Database (vendor = ORACLE): If *useSSL* is set to `false` then *username* and *password* are mandatory. If *useSSL* is set to `true` and *sslAuthentication* is set to `false`, the *username*, *password* and *trustName* are mandatory. If *useSSL* is set to `true` and *sslAuthentication* is set to `true` then *trustName* and *keyName* are mandatory, but *username* and *password* aren't required. For Microsoft SQL Server (vendor = MSSQL), if *useSSL* is set to `true`, *username* and *password* are mandatory.
sslAuthentication	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored. For Oracle Database (vendor = ORACLE): If *useSSL* is set to 'true' and *sslAuthentication* is set to `false` *username*, *password* and *trustStoreAlias* are mandatory. If *useSSL* is set to `true` and *sslAuthentication* is set to `true` *trustStoreAlias* and *keyStoreAlias* are mandatory, but *username* and *password* aren't required.
keyStoreAlias	Certificate Key Store name. Optional parameter. For Oracle Database (vendor = ORACLE): If *useSSL* is set to `true` and `sslAuthentication` is set to `true`, *keyStoreAlias* become mandatory.

trustStoreAlias	Certificate Trust Store name. Optional parameter. For Oracle Database (vendor = ORACLE): If *useSSL* is set to `true`, *trustStoreAlias* is mandatory.
serverCertificate	Server certificate. If *useSSL* is set to `true`, *serverCertificate* is mandatory.
userCertificate	User certificate. If *useSSL* is set to `true`, *userCertificate* is mandatory.
timeout	Timeout in sec. Optional parameter. The default value is 30 sec.
s3EndpointType	Type of endpoint for an Amazon S3 bucket. Optional parameter. Possible values: **default**, **FIPS**, **VPCE**. The default value **default**. If the current parameter is omitted, the value should be taken from appropriate **s3_settings_endpoint_type** setting from extractor(*) settings matrix.
s3VpcEndpoint	Value of the VPC endpoint. If **s3EndpointType** is set to **VPCE**, this parameter is mandatory. If the current parameter is omitted and **s3EndpointType** is set to **VPCE**, the value should be taken from appropriate **s3_settings_vpc_endpoint** setting from extractor(*) settings matrix.
awsRoleArn	AWS Role in ARN format. https://docs.aws.amazon.com/general/latest/gr/aws-arns-and-namespaces.html For example, arn:aws:iam::123456789012:role/AWSSctPowerUser The Role will be assumed by extractor to upload data to AWS S3 and copy to Amazon Redshift. Both current and *awsRegion* parameters must either be set or not. If *awsRegion* parameter isn't empty become mandatory. If the current parameter is omitted the current active AWS profile is used. Values are case insensitive, leading and trailing spaces are ignored.
awsRegion	AWS Region available for AWS account. The Region will be used by extractor to upload data to Amazon S3 and copy to Amazon Redshift. Both current and *awsRegion* parameters must either be set or not. If *awsRoleArn* parameter isn't empty become mandatory. List of all regions available at this link. Values are case insensitive, leading and trailing spaces are ignored.

encryptionType	Client-side encryption type to use. Optional parameter. **Possible values** **NONE** — Do not use encryption. **CSE_SK** — Client-side encryption using a client-side symmetric root key. The default value is **NONE**. Values are case insensitive, leading and trailing spaces are ignored.

3.5.20.6. Start OLAP Task

This command starts the local data extractor task.

Syntax:

```
StartOLAPTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the Task to start. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.20.7. Restart OLAP Task

This command is used to restart the specified data extraction task.

Syntax:

```
RestartOLAPTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the Task to restart. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.20.8. Reset OLAP Task

This command is used to reset the specified data extraction task.

Syntax:

```
ResetOLAPTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the Task to reset. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.20.9. Delete OLAP Task

This command is used to delete the specified data extraction task.

Syntax:

```
DeleteOLAPTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the Task to delete. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.20.10. Refresh OLAP Task

This command used to refresh the local extraction task.

Syntax:

```
RefreshOLAPTask
   -name: 'taskName'
/
```

Where:

taskName	Name of the Task to refresh. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

3.5.20.11. Refresh all OLAP Tasks

This command is used to refresh all local data extraction tasks at once.

There are no command parameters.

Syntax:

```
RefreshAllOLAPTasks
/
```

3.5.20.12. Wait OLAP Task status

This command will wait until the status of the OLAP Task equals to the one from the status list.

That is, the command stops the current thread run until the status of the Task with the specified name becomes equal to the one from the waiting status list.

Syntax:

```
WaitOLAPTaskStatus
   -name: 'taskName'
   -status: 'waitStatus'
   [-timeout: 'waitTimeout']
/
```

Where:

taskName	Name of the Task whose status is expected to change to the specific one. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.

<table>
<tr><td>waitStatus</td><td>Single Task status, or list of statuses separated by a semicolon symbol (;) to wait for. Mandatory parameter.

<table>
<tr><th>Supported values</th><th>State:</th></tr>
<tr><td>creating</td><td>intermediate</td></tr>
<tr><td>starting</td><td>intermediate</td></tr>
<tr><td>restarting</td><td>intermediate</td></tr>
<tr><td>stopping</td><td>intermediate</td></tr>
<tr><td>running</td><td>intermediate</td></tr>
<tr><td>resuming</td><td>intermediate</td></tr>
<tr><td>pending</td><td>intermediate</td></tr>
<tr><td>waiting</td><td>intermediate</td></tr>
<tr><td>deleting</td><td>intermediate</td></tr>
<tr><td>enqueued</td><td>intermediate</td></tr>
<tr><td>postponed</td><td>intermediate</td></tr>
<tr><td>created</td><td>final</td></tr>
<tr><td>stoped</td><td>final</td></tr>
<tr><td>failed</td><td>final</td></tr>
<tr><td>deleted</td><td>final</td></tr>
<tr><td>completed</td><td>final</td></tr>
<tr><td>frozen</td><td>final</td></tr>
</table>

Example of Task status list: 'completed;failed;deleted'

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>waitTimeout</td><td>Maximal waiting time in seconds (sec). Supported values are integer numbers above zero. Optional parameter.

If omitted then waiting for the Task status is performed without any time limitations.

Leading and trailing spaces are ignored.</td></tr>
</table>

3.5.20.13. Replace Source Endpoint

This command replaces Source Endpoint for a data extraction task.

Syntax:

ReplaceSourceEndpointForOLAPTask
-name: '*taskName*'

```
    [-connectionType: 'connectionType']
    [-secretName: 'secretName']
    -host: 'host'
    -port: 'serverPort'
    -database: 'databaseName'
    [-serviceName:'serviceName']
    -user:'username'
    -password: 'password'
    [-tnsAlias: 'tnsAlias']
    [-tnsFilePath: 'tnsFilePath']
    [-tnsConnectIdentifier: 'tnsConnectIdentifier']
    [-useSSL: 'useSSL']
    [-sslAuthentication: 'sslAuthentication']-
    [-keyStoreAlias: 'keyStoreAlias']
    [-trustStoreAlias: 'trustStoreAlias']
/
```

Where:

taskName	Name of the Task to replace. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.
connectionType	Connection type for vendor **ORACLE**. **Possible values** **BASIC_SERVICE_NAME** **BASIC_SID** **TNS_ALIAS** **TNS_CONNECT_IDENTIFIER** The default value is **BASIC_SID**. For **TNS_ALIAS** need to specify **tnsAlias** and **tnsFilePath**. For **TNS_CONNECT_IDENTIFIER** need to specify **tnsConnectIdentifier**. For **BASIC_SERVICE_NAME** need to specify **serviceName**. For other values of vendor this parameter can be omitted.

<table>
<tr><td>secretName</td><td>The name of the AWS Secret to get the secret values of a database at the AWS Secrets Manager. An example of the name of the AWS Secret: ALL.SOURCE.ORACLE_19
An example of the AWS command to get the secret values of the ALL.SOURCE.ORACLE_19 secret: aws secretsmanager get-secret-value --secret -id ALL.SOURCE.ORACLE_19
Besides others, the response of this type of AWS command contains of a SecretString section. In the SecretString section, there are 5 pairs "field":"value" which are used by AWS SCT CLI:

<table><tr><td>host</td><td>optional</td></tr><tr><td>port</td><td>optional</td></tr><tr><td>dbname</td><td>optional</td></tr><tr><td>username</td><td>mandatory</td></tr><tr><td>password</td><td>mandatory</td></tr></table>
Your AWS Secret in AWS Secrets Manager can store values for the username, password, host, port and dbname fields. If AWS SCT CLI can retrieve these values, the application uses these values. If you explicitly set these values in your CLI script, AWS SCT CLI uses them instead of values from the AWS Secret.

Value of the dbname field of the secret for ORACLE could be used as either the value of the sid parameter or the value of the serviceName parameter depending on value of the connectionType parameter.

Attention! If any value from the SecretString is used it is necessary to put an appropriate string to the log file with the name of the AWS SCT CLI command and a list of the fields from the SecretString (only names of the fields without values) which were used.</td></tr>
<tr><td>host</td><td>Server name or IP address.</td></tr>
<tr><td>port</td><td>Port.</td></tr>
<tr><td>databaseName</td><td>Database name.</td></tr>
<tr><td>serviceName</td><td>Used for source vendor "ORACLE", when connectionType is BASIC_SERVICE_NAME</td></tr>
<tr><td>username</td><td>User name.</td></tr>
<tr><td>password</td><td>Password.</td></tr>
<tr><td>tnsAlias</td><td>Transparent Network Substrate (TNS) database connection alias, which is specified in the TNSNAMES.ORA file.

Mandatory if vendor parameter set to ORACLE and connectionType parameter set to tns_alias.</td></tr>
</table>

tnsFilePath	Entire OS file system path, including the file name, to the file TNSNAMES.ORA file (contains connection information for Oracle services). Mandatory if *vendor* parameter set to ORACLE and *connectionType* parameter set to **tns_alias**.
tnsConnectIdentifier	Transparent Network Substrate (TNS) names connect identifier for Oracle Database. Mandatory if *vendor* parameter is set to ORACLE and *connectionType* parameter is set to **tns_connect_identifier**.
useSSL	Boolean flag to use Secure Socket Layer (SSL) to encrypt a connection to the database. Optional parameter. Supported values are `true` or `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored. For Oracle Database (vendor = ORACLE): If *useSSL* is set to `false` then *username* and *password* are mandatory. If *useSSL* is set to `true` and *sslAuthentication* is set to `false`, the *username*, *password* and *trustName* are mandatory. If *useSSL* is set to `true` and *sslAuthentication* is set to `true` then *trustName* and *keyName* are mandatory, but *username* and *password* aren't required. For Microsoft SQL Server (vendor = MSSQL), if *useSSL* is set to `true`, *username* and *password* are mandatory.
sslAuthentication	Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored. For Oracle Database (vendor = ORACLE): If *useSSL* is set to 'true' and *sslAuthentication* is set to `false` *username*, *password* and *trustStoreAlias* are mandatory. If *useSSL* is set to `true` and *sslAuthentication* is set to `true` *trustStoreAlias* and *keyStoreAlias* are mandatory, but *username* and *password* aren't required.
keyStoreAlias	Certificate Key Store name. Optional parameter. For Oracle Database (vendor = ORACLE): If *useSSL* is set to `true` and `sslAuthentication` is set to `true`, *keyStoreAlias* become mandatory.

trustStoreAlias	Certificate Trust Store name. Optional parameter. For Oracle Database (vendor = ORACLE): If *useSSL* is set to `true`, *trustStoreAlias* is mandatory.

3.5.20.14. Replace Agent Assignment

This command replaces agent assignment for a data extraction task.

Syntax:

```
ReplaceAgentForOLAPTask
   -taskName: 'taskName'
   -agentName: 'agentName'
   -host: 'agentHost'
   -port: 'agentPort'
/
```

Where:

taskName	Name of the Task for which an agent replacement is required. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.
agentName	Name of the Data Extractor Agent. Mandatory parameter. Make sure that you use an existing Data Extractor Agent name, previously created by the RegisterOLAPAgent command. If an Agent with the specified name doesn't exist, AWS SCT raises an error.
agentHost	Host name or IP address of the computer of the Data Extractor Agent. Mandatory parameter. Value for this parameter is **empty** by default.
agentPort	Port number that the Data Extractor Agent is listening to in a range 0-65535. Mandatory parameter. Value for this parameter is **empty** by default. Leading and trailing spaces are ignored.

Important! Combination *agentName*, *agentHost*, *agentPort* used to uniquely identify the Agent.

3.5.20.15. Import AWS Data Extractor Task

This command imports AWS data extraction task.

Syntax:

```
ImportOLAPTask
   -file: 'fileName'
/
```

Where:

fileName	Full file name with path and file extension. File extension is "xml". Mandatory parameter. The description of the OS paths is in the OS file system paths for commands chapter.

3.5.20.16. Export AWS Data Extractor Task

This command exports AWS Data Extractor Task.

Syntax:

```
ExportOLAPTask
   -name: 'taskName'
   -directory: 'directoryPath'
/
```

Where:

taskName	Name of the Task to export. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.
directoryPath	The OS file system path to the directory for exporting task. Mandatory parameter. The description of the OS paths is in the OS file system paths for commands chapter.

3.5.20.17. Export all AWS Data Extractor Tasks

This command exports all AWS data extraction tasks.

Syntax:

```
ExportALLOLAPTasks
   -directory: 'directoryPath'
/
```

Where:

directoryPath	The OS file system path to the directory for exporting task. Mandatory parameter. The description of the OS paths is in the OS file system paths for commands chapter.

3.5.20.18. Save Data Extractor OLAP Task log

This command saves log files for Data Extractor OLAP Task.

Syntax:

```
SaveOLAPTaskLog
   -name: 'taskName'
   -directory: 'directoryPath'
/
```

Where:

taskName	Name of the Data Extractor OLAP Task. Mandatory parameter. Make sure that you use an existing task name, previously created by the CreateOLAPTask command. If a task with the specified name doesn't exist, AWS SCT raises an error.
directoryPath	The OS file system path to the directory for saving log files in CSV format. Mandatory parameter. The description of the OS paths is in the OS file system paths for commands chapter.

3.5.20.19. Print OLAP Task status

This command displays information about the current status of the specified tasks.

Syntax:

```
PrintOLAPTaskStatus
   [-names: 'taskNames']
   [-directory: 'directoryPath']
/
```

Where:

taskNames	A list of task names that you created with the CreateOLAPTask command to output the statuses of these tasks into the log and optionally save them to a JSON file. Values in this list are separated by a semicolon (;). This parameter is optional. If you omit this parameter, AWS SCT adds information about the current status of all existing tasks into the log or into a JSON file.

directoryPath	An OS file system path to a directory where AWS SCT saves your JSON task status file. Depends on the OS version. This parameter is optional. If the directory at this path doesn't exist, AWS SCT creates it. If you ommit this parameter, AWS SCT adds the task status information only into the log. For more information about descriptions of OS paths, see OS file system paths for commands.

For an example of a command output in JSON format, see OLAP Task status JSON file sample in appendices.

Examples:

```
# 1. Print the statuses of all existing tasks into the log.
PrintTaskStatus
/

# 2. Print the status of a particular task into the log.
PrintTaskStatus
    -names: 'DemoTask'
/

# 3. Print the statuses of particular tasks into a JSON file. You can use this example in Windows.
PrintTaskStatus
    -names: 'DemoTask;ExtractTask'
    -directory: 'C:\temp\task_statuses'
/

# 4. Print the statuses of particular tasks into a JSON file. You can use this example in Linux.
PrintOLAPTaskStatus
    -directory: '/home/root/task_statuses'
/
```

3.5.21. Working with Transformation Rules

This section describes commands for working with Transformation Rules.

3.5.21.1. Create Transformation Rule(s)

This command creates a Transformation Rule.

There are two different syntaxes of this command, the first one (Syntax 1) allows to create one Rule at a time, while the second one (Syntax 2) allows to create several Rules at a time.

Also, there are two levels at which Transformation Rules can be set, requiring separate combinations of the mandatory command parameters to be used in order to set each one of them. In other words, there are two type of scope: `vendor-to-vendor` and `server-to-server`.

The `vendor-to-vendor` Transformation Rule applies to all vendor's servers (for example, all existing Oracle servers to all exiting PostgreSQL server mappings), while the `server-to-server` one applies to the particular server mapping only.

Please review this in details in the table below:

Level	Parameters	Description
Server (server-to-server)	sourceName + targetName	The Transformation Rule set on this level affects only the conversion performed on the particular pair of source-target servers. It is possible to successfully add a Transformation Rule to this level only if you created a server mapping between the specific pair of servers (specified by `-sourceName` and `-targetName` parameters) with the AddServerMapping command.
Vendor (vendor-to-vendor)	sourceVendor + targetVendor	The Transformation Rule set on this level affects all the conversions performed on servers of the specified source and target vendor pair (specified by `-sourceVendor` and `-targetVendor` parameters). This Rule will further apply to all new server mappings with such vendor pair.

Syntax 1:

CreateTransformationRule
-name: '*ruleName*'
[-sourceName: '*sourceName*']
[-targetName: '*targetName*']
[-sourceVendor: '*sourceVendor*']
[-targetVendor: '*targetVendor*']
[-object: '*objectType*']
-action: '*ruleAction*'
[-state: '*ruleState*']
[-databaseName: '*databaseName*']
[-schemaName: '*schemaName*']
[-tableName: '*tableName*']
[-parentName: '*parentName*']
[-routineName: '*routineName*']
[-functionName: '*functionName*']
[-parameterName: '*parameterName*']
[-variableName: '*variableName*']
[-columnName: '*columnName*']
[-viewName: '*viewName*']
[-packageName: '*packageName*']
[-packageTaskName: '*packageTaskName*']
[-variableSsisName: '*variableSsisName*']
[-namespace: '*namespace*']
[-sourceValue: '*sourceValue*']
[-targetValue: '*targetValue*']

```
    [-oldDataType: 'oldDataType']
    [-oldDataTypeLength: 'oldDataTypeLength']
    [-oldDataTypePrecision: 'oldDataTypePrecision']
    [-oldDataTypeScale: 'oldDataTypeScale']
    [-oldDataTypeSchemaName: 'oldDataTypeSchemaName']
    [-oldDataTypeParentName: 'oldDataTypeParentName']
    [-oldDataTypeCustomName: 'oldDataTypeCustomName']
    [-oldCollation: 'oldCollation']
    [-newDataType: 'newDataType']
    [-newDataTypeLength: 'newDataTypeLength']
    [-newDataTypePrecision: 'newDataTypePrecision']
    [-newDataTypeScale: 'newDataTypeScale']
    [-newDataTypeSchemaName: 'newDataTypeSchemaName']
    [-newDataTypeParentName: 'newDataTypeParentName']
    [-newDataTypeCustomName: 'newDataTypeCustomName']
    [-newCollation: 'newCollation']
/
```

Where:

ruleName	The name of the Transformation Rule to create. Mandatory parameter. This name must be unique among other Rule names.
sourceName	The name of the source connection that you previously created with the AddSource command. This parameter is mandatory for specifying a server-level (`server-to-server`) Transformation Rule, otherwise ignored.
targetName	The name of the target connection that you previously created with the AddTarget command. This parameter is mandatory for specifying a server-level (`server-to-server`) Transformation Rule, otherwise ignored.
sourceVendor	The name of the source database vendor. This parameter is mandatory for specifying a vendor-level (`vendor-to-vendor`) Transformation Rule, otherwise ignored. Allowable values can be found in Appendix Database engine abbreviations, where it is noted that the vendor can be used as a source (see "Source?" column) endpoint. Values are case insensitive, leading and trailing spaces are ignored.

targetVendor	The name of the target database vendor. This parameter is mandatory for specifying a vendor-level (`vendor-to-vendor`) Transformation Rule, otherwise ignored. Allowable values can be found in Appendix Database engine abbreviations, where it is noted that the vendor can be used as a target (see "Target?" column) endpoint. Values are case insensitive, leading and trailing spaces are ignored.
objectType	A type of object for which Transformation Rule will be performed. **Allowable values:** table schema column view function result local variable routine parameter package package task variable database Values are case insensitive, leading and trailing spaces are ignored.

ruleAction	An action associated with the Rule. Mandatory parameter. **Allowable values:** rename add_prefix add_suffix remove_prefix remove_suffix change_data_type change_collation replace_prefix replace_suffix convert_lowercase convert_uppercase move_to database remove_database_name remove_schema_name Values are case insensitive, leading and trailing spaces are ignored.
ruleState	Boolean flag to determine the state of the Rule. Optional parameter. Supported values are `enabled` and `disabled`. The default value is `enabled`. Values are case insensitive, leading and trailing spaces are ignored.
databaseName	The name of the database. Optional parameter. Available for following source vendors: MSSQL, AZURE_MSSQL, SYBASE_ASE, NETEZZA, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

schemaName	The name of the schema. Optional parameter. Available for following source vendors: ORACLE, MSSQL, AZURE_MSSQL, POSTGRESQL, MYSQL, SYBASE_ASE, DB2LUW, DB2ZOS, TERADATA, VERTICA, NETEZZA, GREENPLUM, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
tableName	The name of the table. Optional parameter. Available for following source vendors: ORACLE, MSSQL, AZURE_MSSQL, POSTGRESQL, MYSQL, SYBASE_ASE, DB2LUW, DB2ZOS, TERADATA, VERTICA, NETEZZA, GREENPLUM, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
parentName	Parent object name (package name) for routines. Optional parameter. Available for the following source-target vendor pairs: **Source vendor** / **Target vendor** ORACLE / POSTGRESQL ORACLE / AURORA_POSTGRESQL See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

functionName

The name of the function. Optional parameter.

Available for the following source-target vendor pairs:

Source vendor	Target vendor
ORACLE	POSTGRESQL
ORACLE	AURORA_POSTGRESQL

See vendor abbreviations description in Appendix Database engine abbreviations.

You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

parameterName

The name of the parameter. Optional parameter.

Available for the following source-target vendor pairs:

Source vendor	Target vendor
ORACLE	POSTGRESQL
ORACLE	AURORA_POSTGRESQL

See vendor abbreviations description in Appendix Database engine abbreviations.

You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

variableName

The name of the local variable. Optional parameter.

Available for the following source-target vendor pairs:

Source vendor	Target vendor
ORACLE	POSTGRESQL
ORACLE	AURORA_POSTGRESQL

See vendor abbreviations description in Appendix Database engine abbreviations.

You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

columnName	The name of the column. Optional parameter. Available for following source vendors: ORACLE, MSSQL, AZURE_MSSQL, POSTGRESQL, MYSQL, SYBASE_ASE, DB2LUW, DB2ZOS, TERADATA, VERTICA, NETEZZA, GREENPLUM, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
viewName	The name of the view. Optional parameter. Available for following source vendors: ORACLE, MSSQL, AZURE_MSSQL, POSTGRESQL, MYSQL, SYBASE_ASE, DB2LUW, DB2ZOS, TERADATA, VERTICA, NETEZZA, GREENPLUM, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
packageName	The name of the package. Optional parameter. Used only for the SSIS to GLUE conversion pair. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
packgeTaskName	The name of the package task. Optional parameter. Used only for the SSIS to GLUE conversion pair. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

variableSsisName	The name of the variable. Optional parameter. Used only for the SSIS to GLUE conversion pair. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
namespace	The namespace of the variable. Optional parameter. Used only for the SSIS to GLUE conversion pair. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
sourceValue	The value of the source object to be taken into account during the transformation. Optional parameter. Used for the following Rule actions: (`-action` parameter values): `replace_prefix`, `replace_suffix`.
targetValue	The value of the target object to be taken into account during the transformation. Optional parameter. Used for the following Rule actions: (`-action` parameter values): `replace_prefix`, `replace_suffix`.
oldDataType	The name of the old data type. Optional parameter. The data type name from which the transformation must take place. Used for the following Rule action (`-action` parameter value): `change_data_type`.
oldDataTypeLength	The length of the old data type. Optional parameter. The length value of the old data type from which the transformation must take place. Used for the following Rule action (`-action` parameter value): `change_data_type`.

oldDataTypePrecision	The precision of the old data type. Optional parameter. The precision value of the old data type from which the transformation must take place. Used for the following Rule action (`-action` parameter value): `change_data_type`.
oldDataTypeScale	The scale of the old data type. Optional parameter. The scale value of the old data type from which the transformation must take place. Used for the following Rule action (`-action` parameter value): `change_data_type`.
oldDataTypeSchemaName	The name of the schema for the old User Defined Type from which the transformation must take place. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`. Available for the following source-target vendor pairs: **Source vendor** / **Target vendor** ORACLE / POSTGRESQL ORACLE / AURORA_POSTGRESQL See vendor abbreviations description in Appendix Database engine abbreviations.
oldDataTypeParentName	Parent object name (package name) for the old User Defined Type from which the transformation must take place. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`. Available for the following source-target vendor pairs: **Source vendor** / **Target vendor** ORACLE / POSTGRESQL ORACLE / AURORA_POSTGRESQL See vendor abbreviations description in Appendix Database engine abbreviations.

oldDataTypeCustomName	The name of the old User Defined Type from which the transformation must take place. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`. Available for the following source-target vendor pairs: **Source vendor** / **Target vendor** ORACLE / POSTGRESQL ORACLE / AURORA_POSTGRESQL See vendor abbreviations description in Appendix Database engine abbreviations.
oldCollation	The collation of the source table column from which the transformation must take place. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_collation`.
newDataType	The name of the new data type that is used for the target data type during conversion. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`.
newDataTypeLength	The length value for the new data type. Optional parameter. The value of the length for the new data type that is used for the target data type during conversion. The length value of the new data type that is used for the target data type during conversion. Used for the following Rule action (`-action` parameter value): `change_data_type`.
newDataTypePrecision	The precision value for the new data type that is used for the target data type during conversion. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`.
newDataTypeScale	The scale value for the new data type that is used for the target data type during conversion. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`.

<table>
<tr><td>newDataTypeSchemaName</td><td>The name of the schema for the new User Defined Type that is used for the target data type during conversion. Optional parameter.

Used for the following Rule action (<code>-action</code> parameter value): <code>change_data_type</code>.

Available for the following source-target vendor pairs:

<table><tr><th>Source vendor</th><th>Target vendor</th></tr><tr><td>ORACLE</td><td>POSTGRESQL</td></tr><tr><td>ORACLE</td><td>AURORA_POSTGRESQL</td></tr></table>
See vendor abbreviations description in Appendix Database engine abbreviations.</td></tr>
<tr><td>newDataTypeParentName</td><td>Parent object name (package name) for the new User Defined Type that is used for the target data type during conversion. Optional parameter.

Used for the following Rule action (<code>-action</code> parameter value): <code>change_data_type</code>.

Available for the following source-target vendor pairs:

<table><tr><th>Source vendor</th><th>Target vendor</th></tr><tr><td>ORACLE</td><td>POSTGRESQL</td></tr><tr><td>ORACLE</td><td>AURORA_POSTGRESQL</td></tr></table>
See vendor abbreviations description in Appendix Database engine abbreviations.</td></tr>
<tr><td>newDataTypeCustomName</td><td>The name of the new User Defined Type that is used for the target data type during conversion. Optional parameter.

Used for the following Rule action (<code>-action</code> parameter value): <code>change_data_type</code>.

Available for the following source-target vendor pairs:

<table><tr><th>Source vendor</th><th>Target vendor</th></tr><tr><td>ORACLE</td><td>POSTGRESQL</td></tr><tr><td>ORACLE</td><td>AURORA_POSTGRESQL</td></tr></table>
See vendor abbreviations description in Appendix Database engine abbreviations.</td></tr>
</table>

newCollation	The value of the collation that is used for the target table column during conversion. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_collation`.

Syntax 2:

This version of the command syntax is used to bulk create Transformation Rules represented as an array of JSON objects, where each Rule is represented as a dedicated JSON object.

The Transformation Rules JSON array can be passed in either as text (parameter `-rules`) or as a path to a JSON file (parameter `-file`) with the rule objects. Despite the parameter used to specify content of the Rules, the only one of them could be passed at a time.

This means that both parameters are mandatory, but can not be passed at the same time.

CreateTransformationRule
[-rules: '*rulesArray*']
[-file: '*filePath*']
/

Where:

rulesArray	A JSON array of objects with Transformation Rules to create. This parameter is mandatory if `-file` parameter is not specified. The template is described below the description of the command parameters.
filePath	OS file system path to a file that contains Transformation Rule objects array in JSON format. This parameter is mandatory if `-rules` parameter is not specified. Description of the OS paths is in the chapter OS file system paths for commands.

Transformation Rule objects array template:

```
[
  {
    "name": "rule1_name",
    "sourceName": "sourceName",
    "targetName": "targetName",
    "object": "objectType",
    "action": "action",
    "state": "state",
    "databaseName": "databaseName",
    "schemaName": "schemaName",
    "tableName": "tableName",
    "parentName": "parentName",
```

```
    "routineName": "routineName",
    "functionName": "functionName",
    "parameterName": "parameterName",
    "variableName": "variableName",
    "columnName": "columnName",
    "viewName": "viewName",
    "packageName": "packageName",
    "packageTaskName": "packgeTaskName",
    "variableSsisName": "variableSsisName",
    "namespace": "namespace",
    "sourceValue": "sourceValue",
    "targetValue": "targetValue",
    "oldDataType": "oldDataType",
    "oldDataTypeLength": "oldDataTypeLength",
    "oldDataTypePrecision": "oldDataTypePrecision",
    "oldDataTypeScale": "oldDataTypeScale",
    "oldDataTypeSchemaName": "oldDataTypeSchemaName",
    "oldDataTypeParentName": "oldDataTypeParentName",
    "oldDataTypeCustomName": "oldDataTypeCustomName",
    "oldCollation": "oldCollation",
    "newDataType": "newDataType",
    "newDataTypeLength": "newDataTypeLength",
    "newDataTypePrecision": "newDataTypePrecision",
    "newDataTypeScale": "newDataTypeScale",
    "newDataTypeSchemaName": "newDataTypeSchemaName",
    "newDataTypeParentName": "newDataTypeParentName",
    "newDataTypeCustomName": "newDataTypeCustomName",
    "newCollation": "newCollation"
  },
  ...
  {
    "name": "rule2_name",
    "sourceVendor": "sourceVendor",
    "targetVendor": "targetVendor",
    "object": "objectType",
    "action": "action",
    "state": "state",
    "databaseName": "databaseName",
    "schemaName": "schemaName",
    "tableName": "tableName",
    "parentName": "parentName"
  }
]
```

The Appendix Transformation Rules parameters relationship shows the correspondence between an object type, rule action and parameters.

3.5.21.2. Modify Transformation Rule(s)

This command allows to change Transformation Rule attributes.

There are two different syntaxes of this command, the first one (Syntax 1) allows to change one Rule at a time, while the second one (Syntax 2) allows to change attributes for several Rules at a time.

Syntax 1:

ModifyTransformationRule

```
    -name: 'ruleName'
    [-newName: 'newRuleName']
    [-object: 'objectType']
    [-action: 'ruleAction']
    [-state: 'ruleState']
    [-databaseName: 'databaseName']
    [-schemaName: 'schemaName']
    [-tableName: 'tableName']
    [-parentName: 'parentName']
    [-routineName: 'routineName']
    [-functionName: 'functionName']
    [-parameterName: 'parameterName']
    [-variableName: 'variableName']
    [-columnName: 'columnName']
    [-viewName: 'viewName']
    [-packageName: 'packageName']
    [-packageTaskName: 'packageTaskName']
    [-variableSsisName: 'variableSsisName']
    [-namespace: 'namespace']
    [-sourceValue: 'sourceValue']
    [-targetValue: 'targetValue']
    [-oldDataType: 'oldDataType']
    [-oldDataTypeLength: 'oldDataTypeLength']
    [-oldDataTypePrecision: 'oldDataTypePrecision']
    [-oldDataTypeScale: 'oldDataTypeScale']
    [-oldDataTypeSchemaName: 'oldDataTypeSchemaName']
    [-oldDataTypeParentName: 'oldDataTypeParentName']
    [-oldDataTypeCustomName: 'oldDataTypeCustomName']
    [-oldCollation: 'oldCollation']
    [-newDataType: 'newDataType']
    [-newDataTypeLength: 'newDataTypeLength']
    [-newDataTypePrecision: 'newDataTypePrecision']
    [-newDataTypeScale: 'newDataTypeScale']
    [-newDataTypeSchemaName: 'newDataTypeSchemaName']
    [-newDataTypeParentName: 'newDataTypeParentName']
    [-newDataTypeCustomName: 'newDataTypeCustomName']
    [-newCollation: 'newCollation']
/
```

Where:

ruleName	The name of the Transformation Rule that you previously created with the CreateTransformationRule command. Mandatory parameter.
newRuleName	The new name of the Transformation Rule. Optional parameter. This name must be unique among other Rule names.

objectType	A type of object for which Transformation Rule will be performed. **Allowable values:** table schema column view function result local variable routine parameter package package task variable database Values are case insensitive, leading and trailing spaces are ignored.
ruleAction	An action associated with the Rule. Optional parameter. **Allowable values:** rename add_prefix add_suffix remove_prefix remove_suffix change_data_type change_collation replace_prefix replace_suffix convert_lowercase convert_uppercase move_to database remove_database_name remove_schema_name Values are case insensitive, leading and trailing spaces are ignored.

ruleState	Boolean flag to determine the state of the Rule. Optional parameter. Supported values are `enabled` and `disabled`. The default value is `enabled`. Values are case insensitive, leading and trailing spaces are ignored.
databaseName	The name of the database. Optional parameter. Available for following source vendors: MSSQL, AZURE_MSSQL, SYBASE_ASE, NETEZZA, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
schemaName	The name of the schema. Optional parameter. Available for following source vendors: ORACLE, MSSQL, AZURE_MSSQL, POSTGRESQL, MYSQL, SYBASE_ASE, DB2LUW, DB2ZOS, TERADATA, VERTICA, NETEZZA, GREENPLUM, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
tableName	The name of the table. Optional parameter. Available for following source vendors: ORACLE, MSSQL, AZURE_MSSQL, POSTGRESQL, MYSQL, SYBASE_ASE, DB2LUW, DB2ZOS, TERADATA, VERTICA, NETEZZA, GREENPLUM, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

parentName

Parent object name (package name) for routines. Optional parameter.

Available for the following source-target vendor pairs:

Source vendor	Target vendor
ORACLE	POSTGRESQL
ORACLE	AURORA_POSTGRESQL

See vendor abbreviations description in Appendix Database engine abbreviations.

You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

functionName

The name of the function. Optional parameter.

Available for the following source-target vendor pairs:

Source vendor	Target vendor
ORACLE	POSTGRESQL
ORACLE	AURORA_POSTGRESQL

See vendor abbreviations description in Appendix Database engine abbreviations.

You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

parameterName

The name of the parameter. Optional parameter.

Available for the following source-target vendor pairs:

Source vendor	Target vendor
ORACLE	POSTGRESQL
ORACLE	AURORA_POSTGRESQL

See vendor abbreviations description in Appendix Database engine abbreviations.

You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

variableName	The name of the local variable. Optional parameter. Available for the following source-target vendor pairs: **Source vendor** / **Target vendor** ORACLE / POSTGRESQL ORACLE / AURORA_POSTGRESQL See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
columnName	The name of the column. Optional parameter. Available for following source vendors: ORACLE, MSSQL, AZURE_MSSQL, POSTGRESQL, MYSQL, SYBASE_ASE, DB2LUW, DB2ZOS, TERADATA, VERTICA, NETEZZA, GREENPLUM, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
viewName	The name of the view. Optional parameter. Available for following source vendors: ORACLE, MSSQL, AZURE_MSSQL, POSTGRESQL, MYSQL, SYBASE_ASE, DB2LUW, DB2ZOS, TERADATA, VERTICA, NETEZZA, GREENPLUM, SNOWFLAKE. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
packageName	The name of the package. Optional parameter. Used only for the SSIS to GLUE conversion pair. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.

packgeTaskName	The name of the package task. Optional parameter. Used only for the SSIS to GLUE conversion pair. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
variableSsisName	The name of the variable. Optional parameter. Used only for the SSIS to GLUE conversion pair. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
namespace	The namespace of the variable. Optional parameter. Used only for the SSIS to GLUE conversion pair. See vendor abbreviations description in Appendix Database engine abbreviations. You can use the "%" (percent sign) wildcard in the value, which represents zero, one, or multiple characters in a pattern, and allows to mask the unknown parts of the object names.
sourceValue	The value of the source object to be taken into account during the transformation. Optional parameter. Used for the following Rule actions: (`-action` parameter values): `replace_prefix`, `replace_suffix`.
targetValue	The value of the target object to be taken into account during the transformation. Optional parameter. Used for the following Rule actions: (`-action` parameter values): `replace_prefix`, `replace_suffix`.
oldDataType	The name of the old data type. Optional parameter. The data type name from which the transformation must take place. Used for the following Rule action (`-action` parameter value): `change_data_type`.

oldDataTypeLength	The length of the old data type. Optional parameter. The length value of the old data type from which the transformation must take place. Used for the following Rule action (`-action` parameter value): `change_data_type`.
oldDataTypePrecision	The precision of the old data type. Optional parameter. The precision value of the old data type from which the transformation must take place. Used for the following Rule action (`-action` parameter value): `change_data_type`.
oldDataTypeScale	The scale of the old data type. Optional parameter. The scale value of the old data type from which the transformation must take place. Used for the following Rule action (`-action` parameter value): `change_data_type`.
oldDataTypeSchemaName	The name of the schema for the old User Defined Type from which the transformation must take place. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`. Available for the following source-target vendor pairs: **Source vendor** / **Target vendor** ORACLE / POSTGRESQL ORACLE / AURORA_POSTGRESQL See vendor abbreviations description in Appendix Database engine abbreviations.

oldDataTypeParentName	Parent object name (package name) for the old User Defined Type from which the transformation must take place. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`. Available for the following source-target vendor pairs: **Source vendor** / **Target vendor** ORACLE / POSTGRESQL ORACLE / AURORA_POSTGRESQL See vendor abbreviations description in Appendix Database engine abbreviations.
oldDataTypeCustomName	The name of the old User Defined Type from which the transformation must take place. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`. Available for the following source-target vendor pairs: **Source vendor** / **Target vendor** ORACLE / POSTGRESQL ORACLE / AURORA_POSTGRESQL See vendor abbreviations description in Appendix Database engine abbreviations.
oldCollation	The collation of the source table column from which the transformation must take place. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_collation`.
newDataType	The name of the new data type that is used for the target data type during conversion. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`.

newDataTypeLength	The length value for the new data type. Optional parameter. The value of the length for the new data type that is used for the target data type during conversion. The length value of the new data type that is used for the target data type during conversion. Used for the following Rule action (`-action` parameter value): `change_data_type`.
newDataTypePrecision	The precision value for the new data type that is used for the target data type during conversion. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`.
newDataTypeScale	The scale value for the new data type that is used for the target data type during conversion. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`.
newDataTypeSchemaName	The name of the schema for the new User Defined Type that is used for the target data type during conversion. Optional parameter. Used for the following Rule action (`-action` parameter value): `change_data_type`. Available for the following source-target vendor pairs: **Source vendor** / **Target vendor** ORACLE / POSTGRESQL ORACLE / AURORA_POSTGRESQL See vendor abbreviations description in Appendix Database engine abbreviations.

<table>
<tr><td>newDataTypeParentName</td><td>Parent object name (package name) for the new User Defined Type that is used for the target data type during conversion. Optional parameter.

Used for the following Rule action (<code>-action</code> parameter value): <code>change_data_type</code>.

Available for the following source-target vendor pairs:

<table><tr><th>Source vendor</th><th>Target vendor</th></tr><tr><td>ORACLE</td><td>POSTGRESQL</td></tr><tr><td>ORACLE</td><td>AURORA_POSTGRESQL</td></tr></table>
See vendor abbreviations description in Appendix Database engine abbreviations.</td></tr>
<tr><td>newDataTypeCustomName</td><td>The name of the new User Defined Type that is used for the target data type during conversion. Optional parameter.

Used for the following Rule action (<code>-action</code> parameter value): <code>change_data_type</code>.

Available for the following source-target vendor pairs:

<table><tr><th>Source vendor</th><th>Target vendor</th></tr><tr><td>ORACLE</td><td>POSTGRESQL</td></tr><tr><td>ORACLE</td><td>AURORA_POSTGRESQL</td></tr></table>
See vendor abbreviations description in Appendix Database engine abbreviations.</td></tr>
<tr><td>newCollation</td><td>The value of the collation that is used for the target table column during conversion. Optional parameter.

Used for the following Rule action (<code>-action</code> parameter value): <code>change_collation</code>.</td></tr>
</table>

Syntax 2:

This version of the command syntax is used to bulk modify Transformation Rules represented as an array of JSON objects, where each Rule is represented as a dedicated JSON object.

The Transformation Rules JSON array can be passed in either as text (parameter `-rules`) or as a path to a JSON file (parameter `-file`) with the rule objects. Despite the parameter used to specify content of the Rules, the only one of them could be passed at a time.

This means that both parameters are mandatory, but can not be passed at the same time.

ModifyTransformationRule
[-rules: '*rulesArray*']

```
    [-file: 'filePath']
/
```

Where:

rulesArray	A JSON array of objects with Transformation Rules. This parameter is mandatory if `-file` parameter is not specified. The template is described below the description of the command parameters.
filePath	OS file system path to a file that contains Transformation Rule objects array in JSON format. This parameter is mandatory if `-rules` parameter is not specified. Description of the OS paths is in the chapter OS file system paths for commands.

Transformation Rule objects array template:

```
[
  {
    "name": "rule1_name",
    "newName": "rule1_newName",
    "object": "objectType",
    "action": "action",
    "state": "state",
    "databaseName": "databaseName",
    "schemaName": "schemaName",
    "tableName": "tableName",
    "parentName": "parentName",
    "routineName": "routineName",
    "functionName": "functionName",
    "parameterName": "parameterName",
    "variableName": "variableName",
    "columnName": "columnName",
    "viewName": "viewName",
    "packageName": "packageName",
    "packageTaskName": "packgeTaskName",
    "variableSsisName": "variableSsisName",
    "namespace": "namespace",
    "sourceValue": "sourceValue",
    "targetValue": "targetValue",
    "oldDataType": "oldDataType",
    "oldDataTypeLength": "oldDataTypeLength",
    "oldDataTypePrecision": "oldDataTypePrecision",
    "oldDataTypeScale": "oldDataTypeScale",
    "oldDataTypeSchemaName": "oldDataTypeSchemaName",
    "oldDataTypeParentName": "oldDataTypeParentName",
    "oldDataTypeCustomName": "oldDataTypeCustomName",
    "oldCollation": "oldCollation",
    "newDataType": "newDataType",
    "newDataTypeLength": "newDataTypeLength",
    "newDataTypePrecision": "newDataTypePrecision",
    "newDataTypeScale": "newDataTypeScale",
    "newDataTypeSchemaName": "newDataTypeSchemaName",
```

```
    "newDataTypeParentName": "newDataTypeParentName",
    "newDataTypeCustomName": "newDataTypeCustomName",
    "newCollation": "newCollation"
  },
  ...
  {
    "name": "rule2_name",
    "object": "objectType",
    "action": "action",
    "state": "state",
    "databaseName": "databaseName",
    "schemaName": "schemaName",
    "tableName": "tableName",
    "parentName": "parentName"
  }
]
```

The Appendix Transformation Rules parameters relationship shows the correspondence between an object type, rule action and parameters.

3.5.21.3. Change the state(s) of Transformation Rule(s)

This command sets the specified state of the Transformation Rule.

There are two different syntaxes of this command, the first one (Syntax 1) allows to change state of one Rule at a time, while the second one (Syntax 2) allows to change states of several Rules at a time.

Syntax 1:

```
SetTransformationRuleState
   -name: 'ruleName'
   [-state: 'ruleState']
/
```

Where:

ruleName	The name of the Transformation Rule for the state change that you previously created with the CreateTransformationRule command. Mandatory parameter.
ruleState	Boolean flag to determine the state of the Rule. Optional parameter. Supported values are `enabled` and `disabled`. The default value is `enabled`. Values are case insensitive, leading and trailing spaces are ignored.

Syntax 2:

This version of the command syntax is used to bulk change the states of the Transformation Rules, where the Rule states are represented as the properties of a JSON array.

The Transformation Rule names JSON array can be passed in either as text (parameter `-rules`) or as

a path to a JSON file (parameter `-file`) with the rule names. Despite the parameter used to specify content of the Rules, the only one of them could be passed at a time.

This means that both parameters are mandatory, but can not be passed at the same time.

SetTransformationRuleState
[-rules: '*ruleStatesArray*']
[-file: '*filePath*']
/

Where:

rulesArray	A JSON object that contains Transformation Rule names along with their states, where each Rule represented as a property-value pair. This parameter is mandatory if `-file` parameter is not specified. The template is described below the description of the command parameters.
filePath	OS file system path to a file that contains Transformation Rule states object in JSON format. This parameter is mandatory if `-rules` parameter is not specified. Description of the OS paths is in the chapter OS file system paths for commands.

Transformation Rule states object template:

```
{
  "rule1_name": "rule1_state",
  "rule2_name": "rule2_state",
  ...
  "ruleN_name": "ruleN_state"
}
```

3.5.21.4. Remove Transformation Rule(s)

This command removes the specified Transformation Rule.

There are two different syntaxes of this command, the first one (Syntax 1) allows to remove one Rule at a time, while the second one (Syntax 2) allows to remove several Rules at a time.

Syntax 1:

RemoveTransformationRule
-name: '*ruleName*'
/

Where:

ruleName	The name of the Transformation Rule to remove that you previously created with the CreateTransformationRule command. Mandatory parameter.

Syntax 2:

This version of the command syntax is used to bulk remove Transformation Rules whose names are represented as an array of JSON strings.

The Transformation Rule names JSON array can be passed in either as text (parameter `-rules`) or as a path to a JSON file (parameter `-file`) with the rule names. Despite the parameter used to specify content of the Rules, the only one of them could be passed at a time.

This means that both parameters are mandatory, but can not be passed at the same time.

RemoveTransformationRule
[-rules: '*rulesArray*']
[-file: '*filePath*']
/

Where:

rulesArray	A JSON array of strings with Transformation Rule names to remove. This parameter is mandatory if `-file` parameter is not specified. The template is described below the description of the command parameters.
filePath	OS file system path to a file that contains Transformation Rule names array in JSON format. This parameter is mandatory if `-rules` parameter is not specified. Description of the OS paths is in the chapter OS file system paths for commands.

Transformation Rule names array template:

```
[
  "rule1_name",
  "rule2_name",
  ...
  "ruleN_name"
]
```

3.5.21.5. Export Transformation Rules for DMS

This command exports Transformation Rules to a JSON file.

To successfully export Transformation Rules, you must create a valid server mapping between a specific pair of servers (specified by sourceName + targetName) with the AddServerMapping command.

Syntax:

```
ExportTransformationRulesForDMS
   -sourceName: 'sourceName'
   -targetName: 'targetName'
   -file: 'filePath'
/
```

Where:

sourceName	The name of the source connection that you previously created with the AddSource command. Mandatory parameter.
targetName	The name of the target connection that you previously created with the AddTarget command. Mandatory parameter.
filePath	OS file system path to a file to save Transformation Rules in JSON format. Mandatory parameter. Description of the OS paths is in the chapter OS file system paths for commands.

3.5.21.6. Import Transformation Rules into SCT

This command imports Transformation Rules into AWS SCT.

Only server-level Rules can be imported using this command.

To successfully import Transformation Rules, you must create a valid server mapping between a specific pair of servers (specified by sourceName + targetName) with the AddServerMapping command.

Syntax:

```
ImportTransformationRulesIntoSCT
   -sourceName: 'sourceName'
   -targetName: 'targetName'
   -file: 'filePath'
/
```

Where:

sourceName	The name of the source connection that you previously created with the AddSource command. Mandatory parameter.

targetName	The name of the target connection that you previously created with the AddTarget command. Mandatory parameter.
filePath	OS file system path to a Transformation Rules file that you previously created with the ExportTransformationRulesForDMS command. Mandatory parameter. Description of the OS paths is in the chapter OS file system paths for commands.

3.5.22. Working with Filtering Rules (for OLAP)

3.5.22.1. Create data Filtering Rule(s)

This command creates a data filtering rule.

You can use two different syntaxes for this command. Use the first one (Syntax 1) to create one rule at a time. Use the second one (Syntax 2) to create multiple data filtering rules at a time.

You can add a data filtering rule only if a server mapping was created between a specific pair of servers (specified by sourceName + targetName) using the AddServerMapping command.

Otherwise, an error will be raised about absence of the schema mapping between a specific pair of servers in the current project.

Syntax 1

```
CreateFilteringRule
   -sourceName: 'sourceName'
   -targetName: 'targetName'
   -name: 'ruleName'
   -database: 'databasePattern'
   -schema: 'schemaPattern'
   -table: 'tablePattern'
   -clause: 'whereClause'
   -state: 'ruleState'
/
```

Where:

ruleName	The name of the data filtering rule to create. Mandatory parameter. Use a unique name among other data filtering rules.
sourceName	The source connection name, previously created with the AddSource command. Mandatory parameter.
targetName	The target connection name, previously created with the AddTarget command. Mandatory parameter.

databasePattern	Database pattern. Can be omitted if the vendor does not have a database. You can use the percent sign wildcard (%) in the value, which represents zero, one, or multiple characters in a pattern. Use this wildcard to mask the unknown parts of object names.
schemaPattern	Schema pattern. You can use the percent sign wildcard (%) in the value, which represents zero, one, or multiple characters in a pattern. Use this wildcard to mask the unknown parts of object names.
tablePattern	Table pattern. You can use the percent sign wildcard (%) in the value, which represents zero, one, or multiple characters in a pattern. Use this wildcard to mask the unknown parts of object names.
whereClause	Condition that lets to restrict the rows selected to those that satisfy one or more conditions. Mandatory parameter. You can use the percent sign wildcard (%) in the value, which represents zero, one, or multiple characters in a pattern. Use this wildcard to mask the unknown parts of object names.
ruleState	Represents Boolean flag to define the Rule state. Supported values are **enabled** and **disabled**. The default value is **enabled**. Values are case insensitive, leading and trailing spaces are ignored.

Syntax 2

Use this version of command syntax to bulk-create filtering rules presented in the form of JSON array of objects, where each rule is represented as a dedicated JSON object.

You can pass the filtering rules array as text using the *rules* parameter or as a path to a JSON file where these rules are saved using the *file* parameter. You can specify either *rules* or *file* at a time.

This means that both parameters are mandatory, but can't be used together.

```
CreateFilteringRule
   -rules: 'rulesArray'
   -file: 'filePath'
/
```

Where:

rulesArray	The array of data filtering rules in JSON format. Each rule is represented as a dedicated JSON object using the following template.
	
	JSON value template:
	
	[
	{
	"name": "ruleName1",
	"sourceName": "sourceName",
	"targetName": "targetName",
	"database": "databasePattern",
	"schema": "schemaPattern",
	"table": "tablePattern",
	"clause": "whereClause",
	"state": "ruleState"
	},
	...
	{
	"name": "ruleNameN",
	"sourceName": "sourceName",
	"targetName": "targetName",
	"database": "databasePattern",
	"schema": "schemaPattern",
	"table": "tablePattern",
	"clause": "whereClause",
	"state": "ruleState"
	}
	]

filePath	OS file system path to a file that contains filtering rules object array in JSON format. Depends on OS version. Description of the OS paths is in the OS file system paths for commands chapter.

3.5.22.2. Modify data Filtering Rule(s)

Use this command to change the filtering rule attributes.

You can use two different syntaxes for this command. Use the first option (Syntax 1) to change one

rule at a time. Use the second option (Syntax 2) to change multiple data filtering rules at a time.

Syntax 1

```
ModifyFilteringRule
    -name: 'ruleName'
    -newName: 'newRuleName'
    -database: 'databasePattern'
    -schema: 'schemaPattern'
    -table: 'tablePattern'
    -clause: 'whereClause'
    -state: 'ruleState'
/
```

Where:

ruleName	The name of the existing data filtering rule previously created by the CreateFilteringRule command. Mandatory parameter. If the rule specified by this name doesn't exist, an error is raised.
newRuleName	The new name of the data filtering rule. Optional parameter. This name must be unique among other data filtering rules.
databasePattern	Database pattern. Can be omitted if the vendor doesn't have a database. You can use the percent sign wildcard (%) in the value, which represents zero, one, or multiple characters in a pattern, allows to mask the unknown parts of object names.
schemaPattern	Schema pattern. You can use the percent sign wildcard (%) in the value, which represents zero, one, or multiple characters in a pattern, allows to mask the unknown parts of object names.
tablePattern	Table pattern. You can use the percent sign wildcard (%) in the value, which represents zero, one, or multiple characters in a pattern, allows to mask the unknown parts of object names.
whereClause	Condition that lets to restrict the rows selected to those that satisfy one or more conditions. Optional parameter. You can use the percent sign wildcard (%) in the value, which represents zero, one, or multiple characters in a pattern, allows to mask the unknown parts of object names.

ruleState	Represents Boolean flag to define the rule state. Supported values are **enabled** or **disabled**. Values are case insensitive, leading and trailing spaces are ignored.

Syntax 2

Use this version of command syntax to bulk-modify filtering rule(s) presented in the form of JSON array of objects, where each rule is represented as a dedicated JSON object.

You can pass the filtering rules array as text using the *rules* parameter or as a path to a JSON file where these rules are saved using the *file* parameter. You can specify either *rules* or *file* at a time.

This means that both parameters are mandatory, but can't be used together.

ModifyFilteringRule

```
    -rules: 'rulesArray'
    -file: 'filePath'
/
```

Where:

rulesArray	The array of data filtering rules in JSON format. Each rule is represented as a dedicated JSON object using the following template.
	
	JSON value template:
	
	[
	{
	"name": "ruleName1",
	"newName": "newRuleName",
	"database": "databasePattern",
	"schema": "schemaPattern",
	"table": "tablePattern",
	"clause": "whereClause",
	"state": "ruleState"
	},
	...
	{
	"name": "ruleNameN",
	"newName": "newRuleName",
	"database": "databasePattern",
	"schema": "schemaPattern",
	"table": "tablePattern",
	"clause": "whereClause",
	"state": "ruleState"
	}
	]
	
	If any rule isn't found by the specified name, an error is raised.

filePath	OS file system path to a file that contains filtering rules object array in JSON format. Depends on OS version. Description of the OS paths is in the OS file system paths for commands chapter.

3.5.22.3. Changing the state(s) of data Filtering Rule(s)

This command sets the specified state of the data filtering rule.

You can use two different syntaxes of this command. Use the first option (Syntax 1) to change state of one rule at a time. Use the second option (Syntax 2) to change states of multiple data filtering

rules at a time.

Syntax 1

```
SetFilteringRuleState
   -name: 'ruleName'
   -state: 'ruleState'
/
```

Where:

ruleName	The name of the existing data filtering rule previously created by the CreateFilteringRule command. Mandatory parameter. If the rule specified by this name doesn't exist, an error is raised.
ruleState	Represents Boolean flag to define the rule state. Optional parameter. Valid values are **enabled** or **disabled**. The default value is **enabled**. Values are case insensitive, leading and trailing spaces are ignored.

Syntax 2

Use this version of command syntax to bulk-change the states of the filtering rules, where each rule is represented as a dedicated property-value pair in a JSON document.

You can pass the filtering rules array as text using the *rules* parameter or as a path to a JSON file where these rules are saved using the *file* parameter. You can specify either *rules* or *file* at a time.

This means that both parameters are mandatory, but can't be used together.

```
SetFilteringRuleState
{param-state} -rules: 'ruleStatesArray'
{param-state} -file: 'filePath'
/
```

Where:

ruleStatesArray	Data filtering rules with their states in JSON format where each rule represented as a property-value pair. Use the following template.
	
	JSON value template:
	
	`{`
	`"ruleName1": "ruleState1",`
	`"ruleName2": "ruleState2",`
	`"ruleName3": "ruleState3",`
	`"ruleName4": "ruleState4",`
	`"ruleName5": "ruleState5",`
	`...`
	`"ruleNameN": "ruleStateN"`
	`}`
	
	If any rule isn't found by the specified name, an error is raised.

filePath	OS file system path to a file that contains the states of the filtering rules in JSON format. Depends on OS version. Description of the OS paths is in the OS file system paths for commands chapter.

3.5.22.4. Remove data Filtering Rule(s)

This command removes the specified data filtering rule.

You can use two different syntaxes for this command. Use the first option (Syntax 1) to remove one rule at a time. Use the second option (Syntax 2) to remove multiple data filtering rules at a time.

Syntax 1

RemoveFilteringRule
-name: '*ruleName*'
/

Where:

ruleName	The name of the existing data filtering rule to remove, previously created by the CreateFilteringRule command. Mandatory parameter. If the rule specified by this name doesn't exist, an error is raised.

Syntax 2

Use this version of command syntax to bulk-remove filtering rules presented in the form of JSON array of strings, where each rule is represented as a dedicated array element.

You can pass the filtering rule names array as text using the *rules* parameter or as a path to a JSON file where these rule names are saved using the *file* parameter. You can specify either *rules* or *file* at a time.

This means that both parameters are mandatory, but can't be used together.

```
RemoveFilteringRule
   -rules: 'rulesArray'
   -file: 'filePath'
/
```

Where:

rulesArray	JSON array of strings with data filtering rule names to remove. Mandatory parameter. Use the following template.
	
	JSON value template:
	
	`[`
	`"ruleName1",`
	`"ruleName2",`
	`"ruleName3",`
	`"ruleName4",`
	`"ruleName5",`
	`...`
	`"ruleNameN"`
	`]`
	
	If any Rule isn't found by the specified name, an error is raised.

filePath	OS file system path to a file that contains filtering rule names array in JSON format. Depends on OS version. Description of the OS paths is in the OS file system paths for commands chapter.

3.5.23. Extension Pack commands

3.5.23.1. Get Extension Pack Schema version command (for OLTP and OLAP)

This command will check and print extension pack version.

Syntax:

```
GetExtpackSchemaVersion
   -targetName: 'targetName'
/
```

Where:

targetName	Target connection name, previously created with AddTarget command. Mandatory parameter.

3.5.23.2. Get Extension Pack Python version command (for OLAP)

This command will check and print Python extension pack version

Syntax:

```
GetExtpackPythonVersion
   -targetName: 'targetName'
/
```

Where:

targetName	Target connection name, previously created with AddTarget command. Mandatory parameter.

3.5.23.3. Get Extension Pack Glue version command (for OLAP)

This command will check and print Glue extension pack version.

Syntax:

```
GetExtpackGlueVersion
   -targetName: 'targetName'
/
```

Where:

targetName	Target connection name, previously created with AddTarget command. Mandatory parameter.

3.5.23.4. Configure Extension Pack command (for OLTP and OLAP)

This command configures extension pack.

Syntax:

```
ConfigureExtPack
   -targetName: 'targetName'
   [-useCli: 'useCli']
/
```

Where:

targetName	Target connection name, previously created with AddTarget command. Mandatory parameter.
useCli	Indicate, which profile must be used for extension pack configuration. Possible values are `true` and `false`. If `true`, the profile configured inside the Amazon CLI is used. In this case AWS Command Line Interface must be installed. If `false`, profile configured in project (Create AWS Profile) will be used. The default value is `false`.

3.5.23.5. Create Extension Pack command (for OLTP and OLAP)

This command creates extension pack on target. Additionally, this command must implicitly calls the **ConfigureExtPack** command with parameter -useCLI: '*false*' if this command has not been executed before.

Syntax:

```
CreateExtPack
   -targetName: 'targetName'
   [-folder: 'scriptFolder']
   [-useCustomOperator: 'useCustomOperator']
/
```

Where:

targetName	The name of the target connection which you previously created with the AddTarget command. Mandatory parameter.
scriptFolder	OS file system path to the directory for saving Extension Pack creation scripts. Optional parameter.
useCustomOperator	Apply custom comparison operators or not. Possible values are `true` and `false`. The default value is `false`.

3.5.23.6. Create Lambda Extension Pack command (for ETL and Big Data)

This command configures an extension pack with AWS Lambda functions. These functions emulate the source functions that AWS Step Functions doesn't support.

Syntax:

```
CreateLambdaExtPack
   -extPackId: 'extPackId'
   [-awsProfile: 'awsProfile']
   [-lambdaExecRoles: 'lambdaExecRoles']
   [-createInvokeRole: 'createInvokeRoleFlag']
   -tempDirectory: 'tempDirectory'
```

```
/
```

Where:

extPackId	The unique identifier for a set of Lambda functions. Mandatory parameter. Valid values include **Oozie2SF** and **Apache Oozie**. Values are case insensitive, leading and trailing spaces are ignored.
awsProfile	AWS profile name that you configured using the CreateAWSProfile command. Optional parameter. If this parameter isn't specified, then the profile set with the SetAWSProfile command is used.
lambdaExecRoles	The list of Amazon Resource Names of the execution roles to use for Lambda functions. Optional parameter. If this parameter isn't specified, then AWS SCT creates execution roles for all Lambda functions in the extension pack. The format is a JSON array of objects: `[ { "Key": "func_name1", "Value": "role_arn1" }, ... { "Key": "func_nameN", "Value": "role_arnN" } ]` If you provide a particular role, then AWS SCT doesn't run the create role command for the Lambda function. In this case, the user is fully responsible for the validity of the role.
createInvokeRoleFlag	The Boolean flag that indicates whether to create an execution role for AWS Step Functions. Optional parameter. Valid values include `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
tempDirectory	The OS file system path for temporary files. Depends on OS version. Mandatory parameter. For more information, see OS file system paths for commands.

3.5.23.7. Python library upload command (for OLAP)

This command uploads Python Library and creates it on Redshift. Before running this command, you need to configure (Create AWS Profile) and set (SetAWSProfile) the AWS Profile with mandatory indication of the S3 bucket parameter. You can also skip setting of AWS Profile and specify it in command parameter. Also, you can specify S3 bucket in command parameter.

Additionally, this command must implicitly call **ConfigureExtPack** command with parameter -useCLI: '*false*' if this command has not been executed before.

Syntax:

PythonLibUpload
-targetName: '*targetName*'
-S3BucketFilePath: '*S3BucketFilePath*'
-awsProfile: '*awsProfile*'
-upload: '*upload*'
/

Where:

targetName	Target connection name, previously created with AddTarget command. Mandatory parameter.
S3BucketFilePath	Amazon S3 bucket path with file name.
awsProfile	AWS profile name that was configured using the CreateAWSProfile command. Optional parameter. If this parameter isn't specified, make sure that you use the profile that you set using the SetAWSProfile command.
upload	Indicates whether the library will be loaded on S3 before moving it to the AWS Console. Supported values are `true` or `false`. The default value is `true`.

3.5.23.8. Glue library upload command (for OLAP)

This command uploads Glue Library and creates it on Redshift. Before running this command, you need to configure (Create AWS Profile) and set (SetAWSProfile) the AWS Profile with mandatory indication of the S3 bucket parameter. You can also skip setting of AWS Profile and specify it in command parameter. Also, you can specify S3 bucket in command parameter.

This command available only for the following dialect pairs: **MSSQL Server** to **Redshift**, **Oracle** to **Redshift** and **Teradata** to **Redshift**.

Syntax:

GlueLibUpload
-targetName: '*targetName*'
-S3BucketFilePath: '*S3BucketFilePath*'
-awsProfile: '*awsProfile*'
-upload: '*upload*'

```
/
```

Where:

targetName	Target connection name, previously created with AddTarget command. Mandatory parameter.
S3BucketFilePath	Amazon S3 bucket path with file name.
awsProfile	AWS profile name that was configured using the CreateAWSProfile command. Optional parameter. If this parameter isn't specified, make sure that you use the profile that you set using the SetAWSProfile command.
upload	Indicates whether the library will be loaded on S3 before moving it to the AWS Console. Supported values are `true` or `false`. The default value is `true`.

3.5.23.9. Java library upload command (for ETL)

This command uploads Java libraries or some types of data source. Available only for the following two dialect pairs: **SSIS** to **AWS Glue, SSIS** to **AWS Glue Studio**.

Syntax:

```
JavaLibUpload
   -targetName: 'targetName'
   -S3BucketFilePath: 'S3BucketFilePath'
/
```

Where:

targetName	Target connection name, previously created with AddTarget command. Mandatory parameter.
S3BucketFilePath	Amazon S3 bucket path with file name.

3.5.24. Wait command

This command pauses the run of the application for a specified number of seconds.

Syntax:

```
Wait
   -time: 'waitSeconds'
/
```

Where:

waitSeconds	Waiting time in seconds. Mandatory parameter.

3.5.25. Print tree node children commands

3.5.25.1. Print source tree node children

This command will print all children of selected source object(s).

Syntax:

```
PrintSourceTreeNodeChildren
   -filter: 'filterName'
   -treePath: 'treePath'
   -namePath: 'namePath'
   [-forceLoad: 'forceLoad']
/
```

Where:

filterName	Name of the filter previously created with CreateFilter command.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in Object name path chapter.
forceLoad	Boolean flag that indicates whether to use forced object tree loading logic during object path processing. Optional parameter. Supported values are `true` and `false`. If the parameter isn't specified, then default value is `false`. Values are case insensitive, spaces are ignored. More info about this parameter can be found in the Object path loading algorithm chapter. At least one of *filter*, *treepath* or *namePath* parameters must be specified in the command. If more than one parameter from set passed at a time, an exception (error) is thrown. If a named filter is used (the *filter* parameter value) to define a scope, this filter's **origin** property value should be **source**, because the process is allowed only for source database. Thus, an exception (error) must be thrown if the **origin** property value isn't **source** (for example, **target**). Before printing node children, the core must properly load the internal object tree model. All details about this process fully described in the Object path loading algorithm chapter. If an object path to print source tree node passed in through either *treePath* or *namePath* parameter, there is a single path to preload. Otherwise, if the scope for save defined by a named filter (*filter* parameter), then there is collection of paths to preload and, thus, each path within this collection has to be analyzed and preloaded separately.

3.5.25.2. Print target tree node children

This command will print all children of selected target object(s)

Syntax:

```
PrintTargetTreeNodeChildren
   -filter: 'filterName'
   -treePath: 'treePath'
   -namePath: 'namePath'
   [-forceLoad: 'forceLoad']
/
```

Where:

filterName	Name of the filter previously created with CreateFilter command.
treePath	A path to a specific type of object or object name (object type-name chain). The usage is described in the Object tree path chapter.
namePath	A path to a specific object name (name chain). The usage is described in Object name path chapter.
forceLoad	Boolean flag that indicates whether to use forced object tree loading logic during object path processing. Optional parameter. Supported values are `true` and `false`. If the parameter isn't specified, then default value is `false`. Values are case insensitive, spaces are ignored. More info about this parameter can be found in the Object path loading algorithm chapter. At least one of *filter*, *treepath* or *namePath* parameters must be specified in the command. If more than one parameter from set passed at a time, an exception (error) is thrown. If a named filter is used (the *filter* parameter value) to define a scope, this filter's **origin** property value should be **target**, because the process is allowed only for target database. Thus, an exception (error) must be thrown if the **origin** property value isn't **target** (for example, **source**). Before printing node children, the core must properly load the internal object tree model. All details about this process fully described in the Object path loading algorithm chapter. If an object path to print target tree node passed in through either *treePath* or *namePath* parameter, there is a single path to preload. Otherwise, if the scope for save defined by a named filter (*filter* parameter), then there is collection of paths to preload and, thus, each path within this collection has to be analyzed and preloaded separately.

3.5.26. Configure object commands

3.5.26.1. Configure AWS Glue job command

This command configures the AWS Glue job from the selected scripts stored on S3 according to the specified parameters.

Syntax:

ConfigureAwsGlueJob
-targetName: '*targetName*'
[-strategy: '*strategy*']
-name: '*jobName*'
-role: '*iamRole*'
[-scriptName: '*scriptName*']
[-s3Path: '*s3ScriptPath*']
[-expImpS3Path: '*ExpImpS3Path*']
[-sseS3: '*encryptScriptSSE*']
[-tempDir: '*temporaryDirectory*']
[-referencedPath: '*referencedFilesPath*']
[-dpuPerJob: '*concurrentDpuPerJob*']
[-maxConcurrency: '*maxConcurrency*']
[-jobTimeout: '*jobTimeout*']
[-delayNotification: '*delayNotification*']
[-retries: '*numberOfRetries*']
[-useSecurity: '*useSecurity*']
[-securityConfiguration: '*securityConfiguration*']
[-serverEncryption: '*serverSideEncryption*']
-connection: '*connection*'
[-script: '*scriptParametersArray*']
/

Where:

targetName	The name of the target connection which you previously created with the AddTarget command. Mandatory parameter. The target vendor must only be "GLUE".
strategy	Scripts execution strategy. Optional parameter. Supported values are `sequential` and `parallel`. The default value is `sequential`. If you choose "sequential" strategy, the job will run ETL scripts sequentially, in the order in which they are in the command. If you choose "parallel" strategy, the job will run ETL scripts in parallel, the order in the command doesn't matter. Values are case insensitive, leading and trailing spaces are ignored.
jobName	The name of the AWS Glue job. Mandatory parameter.

iamRole	The Amazon Resource Name (ARN) of the IAM role to use for the state machine. Mandatory parameter.
scriptName	Script name. Optional parameter. If it isn't specified, it is taken from the `-name` parameter.
s3ScriptPath	S3 path where the job script will be saved. Optional parameter. The default value is "s3://<s3_path_which_you_are_connected_to>/Jobs". Where "<s3_path_which_you_are_connected_to>" - S3 path taken from the AWS Profile (previously created with the CreateAWSProfile command) or from connect to the target command (ConnectTarget, parameter `-s3Path`).
expImpS3Path	S3 path for export/import. Actual only for conversion pair Teradata to AWS Glue.
encryptScriptSSE	Enable server-side encryption which protects script data at idle. Supported values are `true` and `false`. The default value is `false`. For details see Protecting Data Using Server-Side Encryption with Amazon S3-Managed Encryption Keys (SSE-S3).
temporaryDirectory	The location of the Amazon S3 working directory where temporary intermediate results are written when AWS Glue runs the script. Optional parameter. The default value is "s3://<s3_path_which_you_are_connected_to>/TempDir". Where "<s3_path_which_you_are_connected_to>" - S3 path taken from the AWS Profile (previously created with the CreateAWSProfile command) or from connect to the target command (ConnectTarget, parameter `-s3Path`).
referencedFilesPath	S3 paths to additional files, such as configuration files, that AWS Glue will copy to your script's working directory before it is executed. Optional parameter. Multiple values must be full paths separated by a comma (","). Only single files are supported, not a directory path. The default value is an empty value.
concurrentDpuPerJob	A data processing unit (DPU) is a relative measure of processing power that is used by a job. Optional parameter. A single DPU provides processing capacity that consists of 4 vCPUs compute and 16 GB of memory. Choose an integer from 2 to 100. The default value is 10.

maxConcurrency	The maximum number of concurrent runs that are allowed for this job. Optional parameter. An error is returned when this threshold is reached. The maximum value you can specify is controlled by a service limit. The default value is 1.
jobTimeout	Job timeout time in minutes. This is the maximum time that a job run can consume resources before it is terminated and enters the "TIMEOUT" status. The default value is 2880 minutes (48 hours).
delayNotification	The threshold (in minutes) before a delay notification is sent. Optional parameter. You can set this threshold to send notifications when a job takes more than the expected number of minutes to run, start, or stop running. Optional parameter.
numberOfRetries	The number of times (between 0 and 10) that AWS Glue will automatically restart the job if it fails. Optional parameter. The default value is 0.
useSecurity	Enable security usage. Optional parameter. Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
securityConfiguration	A security configuration in AWS Glue that contains the properties required when writing encrypted data. Mandatory parameter if `-useSecurity` parameter is set to "true", otherwise optional. You create security configurations on the AWS Glue console to provide the encryption properties that are used by crawlers, jobs, and development endpoints.
serverSideEncryption	Boolean flag indicating whether to use server side encryption. Optional parameter. Actual, if `-useSecurity` parameter is set to "true". Supported values are `true` and `false`. The default value is `false`. Values are case insensitive, leading and trailing spaces are ignored.
connection	AWS Glue Redshift connection. Mandatory parameter.
scriptParametersArray	JSON script parameters array with the sets of script parameters. Each script can contain its own set of parameters. Optional parameter. Read the detailed description of this object below, after the command parameters legend.

Script parameters JSON array syntax:

```
[
  {
    "serverName": "AWS Glue Data Catalog (<region>)",
    "treePath": "<treePath>",
    "parameters": [
      {
        "name1": "value1"
      },
      {
        "name2": "value2"
      },
      ...
      {
        "nameN": "valueN"
      }
    ]
  },
  ...
  {
    "serverName": "AWS Glue Data Catalog (<region>)",
    "treePath": "<treePath>",
    "parameters": [
      {
        "name1": "value1"
      },
      {
        "name2": "value2"
      },
      ...
      {
        "nameN": "valueN"
      }
    ]
  }
]
```

The details of the properties of the above-mentioned parameters objects are described in the table below:

Property name	JSON data type	Required	Description
serverName	String	Mandatory	Server name. The format is the following: "AWS Glue Data Catalog (<region>)", where "<region>" is the root address in the metadata tree. List of all regions available at this link.

Property name	JSON data type	Required	Description
treePath	String	Mandatory	Object tree path. Path to a specific object type or object name (object name-type chain) on the source node.
parameters	Array	Optional	A set of AWS Glue Studio job parameter name and value pairs as JSON objects. If parameters aren't specified, they are taken from the "treePath" property.

Examples:

```
# 1.
ConfigureAwsGlueJob
    -targetName: 'MyTarget'
    -strategy: 'PARALLEL'
    -name: 'demo_job'
    -role: 'GLUE_ROLE'
    -scriptName: 'demo_job'
    -s3Path: 's3://demo_bucket/Jobs'
    -sseS3: 'true'
    -tempDir: 's3://demo_bucket/TempDir'
    -referencedPath: 's3://demo_bucket/referenced_file'
    -dpuPerJob: '10'
    -maxConcurrency: '1'
    -jobTimeout: '2800'
    -delayNotification: '1'
    -retries: '0'
    -useSecurity: 'true'
    -securityConfiguration: 'Demo_Configuration'
    -serverEncryption: 'true'
    -connection: 'Demo_Redshift'
    -script: '[
                {
                  "serverName": "AWS Glue Data Catalog (us-west-2)",
                  "treePath": "Scripts.demo_1",
                  "parameters": [
                    {
                      "p1": "1"
                    },
                    {
                      "p2": "2"
                    }
                  ]
                },
                ...
                {
                  "serverName": "AWS Glue Data Catalog (us-west-2)",
                  "treePath": "Scripts.demo_2"
                }
```

```
            ]'
/
```

3.5.26.2. Configure AWS Glue Studio job command

This command configures the extract, transform, and load (ETL) job from selected scripts, which are saved on S3, according to defined parameters. If any parameter values aren't specified, then default values must be substituted. If the minimum required parameters are missing in the command and default values aren't defined for them, then an error occurs. This error includes the names of parameters that are not specified.

Syntax:

```
ConfigureAwsGlueStudioJob
   -targetName: 'targetName'
   [-glueVersion: 'glueVersion']
   -role: 'iamRole'
   [-s3Path: 's3ScriptPath']
   [-sseS3: 'encryptScriptSSE']
   [-tempDir: 'temporaryDirectory']
   [-referencedPath: 'referencedFilesPath']
   [-workerType: 'workerType']
   [-numberOfWorkers: 'numberOfWorkers']
   [-maxConcurrency: 'maxConcurrency']
   [-jobTimeout: 'jobTimeout']
   [-delayNotification: 'delayNotification']
   [-retries: 'numberOfRetries']
   [-useSecurity: 'useSecurity']
   [-securityConfiguration: 'securityConfiguration']
   [-serverEncryption: 'serverSideEncryption']
   [-enableContinuousCloudwatchLog: 'enableContinuousCloudwatchLog']
   [-enableGlueDatacatalog: 'enableGlueDatacatalog']
   [-enableMetrics: 'enableMetrics']
   [-enableSparkUi: 'enableSparkUi']
   [-jobBookmarkOption: 'jobBookmarkOption']
   [-jobLanguage: 'jobLanguage']
   [-sparkEventLogsPath: 'sparkEventLogsPath']
   [-connection: 'connection']
   [-pythonUserLibsPath: 'pythonUserLibsPath']
   [-script: 'scriptParametersArray']
/
```

Where:

targetName	target connection name, previously created with the AddTarget command. Make sure that the target vendor name is set to GLUE_STUDIO. Mandatory parameter.

glueVersion	Glue Studio version determines the versions of Apache Spark and Python that Glue supports. The default value is 3.0.
iamRole	The name of the IAM role associated with this job. Mandatory parameter.
s3ScriptPath	S3 path where the job script will be saved. The default value is **s3://<s3_path_which_you_are_connected_to>/Jobs**. Where **<s3_path_which_you_are_connected_to>** - S3 path taken from the AWS Profile (see CreateAWSProfile) or from connect to the target command (see ConnectTarget, parameter `-s3Path`).
encryptScriptSSE	Turn on server-side encryption which protects script data at rest. Possible values are **true** and **false**. The default value is **false**. For more information, see Protecting Data Using Server-Side Encryption with Amazon S3-Managed Encryption Keys (SSE-S3).
temporaryDirectory	Provide the location of a working directory in Amazon S3 where temporary intermediate results are written when AWS Glue Studio runs the script. Optional parameter. The default value is **s3://<s3_path_which_you_are_connected_to>/TempDir**. Where **<s3_path_which_you_are_connected_to>** - is the S3 path from your AWS Profile (see CreateAWSProfile) or from connect to the target command (see ConnectTarget, parameter `-s3Path`).
referencedFilesPath	S3 path(s) to additional files, such as configuration files, that AWS Glue Studio will copy to the working directory of your script before running it. To add multiple values, use complete paths and separate them with a comma. You can use only paths to a single file. You can't use a directory path. The default value is an empty value. (`-referencedPath:''`)
workerType	The type of predefined worker that is allocated when a job runs. Possible values are **G.1** and **G.2**. The default value is **G.1X**.
numberOfWorkers	The number of workers of a defined workerType that is allocated when you run a job. The maximum number of workers you can define is **299 for G.1X**, and **149 for G.2X**. The default value is 2.
maxConcurrency	Sets the maximum number of concurrent runs that are allowed for this job. The default value is 1. An error is returned when this threshold is reached. The maximum value you can specify is controlled by a service limit. For example, if a previous run of a job is still running when a new instance is started, you might want to return an error to prevent two instances of the same job from running concurrently.
jobTimeout	The job timeout in minutes. This is the maximum time that a job run can consume resources before it is terminated and enters the TIMEOUT status. The default value is 2880 minutes (48 hours).

delayNotification	Sets the threshold (in minutes) before a delay notification is sent. You can set this threshold to send notifications when a RUNNING, STARTING, or STOPPING job run takes more than an expected number of minutes. Optional parameter. If you don't specify this parameter, then it's not included in the script.
numberOfRetries	Specify the number of times, from 0 to 10, that AWS Glue Studio should automatically restart the job if it fails. The default value is 0.
useSecurity	Turn on using of security. Possible values are **true** and **false**. The default value is **false**. Values are case insensitive, leading and trailing spaces are ignored.
securityConfiguration	A security configuration in AWS Glue Studio contains the properties that are needed when you write encrypted data. You create security configurations on the AWS Glue Studio console to provide the encryption properties that are used by crawlers, jobs, and development endpoints. Mandatory parameter if `-useSecurity` is set to true.
serverSideEncryption	A security configuration in AWS Glue Studio contains the properties that are needed when you write encrypted data. You create security configurations on the AWS Glue Studio console to provide the encryption properties that are used by crawlers, jobs, and development endpoints. You can use this parameter if `-useSecurity` is set to true. Possible values are **true** and **false**. The default value is **false**.
enableContinuousCloudwatchLog	Enables real-time continuous logging for AWS Glue Studio jobs. You can view real-time Apache Spark job logs in CloudWatch. The default value is **true**.
enableGlueDatacatalog	Enables you to use the AWS Glue Data Catalog as an Apache Spark Hive metastore. The default value is **true**.
enableMetrics	Enables the collection of metrics for job profiling for this job run. These metrics are available on the AWS Glue Studio console and the Amazon CloudWatch console. The default value is **true**.
enableSparkUi	When set to true, turns on the feature to use the Spark UI to monitor and debug AWS Glue Studio ETL jobs. The default value is **true**.
jobBookmarkOption	Controls the behavior of a job bookmark. The following option values can be set. The default value is **job-bookmark-disable**.
jobLanguage	The script programming language. Possible values are **scala** or **python**. The default value is **python**.
sparkEventLogsPath	Specifies an Amazon S3 path. When using the Spark UI monitoring feature, AWS Glue flushes the Spark event logs to this Amazon S3 path every 30 seconds to a bucket that can be used as a temporary directory for storing Spark UI events. The default value is **s3://<s3_path_which_you_are_connected_to>/sparkHistoryLogs/**, where **<s3_path_which_you_are_connected_to>** is an S3 Path taken from AWS Profile(see CreateAWSProfile) or from connect to the target command (see ConnectTarget, parameter `-s3Path`).

connection	AWS Glue Redshift connection. Optional parameter. If it is not specified it should be taken from treePath. If the value for connection is more than 1, provide a list of connections separated by a comma.
pythonUserLibsPath	Python extension pack libraries. If the value is more than 1, provide a list of libraries separated by a comma.
scriptParametersArray	JSON script parameters array with the sets of script parameters. Each script can contain its own set of parameters.

Script parameters JSON array syntax:

```
[
  {
    "treePath": "<treePath>",
    "name": "<jobName>",
    "scriptName": "<scriptName>",
    "codeGenConfigurationNodes": "<codeGenConfigurationNodes>",
    "parameters": [
      {
        "name1": "value1"
      },
      {
        "name2": "value2"
      },
      ...
      {
        "nameN": "valueN"
      }
    ]
  },
  ...
  {
    "treePath": "<treePath>",
    "name": "<jobName>",
    "scriptName": "<scriptName>",
    "codeGenConfigurationNodes": "<codeGenConfigurationNodes>",
    "parameters": [
      {
        "name1": "value1"
      },
      {
        "name2": "value2"
      },
      ...
      {
        "nameN": "valueN"
      }
    ]
  }
]
```

Where:

Property name	JSON data type	Required	Description
treePath	String	Mandatory	Determines object type-name chain. Mandatory parameter. It consists of object category and name pairs, connected one to another with a dot. Categories described in Appendix AWS Glue Studio object diagram or XML version AWS Glue Studio XML object tree. Use only **DAGs** category. treePath starts without the server name: Servers.Name_of_the_server, because the server name is set in targetName parameter. Examples of composed object type pseudo-paths: • DAGs.POC
jobName	String	Optional	AWS Glue Studio job name. If it isn't specified it should be taken from treePath as a part of the treePath value between last dot in the treePath value and the end of the treePath value.
scriptName	String	Optional	Script name. If it isn't specified, the value will be taken from jobName.
codeGenConfigurationNodes	Object	Optional	contains JSON with DAG structure of a corresponding AWS Glue Studio Job. If it isn't specified it should be taken from treePath.
parameters	Array	Optional	name1, name2, ..., nameN - AWS Glue Studio Job parameter name. value1, value2, ..., valueN - AWS Glue Studio Job parameter value. If parameters aren't specified, they should be taken from treePath.

Examples:

```
# 1.
ConfigureAwsGlueStudioJob
    -targetName: 'MyTarget'
    -role: 'GLUE_ROLE'
    -s3Path: 's3://demo_bucket/Jobs'
    -sseS3: 'true'
    -tempDir: 's3://demo_bucket/TempDir'
    -referencedPath: 's3://demo_bucket/referenced_file'
    -workerType: 'G.1X'
    -numberOfWorkers: '2'
    -maxConcurrency: '1'
    -jobTimeout: '2800'
    -delayNotification: '1'
    -retries: '0'
    -useSecurity: 'true'
    -securityConfiguration: 'Demo_Configuration'
```

```
    -serverEncryption: 'true'
    -enableContinuousCloudwatchLog: 'true'
    -enableGlueDatacatalog: 'true'
    -enableMetrics: 'true'
    -enableSparkUi: 'true'
    -jobBookmarkOption: 'job-bookmark-disable'
    -jobLanguage: 'python'
    -sparkEventLogsPath: 's3://demo_bucket/sparkHistoryLogs/'
    -connection: 'Demo_Redshift'
    -script:'[
               {
                 "treePath": "Scripts.demo_1",
                 "name": "demo_job_1",
                 "scriptName": "demo_job_1",
                 "codeGenConfigurationNodes": {
                   "node-1": {
                     "JDBCConnectorSource": {
                       ...
                     }
                   }
                 },
                 "parameters": [
                   {
                     "p1": "1"
                   },
                   {
                     "p2": "2"
                   }
                 ]
               },
               ...
               {
                 "treePath": "Scripts.demo_2",
                 "name": "demo_job_2",
                 "scriptName": "demo_job_2",
                 "codeGenConfigurationNodes": {
                   "node-1": {
                     "JDBCConnectorSource": {
                       ...
                     }
                   }
                 },
                 "parameters": [
                   {
                     "p1": "1"
                   },
                   {
                     "p2": "2"
                   }
                 ]
               }
             ]'
/
```

3.5.26.3. Configure State Machine command

This command configures an AWS Step Functions state machine.

Syntax:

```
ConfigureStateMachine
   -filter: 'filterName'
   -treePath: 'treePath'
   -namePath: 'namePath'
   -role: 'iamRole'
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

filterName	The name of a filter previously created using the CreateFilter command. You can use only filters with the origin parameter set to **source**. This parameter is mandatory if neither of path parameters (`-treePath` or `-namePath`) is specified. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path. Path to a specific object type or object name (object name-type chain) in the source node. This parameter is mandatory if neither `-filter` nor `-namePath` parameter is specified.
namePath	Object name path. Path to a specific object name (object name chain) in the source node. This parameter is mandatory if neither `-filter` nor `-namePath` parameter is specified.
iamRole	The Amazon Resource Name (ARN) of the IAM role to use for the state machine. Mandatory parameter.

3.5.27. Configure connections and parameters

3.5.27.1. Configure SSIS connections command

This command configures connections for Microsoft SQL Server Integration Services (Microsoft SSIS). There are two separate syntaxes of this command.

Syntax 1:

```
ConfigureSSISConnection
   -name: 'connectionName'
   -packageName: 'packageName'
   -glueConnection: 'glueConnection'
   -projectPath: 'projectPath'
```

```
/
```

Where:

connectionName	Connection name in the tree. Mandatory parameter.
packageName	Package name which connection must be configured. Mandatory parameter.
glueConnection	Glue connection name in the target tree. Mandatory parameter.
projectPath	Path to the project, that must be loaded to connection. Mandatory parameter.

Syntax 2:

```
ConfigureSSISConnections
   -connections: 'connectionsArray'
/
```

Where:

connectionsArray	Connection parameters array in JSON format. Mandatory parameter.

Connection array (JSON) template:

```
[
  {
    "name": "conn_name1",
    "packageName": "package_name1",
    "glueConnection": "glue_conn1",
    "projectPath": "project_path1"
  },
  {
    "name": "conn_name2",
    "packageName": "package_name2",
    "glueConnection": "glue_conn2",
    "projectPath": "project_path2"
  },
  ...
  {
    "name": "conne_nameN",
    "packageName": "package_nameN",
    "glueConnection": "glue_connN",
    "projectPath": "project_pathN"
  }
]
```

3.5.27.2. Configure Informatica connections command

This command configures connections for Informatica.

Syntax:

```
ConfigureInformaticaConnectionsRedirect
   -filter: 'filterName'
   -treePath: 'treePath'
   -namePath: 'namePath'
   -connections: 'connectionsObject'
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

filterName	The name of the filter that you previously created using the CreateFilter command. You can use only filters with the **source** origin. This parameter is mandatory if you don't specify the `-treePath` or `-namePath` parameters. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path. A path to the specific type of object or object name (type-name chain) on the source node. This parameter is mandatory if you don't specify the `-filter` or `-namePath` parameters.
namePath	Object name path. A path to a specific object name (name chain) on the source node. This parameter is mandatory if you don't specify the `-filter` or `-treePath` parameters.
connectionsObject	A JSON object with connection parameters. Mandatory parameter. The connection parameters object consists of two parts (arrays of objects): **ConnectionNames** and **ConnectionVariables**. You can set each of these parts separately, without reference to another part. AWS SCT uses these parts to set the conversion details for the SQL statements for the specified scope of the source objects. You can define the conversion scope using the `-filter`, `-treePath` or `-namePath` parameters. Make sure that the particular conversion includes the provided connection name or variable.

The following example shows a template of a connections object in the JSON format:

```
{
  "ConnectionNames": [
    {
      "name": "conn_name_1",
      "newName": "new_conn_name_1",
      "treePath": "tree_path_to_db_1",
```

```
      "namePath": "name_path_to_db_1"
    },
    ...
    {
      "name": "conn_name_N",
      "newName": "new_conn_name_N",
      "treePath": "tree_path_to_db_N",
      "namePath": "name_path_to_db_N"
    }
  ],
  "ConnectionVariables": [
    {
      "name": "var_name_1",
      "treePath": "tree_path_to_db_1",
      "namePath": "name_path_to_db_1"
    },
    ...
    {
      "name": "var_name_M",
      "treePath": "tree_path_to_db_M",
      "namePath": "name_path_to_db_M"
    }
  ]
}
```

The following table describes the details of the properties from the preceding example with the connections object:

Property name	JSON data type	Required	Description
name	String	Mandatory	The name of the connection or variable.
newName	String	Optional	The new connection name that replaces the name of the specified connection. You can use this property only for **ConnectionNames** objects. Make sure that this new name complies with the Informatica connection name policy.

Property name	JSON data type	Required	Description
treePath	String	Mandatory if you don't specify the **namePath** parameter.	The Object tree path that defines a proprietary object path in a form of category-name chain, according to the vendor object hierarchy. This path is used to determine the important details of the both source and target servers, that will be used while converting SQL queries: vendor, database name (optional), schema. Make sure that you created a corresponding server mapping for the provided treePath, using the AddServerMapping command.

Property name	JSON data type	Required	Description
namePath	String	Mandatory if you don't specify the **treePath** parameter.	The Object name path, that defines an object path in the form of name chain according to the vendor object hierarchy. This path is used to determine the important details of the both source and target servers, that will be used while converting SQL queries: vendor, database name (optional), schema. Make sure that you created a corresponding server mapping for the provided namePath, using the AddServerMapping command.

Make sure that you specified one of the treePath or namePath properties. If you specified both these properties, then an error occurs. AWS SCT displays an error message that you can use only one path identifier to determine the object scope. Other properties are optional and you can omit them.

3.5.27.3. Add parameter mapping command

This command replaces the parameter values in your source files. AWS SCT scans your source files, finds the parameters by name or value, and changes their values.

To replace parameters, create a valid server mapping between a specific pair of servers using the AddServerMapping command.

Syntax 1:

```
AddParameterMapping
   -filter: 'filterName'
   -treePath: 'treePath'
   -namePath: 'namePath'
   -sourceParameter: 'sourceParameterName'
   -sourceValue: 'sourceValue'
   -targetValue: 'targetValue'
```

/

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

filterName	The name of a filter previously created using the CreateFilter command. You can use only filters with the origin parameter set to **source**. This parameter is mandatory if neither of path parameters (`-treePath` or `-namePath`) is specified. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path. Path to a specific object type or object name (object name-type chain) in the source node. This parameter is mandatory if neither `-filter` nor `-namePath` parameter is specified.
namePath	Object name path. Path to a specific object name (object name chain) in the source node. This parameter is mandatory if neither `-filter` nor `-treePath` parameter is specified.
sourceParameterName	The name of the source node parameter which value to replace. This parameter is mandatory if `-sourceValue` parameter isn't specified, otherwise optional.
sourceValue	The value of the source node parameter to check. This parameter is mandatory if `-sourceParameter` parameter isn't specified, otherwise optional.
targetValue	The value to use for the target parameter. Mandatory parameter.

Syntax 2:

AddParametersMapping
-filter: '*filterName*'
-treePath: '*treePath*'
-namePath: '*namePath*'
-parameters: '*parametersArray*'
/

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

filterName	The name of a filter previously created using the CreateFilter command. You can use only filters with the origin parameter set to **source**. This parameter is mandatory if neither of path parameters (`-treePath` or `-namePath`) is specified. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path. Path to a specific object type or object name (object name-type chain) in the source node. This parameter is mandatory if neither `-filter` nor `-namePath` parameter is specified.
namePath	Object name path. Path to a specific object name (object name chain) in the source node. This parameter is mandatory if neither `-filter` nor `-namePath` parameter is specified.
parametersArray	An array of parameters to replace in JSON format. Mandatory parameter.

The following JSON example shows an array of parameters to replace.

```
[
  {
    "sourceParameter": "sourceParameter1",
    "targetValue": "target_value1"
  },
  {
    "sourceParameter": "sourceParameter2",
    "sourceValue": "source_value2",
    "targetValue": "target_value2"
  },
  {
    "sourceParameter": "sourceParameter3",
    "targetValue": "target_value3"
  },
  ...
  {
    "sourceParameter": "sourceParameterN",
    "sourceValue": "source_valueN",
    "targetValue": "target_valueN"
  }
]
```

The following table describes the properties of parameters from the preceding example.

Property name	JSON data type	Required	Description
sourceParameter	String	This parameter is mandatory if `-sourceValue` isn't specified.	The name of the source node parameter which value to replace.
sourceValue	String	This parameter is mandatory if `-sourceParameter` isn't specified.	The value of the source node parameter to check.
targetValue	String	Mandatory	The value to use for the target parameter.

To replace target values, AWS SCT uses the following rules.

- If the command parameter `-sourceParameter` isn't set and the command parameter `-sourceValue` is set, then AWS SCT checks all parameter values in the specified scope for the value of the `-sourceValue` command parameter. If any parameter value is equal to `-sourceValue`, it will be replaced with the value of the `-targetValue` command parameter on the target side.
- If both `-sourceParameter` and `-sourceValue` command parameters are set, then AWS SCT checks the `-sourceParameter` parameter for the value of the `-sourceValue` command parameter. If this check succeeds, it will be replaced by the `-targetValue` command parameter value on the target side.
- If the command parameter `-sourceParameter` is set and the command parameter `-sourceValue` isn't set, then the value of the `-sourceParameter` parameter will be replaced by the `-targetValue` command parameter value on the target side.

All other parameter combinations aren't valid.

The mapping rules might overlap.

If several rules are applicable to the same parameter, but have different paths, then rule with the most specific path has the highest priority.

If several rules are applicable to the same parameter, the rule with both `-sourceParameter` and `-sourceValue` command parameter set has the highest priority, then with `-sourceParameter` set, and after that with `-sourceValue` set.

The following table shows the examples of overlapping rules priority.

Path (treePath, namePath)	Parameter (parameter)	Value (sourceValue)	Priority
ETL.OOZIE_SOURCE.Applications.distcp_multiple_files	nameNode	/tmp/jsmith	1
ETL.OOZIE_SOURCE.Applications.distcp_multiple_files	nameNode		2

Path (treePath, namePath)	Parameter (parameter)	Value (sourceValue)	Priority
ETL.OOZIE_SOURCE.Applications.distcp_multiple_files		/tmp/jsmith	3
ETL.OOZIE_SOURCE.Applications	nameNode	/tmp/jsmith	4
ETL.OOZIE_SOURCE.Applications	nameNode		5
ETL.OOZIE_SOURCE.Applications		/tmp/jsmith	6

Examples:

```
# 1.
AddParameterMapping
    -treePath: 'ETL.OOZIE_SOURCE.Applications.distcp_multiple_files'
    -sourceValue: 'hdfs:///tmp/jsmith'
    -targetValue: 's3://aws-sct-redshift-dbe/jsmith'
/

# 2.
AddParameterMapping
    -treePath: 'ETL.OOZIE_SOURCE.Applications.distcp_multiple_files'
    -sourceParameter: 'nameNode'
    -targetValue: 'hdfs://ip-172-31-27-123.eu-west-1.compute.internal:8020'
/

# 3.
AddParameterMapping
    -treePath: 'ETL.OOZIE_SOURCE.Applications.Workflows."workflow1.xml"'
    -sourceParameter: 'nameNode'
    -sourceValue: 'hdfs://ip-172-31-19-215.eu-west-1.compute.internal:8020'
    -targetValue: 'hdfs://ip-172-31-27-123.eu-west-1.compute.internal:8020'
/

# 4.
AddParametersMapping
    -treePath: 'ETL.OOZIE_SOURCE.Applications.distcp_multiple_files'
    -parameters: '[
                    {
                      "sourceValue": "hdfs:///tmp/jsmith",
                      "targetValue": "s3://aws-sct-redshift-dbe/jsmith"
                    },
                    {
                      "sourceParameter": "nameNode",
                      "targetValue": "hdfs://ip-172-31-27-123.eu-west-1.compute.internal:8020"
                    }
                  ]'
/
```

3.5.27.4. Add target parameter command

This command adds a new parameter in your target files in addition to an existing parameter from your source files.

To add new parameters, create a server mapping between a specific pair of servers using the AddServerMapping command.

Syntax 1:

```
AddTargetParameter
   -filter: 'filterName'
   -treePath: 'treePath'
   -namePath: 'namePath'
   -sourceParameter: 'sourceParameterName'
   -sourceValue: 'sourceValue'
   -targetParameter: 'targetParameterName'
   -targetValue: 'targetValue'
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

filterName	The name of a filter previously created using the CreateFilter command. You can use only filters with the origin parameter set to **source**. This parameter is mandatory if neither of path parameters (`-treePath` or `-namePath`) is specified. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path. Path to a specific object type or object name (object name-type chain) in the source node. This parameter is mandatory if neither `-filter` nor `-namePath` parameter is specified.
namePath	Object name path. Path to a specific object name (object name chain) in the source node. This parameter is mandatory if neither `-filter` nor `-treePath` parameter is specified.
sourceParameterName	The name of the source node parameter for which to add a new one in the target node. Mandatory parameter.
sourceValue	The value of the source node parameter. Mandatory parameter.
targetParameterName	The name of the added parameter in the target node. Mandatory parameter.
targetValue	The value of the added parameter in the target node. Mandatory parameter.

Syntax 2:

```
AddTargetParameters
   -filter: 'filterName'
```

```
    -treePath: 'treePath'
    -namePath: 'namePath'
    -parameters: 'parametersArray'
/
```

The set of mandatory parameters depends on the input parameters. For more information, read the parameter description.

Where:

filterName	The name of a filter previously created using the CreateFilter command. You can use only filters with the origin parameter set to **source**. This parameter is mandatory if neither of path parameters (`-treePath` or `-namePath`) is specified. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path. Path to a specific object type or object name (object name-type chain) in the source node. This parameter is mandatory if neither `-filter` nor `-namePath` parameter is specified.
namePath	Object name path. Path to a specific object name (object name chain) in the source node. This parameter is mandatory if neither `-filter` nor `-treePath` parameter is specified.
parametersArray	Target node parameters array in JSON format. Mandatory parameter.

The following JSON example shows an array of parameters to add.

```
[
  {
    "sourceParameter": "source_param1",
    "sourceValue": "source_value1",
    "targetParameter": "target_param1",
    "targetValue": "target_value1"
  },
  {
    "sourceParameter": "source_param2",
    "sourceValue": "source_value2",
    "targetParameter": "target_param2",
    "targetValue": "target_value2"
  },
  ...
  {
    "sourceParameter": "source_paramN",
    "sourceValue": "source_valueN",
    "targetParameter": "target_paramN",
    "targetValue": "target_valueN"
  }
```

```
]
```

The following table describes the properties of parameters from the preceding example.

Property name	JSON data type	Required	Description
sourceParameter	String	Mandatory	The name of the source node parameter for which to add a new parameter in the target node.
sourceValue	String	Mandatory	The value of the source node parameter.
targetParameter	String	Mandatory	The name of the added parameter in the target node.
targetValue	String	Mandatory	The value of the added parameter in the target node.

Examples:

```
# 1.
AddTargetParameter
    -treePath: 'ETL.OOZIE_SOURCE.Applications.distcp_multiple_files'
    -sourceParameter: 'nameNode'
    -sourceValue: 'hdfs://ip-172-31-19-215.eu-west-1.compute.internal:8020'
    -targetParameter': 'clusterId'
    -targetValue: 'j-1RAFZXJGE72E'
/

# 2.
AddTargetParameter
    -treePath: 'ETL.OOZIE_SOURCE.Applications.distcp_multiple_files'
    -sourceParameter: 'nameNode'
    -sourceValue: 'hdfs://ip-172-31-19-215.eu-west-1.compute.internal:8020'
    -targetParameter': 'tempBucket'
    -targetValue: 's3://bucket/folder'
/

# 3.
AddTargetParameter
    -treePath: 'ETL.OOZIE_SOURCE.Applications.distcp_multiple_files'
    -sourceParameter: 'serverAddress'
    -sourceValue: '192.168.0.1'
    -targetParameter': 'srvAddr'
    -targetValue: '127.0.0.1'
/

# 4.
AddTargetParameters
    -treePath: 'ETL.OOZIE_SOURCE.Applications.distcp_multiple_files'
    -parameters: '[
                    {
                      "sourceParameter": "nameNode",
```

```
                    "sourceValue": "hdfs://ip-172-31-19-215.eu-west-1.compute.internal:8020",
                    "targetParameter'": "clusterId",
                    "targetValue": "j-1RAFZXJGE72E"
                  },
                  {
                    "sourceParameter": "nameNode",
                    "sourceValue": "hdfs://ip-172-31-19-215.eu-west-1.compute.internal:8020",
                    "targetParameter'": "tempBucket",
                    "targetValue": "s3://bucket/folder"
                  },
                  {
                    "sourceParameter": "serverAddress",
                    "sourceValue": "192.168.0.1",
                    "targetParameter'": "srvAddr",
                    "targetValue": "127.0.0.1"
                  }
                ]'
  /
```

3.5.28. Generic Application Conversion

This chapter describes working with Generic Application Conversion feature.

3.5.28.1. Create new Gen AppConversion project

This command creates a new Generic Application Conversion project.

Syntax:

CreateGenAppProject
-projectName: '*projectName*'
-directory: '*directoryPath*'
[-language: '*language*']
-parameterStyle: '*parameterStyle*'
-treePath: '*treePath*'
-namePath: '*namePath*'
[-notCastBindVariables: '*notCastBindVariables*']
[-keepObjectName: '*keepObjectName*']
/

Where:

projectName	The Generic Application Conversion project name to create. Use a unique name among all AppConversion project names, either Generic or Language-specific ones. Mandatory parameter.
directoryPath	The OS file system path to store Application Conversion project files. Depends on OS version. Mandatory parameter. See description of the OS paths in the OS file system paths for commands chapter.

<table>
<tr><td>language</td><td>Source file language. Optional parameter.

<table><tr><th colspan="2">Possible values</th></tr><tr><td>java</td><td>Java Application.</td></tr><tr><td>c++</td><td>C++ Application.</td></tr><tr><td>c#</td><td>C# Application.</td></tr><tr><td>any</td><td>Application written on any other language.</td></tr></table>
The default value is java.

Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>parameterStyle</td><td>Style of parameters exist at analyzed files. Mandatory parameter.

<table><tr><th>Possible values</th></tr><tr><td>same as in source</td></tr><tr><td>positional (?)</td></tr><tr><td>indexed (:1)</td></tr><tr><td>indexed ($1)</td></tr><tr><td>named (@name)</td></tr><tr><td>named (&name)</td></tr><tr><td>named ($name)</td></tr></table>
Values are case insensitive, leading and trailing spaces are ignored.</td></tr>
<tr><td>treePath</td><td>Object tree path (object type-name chain) to a specific schema on a server that is used by an application.

This parameter is mandatory if namePath parameter isn't specified.</td></tr>
<tr><td>namePath</td><td>Object name path (name chain) to a specific schema on a server that is used by an application.

This parameter is mandatory if the treePath parameter isn't specified.</td></tr>
<tr><td>notCastBindVariables</td><td>Boolean flag that indicates whether to cast Bind Variables or not. Optional parameter.

Possible values are <code>true</code> or <code>false</code>. The default value is <code>false</code>.</td></tr>
</table>

keepObjectName	Boolean flag that indicates whether to add schema name to objects which are without schema name on source or not. Optional parameter. Possible values are `true` or `false`. The default value is `false`. **Attention!** You can use this parameter only for the Oracle to PostgreSQL or AuroraPostgreSQL conversion pair. If the option is set to `true`, the state of the name in the source code is preserved after conversion. It means if object was specified without schema name - it will be converted without schema name. If schema name was specified - it will be left after conversion. **Examples:** The parameter is `true`: select a.* from ACCOUNT a converts to SELECT a.* FROM account AS a The parameter is `false`: select a.* from ACCOUNT a converts to SELECT a.* FROM **test_ora_pg**.account AS a

3.5.28.2. Convert Gen AppConversion project scripts

This command converts Generic Application Conversion project scripts.

Syntax:

```
ConvertGenApp
   -projectName: 'projectName'
   -file: 'filePath'
/
```

Where:

projectName	Generic Application Conversion project name previously created with CreateGenAppProject command. Mandatory parameter.
filePath	The OS file system path to the file to save the parsed data. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.28.3. Create report for Gen AppConversion scripts

This command creates report for Generic Application Conversion project scripts.

Syntax:

```
CreateGenAppReport
   -projectName: 'projectName'
   -file: 'filePath'
/
```

Where:

projectName	Generic Application Conversion project name previously created with CreateGenAppProject command. Mandatory parameter.
filePath	The OS file system path to the file to save the parsed data. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.28.4. Save Gen AppConversion report to CSV

This command saves the report for Generic Application scripts to CSV.

Syntax:

```
SaveGenAppReportToCSV
   -projectName: 'projectName'
   -file: 'filePath'
/
```

Where:

projectName	Generic Application Conversion project name previously created with CreateGenAppProject command. Mandatory parameter.
filePath	The OS file system path to the file to save the parsed data. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.28.5. Save Gen AppConversion report to PDF

This command saves the report for Generic Application scripts to PDF.

Syntax:

```
SaveGenAppReportToPDF
   -projectName: 'projectName'
   -file: 'filePath'
```

```
/
```

Where:

projectName	Generic Application Conversion project name previously created with CreateGenAppProject command. Mandatory parameter.
filePath	The OS file system path to the file to save the parsed data. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.28.6. Convert one Gen AppConversion script statement

You can use this command to convert one Generic Application statement from script file.

Syntax:

```
ConvertOneGenAppStatement
   -sqlPath: 'sqlPath'
   -savePath: 'savePath'
   -parameterStyle: 'parameterStyle'
   -treePath: 'treePath'
   -namePath: 'namePath'
   -separator: 'separator'
/
```

Where:

sqlPath	The OS file system path to source SQL script file or folder with SQL script files. Depends on OS version. Mandatory parameter.
savePath	The OS file system path to target folder to save SQL script files. Depends on OS version. Mandatory parameter.
parameterStyle	Style of parameters exist at analyzed files. Mandatory parameter. **Possible values** **same as in source** **positional (?)** **indexed (:1)** **indexed ($1)** **named (@name)** **named (&name)** **named ($name)** Values are case insensitive, leading and trailing spaces are ignored.

treePath	Object tree path (object type-name chain) to a specific schema on a server that is used by an Application. This parameter is mandatory if the *namePath* parameter isn't specified.
namePath	Object name path (name chain) to a specific schema on a server that is used by an Application. This parameter is mandatory if the *treePath* parameter isn't specified.
separator	String value for separating script in file. Mandatory parameter.

3.5.28.7. Apply converted Gen AppConversion project scripts

This command will apply converted or changed code to Generic Application sources.

Syntax:

```
ApplyGenApp
   -projectName: 'projectName'
   -file: 'filePath'
/
```

Where:

projectName	Generic Application Conversion project name previously created with CreateGenAppProject command. Mandatory parameter.
filePath	The OS file system path to the file to save the parsed data. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.28.8. Save Gen AppConversion result sources to script

This command will save converted or changed Generic Application sources on file system.

Syntax:

```
SaveGenApp
   -projectName: 'projectName'
   -file: 'filePath'
/
```

Where:

projectName	Generic Application Conversion project name previously created with CreateGenAppProject command. Mandatory parameter.

filePath	The OS file system path to the file to save the parsed data. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.28.9. Save Gen AppConversion result sources to CSV

This command will save converted or changed Generic Application sources on file system in CSV format.

Syntax:

SaveGenAppScriptsToCSV
  -projectName: '*projectName*'
  -file: '*filePath*'
/

Where:

projectName	Generic Application Conversion project name previously created with CreateGenAppProject command. Mandatory parameter.
filePath	The OS file system path to the file to save the parsed data. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.29. Language-specific AppConversion (Pro*C, C#, C++ and Java)

This chapter describes working with Language-Specific Application Conversion feature.

3.5.29.1. Create new Lang App project

This command creates a new Language-Specific Application Conversion project.

Syntax:

CreateLangAppProject
  -projectName: '*projectName*'
  -directory: '*directoryPath*'
  [-language: '*language*']
  -treePath: '*treePath*'
  -namePath: '*namePath*'
/

Where:

projectName	The name of the language-specific application conversion project. Make sure that you use a unique name among all AppConversion project names, either generic or language-specific. Mandatory parameter.

directoryPath	The OS file system path to a directory to save the language-specific application conversion project files. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.
language	The source file language. Optional parameter. **Possible values** **pro*c** Pro*C Application. **java** Java Application. **c#** C# Application. **c++** C++ Application. The default value is **pro*c**. Values are case insensitive, leading and trailing spaces are ignored.
treePath	Object tree path (object type-name chain) to a specific schema on a server that is used by an Application. This parameter is mandatory if the *namePath* parameter isn't specified.
namePath	Object name path (name chain) to a specific schema on a server that is used by the application. This parameter is mandatory if the *treePath* parameter isn't specified.

Regardless of the path parameter (*treePath* or *namePath*), make sure that this path is unambiguous and points to one schema.

3.5.29.2. Load Lang App metadata

This command creates metadata tree, dependencies from Language-Specific Application Conversion project scripts.

Syntax:

```
LoadLangAppMetadata
   -projectName: 'projectName'
   [-language: 'language']
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with the CreateLangAppProject command. Mandatory parameter.

language	The source file language. Optional parameter. **Possible values** **pro*c** Pro*C Application **java** Java Application **c#** C# Application Default value is **pro*c**. Values are case insensitive, leading and trailing spaces are ignored.

3.5.29.3. Convert Lang App project

This command converts Language-Specific Application metadata tree.

This command implicitly runs the LoadLangAppMetadata command if it has not been run before.

Syntax:

```
ConvertLangApp
   -projectName: 'projectName'
   [-language: 'language']
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Mandatory parameter.
language	Source file language. Optional parameter. **Possible values** **pro*c** Pro*C Application **java** Java Application **c#"** C# Application Default value is **pro*c**. Values are case insensitive, leading and trailing spaces are ignored.

3.5.29.4. Refresh Lang App project scripts

This command refreshes scripts from Language-Specific Application project directory.

Syntax:

```
RefreshLangAppScripts
   -projectName: 'projectName'
   [-language: 'language']
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Mandatory parameter.
language	Source file language. Optional parameter. **Possible values** **pro*c** Pro*C Application **java** Java Application **c#** C# Application The default value is **pro*c**. Values are case insensitive, leading and trailing spaces are ignored.

3.5.29.5. Delete Source Lang App project

This command deletes Language-Specific Application Conversion project on the source side.

Syntax:

```
DeleteSourceLangApp
   -projectName: 'projectName'
   [-language: 'language']
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Mandatory parameter.

language	Source file language. Optional parameter. **Possible values** **pro*c** Pro*C Application **java** Java Application **c#** C# Application The default value is **pro*c**. Values are case insensitive, leading and trailing spaces are ignored.

3.5.29.6. Delete Target Lang App project

This command deletes Language-Specific Application Conversion project on the target side.

Syntax:

```
DeleteTargetLangApp
   -projectName: 'projectName'
   [-language: 'language']
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Mandatory parameter.
language	Source file language. Optional parameter. **Possible values** **pro*c** Pro*C Application **java** Java Application **c#** C# Application The default value is **pro*c**. Values are case insensitive, leading and trailing spaces are ignored.

3.5.29.7. Save Lang App project

This command saves Language-Specific Application Conversion project.

Syntax:

```
SaveLangAppProject
   -projectName: 'projectName'
```

```
    [-language: 'language']
    -directory: 'directoryPath'
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Mandatory parameter.
language	Source file language. Optional parameter. **Possible values** **pro*c** Pro*C Application **java** Java Application **c#** C# Application The default value is **pro*c**. Values are case insensitive, leading and trailing spaces are ignored.
directoryPath	The OS file system path to a directory to save the language-specific application conversion project files. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.29.8. Save Pro*C App statements to CSV

This command extracts and saves embedded SQL to CSV file.

File name format is constructed by mask: "*source file path, target file path, source line, target line, num in file, in params, out params, query, convertedQuery*".

Syntax:

```
SaveProCAppStatementsToCSV
    -projectName: 'projectName'
    -file: 'filePath'
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Mandatory parameter.
filePath	The OS file system path to a CSV file to save embedded SQL statements. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.29.9. Import Pro*C App statements from CSV

This command extracts and saves embedded SQL to CSV file.

File name format is constructed by mask: "*source file path, target file path, source line, target line, num in file, in params, out params, query, convertedQuery*".

Syntax:

```
ImportProCAppStatementsFromCSV
   -projectName: 'projectName'
   -file: 'filePath'
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Mandatory parameter.
filePath	The OS file system path to a CSV file with embedded SQL. Depends on OS version. Mandatory parameter. See the description of the OS paths in the OS file system paths for commands chapter.

3.5.29.10. Change Pro*C App settings

This command changes settings for Pro*C Application Conversion project.

Syntax:

```
ChangeProCAppSettings
   -projectName: 'projectName'
   [-pathToHeaderFile: 'pathToHeaderFile']
   [-useUnicodeConversion: 'useUnicodeConversion']
   [-tryTransformPlBlocks: 'tryTransformPlBlocks']
   [-useCustomCursorFlow: 'useCustomCursorFlow']
   [-isInterpretUnresolvedHostVar: 'isInterpretUnresolvedHostVar']
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Mandatory parameter.
pathToHeaderFile	The OS file system path to a global header file. Depends on OS version. Optional parameter.

useUnicodeConversion	Boolean flag that indicates whether to use Unicode conversion or not. Optional parameter. Supported values are `true` or `false`. The default value is `false`.
tryTransformPlBlocks	Boolean flag that indicates whether to use fixed-width Unicode conversion functions from Extension Pack. Optional parameter. Supported values are `true` or `false`. The default value is `false`.
useCustomCursorFlow	Boolean flag that indicates whether to use custom cursor flow. Optional parameter. Supported values are `true` or `false`. The default value is `false`.
isInterpretUnresolvedHostVar	Boolean flag that indicates whether to interpret all unresolved host variables as "TMCHAR hostVarName [40]" or not. Optional parameter. Supported values are `true` or `false`. The default value is `false`.

3.5.29.11. Save Lang App statements to JSON

This command extracts and saves SQL statements to a JSON file.

Syntax:

```
SaveLangAppStatementsToJSON
   -projectName: 'projectName'
   -file: 'filePath'
   -language: 'language'
/
```

Where:

projectName	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Mandatory parameter.
filePath	The OS file system path to a JSON file to save embedded SQL statements. Depends on OS version. Mandatory parameter.

language	Source file language. Mandatory parameter. **Possible values** **java** Java Application **c#** C# Application Values are case insensitive, leading and trailing spaces are ignored.

3.5.29.12. Change Language-specific AppConversion settings

This command changes settings for Language-Specific Application Conversion project.

Syntax:

```
ChangeLangAppSettings
   [-projectName: 'projectName']
   [-language: 'language']
   [-compilerType: 'compilerType']
   [-externalIncludeDirectories: 'externalIncludeDirectories']
   [-userPredefinedMacrosFile: 'userPredefinedMacrosFile']
/
```

Where:

*projectName**	Language-Specific Application Conversion project name previously created with CreateLangAppProject command. Optional parameter. If the *projectName* is missing, the settings are applied to project settings to page with id CPP.
language	Source file language. Optional parameter. **Possible values** **c++** C++ Application. The default value is **c++**. Values are case insensitive, leading and trailing spaces are ignored.

<table>
<tr><td>compilerType</td><td>Setting available for C++ only. Specified Compiler type for added application.

<table><tr><td colspan="2">Possible values:</td></tr><tr><td>GNU_C_C++</td><td>GNU C/C++ compiler (GCC - Value in settings *.xml)</td></tr><tr><td>CLANG</td><td>Clang compiler</td></tr><tr><td>MICROSOFT_VISUAL_STUDIO</td><td>Microsoft Visual Studio</td></tr></table>
The default value is "MICROSOFT_VISUAL_STUDIO"</td></tr>
<tr><td>externalIncludeDirectories</td><td>Takes a list of paths separated by semicolons (;) applicable to the user's Operating System.

There can be both several objects, and no one Optional parameter.</td></tr>
<tr><td>userPredefinedMacrosFile</td><td>Takes the path to a directory applicable to the user's Operating System. Optional parameter.</td></tr>
</table>

All parameters are independent. The parameters can be specified in any possible combination.

3.5.30. DDL compare commands

3.5.30.1. Compare schema

This command compares schemas on source and target. Available only for homogeneous migrations.

Syntax:

```
DDLCompareSchema
   [-treePath: 'treePath']
   [-namePath: 'namePath']
/
```

Where:

treePath	A path to the schema name (object type-name chain). For more information on how to use the tree path, see Object tree path. Optional parameter. If you don't specify this parameter, make sure to specify the *namePath* parameter. You can't use the percent sign (%) wildcard in the value.
namePath	A path to a specific schema name (name chain). For more information on how to use the name path, see Object name path. Optional parameter. If you don't specify this parameter, make sure to specify the *treePath* parameter. You can't use the percent sign (%) wildcard in the value.

3.5.30.2. Apply Compared schema

This command applies the differences between the source and target schemas to the target database. Available only for homogeneous migrations.

Syntax:

```
DDLApplySchema
   [-treePath: 'treePath']
   [-namePath: 'namePath']
/
```

Where:

treePath	A path to the schema name (object type-name chain). For more information on how to use the tree path, see Object tree path. Optional parameter. If you don't specify this parameter, make sure to specify the *namePath* parameter. You can't use the percent sign (%) wildcard in the value.
namePath	A path to a specific schema name (name chain). For more information on how to use the name path, see Object name path. Optional parameter. If you don't specify this parameter, make sure to specify the *treePath* parameter. You can't use the percent sign (%) wildcard in the value.

3.5.31. Virtual partitioning (for OLAP)

Virtual partitions are used in case if it is necessary to split a large table into separate parts according to a given criterion for further parallel loading into the target database. Virtual partitioning should work only with non-partitioning tables.

3.5.31.1. Create Partitioning by List

This command creates virtual partition by List. This type of partitioning assigns rows to partitions based on column values. You can load information of values from .csv files or specify it in `-values` attribute.

Syntax:

```
OLAPCreatePartitionByList
   [-treePath: 'treePath']
   [-namePath: 'namePath']
   -columnName: 'columnName'
   [-values: 'values']
   [-valuesFile: 'valuesFile']
   [-includeOtherValues: 'includeOtherValues']
/
```

where:

treePath	A path to a table name (object type-name chain). The usage is described in the Object tree path chapter. Optional parameter. If this parameter is omitted, *namePath* must be specified. You can't use the percent sign wildcard (%) in the value.
namePath	A path to a specific table name (name chain). The usage is described in the Object name path chapter. Optional parameter. If this parameter is omitted, *treePath* must be specified. You can't use the percent sign wildcard (%) in the value.
columnName	The column name for partitioning. Mandatory parameter.
values	Values for list partitioning separated by "," (comma). For example, 1,100,200,300. Optional parameter. If this parameter is omitted then *valuesFile* must be specified.
valuesFile	The file with values for list partitioning. If this parameter is omitted then *values* must be specified. Values must be written in one column.
includeOtherValues	Possible values are `true` or `false`. Indicates whether it's necessary to create a partition for other values that aren't included in the list in *values* or *valuesFile*. The default value is `false`.

3.5.31.2. Create Partitioning by Range

This command creates virtual partition by Range. This type of partitioning assigns rows to partitions based on column values falling within a given range. You can load information of values from .csv files or specify it in *values* attribute.

Syntax:

```
OLAPCreatePartitionByRange
   [-treePath: 'treePath']
   [-namePath: 'namePath']
   -columnName: 'columnName'
   [-values: 'values']
   [-valuesFile: 'valuesFile']
/
```

Where:

treePath	A path to a table name (object type-name chain). The usage is described in the Object tree path chapter. Optional parameter. If this parameter is omitted, *namePath* must be specified. You can't use the percent sign wildcard (%) in the value.
namePath	A path to a specific table name (name chain). The usage is described in the Object name path chapter. Optional parameter. If this parameter is omitted, *treePath* must be specified. You can't use the percent sign wildcard (%) in the value.

columnName	The column name for partitioning. Mandatory parameter.
values	Values for range partitioning separated by comma. For example, 1,100,200,300. Optional parameter. If this parameter is omitted then *valuesFile* must be specified.
valuesFile	The file with values for range partitioning. If this parameter is omitted then *values* must be specified. Values must be written in one column.

3.5.31.3. Create Partitioning by Auto Split

This command creates virtual partitions by interval.

An interval partitioning can be represented by two special cases, depending on the type of the specified column:

- division by date interval ("YYYY-MM-DD" date format);
- division by integer interval.

Syntax:

```
OLAPCreatePartitionBySplit
   -treePath: 'treePath'
   -namePath: 'namePath'
   -columnName: 'columnName'
   -startValue: 'startValue'
   -endValue: 'endValue'
   -interval: 'interval'
   [-dateIntervalType: 'dateIntervalType']
   [-includeOtherValues: 'includeOtherValuesFlag']
/
```

Where:

treePath	An Object tree path (or an object category-name chain) to the source table. You can only specify exact object names in a path, thus cannot use the wildcard "%" (percent sign) in the value. This parameter is required when you don't use the `-namePath` parameter.
namePath	An Object name path (or an object name chain) to the source table. You can only specify exact object names in a path, thus cannot use the wildcard "%" (percent sign) in the value. This parameter is required when you don't use the `-treePath` parameter.
columnName	A column name for partitioning. This parameter is required.
startValue	A start value for partitioning. This parameter is required.
endValue	An end value for partitioning. This parameter is required.

interval	An interval for partitioning. This parameter is required.
dateIntervalType	A date interval type. This parameter is optional. **Possible values:** Day Week Month Year Values are case insensitive, spaces are ignored. The default value is "Day".
includeOtherValuesFlag	A Boolean flag indicating whether it is necessary to create partitions for other values that are not included in the range specified by the `-startValue` and `-endValue` parameters. This parameter is optional. Valid values are "true" and "false". The The default value is `true`. Values are case insensitive, leading and trailing spaces are ignored.

3.5.32. DBLink commands

3.5.32.1. Add Associated Database Link

This command adds associated database link to source database. Actual only for source vendor - ORACLE.

Syntax:

```
AddDbLink
   -sourceName: 'sourceName'
   -remoteTreePath: 'remoteTreePath'
   -remoteNamePath: 'remoteNamePath'
/
```

Where:

sourceName	name that clearly identifies the source connection added by the AddSource command. Mandatory parameter.
remoteTreePath	Object tree path. A path to a specific **Servers.*server_name*.Schemas.*schema_name*.Database Link.*database_link***. One of the *remoteTreePath* or *remoteNamePath* must be used.
remoteNamePath	Object name path. A path to a specific ***server name.schema_name.database_link***. One of the *remoteTreePath* or *remoteNamePath* must be used.

3.5.32.2. Delete Associated Database Link

This command deletes associated database link from source database. Actual only for source vendor - ORACLE.

Syntax:

```
DeleteDbLink
   -sourceName: 'sourceName'
   -remoteTreePath: 'remoteTreePath'
  -remoteNamePath: 'remoteNamePath'
/
```

Where:

sourceName	name that clearly identifies the source connection added by the AddSource command. Mandatory parameter.
remoteTreePath	Object tree path. A path to a specific **Servers.*server_name*.Schemas.*schema_name*.Database Link.*database_link***. One of the *remoteTreePath* or *remoteNamePath* must be used.
remoteNamePath	Object name path. A path to a specific ***server name.schema_name.database_link***. One of the *remoteTreePath* or *remoteNamePath* must be used.

3.5.33. Load dependencies command

This command loads all the functional dependencies of objects from specified schemas (specifically the objects that belong to that schemas).

The resulting set of dependencies includes functional ones between procedures, functions, packages, package bodies, and triggers, along with dependencies between mentioned object types traced through the chain of synonyms.

Dependencies collection process becomes possible thanks to a special PL/Scope feature that gathers information about user defined identifiers in PL/SQL code starting from Oracle Database 11g at compile time.

Collection and storage of PL/Scope identifiers data is controlled by the special PLSCOPE_SETTINGS parameter, which has a default setting of «*IDENTIFIERS:NONE*».

Thus, in order to obtain valid results of dependencies between objects in schemas of interest and the objects in other schemas they depend on, all these schemas together must be (re)compiled using PLSCOPE_SETTINGS parameter value «*IDENTIFIERS:ALL*».

One can use either of two specially prepared anonymous blocks to (re)compile all PL/SQL routine objects (run under SYS or user with DBA privileges) within the specified schemas of interest, placed in Appendix Oracle PL/Scope schema compilation scripts:

- Compile specified database schemas (see here).
- Compile all schemas except system ones (see here).

The command does not raise any error in case if specified schemas aren't compiled using PL/Scope «*IDENTIFIERS:ALL*» parameter value, just no dependency data will be produced.

The command is available only for Oracle DB source nodes starting from version 11g.

As for now, this command is relevant only to next database pairs:

- Oracle - PostgreSQL;
- Oracle - Aurora PostgreSQL.

Syntax:

```
LoadDependencies
   -treePath: 'treePath'
   -namePath: 'namePath'
   -filter: 'filterName'
/
```

Where:

treePath	Path to a specific schema or schemas (with percent sign character (%) usage) on a source node specified in an object tree path (object type-name chain). This parameter is mandatory if neither *filterName* nor *namePath* parameter is specified.
namePath	Path to a specific schema or schemas (with percent sign character (%) usage) on a source node specified in an object name path (name chain). This parameter is mandatory if neither *filterName* nor *treePath* parameter is specified.
filterName	Name of the filter previously created with the CreateFilter command that scopes the schema(s) of interest. This parameter is mandatory if neither of path parameters (*treePath* or *namePath*) is specified. Values are case insensitive, leading and trailing spaces are ignored.

At least one of the above-mentioned parameters must be specified in a command call. If more than one command parameter passed at a time, an exception (error) is thrown.

No matter which one of the above-mentioned parameters was used to pass the schemas scope to the command, the dependencies on the objects of all the specified schemes are loaded.

The following example will illustrate this behavior:

Command example	Schemas for which to load dependencies
LoadDependencies -treePath: 'Servers.ORA_1.Schemas.NEW_SCHEMA' /	NEW_SCHEMA (**ORA_1** node)
LoadDependencies -treePath: 'Servers.ORA_1.Schemas.TEST_ORA%.Procedures.%' /	TEST_ORA_1 (**ORA_1** node), TEST_ORA_SCHEMA (**ORA_1** node), TEST_ORA_NEW (**ORA_1** node)
LoadDependencies -namePath: 'ORA_1.NEW_SCHEMA' /	NEW_SCHEMA (**ORA_1** node)
LoadDependencies -namePath: 'ORA_1.TEST_ORA%.PKG_VARS' /	TEST_ORA_1 (**ORA_1** node), TEST_ORA_SCHEMA (**ORA_1** node), TEST_ORA_NEW (**ORA_1** node)

Command example	Schemas for which to load dependencies

CreateFilter
-name: 'TestFilter1'
-origin: 'source'
-objects: '
 	
[
{
"type": "include",
"treePath": "Servers.ORA_1.Schemas.TEST_ORA%.Procedures.%",
"name": ["p_PROC_1","\"CaseSensitiveProc\""],
"mask": ["PROC_%","regexp:^\\s*P_\\d\{3}test\\d*\\s*$"]
},
{
"type": "include",
"treePath": "Servers.LRG_ORCL.Schemas.ORA_SCHEMA1.Tables.%",
"name": ["TABLE1","\"tAbLe2\""]
},
{
"type": "include",
"treePath": "Servers.NEW_DB.Schemas.TEST_SCHEMA2.Functions.%",
"status": ["not_converted","not_encrypted"]
}
]
 	
'
 	
/
 	
LoadDependencies
	TEST_ORA_1 (**ORA_1** node),
	TEST_ORA_SCHEMA (**ORA_1** node),
	TEST_ORA_NEW (**ORA_1** node),
	ORA_SCHEMA1 (**LRG_ORCL** node),
	TEST_SCHEMA2 (**NEW_DB** node)

Please pay attention! Collecting PL/Scope identifiers for a large number of schemas, as well as for a lot of routine objects within those schemas, might generate large amounts of data (in SYSAUX tablespace) and and take a long time.

Chapter 4. Interactive command mode

This chapter describes work with AWS SCT in an interactive command mode (console). This mode allows you to both enter commands directly into the console and call a script file with commands.

In order to clarify using `AWSSchemaConversionToolBatch.jar` it seems to be useful to underline some important moments:

1. Java should be installed. If it's not, the installer can be reached over here: Amazon Coretto 11
2. After installation AWS SCT `AWSSchemaConversionToolBatch.jar` file is supposed to be reached in the `app` subfolder of the home folder of AWS SCT installation. For instance, by default, the jar file is in the folder *C:\Program Files\AWS Schema Conversion Tool\app*
3. In order to be able to run a command, the path to `AWSSchemaConversionToolBatch.jar` should be present in the operation system Environment variable PATH or the path should precede `AWSSchemaConversionToolBatch.jar` in the command's string. A command syntax is described below.

Syntax:

```
java -jar AWSSchemaConversionToolBatch.jar -type interactive [-messagelevel messageLevel] [-highlight highlightValue]
```

Where:

messageLevel	Determines the level of information output in the console. This parameter depends entirely on the main message module, which consists of many submodules. Setting the message level for the console means that it is necessary to set the message level of all submodules to the same value. Supported values, starting from the minimum level of information to the maximum, are: • MANDATORY • CRITICAL • ERROR • WARNING • INFO • DEBUG • TRACE The default value is CRITICAL. Main message module has the following submodules: • General • Loader • Parser • Printer • Resolver • Telemetry • Converter • Type mapping • User Interface • Controller • Compare schema • Clone datacenter • Application Analyzer **Note!** The level of information output to the console cannot be higher than the value set in the global settings for this submodule. For example, if in main message module level for submodule Loader was set to MANDATORY level, and you start the console with -messagelevel equal to ERROR, information output in console for this module will still be at the level MANDATORY.

highlightValue	Determines whether to enable highlighting of errors and messages or not. Supported values are **yes** or **no**. The default value is **no**.

The syntax of all commands is identical to the "Script command mode", except for those additional commands that will be described below. So, you can use the main syntax that described in chapter Commands syntax.

Another feature is that in this mode all errors should be output to the console.

4.1. Additional commands

4.1.1. Execute command script

This command loads and executes a script file with commands.

Syntax:

```
ExecuteFile
   -file: 'filePath'
/
```

Where:

filePath	OS file system path to a scenario file with commands for AWS SCT. The extension of this file must be scts (for example, myscript.scts). Mandatory parameter. The description of the OS paths is in the OS file system paths for commands-chapter.

4.1.2. Exit from interactive mode

This command performs exit from an interactive mode.

The command doesn’t have parameters.

There are three separate command syntaxes for this command.

Syntax 1:

```
Exit
```

Syntax 2:

```
Quit
```

Syntax 3:

```
q
```

4.1.3. Help command

This command gives an ability to get a list of all commands or to get a description of any particular command of the interactive mode.

Syntax:

```
Help
   [ -command: 'commandName' ]
   [ -parameters: 'parametersList' ]
/
```

Where:

commandName	This parameter could be skipped (to get a list of all commands of AWS SCT CLI) or it should be the name of a particular command (to get a description of the command). Optional parameter.
parametersList	Contains of a list of parameters param_1, param_2, ..., param_n. This parameter could be skipped. In this case, it will be shown a description of all parameters of the command. Optional parameter.

Here is an example of a part of the JSON file which contains of description of the SaveSourceSQL command:

```
{
"name":"SaveSourceSQL",
"description": "Saves selected source object(s) to SQL file (*.sql).",
"shortDescription": "Saves selected source object(s) to SQL file (*.sql).",
"comment": "At least one of <filter>, <treepath> or <namePath> parameters must be specified in the
command. If more than one parameter from set passed at a time, an exception (error) is thrown.See related
spec chapter 2.4.12.1 for more details.",
"parameters":
[
{
"name": "filter",
"description": "Name of the filter previously created with "CreateFilter" command. Filter property "
origin" must be "source", otherwise an exception (error) is thrown."
},
{
"name": "treePath",
"description": "A path to a specific type of object or object name (object type-name chain). Using
described in chapter "Object tree path"."
},
{
"name": "namePath",
"description": "A path to a specific object name (name chain). Using described in chapter "Object name
```

```
path"."
},
{
"name":"file",
"description": "Path with file name.",
"mandatory":"yes"
},
{
"name":"forceLoad",
"description":"Boolean flag that indicates whether to use forced object tree loading logic during object path processing. Values are case insensitive, spaces are ignored. More info about this parameter can be found in the *Object path loading algorithm* chapter.",
"mandatory": "yes",
"allowableValues": ["true","false"],
"defaultValue": "false"
}]
}
```

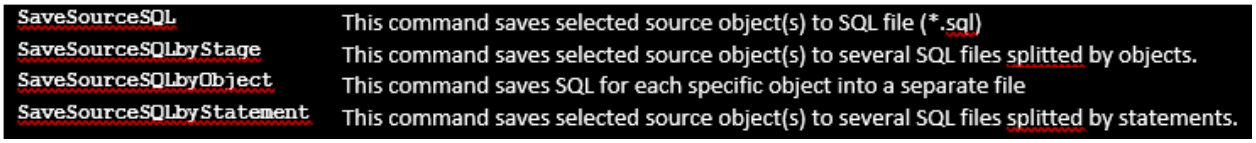

Here are 3 types of **Help** command execution templates with examples:

#1. Syntax:

Help
/

Response: List of all SCT CLI commands with short description and without parameters.

Output: `name` and `shortDescription` fields values from JSON file:



#2. Syntax:

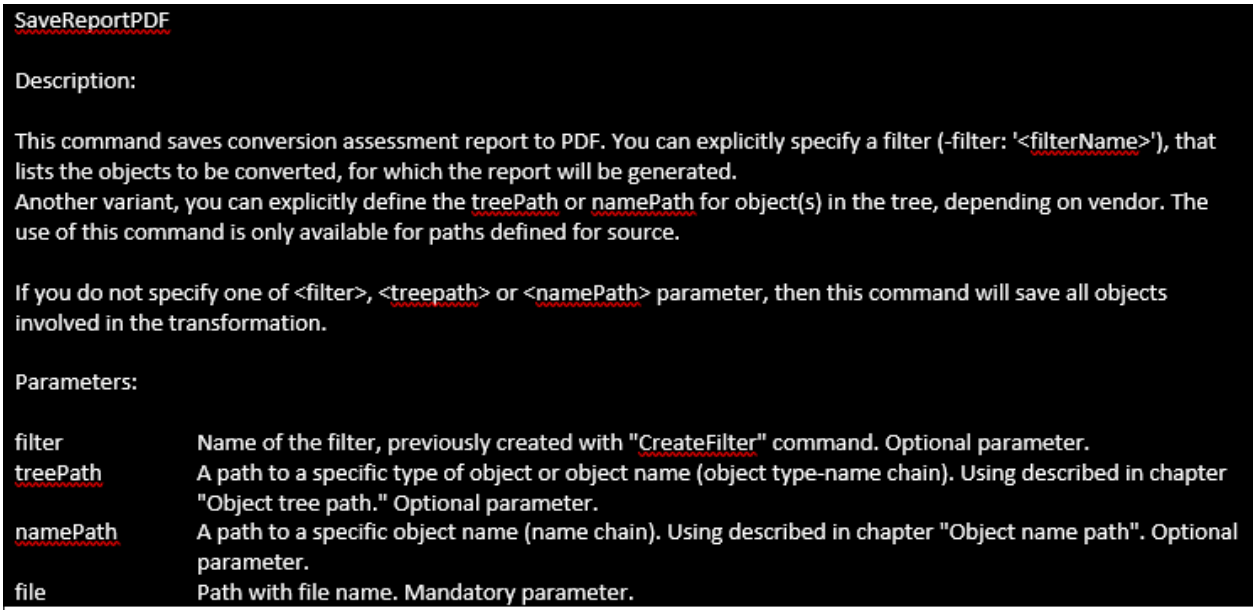
Help
-command: '*command_name*'
/

Response: Description of a command and all its parameters.

Below there is an output example of the next command:

```
Help -command:'_SaveReportPDF_' /
```

Output: `name`, `description`, `comment` fields values and `name`, `description`, `mandatory`, `allowableValues`, `defaultValue` fields values from JSON file:



#3.Syntax:

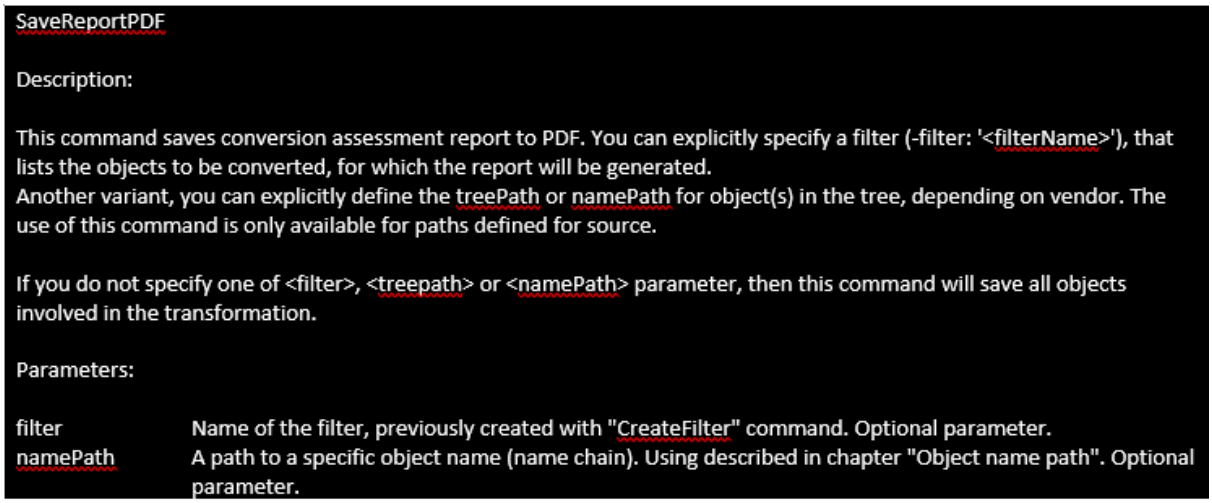
Help
-command: '*command_name*'
-parameters: '*param_1, param_2*'
/

Response: Description of a command with a decription of param_1, param_2 parameters.

Below there is an output example of the next command:

```
Help -command: '_SaveReportPDF_' -parameters: '_filter, namePath_' /
```

Output: `name`, `description`, `comment` fields values and `name`, `description`, `mandatory`, `allowableValues`, `defaultValue` fields values of pointed parameters from JSON file:

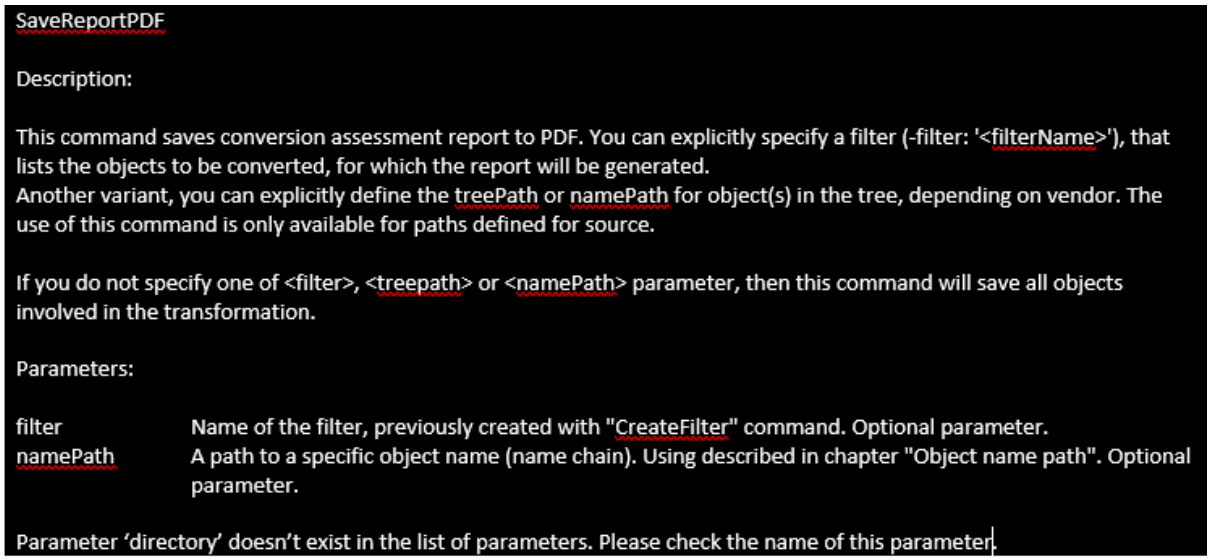


In case when in list of parameters there is one or few parameters with incorrect name, below all the information about the command should be outputed a message that names of some parameters are wrong.

Below, there is a command with wrong parameter name **directory** output example:

```
Help -command: 'SaveReportPDF' -parameters: 'filter, directory, namePath'/
```

Output: `name`, `description`, `comment` fields values and `name`, `description`, `mandatory`, `allowableValues`, `defaultValue` of pointed parameters fields values from JSON file, and the message that some names of parameters are wrong:



If case when the number of the parameters with wrong name is more than one (for instance, **directory** and **comment** are wrong-named parameters) the message should be next:

Chapter 5. YAML format file

YAML, it is a light-weight, human-readable data-representation language. It is primarily designed to make the format easy to read while including complex features.

In order to clarify using **AWSSchemaConversionToolBatch.jar** it seems to be useful to underline some important moments:

1) Java should be installed. If it's not, the installer can be reached over here: Amazon Coretto 11

2) After installation AWS SCT **AWSSchemaConversionToolBatch.jar** file is supposed to be reached in the **app** subfolder of the home folder of AWS SCT installation. For instance, by default, the jar file is in the folder **C:\Program Files\AWS Schema Conversion Tool\app**

3) In order to be able to run a command, the path to **AWSSchemaConversionToolBatch.jar** should be present in the **operation system Environment variable PATH** or the path should precede **AWSSchemaConversionToolBatch.jar** in the command's string. A command syntax is described below.

To run script in YAML format use the following syntax:

Syntax:

```
java
   [-jar AWSSchemaConversionToolBatch.jar]
   [-type yaml-script: 'input-file']
```

Where:

input-file	YAML file with parameters and(or) commands for AWS SCT. File extension must be "yml" (e. g: *myscript.yaml*).

To create script in YAML format use the following syntax:

- A zero or more space characters at the start of a line
- Each new command begin with a dash and a space ("- ")
- Parameters must be indented with at least one more space than the command name
- Parameters and values are separated with a colon and space (": ")
- Tab characters must not be used
- Comments begin with a "hash" ("#")

The following table shows the structure of **YAML** file:

```
- Command1:
   [-parameter1: 'value1']
   [-parameter2: 'value2']
```

...
[-parameterN: '*valueN*']
- Command2:
[-parameter1: '*value1*']
[-parameter2: '*value2*']
...
[-parameterN: '*valueN*']
- CommandN:
[-parameter1: '*value1*']
[-parameter2: '*value2*']
...
[-parameterN: '*valueN*']

Where:

Command1,...,CommandN	script command described in chapter Commands syntax.
parameter1: _value, ..., parameterN: _value	parameter name and its value that defines command properties. Described in chapter Commands syntax.

Examples:

```
# 1.
- CreateFilter:
    name: 'MyFilter'
    origin: 'source'
    objects: '{
              "type": "include",
              "treePath": "Servers.TEST.Schemas.TEST_SCHEMA",
              "subCategory": ["Tables"]
              }'
/

# 2.
- SetGlobalSettings:
    save: false
    settings: '{
               "tree_settings_for_show": {
                    "sourceTreeSettingsModels": {
                        "ORACLE": {
                            "hideEmpty": "false",
                            "systemSchemas": ["SCHEMA1", "SCHEMA2"],
                            "userDefinedSchemas": ["SCHEMA3"]
                                    }
                                            }
                                        }
                }'
/
```

Chapter 6. Appendices

6.1. Database engine abbreviations

Vendor	Abbreviation	Type	Source?	Target?
Aurora MySQL	AURORA_MYSQL	OLTP		+
Aurora PostgreSQL	AURORA_POSTGRESQL	OLTP		+
Azure SQL Database	AZURE_MSSQL	OLTP	+	
Azure Synapse Analytics	AZURE_SYNAPSE	OLAP	+	
Babelfish for Aurora PostgreSQL	BABELFISH	OLTP		+
Apache Cassandra	CASSANDRA	NoSQL	+	
IBM Db2 LUW	DB2LUW	OLTP	+	
IBM Db2 for z/OS	DB2ZOS	OLTP	+	
Amazon DynamoDB	DYNAMODB	NoSQL		+
AWS Glue	GLUE	ETL		+
AWS AWS Glue Studio	GLUE_STUDIO	ETL		+
Greenplum	GREENPLUM	OLAP	+	
MariaDB	MARIA_DB	OLTP		+
Microsoft SQL Server	MSSQL	OLTP	+	+
MySQL	MYSQL	OLTP	+	+
Netezza	NETEZZA	OLAP	+	
Oracle Database	ORACLE	OLTP	+	+
PostgreSQL	POSTGRESQL	OLTP	+	+
Amazon Redshift	REDSHIFT	OLAP	+	
Snowflake	SNOWFLAKE	OLAP	+	
Microsoft SQL Server Integration Services (SSIS)	SSIS	ETL	+	

Vendor	Abbreviation	Type	Source?	Target?
SAP ASE (Sybase ASE)	SYBASE_ASE	OLTP	+	
Teradata	TERADATA	OLAP	+	
Vertica	VERTICA	OLAP	+	
Google BigQuery	GOOGLE_BIGQUERY	Big Data	+	
Informatica PowerCenter	INFORMATICA	ETL	+	+
Apache Hadoop	HADOOP	Big Data	+	
Amazon EMR	AMAZON_EMR	Big Data		+
Apache Oozie	APACHE_OOZIE	ETL	+	
AWS Step Functions	STEP_FUNCTIONS	ETL		+

6.2. Default server names

6.2.1. Source server default names

Vendor	Alias (for use in the AddSource or AddSourceCluster command)	Connection type	Default connection name
Azure SQL Database	AZURE_MSSQL		<Vendor alias> - <Server name>:<Database>
IBM Db2 LUW	DB2LUW		<Vendor alias> - <Server name>:<Server port>:<Database>
Oracle Database	ORACLE	SID	<Vendor alias> - <Server name>:<Server port>:<Oracle SID>
Oracle Database	ORACLE	Service Name	<Vendor alias> - <Server name>:<Server port>:<Service name>
Oracle Database	ORACLE	TNS Alias	<Vendor alias> - <TNS Alias>

Vendor	Alias (for use in the AddSource or AddSourceCluster command)	Connection type	Default connection name
Oracle Database	ORACLE	TNS Connect Indentifier	<Vendor alias> - <TNS Connect Indentifier>
PostgreSQL	POSTGRESQL		<Vendor alias> - <Server name>:<Server port>:<Database>
Microsoft SQL Server	MSSQL		<Vendor alias> - <Server name>:<Server port>:<Instance name>
MySQL	MYSQL		<Vendor alias> - <Server name>:<Server port>
SAP ASE	SYBASE_ASE		<Vendor alias> - <Server name>:<Server port>
Teradata	TERADATA		<Vendor alias> - <Database>
Netezza	NETEZZA		<Vendor alias> - <Server name>:<Server port>/<Database>
Greenplum	GREENPLUM		<Vendor alias> - <Server name>:<Server port>/<Database>
Redshift	REDSHIFT		<Vendor alias> - <Server name>:<Server port>/<Database>
Vertica	VERTICA		<Vendor alias> - <Database>
Cassandra	CASSANDRA		<Vendor alias> - <Server name>:<Server port>
Snowflake	SNOWFLAKE		<Vendor alias> - <Server name>:<Server port>/<Database>
Azure Synapse Analytics	AZURE_SYNAPSE		<Vendor alias> - <Server name>:<Database>
Microsoft SSIS	SSIS		<Vendor alias>
Google BigQuery	GOOGLE_BIGQUERY		<Vendor alias>
IBM Db2 for z/OS	DB2ZOS		<Vendor alias> - <Server name>:<Server port>:<Database>

Vendor	Alias (for use in the AddSource or AddSourceCluster command)	Connection type	Default connection name
Informatica PowerCenter	INFORMATICA		<Vendor alias>
Apache Hadoop	HADOOP		<Vendor alias> - <Server name>:<Server port>
Apache Oozie	APACHE_OOZIE		<Vendor alias>

Where:

<Vendor alias>	Substituted from the first column ("Vendor") of the above table.
<Server name>	Substituted from the `-host` parameter value in AddSource or AddSourceCluster command.
<Database>	Substituted from the `-database` parameter value in AddSource command.
<Server port>	Substituted from the `-port` parameter value in AddSource or AddSourceCluster command.
<Oracle SID>	Substituted from the `-database` parameter value in AddSource command.
<Service name>	Substituted from the `-serviceName` parameter value in AddSource command.
<TNS Alias>	Substituted from the `-tnsAlias` parameter value in AddSource command.
<TNS Connect Indentifier>	Substituted from the `-tnsConnectIdentifier` parameter value in AddSource command.
<Instance name>	Substituted from the `-databaseName` parameter value in AddSource command.

6.2.2. Target server default names

Vendor	Alias (for use in the AddTarget or AddTargetCluster command)	Connection type	Default connection name
Oracle Database	ORACLE	SID	<Vendor alias> - <Server name>:<Server port>:<Oracle SID>
Oracle Database	ORACLE	Service Name	<Vendor alias> - <Server name>:<Server port>:<Service name>
Oracle Database	ORACLE	TNS Alias	<Vendor alias> - <TNS Alias>
Oracle Database	ORACLE	TNS Connect Indentifier	<Vendor alias> - <TNS Connect Indentifier>
PostgreSQL	POSTGRESQL		<Vendor alias> - <Server name>:<Server port>:<Database>
Aurora PostgreSQL	AURORA_POSTGRESQL		<Vendor alias> - <Server name>:<Server port>:<Database>
Microsoft SQL Server	MSSQL		<Vendor alias> - <Server name>:<Server port>:<Instance name>
MySQL	MYSQL		<Vendor alias> - <Server name>:<Server port>
Aurora MySQL	AURORA_MYSQL		<Vendor alias> - <Server name>:<Server port>
Redshift	REDSHIFT		<Vendor alias> - <Server name>:<Server port>/<Database>
MariaDB	MARIA_DB		<Vendor alias> - <Server name>:<Server port>
AWS Glue	GLUE		<Vendor alias> - <AWS Region>
AWS Glue Studio	GLUE_STUDIO		<Vendor alias> - <AWS Region>
DynamoDB	DYNAMODB		<Vendor alias> - <AWS Region>
Informatica PowerCenter	INFORMATICA		<Vendor alias>

Vendor	Alias (for use in the AddTarget or AddTargetCluster command)	Connection type	Default connection name
Amazon EMR	AMAZON_EMR		<Vendor alias> - <AWS Region>
AWS Step Functions	STEP_FUNCTIONS		<Vendor alias>

Where:

<Vendor alias>	Substituted from the first column ("Vendor") of the above table.
<Server name>	Substituted from the `-host` parameter value in AddTarget.
<Database>	Substituted from the `-database` parameter value in AddTarget.
<Server port>	Substituted from the `-port` parameter value in AddTarget.
<Oracle SID>	Substituted from the `-database` parameter value in AddTarget.
<Service name>	Substituted from the `-serviceName` parameter value in AddTarget.
<TNS Alias>	Substituted from the `-tnsAlias` parameter value in AddTarget.
<TNS Connect Indentifier>	Substituted from the `-tnsConnectIdentifier` parameter value in AddTarget.
<Instance name>	Substituted from the `-database` parameter value in AddTarget.
<AWS Region>	Substituted from the `-region` parameter value in AddTarget or AddTargetCluster command.

6.3. Object hierarchy trees

6.3.1. Appendix A. Oracle XML object trees

6.3.1.1. Oracle 21.3 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 21.0 version  21.0">
```

```
<category name="Schemas" type="schema">
  <category name="Tables" type="table">
    <category name="Columns" type="column" />
    <category name="Partition columns" type="column" />
    <category name="Subpartition columns" type="column" />
    <category name="Cluster keys" type="cluster-key" />
    <category name="Constraints" type="constraint">
      <category name="Columns" type="column" />
    </category>
    <category name="Indexes" type="index">
      <category name="Columns" type="column" />
    </category>
    <category name="Triggers" type="trigger" />
    <category name="Partitions" type="partition">
      <category name="Subpartitions" type="subpartition" />
    </category>
    <category name="Large objects" type="lob" />
    <category name="Nested tables" type="nested-table" />
  </category>
  <category name="External Tables" type="external-table">
    <category name="Columns" type="column" />
  </category>
  <category name="Views" type="view">
    <category name="Columns" type="column" />
    <category name="Constraints" type="view-constraint">
      <category name="Columns" type="view-constraint-column" />
    </category>
    <category name="Triggers" type="trigger" />
  </category>
  <category name="Packages" type="package" />
  <category name="Procedures" type="procedure">
    <category name="Parameters" type="parameter" />
  </category>
  <category name="Functions" type="function">
    <category name="Parameters" type="parameter" />
  </category>
  <category name="User Defined Types" type="type">
    <category name="Attributes" type="attribute" />
  </category>
  <category name="Collection Types" type="coll-type" />
  <category name="Sequences" type="sequence" />
  <category name="Materialized Views" type="materialized-view">
    <category name="Columns" type="column" />
    <category name="Triggers" type="trigger" />
    <category name="Indexes" type="index">
      <category name="Columns" type="column" />
    </category>
  </category>
  <category name="Materialized View Logs" type="materialized-view-log" />
  <category name="Synonyms" type="synonym" />
  <category name="Clusters" type="cluster">
    <category name="Keys" type="cluster-key" />
  </category>
  <category name="Database Links" type="database-link" />
  <category-group name="Scheduler">
    <category name="Jobs" type="job">
      <category name="Arguments" type="argument" />
    </category>
    <category name="Programs" type="program">
      <category name="Arguments" type="argument" />
    </category>
    <category name="Schedules" type="schedule" />
```

```
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.2. Oracle 19.3 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 19.3 version  19.3">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
```

```
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Subpartitions" type="subpartition" />
      </category>
      <category name="Large objects" type="lob" />
      <category name="Nested tables" type="nested-table" />
    </category>
    <category name="External Tables" type="external-table">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Constraints" type="view-constraint">
        <category name="Columns" type="view-constraint-column" />
      </category>
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Packages" type="package" />
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="User Defined Types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Collection Types" type="coll-type" />
    <category name="Sequences" type="sequence" />
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Materialized View Logs" type="materialized-view-log" />
    <category name="Synonyms" type="synonym" />
    <category name="Clusters" type="cluster">
      <category name="Keys" type="cluster-key" />
    </category>
    <category name="Database Links" type="database-link" />
    <category-group name="Scheduler">
      <category name="Jobs" type="job">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Programs" type="program">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Schedules" type="schedule" />
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
```

```
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.3. Oracle 18.3 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 18.3 version  18.3">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Subpartitions" type="subpartition" />
      </category>
      <category name="Large objects" type="lob" />
      <category name="Nested tables" type="nested-table" />
    </category>
    <category name="External Tables" type="external-table">
      <category name="Columns" type="column" />
    </category>
```

```
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Constraints" type="view-constraint">
        <category name="Columns" type="view-constraint-column" />
      </category>
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Packages" type="package" />
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="User Defined Types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Collection Types" type="coll-type" />
    <category name="Sequences" type="sequence" />
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Materialized View Logs" type="materialized-view-log" />
    <category name="Synonyms" type="synonym" />
    <category name="Clusters" type="cluster">
      <category name="Keys" type="cluster-key" />
    </category>
    <category name="Database Links" type="database-link" />
    <category-group name="Scheduler">
      <category name="Jobs" type="job">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Programs" type="program">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Schedules" type="schedule" />
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
```

```
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.4. Oracle 12.2.0.1 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 12.2.0.1 version  12.2.0.1">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Subpartitions" type="subpartition" />
      </category>
      <category name="Large objects" type="lob" />
      <category name="Nested tables" type="nested-table" />
    </category>
    <category name="External Tables" type="external-table">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Constraints" type="view-constraint">
        <category name="Columns" type="view-constraint-column" />
      </category>
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Packages" type="package" />
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
```

```
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="User Defined Types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Collection Types" type="coll-type" />
    <category name="Sequences" type="sequence" />
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Materialized View Logs" type="materialized-view-log" />
    <category name="Synonyms" type="synonym" />
    <category name="Clusters" type="cluster">
      <category name="Keys" type="cluster-key" />
    </category>
    <category name="Database Links" type="database-link" />
    <category-group name="Scheduler">
      <category name="Jobs" type="job">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Programs" type="program">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Schedules" type="schedule" />
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
```

```
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.5. Oracle 12.1.0.2 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 12.1.0.2 version  12.1.0.2">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Subpartitions" type="subpartition" />
      </category>
      <category name="Large objects" type="lob" />
      <category name="Nested tables" type="nested-table" />
    </category>
    <category name="External Tables" type="external-table">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Constraints" type="view-constraint">
        <category name="Columns" type="view-constraint-column" />
      </category>
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Packages" type="package" />
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="User Defined Types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Collection Types" type="coll-type" />
    <category name="Sequences" type="sequence" />
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
```

```
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Materialized View Logs" type="materialized-view-log" />
    <category name="Synonyms" type="synonym" />
    <category name="Clusters" type="cluster">
      <category name="Keys" type="cluster-key" />
    </category>
    <category name="Database Links" type="database-link" />
    <category-group name="Scheduler">
      <category name="Jobs" type="job">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Programs" type="program">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Schedules" type="schedule" />
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.6. Oracle 12.1.0.1 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 12.1.0.1 version  12.1">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Subpartitions" type="subpartition" />
      </category>
      <category name="Large objects" type="lob" />
      <category name="Nested tables" type="nested-table" />
    </category>
    <category name="External Tables" type="external-table">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Constraints" type="view-constraint">
        <category name="Columns" type="view-constraint-column" />
      </category>
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Packages" type="package" />
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="User Defined Types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Collection Types" type="coll-type" />
    <category name="Sequences" type="sequence" />
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Materialized View Logs" type="materialized-view-log" />
    <category name="Synonyms" type="synonym" />
    <category name="Clusters" type="cluster">
      <category name="Keys" type="cluster-key" />
    </category>
    <category name="Database Links" type="database-link" />
    <category-group name="Scheduler">
      <category name="Jobs" type="job">
        <category name="Arguments" type="argument" />
      </category>
```

```
      <category name="Programs" type="program">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Schedules" type="schedule" />
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.7. Oracle 11.2.0.2 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 11.2.0.2 version  11.2.0.2">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
```

```
    <category name="Columns" type="column" />
  </category>
  <category name="Indexes" type="index">
    <category name="Columns" type="column" />
  </category>
  <category name="Triggers" type="trigger" />
  <category name="Partitions" type="partition">
    <category name="Subpartitions" type="subpartition" />
  </category>
  <category name="Large objects" type="lob" />
  <category name="Nested tables" type="nested-table" />
</category>
<category name="External Tables" type="external-table">
  <category name="Columns" type="column" />
</category>
<category name="Views" type="view">
  <category name="Columns" type="column" />
  <category name="Constraints" type="view-constraint">
    <category name="Columns" type="view-constraint-column" />
  </category>
  <category name="Triggers" type="trigger" />
</category>
<category name="Packages" type="package" />
<category name="Procedures" type="procedure">
  <category name="Parameters" type="parameter" />
</category>
<category name="Functions" type="function">
  <category name="Parameters" type="parameter" />
</category>
<category name="User Defined Types" type="type">
  <category name="Attributes" type="attribute" />
</category>
<category name="Collection Types" type="coll-type" />
<category name="Sequences" type="sequence" />
<category name="Materialized Views" type="materialized-view">
  <category name="Columns" type="column" />
  <category name="Triggers" type="trigger" />
  <category name="Indexes" type="index">
    <category name="Columns" type="column" />
  </category>
</category>
<category name="Materialized View Logs" type="materialized-view-log" />
<category name="Synonyms" type="synonym" />
<category name="Clusters" type="cluster">
  <category name="Keys" type="cluster-key" />
</category>
<category name="Database Links" type="database-link" />
<category-group name="Scheduler">
  <category name="Jobs" type="job">
    <category name="Arguments" type="argument" />
  </category>
  <category name="Programs" type="program">
    <category name="Arguments" type="argument" />
  </category>
  <category name="Schedules" type="schedule" />
  <category name="DBMS_JOBS" type="dbms-job" />
</category-group>
<category-group name="Queuing">
  <category name="Tables" type="table">
    <category name="Queues" type="queue">
      <category name="Subscribers" type="subscriber" />
    </category>
```

```
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.8. Oracle 11.2.0.2 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 11.2.0.2 version  11.2.0.2">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Subpartitions" type="subpartition" />
      </category>
      <category name="Large objects" type="lob" />
      <category name="Nested tables" type="nested-table" />
```

```
    </category>
    <category name="External Tables" type="external-table">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Constraints" type="view-constraint">
        <category name="Columns" type="view-constraint-column" />
      </category>
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Packages" type="package" />
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="User Defined Types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Collection Types" type="coll-type" />
    <category name="Sequences" type="sequence" />
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Materialized View Logs" type="materialized-view-log" />
    <category name="Synonyms" type="synonym" />
    <category name="Clusters" type="cluster">
      <category name="Keys" type="cluster-key" />
    </category>
    <category name="Database Links" type="database-link" />
    <category-group name="Scheduler">
      <category name="Jobs" type="job">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Programs" type="program">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Schedules" type="schedule" />
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
```

```
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.9. Oracle 11.2.0.1 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 11.2.0.1 version  11.2">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Subpartitions" type="subpartition" />
      </category>
      <category name="Large objects" type="lob" />
      <category name="Nested tables" type="nested-table" />
    </category>
    <category name="External Tables" type="external-table">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Constraints" type="view-constraint">
        <category name="Columns" type="view-constraint-column" />
      </category>
      <category name="Triggers" type="trigger" />
    </category>
```

```
    <category name="Packages" type="package" />
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="User Defined Types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Collection Types" type="coll-type" />
    <category name="Sequences" type="sequence" />
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Materialized View Logs" type="materialized-view-log" />
    <category name="Synonyms" type="synonym" />
    <category name="Clusters" type="cluster">
      <category name="Keys" type="cluster-key" />
    </category>
    <category name="Database Links" type="database-link" />
    <category-group name="Scheduler">
      <category name="Jobs" type="job">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Programs" type="program">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Schedules" type="schedule" />
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
```

```
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.10. Oracle 11.1.0.6 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 11.1.0.6 version  11">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Subpartitions" type="subpartition" />
      </category>
      <category name="Large objects" type="lob" />
      <category name="Nested tables" type="nested-table" />
    </category>
    <category name="External Tables" type="external-table">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Constraints" type="view-constraint">
        <category name="Columns" type="view-constraint-column" />
      </category>
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Packages" type="package" />
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="User Defined Types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Collection Types" type="coll-type" />
```

```
    <category name="Sequences" type="sequence" />
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Materialized View Logs" type="materialized-view-log" />
    <category name="Synonyms" type="synonym" />
    <category name="Clusters" type="cluster">
      <category name="Keys" type="cluster-key" />
    </category>
    <category name="Database Links" type="database-link" />
    <category-group name="Scheduler">
      <category name="Jobs" type="job">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Programs" type="program">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Schedules" type="schedule" />
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
```

```
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.1.11. Oracle 10.1.0.2 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Oracle" version="Oracle start_product_version 10.1.0.2 version  10">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Cluster keys" type="cluster-key" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Subpartitions" type="subpartition" />
      </category>
      <category name="Large objects" type="lob" />
      <category name="Nested tables" type="nested-table" />
    </category>
    <category name="External Tables" type="external-table">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Constraints" type="view-constraint">
        <category name="Columns" type="view-constraint-column" />
      </category>
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Packages" type="package" />
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="User Defined Types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Collection Types" type="coll-type" />
    <category name="Sequences" type="sequence" />
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Materialized View Logs" type="materialized-view-log" />
    <category name="Synonyms" type="synonym" />
    <category name="Clusters" type="cluster">
```

```
      <category name="Keys" type="cluster-key" />
    </category>
    <category name="Database Links" type="database-link" />
    <category-group name="Scheduler">
      <category name="Jobs" type="job">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Programs" type="program">
        <category name="Arguments" type="argument" />
      </category>
      <category name="Schedules" type="schedule" />
      <category name="DBMS_JOBS" type="dbms-job" />
    </category-group>
    <category-group name="Queuing">
      <category name="Tables" type="table">
        <category name="Queues" type="queue">
          <category name="Subscribers" type="subscriber" />
        </category>
      </category>
    </category-group>
  </category>
  <category-group name="Server Level Objects">
    <category name="Server Properties" type="property-collection" />
    <category name="Contexts" type="context" />
    <category name="Features" type="feature" />
    <category name="Directories" type="directory" />
    <category name="Policies" type="policy" />
    <category name="Policy groups" type="policy-group" />
    <category name="Tablespaces" type="tablespace" />
    <category name="User Roles" type="user-role">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="User Profiles" type="user-profile">
      <category name="Profile params" type="profile-param" />
    </category>
    <category name="Users" type="user">
      <category name="System Privileges" type="system-privilege" />
      <category name="Object Privileges" type="object-privilege">
        <category name="Objects" type="role-object" />
      </category>
      <category name="Column Privileges" type="column-privilege">
        <category name="Columns" type="column-role" />
      </category>
      <category name="Granted Roles" type="granted-role" />
    </category>
    <category name="Database triggers" type="database-trigger" />
  </category-group>
</metadata>
```

6.3.2. Appendix B. MS SQL Server XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Microsoft SQL Server" version="SQL Server start_product_version 15.0.2000.5 version
```

```
2019">
  <category name="Servers" type="server">
    <category name="Databases" type="database">
      <category name="Schemas" type="schema">
        <category name="Tables" type="table">
          <category name="Columns" type="column" />
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
          <category name="Partition Number" type="partition" />
        </category>
        <category name="Graph Tables" type="table">
          <category name="Columns" type="column" />
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
          <category name="Partition Number" type="partition" />
        </category>
        <category name="Views" type="view">
          <category name="Columns" type="column" />
          <category name="Triggers" type="trigger" />
        </category>
        <category name="Procedures" type="procedure">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="SQL scalar functions" type="scalar-function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="SQL table-valued functions" type="table-valued-function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="SQL inline functions" type="inline-function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Synonyms" type="synonym" />
        <category name="Sequences" type="sequence" />
        <category name="Types" type="type" />
        <category name="Table types" type="table-type">
          <category name="Columns" type="column" />
        </category>
        <category name="XML Schema Collections" type="xml-schema-collection" />
      </category>
      <category name="Assemblies" type="assembly">
        <category name="Assembly files" type="assembly-file" />
      </category>
      <category name="Features" type="feature" />
      <category name="Storage Partition Schemes" type="partition-scheme">
        <category name="Filegroups" type="partition-scheme-filegroup" />
      </category>
      <category name="Storage Partition Functions" type="partition-function">
        <category name="Parameters" type="partition-function-parameters" />
        <category name="Range Values" type="partition-function-range-values" />
      </category>
      <category name="Database triggers" type="database-trigger" />
```

```
    </category>
    <category-group name="Server Objects">
      <category name="Server triggers" type="server-trigger" />
      <category name="Linked servers" type="linked-server" />
      <category name="Endpoints" type="endpoint" />
      <category name="Features" type="feature" />
    </category-group>
    <category-group name="SQL Server Agent">
      <category name="Schedules" type="sys-schedule" />
      <category name="Alerts" type="sys-alert" />
      <category name="Operators" type="sys-operator" />
      <category name="Jobs" type="job">
        <category name="Job Steps" type="job-step" />
      </category>
    </category-group>
  </category>
</metadata>
```

6.3.3. Appendix C. Azure SQL Database XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Azure SQL Database" version="Azure SQL Database 12">
  <category name="Servers" type="server">
    <category name="Databases" type="database">
      <category name="Schemas" type="schema">
        <category name="Tables" type="table">
          <category name="Columns" type="column" />
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
          <category name="Partition Number" type="partition" />
        </category>
        <category name="Graph Tables" type="table">
          <category name="Columns" type="column" />
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
          <category name="Partition Number" type="partition" />
        </category>
        <category name="Views" type="view">
          <category name="Columns" type="column" />
          <category name="Triggers" type="trigger" />
        </category>
        <category name="Procedures" type="procedure">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="SQL scalar functions" type="scalar-function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="SQL table-valued functions" type="table-valued-function">
          <category name="Parameters" type="parameter" />
        </category>
```

```
        <category name="SQL inline functions" type="inline-function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Synonyms" type="synonym" />
        <category name="Sequences" type="sequence" />
        <category name="Types" type="type" />
        <category name="Table types" type="table-type">
          <category name="Columns" type="column" />
        </category>
        <category name="XML Schema Collections" type="xml-schema-collection" />
      </category>
      <category name="Assemblies" type="assembly">
        <category name="Assembly files" type="assembly-file" />
      </category>
      <category name="Storage Partition Schemes" type="partition-scheme">
        <category name="Filegroups" type="partition-scheme-filegroup" />
      </category>
      <category name="Storage Partition Functions" type="partition-function">
        <category name="Parameters" type="partition-function-parameters" />
        <category name="Range Values" type="partition-function-range-values" />
      </category>
      <category name="Database triggers" type="database-trigger" />
    </category>
  </category>
</metadata>
```

6.3.4. Appendix D. PostgreSQL XML object trees

6.3.4.1. PostgreSQL 12 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="PostgreSQL" version="PostgreSQL 12.0">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
```

```
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.4.2. PostgreSQL 11.1 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="PostgreSQL" version="PostgreSQL 11.1">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
```

```
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
```

```
    <category name="Foreign Servers" type="foreign-server">
      <category name="User Data Mapping" type="user-data-mapping" />
    </category>
    <category-group name="Server Level Objects">
      <category name="Contexts" type="context" />
    </category-group>
  </metadata>
```

6.3.4.3. PostgreSQL 10 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="PostgreSQL" version="PostgreSQL 10">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
```

```
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.4.4. PostgreSQL 9.6 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="PostgreSQL" version="PostgreSQL 9.6">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
```

```
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.4.5. PostgreSQL 9.4 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="PostgreSQL" version="PostgreSQL 9.4">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
```

```
      <category name="Columns" type="column" />
    </category>
    <category name="Indexes" type="index">
      <category name="Columns" type="column" />
    </category>
    <category name="Triggers" type="trigger" />
    <category name="Partitions" type="partition">
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Subpartitions" type="subpartition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
      </category>
    </category>
  </category>
  <category name="Foreign tables" type="foreigntable">
    <category name="Columns" type="column" />
  </category>
  <category name="Views" type="view">
    <category name="Columns" type="column" />
    <category name="Triggers" type="trigger" />
  </category>
  <category name="Collations" type="collation" />
  <category name="Operators" type="operator" />
  <category name="Rules" type="rule" />
  <category name="FTS Configurations" type="ftsconfiguration">
    <category name="Mappings" type="mapping" />
  </category>
  <category name="FTS Dictionaries" type="ftsdictionary" />
  <category name="Functions" type="function">
    <category name="Parameters" type="parameter" />
  </category>
  <category name="Trigger functions" type="function">
    <category name="Parameters" type="parameter" />
  </category>
  <category name="Procedures" type="procedure">
    <category name="Parameters" type="parameter" />
  </category>
  <category name="Sequences" type="sequence" />
  <category name="User defined types" type="type">
    <category name="Attributes" type="attribute" />
  </category>
  <category name="Domains" type="domain">
    <category name="Constraints" type="constraint" />
  </category>
  <category name="Materialized Views" type="materialized-view">
    <category name="Columns" type="column" />
    <category name="Indexes" type="index">
      <category name="Columns" type="column" />
    </category>
  </category>
  <category name="Aggregates" type="aggregate" />
```

```
    </category>
    <category name="Foreign Servers" type="foreign-server">
      <category name="User Data Mapping" type="user-data-mapping" />
    </category>
    <category-group name="Server Level Objects">
      <category name="Contexts" type="context" />
    </category-group>
  </metadata>
```

6.3.4.6. PostgreSQL 9.4 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="PostgreSQL" version="PostgreSQL 9.4">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
```

```
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.4.7. PostgreSQL 9.1 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="PostgreSQL" version="PostgreSQL 9.1">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
```

```
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.5. Appendix E. Aurora PostgreSQL XML object trees

6.3.5.1. Aurora PostgreSQL 12 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Aurora (PostgreSQL compatible)" version="Amazon Aurora (PostgreSQL compatible)
12">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
```

```
    <category name="Columns" type="column" />
    <category name="Partition columns" type="column" />
    <category name="Subpartition columns" type="column" />
    <category name="Constraints" type="constraint">
      <category name="Columns" type="column" />
    </category>
    <category name="Indexes" type="index">
      <category name="Columns" type="column" />
    </category>
    <category name="Triggers" type="trigger" />
    <category name="Partitions" type="partition">
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Subpartitions" type="subpartition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
      </category>
    </category>
  </category>
  <category name="Foreign tables" type="foreigntable">
    <category name="Columns" type="column" />
  </category>
  <category name="Views" type="view">
    <category name="Columns" type="column" />
    <category name="Triggers" type="trigger" />
  </category>
  <category name="Collations" type="collation" />
  <category name="Operators" type="operator" />
  <category name="Rules" type="rule" />
  <category name="FTS Configurations" type="ftsconfiguration">
    <category name="Mappings" type="mapping" />
  </category>
  <category name="FTS Dictionaries" type="ftsdictionary" />
  <category name="Functions" type="function">
    <category name="Parameters" type="parameter" />
  </category>
  <category name="Trigger functions" type="function">
    <category name="Parameters" type="parameter" />
  </category>
  <category name="Procedures" type="procedure">
    <category name="Parameters" type="parameter" />
  </category>
  <category name="Sequences" type="sequence" />
  <category name="User defined types" type="type">
    <category name="Attributes" type="attribute" />
  </category>
  <category name="Domains" type="domain">
    <category name="Constraints" type="constraint" />
  </category>
  <category name="Materialized Views" type="materialized-view">
    <category name="Columns" type="column" />
    <category name="Indexes" type="index">
```

```
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.5.2. Aurora PostgreSQL 11.1 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Aurora (PostgreSQL compatible)" version="Amazon Aurora (PostgreSQL compatible)
11.1">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
```

```
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.5.3. Aurora PostgreSQL 10 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Aurora (PostgreSQL compatible)" version="Amazon Aurora (PostgreSQL compatible)
10">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
```

```
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.5.4. Aurora PostgreSQL 9.6 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<metadata vendor="Amazon Aurora (PostgreSQL compatible)" version="Amazon Aurora (PostgreSQL compatible)
9.6">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
```

```
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.5.5. Aurora PostgreSQL 9.4 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Aurora (PostgreSQL compatible)" version="Amazon Aurora (PostgreSQL compatible)
9.4">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
```

```
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.5.6. Aurora PostgreSQL 9.1.1 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Aurora (PostgreSQL compatible)" version="Amazon Aurora (PostgreSQL compatible)
9.1.1">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
```

```
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.5.7. Aurora PostgreSQL 9.1 XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Aurora (PostgreSQL compatible)" version="Amazon Aurora (PostgreSQL compatible)
9.1">
  <category name="Schemas" type="schema">
    <category name="Tables" type="table">
      <category name="Columns" type="column" />
      <category name="Partition columns" type="column" />
      <category name="Subpartition columns" type="column" />
      <category name="Constraints" type="constraint">
        <category name="Columns" type="column" />
      </category>
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
      <category name="Triggers" type="trigger" />
      <category name="Partitions" type="partition">
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Subpartitions" type="subpartition">
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
        </category>
      </category>
    </category>
    <category name="Foreign tables" type="foreigntable">
      <category name="Columns" type="column" />
    </category>
    <category name="Views" type="view">
      <category name="Columns" type="column" />
      <category name="Triggers" type="trigger" />
    </category>
    <category name="Collations" type="collation" />
    <category name="Operators" type="operator" />
    <category name="Rules" type="rule" />
    <category name="FTS Configurations" type="ftsconfiguration">
      <category name="Mappings" type="mapping" />
    </category>
    <category name="FTS Dictionaries" type="ftsdictionary" />
    <category name="Functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Trigger functions" type="function">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Procedures" type="procedure">
      <category name="Parameters" type="parameter" />
    </category>
    <category name="Sequences" type="sequence" />
    <category name="User defined types" type="type">
      <category name="Attributes" type="attribute" />
```

```
    </category>
    <category name="Domains" type="domain">
      <category name="Constraints" type="constraint" />
    </category>
    <category name="Materialized Views" type="materialized-view">
      <category name="Columns" type="column" />
      <category name="Indexes" type="index">
        <category name="Columns" type="column" />
      </category>
    </category>
    <category name="Aggregates" type="aggregate" />
  </category>
  <category name="Foreign Servers" type="foreign-server">
    <category name="User Data Mapping" type="user-data-mapping" />
  </category>
  <category-group name="Server Level Objects">
    <category name="Contexts" type="context" />
  </category-group>
</metadata>
```

6.3.6. Appendix F. MySQL XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="MySQL" version="MySQL 5.7">
  <category name="Servers" type="server">
    <category name="Schemas" type="schema">
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Partitions" type="partition">
          <category name="Subpartitions" type="subpartition" />
        </category>
      </category>
      <category name="Views" type="view">
        <category name="Columns" type="column" />
      </category>
      <category name="Procedures" type="procedure">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Functions" type="function">
        <category name="Parameters" type="parameter" />
      </category>
    </category>
    <category name="User-Defined Functions" type="udf" />
    <category name="Plugins" type="plugin" />
    <category name="AWS Oracle Extensions" type="extension">
      <category name="User schemas" type="schema">
        <category name="Sequence emulators" type="oracle-sequence-emulator" />
      </category>
    </category>
    <category name="AWS SQL Server Extensions" type="extension">
      <category name="User schemas" type="schema">
        <category name="Sequence emulators" type="sqlserver-sequence-emulator" />
      </category>
```

```
    </category>
    <category name="AWS PostgreSQL Extensions" type="extension">
      <category name="User schemas" type="schema">
        <category name="Sequence emulators" type="postgresql-sequence-emulator" />
      </category>
    </category>
  </category>
</metadata>
```

6.3.7. Appendix G. Aurora MySQL XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Aurora (MySQL compatible)" version="Amazon Aurora (MySQL compatible) Any">
  <category name="Servers" type="server">
    <category name="Schemas" type="schema">
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Partitions" type="partition">
          <category name="Subpartitions" type="subpartition" />
        </category>
      </category>
      <category name="Views" type="view">
        <category name="Columns" type="column" />
      </category>
      <category name="Procedures" type="procedure">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Functions" type="function">
        <category name="Parameters" type="parameter" />
      </category>
    </category>
    <category name="AWS Oracle Extensions" type="extension">
      <category name="User schemas" type="schema">
        <category name="Sequence emulators" type="oracle-sequence-emulator" />
      </category>
    </category>
    <category name="AWS SQL Server Extensions" type="extension">
      <category name="User schemas" type="schema">
        <category name="Sequence emulators" type="sqlserver-sequence-emulator" />
      </category>
    </category>
    <category name="AWS PostgreSQL Extensions" type="extension">
      <category name="User schemas" type="schema">
        <category name="Sequence emulators" type="postgresql-sequence-emulator" />
      </category>
    </category>
  </category>
</metadata>
```

6.3.8. Appendix H. MariaDB XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon RDS for MariaDB" version="MariaDB 10.3">
  <category name="Servers" type="server">
    <category name="Schemas" type="schema">
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Partition columns" type="column" />
        <category name="Subpartition columns" type="column" />
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Partitions" type="partition">
          <category name="Subpartitions" type="subpartition" />
        </category>
      </category>
      <category name="Views" type="view">
        <category name="Columns" type="column" />
      </category>
      <category name="Procedures" type="procedure">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Functions" type="function">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Packages" type="package">
        <category name="Public procedures" type="procedure">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Public functions" type="function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Private procedures" type="procedure">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Private functions" type="function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Private variables" type="function" />
      </category>
      <category name="Sequences" type="sequence" />
    </category>
    <category name="User-Defined Functions" type="udf" />
    <category name="Plugins" type="plugin" />
  </category>
</metadata>
```

6.3.9. Appendix I. SAP ASE XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="SAP ASE (Sybase ASE)" version="SAP ASE (Sybase ASE) 16">
  <category name="Servers" type="server">
    <category name="Databases" type="database">
      <category name="Schemas" type="schema">
        <category name="Tables" type="table">
          <category name="Columns" type="column" />
```

```
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Foreign keys" type="foreign-key">
            <category name="Columns" type="column" />
          </category>
          <category name="Indexes" type="index">
            <category name="Columns" type="column" />
          </category>
          <category name="Triggers" type="trigger" />
          <category name="Rules" type="rule" />
          <category name="Partitions" type="partition" />
          <category name="Partition columns" type="column" />
        </category>
        <category name="Views" type="view">
          <category name="Columns" type="column" />
          <category name="Triggers" type="trigger" />
        </category>
        <category name="Materialized Views" type="materialized-view">
          <category name="Columns" type="column" />
        </category>
        <category name="Defaults" type="default" />
        <category name="Procedures" type="procedure">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Scalar-valued Functions" type="scalar-function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Table-valued Functions" type="table-valued-function">
          <category name="Parameters" type="parameter" />
          <category name="Result Columns" type="result-column" />
        </category>
        <category name="User defined types" type="user-defined-type" />
      </category>
    </category>
  </category>
</metadata>
```

6.3.10. Appendix J. IBM Db2 LUW XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="DB2 LUW" version="DB2 LUW 11.1">
  <category name="Servers" type="server">
    <category name="Schemas" type="schema">
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Foreign Keys" type="foreign-key">
          <category name="Columns" type="column" />
        </category>
        <category name="Partitions" type="partition" />
        <category name="Partition columns" type="column" />
      </category>
      <category name="Materialized query tables" type="mqtable">
```

```
        <category name="Columns" type="column" />
      </category>
      <category name="Views" type="view">
        <category name="Columns" type="column" />
        <category name="Triggers" type="trigger" />
      </category>
      <category name="Sequences" type="sequence" />
      <category name="Aliases" type="alias" />
      <category name="Functions" type="function">
        <category name="Parameters" type="parameter" />
        <category name="Resultset Fields" type="resultset-field" />
      </category>
      <category name="Procedures" type="procedure">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Array Types" type="array-type" />
      <category name="Distinct Types" type="distinct-type" />
      <category name="Global Variables" type="global-variable" />
      <category name="Modules" type="module">
        <category name="Array Types" type="array-type" />
        <category name="Cursor Types" type="cursor-type" />
        <category name="Distinct Types" type="distinct-type" />
        <category name="Row Types" type="row-type">
          <category name="Fields" type="field" />
        </category>
        <category name="Functions" type="function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Procedures" type="procedure">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Variables" type="variable" />
      </category>
      <category name="Cursor Types" type="cursor-type" />
      <category name="Row Types" type="row-type">
        <category name="Fields" type="field" />
      </category>
      <category name="Structured Types" type="structured-type">
        <category name="Attributes" type="attribute" />
        <category name="Methods" type="method" />
      </category>
      <category name="Nicknames" type="nickname" />
    </category>
  </category>
</metadata>
```

6.3.11. Appendix K. Amazon Redshift XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Redshift" version="Amazon Redshift 8.0">
  <category name="Servers" type="server">
    <category name="Schemas" type="schema">
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Distribution key columns" type="distribution-key-column" />
        <category name="Sort key columns" type="sort-key-column" />
      </category>
```

```
      <category name="Views" type="view">
        <category name="Columns" type="column" />
      </category>
      <category name="Functions" type="function">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Procedures" type="procedure">
        <category name="Parameters" type="parameter" />
      </category>
    </category>
  </category>
</metadata>
```

6.3.12. Appendix L. Teradata XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Teradata" version="Teradata 15">
  <category name="Servers" type="server">
    <category name="Schemas" type="schema">
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Partitions" type="partition">
          <category name="Partition columns" type="column" />
        </category>
      </category>
      <category name="Views" type="view">
        <category name="Columns" type="column" />
      </category>
      <category name="Procedures" type="procedure">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Functions" type="function">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Macros" type="macro">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="User defined types" type="udt">
        <category name="Attributes" type="attribute" />
      </category>
      <category name="Join indexes" type="join-index" />
    </category>
  </category>
</metadata>
```

6.3.13. Appendix M. Vertica XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Vertica" version="Vertica 7.3">
  <category name="Servers" type="server">
    <category name="Schemas" type="schema">
```

```
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Text indexes" type="text-index">
          <category name="Columns" type="column" />
        </category>
        <category name="Order by columns" type="order-table" />
        <category name="Partitioning expression" type="partition-expression">
          <category name="Columns" type="column" />
        </category>
        <category name="Partitions" type="partition" />
        <category name="Segmentations" type="segmentation">
          <category name="Columns" type="column" />
        </category>
      </category>
      <category name="External Tables" type="external-table">
        <category name="Columns" type="column" />
      </category>
      <category name="Flex Tables" type="flex-table">
        <category name="Columns" type="column" />
      </category>
      <category name="Views" type="view">
        <category name="Columns" type="column" />
      </category>
      <category name="Functions" type="function">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Procedures" type="procedure">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Sequences" type="sequence" />
      <category name="Projections" type="projection">
        <category name="Columns" type="column" />
        <category name="Group by columns" type="group-projection" />
        <category name="Order by columns" type="order-projection" />
        <category name="Segmentations" type="segmentation">
          <category name="Columns" type="column" />
        </category>
        <category name="From clause expression" type="clause-expression" />
      </category>
    </category>
  </category>
</metadata>
```

6.3.14. Appendix N. Netezza XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Netezza" version="Netezza 7.0.3">
  <category name="Servers" type="server">
    <category name="Databases" type="database">
      <category name="Schemas" type="schema">
        <category name="Tables" type="table">
          <category name="Columns" type="column" />
          <category name="Constraints" type="constraint">
            <category name="Columns" type="column" />
          </category>
          <category name="Distribution key columns" type="column" />
          <category name="Organize columns" type="column" />
```

```
        </category>
        <category name="External tables" type="table">
          <category name="Columns" type="column" />
        </category>
        <category name="Views" type="view">
          <category name="Columns" type="column" />
        </category>
        <category name="Materialized Views" type="mview">
          <category name="Columns" type="column" />
        </category>
        <category name="Functions" type="function">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Procedures" type="procedure">
          <category name="Parameters" type="parameter" />
        </category>
        <category name="Sequences" type="sequence" />
        <category name="Synonyms" type="synonym" />
      </category>
    </category>
    <category-group name="Server Level Objects">
      <category name="Slices" type="slice" />
    </category-group>
  </category>
</metadata>
```

6.3.15. Appendix O. Greenplum XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Greenplum" version="Greenplum 4.3">
  <category name="Servers" type="server">
    <category name="Schemas" type="schema">
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Rules" type="rule" />
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Partitions" type="partition" />
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
        <category name="Distribution key columns" type="distribution-key-column" />
      </category>
      <category name="External Tables" type="external-table">
        <category name="Columns" type="column" />
        <category name="Rules" type="rule" />
      </category>
      <category name="Views" type="view">
        <category name="Columns" type="column" />
        <category name="Rules" type="rule" />
      </category>
      <category name="Operators" type="operator" />
      <category name="Functions" type="function">
        <category name="Parameters" type="parameter" />
      </category>
      <category name="Sequences" type="sequence" />
      <category name="User defined types" type="type">
        <category name="Attributes" type="attribute" />
      </category>
```

```
      <category name="Domains" type="domain" />
    </category>
  </category>
</metadata>
```

6.3.16. Appendix P. Snowflake XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Snowflake" version="Snowflake 3.0">
  <category name="Servers" type="server">
    <category name="Databases" type="database">
      <category name="Schemas" type="schema">
        <category name="Tables" type="table">
          <category name="Columns" type="column" />
          <category name="Constraints" type="constraint" />
        </category>
        <category name="Views" type="view">
          <category name="Columns" type="column" />
        </category>
        <category name="External tables" type="external-table">
          <category name="Columns" type="column" />
        </category>
        <category name="Procedures" type="procedure" />
        <category name="Functions" type="function" />
        <category name="Sequences" type="sequence" />
      </category>
    </category>
  </category>
</metadata>
```

6.3.17. Appendix Q. Cassandra XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Cassandra" version="Cassandra start_product_version 3.11.2.0 version 3">
  <category name="noSQL Clusters" type="server">
    <category name="Datacenters" type="datacenter">
      <category name="Nodes" type="node" />
      <category name="Keyspaces" type="keyspace-datacenter" />
    </category>
    <category name="Keyspaces" type="keyspace">
      <category name="Datacenters" type="datacenter-keyspace" />
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Partition keys" type="partition-key" />
        <category name="Clustering keys" type="clustering-key" />
        <category name="Indexes" type="index" />
        <category name="Triggers" type="trigger" />
      </category>
      <category name="Functions" type="function" />
      <category name="Aggregates" type="aggregate" />
      <category name="Materialized views" type="materialized-view">
        <category name="Columns" type="column" />
      </category>
      <category name="User-Defined Types" type="user-defined-type" />
    </category>
  </category>
</metadata>
```

6.3.18. Appendix R. Amazon DynamoDB XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon DynamoDB" version="DynamoDB start_product_version - version -">
  <category name="noSQL Clusters" type="server">
    <category name="Tables" type="table">
      <category name="Attributes" type="attribute" />
      <category name="Indexes" type="index" />
      <category name="Triggers" type="trigger" />
    </category>
  </category>
</metadata>
```

6.3.19. Appendix S. AWS Glue XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Glue" version="Glue start_product_version - version -">
  <category name="ETL" type="server">
    <category name="Connections" type="connection-glue">
      <category name="ConnectionProperties" type="parameter-connection-properties" />
      <category name="PhysicalConnectionRequirements" type="parameter-physical-connection-requirements" />
    </category>
    <category name="Crawlers" type="crawler">
      <category name="S3 Targets" type="s3target" />
      <category name="Jdbc Targets" type="jdbc-target" />
      <category name="Classifiers" type="classifier" />
    </category>
    <category name="Databases" type="database-glue">
      <category name="Tables" type="table">
        <category name="StorageDescriptorColumns" type="column-storage-descriptor" />
        <category name="StorageDescriptorSortColumns" type="sort-column-storage-descriptor" />
        <category name="StorageDescriptorBucketColumns" type="bucket-column-storage-descriptor" />
        <category name="Parameters SerdeInfo" type="parameter-serde-info" />
        <category name="Parameters Table" type="parameter-table" />
        <category name="Parameters Descriptor" type="parameter-table-storage-descriptor" />
        <category name="SkewedColumnNames" type="column-skewed-column-name" />
        <category name="SkewedColumnValues" type="column-skewed-column-value" />
        <category name="SkewedColumnValueLocationMaps" type="column-skewed-column-value-location-map" />
        <category name="PartitionKeys" type="partition-key" />
      </category>
      <category name="Parameters" type="parameter-database" />
    </category>
    <category name="ETL Jobs" type="job-glue">
      <category name="Execution Properties" type="parameter-execution-property" />
      <category name="Command" type="parameter-command" />
      <category name="DefaultArguments" type="parameter-default-argument" />
      <category name="Notification Property" type="parameter-notification-property" />
      <category name="Connections" type="column-connection" />
    </category>
    <category name="Triggers" type="trigger">
      <category name="Predicate Conditions" type="predicate-condition" />
      <category name="Actions" type="action" />
    </category>
    <category name="Scripts">
      <category name="Python Shell" type="script" />
      <category name="Spark" type="script" />
    </category>
    <category name="Package scripts" type="package-script">
      <category name="Scripts" type="script" />
```

```
    </category>
  </category>
</metadata>
```

6.3.20. Appendix T. AWS Glue Studio XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon Glue Studio" version="Glue Studio start_product_version - version -">
  <category name="ETL" type="server">
    <category name="Connections" type="connection-glue">
      <category name="ConnectionProperties" type="parameter-connection-properties" />
      <category name="PhysicalConnectionRequirements" type="parameter-physical-connection-requirements" />
    </category>
    <category name="Crawlers" type="crawler">
      <category name="S3 Targets" type="s3target" />
      <category name="Jdbc Targets" type="jdbc-target" />
      <category name="Classifiers" type="classifier" />
    </category>
    <category name="Databases" type="database-glue">
      <category name="Tables" type="table">
        <category name="StorageDescriptorColumns" type="column-storage-descriptor" />
        <category name="StorageDescriptorSortColumns" type="sort-column-storage-descriptor" />
        <category name="StorageDescriptorBucketColumns" type="bucket-column-storage-descriptor" />
        <category name="Parameters SerdeInfo" type="parameter-serde-info" />
        <category name="Parameters Table" type="parameter-table" />
        <category name="Parameters Descriptor" type="parameter-table-storage-descriptor" />
        <category name="SkewedColumnNames" type="column-skewed-column-name" />
        <category name="SkewedColumnValues" type="column-skewed-column-value" />
        <category name="SkewedColumnValueLocationMaps" type="column-skewed-column-value-location-map" />
        <category name="PartitionKeys" type="partition-key" />
      </category>
      <category name="Parameters" type="parameter-database" />
    </category>
    <category name="ETL Jobs" type="job-glue">
      <category name="Execution Properties" type="parameter-execution-property" />
      <category name="Command" type="parameter-command" />
      <category name="DefaultArguments" type="parameter-default-argument" />
      <category name="Notification Property" type="parameter-notification-property" />
      <category name="Connections" type="column-connection" />
    </category>
    <category name="Triggers" type="trigger">
      <category name="Predicate Conditions" type="predicate-condition" />
      <category name="Actions" type="action" />
    </category>
    <category name="DAGs" />
  </category>
</metadata>
```

6.3.21. Appendix U. MS SSIS XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="SQL Server Integration Services" version="SSIS start_product_version 1.0 version 1.0">
  <category name="ETL" type="server">
    <category-group name="Connection managers">
      <category name="Project connection managers" type="connection-manager">
        <category name="Columns" type="column" />
      </category>
      <category name="Package connection managers" type="connection-manager">
```

```
      <category name="Columns" type="column" />
    </category>
  </category-group>
  <category name="Packages" type="package">
    <category name="Connection managers" type="connection-manager">
      <category name="Columns" type="column" />
    </category>
    <category name="User variables" type="user-variable" />
    <category name="System variables" type="system-variable" />
    <category name="Parameters" type="parameter" />
    <category name="Event handlers" type="event-handler">
      <category name="User variables" type="user-variable" />
    </category>
    <category name="Precedence constraints" type="precedence-constraint" />
    <category-group name="Package tasks">
      <category name="Sequence Containers" type="sequence-container" />
      <category name="For Loop Containers" type="for-loop-container" />
      <category name="Foreach Loop Containers" type="foreach-loop-container">
        <category name="Foreach enumerators" type="foreach-enumerator">
          <category name="Items" type="item" />
        </category>
        <category name="Foreach variable mappings" type="foreach-variable-mapping" />
      </category>
      <category name="Bulk insert tasks" type="bulk-insert-task">
        <category name="Property Expressions" type="property-expression" />
        <category name="User variables" type="user-variable" />
        <category name="System variables" type="system-variable" />
        <category name="Event handlers" type="event-handler">
          <category name="User variables" type="user-variable" />
        </category>
      </category>
      <category name="Execute process tasks" type="execute-process-task">
        <category name="Property Expressions" type="property-expression" />
        <category name="User variables" type="user-variable" />
        <category name="System variables" type="system-variable" />
      </category>
      <category name="Expression tasks" type="expression-task">
        <category name="User variables" type="user-variable" />
        <category name="System variables" type="system-variable" />
        <category name="Event handlers" type="event-handler">
          <category name="User variables" type="user-variable" />
        </category>
      </category>
      <category name="File system tasks" type="file-system-task">
        <category name="Property Expressions" type="property-expression" />
        <category name="User variables" type="user-variable" />
        <category name="System variables" type="system-variable" />
        <category name="Event handlers" type="event-handler">
          <category name="User variables" type="user-variable" />
        </category>
      </category>
      <category name="Message queue tasks" type="message-queue-task">
        <category name="Property Expressions" type="property-expression" />
        <category name="User variables" type="user-variable" />
        <category name="System variables" type="system-variable" />
        <category name="Event handlers" type="event-handler">
          <category name="User variables" type="user-variable" />
        </category>
      </category>
      <category name="Execute package tasks" type="execute-package-task">
        <category name="Property Expressions" type="property-expression" />
        <category name="Parameter Assignments" type="parameter-assignment" />
```

```
  <category name="User variables" type="user-variable" />
  <category name="System variables" type="system-variable" />
  <category name="Event handlers" type="event-handler">
    <category name="User variables" type="user-variable" />
  </category>
</category>
<category name="Execute T-SQL tasks" type="execute-t-sql-task">
  <category name="Property Expressions" type="property-expression" />
  <category name="User variables" type="user-variable" />
  <category name="System variables" type="system-variable" />
</category>
<category name="Execute sql tasks" type="execute-sql-task">
  <category name="User variables" type="user-variable" />
  <category name="System variables" type="system-variable" />
  <category name="Event handlers" type="event-handler">
    <category name="User variables" type="user-variable" />
  </category>
  <category name="Parameter bindings" type="parameter-binding" />
  <category name="Result bindings" type="result-binding" />
</category>
<category name="Script tasks" type="script-task">
  <category name="Property Expressions" type="property-expression" />
  <category name="User variables" type="user-variable" />
  <category name="System variables" type="system-variable" />
  <category name="Event handlers" type="event-handler">
    <category name="User variables" type="user-variable" />
  </category>
</category>
<category name="Notify Operator Tasks" type="notify-operator-task">
  <category name="Property Expressions" type="property-expression" />
  <category name="User variables" type="user-variable" />
  <category name="System variables" type="system-variable" />
  <category name="Event handlers" type="event-handler">
    <category name="User variables" type="user-variable" />
  </category>
</category>
<category name="Send mail tasks" type="send-mail-task">
  <category name="Property Expressions" type="property-expression" />
  <category name="User variables" type="user-variable" />
  <category name="System variables" type="system-variable" />
  <category name="Event handlers" type="event-handler">
    <category name="User variables" type="user-variable" />
  </category>
</category>
<category name="Data Flow Tasks" type="dataflow-task">
  <category name="Event handlers" type="event-handler">
    <category name="User variables" type="user-variable" />
  </category>
  <category name="User variables" type="user-variable" />
  <category name="System variables" type="system-variable" />
  <category name="Paths" type="path" />
  <category name="ADO NET sources" type="managed-component-host-source">
    <category name="Properties" type="property" />
    <category name="Connections" type="connection" />
    <category name="Columns" type="column" />
    <category name="Error outputs" type="error-output" />
  </category>
  <category name="Script components" type="script-component">
    <category name="Properties" type="property" />
    <category name="Inputs" type="input">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
```

```
    </category>
    <category name="External columns" type="external-column" />
  </category>
  <category name="Outputs" type="output">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
    <category name="External columns" type="external-column" />
  </category>
</category>
<category name="Flat file sources" type="flat-file-source">
  <category name="Properties" type="property" />
  <category name="Connections" type="connection" />
  <category name="Columns" type="column" />
  <category name="Error outputs" type="error-output" />
</category>
<category name="OLEDB sources" type="oledb-source">
  <category name="Properties" type="property" />
  <category name="Connections" type="connection" />
  <category name="Error outputs" type="error-output" />
  <category name="Columns" type="column" />
</category>
<category name="Excel sources" type="excel-source">
  <category name="Properties" type="property" />
  <category name="Connections" type="connection" />
  <category name="Columns" type="column" />
  <category name="Error outputs" type="error-output" />
  <category name="Inputs" type="input">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
    <category name="External columns" type="external-column" />
  </category>
  <category name="Outputs" type="output">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
    <category name="External columns" type="external-column" />
  </category>
</category>
<category name="OLEDB destinations" type="oledb-destination">
  <category name="Properties" type="property" />
  <category name="Connections" type="connection" />
  <category name="Columns" type="column" />
  <category name="Error outputs" type="error-output" />
  <category name="External columns" type="external-column" />
</category>
<category name="Excel destinations" type="excel-destination">
  <category name="Connections" type="connection" />
  <category name="Columns" type="column" />
  <category name="Properties" type="property" />
  <category name="Inputs" type="input">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
    <category name="External columns" type="external-column" />
  </category>
  <category name="Error outputs" type="error-output" />
</category>
<category name="Aggregate transformations" type="aggregate-transformation">
  <category name="Properties" type="property" />
  <category name="Inputs" type="input">
```

```
      <category name="Columns" type="column" />
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Character map transformations" type="character-map-transformation">
    <category name="Inputs" type="input">
      <category name="Columns" type="column" />
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Cache transformations" type="cache-transformation">
    <category name="Properties" type="property" />
    <category name="Connections" type="connection" />
    <category name="Inputs" type="input">
      <category name="Columns" type="column" />
    </category>
    <category name="Outputs" type="output" />
  </category>
  <category name="Conditional split transformations" type="conditional-split-transformation">
    <category name="Inputs" type="input">
      <category name="Properties" type="property" />
      <category name="Columns" type="column" />
    </category>
    <category name="Outputs" type="output">
      <category name="Properties" type="property" />
      <category name="Columns" type="column" />
    </category>
  </category>
  <category name="Copy column transformations" type="copy-column-transformation">
    <category name="Inputs" type="input">
      <category name="Columns" type="column" />
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Data conversion transformations" type="data-conversion-transformation">
    <category name="Inputs" type="input">
      <category name="Columns" type="column" />
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Derived column transformations" type="derived-column-transformation">
    <category name="Inputs" type="input">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
```

```
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Export column transformations" type="export-column-transformation">
    <category name="Inputs" type="input">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Fuzzy grouping transformations" type="fuzzy-grouping-transformation">
    <category name="Properties" type="property" />
    <category name="Connections" type="connection" />
    <category name="Inputs" type="input">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Fuzzy lookup transformations" type="fuzzy-lookup-transformation">
    <category name="Properties" type="property" />
    <category name="Connections" type="connection" />
    <category name="Inputs" type="input">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Import column transformations" type="import-column-transformation">
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      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Lookup transformations" type="lookup-transformation">
    <category name="Properties" type="property" />
    <category name="Connections" type="connection" />
    <category name="Inputs" type="input">
```

```
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
  </category>
  <category name="Outputs" type="output">
    <category name="Columns" type="column" />
  </category>
</category>
<category name="Merge transformations" type="merge-transformation">
  <category name="Inputs" type="input">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
  </category>
  <category name="Outputs" type="output">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
  </category>
</category>
<category name="Merge join transformations" type="merge-join-transformation">
  <category name="Properties" type="property" />
  <category name="Inputs" type="input">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
  </category>
  <category name="Outputs" type="output">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
  </category>
</category>
<category name="Multicast transformations" type="multicast-transformation">
  <category name="Properties" type="property" />
  <category name="Connections" type="connection" />
  <category name="Inputs" type="input">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
  </category>
  <category name="Outputs" type="output">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
  </category>
</category>
<category name="OLE DB Command transformations" type="oledb-command-transformation">
  <category name="Properties" type="property" />
  <category name="Connections" type="connection" />
  <category name="Inputs" type="input">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
    <category name="External columns" type="external-column">
      <category name="Properties" type="property" />
    </category>
  </category>
  <category name="Outputs" type="output">
    <category name="Columns" type="column">
      <category name="Properties" type="property" />
    </category>
```

```
    </category>
  </category>
  <category name="Pivot transformations" type="pivot-transformation">
    <category name="Properties" type="property" />
    <category name="Connections" type="connection" />
    <category name="Inputs" type="input">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Unpivot transformations" type="unpivot-transformation">
    <category name="Inputs" type="input">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Row count transformations" type="row-count-transformation">
    <category name="Properties" type="property" />
    <category name="Connections" type="connection" />
    <category name="Inputs" type="input">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Row sampling transformations" type="row-sampling-transformation">
    <category name="Properties" type="property" />
    <category name="Inputs" type="input">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
    <category name="Outputs" type="output">
      <category name="Columns" type="column">
        <category name="Properties" type="property" />
      </category>
    </category>
  </category>
  <category name="Percentage sampling transformations" type="percentage-sampling-transformation">
    <category name="Properties" type="property" />
    <category name="Inputs" type="input">
      <category name="External columns" type="external-column" />
    </category>
    <category name="Outputs" type="output">
      <category name="Properties" type="property" />
```

```
            <category name="External columns" type="external-column" />
          </category>
        </category>
        <category name="Slowly changing dimension transformations" type="slowly-changing-dimension-
transformation">
          <category name="Properties" type="property" />
          <category name="Connections" type="connection" />
          <category name="Inputs" type="input">
            <category name="Columns" type="column">
              <category name="Properties" type="property" />
            </category>
          </category>
          <category name="Outputs" type="output">
            <category name="Columns" type="column">
              <category name="Properties" type="property" />
            </category>
          </category>
        </category>
        <category name="Sort transformations" type="sort-transformation">
          <category name="Properties" type="property" />
          <category name="Inputs" type="input">
            <category name="Columns" type="column">
              <category name="Properties" type="property" />
            </category>
          </category>
          <category name="Outputs" type="output">
            <category name="Columns" type="column">
              <category name="Properties" type="property" />
            </category>
          </category>
        </category>
        <category name="Union all transformations" type="union-all-transformation">
          <category name="Inputs" type="input">
            <category name="Columns" type="column">
              <category name="Properties" type="property" />
            </category>
          </category>
          <category name="Outputs" type="output">
            <category name="Columns" type="column">
              <category name="Properties" type="property" />
            </category>
          </category>
        </category>
        <category name="Flat file destinations" type="flat-file-destination">
          <category name="Properties" type="property" />
          <category name="Connections" type="connection" />
          <category name="Columns" type="column" />
          <category name="External columns" type="external-column" />
        </category>
        <category name="SQL server destinations" type="sql-server-destination">
          <category name="Properties" type="property" />
          <category name="Connections" type="connection" />
          <category name="Columns" type="column" />
          <category name="External columns" type="external-column" />
        </category>
        <category name="ADO NET destinations" type="managed-component-host-destination">
          <category name="Properties" type="property" />
          <category name="Connections" type="connection" />
          <category name="Columns" type="column" />
          <category name="External columns" type="external-column" />
          <category name="Error outputs" type="error-output" />
        </category>
```

```
          <category name="Raw file sources" type="raw-file-source">
            <category name="Properties" type="property" />
            <category name="Columns" type="column" />
          </category>
          <category name="Raw file destinations" type="raw-file-destination">
            <category name="Columns" type="column" />
            <category name="Properties" type="property" />
          </category>
          <category name="ODBC sources" type="odbc-source">
            <category name="Properties" type="property" />
            <category name="Connections" type="connection" />
            <category name="Inputs" type="input">
              <category name="Columns" type="column">
                <category name="Properties" type="property" />
              </category>
            </category>
            <category name="Outputs" type="output">
              <category name="Columns" type="column">
                <category name="Properties" type="property" />
              </category>
              <category name="External columns" type="external-column" />
            </category>
          </category>
          <category name="ODBC Destinations" type="odbc-destination">
            <category name="Properties" type="property" />
            <category name="Connections" type="connection" />
            <category name="Inputs" type="input">
              <category name="Columns" type="column">
                <category name="Properties" type="property" />
              </category>
              <category name="External columns" type="external-column" />
            </category>
            <category name="Outputs" type="output">
              <category name="Columns" type="column">
                <category name="Properties" type="property" />
              </category>
            </category>
          </category>
          <category name="RecordSet destinations" type="record-set-destination">
            <category name="Columns" type="column" />
            <category name="Properties" type="property" />
          </category>
        </category>
      </category-group>
    </category>
    <category name="Parameters" type="parameter" />
  </category>
</metadata>
```

6.3.22. Appendix V. IBM Db2 for z/OS XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="DB2 for z/OS" version="DB2ZOS 12">
  <category name="Servers" type="server">
    <category name="Schemas" type="schema">
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Indexes" type="index">
          <category name="Columns" type="column" />
        </category>
```

```
        <category name="Constraints" type="constraint">
          <category name="Columns" type="column" />
        </category>
        <category name="Foreign Keys" type="foreign-key">
          <category name="Columns" type="column" />
        </category>
        <category name="Triggers" type="trigger" />
        <category name="Partitions" type="partition" />
        <category name="Global Temporary Tables" type="global-temporary-table">
          <category name="Columns" type="column" />
        </category>
        <category name="Materialized Query Tables" type="mqtable">
          <category name="Columns" type="column" />
        </category>
        <category name="Views" type="view">
          <category name="Columns" type="column" />
          <category name="Triggers" type="trigger" />
        </category>
        <category name="Aliases" type="alias" />
        <category name="Procedures" type="procedure">
          <category name="Parameters" type="parameter" />
        </category>
        <category-group name="Functions">
          <category name="Inline Functions" type="inline-function">
            <category name="Parameters" type="parameter" />
          </category>
          <category name="Scalar Functions" type="scalar-function">
            <category name="Parameters" type="parameter" />
          </category>
          <category name="Sourced Functions" type="sourced-function">
            <category name="Parameters" type="parameter" />
          </category>
          <category name="Table Functions" type="table-function">
            <category name="Parameters" type="parameter" />
          </category>
        </category-group>
        <category name="Sequences" type="sequence" />
        <category-group name="User Defined Types">
          <category name="Distinct Types" type="distinct-type" />
          <category name="Array Types" type="array-type" />
        </category-group>
        <category-group name="External Routines">
          <category name="External Procedures" type="external-procedure">
            <category name="Parameters" type="parameter" />
          </category>
          <category name="External Functions" type="external-function">
            <category name="Parameters" type="parameter" />
          </category>
        </category-group>
      </category>
    </category>
  </category>
</metadata>
```

6.3.23. Appendix W. Google BigQuery XML object tree

ToDo

6.3.24. Appendix X. Informatica PowerCenter XML object tree

ToDo

6.3.25. Appendix Y. Apache Hadoop XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Hadoop" version="HDFS_3.3.1 Hive_3.1.0">
  <category name="Clusters" type="cluster">
    <category name="HDFS" type="element">
      <directory name="..." is-directory="true">
        <hdfs-file name="..." is-file="true" />
        <hdfs-file name="..." is-file="true" />
        <hdfs-file name="..." is-file="true" />
        ...
        <directory name="..." is-directory="true">
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          ...
          <directory name="..." is-directory="true">
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            ...
          </directory>
        </directory>
        <directory name="..." is-directory="true">
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          ...
          <directory name="..." is-directory="true">
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            ...
          </directory>
          ...
        </directory>
      </directory>
      <hdfs-file name="..." is-file="true" />
      <hdfs-file name="..." is-file="true" />
      <hdfs-file name="..." is-file="true" />
      ...
    </category>
    <category name="Databases" type="database">
      <category name="External Tables" type="external-table">
        <category name="Columns" type="column" />
        <category name="Partitions" type="partition">
          <category name="Skewed Locations" type="skewed-location" />
        </category>
        <category name="Skewed Buckets" type="skewed-bucket" />
        <category name="Skewed Locations" type="skewed-location" />
      </category>
      <category name="Managed Tables" type="managed-table">
        <category name="Columns" type="column" />
        <category name="Partitions" type="partition">
          <category name="Skewed Locations" type="skewed-location" />
        </category>
        <category name="Skewed Buckets" type="skewed-bucket" />
        <category name="Skewed Locations" type="skewed-location" />
      </category>
```

```
      <category name="Views" type="view">
        <category name="Columns" type="column" />
      </category>
      <category name="Materialized Views" type="materialized-view">
        <category name="Columns" type="column" />
        <category name="Partitions" type="partition" />
      </category>
      <category name="Custom Properties" type="custom-property" />
    </category>
  </category>
</metadata>
```

6.3.26. Appendix Z. Amazon EMR XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Amazon EMR" version="HDFS_3.3.1 Hive_3.1.0">
  <category name="Clusters" type="cluster">
    <category name="HDFS" type="element">
      <directory name="..." is-directory="true">
        <hdfs-file name="..." is-file="true" />
        <hdfs-file name="..." is-file="true" />
        <hdfs-file name="..." is-file="true" />
        ...
        <directory name="..." is-directory="true">
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          ...
          <directory name="..." is-directory="true">
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            ...
          </directory>
        </directory>
        <directory name="..." is-directory="true">
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          ...
          <directory name="..." is-directory="true">
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            ...
          </directory>
          ...
        </directory>
      </directory>
      <hdfs-file name="..." is-file="true" />
      <hdfs-file name="..." is-file="true" />
      <hdfs-file name="..." is-file="true" />
      ...
    </category>
    <category name="Databases" type="database">
      <category name="Tables" type="table">
        <category name="Columns" type="column" />
        <category name="Object properties" type="object-property" />
        <category name="Partitions" type="partition" />
        <category name="Skewed Buckets" type="skewed-bucket" />
```

```
      </category>
      <category name="Views" type="view">
        <category name="Columns" type="column" />
        <category name="Object properties" type="object-property" />
      </category>
    </category>
    <category name="Buckets" type="bucket">
      <bucket name="...">
        <directory name="..." is-directory="true">
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          ...
          <directory name="..." is-directory="true">
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            ...
            <directory name="..." is-directory="true">
              <hdfs-file name="..." is-file="true" />
              <hdfs-file name="..." is-file="true" />
              <hdfs-file name="..." is-file="true" />
              ...
            </directory>
          </directory>
          <directory name="..." is-directory="true">
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            <hdfs-file name="..." is-file="true" />
            ...
            <directory name="..." is-directory="true">
              <hdfs-file name="..." is-file="true" />
              <hdfs-file name="..." is-file="true" />
              <hdfs-file name="..." is-file="true" />
              ...
            </directory>
            ...
          </directory>
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          <hdfs-file name="..." is-file="true" />
          ...
        </directory>
      </bucket>
    </category>
  </category>
</metadata>
```

6.3.27. Appendix AA. Apache Oozie XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="Apache Oozie" version="Apache Oozie 0.0.0">
  <category name="Applications" type="oozie-application">
    <category name="Workflows" type="workflow">
      <category name="Parameters" type="parameter" />
      <category-group name="Global">
        <category name="Configuration" type="configuration-property" />
        <category name="Job xml files" type="job-xml" />
        <category name="Properties" type="property" />
      </category-group>
```

```
<category-group name="Control flow nodes">
  <category name="Start node" type="start-node" />
  <category name="End node" type="end-node" />
  <category name="Kill nodes" type="kill-node" />
  <category name="Decision nodes" type="decision-node">
    <category name="Switch" type="case-node" />
  </category>
  <category name="Fork nodes" type="fork-node">
    <category name="Paths" type="path" />
  </category>
  <category name="Join nodes" type="join-node" />
</category-group>
<category-group name="Action nodes">
  <category name="Hive nodes" type="hive-node">
    <category-group name="Prepare">
      <category name="Delete" type="delete" />
      <category name="Mkdir" type="mkdir" />
    </category-group>
    <category name="Configuration" type="configuration-property" />
    <category name="Job xml files" type="job-xml" />
    <category name="Params" type="param" />
    <category name="Arguments" type="argument" />
    <category name="Files" type="file-ref" />
    <category name="Archives" type="archive" />
  </category>
  <category name="Hive2 nodes" type="hive2-node">
    <category-group name="Prepare">
      <category name="Delete" type="delete" />
      <category name="Mkdir" type="mkdir" />
    </category-group>
    <category name="Configuration" type="configuration-property" />
    <category name="Job xml files" type="job-xml" />
    <category name="Params" type="param" />
    <category name="Arguments" type="argument" />
    <category name="Files" type="file-ref" />
    <category name="Archives" type="archive" />
  </category>
  <category name="Spark nodes" type="spark-node">
    <category-group name="Prepare">
      <category name="Delete" type="delete" />
      <category name="Mkdir" type="mkdir" />
    </category-group>
    <category name="Configuration" type="configuration-property" />
    <category name="Job xml files" type="job-xml" />
    <category name="Params" type="param" />
    <category name="Arg nodes" type="arg-node" />
    <category name="Files" type="file-ref" />
    <category name="Archives" type="archive" />
  </category>
  <category name="MapReduce nodes" type="mapreduce-node">
    <category-group name="Prepare">
      <category name="Delete" type="delete" />
      <category name="Mkdir" type="mkdir" />
    </category-group>
    <category name="Configuration" type="configuration-property" />
    <category name="Record reader mappings" type="record-reader-mapping" />
    <category name="Streaming environments" type="streaming-environment" />
    <category name="Job xml files" type="job-xml" />
    <category name="Files" type="file-ref" />
    <category name="Archives" type="archive" />
  </category>
  <category name="Java nodes" type="java-node">
```

```
    <category-group name="Prepare">
      <category name="Delete" type="delete" />
      <category name="Mkdir" type="mkdir" />
    </category-group>
    <category name="Configuration" type="configuration-property" />
    <category name="Job xml files" type="job-xml" />
    <category name="Java opt" type="java-opt" />
    <category name="Arg nodes" type="arg-node" />
    <category name="Files" type="file-ref" />
    <category name="Archives" type="archive" />
  </category>
  <category name="DistCp nodes" type="distcp-node">
    <category-group name="Prepare">
      <category name="Delete" type="delete" />
      <category name="Mkdir" type="mkdir" />
    </category-group>
    <category name="Configuration" type="configuration-property" />
    <category name="Arg nodes" type="arg-node" />
  </category>
  <category name="Sqoop nodes" type="sqoop-node">
    <category-group name="Prepare">
      <category name="Delete" type="delete" />
      <category name="Mkdir" type="mkdir" />
    </category-group>
    <category name="Configuration" type="configuration-property" />
    <category name="Job xml files" type="job-xml" />
    <category name="Arg nodes" type="arg-node" />
    <category name="Files" type="file-ref" />
    <category name="Archives" type="archive" />
  </category>
  <category name="Pig nodes" type="pig-node">
    <category-group name="Prepare">
      <category name="Delete" type="delete" />
      <category name="Mkdir" type="mkdir" />
    </category-group>
    <category name="Configuration" type="configuration-property" />
    <category name="Job xml files" type="job-xml" />
    <category name="Params" type="param" />
    <category name="Arguments" type="argument" />
    <category name="Files" type="file-ref" />
    <category name="Archives" type="archive" />
  </category>
  <category name="FS nodes" type="fs-node">
    <category name="Configuration" type="configuration-property" />
    <category name="Job xml files" type="job-xml" />
    <category name="Delete" type="delete" />
    <category name="Mkdir" type="mkdir" />
    <category name="Move" type="move" />
    <category name="Chmod" type="chmod" />
    <category name="Touchz" type="touchz" />
    <category name="Chgrp" type="chgrp" />
  </category>
  <category name="Sub-Workflow nodes" type="sub-workflow-node">
    <category name="Configuration" type="configuration-property" />
  </category>
  <category name="Ssh nodes" type="ssh-node">
    <category name="Args nodes" type="args-node" />
    <category name="Arg nodes" type="arg-node" />
  </category>
  <category name="Shell nodes" type="shell-node">
    <category-group name="Prepare">
      <category name="Delete" type="delete" />
```

```
            <category name="Mkdir" type="mkdir" />
          </category-group>
          <category name="Configuration" type="configuration-property" />
          <category name="Job xml files" type="job-xml" />
          <category name="Arguments" type="argument" />
          <category name="Env vars" type="env-var" />
          <category name="Files" type="file-ref" />
          <category name="Archives" type="archive" />
        </category>
        <category name="Email nodes" type="email-node" />
        <category name="Custom Executor nodes" type="custom-executor-node" />
      </category-group>
    </category>
    <category name="Job properties" type="job-property">
      <category name="Properties" type="property" />
    </category>
  </category>
</metadata>
```

6.3.28. Appendix AB. AWS Step Functions XML object tree

```
<?xml version="1.0" encoding="UTF-8"?>
<metadata vendor="AWS Step Functions" version="AWS Step Functions 0.0.0">
  <category name="State machines" type="state-machine" />
  <category name="Parameter store" type="parameter-store" />
  <category name="State machine definitions" type="state-machine-definition">
    <category name="Definitions" type="definition" />
  </category>
</metadata>
```

6.4. Object hierarchy diagrams

6.4.1. Appendix A. Oracle object diagram

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Partition columns					
					→	Subpartition columns					
					→	Cluster keys					
					→	Constraints	→	Columns			
					→	Indexes	→	Columns			
					→	Triggers					
					→	Partitions	→	Subpartitions			
					→	Large objects					

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Nested tables					
			→	External Tables	→	Columns					
			→	Views	→	Columns					
					→	Constraints	→	Columns			
					→	Triggers					
			→	Packages	→	Public procedures	→	Parameters			
					→	Public functions	→	Parameters			
					→	Public types	→	Attributes			
					→	Public collection types					
					→	Public variables					
					→	Public constants					
					→	Public cursors	→	Parameters			
					→	Public exceptions					
					→	Private procedures	→	Parameters			
					→	Private functions	→	Parameters			
					→	Private types	→	Attributes			
					→	Private collection types					
					→	Private variables					
					→	Private constants					
					→	Private cursors	→	Parameters			

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Private exceptions					
			→	Procedures	→	Parameters					
			→	Functions	→	Parameters					
			→	User defined types	→	Attributes					
			→	Collection Types							
			→	Sequences							
			→	Materialized Views	→	Columns					
					→	Constraints	→	Columns			
					→	Triggers					
			→	Materialized View Logs							
			→	Synonyms							
			→	Clusters	→	Keys					
			→	Database Links							
			→	Scheduler	→	Jobs	→	Arguments			
					→	Programs	→	Arguments			
	→				→	Schedules					
					→	DBMS_JOBS					
			→	Queuing	→	Tables	→	Queues	→	Subscribers	
		Server Level Objects	→	Contexts							
			→	Features							
			→	Directories							
			→	Policies							
			→	Policy groups							
			→	Tablespaces							
			→	User Roles	→	System Privileges					

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Object Privileges	→	Objects			
					→	Column Privileges	→	Columns			
					→	Granted Roles					
			→	User Profiles	→	Profile params					
			→	Users	→	System Privileges					
					→	Object Privileges	→	Objects			
					→	Column Privileges	→	Columns			
						Granted Roles					
			→	Database triggers							

6.4.2. Appendix B. MS SQL Server object diagram

Servers	→	**Databases**	→	**Schemas**	→	**Tables**	→	**Columns**		
							→	Constraints	→	Columns
							→	Indexes	→	Columns
							→	Triggers		
							→	Partition Number		
					→	Graph Tables	→	Columns		
							→	Constraints	→	Columns
							→	Indexes	→	Columns
							→	Triggers		
							→	Partition Number		
					→	Views	→	Columns		
							→	Triggers		
					→	Procedures	→	Parameters		

Servers	→	**Databases**	→	**Schemas**	→	**Tables**	→	**Columns**		
					→	SQL scalar functions	→	Parameters		
					→	SQL table-valued functions	→	Parameters		
					→	SQL inline functions	→	Parameters		
					→	Synonyms				
					→	Sequences				
					→	Types				
					→	Table types	→	Columns		
					→	XML Schema Collections				
			→	Assemblies	→	Assembly files				
			→	Features						
			→	Storage Partition Schemes	→	Filegroups				
			→	Storage Partition Functions	→	Parameters				
					→	Range Values				
			→	Database triggers						
			→	Server Objects	→	Server triggers				
					→	Linked servers				
					→	Endpoints				
					→	Features				
			→	SQL Server Agent	→	Schedules				
					→	Alerts				
					→	Operators				
					→	Jobs	→	Job Steps		

6.4.3. Appendix C. Azure SQL Database object diagram

Servers	→	**Databases**	→	**Schemas**	→	**Tables**	→	**Columns**		
							→	Constraints	→	Columns
							→	Indexes	→	Columns
							→	Triggers		
							→	Partition Number		
					→	Graph Tables	→	Columns		
							→	Constraints	→	Columns
							→	Indexes	→	Columns
							→	Triggers		
							→	Partition Number		
					→	Views	→	Columns		
							→	Triggers		
					→	Procedures	→	Parameters		
					→	SQL scalar functions	→	Parameters		
					→	SQL table-valued functions	→	Parameters		
					→	SQL inline functions	→	Parameters		
					→	Synonyms				
					→	Sequences				
					→	Types				
					→	Table types	→	Columns		
					→	XML Schema Collections				
			→	Assemblies	→	Assembly files				
			→	Storage Partition Schemes	→	Filegroups				

Servers	→	**Databases**	→	**Schemas**	→	**Tables**	→	**Columns**		
			→	Storage Partition Functions	→	Parameters				
					→	Range Values				
			→	Database triggers						

6.4.4. Appendix D. PostgreSQL object diagram

6.4.5. Appendix E. Aurora PostgreSQL object diagram

6.4.6. Appendix F. MySQL object diagram

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Constraints	→	Columns			
					→	Indexes	→	Columns			
					→	Triggers					
					→	Partitions	→	Subpartitions			
			→	Views	→	Columns					
			→	Procedures	→	Parameters					
			→	Functions	→	Parameters					
	→	User-Defined Functions									
	→	Plugins									
	→	AWS Oracle Extensions									
	→	AWS SQL Server Extensions									
	→	AWS PostgreSQL Extensions									

6.4.7. Appendix G. Aurora MySQL object diagram

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Constraints	→	Columns			
					→	Indexes	→	Columns			

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Triggers					
					→	Partitions	→	Subpartitions			
			→	Views	→	Columns					
			→	Procedures	→	Parameters					
			→	Functions	→	Parameters					
	→	AWS Oracle Extensions									
	→	AWS SQL Server Extensions									
	→	AWS PostgreSQL Extensions									

6.4.8. Appendix H. MariaDB object diagram

6.4.9. Appendix I. SAP ASE object diagram

Servers	→	**Databases**	→	**Schemas**	→	**Tables**	→	**Columns**		
							→	Constraints	→	Columns
							→	Foreign keys	→	Columns
							→	Indexes	→	Columns
							→	Triggers		
							→	Rules		
							→	Partitions		
							→	Partition columns		
					→	Views	→	Columns		
							→	Triggers		
					→	Materialized Views	→	Columns		
					→	Defaults				
					→	Procedures	→	Parameters		
					→	Scalar-valued Functions	→	Parameters		
					→	Table-valued Functions	→	Parameters		

Servers	→	**Databases**	→	**Schemas**	→	**Tables**	→	**Columns**		
							→	Result Columns		
					→	User defined types				

6.4.10. Appendix J. Db2 LUW object diagram

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Constraints	→	Columns			
					→	Indexes	→	Columns			
					→	Triggers					
					→	Foreign Keys	→	Columns			
					→	Partitions					
					→	Partition columns					
			→	Materialized query tables	→	Columns					
			→	Views	→	Columns					
					→	Triggers					
			→	Sequences							
			→	Aliases							
			→	Functions	→	Parameters					
					→	Resultset Fields					
			→	Procedures	→	Parameters					
			→	Array Types							
			→	Distinct Types							
			→	Global Variables							
			→	Modules	→	Array Types					
					→	Cursor Types					
					→	Distinct Types					
					→	Row Types	→	Fields			
					→	Functions	→	Parameters			

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Procedures	→	Parameters			
					→	Variables					
			→	Cursor Types							
			→	Row Types	→	Fields					
			→	Structured Types	→	Attributes					
					→	Methods					
			→	Nicknames							

6.4.11. Appendix K. Amazon Redshift object diagram

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Constraints	→	Columns			
					→	Distribution key columns					
					→	Sort key columns					
			→	Views	→	Columns					
			→	Functions	→	Parameters					
			→	Procedures	→	Parameters					

6.4.12. Appendix L. Teradata object diagram

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Constraints	→	Columns			
					→	Indexes	→	Columns			
					→	Triggers					
					→	Partitions	→	Partition columns			
			→	Views	→	Columns					
					→	Constraints	→	Columns			
					→	Triggers					
			→	Procedures	→	Parameters					
			→	Functions	→	Parameters					
			→	Macros	→	Parameters					
			→	User defined types	→	Attributes					

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
			→	Join indexes							

6.4.13. Appendix M. Vertica object diagram

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Constraints	→	Columns			
					→	Text indexes	→	Columns			
					→	Order by columns					
					→	Partitioning expression	→	Columns			
					→	Partitions					
					→	Segmentations	→	Columns			
			→	External Tables	→	Columns					
			→	Flex Tables	→	Columns					
			→	Views	→	Columns					
			→	Functions	→	Parameters					
			→	Procedures	→	Parameters					
			→	Sequences							
			→	Projections	→	Columns					
					→	Group by columns					
					→	Order by columns					
					→	Segmentations	→	Columns			
					→	From clause expression					

6.4.14. Appendix N. Netezza object diagram

Servers	→	**Databases**	→	**Schemas**	→	**Tables**	→	**Columns**		
							→	Constraints	→	Columns
							→	Distribution key columns		
							→	Organize columns		

Servers	→	**Databases**	→	**Schemas**	→	**Tables**	→	**Columns**		
						External tables	→	Columns		
					→	Views	→	Columns		
					→	Materialized Views	→	Columns		
					→	Defaults				
					→	Functions	→	Parameters		
					→	Procedures	→	Parameters		
					→	Sequences				
					→	Synonyms				
	→	Server Level Objects	→	Slices						

6.4.15. Appendix O. Greenplum object diagram

Servers	→	**Schemas**	→	**Tables**	→	**Columns**					
					→	Rules					
					→	Constraints	→	Columns			
					→	Partitions					
					→	Indexes	→	Columns			
					→	Distribution key columns					
			→	External Tables	→	Columns					
					→	Rules					
			→	Views	→	Columns					
					→	Rules					
			→	Operators							
			→	Functions	→	Parameters					
			→	Sequences							
			→	User defined types	→	Attributes					
			→	Domains							

6.4.16. Appendix P. Snowflake object diagram

Servers	→	**Databases**	→	**Schemas**	→	**Tables**	→	**Columns**		
							→	Constraints		
					→	Views	→	Columns		
					→	External tables	→	Columns		
					→	Defaults				
					→	Functions				
					→	Procedures				
					→	Sequences				

6.4.17. Appendix Q. Cassandra object diagram

noSQL Clusters	→	**Datacenters**	→	**Nodes**					
			→	Keyspaces					
	→	Keyspaces	→	Datacenters					
			→	Tables	→	Columns			
			→		→	Partition keys			
			→		→	Clustering keys			
			→		→	Indexes			
			→		→	Triggers			
			→	Functions					
			→	Aggregates					
			→	Materialized views	→	Columns			
			→	User-Defined Types					

6.4.18. Appendix R. Amazon DynamoDB object diagram

noSQL Clusters	→	**Tables**	→	**Attributes**					
			→	Indexes					
			→	Triggers					

6.4.19. Appendix S. AWS Glue object diagram

ETL	→	**Connections**	→	**ConnectionProperties**					
			→	PhysicalConnectionRequirements					
	→	Crawlers	→	S3 Targets					
			→	Jdbc Targets					
			→	Classifiers					
	→	Databases	→	Tables	→	StorageDescriptorColumns			
					→	StorageDescriptorSortColumns			
					→	StorageDescriptorBucketColumns			
					→	Parameters SerdeInfo			
					→	Parameters Table			
					→	Parameters Descriptor			
					→	SkewedColumnNames			
					→	SkewedColumnValues			
					→	SkewedColumnValueLocationMaps			
					→	PartitionKeys			
			→	Parameters					
	→	ETL Jobs	→	Execution Properties					
			→	Command					
			→	DefaultArguments					
			→	Notification Property					
			→	Connections					
	→	Triggers	→	Predicate Conditions					
			→	Actions					
	→	Scripts	→	Python Shell					
			→	Spark					
	→	Package scripts	→	Scripts					

6.4.20. Appendix T. AWS Glue Studio object diagram

ETL	→	**Connections**	→	**ConnectionProperties**					
			→	PhysicalConnectionRequirements					
	→	Crawlers	→	S3 Targets					
			→	Jdbc Targets					
			→	Classifiers					
	→	Databases	→	Tables	→	StorageDescriptorColumns			
					→	StorageDescriptorSortColumns			
					→	StorageDescriptorBucketColumns			
					→	Parameters SerdeInfo			
					→	Parameters Table			
					→	Parameters Descriptor			
					→	SkewedColumnNames			
					→	SkewedColumnValues			
					→	SkewedColumnValueLocationMaps			
					→	PartitionKeys			
			→	Parameters					
	→	ETL Jobs	→	Execution Properties					
			→	Command					
			→	DefaultArguments					
			→	Notification Property					
			→	Connections					
	→	Triggers	→	Predicate Conditions					
			→	Actions					
	→	DAGs							

6.4.21. Appendix U. MS SSIS object diagram

6.4.22. Appendix V. IBM Db2 for z/OS object diagram

Servers	→	**Schemas**	→	**Tables**	→	**Columns**		
					→	Indexes	→	Columns
					→	Constraints	→	Columns
					→	Foreign Keys	→	Columns
					→	Triggers		
					→	Partitions		
			→	Global Temporary Tables	→	Columns		
			→	Materialized Query Tables	→	Columns		
			→	Views	→	Columns		
					→	Triggers		
			→	Aliases				
				Procedures	→	Parameters		
			→	Functions	→	Inline Functions	→	Parameters
					→	Scalar Functions	→	Parameters
					→	Sourced Functions	→	Parameters
					→	Table Functions	→	Parameters
			→	Sequences				
			→	User Defined Types	→	Distinct Types		
					→	Array Types		
			→	External Routines	→	External Procedures	→	Parameters
					→	External Functions	→	Parameters

6.4.23. Appendix W. Google BigQuery object diagram

ToDo										

ToDo										

6.4.24. Appendix X. Informatica object diagram

6.4.25. Appendix Y. Apache Hadoop object diagram

Clusters	→	HDFS	→	Folders\Files						
	→	Hive	→	Databases	→	External Tables	→	Columns		
							→	Partitions		
							→	Skewed Columns		
					→	Managed Tables	→	Columns		
							→	Partitions	→	Skewed Locations
							→	Skewed Buckets		
							→	Skewed Locations		
					→	Views	→	Columns		
					→	Materialized Views	→	Columns		
							→	Partitions		
					→	Custom Properties				

6.4.26. Appendix Z. Amazon EMR object diagram

6.5. Server properties matrices

Vendor	Property	Description	Default value	Allowable values
MSSQL	treat-case sensitive	Treat database object names as case sensitive ones.	NO	YES; NO
AZURE_MSSQL	treat-case sensitive	Treat database object names as case sensitive ones.	NO	YES; NO

6.6. Global settings matrices

6.6.1. Common global settings matrix

Page	Setting	Description	Default value	Allowable values
project_environment	ANY	Current AWS service profile.		Any AWS service profile created by the CreateAWSProfile command.
console_log_folder	ANY	Console log file path.	C:\Users*[user_name]*\AWS Schema Conversion Tool\Log	Any valid OS file system path to folder
debug_mode	ANY	Debug mode.	FALSE	TRUE; FALSE
log.max_file_size_mb	ANY	Maximum log file size (MB).	100	From 0 to 2147483647.
log_folder	ANY	Log folder path.	C:\Users*[user_name]*\AWS Schema Conversion Tool\Log	Any valid OS file system path to folder.
log_folder_extractors	ANY	Extractors log download path.	C:\Users*[user_name]*\AWS Schema Conversion Tool\Extractor Log	Any valid OS file system path to folder.
log_folder_extractors_ask_before_load	ANY	Ask for a path before loading.	FALSE	TRUE; FALSE
log_folder_extractors_cassandra	ANY	Cassandra extractor log path.	C:\Users*[user_name]*\AWS Schema Conversion Tool\Extractor Log\Cassandra	Any valid OS file system path to folder.
message_level.CLONE_DATACENTER	ANY	Clone datacenter.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.COMPARE_SCHEMA	ANY	Compare schema.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY

Page	Setting	Description	Default value	Allowable values
message_level.CONTROLLER	ANY	Controller.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.GENERAL	ANY	General.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.INTERPRETATOR	ANY	Application Analyzer.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.LOADER	ANY	Loader.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.PARSER	ANY	Parser.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.PRINTER	ANY	Printer.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.RESOLVER	ANY	Resolver.	TRACE	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY

Page	Setting	Description	Default value	Allowable values
message_level.TELEMETRY	ANY	Telemetry.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.TRANSFORMER	ANY	Converter.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.TYPEMAPPING	ANY	Type mapping.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.UI	ANY	User interface.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.TESTER	ANY	Tester.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
message_level.MIGRATOR	ANY	Migrator.	INFO	INFO; TRACE; DEBUG; WARNING.ERROR; CRITICAL; MANDATORY
log.max_files_count	ANY	Maximum log files count.	20	From 0 to 2147483647.
parser.cleanup_mode	ANY	Performance and memory management policy.	AFTER_PARSING	NEVER; AFTER_PARSING; ON_LOW_MEMORY

Page	Setting	Description	Default value	Allowable values
open_file_after_action	ANY	Auto show reports when saving.	FALSE	TRUE; FALSE
reporting.mode	ANY	Action items occurrences.	FIVE	ALL; FIVE
showed-files-count	ANY	SQL script analyzed files.	5	From 1 to 999.
show-all-files	ANY	List all analyzed files.	TRUE	TRUE; FALSE
mssql_auth_file	ANY	SQL Server Windows Authentication library.		Any valid OS file system path to file
default_profile_general	ANY	Default profile.		Any AWS service profile created by the CreateAWSProfile command.
store_password	ANY	Store connection passwords in project.		TRUE; FALSE
key_user_certificate	ANY	Show Extension Pack version alert.	TRUE	TRUE; FALSE
show_hide_schema_alert	ANY	Show Hide schema alert.	TRUE	TRUE; FALSE
db2luw_driver_file	ANY	IBM Db2 LUW driver path.		Any valid OS file system path to file.
greenplum_driver_file	ANY	Greenplum driver path.		Any valid OS file system path to file.
maria_driver_file	ANY	MarizDB driver path.		Any valid OS file system path to file.
mssql_driver_file	ANY	Microsoft SQL Server driver path.		Any valid OS file system path to file.
mysql_driver_file	ANY	MySQL driver path.		Any valid OS file system path to file.
netezza_driver_file	ANY	Netezza driver path.		Any valid OS file system path to file.
oracle_driver_file	ANY	Oracle driver path.		Any valid OS file system path to file.
postgresql_driver_file	ANY	PostgreSQL driver path.		Any valid OS file system path to file.

Page	Setting	Description	Default value	Allowable values
redshift_driver_file	ANY	Amazon Redshift driver path.		Any valid OS file system path to file.
snowflake_driver_file	ANY	Snowflake driver path.		Any valid OS file system path to file.
sybase_ase_driver_file	ANY	SAP ASE (Sybase ASE) driver path.		Any valid OS file system path to file.
teradata_driver_files	ANY	Teradata driver path.		Any valid OS file system path to file.
vertica_driver_file	ANY	Vertica driver path.		Any valid OS file system path to file.
hive_driver_file	ANY	Apache Hive driver path.		Any valid OS file system path to file.
emr_hive_driver_file	ANY	Amazon EMR Hive driver path.		Any valid OS file system path to file.
convert_without_statistic_reminder	ANY	Don't remind me again.	FALSE	TRUE; FALSE

6.6.2. Source-specific global settings matrix

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Oracle	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"ORACLE": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"ORACLE": \{"hideEmpty": true}}}
				\{sourceTreeSettingsModels": \{"ORACLE": \{"hideEmpty": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Oracle	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"ORACLE": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "ADAMS"; "ANONYMOUS"; "APEX_030000"; "APEX_030100"; "APEX_030200"; "APEX_040000"; "APEX_040100"; "APEX_040200"; "APEX_050000"; "APEX_050100"; "APEX_LISTENER"; "APEX_PUBLIC_USER"; "APEX_REST_PUBLIC_USER"; "APPQOSSYS"; "AUDSYS"; "AURORAORBUNAUTHENTICATED"; "AWR_STAGE"; "BI"; "BLAKE"; "CLARK"; "CSMIG"; "CTXSYS";

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Oracle	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"ORACLE": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	MS SQL Server	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmpty": true}}}
				\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmpty": false}}}
tree_settings_for_show	MS SQL Server	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmptyDb": true}}}
				\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmptyDb": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	MS SQL Server	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"MSSQL": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "distribution"; "master"; "model"; "msdb"; "tempdb"; "ResourceDB"; "ReportServer"; "ReportServerTempDB"; "%.INFORMATION_SCHEMA"; "%.sys"
tree_settings_for_show	MS SQL Server	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"MSSQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Azure SQL Database	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmpty": true}}}
				\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmpty": false}}}
tree_settings_for_show	Azure SQL Database	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmptyDb": true}}}
				\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmptyDb": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Azure SQL Database	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"systemSchemas": ["%.INFORMATION_SCHEMA", "%.sys"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: "%.INFORMATION_SCHEMA"; "%.sys"
tree_settings_for_show	Azure SQL Database	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	IBM Db2 LUW	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"DB2LUW": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"DB2LUW": \{"hideEmpty": true}}}

Setting	Vendor	Description	Default value	Allowable values
				\{"sourceTreeSettingsModels": \{"DB2LUW": \{"hideEmpty": false}}}
tree_settings_for_show	IBM Db2 LUW	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"DB2LUW": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "ERRORSCHEMA"; "NULLID"; "SQLJ"; "SYSCAT"; "SYSFUN"; "SYSIBM"; "SYSIBMADM"; "SYSIBMINTERNAL"; "SYSIBMTS"; "SYSPROC"; "SYSPUBLIC"; "SYSSTAT"; "SYSTOOLS"
tree_settings_for_show	IBM Db2 LUW	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"DB2LUW": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	SAP ASE	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmpty": true}}}
				\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmpty": false}}}
tree_settings_for_show	SAP ASE	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmptyDb": true}}}
				\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmptyDb": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	SAP ASE	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"systemSchemas": ["%.sys", "%.INFORMATION_SCHEMA", "%.public", "%.sa_role", "%.sso_role", "%.oper_role", "%.sybase_ts_role", "%.navigator_role", "%.replication_role", "%.dtm_tm_role", "%.ha_role", "%.mon_role", "%.js_admin_role", "%.messaging_role", "%.js_client_role", "%.js_user_role", "%.webservices_role", "%.keycustodian_role"] }	A set of schemas, wrapped in **JSON array**, from the list of available ones: "master"; "model"; "sybsystemprocs"; "sybsystemdb"; "tempdb"; "sybsecurity"; "pubs2"; "pubs3"; "dbccdb"; "sybmgmtdb"; "%.sys"; "%.INFORMATION_SCHEMA"; "%.public"; "%.sa_role"; "%.sso_role"; "%.oper_role"; "%.sybase_ts_role"; "%.navigator_role"; "%.replication_role"; "%.dtm_tm_role"; "%.ha_role"; "%.mon_role"; "%.js_admin_role";

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	SAP ASE	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	PostgreSQL	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"hideEmpty": true}}}
				\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"hideEmpty": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	PostgreSQL	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"systemSchemas": ["pg_catalog", "information_schema", "pg_temp%", "pg_toast%"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: pg_catalog; information_schema; pg_temp%; pg_toast%
tree_settings_for_show	PostgreSQL	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	MySQL	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"MYSQL": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"MYSQL": \{"hideEmpty": true}}}
				\{"sourceTreeSettingsModels": \{"MYSQL": \{"hideEmpty": false}}}
tree_settings_for_show	MySQL	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"MYSQL": \{"systemSchemas": ["mysql", "information_schema", "performance_schema", "sys"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: "mysql"; "information_schema"; "performance_schema"; "sys"

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	MySQL	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"MYSQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	Teradata	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"TERADATA": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"TERADATA": \{"hideEmpty": true}}}
				\{"sourceTreeSettingsModels": \{"TERADATA": \{"hideEmpty": false}}}
tree_settings_for_show	Teradata	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"TERADATA": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "DBC"

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Teradata	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"TERADATA": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	Netezza	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmpty": true}}}
				\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmpty": false}}}
tree_settings_for_show	Netezza	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmptyDb": true}}}
				\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmptyDb": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Netezza	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "SYSTEM"; "%.INFORMATION_SCHEMA"; "%.DEFINITION_SCHEMA"
tree_settings_for_show	Netezza	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	Greenplum	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"hideEmpty": true}}}
				\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"hideEmpty": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Greenplum	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "gp_toolkit"; "information_schema"; "pg_aoseg"; "pg_bitmapindex"; "pg_catalog"; "pg_toast"; "pg_temp_%"
tree_settings_for_show	Greenplum	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	Vertica	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"VERTICA": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"VERTICA": \{"hideEmpty": true}}}

Setting	Vendor	Description	Default value	Allowable values
				\{"sourceTreeSettingsModels": \{"VERTICA": \{"hideEmpty": false}}}
tree_settings_for_show	Vertica	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"VERTICA": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "v_internal"; "v_catalog"; "v_monitor"
tree_settings_for_show	Vertica	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"VERTICA": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	Snowflake	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmpty": true}}}

Setting	Vendor	Description	Default value	Allowable values
				\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmpty": false}}}
tree_settings_for_show	Snowflake	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmptyDb": true}}}
				\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmptyDb": false}}}
tree_settings_for_show	Snowflake	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "SNOWFLAKE"; "%.ACCOUNT_USAGE"; "%.READER_ACCOUNT_USAGE"; "%.ORGANIZATION_USAGE"; "%.INFORMATION_SCHEMA"

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Snowflake	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

6.6.3. Target-specific global settings matrix

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Oracle	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"targetTreeSettingsModels": \{"ORACLE": \{"hideEmpty": true}}}	\{"targetTreeSettingsModels": \{"ORACLE": \{"hideEmpty": true}}}
				\{"targetTreeSettingsModels": \{"ORACLE": \{"hideEmpty": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Oracle	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"ORACLE": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "ADAMS"; "ANONYMOUS"; "APEX_030000"; "APEX_030100"; "APEX_030200"; "APEX_040000"; "APEX_040100"; "APEX_040200"; "APEX_050000"; "APEX_050100"; "APEX_LISTENER"; "APEX_PUBLIC_USER"; "APEX_REST_PUBLIC_USER"; "APPQOSSYS"; "AUDSYS"; "AURORAORBUNAUTHENTICATED"; "AWR_STAGE"; "BI"; "BLAKE"; "CLARK"; "CSMIG"; "CTXSYS";

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Oracle	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"ORACLE": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	MS SQL Server	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"targetTreeSettingsModels": \{"MSSQL": \{"hideEmpty": true}}}	\{"targetTreeSettingsModels": \{"MSSQL": \{"hideEmpty": true}}}
				\{"targetTreeSettingsModels": \{"MSSQL": \{"hideEmpty": false}}}
tree_settings_for_show	MS SQL Server	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"targetTreeSettingsModels": \{"MSSQL": \{"hideEmptyDb": true}}}	\{"targetTreeSettingsModels": \{"MSSQL": \{"hideEmptyDb": true}}}
				\{"targetTreeSettingsModels": \{"MSSQL": \{"hideEmptyDb": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	MS SQL Server	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"MSSQL": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "distribution"; "master"; "model"; "msdb"; "tempdb"; "ResourceDB"; "ReportServer"; "ReportServerTempDB"; "%.INFORMATION_SCHEMA"; "%.sys"
tree_settings_for_show	MS SQL Server	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"MSSQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	PostgreSQL	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"targetTreeSettingsModels": \{"POSTGRESQL": \{"hideEmpty": true}}}	\{"targetTreeSettingsModels": \{"POSTGRESQL": \{"hideEmpty": true}}}
				\{"targetTreeSettingsModels": \{"POSTGRESQL": \{"hideEmpty": false}}}
tree_settings_for_show	PostgreSQL	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"POSTGRESQL": \{"systemSchemas": ["pg_catalog", "information_schema", "pg_temp%", "pg_toast%"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: pg_catalog; information_schema; pg_temp%; pg_toast%

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	PostgreSQL	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"POSTGRESQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	Aurora PostgreSQL	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"targetTreeSettingsModels": \{"AURORA_POSTGRESQL": \{"hideEmpty": true}}}	\{"targetTreeSettingsModels": \{"AURORA_POSTGRESQL": \{"hideEmpty": true}}}
				\{"targetTreeSettingsModels": \{"AURORA_POSTGRESQL": \{"hideEmpty": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Aurora PostgreSQL	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"AURORA_POSTGRESQL": \{"systemSchemas": ["pg_catalog", "information_schema", "pg_temp%", "pg_toast%"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: pg_catalog; information_schema; pg_temp%; pg_toast%
tree_settings_for_show	Aurora PostgreSQL	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"AURORA_POSTGRESQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	MySQL	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"targetTreeSettingsModels": \{"MYSQL": \{"hideEmpty": true}}}	\{"targetTreeSettingsModels": \{"MYSQL": \{"hideEmpty": true}}}
				\{"targetTreeSettingsModels": \{"MYSQL": \{"hideEmpty": false}}}
tree_settings_for_show	MySQL	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"MYSQL": \{"systemSchemas": ["mysql", "information_schema", "performance_schema", "sys"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: "mysql"; "information_schema"; "performance_schema"; "sys"

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	MySQL	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"MYSQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
tree_settings_for_show	Aurora MySQL	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"targetTreeSettingsModels": \{"AURORA_MYSQL": \{"hideEmpty": true}}}	\{"targetTreeSettingsModels": \{"AURORA_MYSQL": \{"hideEmpty": true}}}
				\{"targetTreeSettingsModels": \{"AURORA_MYSQL": \{"hideEmpty": false}}}

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	Aurora MySQL	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"AURORA_MYSQL": \{"systemSchemas": ["mysql", "information_schema", "performance_schema", "sys"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: "mysql"; "information_schema"; "performance_schema"; "sys"
tree_settings_for_show	Aurora MySQL	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"AURORA_MYSQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	MariaDB	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"targetTreeSettingsModels": \{"MARIA_DB": \{"hideEmpty": true}}}	\{"targetTreeSettingsModels": \{"MARIA_DB": \{"hideEmpty": true}}}
				\{"targetTreeSettingsModels": \{"MARIA_DB": \{"hideEmpty": false}}}
tree_settings_for_show	MariaDB	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"MARIA_DB": \{"systemSchemas": ["mysql", "information_schema", "performance_schema", "sys"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: "mysql"; "information_schema"; "performance_schema"; "sys"

Setting	Vendor	Description	Default value	Allowable values
tree_settings_for_show	MariaDB	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"targetTreeSettingsModels": \{"MARIA_DB": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

6.7. Project settings matrices

6.7.1. Groups of project settings matrices

6.7.1.1. Any-Any(*) settings matrix

Page	Setting	Description	Default value	Allowable values
Any-Any	tree_settings_hide_empty	Hide empty schemas	TRUE	TRUE; FALSE
Any-Any	tree_settings_system_schemas	Hide system schemas	FALSE	TRUE; FALSE
Any-Any	tree_settings_hide_empty_db	Hide empty databases	TRUE	TRUE; FALSE
Any-Any	use-extpack-utext		FALSE	TRUE; FALSE
Any-Any	schema_name_template	Schema name generation template.	DB_SCHEMA	DB_SCHEMA; SCHEMA; DB

Page	Setting	Description	Default value	Allowable values
Any-Any	generate_row_id	Generate row ID?	FALSE	TRUE; FALSE
Any-Any	convert_number_to_bigint	Convert NUMBER primary / foreign key columns to BIGINT ones.	FALSE	TRUE; FALSE

6.7.1.2. OLAP-PARTIAL(*) settings matrix

Page	Setting	Description	Default value	Allowable values
OLAP-PARTIAL	use_compression_encoding_zstd	Use compression encoding ZSTD.	TRUE	TRUE; FALSE
OLAP-PARTIAL	auto_table_compression	Apply AUTO column compression, defined by Redshift ATO feature	TRUE	TRUE; FALSE
OLAP-PARTIAL	explicit_column_compression_encoding	Use explicit column compression encoding, except columns, included in DISTKEY, SORTKEY	FALSE	TRUE; FALSE
OLAP-PARTIAL	use_compression_encoding_zstd_for_key_fields	Use compression encoding ZSTD for KEY fields	FALSE	TRUE; FALSE
OLAP-PARTIAL	sortkey_columns_limit	Sort key columns limit	7	From 0 to 2147483647
OLAP-PARTIAL	skewed_max_value	Skewed threshold value, %	0.1 (10%)	0-1 (0%--100%)
OLAP-PARTIAL	strategy	Optimization strategies	strategy_3	strategy_1; strategy_2; strategy_3

6.7.1.3. OLAP(*) settings matrix

Page	Setting	Description	Default value	Allowable values
OLAP				

Including settings of Any-Any settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

6.7.1.4. OLTP(*) settings matrix

Page	Setting	Description	Default value	Allowable values
OLTP				

Including settings of Any-Any settings matrix.

6.7.1.5. ddl-replication-OptionsKey-MSSQL(*) settings matrix

Page	Setting	Description	Default value	Allowable values
ddl-replication-OptionsKey-MSSQL	CHECK_COLUMN_EXTEND_PROPERTY	Compare column extend property.	FALSE	TRUE; FALSE
ddl-replication-OptionsKey-MSSQL	CHECK_COLUMN_COLLATION	Compare column collation.	FALSE	TRUE; FALSE
ddl-replication-OptionsKey-MSSQL	CHECK_COMPRESSION	Compare table compression.	FALSE	TRUE; FALSE
ddl-replication-OptionsKey-MSSQL	CHECK_TABLE_EXTEND_PROPERTY	Compare table extend property.	FALSE	TRUE; FALSE

6.7.1.6. ddl-replication-OptionsKey-ORACLE(*) settings matrix

Page	Setting	Description	Default value	Allowable values
ddl-replication-OptionsKey-ORACLE	COMPARE_BYTE_CHAR	Compare BYTECHAR.	FALSE	TRUE; FALSE

6.7.1.7. ddl-replication-OptionsKey-POSTGRESQL(*) settings matrix

Page	Setting	Description	Default value	Allowable values
ddl-replication-OptionsKey-POSTGRESQL	CHECK_COLUMN_COLLATION	Compare column collation.	FALSE	TRUE; FALSE

6.7.1.8. ddl-replication-OptionsKey-MYSQL(*) settings matrix

Page	Setting	Description	Default value	Allowable values
ddl-replication-OptionsKey-MYSQL	CHECK_TABLE_CHARSET_AND_COLLATION	Compare Table CharSet and Collation.	FALSE	TRUE; FALSE
ddl-replication-OptionsKey-MYSQL	CHECK_COLUMN_CHARSET_AND_COLLATION	Compare Column CharSet and Collation.	FALSE	TRUE; FALSE
ddl-replication-OptionsKey-MYSQL	COMPARE_STORAGE_ENGINE_AND_ROW_FORMAT	Compare Storage Engine and Row Format.	FALSE	TRUE; FALSE

6.7.1.9. ddl-replication-OptionsKey(*) settings matrix

Page	Setting	Description	Default value	Allowable values
ddl-replication-OptionsKey	COMPARE_COLUMN_ORDER	Compare column order.	FALSE	TRUE; FALSE
ddl-replication-OptionsKey	COMPARE_PREC_SCALE	Compare prec scale.	FALSE	TRUE; FALSE
ddl-replication-OptionsKey	ALWAYS_USE_DROP_CREATE	Always use DROP CREATE.	FALSE	TRUE; FALSE
ddl-replication-OptionsKey	COMPARE_OBJECTS_COMMENTS	Compare comments.	FALSE	TRUE; FALSE
ddl-replication-OptionsKey	PRESERVE_DATA	Preserv data.	TRUE	TRUE; FALSE
ddl-replication-OptionsKey	DROP_REMOVED_OBJECT	Drop removed objects.	TRUE	TRUE; FALSE
ddl-replication-OptionsKey	PRESERVE_NEWLY_CREATED_OBJECTS_ON_TARGET	Preserve newly created objects on target	TRUE	TRUE; FALSE

6.7.1.10. extractor(*) settings matrix

Page	Setting	Description	Default value	Allowable values
extractor	extract_lobs	Extract LOBs.	TRUE	TRUE; FALSE
extractor	compression_format	Compression format.	GZIP	NO_COMPRESSION; GZIP; BZIP2; ZSTD
extractor	sorting_strategy	Sorting strategy.	SORTING_AFTER_FAIL	SORTING_AFTER_FAIL; SORTING; NEVER
extractor	s3_settings_proxy_protocol	Protocol.	HTTPS	HTTP; HTTPS
extractor	copy_utf	Replace invalid UTF-8 character.	TRUE	TRUE; FALSE
extractor	null_value_as_string	NULL value as a string.	FALSE	TRUE; FALSE
extractor	use_blank_as_null	Use blank as null value.	TRUE	TRUE; FALSE
extractor	use_empty_as_null	Use empty as null value.	TRUE	TRUE; FALSE
extractor	truncate_columns	Truncate columns.	FALSE	TRUE; FALSE
extractor	automatic_compression	Automatic compression.	FALSE	TRUE; FALSE
extractor	check_file_before_load	Check file before load.	TRUE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
extractor	automatic_statistic_refresh	Automatic statistic refresh.	FALSE	TRUE; FALSE
extractor	keep_files_locally	Keep files locally after upload to AWS S3.	FALSE	TRUE; FALSE
extractor	apply_rtrim_to_string_columns	Apply RTRIM to string columns.	TRUE	TRUE; FALSE
extractor	ext_is_used_partitioning	Use table partitioning if it supports by DB server and table size (in Mb) is more than.	FALSE	TRUE; FALSE
extractor	s3_settings_is_used_proxy	Use proxy.	FALSE	TRUE; FALSE
extractor	s3_settings_is_used_fips	Use FIPS endpoint for AWS S3.	FALSE	TRUE; FALSE
extractor	s3_settings_endpoint_type	Type of endpoint for AWS S3	default	default; FIPS; VPCE
extractor	s3_settings_vpc_endpoint	Value of VPC endpoint		Any possible value of VPC endpoint
extractor	s3_settings_is_used_keep_files_after_copying	Keep files on AWS S3 after copying to Amazon Redshift.	FALSE	TRUE; FALSE
extractor	lob_folder	AWS S3 bucket LOBs folder.		Any S3 bucket folder name.
extractor	copy_utf_symbol	Replace invalid UTF-8 character.	?	ASCII characters.
extractor	delimiter_extractor	Delimiter character.	"	" (without double-quotes)

Page	Setting	Description	Default value	Allowable values
Only 1 ASCII symbol like (	), (,), (\t) but not NULL (\0) and Non-printing ASCII characters OR ASCII characters represented in octal format '\ddd', where 'd' is an octal digit (0–7).	extractor	max_error_count	Maximum error count.
0	From 0 to 100000.	extractor	null_value_as_string_symbol	NULL value as a string.
	Possible string values.	extractor	ext_source_temp_database_schema	Source temp schema.
	Any source schema name.	extractor	ext_out_file_size	Out file size.
104857600	1Mb-1Gb	extractor	ext_snowball_out_file_size	Snowball out file size.
104857600	1Mb-1Gb	extractor	ext_use_partitioning_size	Use table partitioning if it supports by DB server and table size (in Mb) is more than.
100	From 0 to 2147483647.	extractor	s3_settings_proxy_host	Host.
	Possible string values.	extractor	s3_settings_proxy_port	Port.
	From 1 to 5 digits.	extractor	s3_settings_proxy_username	Username.
	Possible string values.	extractor	s3_settings_proxy_password	Password.
	Possible string values.	extractor	trust_server_certificate	
		extractor	key_user_certificate	

Page	Setting	Description	Default value	Allowable values
		extractor	olap_extractor_version	AWS SCT Extractor version to use. Not released yet. Always enabled but make sense only for OLAP.

6.7.2. Common project settings matrix

Page	Setting	Description	Default value	Allowable values
Common project settings	show_severity_level_in_sql	How detailed should comments be in the converted SQL?	CRITICAL	CRITICAL; MEDIUM; LOW
Common project settings	project_environment	Current AWS service profile.		Any AWS service profile created by the CreateAWSProfile command.
Common project settings	count-limit-call-from		75	Any integer value greater than zero.
Common project settings	count-limit-call-to		5	Any integer value greater than zero.
Common project settings	agent_task_log_level		DEFAULT	
Common project settings	resolver_depth_of_call_checks_for_transaction_detection		1	Any integer value greater than zero.
Common project settings	ext_pack_version_replace	Runtime setting for extension pack.	TRUE	TRUE; FALSE
Common project settings	ext_pack_apply_comparison	Runtime setting for extension pack.	FALSE	TRUE; FALSE

Including settings of Extractor settings matrix.

Including settings of Source-specific project settings.

Including settings of Target-specific project settings.

6.7.3. Vendor-specific project settings matrices

6.7.3.1. Oracle settings matrix

Page	Setting	Description	Default value	Allowable values
ORACLE	user.selection.settings	Select statistics user. **JSON object value**. If "SPECIFIC_USER" mode is specified, then it is also necessary to specify linked attribute "checkedUsers" – JSON string array of user names.	\{"userSettingsType": "ALL_USER"}	\{"userSettingsType": "ALL_USER"}
				\{"userSettingsType": "CURRENT_USER"}
				\{ "userSettingsType": "SPECIFIC_USER", "checkedUsers": ["USER_NAME_1", "USER_NAME_2", ... "USER_NAME_N"] }

Page	Setting	Description	Default value	Allowable values
ORACLE	stat.query.history.top	TopN query from QUERIES_HISTORY table	50	From 1 to 100
ORACLE	use_custom_extensions	Use custom SQL script file extensions.	FALSE	TRUE; FALSE
ORACLE	extensions_list	Enter new file extension.	sql	Valid file extension.
ORACLE	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.2. MS SQL Server settings matrix

Page	Setting	Description	Default value	Allowable values
MSSQL	user.selection.settings	Select statistics user. **JSON object value**. If "SPECIFIC_USER" mode is specified, then it is also necessary to specify linked attribute "checkedUsers" – JSON string array of user names.	\{"userSettingsType": "ALL_USER"}	\{"userSettingsType": "ALL_USER"}
				\{"userSettingsType": "CURRENT_USER"}

Page	Setting	Description	Default value	Allowable values
				\{ "userSettingsType": "SPECIFIC_USER", "checkedUsers": ["USER_NAME_1", "USER_NAME_2", ... "USER_NAME_N"] }
MSSQL	stat.query.history.top	TopN query from QUERIES_HISTORY table	50	From 1 to 100
MSSQL	event.file.name	Event file name.		Possible string values
MSSQL	use_custom_extensions	Use custom SQL script file extensions.	FALSE	TRUE; FALSE
MSSQL	extensions_list	Enter new file extension.	sql	Valid file extension.
MSSQL	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.3. Azure SQL Database settings matrix

Page	Setting	Description	Default value	Allowable values
AZURE_MSSQL	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.4. MySQL settings matrix

Page	Setting	Description	Default value	Allowable values
MYSQL	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.5. Aurora MySQL settings matrix

Page	Setting	Description	Default value	Allowable values
AZURE_MSSQL	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.6. PostgreSQL settings matrix

Page	Setting	Description	Default value	Allowable values
POSTGRESQL	raise_exception	Add on exception raise block for migration issues with the next severity levels. **JSON object value**. If "isActive" mode is set to true, then it is also necessary to specify linked attribute "levels" – JSON string array of severity levels.	\{"isActive": false}	\{"isActive": false}
				\{ "isActive": true, "levels": ["LOW", "MEDIUM", "HIGH", "CRITICAL", "APPLY_ERROR"] }
POSTGRESQL	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.7. Aurora PostgreSQL settings matrix

Page	Setting	Description	Default value	Allowable values
AURORA_POSTGRESQL	raise_exception	Add on exception raise block for migration issues with the next severity levels. **JSON object value**. If "isActive" mode is set to true, then it is also necessary to specify linked attribute "levels" – JSON string array of severity levels.	\{"isActive": false}	\{"isActive": false}
				\{ "isActive": true, "levels": ["LOW", "MEDIUM", "HIGH", "CRITICAL", "APPLY_ERROR"] }
AURORA_POSTGRESQL	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.8. Greenplum settings matrix

Page	Setting	Description	Default value	Allowable values
GREENPLUM	user.selection.settings	Select statistics user. **JSON object value**. If "SPECIFIC_USER" mode is specified, then it is also necessary to specify linked attribute "checkedUsers" – JSON string array of user names.	\{"userSettingsType": "ALL_USER"}	\{"userSettingsType": "ALL_USER"}
				\{"userSettingsType": "CURRENT_USER"}
				\{ "userSettingsType": "SPECIFIC_USER", "checkedUsers": ["USER_NAME_1", "USER_NAME_2", ... "USER_NAME_N"] }
GREENPLUM	stat.query.history.top	TopN query from QUERIES_HISTORY table	50	From 1 to 100

Page	Setting	Description	Default value	Allowable values
GREENPLUM	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.9. Redshift settings matrix

Page	Setting	Description	Default value	Allowable values
REDSHIFT	use_aws_glue	Use AWS Glue	TRUE	TRUE; FALSE
REDSHIFT	use_aws_glue_disable	Use AWS Glue	FALSE	TRUE; FALSE
REDSHIFT	user.selection.settings	Select statistics user. **JSON object value**. If "SPECIFIC_USER" mode is specified, then it is also necessary to specify linked attribute "checkedUsers" – JSON string array of user names.	\{"userSettingsType": "ALL_USER"}	\{"userSettingsType": "ALL_USER"}
				\{"userSettingsType": "CURRENT_USER"}

Page	Setting	Description	Default value	Allowable values
				\{ "userSettingsType": "SPECIFIC_USER", "checkedUsers": ["USER_NAME_1", "USER_NAME_2", ... "USER_NAME_N"] }
REDSHIFT	stat.query.history.top	TopN query from QUERIES_HISTORY table	50	From 1 to 100
REDSHIFT	use_redshift_auto_table_tuning		FALSE	TRUE; FALSE
REDSHIFT	strategy	Optimization strategies	strategy_3	strategy_1; strategy_2; strategy_3
REDSHIFT	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.10. Teradata settings matrix

Page	Setting	Description	Default value	Allowable values
TERADATA	user.selection.settings	Select statistics user. **JSON object value**. If "SPECIFIC_USER" mode is specified, then it is also necessary to specify linked attribute "checkedUsers" – JSON string array of user names.	\{"userSettingsType": "ALL_USER"}	\{"userSettingsType": "ALL_USER"}
				\{"userSettingsType": "CURRENT_USER"}
				\{ "userSettingsType": "SPECIFIC_USER", "checkedUsers": ["USER_NAME_1", "USER_NAME_2", ... "USER_NAME_N"] }
TERADATA	stat.query.history.top	TopN query from QUERIES_HISTORY table	50	From 1 to 100
TERADATA	use_custom_extensions	Use custom SQL script file extensions.	TRUE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
TERADATA	extensions_list	Enter new file extension.	*	Valid file extension.
TERADATA	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.11. Netezza settings matrix

Page	Setting	Description	Default value	Allowable values
NETEZZA	user.selection.settings	Select statistics user. **JSON object value**. If "SPECIFIC_USER" mode is specified, then it is also necessary to specify linked attribute "checkedUsers" – JSON string array of user names.	\{"userSettingsType": "ALL_USER"}	\{"userSettingsType": "ALL_USER"}
				\{"userSettingsType": "CURRENT_USER"}

Page	Setting	Description	Default value	Allowable values
				\{ "userSettingsType": "SPECIFIC_USER", "checkedUsers": ["USER_NAME_1", "USER_NAME_2", ... "USER_NAME_N"] }
NETEZZA	stat.query.history.top	TopN query from QUERIES_HISTORY table	50	From 1 to 100
NETEZZA	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.12. Vertica settings matrix

Page	Setting	Description	Default value	Allowable values
VERTICA	user.selection.settings	Select statistics user. **JSON object value**. If "SPECIFIC_USER" mode is specified, then it is also necessary to specify linked attribute "checkedUsers" – JSON string array of user names.	\{"userSettingsType": "ALL_USER"}	\{"userSettingsType": "ALL_USER"}
				\{"userSettingsType": "CURRENT_USER"}
				\{ "userSettingsType": "SPECIFIC_USER", "checkedUsers": ["USER_NAME_1", "USER_NAME_2", ... "USER_NAME_N"] }
VERTICA	stat.query.history.top	TopN query from QUERIES_HISTORY table	50	From 1 to 100

Page	Setting	Description	Default value	Allowable values
VERTICA	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.13. IBM Db2 LUW settings matrix

Page	Setting	Description	Default value	Allowable values
DB2LUW	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.14. AWS Glue settings matrix

Page	Setting	Description	Default value	Allowable values
GLUE	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.15. AWS Glue Studio settings matrix

Page	Setting	Description	Default value	Allowable values
GLUE_STUDIO	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.16. MariaDB settings matrix

Page	Setting	Description	Default value	Allowable values
MARIA_DB	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.17. SAP ASE settings matrix

Page	Setting	Description	Default value	Allowable values
SYBASE_ASE	case_sensitivity_names	Treat source database object names as case sensitive.	FALSE	TRUE; FALSE
SYBASE_ASE	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.3.18. Snowflake settings matrix

Page	Setting	Description	Default value	Allowable values
SNOWFLAKE	user.selection.settings	Select statistics user. **JSON object value**. If "SPECIFIC_USER" mode is specified, then it is also necessary to specify linked attribute "checkedUsers" – JSON string array of user names.	\{"userSettingsType": "ALL_USER"}	\{"userSettingsType": "ALL_USER"}
				\{"userSettingsType": "CURRENT_USER"}

Page	Setting	Description	Default value	Allowable values
				\{ "userSettingsType": "SPECIFIC_USER", "checkedUsers": ["USER_NAME_1", "USER_NAME_2", ... "USER_NAME_N"] }
SNOWFLAKE	stat.query.history.top	TopN query from QUERIES_HISTORY table	50	From 1 to 100

6.7.3.19. Azure SQL Database settings matrix

Page	Setting	Description	Default value	Allowable values
AZURE_SYNAPSE	user.selection.settings	Select statistics user. **JSON object value**. If "SPECIFIC_USER" mode is specified, then it is also necessary to specify linked attribute "checkedUsers" – JSON string array of user names.	\{"userSettingsType": "ALL_USER"}	\{"userSettingsType": "ALL_USER"}

Page	Setting	Description	Default value	Allowable values
				\{"userSettingsType": "CURRENT_USER"}
				\{ "userSettingsType": "SPECIFIC_USER", "checkedUsers": ["USER_NAME_1", "USER_NAME_2", ... "USER_NAME_N"] }
AZURE_SYNAPSE	stat.query.history.top	TopN query from QUERIES_HISTORY table	50	From 1 to 100
AZURE_SYNAPSE	event.file.name	Event file name.		Possible string values
AZURE_SYNAPSE	save.sql.mode	Save SQL scripts to.	IN_ONE_FILE	IN_ONE_FILE; IN_ONE_FOLDER; IN_MANY_FOLDERS

6.7.4. Source-specific project settings matrix

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	Oracle	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"ORACLE": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"ORACLE": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"ORACLE": \{"hideEmpty": false}}}

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	Oracle	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"ORACLE": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "ADAMS"; "ANONYMOUS"; "APEX_030000"; "APEX_030100"; "APEX_030200"; "APEX_040000"; "APEX_040100"; "APEX_040200"; "APEX_050000"; "APEX_050100"; "APEX_LISTENER"; "APEX_PUBLIC_USER"; "APEX_REST_PUBLIC_USER"; "APPQOSSYS"; "AUDSYS"; "AURORAORBUNAUTHENTICATED"; "AWR_STAGE"; "BI"; "BLAKE"; "CLARK"; "CSMIG";

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	Oracle	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"ORACLE": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
Common project settings	tree_settings_for_show	MS SQL Server	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmpty": false}}}
Common project settings	tree_settings_for_show	MS SQL Server	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmptyDb": true}}}

Page	Setting	Vendor	Description	Default value	Allowable values
					\{"sourceTreeSettingsModels": \{"MSSQL": \{"hideEmptyDb": false}}}
Common project settings	tree_settings_for_show	MS SQL Server	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"MSSQL": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "distribution"; "master"; "model"; "msdb"; "tempdb"; "ResourceDB"; "ReportServer"; "ReportServerTempDB"; "%.INFORMATION_SCHEMA"; "%.sys"

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	MS SQL Server	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"MSSQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
Common project settings	tree_settings_for_show	Azure SQL Database	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmpty": false}}}
Common project settings	tree_settings_for_show	Azure SQL Database	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmptyDb": true}}}

Page	Setting	Vendor	Description	Default value	Allowable values
					\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"hideEmptyDb": false}}}
Common project settings	tree_settings_for_show	Azure SQL Database	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"systemSchemas": ["%.INFORMATION_SCHEMA", "%.sys"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: "%.INFORMATION_SCHEMA"; "%.sys"
Common project settings	tree_settings_for_show	Azure SQL Database	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"AZURE_MSSQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	IBM Db2 LUW	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"DB2LUW": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"DB2LUW": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"DB2LUW": \{"hideEmpty": false}}}
Common project settings	tree_settings_for_show	IBM Db2 LUW	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"DB2LUW": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "ERRORSCHEMA"; "NULLID"; "SQLJ"; "SYSCAT"; "SYSFUN"; "SYSIBM"; "SYSIBMADM"; "SYSIBMINTERNAL"; "SYSIBMTS"; "SYSPROC"; "SYSPUBLIC"; "SYSSTAT"; "SYSTOOLS"

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	IBM Db2 LUW	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"DB2LUW": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
Common project settings	tree_settings_for_show	SAP ASE	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmpty": false}}}
Common project settings	tree_settings_for_show	SAP ASE	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmptyDb": true}}}

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	SAP ASE	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmptyDb": true}}}
					\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"hideEmptyDb": false}}}

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	SAP ASE	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"systemSchemas": ["%.sys", "%.INFORMATION_SCHEMA", "%.public", "%.sa_role", "%.sso_role", "%.oper_role", "%.sybase_ts_role", "%.navigator_role", "%.replication_role", "%.dtm_tm_role", "%.ha_role", "%.mon_role", "%.js_admin_role", "%.messaging_role", "%.js_client_role", "%.js_user_role", "%.webservices_role", "%.keycustodian_role"	A set of schemas, wrapped in **JSON array**, from the list of available ones: "master"; "model"; "sybsystemprocs"; "sybsystemdb"; "tempdb"; "sybsecurity"; "pubs2"; "pubs3"; "dbccdb"; "sybmgmtdb"; "%.sys"; "%.INFORMATION_SCHEMA"; "%.public"; "%.sa_role"; "%.sso_role"; "%.oper_role"; "%.sybase_ts_role"; "%.navigator_role"; "%.replication_role"; "%.dtm_tm_role"; "%.ha_role";

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	SAP ASE	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"SYBASE_ASE": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
Common project settings Common project settings	tree_settings_for_show	PostgreSQL	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"hideEmpty": false}}}

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	PostgreSQL	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"systemSchemas": ["pg_catalog", "information_schema", "pg_temp%", "pg_toast%"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: pg_catalog; information_schema; pg_temp%; pg_toast%
Common project settings	tree_settings_for_show	PostgreSQL	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"POSTGRESQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	MySQL	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"MYSQL": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"MYSQL": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"MYSQL": \{"hideEmpty": false}}}
Common project settings	tree_settings_for_show	MySQL	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"MYSQL": \{"systemSchemas": ["mysql", "information_schema", "performance_schema", "sys"] } } }	A set of schemas, wrapped in **JSON array**, from the list of available ones: "mysql"; "information_schema"; "performance_schema"; "sys"

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	MySQL	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"MYSQL": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
Common project settings	tree_settings_for_show	Teradata	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"TERADATA": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"TERADATA": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"TERADATA": \{"hideEmpty": false}}}

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	Teradata	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"TERADATA": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "DBC"
Common project settings	tree_settings_for_show	Teradata	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"TERADATA": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
Common project settings	tree_settings_for_show	Netezza	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmpty": true}}}

Page	Setting	Vendor	Description	Default value	Allowable values
					\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmpty": false}}}
Common project settings	tree_settings_for_show	Netezza	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmptyDb": true}}}
					\{"sourceTreeSettingsModels": \{"NETEZZA": \{"hideEmptyDb": false}}}
Common project settings	tree_settings_for_show	Netezza	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "SYSTEM"; "%.INFORMATION_SCHEMA"; "%.DEFINITION_SCHEMA"

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	Netezza	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"NETEZZA": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
Common project settings	tree_settings_for_show	Greenplum	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"hideEmpty": false}}}

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	Greenplum	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "gp_toolkit"; "information_schema"; "pg_aoseg"; "pg_bitmapindex"; "pg_catalog"; "pg_toast"; "pg_temp_%"
Common project settings	tree_settings_for_show	Greenplum	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"GREENPLUM": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	Vertica	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"VERTICA": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"VERTICA": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"VERTICA": \{"hideEmpty": false}}}
Common project settings	tree_settings_for_show	Vertica	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"VERTICA": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "v_internal"; "v_catalog"; "v_monitor"

Page	Setting	Vendor	Description	Default value	Allowable values
Common project settings	tree_settings_for_show	Vertica	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"VERTICA": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.
Common project settings	tree_settings_for_show	Snowflake	Hide empty schemas. **JSON object value**. Hide schemas that do not contain any objects.	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmpty": true}}}	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmpty": true}}}
					\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmpty": false}}}
Common project settings	tree_settings_for_show	Snowflake	Hide empty databases. **JSON object value**. Hide databases that do not contain any objects.	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmptyDb": true}}}	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmptyDb": true}}}

Page	Setting	Vendor	Description	Default value	Allowable values
					\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"hideEmptyDb": false}}}
Common project settings	tree_settings_for_show	Snowflake	Hide system schemas. **JSON object value**. List of system schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"systemSchemas": []}}}	A set of schemas, wrapped in **JSON array**, from the list of available ones: "SNOWFLAKE"; "%.ACCOUNT_USAGE"; "%.READER_ACCOUNT_USAGE"; "%.ORGANIZATION_USAGE"; "%.INFORMATION_SCHEMA"
Common project settings	tree_settings_for_show	Snowflake	Hide user-defined schemas. **JSON object value**. List of database schemas to hide in an object tree. The "%" wildcard is used to mask the undesirable or unknown parts of schema names.	\{"sourceTreeSettingsModels": \{"SNOWFLAKE": \{"userDefinedSchemas": []}}}	A set of existing database schemas, wrapped in **JSON array**.

6.7.5. Target-specific project settings matrix

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	Oracle	Hide schemas that do not contain any objects (empty schemas). JSON object.	<pre>{
				
				"targetTreeSettingsModels": {
				"ORACLE": {
				
				"hideEmpty": true
				}
				}
				}</pre>
					<pre>{
					
					"targetTreeSettingsModels": {
					"ORACLE": {
					
					"hideEmpty": true
					}
					}
					}</pre>
					<pre>{
					
					"targetTreeSettingsModels": {
					"ORACLE": {
					
					"hideEmpty": false
					}
					}
					}</pre>

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	Oracle	Hide system schemas. JSON object.
			
			List of system schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"ORACLE": {
				"systemSchemas": [
				"ADAMS",
				"ANONYMOUS",
				"APEX_030000",
				"APEX_030100",
				"APEX_030200",
				"APEX_040000",
				"APEX_040100",
				"APEX_040200",
				"APEX_050000",
				"APEX_050100",
				"APEX_LISTENER",
				"APEX_PUBLIC_USER",
				"APEX_REST_PUBLIC_USER",
				"APPQOSSYS",
				"AUDSYS",
				"AURORAORBUNAUTHENTICATED",
				"AWR_STAGE",
				"BI",
				"BLAKE",
				"CLARK",
				"CSMIG",
				"CTXSYS",
				"DBSNMP",
				"DEMO",
				"DIP",
				"DMSYS",
				"DSSYS",
				"DVF",
				"DVSYS",</pre>
					A set of schemas wrapped in a JSON array, from the list of available ones:
					
					"ADAMS";
					"ANONYMOUS";
					"APEX_030000";
					"APEX_030100";
					"APEX_030200";
					"APEX_040000";
					"APEX_040100";
					"APEX_040200";
					"APEX_050000";
					"APEX_050100";
					"APEX_LISTENER";
					"APEX_PUBLIC_USER";
					"APEX_REST_PUBLIC_USER";
					"APPQOSSYS";
					"AUDSYS";
					"AURORAORBUNAUTHENTICATED";
					"AWR_STAGE";
					"BI";
					"BLAKE";
					"CLARK";
					"CSMIG";
					"CTXSYS";
					"DBSNMP";
					"DEMO";
					"DIP";
					"DMSYS";
					"DSSYS";
					"DVF";
					"DVSYS";
					"EXFSYS";
					"FLOWS_030000";
					"FLOWS_FILES";
					"GSMADMIN_INTERNAL";
					"GSMCATUSER";
					"GSMUSER";
					"HR";
					"IX";
					"JONES";

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	Oracle	Hide user-defined schemas. JSON object.
			
			List of database schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				
				"targetTreeSettingsModels": {
				"ORACLE": {
				
				"userDefinedSchemas": []
				}
				}
				}</pre>
					A set of database schemas wrapped in a JSON array.

Common project settings	tree_settings_for_show	MS SQL Server	Hide schemas that do not contain any objects (empty schemas). JSON object.	<pre>{
				
				"targetTreeSettingsModels": {
				"MSSQL": {
				
				"hideEmpty": true
				}
				}
				}</pre>
					<pre>{
					
					"targetTreeSettingsModels": {
					"MSSQL": {
					
					"hideEmpty": true
					}
					}
					}</pre>
					<pre>{
					
					"targetTreeSettingsModels": {
					"MSSQL": {
					
					"hideEmpty": false
					}
					}
					}</pre>

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	MS SQL Server	Hide system schemas. JSON object.
			
			List of system schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"MSSQL": {
				"systemSchemas": [
				"distribution",
				"master",
				"model",
				"msdb",
				"tempdb",
				"ResourceDB",
				"ReportServer",
				"ReportServerTempDB",
				"%.INFORMATION_SCHEMA",
				"%.sys"
				]
				}
				}
				}</pre>
					A set of schemas wrapped in a JSON array, from the list of available ones:
					
					"distribution";
					"master";
					"model";
					"msdb";
					"tempdb";
					"ResourceDB";
					"ReportServer";
					"ReportServerTempDB";
					"%.INFORMATION_SCHEMA";
					"%.sys"

Common project settings	tree_settings_for_show	MS SQL Server	Hide user-defined schemas. JSON object.
			
			List of database schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"MSSQL": {
				"userDefinedSchemas": []
				}
				}
				}</pre>
					A set of database schemas wrapped in a JSON array.

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	PostgreSQL	Hide schemas that do not contain any objects (empty schemas). JSON object.	<pre>{
				"targetTreeSettingsModels": {
				"POSTGRESQL": {
				"hideEmpty": true
				}
				}
				}</pre>
					<pre>{
					"targetTreeSettingsModels": {
					"POSTGRESQL": {
					"hideEmpty": true
					}
					}
					}</pre>
					<pre>{
					"targetTreeSettingsModels": {
					"POSTGRESQL": {
					"hideEmpty": false
					}
					}
					}</pre>

Common project settings	tree_settings_for_show	PostgreSQL	Hide system schemas. JSON object.
			
			List of system schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"POSTGRESQL": {
				"systemSchemas": [
				"pg_catalog",
				"information_schema",
				"pg_temp%",
				"pg_toast%"
				]
				}
				}
				}</pre>
					A set of schemas wrapped in a JSON array, from the list of available ones:
					
					"pg_catalog"; "information_schema"; "pg_temp%"; "pg_toast%"

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	PostgreSQL	Hide user-defined schemas. JSON object.
			
			List of database schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"POSTGRESQL": {
				"userDefinedSchemas": []
				}
				}
				}</pre>
					A set of database schemas wrapped in a JSON array.

Common project settings	tree_settings_for_show	Aurora PostgreSQL	Hide schemas that do not contain any objects (empty schemas). JSON object.	<pre>{
				"targetTreeSettingsModels": {
				"AURORA_POSTGRESQL": {
				"hideEmpty": true
				}
				}
				}</pre>
					<pre>{
					"targetTreeSettingsModels": {
					"AURORA_POSTGRESQL": {
					"hideEmpty": true
					}
					}
					}</pre>
					<pre>{
					"targetTreeSettingsModels": {
					"AURORA_POSTGRESQL": {
					"hideEmpty": false
					}
					}
					}</pre>

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	Aurora PostgreSQL	Hide system schemas. JSON object.
			
			List of system schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"AURORA_POSTGRESQL": {
				"systemSchemas": [
				"pg_catalog",
				"information_schema",
				"pg_temp%",
				"pg_toast%"
				]
				}
				}
				}</pre>
					A set of schemas wrapped in a JSON array, from the list of available ones:
					
					"pg_catalog";
					"information_schema";
					"pg_temp%";
					"pg_toast%"

Common project settings	tree_settings_for_show	Aurora PostgreSQL	Hide user-defined schemas. JSON object.
			
			List of database schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"AURORA_POSTGRESQL": {
				"userDefinedSchemas": []
				}
				}
				}</pre>
					A set of database schemas wrapped in a JSON array.

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	MySQL	Hide schemas that do not contain any objects (empty schemas). JSON object.	<pre>{
				
				"targetTreeSettingsModels": {
				"MYSQL": {
				
				"hideEmpty": true
				}
				}
				}</pre>
					<pre>{
					
					"targetTreeSettingsModels": {
					"MYSQL": {
					
					"hideEmpty": true
					}
					}
					}</pre>
					<pre>{
					
					"targetTreeSettingsModels": {
					"MYSQL": {
					
					"hideEmpty": false
					}
					}
					}</pre>

Common project settings	tree_settings_for_show	MySQL	Hide system schemas. JSON object.
			
			List of system schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				
				"targetTreeSettingsModels": {
				"MYSQL": {
				
				"systemSchemas": [
				"mysql",
				
				"information_schema",
				
				"information_schema",
				"sys"
				]
				}
				}
				}</pre>
					A set of schemas wrapped in a JSON array, from the list of available ones:
					
					"mysql";
					"information_schema";
					"information_schema";
					"sys"

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	MySQL	Hide user-defined schemas. JSON object.
			
			List of database schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				
				"targetTreeSettingsModels": {
				"MYSQL": {
				
				"userDefinedSchemas": []
				}
				}
				}</pre>
					A set of database schemas wrapped in a JSON array.

Common project settings	tree_settings_for_show	Aurora MySQL	Hide schemas that do not contain any objects (empty schemas). JSON object.	<pre>{
				
				"targetTreeSettingsModels": {
				
				"AURORA_MYSQL": {
				
				"hideEmpty": true
				}
				}
				}</pre>
					<pre>{
					
					"targetTreeSettingsModels": {
					
					"AURORA_MYSQL": {
					
					"hideEmpty": true
					}
					}
					}</pre>
					<pre>{
					
					"targetTreeSettingsModels": {
					
					"AURORA_MYSQL": {
					
					"hideEmpty": false
					}
					}
					}</pre>

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	Aurora MySQL	Hide system schemas. JSON object.
			
			List of system schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"AURORA_MYSQL": {
				"systemSchemas": [
				"mysql",
				"information_schema",
				"information_schema",
				"sys"
				]
				}
				}
				}</pre>
					A set of schemas wrapped in a JSON array, from the list of available ones:
					
					"mysql";
					"information_schema";
					"information_schema";
					"sys"

Common project settings	tree_settings_for_show	Aurora MySQL	Hide user-defined schemas. JSON object.
			
			List of database schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"AURORA_MYSQL": {
				"userDefinedSchemas": []
				}
				}
				}</pre>
					A set of database schemas wrapped in a JSON array.

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	MariaDB	Hide schemas that do not contain any objects (empty schemas). JSON object.	<pre>{
				
				"targetTreeSettingsModels": {
				"MARIA_DB":
				{
				
				"hideEmpty":
				true
				}
				}
				}</pre>
					<pre>{
					
					"targetTreeSettingsModels": {
					"MARIA_DB":
					{
					
					"hideEmpty":
					true
					}
					}
					}</pre>
					
					<pre>{
					
					"targetTreeSettingsModels": {
					"MARIA_DB":
					{
					
					"hideEmpty":
					false
					}
					}
					}</pre>

Common project settings	tree_settings_for_show	MariaDB	Hide system schemas. JSON object.
			
			List of system schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				
				"targetTreeSettingsModels": {
				"MARIA_DB":
				{
				
				"systemSchemas":
				[
				"mysql",
				
				"information_schema",
				
				"information_schema",
				"sys"
				]
				}
				}
				}</pre>
					A set of schemas wrapped in a JSON array, from the list of available ones:
					
					"mysql";
					"information_schema";
					"information_schema";
					"sys"

Page	Setting	Vendor	Description	Default value	Allowable values

Common project settings	tree_settings_for_show	MariaDB	Hide user-defined schemas. JSON object.
			
			List of database schemas to hide in the object tree.
			
			The "%" wildcard is used to mask the undesirable or unknown parts of schema names.
				<pre>{
				"targetTreeSettingsModels": {
				"MARIA_DB": {
				"userDefinedSchemas": []
				}
				}
				}</pre>
					A set of database schemas wrapped in a JSON array.

6.7.6. STATISTIC settings matrix

Page	Setting	Description	Default value	Allowable values
STATISTIC				

Including settings of OLAP settings matrix.

6.7.7. AppConversion settings matrix

Page	Setting	Description	Default value	Allowable values
AppConversion	recursion-limit-call-from	Method call stack analysis depth limit.	9	From 0 to 9
AppConversion	recursion-limit-call-to	Limit on the number of the method calls for analysis.	9	From 0 to 9
AppConversion	recursion-limit-initialization	Class initialization stack analysis depth limit.	9	From 0 to 9
AppConversion	number-of-states-limit		1000	

6.8. Pair-specific project settings matrices

6.8.1. Appendix A. Oracle to Oracle matrix

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_ORACLE	from_date	From date.	1900-01-01	DATE
ORACLE_TO_ORACLE	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-ORACLE settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.2. Appendix B. Oracle to MS SQL Server matrix

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_MSSQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-ORACLE settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.3. Appendix C. Oracle to MySQL matrix

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_MYSQL	to_char_function_oracle	Function TO_CHAR does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE
ORACLE_TO_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_SENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
ORACLE_TO_MYSQL	to_date_function_oracle	Function TO_DATE does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_MYSQL	to_number	Function TO_NUMBER does not use Oracle specific formatting settings.	FALSE	TRUE; FALSE
ORACLE_TO_MYSQL	to_time_zone	Time zone on the client side matches the time zone on server.	FALSE	TRUE; FALSE
ORACLE_TO_MYSQL	mariadb_conversion_destination	MariaDB as an SCT conversion destination.	NATIVE	NATIVE; ORACLE_COMPATIBILITY_MODE
ORACLE_TO_MYSQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-ORACLE settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.4. Appendix D. Oracle to Aurora MySQL matrix

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_AURORA_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
ORACLE_TO_AURORA_MYSQL	to_char_function_oracle	Function TO_CHAR does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_MYSQL	to_date_function_oracle	Function TO_DATE does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_MYSQL	to_number	Function TO_NUMBER does not use Oracle specific formatting settings.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_MYSQL	to_time_zone	Time zone on the client side matches the time zone on server.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_AURORA_MYSQL	mariadb_conversion_destination	MariaDB as an SCT conversion destination.	NATIVE	NATIVE; ORACLE_COMPATIBILITY_MODE
ORACLE_TO_AURORA_MYSQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-ORACLE settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.5. Appendix E. Oracle to PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_POSTGRESQL	materialized_view_convert	Materialized View conversion as.	TABLE	TABLE; MATERIALIZED_VIEW
ORACLE_TO_POSTGRESQL	to_char_function_oracle	Function TO_CHAR does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	to_date_function_oracle	Function TO_DATE does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	to_number	Function TO_NUMBER does not use Oracle specific formatting settings.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	to_time_zone	Time zone on the client side matches the time zone on server.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	alert_sequence_restart	Populate converted sequences with the last value generated on the source side.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	ignore_disabled_triggers_constraints	Ignore disabled triggers and constraints.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	convert_procedures_to_function	Convert procedures to functions.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_POSTGRESQL	bitand_builtin_function_oracle	Built-in Function BITAND.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	cosh_builtin_function_oracle	Built-in Function COSH.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	sinh_builtin_function_oracle	Built-in Function SINH.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	add_months_builtin_function_oracle	Built-in Function ADD_MONTHS.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	dbms_assert_builtin_function_oracle	Built-in Package DBMS_ASSERT.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	dbms_output_builtin_function_oracle	Built-in Package DBMS_OUTPUT.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	dbms_random_builtin_function_oracle	Built-in Package DBMS_RANDOM.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	dbtimezone_builtin_function_oracle	Built-in Function DBTIMEZONE.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	decode_builtin_function_oracle	Built-in Function DECODE.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	dump_builtin_function_oracle	Built-in Function DUMP.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	instr_builtin_function_oracle	Built-in Function INSTR.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	instrb_builtin_function_oracle	Built-in Function INSTRB.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	last_day_builtin_function_oracle	Built-in Function LAST_DAY.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	length_builtin_function_oracle	Built-in Function LENGTH.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	lengthb_builtin_function_oracle	Built-in Function LENGTHB.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	listagg_builtin_function_oracle	Built-in Function LISTAGG.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	lnnvl_builtin_function_oracle	Built-in Function LNNVL.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_POSTGRESQL	lpad_builtin_function_oracle	Built-in Function LPAD.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	ltrim_builtin_function_oracle	Built-in Function LTRIM.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	median_builtin_function_oracle	Built-in Function MEDIAN.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	months_between_builtin_function_oracle	Built-in Function MONTHS_BETWEEN.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	nanvl_builtin_function_oracle	Built-in Function NANVL.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	next_day_builtin_function_oracle	Built-in Function NEXT_DAY.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	nlssort_builtin_function_oracle	Built-in Function NLSSORT.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	nvl2_builtin_function_oracle	Built-in Function NVL2.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	nvl_builtin_function_oracle	Built-in Function NVL.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	round_date_fmt_builtin_function_oracle	Built-in Function ROUND(date[,fmt]).	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	round_number_builtin_function_oracle	Built-in Function ROUND(number).	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	rpad_builtin_function_oracle	Built-in Function RPAD.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	rtrim_builtin_function_oracle	Built-in Function RTRIM.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	sessiontimezone_builtin_function_oracle	Built-in Function SESSIONTIMEZONE.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	substr_builtin_function_oracle	Built-in Function SUBSTR.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	substrb_builtin_function_oracle	Built-in Function SUBSTRB.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	sysdate_builtin_function_oracle	Built-in Function SYSDATE.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_POSTGRESQL	tanh_builtin_function_oracle	Built-in Function TANH.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	to_char_datetime_builtin_function_oracle	Built-in Function TO_CHAR(datetime).	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	to_char_number_builtin_function_oracle	Built-in Function TO_CHAR(number).	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	to_date_builtin_function_oracle	Built-in Function TO_DATE.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	to_multi_byte_builtin_function_oracle	Built-in Function TO_MULTI_BYTE.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	to_number_builtin_function_oracle	Built-in Function TO_NUMBER.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	to_single_byte_builtin_function_oracle	Built-in Function TO_SINGLE_BYTE.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	trunc_date_builtin_function_oracle	Built-in Function TRUNC(date).	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	trunc_number_builtin_function_oracle	Built-in Function TRUNC(number).	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	convert_number_to_numeric		FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	convert_varchar_routing		FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	convert_output_as_dynamic	Convert the dynamic SQL that created in called routines.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	convert_sys_constraint_names_using_original	Convert the system generated constraint names using the source original names.	FALSE	TRUE; FALSE
ORACLE_TO_POSTGRESQL	use_default_time_zone_for_sysdate_emulation	Use the Time Zone for SYSDATE emulation.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_POSTGRESQL	default_time_zone_for_sysdate_emulation	Set default Time Zone for SYSDATE emulation.	UTC	Can be listed from pg_timezone_names.name (PostgreSQL metadata dictionary table). **CLI interface does not validate the correctness of passed time zone.**
ORACLE_TO_POSTGRESQL	target_engine_version	Major version of the target database engine to use for conversion. For example, for PostgreSQL 15.4 the setting value will be 15.	The latest major version of the target database engine supported by the current release of AWS SCT.	Any major version of the target database supported by AWS SCT.

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-ORACLE settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.6. Appendix F. Oracle to Aurora PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_AURORA_POSTGRESQL	materialized_view_convert	Materialized View conversion as.	TABLE	TABLE; MATERIALIZED_VIEW
ORACLE_TO_AURORA_POSTGRESQL	to_char_function_oracle	Function TO_CHAR does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_AURORA_POSTGRESQL	to_date_function_oracle	Function TO_DATE does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	to_number	Function TO_NUMBER does not use Oracle specific formatting settings.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	to_time_zone	Time zone on the client side matches the time zone on server.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	alert_sequence_restart	Populate converted sequences with the last value generated on the source side.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	ignore_disabled_triggers_constraints	Ignore disabled triggers and constraints.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	convert_procedures_to_function	Convert procedures to functions.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	bitand_builtin_function_oracle	Built-in Function BITAND.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	cosh_builtin_function_oracle	Built-in Function COSH.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	sinh_builtin_function_oracle	Built-in Function SINH.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	add_months_builtin_function_oracle	Built-in Function ADD_MONTHS.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	dbms_assert_builtin_function_oracle	Built-in Package DBMS_ASSERT.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	dbms_output_builtin_function_oracle	Built-in Package DBMS_OUTPUT.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	dbms_random_builtin_function_oracle	Built-in Package DBMS_RANDOM.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	dbtimezone_builtin_function_oracle	Built-in Function DBTIMEZONE.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_AURORA_POSTGRESQL	decode_builtin_function_oracle	Built-in Function DECODE.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	dump_builtin_function_oracle	Built-in Function DUMP.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	instr_builtin_function_oracle	Built-in Function INSTR.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	instrb_builtin_function_oracle	Built-in Function INSTRB.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	last_day_builtin_function_oracle	Built-in Function LAST_DAY.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	length_builtin_function_oracle	Built-in Function LENGTH.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	lengthb_builtin_function_oracle	Built-in Function LENGTHB.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	listagg_builtin_function_oracle	Built-in Function LISTAGG.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	lnnvl_builtin_function_oracle	Built-in Function LNNVL.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	lpad_builtin_function_oracle	Built-in Function LPAD.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	ltrim_builtin_function_oracle	Built-in Function LTRIM.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	median_builtin_function_oracle	Built-in Function MEDIAN.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	months_between_builtin_function_oracle	Built-in Function MONTHS_BETWEEN.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	nanvl_builtin_function_oracle	Built-in Function NANVL.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	next_day_builtin_function_oracle	Built-in Function NEXT_DAY.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	nlssort_builtin_function_oracle	Built-in Function NLSSORT.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	nvl2_builtin_function_oracle	Built-in Function NVL2.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	nvl_builtin_function_oracle	Built-in Function NVL.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_AURORA_POSTGRESQL	round_date_fmt_builtin_function_oracle	Built-in Function ROUND(date[,fmt]).	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	round_number_builtin_function_oracle	Built-in Function ROUND(number).	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	rpad_builtin_function_oracle	Built-in Function RPAD.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	rtrim_builtin_function_oracle	Built-in Function RTRIM.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	sessiontimezone_builtin_function_oracle	Built-in Function SESSIONTIMEZONE.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	substr_builtin_function_oracle	Built-in Function SUBSTR.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	substrb_builtin_function_oracle	Built-in Function SUBSTRB.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	sysdate_builtin_function_oracle	Built-in Function SYSDATE.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	tanh_builtin_function_oracle	Built-in Function TANH.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	to_char_datetime_builtin_function_oracle	Built-in Function TO_CHAR(datetime).	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	to_char_number_builtin_function_oracle	Built-in Function TO_CHAR(number).	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	to_date_builtin_function_oracle	Built-in Function TO_DATE.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	to_multi_byte_builtin_function_oracle	Built-in Function TO_MULTI_BYTE.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	to_number_builtin_function_oracle	Built-in Function TO_NUMBER.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	to_single_byte_builtin_function_oracle	Built-in Function TO_SINGLE_BYTE.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_AURORA_POSTGRESQL	trunc_date_builtin_function_oracle	Built-in Function TRUNC(date).	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	trunc_number_builtin_function_oracle	Built-in Function TRUNC(number).	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	convert_number_to_numeric		FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	convert_varchar_routing		FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	convert_output_as_dynamic	Convert the dynamic SQL that created in called routines.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	convert_sys_constraint_names_using_original	Convert the system generated constraint names using the source original names.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	use_default_time_zone_for_sysdate_emulation	Use the Time Zone for SYSDATE emulation.	FALSE	TRUE; FALSE
ORACLE_TO_AURORA_POSTGRESQL	default_time_zone_for_sysdate_emulation	Set default Time Zone for SYSDATE emulation.	UTC	Can be listed from pg_timezone_names.name (PostgreSQL metadata dictionary table). **CLI interface does not validate the correctness of passed time zone.**

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_AURORA_POSTGRESQL	target_engine_version	Major version of the target database engine to use for conversion. For example, for PostgreSQL 15.4 the setting value will be 15.	The latest major version of the target database engine supported by the current release of AWS SCT.	Any major version of the target database supported by AWS SCT.

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-ORACLE settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.7. Appendix G. Oracle to MariaDB matrix

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_MARIA_DB	mariadb_conversion_destination	MariaDB as an SCT conversion destination.	ORACLE_COMPATIBILITY_MODE	NATIVE; ORACLE_COMPATIBILITY_MODE
ORACLE_TO_MARIA_DB	mariadb_conversion_destination_disable	MariaDB as an SCT conversion destination.	FALSE	TRUE; FALSE
ORACLE_TO_MARIA_DB	to_number	Function TO_NUMBER does not use Oracle specific formatting settings.	FALSE	TRUE; FALSE
ORACLE_TO_MARIA_DB	to_char_function_oracle	Function TO_CHAR does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE
ORACLE_TO_MARIA_DB	to_date_function_oracle	Function TO_DATE does not use Oracle specific formatting strings.	FALSE	TRUE; FALSE
ORACLE_TO_MARIA_DB	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_MARIA_DB	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-ORACLE settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.8. Appendix H. Oracle to Redshift matrix

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_REDSHIFT	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
ORACLE_TO_REDSHIFT	rules_list	Rules list.	0,1,2,3,4	
ORACLE_TO_REDSHIFT	rule0strategy	Strategy.	1,3	
ORACLE_TO_REDSHIFT	rule1strategy	Strategy.	2,3	
ORACLE_TO_REDSHIFT	rule2strategy	Strategy.	2,3	
ORACLE_TO_REDSHIFT	rule3strategy	Strategy.	2,3	
ORACLE_TO_REDSHIFT	rule4strategy	Strategy.	2,3	
ORACLE_TO_REDSHIFT	datetime_formats_equal	Datetime formats in Amazon Redshift and Oracle are equal.	FALSE	TRUE; FALSE
ORACLE_TO_REDSHIFT	lead_lag_functions_equal	Oracle LEAD/LAG analytic functions with default value and RESPECT NULLS clause are equal to them in Amazon Redshift.	FALSE	TRUE; FALSE
ORACLE_TO_REDSHIFT	number_formats_equal	Number format model in Amazon Redshift and Oracle are equal.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_REDSHIFT	rule0	Choose Distribution Key and Sort Keys using metadata (no stats used).	TRUE	TRUE; FALSE
ORACLE_TO_REDSHIFT	rule1	Choose fact table and appropriate dimension for collocation.	TRUE	TRUE; FALSE
ORACLE_TO_REDSHIFT	rule2	Analyze cardinality of indexes' columns.	TRUE	TRUE; FALSE
ORACLE_TO_REDSHIFT	rule3	Find the most used tables and columns from QueryLog table.	TRUE	TRUE; FALSE
ORACLE_TO_REDSHIFT	rule4	Find "small" tables.	TRUE	TRUE; FALSE
ORACLE_TO_REDSHIFT	rule0weightDK	Distribution Key Value.	50	From 0 to 100.
ORACLE_TO_REDSHIFT	rule0weightSK	Sort Key Value.	50	From 0 to 100.
ORACLE_TO_REDSHIFT	rule1weightDK	Distribution Key Value.	80	From 0 to 100.
ORACLE_TO_REDSHIFT	rule1weightSK	Sort Key Value.	40	From 0 to 100.
ORACLE_TO_REDSHIFT	rule2weightDK	Distribution Key Value.	90	From 0 to 100.
ORACLE_TO_REDSHIFT	rule2weightSK	Sort Key Value.	70	From 0 to 100.
ORACLE_TO_REDSHIFT	rule3weightDK	Distribution Key Value.	60	From 0 to 100.
ORACLE_TO_REDSHIFT	rule3weightSK	Sort Key Value.	80	From 0 to 100.
ORACLE_TO_REDSHIFT	rule4weightDK	Distribution Key Value.	90	From 0 to 100.
ORACLE_TO_REDSHIFT	rule4weightSK	Sort Key Value.	0	From 0 to 100.
ORACLE_TO_REDSHIFT	redshift_tables_number	Maximum number of tables for target Amazon Redshift cluster.	AUTO	VALUE_100000; VALUE_9900
ORACLE_TO_REDSHIFT	rule0minTableSize	Min table Row Count.	0	From 0 to 2147483647.

Page	Setting	Description	Default value	Allowable values
ORACLE_TO_REDSHIFT	rule0maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
ORACLE_TO_REDSHIFT	rule1minTableSize	Min table Row Count.	0	From 0 to 2147483647.
ORACLE_TO_REDSHIFT	rule1maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
ORACLE_TO_REDSHIFT	rule2minTableSize	Min table Row Count.	0	From 0 to 2147483647.
ORACLE_TO_REDSHIFT	rule2maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
ORACLE_TO_REDSHIFT	rule3minTableSize	Min table Row Count.	0	From 0 to 2147483647.
ORACLE_TO_REDSHIFT	rule3maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
ORACLE_TO_REDSHIFT	rule4minTableSize	Min table Row Count.	0	From 0 to 2147483647.
ORACLE_TO_REDSHIFT	rule4maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
ORACLE_TO_REDSHIFT	partition_number_limit	Partition number limit.	368	From 0 to 2147483647.

Including settings of OLAP settings matrix.

6.8.9. Appendix I. MS SQL Server to MS SQL Server matrix

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_MSSQL	from_date	From date.	1900-01-01	DATE
MSSQL_TO_MSSQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-MSSQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.10. Appendix J. MS SQL Server to MySQL matrix

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_SENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
MSSQL_TO_MYSQL	open_datasets_procedures	Create additional procedures for handling open datasets.	FALSE	TRUE; FALSE
MSSQL_TO_MYSQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-MSSQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.11. Appendix K. MS SQL Server to Aurora MySQL matrix

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_AURORA_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
MSSQL_TO_AURORA_MYSQL	open_datasets_procedures	Create additional procedures for handling open datasets.	FALSE	TRUE; FALSE
MSSQL_TO_AURORA_MYSQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-MSSQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.12. Appendix L. MS SQL Server to PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_POSTGRESQL	avoid_casting_to_lower_case	Avoid casting to lowercase for case sensitive operations.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_POSTGRESQL	keep_original_parameter_manes	Keep original parameter names.	FALSE	TRUE; FALSE
MSSQL_TO_POSTGRESQL	open_datasets_procedures	Create additional procedures for handling open datasets.	FALSE	TRUE; FALSE
MSSQL_TO_POSTGRESQL	unique_index_generation	Generate unique names for indexes.	TRUE	TRUE; FALSE
MSSQL_TO_POSTGRESQL	convert_procedures_to_function	Convert procedures to functions.	FALSE	TRUE; FALSE
MSSQL_TO_POSTGRESQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
MSSQL_TO_POSTGRESQL	generate_table_valued_function	Generate table-valued function if possible.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-MSSQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.13. Appendix M. MS SQL Server to Aurora PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_AURORA_POSTGRESQL	avoid_casting_to_lower_case	Avoid casting to lowercase for case sensitive operations.	FALSE	TRUE; FALSE
MSSQL_TO_AURORA_POSTGRESQL	keep_original_parameter_manes	Keep original parameter names.	FALSE	TRUE; FALSE
MSSQL_TO_AURORA_POSTGRESQL	open_datasets_procedures	Create additional procedures for handling open datasets.	FALSE	TRUE; FALSE
MSSQL_TO_AURORA_POSTGRESQL	unique_index_generation	Generate unique names for indexes.	TRUE	TRUE; FALSE
MSSQL_TO_AURORA_POSTGRESQL	convert_procedures_to_function	Convert procedures to functions.	FALSE	TRUE; FALSE
MSSQL_TO_AURORA_POSTGRESQL	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
MSSQL_TO_AURORA_POSTGRESQL	generate_table_valued_function	Generate table-valued function if possible.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-MSSQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.14. Appendix N. MS SQL Server to MariaDB matrix

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_MARIA_DB	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
MSSQL_TO_MARIA_DB	mariadb_conversion_destination	MariaDB as an SCT conversion destination.	NATIVE	NATIVE; ORACLE_COMPATIBILITY_MODE
MSSQL_TO_MARIA_DB	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

Including settings of OLAP-PARTIAL settings matrix.

Including settings of ddl-replication-OptionKey-MSSQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.15. Appendix O. MS SQL Server to Redshift matrix

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_REDSHIFT	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
MSSQL_TO_REDSHIFT	rules_list	Rules list.	0,1,2,3,4	
MSSQL_TO_REDSHIFT	rule0strategy	Strategy.	1,3	
MSSQL_TO_REDSHIFT	rule1strategy	Strategy.	2,3	
MSSQL_TO_REDSHIFT	rule2strategy	Strategy.	2,3	
MSSQL_TO_REDSHIFT	rule3strategy	Strategy.	2,3	

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_REDSHIFT	rule4strategy	Strategy.	2,3	
MSSQL_TO_REDSHIFT	rule0	Choose Distribution Key and Sort Keys using metadata (no stats used).	TRUE	TRUE; FALSE
MSSQL_TO_REDSHIFT	rule1	Choose fact table and appropriate dimension for collocation.	TRUE	TRUE; FALSE
MSSQL_TO_REDSHIFT	rule2	Analyze cardinality of indexes' columns.	TRUE	TRUE; FALSE
MSSQL_TO_REDSHIFT	rule3	Find the most used tables and columns from QueryLog table.	TRUE	TRUE; FALSE
MSSQL_TO_REDSHIFT	rule4	Find "small" tables.	TRUE	TRUE; FALSE
MSSQL_TO_REDSHIFT	rule0weightDK	Distribution Key Value.	50	From 0 to 100.
MSSQL_TO_REDSHIFT	rule0weightSK	Sort Key Value.	50	From 0 to 100.
MSSQL_TO_REDSHIFT	rule1weightDK	Distribution Key Value.	80	From 0 to 100.
MSSQL_TO_REDSHIFT	rule1weightSK	Sort Key Value.	40	From 0 to 100.
MSSQL_TO_REDSHIFT	rule2weightDK	Distribution Key Value.	90	From 0 to 100.
MSSQL_TO_REDSHIFT	rule2weightSK	Sort Key Value.	70	From 0 to 100.
MSSQL_TO_REDSHIFT	rule3weightDK	Distribution Key Value.	60	From 0 to 100.
MSSQL_TO_REDSHIFT	rule3weightSK	Sort Key Value.	80	From 0 to 100.
MSSQL_TO_REDSHIFT	rule4weightDK	Distribution Key Value.	90	From 0 to 100.
MSSQL_TO_REDSHIFT	rule4weightSK	Sort Key Value.	0	From 0 to 100.
MSSQL_TO_REDSHIFT	redshift_tables_number	Maximum number of tables for target Amazon Redshift cluster.	AUTO	VALUE_100000; VALUE_9900

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_REDSHIFT	rule0minTableSize	Min table Row Count.	0	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	rule0maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	rule1minTableSize	Min table Row Count.	0	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	rule1maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	rule2minTableSize	Min table Row Count.	0	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	rule2maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	rule3minTableSize	Min table Row Count.	0	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	rule3maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	rule4minTableSize	Min table Row Count.	0	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	rule4maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
MSSQL_TO_REDSHIFT	partition_number_limit	Partition number limit.	368	From 0 to 2147483647.

Including settings of OLAP settings matrix.

6.8.16. Appendix P. MS SQL Server to Babelfish matrix

Page	Setting	Description	Default value	Allowable values
MSSQL_TO_BABELFISH	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.17. Appendix Q. Azure SQL Database to MySQL matrix

Page	Setting	Description	Default value	Allowable values
AZURE_MSSQL_TO_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_SENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
AZURE_MSSQL_TO_MYSQL	open_datasets_procedures	Create additional procedures for handling open datasets.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.18. Appendix R. Azure SQL Database to Aurora MySQL matrix

Page	Setting	Description	Default value	Allowable values
AZURE_MSSQL_TO_AURORA_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
AZURE_MSSQL_TO_AURORA_MYSQL	open_datasets_procedures	Create additional procedures for handling open datasets.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.19. Appendix S. Azure SQL Database to PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
AZURE_MSSQL_TO_POSTGRESQL	avoid_casting_to_lower_case	Avoid casting to lowercase for case sensitive operations.	FALSE	TRUE; FALSE
AZURE_MSSQL_TO_POSTGRESQL	keep_original_parameter_manes	Keep original parameter names.	FALSE	TRUE; FALSE
AZURE_MSSQL_TO_POSTGRESQL	open_datasets_procedures	Create additional procedures for handling open datasets.	FALSE	TRUE; FALSE
AZURE_MSSQL_TO_POSTGRESQL	unique_index_generation	Generate unique names for indexes.	TRUE	TRUE; FALSE
AZURE_MSSQL_TO_POSTGRESQL	convert_procedures_to_function	Convert procedures to functions.	FALSE	TRUE; FALSE
AZURE_MSSQL_TO_POSTGRESQL	generate_table_valued_function	Generate table-valued function if possible.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.20. Appendix T. Azure SQL Database to Aurora PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
AZURE_MSSQL_TO_AURORA_POSTGRESQL	avoid_casting_to_lower_case	Avoid casting to lowercase for case sensitive operations.	FALSE	TRUE; FALSE
AZURE_MSSQL_TO_AURORA_POSTGRESQL	keep_original_parameter_manes	Keep original parameter names.	FALSE	TRUE; FALSE
AZURE_MSSQL_TO_AURORA_POSTGRESQL	open_datasets_procedures	Create additional procedures for handling open datasets.	FALSE	TRUE; FALSE
AZURE_MSSQL_TO_AURORA_POSTGRESQL	unique_index_generation	Generate unique names for indexes.	TRUE	TRUE; FALSE
AZURE_MSSQL_TO_AURORA_POSTGRESQL	convert_procedures_to_function	Convert procedures to functions.	FALSE	TRUE; FALSE
AZURE_MSSQL_TO_AURORA_POSTGRESQL	generate_table_valued_function	Generate table-valued function if possible.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.21. Appendix U. IBM Db2 LUW to MySQL matrix

Page	Setting	Description	Default value	Allowable values
DB2LUW_TO_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_SENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
DB2LUW_TO_MYSQL	mariadb_conversion_destination	MariaDB as an SCT conversion destination.	NATIVE	NATIVE; ORACLE_COMPATIBILITY_MODE
DB2LUW_TO_MYSQL	mariadb_conversion_destination_disable	MariaDB as an SCT conversion destination.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.22. Appendix V. IBM Db2 LUW to Aurora MySQL matrix

Page	Setting	Description	Default value	Allowable values
DB2LUW_TO_AURORA_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
DB2LUW_TO_AURORA_MYSQL	mariadb_conversion_destination	MariaDB as an SCT conversion destination.	NATIVE	NATIVE; ORACLE_COMPATIBILITY_MODE
DB2LUW_TO_AURORA_MYSQL	mariadb_conversion_destination_disable	MariaDB as an SCT conversion destination.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.23. Appendix W. IBM Db2 LUW to PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
DB2LUW_TO_POSTGRESQL				

Including settings of OLTP settings matrix.

6.8.24. Appendix X. IBM Db2 LUW to Aurora PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
DB2LUW_TO_AURORA_POSTGRESQL				

Including settings of OLTP settings matrix.

6.8.25. Appendix Y. IBM Db2 LUW to MariaDB matrix

Page	Setting	Description	Default value	Allowable values
DB2LUW_TO_MARIA_DB	mariadb_conversion_destination	MariaDB as an SCT conversion destination.	ORACLE_COMPATIBILITY_MODE	NATIVE; ORACLE_COMPATIBILITY_MODE

Page	Setting	Description	Default value	Allowable values
DB2LUW_TO_MARIA_DB	mariadb_conversion_destination_disable	MariaDB as an SCT conversion destination.	FALSE	TRUE; FALSE
DB2LUW_TO_MARIA_DB	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE

Including settings of OLTP settings matrix.

6.8.26. Appendix Z. SAP ASE to MySQL matrix

Page	Setting	Description	Default value	Allowable values
SYBASE_ASE_TO_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_SENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE

Including settings of OLTP settings matrix.

6.8.27. Appendix AA. SAP ASE to Aurora MySQL matrix

Page	Setting	Description	Default value	Allowable values
SYBASE_ASE_TO_AURORA_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE

Including settings of OLTP settings matrix.

6.8.28. Appendix AB. SAP ASE to PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
SYBASE_ASE_TO_POSTGRESQL	avoid_casting_to_lower_case	Avoid casting to lowercase for case sensitive operations.	FALSE	TRUE; FALSE
SYBASE_ASE_TO_POSTGRESQL	open_datasets_procedures	Create additional procedures for handling open datasets.	TRUE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.29. Appendix AC. SAP ASE to Aurora PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
SYBASE_ASE_TO_AURORA_POSTGRESQL	avoid_casting_to_lower_case	Avoid casting to lowercase for case sensitive operations.	FALSE	TRUE; FALSE
SYBASE_ASE_TO_AURORA_POSTGRESQL	open_datasets_procedures	Create additional procedures for handling open datasets.	TRUE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.30. Appendix AD. SAP ASE to MariaDB matrix

Page	Setting	Description	Default value	Allowable values
SYBASE_ASE_TO_MARIA_DB	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
SYBASE_ASE_TO_MARIA_DB	mariadb_conversion_destination	MariaDB as an SCT conversion destination.	NATIVE	NATIVE; ORACLE_COMPATIBILITY_MODE

Including settings of OLTP settings matrix.

6.8.31. Appendix AE. PostgreSQL to MySQL matrix

Page	Setting	Description	Default value	Allowable values
POSTGRESQL_TO_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_SENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE

Including settings of OLTP settings matrix.

Including settings of ddl-replication-OptionKey-POSTGESQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.32. Appendix AF. PostgreSQL to Aurora MySQL matrix

Page	Setting	Description	Default value	Allowable values
POSTGRESQL_TO_AURORA_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_INSENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE

Including settings of OLTP settings matrix.

Including settings of ddl-replication-OptionKey-POSTGESQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.33. Appendix AG. PostgreSQL to PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
POSTGRESQL_TO_POSTGRESQL				

Including settings of OLTP settings matrix.

Including settings of ddl-replication-OptionKey-POSTGESQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.34. Appendix AH. PostgreSQL to Aurora PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
POSTGRESQL_TO_AURORA_POSTGRESQL				

Including settings of OLTP settings matrix.

Including settings of ddl-replication-OptionKey-POSTGESQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.35. Appendix AI. MySQL to MySQL matrix

Page	Setting	Description	Default value	Allowable values
MYSQL_TO_MYSQL	mysql_server_case_sensitivity	Target database case sensitivity.	CASE_SENSITIVE	CASE_SENSITIVE; CASE_INSENSITIVE
MYSQL_TO_MYSQL	from_date	From date.	1900-01-01	DATE

Including settings of OLTP settings matrix.

Including settings of ddl-replication-OptionKey-MYSQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.36. Appendix AJ. MySQL to PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
MYSQL_TO_POSTGRESQL				

Including settings of OLTP settings matrix.

Including settings of ddl-replication-OptionKey-MYSQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.37. Appendix AK. MySQL to Aurora PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
MYSQL_TO_AURORA_POSTGRESQL				

Including settings of OLTP settings matrix.

Including settings of ddl-replication-OptionKey-MYSQL settings matrix.

Including settings of ddl-replication-OptionKey settings matrix.

6.8.38. Appendix AL. Aurora MySQL to Oracle matrix

Page	Setting	Description	Default value	Allowable values
AURORA_MYSQL_TO_ORACLE				

Including settings of OLTP settings matrix.

6.8.39. Appendix AM. Teradata to Redshift matrix

Page	Setting	Description	Default value	Allowable values
TERADATA_TO_REDSHIFT	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
TERADATA_TO_REDSHIFT	rules_list	Rules list.	0,1,2,3,4	
TERADATA_TO_REDSHIFT	rule0strategy	Strategy.	1,3	
TERADATA_TO_REDSHIFT	rule1strategy	Strategy.	2,3	
TERADATA_TO_REDSHIFT	rule2strategy	Strategy.	2,3	
TERADATA_TO_REDSHIFT	rule3strategy	Strategy.	2,3	
TERADATA_TO_REDSHIFT	rule4strategy	Strategy.	2,3	
TERADATA_TO_REDSHIFT	rule0	Choose Distribution Key and Sort Keys using metadata (no stats used).	TRUE	TRUE; FALSE
TERADATA_TO_REDSHIFT	rule1	Choose fact table and appropriate dimension for collocation.	TRUE	TRUE; FALSE
TERADATA_TO_REDSHIFT	rule2	Analyze cardinality of indexes' columns.	TRUE	TRUE; FALSE
TERADATA_TO_REDSHIFT	rule3	Find the most used tables and columns from QueryLog table.	TRUE	TRUE; FALSE
TERADATA_TO_REDSHIFT	rule4	Find "small" tables.	TRUE	TRUE; FALSE
TERADATA_TO_REDSHIFT	rule0weightDK	Distribution Key Value.	50	From 0 to 100.
TERADATA_TO_REDSHIFT	rule0weightSK	Sort Key Value.	50	From 0 to 100.
TERADATA_TO_REDSHIFT	rule1weightDK	Distribution Key Value.	80	From 0 to 100.
TERADATA_TO_REDSHIFT	rule1weightSK	Sort Key Value.	40	From 0 to 100.

Page	Setting	Description	Default value	Allowable values
TERADATA_TO_REDSHIFT	rule2weightDK	Distribution Key Value.	90	From 0 to 100.
TERADATA_TO_REDSHIFT	rule2weightSK	Sort Key Value.	70	From 0 to 100.
TERADATA_TO_REDSHIFT	rule3weightDK	Distribution Key Value.	10	From 0 to 100.
TERADATA_TO_REDSHIFT	rule3weightSK	Sort Key Value.	80	From 0 to 100.
TERADATA_TO_REDSHIFT	rule4weightDK	Distribution Key Value.	90	From 0 to 100.
TERADATA_TO_REDSHIFT	rule4weightSK	Sort Key Value.	0	From 0 to 100.
TERADATA_TO_REDSHIFT	redshift_tables_number	Maximum number of tables for target Amazon Redshift cluster.	AUTO	AUTO VALUE_100000; VALUE_9900
TERADATA_TO_REDSHIFT	rule0minTableSize	Min table Row Count.	0	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	rule0maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	rule1minTableSize	Min table Row Count.	0	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	rule1maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	rule2minTableSize	Min table Row Count.	0	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	rule2maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	rule3minTableSize	Min table Row Count.	0	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	rule3maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	rule4minTableSize	Min table Row Count.	0	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	rule4maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
TERADATA_TO_REDSHIFT	partition_number_limit	Partition number limit.	368	From 0 to 2147483647.

Page	Setting	Description	Default value	Allowable values
TERADATA_TO_REDSHIFT	use_explicit_columns_declaration	Use explicit columns declaration.	FALSE	TRUE; FALSE

Including settings of OLAP settings matrix.

6.8.40. Appendix AN. Redshift to Redshift matrix

Page	Setting	Description	Default value	Allowable values
REDSHIFT_TO_REDSHIFT	migration_strategy_type	Migration strategy	COPY	COPY; NEW
REDSHIFT_TO_REDSHIFT	rules_list	Rules list.	0,1,2,3,4,5	
REDSHIFT_TO_REDSHIFT	rule0strategy	Strategy.	1,3	
REDSHIFT_TO_REDSHIFT	rule1strategy	Strategy.	2,3	
REDSHIFT_TO_REDSHIFT	rule2strategy	Strategy.	2,3	
REDSHIFT_TO_REDSHIFT	rule3strategy	Strategy.	2,3	
REDSHIFT_TO_REDSHIFT	rule4strategy	Strategy.	2,3	
REDSHIFT_TO_REDSHIFT	rule5strategy	Strategy.	2,3	
REDSHIFT_TO_REDSHIFT	rule0	Choose Distribution Key and Sort Keys using metadata (no stats used).	TRUE	TRUE; FALSE
REDSHIFT_TO_REDSHIFT	rule1	Choose fact table and appropriate dimension for collocation.	TRUE	TRUE; FALSE
REDSHIFT_TO_REDSHIFT	rule2	Analyze Data distribution.	TRUE	TRUE; FALSE
REDSHIFT_TO_REDSHIFT	rule3	Find "small" tables.	TRUE	TRUE; FALSE
REDSHIFT_TO_REDSHIFT	rule4	Analyze the most expensive queries.	TRUE	TRUE; FALSE
REDSHIFT_TO_REDSHIFT	rule5	Find the most used tables and columns from QueryLog table.	TRUE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
REDSHIFT_TO_REDSHIFT	rule0weightDK	Distribution Key Value.	50	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule0weightSK	Sort Key Value.	50	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule1weightDK	Distribution Key Value.	80	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule1weightSK	Sort Key Value.	40	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule2weightDK	Distribution Key Value.	70	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule2weightSK	Sort Key Value.	0	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule3weightDK	Distribution Key Value.	90	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule3weightSK	Sort Key Value.	0	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule4weightDK	Distribution Key Value.	1	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule4weightSK	Sort Key Value.	90	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule5weightDK	Distribution Key Value.	60	From 0 to 100.
REDSHIFT_TO_REDSHIFT	rule5weightSK	Sort Key Value.	80	From 0 to 100.
REDSHIFT_TO_REDSHIFT	migration_strategy_do_not_remind_me		FALSE	TRUE; FALSE
REDSHIFT_TO_REDSHIFT	redshift_tables_number	Maximum number of tables for target Amazon Redshift cluster.	AUTO	AUTO VALUE_100000; VALUE_9900
REDSHIFT_TO_REDSHIFT	rule0minTableSize	Min table Row Count.	0	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule0maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule1minTableSize	Min table Row Count.	0	From 0 to 2147483647.

Page	Setting	Description	Default value	Allowable values
REDSHIFT_TO_REDSHIFT	rule1maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule2minTableSize	Min table Row Count.	0	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule2maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule3minTableSize	Min table Row Count.	0	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule3maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule4minTableSize	Min table Row Count.	0	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule4maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule5minTableSize	Min table Row Count.	0	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	rule5maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
REDSHIFT_TO_REDSHIFT	converting_settings	Use Union all view?	FALSE	TRUE; FALSE

Including settings of OLAP settings matrix.

6.8.41. Appendix AO. Netezza to Redshift matrix

Page	Setting	Description	Default value	Allowable values
NETEZZA_TO_REDSHIFT	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
NETEZZA_TO_REDSHIFT	rules_list	Rules list.	0,1,2,3,4	
NETEZZA_TO_REDSHIFT	rule0strategy	Strategy.	1,3	
NETEZZA_TO_REDSHIFT	rule1strategy	Strategy.	2,3	
NETEZZA_TO_REDSHIFT	rule2strategy	Strategy.	2,3	
NETEZZA_TO_REDSHIFT	rule3strategy	Strategy.	2,3	

Page	Setting	Description	Default value	Allowable values
NETEZZA_TO_REDSHIFT	rule4strategy	Strategy.	2,3	
NETEZZA_TO_REDSHIFT	rule0	Choose Distribution Key and Sort Keys using metadata (no stats used).	TRUE	TRUE; FALSE
NETEZZA_TO_REDSHIFT	rule1	Choose fact table and appropriate dimension for collocation.	TRUE	TRUE; FALSE
NETEZZA_TO_REDSHIFT	rule2	Analyze cardinality of indexes' columns.	TRUE	TRUE; FALSE
NETEZZA_TO_REDSHIFT	rule3	Find the most used tables and columns from QueryLog table.	TRUE	TRUE; FALSE
NETEZZA_TO_REDSHIFT	rule4	Find "small" tables.	TRUE	TRUE; FALSE
NETEZZA_TO_REDSHIFT	rule0weightDK	Distribution Key Value.	50	From 0 to 100.
NETEZZA_TO_REDSHIFT	rule0weightSK	Sort Key Value.	50	From 0 to 100.
NETEZZA_TO_REDSHIFT	rule1weightDK	Distribution Key Value.	80	From 0 to 100.
NETEZZA_TO_REDSHIFT	rule1weightSK	Sort Key Value.	40	From 0 to 100.
NETEZZA_TO_REDSHIFT	rule2weightDK	Distribution Key Value.	90	From 0 to 100.
NETEZZA_TO_REDSHIFT	rule2weightSK	Sort Key Value.	70	From 0 to 100.
NETEZZA_TO_REDSHIFT	rule3weightDK	Distribution Key Value.	10	From 0 to 100.
NETEZZA_TO_REDSHIFT	rule3weightSK	Sort Key Value.	80	From 0 to 100.
NETEZZA_TO_REDSHIFT	rule4weightDK	Distribution Key Value.	90	From 0 to 100.
NETEZZA_TO_REDSHIFT	rule4weightSK	Sort Key Value.	0	From 0 to 100.
NETEZZA_TO_REDSHIFT	redshift_tables_number	Maximum number of tables for target Amazon Redshift cluster.	AUTO	AUTO VALUE_100000; VALUE_9900

Page	Setting	Description	Default value	Allowable values
NETEZZA_TO_REDSHIFT	rule0minTableSize	Min table Row Count.	0	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	rule0maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	rule1minTableSize	Min table Row Count.	0	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	rule1maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	rule2minTableSize	Min table Row Count.	0	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	rule2maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	rule3minTableSize	Min table Row Count.	0	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	rule3maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	rule4minTableSize	Min table Row Count.	0	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	rule4maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
NETEZZA_TO_REDSHIFT	partition_number_limit	Partition number limit.	368	From 0 to 2147483647.

Including settings of OLAP settings matrix.

6.8.42. Appendix AP. Greenplum to Redshift matrix

Page	Setting	Description	Default value	Allowable values
GREENPLUM_TO_REDSHIFT	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
GREENPLUM_TO_REDSHIFT	rules_list	Rules list.	0,1,2,3,4	
GREENPLUM_TO_REDSHIFT	rule0strategy	Strategy.	1,3	
GREENPLUM_TO_REDSHIFT	rule1strategy	Strategy.	2,3	
GREENPLUM_TO_REDSHIFT	rule2strategy	Strategy.	2,3	

Page	Setting	Description	Default value	Allowable values
GREENPLUM_TO_REDSHIFT	rule3strategy	Strategy.	2,3	
GREENPLUM_TO_REDSHIFT	rule4strategy	Strategy.	2,3	
GREENPLUM_TO_REDSHIFT	rule0	Choose Distribution Key and Sort Keys using metadata (no stats used).	TRUE	TRUE; FALSE
GREENPLUM_TO_REDSHIFT	rule1	Choose fact table and appropriate dimension for collocation.	TRUE	TRUE; FALSE
GREENPLUM_TO_REDSHIFT	rule2	Analyze cardinality of indexes' columns.	TRUE	TRUE; FALSE
GREENPLUM_TO_REDSHIFT	rule3	Find the most used tables and columns from QueryLog table.	TRUE	TRUE; FALSE
GREENPLUM_TO_REDSHIFT	rule4	Find "small" tables.	TRUE	TRUE; FALSE
GREENPLUM_TO_REDSHIFT	rule0weightDK	Distribution Key Value.	50	From 0 to 100.
GREENPLUM_TO_REDSHIFT	rule0weightSK	Sort Key Value.	50	From 0 to 100.
GREENPLUM_TO_REDSHIFT	rule1weightDK	Distribution Key Value.	80	From 0 to 100.
GREENPLUM_TO_REDSHIFT	rule1weightSK	Sort Key Value.	40	From 0 to 100.
GREENPLUM_TO_REDSHIFT	rule2weightDK	Distribution Key Value.	90	From 0 to 100.
GREENPLUM_TO_REDSHIFT	rule2weightSK	Sort Key Value.	70	From 0 to 100.
GREENPLUM_TO_REDSHIFT	rule3weightDK	Distribution Key Value.	60	From 0 to 100.
GREENPLUM_TO_REDSHIFT	rule3weightSK	Sort Key Value.	80	From 0 to 100.
GREENPLUM_TO_REDSHIFT	rule4weightDK	Distribution Key Value.	90	From 0 to 100.
GREENPLUM_TO_REDSHIFT	rule4weightSK	Sort Key Value.	0	From 0 to 100.

Page	Setting	Description	Default value	Allowable values
GREENPLUM_TO_REDSHIFT	redshift_tables_number	Maximum number of tables for target Amazon Redshift cluster.	AUTO	AUTO VALUE_100000; VALUE_9900
GREENPLUM_TO_REDSHIFT	rule0minTableSize	Min table Row Count.	0	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	rule0maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	rule1minTableSize	Min table Row Count.	0	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	rule1maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	rule2minTableSize	Min table Row Count.	0	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	rule2maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	rule3minTableSize	Min table Row Count.	0	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	rule3maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	rule4minTableSize	Min table Row Count.	0	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	rule4maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
GREENPLUM_TO_REDSHIFT	partition_number_limit	Partition number limit.	368	From 0 to 2147483647.

Including settings of OLAP settings matrix.

6.8.43. Appendix AQ. Vertica to Redshift matrix

Page	Setting	Description	Default value	Allowable values
VERTICA_TO_REDSHIFT	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
VERTICA_TO_REDSHIFT	rules_list	Rules list.	0,1,2,3,4	
VERTICA_TO_REDSHIFT	rule0strategy	Strategy.	1,3	

Page	Setting	Description	Default value	Allowable values
VERTICA_TO_REDSHIFT	rule1strategy	Strategy.	2,3	
VERTICA_TO_REDSHIFT	rule2strategy	Strategy.	2,3	
VERTICA_TO_REDSHIFT	rule3strategy	Strategy.	2,3	
VERTICA_TO_REDSHIFT	rule4strategy	Strategy.	2,3	
VERTICA_TO_REDSHIFT	rule0	Choose Distribution Key and Sort Keys using metadata (no stats used).	TRUE	TRUE; FALSE
VERTICA_TO_REDSHIFT	rule1	Choose fact table and appropriate dimension for collocation.	TRUE	TRUE; FALSE
VERTICA_TO_REDSHIFT	rule2	Analyze cardinality of indexes' columns.	TRUE	TRUE; FALSE
VERTICA_TO_REDSHIFT	rule3	Find the most used tables and columns from QueryLog table.	TRUE	TRUE; FALSE
VERTICA_TO_REDSHIFT	rule4	Find "small" tables.	TRUE	TRUE; FALSE
VERTICA_TO_REDSHIFT	rule0weightDK	Distribution Key Value.	50	From 0 to 100.
VERTICA_TO_REDSHIFT	rule0weightSK	Sort Key Value.	50	From 0 to 100.
VERTICA_TO_REDSHIFT	rule1weightDK	Distribution Key Value.	80	From 0 to 100.
VERTICA_TO_REDSHIFT	rule1weightSK	Sort Key Value.	40	From 0 to 100.
VERTICA_TO_REDSHIFT	rule2weightDK	Distribution Key Value.	90	From 0 to 100.
VERTICA_TO_REDSHIFT	rule2weightSK	Sort Key Value.	70	From 0 to 100.
VERTICA_TO_REDSHIFT	rule3weightDK	Distribution Key Value.	60	From 0 to 100.
VERTICA_TO_REDSHIFT	rule3weightSK	Sort Key Value.	80	From 0 to 100.
VERTICA_TO_REDSHIFT	rule4weightDK	Distribution Key Value.	90	From 0 to 100.

Page	Setting	Description	Default value	Allowable values
VERTICA_TO_REDSHIFT	rule4weightSK	Sort Key Value.	0	From 0 to 100.
VERTICA_TO_REDSHIFT	redshift_tables_number	Maximum number of tables for target Amazon Redshift cluster.	AUTO	AUTO VALUE_100000; VALUE_9900
VERTICA_TO_REDSHIFT	rule0minTableSize	Min table Row Count.	0	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	rule0maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	rule1minTableSize	Min table Row Count.	0	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	rule1maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	rule2minTableSize	Min table Row Count.	0	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	rule2maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	rule3minTableSize	Min table Row Count.	0	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	rule3maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	rule4minTableSize	Min table Row Count.	0	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	rule4maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
VERTICA_TO_REDSHIFT	partition_number_limit	Partition number limit.	368	From 0 to 2147483647.

Including settings of OLAP settings matrix.

6.8.44. Appendix AR. Cassandra to DynamoDB matrix

Page	Setting	Description	Default value	Allowable values
CASSANDRA_TO_DYNAMODB	generate_row_id	Generate row ID?	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
CASSANDRA_TO_DYNAMODB	convert_number_to_bigint	Convert NUMBER primary / foreign key columns to BIGINT ones.	FALSE	TRUE; FALSE

6.8.45. Appendix AS. Snowflake to Redshift matrix

Page	Setting	Description	Default value	Allowable values
SNOWFLAKE_TO_REDSHIFT	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
SNOWFLAKE_TO_REDSHIFT	rules_list	Rules list.	0,1,2,3,4	
SNOWFLAKE_TO_REDSHIFT	rule0strategy	Strategy.	1,3	
SNOWFLAKE_TO_REDSHIFT	rule1strategy	Strategy.	2,3	
SNOWFLAKE_TO_REDSHIFT	rule2strategy	Strategy.	2,3	
SNOWFLAKE_TO_REDSHIFT	rule3strategy	Strategy.	2,3	
SNOWFLAKE_TO_REDSHIFT	rule4strategy	Strategy.	2,3	
SNOWFLAKE_TO_REDSHIFT	rule0	Choose Distribution Key and Sort Keys using metadata (no stats used).	TRUE	TRUE; FALSE
SNOWFLAKE_TO_REDSHIFT	rule1	Choose fact table and appropriate dimension for collocation.	TRUE	TRUE; FALSE
SNOWFLAKE_TO_REDSHIFT	rule2	Analyze cardinality of indexes' columns.	TRUE	TRUE; FALSE
SNOWFLAKE_TO_REDSHIFT	rule3	Find the most used tables and columns from QueryLog table.	TRUE	TRUE; FALSE
SNOWFLAKE_TO_REDSHIFT	rule4	Find "small" tables.	TRUE	TRUE; FALSE
SNOWFLAKE_TO_REDSHIFT	rule0weightDK	Distribution Key Value.	50	From 0 to 100.
SNOWFLAKE_TO_REDSHIFT	rule0weightSK	Sort Key Value.	50	From 0 to 100.

Page	Setting	Description	Default value	Allowable values
SNOWFLAKE_TO_REDSHIFT	rule1weightDK	Distribution Key Value.	80	From 0 to 100.
SNOWFLAKE_TO_REDSHIFT	rule1weightSK	Sort Key Value.	40	From 0 to 100.
SNOWFLAKE_TO_REDSHIFT	rule2weightDK	Distribution Key Value.	90	From 0 to 100.
SNOWFLAKE_TO_REDSHIFT	rule2weightSK	Sort Key Value.	70	From 0 to 100.
SNOWFLAKE_TO_REDSHIFT	rule3weightDK	Distribution Key Value.	60	From 0 to 100.
SNOWFLAKE_TO_REDSHIFT	rule3weightSK	Sort Key Value.	80	From 0 to 100.
SNOWFLAKE_TO_REDSHIFT	rule4weightDK	Distribution Key Value.	90	From 0 to 100.
SNOWFLAKE_TO_REDSHIFT	rule4weightSK	Sort Key Value.	0	From 0 to 100.
SNOWFLAKE_TO_REDSHIFT	redshift_tables_number	Maximum number of tables for target Amazon Redshift cluster.	AUTO	AUTO VALUE_100000; VALUE_9900
SNOWFLAKE_TO_REDSHIFT	rule0minTableSize	Min table Row Count.	0	From 0 to 2147483647.
SNOWFLAKE_TO_REDSHIFT	rule0maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
SNOWFLAKE_TO_REDSHIFT	rule1minTableSize	Min table Row Count.	0	From 0 to 2147483647.
SNOWFLAKE_TO_REDSHIFT	rule1maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
SNOWFLAKE_TO_REDSHIFT	rule2minTableSize	Min table Row Count.	0	From 0 to 2147483647.
SNOWFLAKE_TO_REDSHIFT	rule2maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
SNOWFLAKE_TO_REDSHIFT	rule3minTableSize	Min table Row Count.	0	From 0 to 2147483647.
SNOWFLAKE_TO_REDSHIFT	rule3maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
SNOWFLAKE_TO_REDSHIFT	rule4minTableSize	Min table Row Count.	0	From 0 to 2147483647.

Page	Setting	Description	Default value	Allowable values
SNOWFLAKE_TO_REDSHIFT	rule4maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
SNOWFLAKE_TO_REDSHIFT	partition_number_limit	Partition number limit.	368	From 0 to 2147483647.

Including settings of OLAP settings matrix.

6.8.46. Appendix AT. SSIS to AWS Glue matrix

Page	Setting	Description	Default value	Allowable values
SSIS_TO_GLUE	generate_row_id	Generate row ID?	FALSE	TRUE; FALSE
SSIS_TO_GLUE	convert_number_to_bigint	Convert NUMBER primary / foreign key columns to BIGINT ones.	FALSE	TRUE; FALSE

6.8.47. Appendix AU. SSIS to AWS Glue Studio matrix

Page	Setting	Description	Default value	Allowable values
SSIS_TO_GLUE_STUDIO	generate_row_id	Generate row ID?	FALSE	TRUE; FALSE
SSIS_TO_GLUE_STUDIO	convert_number_to_bigint	Convert NUMBER primary / foreign key columns to BIGINT ones.	FALSE	TRUE; FALSE

6.8.48. Appendix AV. Azure Synapse Analytics to Redshift matrix

Page	Setting	Description	Default value	Allowable values
AZURE_SYNAPSE_TO_REDSHIFT	converting_settings	Use Union all view?	FALSE	TRUE; FALSE
AZURE_SYNAPSE_TO_REDSHIFT	rules_list	Rules list.	0,2,3,4	
AZURE_SYNAPSE_TO_REDSHIFT	rule0strategy	Strategy.	1,3	
AZURE_SYNAPSE_TO_REDSHIFT	rule2strategy	Strategy.	2,3	

Page	Setting	Description	Default value	Allowable values
AZURE_SYNAPSE_TO_REDSHIFT	rule3strategy	Strategy.	2,3	
AZURE_SYNAPSE_TO_REDSHIFT	rule4strategy	Strategy.	2,3	
AZURE_SYNAPSE_TO_REDSHIFT	rule0	Choose Distribution Key and Sort Keys using metadata (no stats used).	TRUE	TRUE; FALSE
AZURE_SYNAPSE_TO_REDSHIFT	rule2	Analyze cardinality of indexes' columns.	TRUE	TRUE; FALSE
AZURE_SYNAPSE_TO_REDSHIFT	rule3	Find the most used tables and columns from QueryLog table.	TRUE	TRUE; FALSE
AZURE_SYNAPSE_TO_REDSHIFT	rule4	Find "small" tables.	TRUE	TRUE; FALSE
AZURE_SYNAPSE_TO_REDSHIFT	rule0weightDK	Distribution Key Value.	50	From 0 to 100.
AZURE_SYNAPSE_TO_REDSHIFT	rule0weightSK	Sort Key Value.	50	From 0 to 100.
AZURE_SYNAPSE_TO_REDSHIFT	rule2weightDK	Distribution Key Value.	90	From 0 to 100.
AZURE_SYNAPSE_TO_REDSHIFT	rule2weightSK	Sort Key Value.	70	From 0 to 100.
AZURE_SYNAPSE_TO_REDSHIFT	rule3weightDK	Distribution Key Value.	60	From 0 to 100.
AZURE_SYNAPSE_TO_REDSHIFT	rule3weightSK	Sort Key Value.	80	From 0 to 100.
AZURE_SYNAPSE_TO_REDSHIFT	rule4weightDK	Distribution Key Value.	90	From 0 to 100.
AZURE_SYNAPSE_TO_REDSHIFT	rule4weightSK	Sort Key Value.	0	From 0 to 100.
AZURE_SYNAPSE_TO_REDSHIFT	redshift_tables_number	Maximum number of tables for target Amazon Redshift cluster.	AUTO	AUTO VALUE_100000; VALUE_9900
AZURE_SYNAPSE_TO_REDSHIFT	rule0minTableSize	Min table Row Count.	0	From 0 to 2147483647.
AZURE_SYNAPSE_TO_REDSHIFT	rule0maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.

Page	Setting	Description	Default value	Allowable values
AZURE_SYNAPSE_TO_REDSHIFT	rule2minTableSize	Min table Row Count.	0	From 0 to 2147483647.
AZURE_SYNAPSE_TO_REDSHIFT	rule2maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
AZURE_SYNAPSE_TO_REDSHIFT	rule3minTableSize	Min table Row Count.	0	From 0 to 2147483647.
AZURE_SYNAPSE_TO_REDSHIFT	rule3maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
AZURE_SYNAPSE_TO_REDSHIFT	rule4minTableSize	Min table Row Count.	0	From 0 to 2147483647.
AZURE_SYNAPSE_TO_REDSHIFT	rule4maxTableSize	Max table Row Count.	10000	From 0 to 2147483647.
AZURE_SYNAPSE_TO_REDSHIFT	partition_number_limit	Partition number limit.	368	From 0 to 2147483647.

Including settings of OLAP settings matrix.

6.8.49. Appendix AW. IBM Db2 for z/OS to PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
DB2ZOS_TO_POSTGRESQL	partition_count	Default number of partitions in a target system.	50	From 2 to 99999999.
DB2ZOS_TO_POSTGRESQL	table_size	Minimal table size in gigabytes to apply automatic partitioning.	100.00	From 0.01 to 99999999.99.
DB2ZOS_TO_POSTGRESQL	partition_max_count	Maximum number of automatic partitions in the target system.	100	From 2 to 99999999.
DB2ZOS_TO_POSTGRESQL	use_partitions_proportionally	Increase the number of automatic partitions if a table size is larger than "table_size" value.	FALSE	TRUE; FALSE
DB2ZOS_TO_POSTGRESQL	use_enforcement_partition	Use automatic partitioning mechanism.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
DB2ZOS_TO_POSTGRESQL	generate_unique_names_for_constraints	Generate unique names for constraints. When this option is turned on all source database constraints names will be converted to target using template.	TRUE	TRUE; FALSE
DB2ZOS_TO_POSTGRESQL	dynamic_result_sets_to_refcursors_array	Force SCT to convert source procedures that return dynamic result sets to procedures that have an array of open refcursors as an additional output parameter.	FALSE	TRUE; FALSE
DB2ZOS_TO_POSTGRESQL	string_representation_of_date	Standard for converting a date value to a string representation. Allowed standards: • ISO (International Standards Organization); • EUR (IBM European standard); • USA (IBM USA standard); • JIS (Japanese industrial standard Christian era).	ISO	ISO; EUR; USA; JIS
DB2ZOS_TO_POSTGRESQL	string_representation_of_time	Standard for converting a time value to a string representation. Allowed standards: • ISO (International Standards Organization); • EUR (IBM European standard); • USA (IBM USA standard); • JIS (Japanese industrial standard Christian era).	ISO	ISO; EUR; USA; JIS
DB2ZOS_TO_POSTGRESQL	exclude_table_partitions	Exclude table partitions from the conversion scope.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
DB2ZOS_TO_POSTGRESQL	keep_statement_elements_layout	Keep the formatting of column names, expressions and clauses in DML statements. AWS SCT keeps the layout of column names, expressions and clauses in DML statements in the similar position and order as in the source code.	TRUE	TRUE; FALSE
DB2ZOS_TO_POSTGRESQL	parttned_tab_pk_unq_to_secondary_idx	Convert primary keys and unique constraints in partitioned tables as secondary indexes. Use this option for partitioned tables where the partitioning key isn't a part of a unique index. The `parttned_tab_pk_unq_to_secondary_idx` option takes effect when you set `exclude_table_partitions` to FALSE.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.50. Appendix AX. IBM Db2 for z/OS to Aurora PostgreSQL matrix

Page	Setting	Description	Default value	Allowable values
DB2ZOS_TO_AURORA_POSTGRESQL	partition_count	Default number of partitions in a target system.	50	From 2 to 99999999.
DB2ZOS_TO_AURORA_POSTGRESQL	table_size	Minimal table size in gigabytes to apply automatic partitioning.	100.00	From 0.01 to 99999999.99.
DB2ZOS_TO_AURORA_POSTGRESQL	partition_max_count	Maximum number of automatic partitions in the target system.	100	From 2 to 99999999.
DB2ZOS_TO_AURORA_POSTGRESQL	use_partitions_proportionally	Increase the number of automatic partitions if a table size is larger than "table_size" value.	FALSE	TRUE; FALSE
DB2ZOS_TO_AURORA_POSTGRESQL	use_enforcement_partition	Use automatic partitioning mechanism.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
DB2ZOS_TO_AURORA_POSTGRESQL	generate_unique_names_for_constraints	Generate unique names for constraints. When this option is turned on all source database constraints names will be converted to target using template.	TRUE	TRUE; FALSE
DB2ZOS_TO_AURORA_POSTGRESQL	dynamic_result_sets_to_refcursors_array	Force SCT to convert source procedures that return dynamic result sets to procedures that have an array of open refcursors as an additional output parameter.	FALSE	TRUE; FALSE
DB2ZOS_TO_AURORA_POSTGRESQL	string_representation_of_date	Standard for converting a date value to a string representation. Allowed standards: • ISO (International Standards Organization); • EUR (IBM European standard); • USA (IBM USA standard); • JIS (Japanese industrial standard Christian era).	ISO	ISO; EUR; USA; JIS
DB2ZOS_TO_AURORA_POSTGRESQL	string_representation_of_time	Standard for converting a time value to a string representation. Allowed standards: • ISO (International Standards Organization); • EUR (IBM European standard); • USA (IBM USA standard); • JIS (Japanese industrial standard Christian era).	ISO	ISO; EUR; USA; JIS
DB2ZOS_TO_AURORA_POSTGRESQL	exclude_table_partitions	Exclude table partitions from the conversion scope.	FALSE	TRUE; FALSE

Page	Setting	Description	Default value	Allowable values
DB2ZOS_TO_AURORA_POSTGRESQL	keep_statement_elements_layout	Keep the formatting of column names, expressions and clauses in DML statements. AWS SCT keeps the layout of column names, expressions and clauses in DML statements in the similar position and order as in the source code.	TRUE	TRUE; FALSE
DB2ZOS_TO_AURORA_POSTGRESQL	parttned_tab_pk_unq_to_secondary_idx	Convert primary keys and unique constraints in partitioned tables as secondary indexes. Use this option for partitioned tables where the partitioning key isn't a part of a unique index. The `parttned_tab_pk_unq_to_secondary_idx` option takes effect when you set `exclude_table_partitions` to FALSE.	FALSE	TRUE; FALSE

Including settings of OLTP settings matrix.

6.8.51. Appendix AY. Apache Hadoop to Amazon EMR

Page	Setting	Description	Default value	Allowable values
HADOOP	parallel_job_number	Number of parallel migration tasks run by the cluster nodes.	1	From 1 to 10.
HIVE	recalculate_statistic_after_migration	Recalculate statistics after table migration.	None	None; Short statistic; Full statistic

6.9. UI filter format description

Class has hierarchical structure with brackets and rules. Brackets can contain rules or brackets.

Inner classes list has key word children. Root is hidden, so format starts from the children list.

6.9.1. Class description

Total class has format of Brackets or Rules list. Class can be set in two states: Brackets or Rule. Format: [{Rule class1}, {Rule class2}, {Brackets class3}].

6.9.2. Brackets fields description

The "children" tag. Values: list of Brackets or Rules: [{Rule class1}, {Rule class2}, {Brackets class3}].

See Rule fields description chapter.

Example:

```
{
  "children": [
    {
      ...
    },
    {
      ...
    }
  ]
}
```

6.9.3. Rule fields description

The "filterGroupType" tag. Values: AND, OR. Last rule value is ignored.

The "filterCategory" tag. Values: CATEGORIES, TRANSFORMATION.

6.9.3.1. Categories fields description

The "names" tag. Values: list of category names. Format: ["Category name1", "Category name2"].

Example:

The "filterCondition" tag. Values: LIKE, NOT_LIKE.

The "value" tag. Values: any character string, symbol "%" is like any symbol.

Example:

```
{
  "filterGroupType": "AND",
  "filterCategory": "CATEGORIES",
  "names": [
    "Any loaded"
  ],
  "filterCondition": "NOT_LIKE",
  "value": "%"
}
```

6.9.3.2. Transformation fields description

The "transformName" tag. Values:

- CONVERTED;
- HAS_ACTIONS;
- WRAPPED;
- OPTIMIZED;
- NOT_APPLIED;
- APPLIED.

The "transformValue" tag. Values: TRUE, FALSE.

Example:

```
{
  "filterGroupType": "AND",
  "filterCategory": "TRANSFORMATION",
  "transformName": "HAS_ACTIONS",
  "transformValue": "FALSE"
}
```

6.9.4. UI filter examples

6.9.4.1. Schemas like Schema and (Tables like Table or Views like View)

```
[
  {
    "filterGroupType": "AND",
    "filterCategory": "CATEGORIES",
    "names": [
      "Schemas"
    ],
    "filterCondition": "LIKE",
    "value": "Schema"
  },
  {
    "children": [
      {
        "filterGroupType": "OR",
        "filterCategory": "CATEGORIES",
        "names": [
          "Tables"
        ],
        "filterCondition": "LIKE",
        "value": "Table"
      },
      {
        "filterCategory": "CATEGORIES",
        "names": [
          "Views"
        ],
        "filterCondition": "LIKE",
        "value": "View"
      }
    ]
  }
```

```
]
```

6.9.4.2. (Schemas like Schema1 or Schemas like Schema2) and Converted = true

```
[
  {
    "children": [
      {
        "filterGroupType": "OR",
        "filterCategory": "CATEGORIES",
        "names": [
          "Schemas"
        ],
        "filterCondition": "LIKE",
        "value": "Schema1"
      },
      {
        "filterGroupType": "AND",
        "filterCategory": "CATEGORIES",
        "names": [
          "Schemas"
        ],
        "filterCondition": "LIKE",
        "value": "Schema2"
      }
    ]
  },
  {
    "filterGroupType": "OR",
    "filterCategory": "TRANSFORMATION",
    "transformName": "CONVERTED",
    "transformValue": "TRUE"
  }
]
```

6.10. Transformation Rules parameters relationship

objectType	ruleAction	parameters
"database"	"ADD_PREFIX"	"databaseName", prefix value = "targetValue";
	"ADD_SUFFIX"	"databaseName", suffix value = "targetValue";
	"CONVERT_LOWERCASE"	"databaseName";
	"CONVERT_UPPERCASE"	"databaseName";
	"REMOVE_PREFIX"	"databaseName", prefix value = "targetValue";
	"REMOVE_SUFFIX"	"databaseName", suffix value = "targetValue";

objectType	ruleAction	parameters
	"RENAME"	"databaseName", new name= "targetValue";
	"REPLACE_PREFIX"	"databaseName", old prefix = "sourceValue", new prefix = "targetValue";
	"REPLACE_SUFFIX"	"databaseName", old suffix = "sourceValue", new suffix = "targetValue";
	"REMOVE_DATABASE_NAME"	"databaseName";
"schema"	"ADD_PREFIX"	"databaseName", "schemaName", prefix value = "targetValue";
	"ADD_SUFFIX"	"databaseName", "schemaName", suffix value = "targetValue";
	"CONVERT_LOWERCASE"	"databaseName", "schemaName";
	"CONVERT_UPPERCASE"	"databaseName", "schemaName";
	"REMOVE_SCHEMA_NAME"	"databaseName", "schemaName";
	"REMOVE_PREFIX"	"databaseName", "schemaName", prefix value = "targetValue";
	"REMOVE_SUFFIX"	"databaseName", "schemaName", suffix value = "targetValue";
	"RENAME"	"databaseName", "schemaName", new name= "targetValue";
	"REPLACE_PREFIX"	"databaseName", "schemaName", old prefix = "sourceValue", new prefix = "targetValue";
	"REPLACE_SUFFIX"	"databaseName", "schemaName", old suffix = "sourceValue", new suffix = "targetValue";
"table"	"ADD_PREFIX"	"databaseName", "schemaName", "tableName", prefix value = "targetValue";
	"ADD_SUFFIX"	"databaseName", "schemaName", "tableName", suffix value = "targetValue";
	"CONVERT_LOWERCASE"	"databaseName", "schemaName", "tableName";
	"MOVE_TO"	"databaseName", "schemaName", "tableName", new schema = "targetValue";
	"REMOVE_PREFIX"	"databaseName", "schemaName", "tableName", prefix value = "targetValue";

objectType	ruleAction	parameters
	"REMOVE_SUFFIX"	"databaseName", "schemaName", "tableName", suffix value = "targetValue";
	"RENAME"	"databaseName", "schemaName", "tableName", new name= "targetValue";
	"REPLACE_PREFIX"	"databaseName", "schemaName", "tableName", old prefix = "sourceValue", new prefix = "targetValue";
	"REPLACE_SUFFIX"	"databaseName", "schemaName", "tableName", old suffix = "sourceValue", new suffix = "targetValue";
"view"	"ADD_PREFIX"	"databaseName", "schemaName", "viewName", prefix value = "targetValue";
	"ADD_SUFFIX"	"databaseName", "schemaName", "viewName", suffix value = "targetValue";
	"CONVERT_LOWERCASE"	"databaseName", "schemaName", "viewName";
	"MOVE_TO"	"databaseName", "schemaName", "viewName", new schema = "targetValue";
	"REMOVE_PREFIX"	"databaseName", "schemaName", "viewName", prefix value = "targetValue";
	"REMOVE_SUFFIX"	"databaseName", "schemaName", "viewName", suffix value = "targetValue";
	"RENAME"	"databaseName", "schemaName", "viewName", new name= "targetValue";
	"REPLACE_PREFIX"	"databaseName", "schemaName", "viewName", old prefix = "sourceValue", new prefix = "targetValue";
	"REPLACE_SUFFIX"	"databaseName", "schemaName", "viewName", old suffix = "sourceValue", new suffix = "targetValue";
"column"	"ADD_PREFIX"	"databaseName", "schemaName", "tableName", "columnName", prefix value = "targetValue";
	"ADD_SUFFIX"	"databaseName", "schemaName", "tableName", "columnName", suffix value = "targetValue";
	"CHANGE_DATA_TYPE"	"databaseName", "schemaName", "tableName", "columnName", newDataType + optional (newDataTypeLength, newDataTypePrecision, newDataTypeScale), oldDataType + optional (oldDataTypeLength, oldDataTypePrecision, oldDataTypeScale);
	"REMOVE_PREFIX"	"databaseName", "schemaName", "tableName", "columnName", prefix value = "targetValue";

objectType	ruleAction	parameters
	"REMOVE_SUFFIX"	"databaseName", "schemaName", "tableName", "columnName", suffix value = "targetValue";
	"RENAME"	"databaseName", "schemaName", "tableName", "columnName", new name = "targetValue";
	"REPLACE_PREFIX"	"databaseName", "schemaName", "tableName", "columnName", old prefix = "sourceValue", new prefix = "targetValue";
	"REPLACE_SUFFIX"	"databaseName", "schemaName", "tableName", "columnName", old suffix = "sourceValue", new suffix = "targetValue";
"function result"	"CHANGE_DATA_TYPE"	"schemaName", "parentName", "functionName", newDataType + optional (newDataTypeLength, newDataTypePrecision, newDataTypeScale, newDataTypeSchemaName, newDataTypeParentName, newDataTypeCustomName), oldDataType + optional (oldDataTypeLength, oldDataTypePrecision, oldDataTypeScale, oldDataTypeSchemaName, oldDataTypeParentName, oldDataTypeCustomName);
"local variable"	"CHANGE_DATA_TYPE"	"schemaName", "parentName", "routineName", "variableName", newDataType + optional (newDataTypeLength, newDataTypePrecision, newDataTypeScale, newDataTypeSchemaName, newDataTypeParentName, newDataTypeCustomName), oldDataType + optional (oldDataTypeLength, oldDataTypePrecision, oldDataTypeScale, oldDataTypeSchemaName, oldDataTypeParentName, oldDataTypeCustomName);
"routine parameter"	"CHANGE_DATA_TYPE"	"schemaName", "parentName", "routineName", "parameterName", newDataType + optional (newDataTypeLength, newDataTypePrecision, newDataTypeScale, newDataTypeSchemaName, newDataTypeParentName, newDataTypeCustomName), oldDataType + optional (oldDataTypeLength, oldDataTypePrecision, oldDataTypeScale, oldDataTypeSchemaName, oldDataTypeParentName, oldDataTypeCustomName);
"package"	"ADD_PREFIX"	"packageName", prefix value = "targetValue";
	"ADD_SUFFIX"	"packageName", suffix value = "targetValue";

objectType	ruleAction	parameters
	"CONVERT_LOWERCASE"	"packageName";
	"REMOVE_PREFIX"	"packageName", prefix value = "targetValue";
	"REMOVE_SUFFIX"	"packageName", suffix value = "targetValue";
	"RENAME"	"packageName", new name= "targetValue";
	"REPLACE_PREFIX"	"packageName", old prefix = "sourceValue", new prefix = "targetValue";
	"REPLACE_SUFFIX"	"packageName", old suffix = "sourceValue", new suffix = "targetValue";
"package task"	"ADD_PREFIX"	"packageName", "packageTaskName", prefix value = "targetValue";
	"ADD_SUFFIX"	"packageName", "packageTaskName", suffix value = "targetValue";
	"CONVERT_LOWERCASE"	"packageName", "packageTaskName";
	"REMOVE_PREFIX"	"packageName", "packageTaskName", prefix value = "targetValue";
	"REMOVE_SUFFIX"	"packageName", "packageTaskName", suffix value = "targetValue";
	"RENAME"	"packageName", "packageTaskName", new name= "targetValue";
	"REPLACE_PREFIX"	"packageName", "packageTaskName", old prefix = "sourceValue", new prefix = "targetValue";
	"REPLACE_SUFFIX"	"packageName", "packageTaskName", old suffix = "sourceValue", new suffix = "targetValue";
"variable"	"ADD_PREFIX"	"packageName", "packageTaskName", "namespace", prefix value = "targetValue";
	"ADD_SUFFIX"	"packageName", "packageTaskName", "namespace", suffix value = "targetValue";
	"CHANGE_DATA_TYPE"	"packageName", "packageTaskName", "namespace", "variableSsisName", "newDataType" "oldDataType";
	"CONVERT_LOWERCASE"	"packageName", "packageTaskName";
	"REMOVE_PREFIX"	"packageName", "packageTaskName", "namespace", prefix value = "targetValue";
	"REMOVE_SUFFIX"	"packageName", "packageTaskName", "namespace", suffix value = "targetValue";

objectType	ruleAction	parameters
	"RENAME"	"packageName", "packageTaskName", "namespace", new name = "targetValue";
	"REPLACE_PREFIX"	"packageName", "packageTaskName", "namespace", old prefix = "sourceValue", new prefix = "targetValue";
	"REPLACE_SUFFIX"	"packageName", "packageTaskName", "namespace", old suffix = "sourceValue", new suffix = "targetValue";

6.11. Script category and type correspondence

Category	Type
BTEQ Scripts	BTEQ
FastExport	FastExport
FastLoad	FastLoad
MultiLoad	Multiload
Python Shell	PythonShell
RSQL Scripts	RSQL
SQL Scripts	PGSQL
SQL Scripts	SQLPlus
SQL Scripts	TSQL
Scripts	Script
Shell	Shell
Spark	Spark

6.12. Oracle PL/Scope schema compilation scripts

6.12.1. Compile specified database schemas

The PL/SQL script presented below compiles specified database schemas with using a PL/Scope compilation setting which indicates whether to collect (ALL) or not (NONE) identifier data at compile time.

Script: **compile_specified_schemas.sql**

```
-- ============================================================================
--  Description   : Compiles specified database schemas.
-- ============================================================================
--  Inputs        : > PLSCOPE_SETTINGS:
--                : Indicates whether to collect (ALL) or not (NONE) PL/SQL
--                : source code (PL/Scope) identifier data at compile time.
--                : ------------------------------------------------------------
--                : > SHOW_STATISTICS:
```

```
--               : Boolean flag (TRUE|FALSE) to show compile statistics.
-- ============================================================================
DECLARE
    -- PL/Scope settings (ALL|NONE)
    PLSCOPE_SETTINGS CONSTANT VARCHAR2(50) := 'ALL';

    -- Show compile statistics (TRUE|FALSE)
    SHOW_STATISTICS CONSTANT BOOLEAN := TRUE;

    v_task_time NUMBER;
    v_schema_time NUMBER;
    v_lock_recomp INTEGER;
    v_schemas_cnt INTEGER := 0;
    v_def_plscope_settings VARCHAR2(50);

    -- List of standard (system) Oracle schemas to exclude
    ORA_SYS_SCHEMAS CONSTANT SYS.ODCIVARCHAR2LIST := SYS.ODCIVARCHAR2LIST(
        'ADAMS', 'ANONYMOUS', 'APEX_030000', 'APEX_030100', 'APEX_030200', 'APEX_040000',
        'APEX_040100', 'APEX_040200', 'APEX_050000', 'APEX_050100', 'APEX_LISTENER',
        'APEX_PUBLIC_USER', 'APEX_REST_PUBLIC_USER', 'APPQOSSYS', 'AUDSYS',
        'AURORA$ORB$UNAUTHENTICATED', 'AWR_STAGE', 'BI', 'BLAKE', 'CLARK', 'CSMIG',
        'CTXSYS', 'DBSNMP', 'DEMO', 'DIP', 'DMSYS', 'DSSYS', 'DVF', 'DVSYS', 'EXFSYS',
        'FLOWS_030000', 'FLOWS_FILES', 'GSMADMIN_INTERNAL', 'GSMCATUSER', 'GSMUSER', 'HR',
        'IX', 'JONES', 'LBACSYS', 'MDDATA', 'MDSYS', 'MGMT_VIEW', 'OE', 'OJVMSYS', 'OLAPSYS',
        'OPS$', 'ORACLE_OCM', 'ORDDATA', 'ORDPLUGINS', 'ORDSYS', 'ORDS_METADATA',
        'ORDS_PUBLIC_USER', 'OUTLN', 'OWBSYS', 'OWBSYS_AUDIT', 'PERFSTAT', 'PM', 'QUEST',
        'RDSADMIN', 'SCOTT', 'SH', 'SI_INFORMTN_SCHEMA', 'SPATIAL_CSW_ADMIN_USR',
        'SPATIAL_WFS_ADMIN_USR', 'SPOTLIGHT', 'SYS', 'SYSADM', 'SYSBACKUP', 'SYSDG', 'SYSKM',
        'SYSMAN', 'SYSTEM', 'TRACESVR', 'TSMSYS', 'WKPROXY', 'WKSYS', 'WK_TEST', 'WMSYS',
        'XDB', 'XS$NULL');

    FUNCTION get_minutes_diff (p_seconds IN INTEGER)
    RETURN VARCHAR2
    IS
    BEGIN
        RETURN TO_CHAR(ROUND((DBMS_UTILITY.GET_TIME - p_seconds) / 100 / 60, 2),
                       'FM999990D09');
    END;

    PROCEDURE log_error (p_sqlcode IN NUMBER,
                         p_sqlerrm IN VARCHAR2)
    IS
    BEGIN
        DBMS_OUTPUT.PUT_LINE('Error: ' || p_sqlcode);
        DBMS_OUTPUT.PUT_LINE('Description: ' || p_sqlerrm);
    END;

    PROCEDURE set_plscope_settings (p_plscope_settings IN VARCHAR2)
    IS
    BEGIN
        EXECUTE IMMEDIATE 'ALTER SESSION SET PLSCOPE_SETTINGS=''' ||
                          CASE p_plscope_settings
                             WHEN 'IDENTIFIERS:ALL' THEN p_plscope_settings
                             ELSE 'IDENTIFIERS:NONE'
                          END || '''';
    END;
BEGIN
    /* Determining whether stats collection for SYS.UTL_RECOMP_SORTED
       and/or SYS.UTL_RECOMP_COMPILED table(s) is locked.
       If so, DBMS_UTILITY.COMPILE_SCHEMA will fail after timeout because of
       lock on these tables. Thus, compilation through DBMS_DDL.ALTER_COMPILE
       method is used instead.
```

```
    */
    SELECT COUNT(1)
      INTO v_lock_recomp
      FROM dba_tab_statistics
     WHERE owner = 'SYS'
       AND table_name IN ('UTL_RECOMP_SORTED',
                          'UTL_RECOMP_COMPILED')
       AND stattype_locked IS NOT NULL;

    /* Saving `plscope_settings` session parameter value
       in order to restore it after compilation process.
    */
    SELECT value
      INTO v_def_plscope_settings
      FROM v$parameter
     WHERE name = 'plscope_settings';

    -- Setting identifiers mode (ALL|NONE)
    set_plscope_settings(p_plscope_settings => 'IDENTIFIERS:' ||
                         COALESCE(NULLIF(TRIM(UPPER(PLSCOPE_SETTINGS)), ''), 'NONE'));

    v_task_time := DBMS_UTILITY.GET_TIME;

    FOR r_schema IN
    (SELECT username schema_name
       FROM dba_users
      WHERE username NOT IN (SELECT COLUMN_VALUE
                             FROM TABLE(ORA_SYS_SCHEMAS)))
    LOOP
        -- Print schema info
        IF (SHOW_STATISTICS) -- show statistics Y/N
        THEN
            DBMS_OUTPUT.PUT_LINE('Schema: ' || r_schema.schema_name);
        END IF;

        v_schemas_cnt := v_schemas_cnt + 1;
        v_schema_time := DBMS_UTILITY.GET_TIME;

        DBMS_APPLICATION_INFO.SET_MODULE(module_name => 'Compiling schemas by list',
                                         action_name => 'Compiling ' || r_schema.schema_name || '
schema');

        BEGIN
            /* If statistics gathering for UTL_RECOMP_* tables is not locked,
               then use DBMS_UTILITY.COMPILE_SCHEMA, otherwise need to use
               DBMS_DDL.ALTER_COMPILE method instead.
            */
            IF (v_lock_recomp = 0)
            THEN
                -- Compile all objects in a schema by single run
                DBMS_UTILITY.COMPILE_SCHEMA(schema => r_schema.schema_name);
            ELSE
                FOR r_object IN
                (SELECT object_name,
                        object_type,
                        COALESCE((SELECT 1
                                    FROM dba_objects
                                   WHERE owner = obj.owner
                                     AND object_name = obj.object_name
                                     AND object_type = 'PACKAGE'
                                     AND obj.object_type = 'PACKAGE BODY'), 0) pkg_spec
                   FROM dba_objects obj
```

```
          WHERE owner = r_schema.schema_name
            /* Object types to compile */
            AND object_type IN ('FUNCTION',
                                'PROCEDURE',
                                'TRIGGER',
                                'PACKAGE',
                                'PACKAGE BODY')
          ORDER BY object_name,
                   object_id)
        LOOP
            -- Skip package body withot package specification
            CONTINUE WHEN r_object.object_type = 'PACKAGE BODY'
                      AND r_object.pkg_spec = 0;

            BEGIN
                -- Compile particular object by schema, name and type
                DBMS_DDL.ALTER_COMPILE(type   => r_object.object_type,
                                       schema => r_schema.schema_name,
                                       name   => r_object.object_name);
            EXCEPTION
                WHEN OTHERS THEN
                    log_error(p_sqlcode => SQLCODE,
                              p_sqlerrm => SQLERRM);
            END;
        END LOOP;
    END IF;

    -- Scmema compilation statistics
    IF (SHOW_STATISTICS) -- show statistics Y/N
    THEN
        -- Gathering schema objects statistics
        FOR r_objects IN
        (SELECT object_type,
                COUNT(1) obj_count
           FROM dba_objects
          WHERE owner = r_schema.schema_name
            AND object_type IN ('FUNCTION',
                                'PROCEDURE',
                                'TRIGGER',
                                'PACKAGE',
                                'PACKAGE BODY')
          GROUP BY object_type
          ORDER BY object_type)
        LOOP
            DBMS_OUTPUT.PUT_LINE(r_objects.object_type || ': ' ||
                                 r_objects.obj_count);
        END LOOP;

        DBMS_OUTPUT.PUT_LINE('Compiled in: ' ||
                             get_minutes_diff(p_seconds => v_schema_time) || ' min(s)');
    END IF;
EXCEPTION
    WHEN OTHERS THEN
        log_error(p_sqlcode => SQLCODE,
                  p_sqlerrm => SQLERRM);
END;

-- Delimiter between schema compilation statistics
IF (SHOW_STATISTICS) -- show statistics Y/N
THEN
    DBMS_OUTPUT.PUT_LINE('-------------------------');
END IF;
```

```
    END LOOP;

    -- Restoring default `plscope_settings` session parameter value
    set_plscope_settings(p_plscope_settings => v_def_plscope_settings);

    DBMS_APPLICATION_INFO.SET_MODULE(module_name => NULL,
                                     action_name => NULL);

    -- Final (aggregated) compilation statistics
    IF (SHOW_STATISTICS) -- show statistics Y/N
    THEN
        DBMS_OUTPUT.PUT_LINE('Method: ' || CASE v_lock_recomp
                                             WHEN 0 THEN 'DBMS_UTILITY.COMPILE_SCHEMA'
                                             ELSE 'DBMS_DDL.ALTER_COMPILE'
                                           END);
        DBMS_OUTPUT.PUT_LINE('Processed: ' || v_schemas_cnt || ' schema(s)');
        DBMS_OUTPUT.PUT_LINE('Total time: ' || get_minutes_diff(p_seconds => v_task_time) || ' min(s)');
    END IF;
END;
```

6.12.2. Compile all schemas except system ones

The PL/SQL script presented below compiles all database schemas except system ones with using a PL/Scope compilation setting which indicates whether to collect (ALL) or not (NONE) identifier data at compile time.

Script: **compile_all_schemas_except_system_ones.sql**

```
-- ========================================================================
--  Description   : Compiles specified database schemas.
-- ========================================================================
--  Inputs        : > SCHEMA_LIST:
--                : List of database schemas to compile.
--                : -------------------------------------------------------
--                : > PLSCOPE_SETTINGS:
--                : Indicates whether to collect (ALL) or not (NONE) PL/SQL
--                : source code (PL/Scope) identifier data at compile time.
--                : -------------------------------------------------------
--                : > SHOW_STATISTICS:
--                : Boolean flag (TRUE|FALSE) to show compile statistics.
-- ========================================================================
DECLARE
    -- List of schemas to compile
    SCHEMA_LIST SYS.ODCIVARCHAR2LIST := SYS.ODCIVARCHAR2LIST('SCHEMA1',
                                                             'CaseSensitiveSchema2');

    -- PL/Scope settings (ALL|NONE)
    PLSCOPE_SETTINGS CONSTANT VARCHAR2(50) := 'ALL';

    -- Show compile statistics (TRUE|FALSE)
    SHOW_STATISTICS CONSTANT BOOLEAN := TRUE;

    v_task_time NUMBER;
    v_schema_time NUMBER;
    v_lock_recomp INTEGER;
    v_schemas_cnt INTEGER := 0;
    v_schema_name VARCHAR2(250);
    v_def_plscope_settings VARCHAR2(50);
```

```
    FUNCTION get_minutes_diff (p_seconds IN INTEGER)
    RETURN VARCHAR2
    IS
    BEGIN
        RETURN TO_CHAR(ROUND((DBMS_UTILITY.GET_TIME - p_seconds) / 100 / 60, 2),
                       'FM999990D09');
    END;

    PROCEDURE log_error (p_sqlcode IN NUMBER,
                         p_sqlerrm IN VARCHAR2)
    IS
    BEGIN
        DBMS_OUTPUT.PUT_LINE('Error: ' || p_sqlcode);
        DBMS_OUTPUT.PUT_LINE('Description: ' || p_sqlerrm);
    END;

    PROCEDURE set_plscope_settings (p_plscope_settings IN VARCHAR2)
    IS
    BEGIN
        EXECUTE IMMEDIATE 'ALTER SESSION SET PLSCOPE_SETTINGS=''' ||
                          CASE p_plscope_settings
                             WHEN 'IDENTIFIERS:ALL' THEN p_plscope_settings
                             ELSE 'IDENTIFIERS:NONE'
                          END || '''';
    END;
BEGIN
    /* Determining whether stats collection for SYS.UTL_RECOMP_SORTED
       and/or SYS.UTL_RECOMP_COMPILED table(s) is locked.
       If so, DBMS_UTILITY.COMPILE_SCHEMA will fail after timeout because of
       lock on these tables. Thus, compilation through DBMS_DDL.ALTER_COMPILE
       method is used instead.
    */
    SELECT COUNT(1)
      INTO v_lock_recomp
      FROM dba_tab_statistics
     WHERE owner = 'SYS'
       AND table_name IN ('UTL_RECOMP_SORTED',
                          'UTL_RECOMP_COMPILED')
       AND stattype_locked IS NOT NULL;

    /* Saving `plscope_settings` session parameter value
       in order to restore it after compilation process.
    */
    SELECT value
      INTO v_def_plscope_settings
      FROM v$parameter
     WHERE name = 'plscope_settings';

    -- Setting identifiers mode (ALL/NONE)
    set_plscope_settings(p_plscope_settings => 'IDENTIFIERS:' ||
                         COALESCE(NULLIF(TRIM(UPPER(PLSCOPE_SETTINGS)), ''), 'NONE'));

    v_task_time := DBMS_UTILITY.GET_TIME;

    FOR r_schema IN
    (SELECT DISTINCT UPPER(TRIM(COLUMN_VALUE)) schema_name
       FROM TABLE(SCHEMA_LIST))
    LOOP
        BEGIN
            -- Checking that supplied schema name is an existing DB schema
            v_schema_name := DBMS_ASSERT.SCHEMA_NAME(r_schema.schema_name);
```

```
            -- Print schema info
            IF (SHOW_STATISTICS) -- show statistics Y/N
            THEN
                DBMS_OUTPUT.PUT_LINE('Schema: ' || v_schema_name);
            END IF;
        EXCEPTION
            WHEN DBMS_ASSERT.INVALID_SCHEMA_NAME
            THEN
                -- Print invalid schema info
                IF (SHOW_STATISTICS) -- show statistics Y/N
                THEN
                    DBMS_OUTPUT.PUT_LINE('Invalid schema: ' || r_schema.schema_name || ' (skipped)');
                END IF;
                -- Skipping invalid schema
                CONTINUE;
        END;

        v_schemas_cnt := v_schemas_cnt + 1;
        v_schema_time := DBMS_UTILITY.GET_TIME;

        DBMS_APPLICATION_INFO.SET_MODULE(module_name => 'Compiling schemas by list',
                                         action_name => 'Compiling ' || r_schema.schema_name || '
schema');

        BEGIN
            /* If statistics gathering for UTL_RECOMP_* tables is not locked,
               then use DBMS_UTILITY.COMPILE_SCHEMA, otherwise need to use
               DBMS_DDL.ALTER_COMPILE method instead.
            */
            IF (v_lock_recomp = 0)
            THEN
                -- Compile all objects in a schema by single run
                DBMS_UTILITY.COMPILE_SCHEMA(schema => r_schema.schema_name);
            ELSE
                FOR r_object IN
                (SELECT object_name,
                        object_type,
                        COALESCE((SELECT 1
                                    FROM dba_objects
                                   WHERE owner = obj.owner
                                     AND object_name = obj.object_name
                                     AND object_type = 'PACKAGE'
                                     AND obj.object_type = 'PACKAGE BODY'), 0) pkg_spec
                   FROM dba_objects obj
                  WHERE owner = r_schema.schema_name
                    /* Object types to compile */
                    AND object_type IN ('FUNCTION',
                                        'PROCEDURE',
                                        'TRIGGER',
                                        'PACKAGE',
                                        'PACKAGE BODY')
                  ORDER BY object_name,
                           object_id)
                LOOP
                    -- Skip package body withot package specification
                    CONTINUE WHEN r_object.object_type = 'PACKAGE BODY'
                              AND r_object.pkg_spec = 0;

                    BEGIN
                        -- Compile particular object by schema, name and type
                        DBMS_DDL.ALTER_COMPILE(type   => r_object.object_type,
                                               schema => r_schema.schema_name,
```

```
                                        name   => r_object.object_name);
                EXCEPTION
                    WHEN OTHERS THEN
                        log_error(p_sqlcode => SQLCODE,
                                  p_sqlerrm => SQLERRM);
                END;
            END LOOP;
        END IF;

        -- Scmema compilation statistics
        IF (SHOW_STATISTICS) -- show statistics Y/N
        THEN
            -- Gathering schema objects statistics
            FOR r_objects IN
            (SELECT object_type,
                    COUNT(1) obj_count
               FROM dba_objects
              WHERE owner = r_schema.schema_name
                AND object_type IN ('FUNCTION',
                                    'PROCEDURE',
                                    'TRIGGER',
                                    'PACKAGE',
                                    'PACKAGE BODY')
              GROUP BY object_type
              ORDER BY object_type)
            LOOP
                DBMS_OUTPUT.PUT_LINE(r_objects.object_type || ': ' ||
                                     r_objects.obj_count);
            END LOOP;

            DBMS_OUTPUT.PUT_LINE('Compiled in: ' ||
                                 get_minutes_diff(p_seconds => v_schema_time) || ' min(s)');
        END IF;
    EXCEPTION
        WHEN OTHERS THEN
            log_error(p_sqlcode => SQLCODE,
                      p_sqlerrm => SQLERRM);
    END;

    -- Delimiter between schema compilation statistics
    IF (SHOW_STATISTICS) -- show statistics Y/N
    THEN
        DBMS_OUTPUT.PUT_LINE('-------------------------');
    END IF;
END LOOP;

-- Restoring default `plscope_settings` session parameter value
set_plscope_settings(p_plscope_settings => v_def_plscope_settings);

DBMS_APPLICATION_INFO.SET_MODULE(module_name => NULL,
                                 action_name => NULL);

-- Final (aggregated) compilation statistics
IF (SHOW_STATISTICS) -- show statistics Y/N
THEN
    DBMS_OUTPUT.PUT_LINE('Method: ' || CASE v_lock_recomp
                                         WHEN 0 THEN 'DBMS_UTILITY.COMPILE_SCHEMA'
                                         ELSE 'DBMS_DDL.ALTER_COMPILE'
                                       END);
    DBMS_OUTPUT.PUT_LINE('Processed: ' || v_schemas_cnt || ' schema(s)');
    DBMS_OUTPUT.PUT_LINE('Total time: ' || get_minutes_diff(p_seconds => v_task_time) || ' min(s)');
END IF;
```

```
END;
```

6.13. OLAP Task status JSON file sample

The following is a sample JSON file generated with the PrintOLAPTaskStatus command.


```
[
  {
    "description": "LocalTask 1",
    "status": "COMPLETED",
    "progress": "100.0",
    "elapsedTime": "00:00:15.659",
    "stageStatuses": [
      {
        "stageMode": "EXTRACT",
        "status": "COMPLETED",
        "progress": "100.0",
        "elapsedTime": "00:00:15.659",
        "rowsTotal": null,
        "rowsDone": null
      },
      {
        "stageMode": "COPY",
        "status": "COMPLETED",
        "progress": "100.0",
        "elapsedTime": "00:00:05.082",
        "rowsTotal": null,
        "rowsDone": null
      },
      {
        "stageMode": "UPLOAD",
        "status": "COMPLETED",
        "progress": "100.0",
        "elapsedTime": "00:00:03.967",
        "rowsTotal": null,
        "rowsDone": null
      }
    ],
    "subtasks": [
      {
        "description": "LINEORDER_150K",
        "status": "COMPLETED",
        "progress": "0.0",
        "elapsedTime": "00:00:00.000",
        "stageStatuses": [
          {
            "stageMode": "EXTRACT",
            "status": "COMPLETED",
            "progress": "100.0",
            "elapsedTime": "00:00:15.659",
            "rowsTotal": "150000",
            "rowsDone": "150000"
          },
          {
            "stageMode": "COPY",
            "status": "COMPLETED",
            "progress": "100.0",
            "elapsedTime": "00:00:05.082",
            "rowsTotal": "150000",
```

```
            "rowsDone": "150000"
          },
          {
            "stageMode": "UPLOAD",
            "status": "COMPLETED",
            "progress": "100.0",
            "elapsedTime": "00:00:03.967",
            "rowsTotal": "150000",
            "rowsDone": "150000"
          }
        ]
      }
    ]
  },
  {
    "description": "LocalTask 2",
    "status": "CREATED",
    "progress": "0.0",
    "elapsedTime": "00:00:00.000",
    "stageStatuses": [
      {
        "stageMode": "EXTRACT",
        "status": "CREATED",
        "progress": "0.0",
        "elapsedTime": "00:00:00.000",
        "rowsTotal": null,
        "rowsDone": null
      },
      {
        "stageMode": "UPLOAD",
        "status": "CREATED",
        "progress": "0.0",
        "elapsedTime": "00:00:00.000",
        "rowsTotal": null,
        "rowsDone": null
      }
    ],
    "subtasks": [
      {
        "description": "LINEORDER_1M",
        "status": "CREATED",
        "progress": "0.0",
        "elapsedTime": "00:00:00.000",
        "stageStatuses": [
          {
            "stageMode": "EXTRACT",
            "status": "CREATED",
            "progress": "0.0",
            "elapsedTime": "",
            "rowsTotal": null,
            "rowsDone": null
          },
          {
            "stageMode": "UPLOAD",
            "status": "CREATED",
            "progress": "0.0",
            "elapsedTime": "",
            "rowsTotal": null,
            "rowsDone": null
          }
        ]
      },
```

```
      {
        "description": "LINEORDER_100K",
        "status": "CREATED",
        "progress": "0.0",
        "elapsedTime": "00:00:00.000",
        "stageStatuses": [
          {
            "stageMode": "EXTRACT",
            "status": "CREATED",
            "progress": "0.0",
            "elapsedTime": "",
            "rowsTotal": null,
            "rowsDone": null
          },
          {
            "stageMode": "UPLOAD",
            "status": "CREATED",
            "progress": "0.0",
            "elapsedTime": "",
            "rowsTotal": null,
            "rowsDone": null
          }
        ]
      },
      {
        "description": "LINEORDER_1M_FULL",
        "status": "CREATED",
        "progress": "0.0",
        "elapsedTime": "00:00:00.000",
        "stageStatuses": [
          {
            "stageMode": "EXTRACT",
            "status": "CREATED",
            "progress": "0.0",
            "elapsedTime": "",
            "rowsTotal": null,
            "rowsDone": null
          },
          {
            "stageMode": "UPLOAD",
            "status": "CREATED",
            "progress": "0.0",
            "elapsedTime": "",
            "rowsTotal": null,
            "rowsDone": null
          }
        ]
      }
    ]
  }
]
```


6.14. CLI scenarios templates

BTEQScriptConversion

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
```

```
                  "teradata_driver_files": "C:\\drivers\\terajdbc4.jar",
                  "redshift_driver_file": "C:\\drivers\\redshift-jdbc42-2.0.0.1.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\BTEQScripts"
                }'
/

CreateProject
    -name: 'BTEQScripts'
    -directory: 'C:\Temp'
/

CreateAWSProfile
    -name: 'SCT'
    -accessKey: 'xxxxxxxxxxxxxxxxxx'
    -secretKey: 'xxxxxxxxxxxxxxxxxxxxxxxxxxxx'
    -s3Path: 'aws-sct-mybucket'
    -region: 'eu-west-1'
/

AddSource
    -name: 'TERADATA'
    -vendor: 'TERADATA'
    -host: '0.0.0.0'
    -port: '8194'
    -database: 'DBC'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
/

AddTarget
    -name: 'REDSHIFT'
    -vendor: 'REDSHIFT'
    -host: 'rsdbb01.localhost.redshift.amazonaws.com'
    -port: '5439'
    -database: 'dev'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
    -profile: 'SCT'
/

AddServerMapping
    -sourceTreePath: 'Servers.TERADATA'
    -targetTreePath: 'Servers.REDSHIFT'
/

/*
   Example FastExport, FastLoad, MultiLoad conversion
   For scriptType use one of the following: FastExport/FastLoad/MultiLoad
*/
LoadScript
    -sourceName: 'TERADATA'
    -variableFormat: '@PARAM\d+@'
    -directory: 'C:\Temp\BTEQ\FastExport'
    -scriptType: 'FastExport'
/
```

```
ApplyScriptSettings
    -schema: 'td_dwh'
    -sourceName: 'TERADATA'
    -script: 'C:\Temp\BTEQ\FastExport'
    -scriptType: 'FastExport'
/

ImportScriptVariables
    -sourceName: 'TERADATA'
    -script: 'C:\Temp\BTEQ\FastExport'
    -variablesFile: 'C:\Temp\var_values.csv'
    -scriptType: 'FastExport'
/

ConvertScript
    -targetType: 'RSQL'
    -sourceName: 'TERADATA'
    -script: 'C:\Temp\BTEQ\FastExport'
    -scriptType: 'FastExport'
/

SaveScript
    -output: 'C:\Temp\BTEQScripts\output\FastExport'
    -targetName: 'REDSHIFT'
    -targetType: 'RSQL'
    -overwrite: 'true'
    -script: 'C:\Temp\BTEQ\FastExport'
/

SaveReportPDF
    -treePath: 'Servers.TERADATA.Scripts.FastExport.C:\Temp\BTEQ\FastExport'
    -file: 'C:\Temp\BTEQScripts\report\FastExport.pdf'
/

SaveReportCSV
    -treePath: 'Servers.TERADATA.Scripts.FastExport.C:\Temp\BTEQ\FastExport'
    -file: C:\Temp\BTEQScripts\report\FastExport.csv'
/

# Example BTEQ to RSQL conversion
LoadScript
    -sourceName: 'TERADATA'
    -variableFormat: '@PARAM\d+@'
    -directory: 'C:\Temp\BTEQ\BTEQSource'
    -scriptType: 'BTEQ'
/

ApplyScriptSettings
    -schema: 'td_dwh'
    -sourceName: 'TERADATA'
    -script: 'C:\Temp\BTEQ\BTEQSource'
    -scriptType: 'BTEQ'
/

ImportScriptVariables
    -sourceName: 'TERADATA'
    -script: 'C:\Temp\BTEQ\BTEQSource'
    -variablesFile: 'C:\Temp\var_values.csv'
    -scriptType: 'BTEQ'
/

ConvertScript
```

```
    -targetType: 'RSQL'
    -sourceName: 'TERADATA'
    -script: 'C:\Temp\BTEQ\BTEQSource'
    -scriptType: 'BTEQ'
/

SaveScript
    -output: 'C:\Temp\BTEQScripts\output\BTEQ'
    -targetName: 'REDSHIFT'
    -targetType: 'RSQL'
    -overwrite: 'true'
    -script: 'C:\Temp\BTEQ\BTEQSource'
/

SaveReportPDF
    -treePath: 'Servers.TERADATA.Scripts.BTEQ Scripts.C:\Temp\BTEQ\BTEQSource'
    -file: 'C:\Temp\BTEQScripts\report\BTEQ.pdf'
/

SaveReportCSV
    -treePath: 'Servers.TERADATA.Scripts.BTEQ Scripts.C:\Temp\BTEQ\BTEQSource'
    -file: 'C:\Temp\BTEQScripts\report\BTEQ.csv'
/

SaveProject
/

DeleteAWSProfile
    -name: 'SCT'
/
```

ConversionApply

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "oracle_driver_file": "C:\\drivers\\ojdbc8.jar",
                  "postgresql_driver_file": "C:\\drivers\\postgresql-42.2.19.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\oracle_postgresql"
                }'
/

CreateFilter
    -name: 'Filter'
    -origin: 'source'
    -objects: '[
                 {
                   "type": "include",
                   "treePath": "Servers.ORACLE.Schemas.%",
                   "name": [
                     "LARGE_DB_ORA",
                     "JAVADB"
                   ]
                 }
               ]'
```

```
/

CreateProject
    -name: 'oracle_postgresql'
    -directory: 'C:\Temp'
/

AddSource
    -name: 'ORACLE'
    -vendor: 'ORACLE'
    -host: 'ec2-0-0-0-0.compute.amazonaws.com'
    -port: '1521'
    -database: 'ORCL'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
/

AddTarget
    -name: 'POSTGRESQL'
    -vendor: 'POSTGRESQL'
    -host: 'pg-localost.rds.amazonaws.com'
    -port: '5432'
    -database: 'postgresql'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
/

AddServerMapping
    -sourceTreePath: 'Servers.ORACLE'
    -targetTreePath: 'Servers.POSTGRESQL'
/

Convert
    -filter: 'Filter'
/

Convert
    -treePath: 'Servers.ORACLE.Schemas.TEST_ORA_PG'
/

ApplyToTarget
    -filter: 'Filter'
    -useSourceSide: 'true'
/

ApplyToTarget
    -treePath: 'Servers.POSTGRESQL.Schemas.test_ora_pg'
/

SaveProject
/

SaveTargetSQL
    -file: 'C:\Temp\oracle_postgresql\sql\test_ora_pg.sql'
    -treePath: 'Servers.POSTGRESQL.Schemas.test_ora_pg'
/

SaveTargetSQLbyStatement
    -directory: 'C:\Temp\oracle_postgresql\sql\large_db_ora'
    -treePath: 'Servers.POSTGRESQL.Schemas.large_db_ora'
/
```

```
SaveReportPDF
    -file: 'C:\Temp\oracle_postgresql\SCT_Reports\oracle_postgresql.pdf'
/

SaveReportCSV
    -directory: 'C:\Temp\oracle_postgresql\SCT_Reports'
/
```

DMS

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "oracle_driver_file": "C:\\drivers\\ojdbc8.jar",
                  "postgresql_driver_file": "C:\\drivers\\postgresql-42.2.19.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\oracle_postgresql"
                }'
/

CreateProject
    -name: 'DMS'
    -directory: 'C:\Temp'
/

AddSource
    -name: 'ORACLE'
    -vendor: 'ORACLE'
    -host: 'ec2-0-0-0-0.eu-west-1.compute.amazonaws.com'
    -port: '1521'
    -database: 'ORCL'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
/

AddTarget
    -name: 'AURORA_POSTGRESQL'
    -vendor: 'AURORA_POSTGRESQL'
    -host: 'aurora-pg.localhost.eu-west-1.rds.amazonaws.com'
    -port: '5432'
    -database: 'postgres'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
/

AddServerMapping
    -sourceTreePath: 'Servers.ORACLE'
    -targetTreePath: 'Servers.AURORA_POSTGRESQL'
/

ImportTransformationRulesIntoSCT
    -sourceName: 'ORACLE'
    -targetName: 'POSTGRESQL'
    -file: 'C:\Temp\tableMapping.json'
/
```

```
Convert
    -treePath: 'Servers.ORACLE.Schemas.TEST_ORA_PG'
/

ApplyToTarget
    -treePath: 'Servers.AURORA_POSTGRESQL.Schemas.test_ora_pg'
/

CreateDMSEndpoint
    -name: 'apg-jenkins'
    -serverName: 'AURORA_POSTGRESQL'
    -origin: 'target'
    -replicationInstance: 'dms-replicationinstance-dev-00000000000'
/

CreateDMSTask
    -name: 'defaultTask'
    -treePath: 'Servers.ORACLE.Schemas.TEST_ORA_PG.Tables.DATATYPE_ANY'
    -replicationInstance: 'dms-replicationinstance-dev-00000000000'
    -sourceEndpoint: 'ora12-source'
    -targetEndpoint: 'apg-jenkins'
/

Wait
    -time: '70'
/

StartDMSTask
    -name: 'defaultTask'
/

Wait
    -time: '70'
/

SaveProject
/
```

DMS&Local

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "db2luw_driver_file": "C:\\drivers\\db2jcc4.jar",
                  "postgresql_driver_file": "C:\\drivers\\postgresql-42.2.19.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\LocalDMSTask"
                }'
/

CreateProject
    -name: 'LocalDMSTask'
    -directory: 'C:\Temp'
/

CreateAWSProfile
```

```
    -name: 'SCT'
    -accessKey: 'xxxxxxxxxxxxxxxxxx'
    -secretKey: 'xxxxxxxxxxxxxxxxxxxxxxxxxxxx'
    -s3Path: 'aws-sct-redshift-all/test'
    -region: 'eu-west-1'
/

AddSource
    -name: 'DB2LUW'
    -vendor: 'DB2LUW'
    -host: 'ec2-0-0-0-0.eu-west-1.compute.amazonaws.com'
    -port: '8192'
    -database: 'TEST_DB2'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
/

AddTarget
    -name: 'AURORA_POSTGRESQL'
    -vendor: 'AURORA_POSTGRESQL'
    -host: 'aurora-pg.cluster-localhost.eu-west-1.rds.amazonaws.com'
    -port: '5432'
    -database: 'postgers'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
/

AddServerMapping
    -sourceTreePath: 'Servers.DB2LUW.Schemas.TEST_DB2'
    -targetTreePath: 'Servers.AURORA_POSTGRESQL'
/

Convert
    -treePath: 'Servers.DB2LUW.Schemas.TEST_DB2'
/

ApplyToTarget
    -treePath: 'Servers.AURORA_POSTGRESQL.Schemas.test_db2'
/

RegisterOLTPAgent
    -name: 'testAgent'
    -host: '0.0.0.0'
    -port: '5050'
    -password: 'xxxxxxxxxxxxxxxx'
/

CreateLocalDMSTask
    -name: 'LocalDMSTask'
    -agent: 'testAgent'
    -treePath: 'Servers.DB2LUW.Schemas.TEST_DB2'
    -replicationInstance: 'dms-replicationinstance-dev-0000000000'
    -roleIAM: 'AWSSctPowerUser'
/

Wait
    -time: '60'
/

TestLocalDMSTask
    -name: 'LocalDMSTask'
/
```

```
Wait
    -time: '40'
/

StartLocalDMSTask
    -name: 'LocalDMSTask'
/

Wait
    -time: '50'
/

SaveProject
/

DeleteAWSProfile
    -name: 'SCT'
/
```

GenericAppConversion

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "oracle_driver_file": "C:\\drivers\\ojdbc8.jar",
                  "postgresql_driver_file": "C:\\drivers\\postgresql-42.2.19.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\AppConversion"
                }'
/

CreateProject
    -name: 'AppConversion'
    -directory: 'C:\Temp'
/

AddSource
    -name: 'ORACLE'
    -vendor: 'ORACLE'
    -connectionType: 'BASIC_SERVICE_NAME'
    -host: 'ec2-0-0-0-0.eu-west-1.compute.amazonaws.com'
    -port: '1521'
    -serviceName: 'ORCL'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
/

AddTarget
    -name: 'POSTGRESQL'
    -vendor: 'POSTGRESQL'
    -host: 'pg-localhost.rds.amazonaws.com'
    -port: '5432'
    -database: 'postgres'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
```

```
/

AddServerMapping
    -sourceTreePath: 'Servers.ORACLE'
    -targetTreePath: 'Servers.POSTGRESQL'
/

# Possible values for language: C#, C++, ANY
CreateGenAppProject
    -language: 'JAVA'
    -projectName: 'GenericAppConversion'
    -parameterStyle: 'Positional (?)'
    -directory: 'C:\appConversionGeneric\source'
    -treePath: 'Servers.ORACLE.Schemas.TEST_ORA_PG'
/

ConvertGenApp
    -projectName: 'GenericAppConversion'
    -file: 'C:\appConversionGeneric\source\java_source.java'
/

ApplyGenApp
    -projectName: 'GenericAppConversion'
    -file: 'C:\appConversionGeneric\source\java_source.java'
/

SaveGenApp
    -projectName: 'GenericAppConversion'
    -file: 'C:\appConversionGeneric\source\java_source.java'
/

SaveGenAppScriptsToCSV
    -projectName: 'GenericAppConversion'
    -file: 'C:\Temp\AppConversion\Reports\scripts.csv'
/

SaveGenAppReportToPDF
    -projectName: 'GenericAppConversion'
    -file: 'C:\Temp\AppConversion\Reports\PDFReport.pdf'
/

SaveGenAppReportToCSV
    -projectName: 'GenericAppConversion'
    -file: 'C:\Temp\AppConversion\Reports\CSVReport.csv'
/

SaveProject
/
```

LanguageSpecificAppConversion

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "oracle_driver_file": "C:\\drivers\\ojdbc8.jar",
                  "postgresql_driver_file": "C:\\drivers\\postgresql-42.2.19.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
```

```
    -settings: '{
                  "console_log_folder": "C:\\Temp\\AppConversion"
                }'
/

CreateProject
    -name: 'AppConversion'
    -directory: 'C:\Temp'
/

AddSource
    -name: 'ORACLE'
    -vendor: 'ORACLE'
    -connectionType: 'BASIC_SERVICE_NAME'
    -host: 'ec2-0-0-0-0.eu-west-1.compute.amazonaws.com'
    -port: '1521'
    -serviceName: 'ORCL'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
/

AddTarget
    -name: 'POSTGRESQL'
    -vendor: 'POSTGRESQL'
    -host: 'pg-localhost.rds.amazonaws.com'
    -port: '5432'
    -database: 'postgres'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
/

AddServerMapping
    -sourceTreePath: 'Servers.ORACLE'
    -targetTreePath: 'Servers.POSTGRESQL'
/

# Pro*C application conversion
CreateLangAppProject
    -language: 'Pro*C'
    -projectName: 'ProC_App1'
    -directory: 'C:\Pro_C\source_pro_c'
    -treePath: 'Servers.ORACLE.Schemas.TEST_ORA_PG'
/

ConvertLangApp
    -projectName: 'ProC_App1'
    -language: 'Pro*C'
/

SaveLangAppProject
    -language: 'Pro*C'
    -projectName: 'ProC_App1'
    -directory: 'C:\Temp\AppConversion\Applications'
/

SaveProCAppStatementsToCSV
    -projectName: 'ProC_App1'
    -file: 'C:\Temp\AppConversion\Reports\ProCStatements.csv'
/

SaveReportPDF
    -treePath: 'Servers.ORACLE.Applications.Pro*C.ProC_App1'
```

```
    -file: 'C:\Temp\AppConversion\Reports\ProC_report.pdf'
/

SaveReportCSV
    -treePath: 'Servers.ORACLE.Applications.Pro*C.ProC_App1'
    -file: 'C:\Temp\AppConversion\Reports\ProC_report.csv'
/

# Java application conversion
CreateLangAppProject
    -language: 'Java'
    -projectName: 'Java_App'
    -directory: 'C:\Java\source_java'
    -treePath: 'Servers.ORACLE.Schemas.TEST_ORA_PG'
/

LoadLangAppMetadata
    -language: 'Java'
    -projectName: 'Java_App'
/

ConvertLangApp
    -language: 'Java'
    -projectName: 'Java_App'
/

SaveLangAppProject
    -language: 'Java'
    -projectName: 'Java_App'
    -directory: 'C:\Temp\AppConversion\Applications'
/

SaveLangAppStatementsToJSON
    -language: 'Java'
    -projectName: 'Java_App'
    -file: 'C:\Temp\AppConversion\Reports\JavaStatememnts.json'
/

SaveReportPDF
    -treePath: 'Servers.ORACLE.Applications.Java.Java_App'
    -file: 'C:\Temp\AppConversion\Reports\Java_report.pdf'
/

SaveReportCSV
    -treePath: 'Servers.ORACLE.Applications.Java.Java_App'
    -file: 'C:\Temp\AppConversion\Reports\Java.csv'
/

# CS application conversion
CreateLangAppProject
    -language: 'C#'
    -projectName: 'CS_App'
    -directory: 'C:\CS\source_cs'
    -treePath: 'Servers.ORACLE.Schemas.TEST_ORA_PG'
/

LoadLangAppMetadata
    -language: 'C#'
    -projectName: 'CS_App'
/

ConvertLangApp
```

```
    -language: 'C#'
    -projectName: 'CS_App'
/

SaveLangAppProject
    -language: 'C#'
    -projectName: 'CS_App'
    -directory: 'C:\Temp\AppConversion\Applications'
/

SaveLangAppStatementsToJSON
    -language: 'C#'
    -projectName: 'CS_App'
    -file: 'C:\Temp\AppConversion\Reports\CSStatememnts.json'
/

SaveReportPDF
    -treePath: 'Servers.ORACLE.Applications.C#.CS_App'
    -file: 'C:\Temp\AppConversion\Reports\CS_report.pdf'
/

SaveReportCSV
    -treePath: 'Servers.ORACLE.Applications.C#.CS_App'
    -file: 'C:\Temp\AppConversion\Reports\CS.csv'
/

SaveProject
/
```

RedshiftAgent

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "teradata_driver_files": "C:\\drivers\\terajdbc4.jar",
                  "redshift_driver_file": "C:\\drivers\\redshift-jdbc42-2.0.0.1.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\teradata_redshift_data_agent\\log"
                }'
/

LoadTrustStore
    -name: 'Trust'
    -password: 'xxxxxxxxxxxxxxxx'
    -file: 'C:\Temp\SSL\TrustStore.jks'
/

LoadKeyStore
    -name: 'Key'
    -password: 'xxxxxxxxxxxxxxxx'
    -file: 'C:\Temp\SSL\KeyStore.jks'
/

CreateAWSProfile
    -name: 'SCT'
    -accessKey: 'xxxxxxxxxxxxxxxxxx'
```

```
    -secretKey: 'xxxxxxxxxxxxxxxxxxxxxxxxxxxx'
    -s3Path: 'aws-sct-test/Teradata_Redshift'
    -region: 'eu-west-1'
/

CreateProject
    -name: 'teradata_redshift_data_agent'
    -directory: 'C:\Temp'
/

SetProjectSettings
    -settings: '[
                  {
                    "page": "Common project settings",
                    "name": "project_environment",
                    "value": "SCT"
                  }
                ]'
/

AddSource
    -name: 'TERADATA'
    -vendor: 'TERADATA'
    -host: '0.0.0.0'
    -port: '1433'
    -database: 'DBC'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
/

AddTarget
    -name: 'REDSHIFT'
    -vendor: 'REDSHIFT'
    -host: 'rsdbb01.localhost.redshift.amazonaws.com'
    -port: '5439'
    -database: 'dev'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
    -useGlue: 'false'
/

AddServerMapping
    -sourceTreePath: 'Servers.TERADATA'
    -targetTreePath: 'Servers.REDSHIFT'
/

Convert
    -treePath: 'Servers.TERADATA.Schemas.TD_DATA4EXTRACTOR_GOLD'
/

ApplyToTarget
    -treePath: 'Servers.REDSHIFT.Schemas.td_data4extractor_gold'
/

RegisterOLAPAgent
    -port: '8050'
    -name: 'description1'
    -host: '127.0.0.1'
    -useSSL: 'false'
/

RegisterOLAPAgent
```

```
    -port: '8051'
    -trustName: 'Trust'
    -name: 'description2'
    -host: 'localhost'
    -keyName: 'Key'
    -useSSL: 'true'
/

CreateOLAPTask
    -name: 'td_data4extractor_gold_extract_upload_copy'
    -migrationType: 'extract_upload_copy''
    -treePath: 'Servers.TERADATA.Schemas.td_data4extractor_gold.Tables.%'
/

CreateOLAPTask
    -name: 'td_data4extractor_gold_extract_upload'
    -migrationType: 'extract_upload'
    -treePath: 'Servers.TERADATA.Schemas.td_data4extractor_gold.Tables.%'
/

CreateOLAPTask
    -name: 'td_data4extractor_gold_extract'
    -migrationType: 'extract_only'
    -treePath: 'Servers.TERADATA.Schemas.td_data4extractor_gold.Tables.%'
/

StartOLAPTask
    -name: 'td_data4extractor_gold_extract_upload_copy'
/

StartOLAPTask
    -name: 'td_data4extractor_gold_extract_upload'
/

StartOLAPTask
    -name: 'td_data4extractor_gold_extract'
/

WaitOLAPTaskStatus
    -name: 'td_data4extractor_gold_extract_upload_copy'
    -timeout: '900'
    -status: 'completed;failed'
/

WaitOLAPTaskStatus
    -name: 'td_data4extractor_gold_extract_upload'
    -timeout: '900'
    -status: 'completed;failed'
/

WaitOLAPTaskStatus
    -name: 'td_data4extractor_gold_extract'
    -status: 'completed;failed'
/

UnregisterOLAPAgent
    -port: '8050'
    -name: 'description1'
    -host: '127.0.0.1'
/

UnregisterOLAPAgent
```

```
    -port: '8051'
    -name: 'description2'
    -host: 'localhost'
/

SaveProject
/

DeleteAWSProfile
    -name: 'SCT'
/
```

ReportCreation

```
SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "oracle_driver_file": "C:\\drivers\\ojdbc8.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\oracle_postgresql"
                }'
/

CreateProject
    -name: 'oracle_postgresql'
    -directory: 'C:\temp'
/

CreateFilter
    -name: 'Filter'
    -origin: 'source'
    -objects: '[
                 {
                   "type": "include",
                   "treePath": "Servers.ORACLE.Schemas.%",
                   "name": [
                     "LARGE_DB_ORA",
                     "JAVADB"
                   ]
                 }
               ]'
/

AddSource
    -name: 'ORACLE'
    -vendor: 'ORACLE'
    -connectionType: 'BASIC_SERVICE_NAME'
    -host: 'ec2-0-0-0-0.eu-west-1.compute.amazonaws.com'
    -port: '1521'
    -serviceName: 'ORCL'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
/

AddServerMapping
    -sourceTreePath: 'Servers.ORACLE'
```

```
    -targetTreePath: 'Servers.<PostgreSQL (virtual)>'
/

CreateReport
    -filter: 'Filter'
/

SaveReportPDF
    -file: 'C:\Temp\oracle_postgresql\SCT_Reports\oracle_postgresql.pdf'
/

SaveReportCSV
    -directory: 'C:\Temp\oracle_postgresql\SCT_Reports'
/

SaveReportPDF
    -treePath: 'Servers.ORACLE.Schemas.LARGE_DB_ORA'
    -file: 'C:\Temp\oracle_postgresql\SCT_Reports\oracle_postgresql.pdf'
/

SaveReportCSV
    -directory: 'C:\Temp\oracle_postgresql\SCT_Reports'
/

SaveProject
/
```

SQLScriptConversion

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "oracle_driver_file": "C:\\drivers\\ojdbc8.jar",
                  "postgresql_driver_file": "C:\\drivers\\postgresql-42.2.19.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\SQLScripts"
                }'
/

CreateProject
    -name: 'SQLScripts'
    -directory: 'C:\Temp'
/

SetProjectSettings
    -settings: '[
                  {
                    "page": "ORACLE",
                    "name": "use_custom_extensions",
                    "value": "true"
                  },
                  {
                    "page": "ORACLE",
                    "name": "extensions_list",
                    "value": "sql,exe,txt"
                  }
```

```
                ]'
/

AddSource
    -name: 'ORACLE'
    -vendor: 'ORACLE'
    -connectionType: 'BASIC_SERVICE_NAME'
    -host: 'ec2-0-0-0-0.eu-west-1.compute.amazonaws.com'
    -port: '1521'
    -serviceName: 'ORCL'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
/

AddTarget
    -name: 'POSTGRESQL'
    -vendor: 'POSTGRESQL'
    -host: 'pg-localhost.eu-west-1.rds.amazonaws.com'
    -port: '5432'
    -database: 'postgres'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
/

AddServerMapping
    -sourceTreePath: 'Servers.ORACLE'
    -targetTreePath: 'Servers.POSTGRESQL'
/

LoadScript
    -sourceName: 'ORACLE'
    -directory: 'C:\Temp\Oracle-PostgreSQL\SQLPlus'
/

ApplyScriptSettings
    -sourceName: 'ORACLE'
    -schema: 'TEST_ORA_PG'
    -script: 'C:\Temp\Oracle-PostgreSQL\SQLPlus'
/

ConvertScript
    -sourceName: 'ORACLE'
    -script: 'C:\Temp\Oracle-PostgreSQL\SQLPlus'
/

SaveScript
    -targetName: 'POSTGRESQL'
    -script: 'C:\Temp\Oracle-PostgreSQL\SQLPlus'
    -output: 'C:\Temp\SQLScripts\output'
    -overwrite: 'true'
/

SaveReportPDF
    -treePath: 'Servers.ORACLE.SQL Scripts.C:\Temp\Oracle-PostgreSQL\SQLPlus'
    -file: 'C:\Temp\SQLScripts\reports\SQLPlus.pdf'
/

SaveReportCSV
    -treePath: 'Servers.ORACLE.SQL Scripts.C:\Temp\Oracle-PostgreSQL\SQLPlus'
    -directory: 'C:\Temp\SQLScripts\reports'
/
```

```
SaveProject
/
```

Informatica

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "oracle_driver_file": "C:\\Temp\\drivers\\ojdbc8.jar",
                  "mssql_driver_file": "C:\\Temp\\drivers\\drivers\\mssql-jdbc-7.2.2.jre11.jar",
                  "redshift_driver_file": "C:\\Temp\\drivers\\redshift-jdbc42-2.1.0.9.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\Informatica"
                }'
/

CreateProject
    -name: 'Informatica'
    -directory: 'C:\Temp'
/

AddSource
    -name: 'INFORMATICA_SOURCE'
    -vendor: 'INFORMATICA'
    -mappingsFolder: 'C:\Temp\source\Informatica'
/

AddTarget
    -name: 'INFORMATICA_TARGET'
    -vendor: 'INFORMATICA'
    -mappingsFolder: 'C:\Temp\target\Informatica'
/

AddSource
    -name: 'Extra_SourceOracle'
    -vendor: 'ORACLE'
    -host: 'ec2-0-0-0-0.us-west-2.compute.amazonaws.com'
    -port: '1521'
    -database: 'orcl'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
/

AddSource
    -name: 'Extra_SourceSQL_SERVER'
    -vendor: 'MSSQL'
    -host: '0.0.0.0'
    -port: '1433'
    -database: 'MSSQL'
    -user: 'xxxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
/

AddTarget
    -name: 'REDSHIFT'
    -vendor: 'REDSHIFT'
```

```
    -host: 'rsdbb01.xxxxxxxxx.us-west-2.redshift.amazonaws.com'
    -port: '5439'
    -database: 'dev'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
    -useGlue: 'false'
/

AddServerMapping
    -sourceTreePath: 'ETL.INFORMATICA_SOURCE'
    -targetTreePath: 'ETL.INFORMATICA_TARGET'
/

AddServerMapping
    -sourceTreePath: 'Servers.Extra_SourceOracle'
    -targetTreePath: 'Servers.REDSHIFT'
/

AddServerMapping
    -sourceTreePath: 'Servers.Extra_SourceSQL_SERVER'
    -targetTreePath: 'Servers.REDSHIFT'
/

ConfigureInformaticaConnectionsRedirect
    -treePath: 'ETL.INFORMATICA_SOURCE.Files'
    -connections: '{
                    "ConnectionNames": [
                      {
                        "name": "src_sql_srv",
                        "newName": "REDSHIFT",
                        "treePath": "Servers.Extra_SourceSQL_SERVER.Databases.SS_DWH.Schemas.dbo"
                      },
                      {
                        "name": "Oracle_src",
                        "newName": "REDSHIFT",
                        "treePath": "Servers.Extra_SourceOracle.Schemas.ORA_DWH"
                      },
                      {
                        "name": "test_SSIS",
                        "newName": "REDSHIFT",
                        "treePath": "Servers.Extra_SourceSQL_SERVER.Databases.SS_DWH.Schemas.dbo"
                      }
                    ],
                    "ConnectionVariables": [
                      {
                        "name": "$Source",
                        "treePath": "Servers.Extra_SourceSQL_SERVER.Databases.SS_DWH.Schemas.dbo",
                        "namePath": "ETL.INFORMATICA_SOURCE.Files"
                      }
                    ]
                  }'
/

Convert
    -treePath: 'ETL.INFORMATICA_SOURCE.Files'
/

ApplyToTarget
    -treePath: 'ETL.INFORMATICA_TARGET.Files'
/

SaveReportPDF
```

```
    -treePath: 'ETL.INFORMATICA_SOURCE.Files'
    -file: 'C:\Temp\SCT_Reports\Informatica.pdf'
/

SaveReportCSV
    -treePath: 'ETL.INFORMATICA_SOURCE.Files'
    -directory: 'C:\Temp\SCT_Reports'
/

SaveTargetInformaticaXML
    -treePath: 'ETL.INFORMATICA_TARGET.Files'
/

SaveProject
/
```

HadoopMigration

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "hive_driver_file": "C:\\drivers\\HiveJDBC42.jar",
                  "emr_hive_driver_file": "C:\\drivers\\HiveJDBC42.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\HadoopMigration"
                }'
/

CreateProject
    -name: 'HadoopMigration'
    -directory: 'C:\Temp'
/

# Setting Hadoop project-specific parameters
SetProjectSettings
    -settings: '[
                  {
                    "page": "HADOOP",
                    "name": "parallel_job_number",
                    "value": "3"
                  },
                  {
                    "page": "HIVE",
                    "name": "recalculate_statistic_after_migration",
                    "value": "Short statistic"
                  }
                ]'
/

AddSourceCluster
    -name: 'HADOOP_SOURCE'
    -vendor: 'HADOOP'
    -host: 'hadoop-namenode-hostname.com'
    -port: '22'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
```

```
    -useSSL: 'true'
    -privateKeyPath: 'C:\Temp\HadoopMigration\source-private-key.pem'
    -passPhrase: 'xxxxxxxxxxxxxxxxxxxxxx'
/

# If "createTunnel" is set to "true", then "host" is automatically treated as "localhost".
AddSourceClusterHDFS
    -cluster: 'HADOOP_SOURCE'
    -name: 'HDFS_SOURCE'
    -host: 'hostname'
    -port: '9000'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
    -createTunnel: 'true'
    -localPort: '9000'
    -remoteHost: '127.0.0.1'
    -remotePort: '9000'
/

# If "createTunnel" is set to "true", then "host" is automatically treated as "localhost".
AddSourceClusterHive
    -cluster: 'HADOOP_SOURCE'
    -name: 'HIVE_SOURCE'
    -host: 'hostname'
    -port: '10000'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
    -createTunnel: 'true'
    -localPort: '10000'
    -remoteHost: '127.0.0.1'
    -remotePort: '10000'
/

AddTargetCluster
    -name: 'HADOOP_TARGET'
    -vendor: 'AMAZON_EMR'
    -host: 'ec2-0-0-0-0.eu-west.compute.amazonaws.com'
    -port: '22'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxx'
    -useSSL: 'true'
    -privateKeyPath: 'C:\Temp\HadoopMigration\target-private-key.pem'
    -passPhrase: 'xxxxxxxxxxxxxxxxxxxxxx'
    -s3Name: 'S3_TARGET_TMP'
    -accessKey: 'xxxxxxxxxxxxxxxxxx'
    -secretKey: 'xxxxxxxxxxxxxxxxxxxxxxxxxx'
    -region: 'eu-west-1'
    -s3Path: 's3-bucket-name/hadoop-migraton'
/

# Additional (non-required) Amazon S3 bucket.
AddTargetClusterS3
    -cluster: 'HADOOP_TARGET'
    -name: 'S3_TARGET_BUCKET'
    -accessKey: 'xxxxxxxxxxxxxxxxxx'
    -secretKey: 'xxxxxxxxxxxxxxxxxxxxxxxxxx'
    -region: 'eu-west-1'
    -s3Path: 's3-bucket-name/hadoop-migraton-1'
/

# If "createTunnel" is set to "true", then "host" is automatically treated as "localhost".
AddTargetClusterHDFS
```

```
    -cluster: 'HADOOP_TARGET'
    -name: 'HDFS_TARGET'
    -host: 'hostname'
    -port: '8020'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
    -createTunnel: 'true'
    -localPort: '8020'
    -remoteHost: '127.0.0.1'
    -remotePort: '8020'
/

# If "createTunnel" is set to "true", then "host" is automatically treated as "localhost".
AddTargetClusterHive
    -cluster: 'HADOOP_TARGET'
    -name: 'HIVE_TARGET'
    -host: 'hostname'
    -port: '10008'
    -user: 'xxxxxxxxxxx'
    -password: 'xxxxxxxxxxxxxxxxx'
    -createTunnel: 'true'
    -localPort: '10008'
    -remoteHost: '127.0.0.1'
    -remotePort: '10000'
/

AddServerMapping
    -sourceTreePath: 'Clusters.HADOOP_SOURCE.HDFS_SOURCE.HDFS'
    -targetTreePath: 'Clusters.HADOOP_TARGET.HDFS_TARGET'
/

AddServerMapping
    -sourceTreePath: 'Clusters.HADOOP_SOURCE.HDFS_SOURCE.HDFS'
    -targetTreePath: 'Clusters.HADOOP_TARGET.S3_TARGET_BUCKET'
/

AddServerMapping
    -sourceTreePath: 'Clusters.HADOOP_SOURCE.HIVE_SOURCE.Databases'
    -targetTreePath: 'Clusters.HADOOP_TARGET.HIVE_TARGET'
/

# Use your specific database name here if needed.
AddServerMapping
    -sourceTreePath: 'Clusters.HADOOP_SOURCE.HIVE_SOURCE.Databases.<database-name>."External Tables"'
    -targetTreePath: 'Clusters.HADOOP_TARGET.S3_TARGET_BUCKET'
/

CreateMigrationReport
    -treePath: 'Clusters.HADOOP_SOURCE'
    -forceMigrate: 'true'
/

SaveReportPDF
    -treePath: 'Clusters.HADOOP_SOURCE'
    -file: 'C:\Temp\HadoopMigration\Reports\HadoopMigration.pdf'
/

SaveReportCSV
    -treePath: 'Clusters.HADOOP_SOURCE'
    -directory: 'C:\Temp\HadoopMigration\Reports\CSV'
/
```

```
Migrate
    -treePath: 'Clusters.HADOOP_SOURCE'
    -forceMigrate: 'false'
/

SaveProject
/
```

HadoopResumeMigration

```
SetGlobalSettings
    -save: 'true'
    -settings: '{
                  "hive_driver_file": "C:\\drivers\\HiveJDBC42.jar",
                  "emr_hive_driver_file": "C:\\drivers\\HiveJDBC42.jar"
                }'
/

SetGlobalSettings
    -save: 'false'
    -settings: '{
                  "console_log_folder": "C:\\Temp\\HadoopMigration"
                }'
/

OpenProject
    -file: 'C:\Temp\HadoopMigration\HadoopMigration.sct'
/

ConnectSourceCluster
    -name: 'HADOOP_SOURCE'
# OS user password that is used for SSH connection to the source cluster.
    -password: 'xxxxxxxxxxxxxxxx'
    -privateKeyPath: 'C:\Temp\HadoopMigration\source-private-key.pem'
    -passPhrase: 'xxxxxxxxxxxxxxxxxxxxxx'
/

ConnectSourceClusterHDFS
    -name: 'HDFS_SOURCE'
    -password: 'xxxxxxxxxxxxxxxx' # HDFS user password.
/

ConnectSourceClusterHive
    -name: 'HIVE_SOURCE'
    -password: 'xxxxxxxxxxxxxxxx' # Hive user password.
/

ConnectTargetCluster
    -name: 'HADOOP_TARGET'
# OS user password that is used for SSH connection to the target cluster.
    -password: 'xxxxxxxxxxxxxxxx'
    -privateKeyPath: 'C:\Temp\HadoopMigration\target-private-key.pem'
    -passPhrase: 'xxxxxxxxxxxxxxxxxxxxxx'
    -s3Name: 'S3_TARGET_TMP'
    -accessKey: 'xxxxxxxxxxxxxxxxxx'
    -secretKey: 'xxxxxxxxxxxxxxxxxxxxxxxxxx'
    -region: 'eu-west-1'
    -s3Path: 's3-bucket-name/hadoop-migraton'
/

ConnectTargetClusterHDFS
```

```
    -name: 'HDFS_TARGET'
    -password: 'xxxxxxxxxxxxxxxx' # HDFS user password.
/

ConnectTargetClusterHive
    -name: 'HIVE_TARGET'
    -password: 'xxxxxxxxxxxxxxxx' # Hive user password.
/

# Additional (non-required) Amazon S3 bucket.
ConnectTargetClusterS3
    -name: 'S3_TARGET_BUCKET'
    -accessKey: 'xxxxxxxxxxxxxxxxxx'
    -secretKey: 'xxxxxxxxxxxxxxxxxxxxxxxxxxxx'
    -region: 'eu-west-1'
    -s3Path: 's3-bucket-name/hadoop-migraton-1'
/

ResumeMigration
/

SaveReportPDF
    -treePath: 'Clusters.HADOOP_SOURCE'
    -file: 'C:\Temp\HadoopMigration\Reports\HadoopMigration.pdf'
/

SaveReportCSV
    -treePath: 'Clusters.HADOOP_SOURCE'
    -directory: 'C:\Temp\HadoopMigration\Reports\CSV'
/

SaveProject
/
```

OozieConversion

```
CreateProject
    -name: 'Oozie_Step_Functions'
    -directory: 'C:\Temp'
/

CreateAWSProfile
    -name: 'SCT'
    -accessKey: 'xxxxxxxxxxxxxxxxxx'
    -secretKey: 'xxxxxxxxxxxxxxxxxxxxxxxxxxxx'
    -s3Path: 's3-bucket-name/oozie'
    -region: 'eu-west-1'
/

SetProjectSettings
    -settings: '[
                  {
                    "page": "Common project settings",
                    "name": "project_environment",
                    "value": "SCT"
                  }
                ]'
/

AddSource
    -name: 'APACHE_OOZIE'
```

```
    -mappingsFolder: 'C:\Temp\source\Oozie'
    -vendor: 'APACHE_OOZIE'
/

AddTarget
    -name: 'STEP_FUNCTIONS'
    -vendor: 'STEP_FUNCTIONS'
    -profile: 'SCT'
/

AddServerMapping
    -sourceTreePath: 'ETL.APACHE_OOZIE'
    -targetTreePath: 'ETL.STEP_FUNCTIONS'
/

CreateLambdaExtPack
    -extPackId: 'ExtPackId'
    -tempDirectory: 'C:\Temp'
/

Convert
    -treePath: 'ETL.APACHE_OOZIE.Applications'
/

SaveOnS3
    -treePath: 'ETL.STEP_FUNCTIONS.State machine definitions'
/

SaveReportPDF
    -file: 'C:\Temp\Reports\Oozie_Step_Functions.pdf'
/

SaveReportCSV
    -directory: 'C:\Temp\Reports'
/

ConfigureStateMachine
    -treePath: 'ETL.STEP_FUNCTIONS.State machine definitions'
    -role: 'arn:aws:iam::000000000000:role/service-role/StepFunctions-roleName'
/

ApplyToTarget
    -treePath: 'ETL.STEP_FUNCTIONS.State machines'
/

AddParameterMapping
    -treePath: 'ETL.APACHE_OOZIE.Applications'
    -sourceParameter: 'sourceParameter'
    -sourceValue: 'sourceValue'
    -targetValue: 'targetValue'
/

AddTargetParameter
    -treePath: 'ETL.APACHE_OOZIE.Applications'
    -sourceParameter: 'sourceParameter'
    -sourceValue: 'sourceValue'
    -targetParameter: 'targetParameter'
    -targetValue: 'targetValue'
/

ApplyToTarget
    -treePath: 'ETL.STEP_FUNCTIONS.Parameter store'
```

```
/

SaveProject
/
```