WhereScape® RED

Release Notes

Version 8.4.1.0 | July 2019

Table of Contents

WhereScape RED 8.4.1.0 Release Update

WhereScape is pleased to announce that WhereScape RED 8.4.1.0 is now available.

Upgrading to version 8.4.1.0

Login to **https://www.wherescape.com** and download RED 8.4.1.0 from the downloads page in the **Support** section.

Detailed Changes from Previous Versions

Details of changes made in previous versions of RED are available on the **https://www.wherescape.com/support/red-release-notes/** page in the **Support** section.

Kind Regards,

WhereScape RED Team

Significant New Features and Improvements in this Release

The following significant new features have been added since Version 8.3.1.1.

- The option to generate update routines during application deployment.
- The capability to set default update and custom routine templates for a connection.
- DSS_LOAD_DATE columns in Load tables imported from WhereScape 3D now have the appropriate transformation applied by default.
- The capability to create applications or scheduler jobs for multiple objects.
- A simplified delete object workflow.
- Support for bulk generation of update routines for source mapping objects.
- The capability to define the transformation for multiple columns of a table at once.
- The capability to revert objects to a previous version.
- The WhereScape RED command line interface (REDCLI) now has production status.

Generate update routines during application deployment

WhereScape Setup Administrator now provides an option to generate the update routine for objects deployed in an application. This is particularly useful when deploying objects from WhereScape 3D applications because 3D applications don't include upgrade scripts or procedures. This option defaults to 'ON' during the deployment of 3D applications and 'OFF' during the deployment of applications generated by RED.

To take advantage of this feature:

- The code generation must be template based.
- The target connection for the object (or source connection in the case of a Load table load routine) must have the default template defined for the object type
- The default build options must satisfy the requirements of the default template
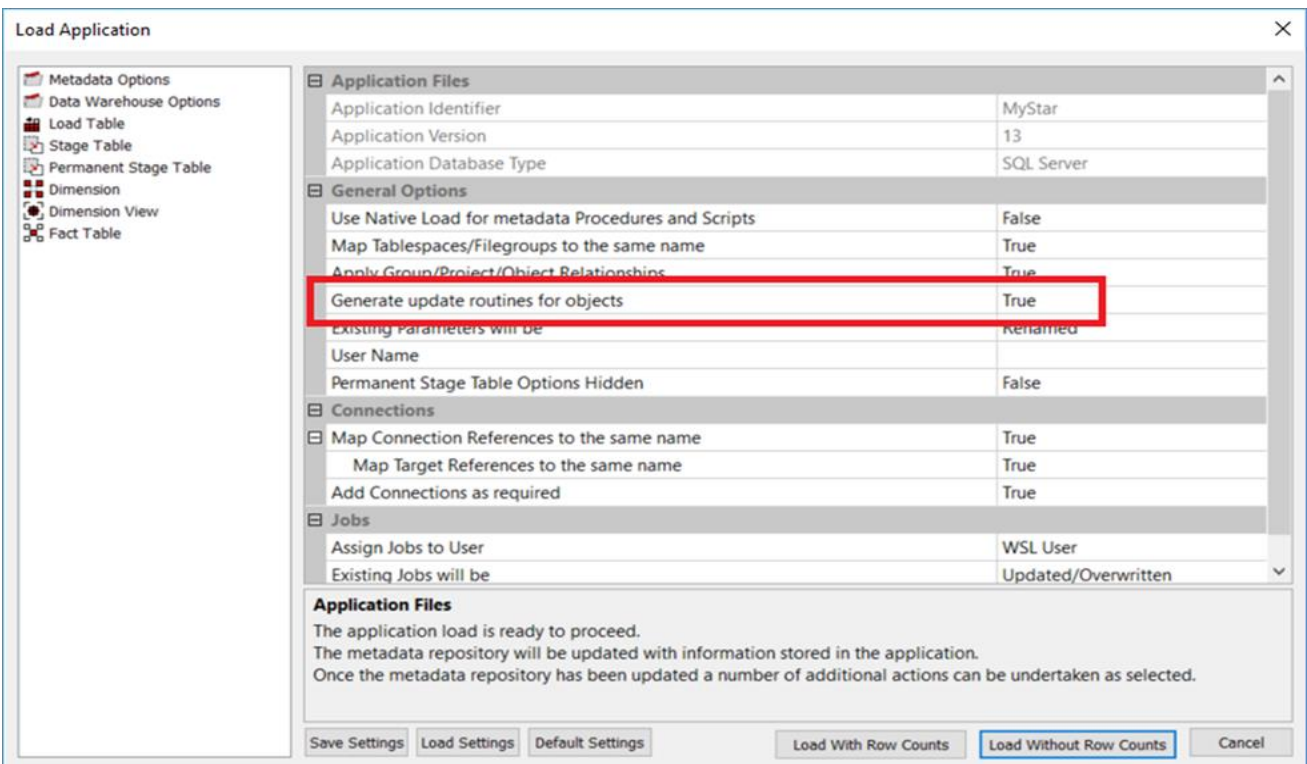
Set default update and custom routine templates for a connection

WhereScape RED now enables you to set the default template for the primary and custom update routines of each object type and sub type associated with a connection.

A default template can be set for each object type and used when each new object sub type is created and optionally, when deploying objects in an application.

Note:

Previous versions of RED only maintained the last used template by object type and this was used when the next new object of the same type and sub-type was created. This last used template feature has been replaced with the default routine templates settings per connection.
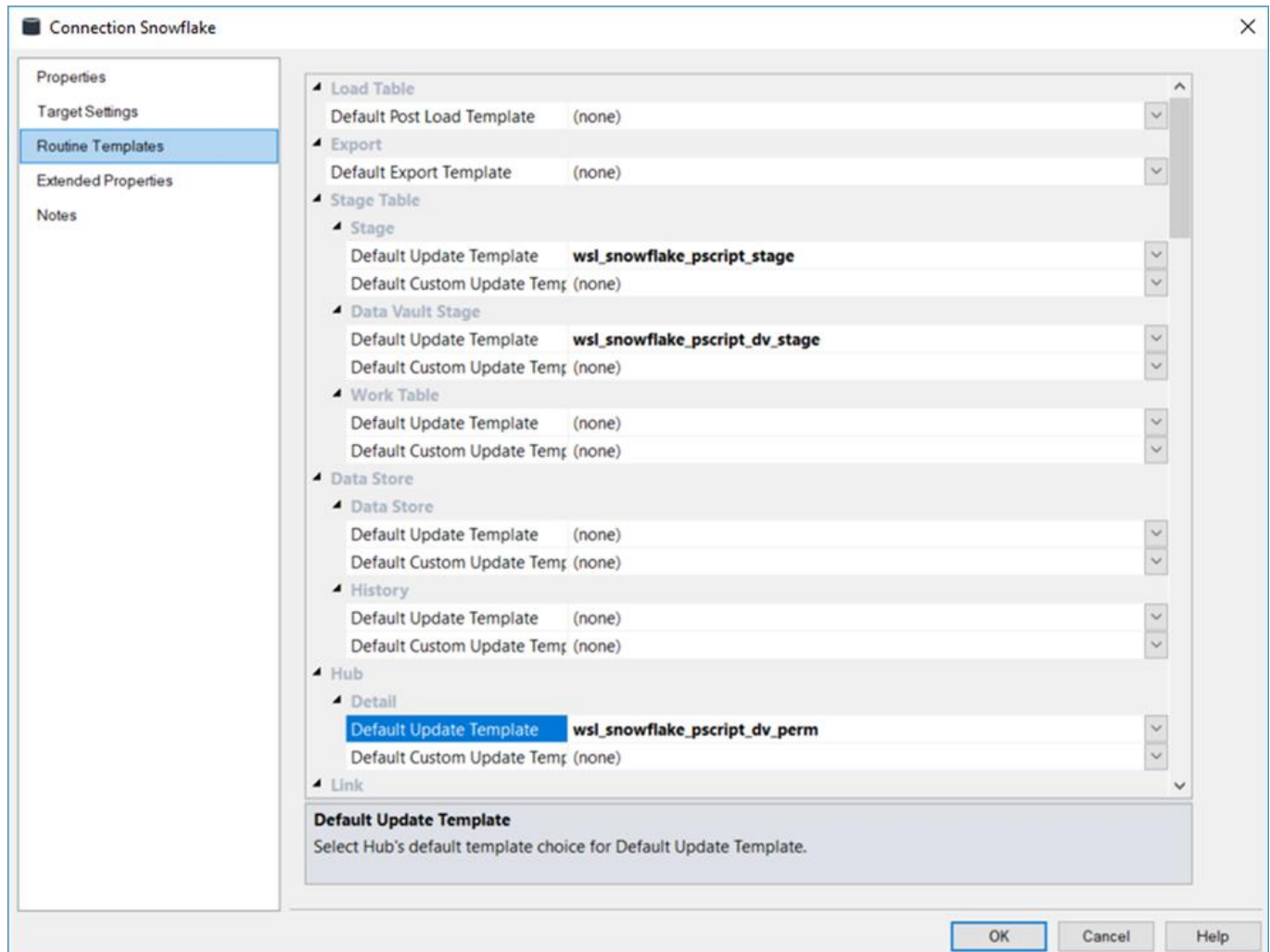
Load table DSS_LOAD_DATE columns imported from WhereScape 3D have the appropriate transformation applied by default

When deploying an application from WhereScape 3D that includes Load table objects with a DSS_LOAD_DATE column, RED Setup Administrator now applies the default transformation for these columns specific to the target database type.

If the target database type is Oracle, SQL Server or Teradata, RED applies an internally defined default transformation.

If the target database type is a "custom" database type, then RED Setup Administrator implements the user defined database function from **Tools > Options > DSS Tables and Columns > DSS Columns for Custom Database Targets**.
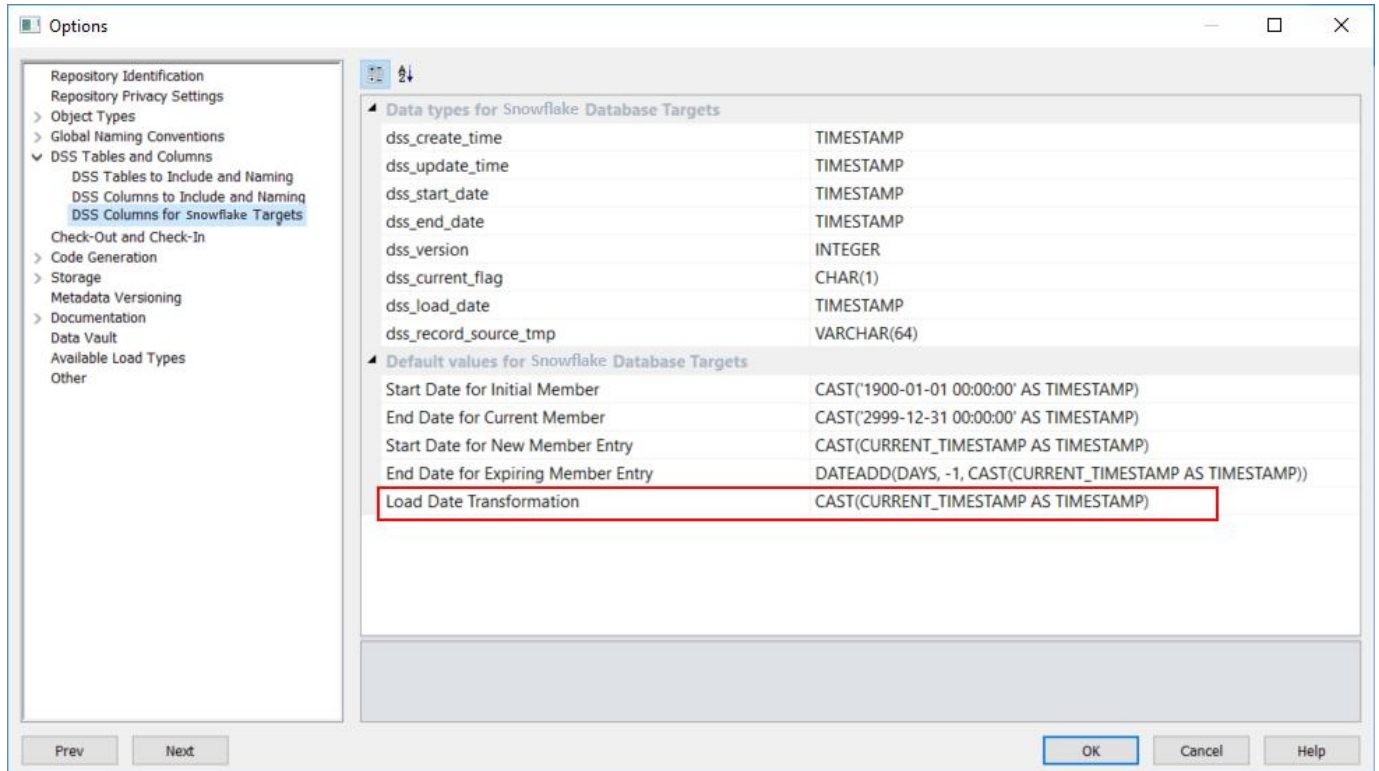
# Create applications or scheduler jobs for multiple objects

RED now provides an additional context menu option called **Build** which can be accessed by right clicking:

- a Project or Group from the Objects list (left) pane
- one or more selected table objects listed in the Drop Target (middle) pane

The **Build** option enables you to create a scheduler job or deployment application that includes all the objects associated with the selected Project/Group or from the objects selected in the middle pane.
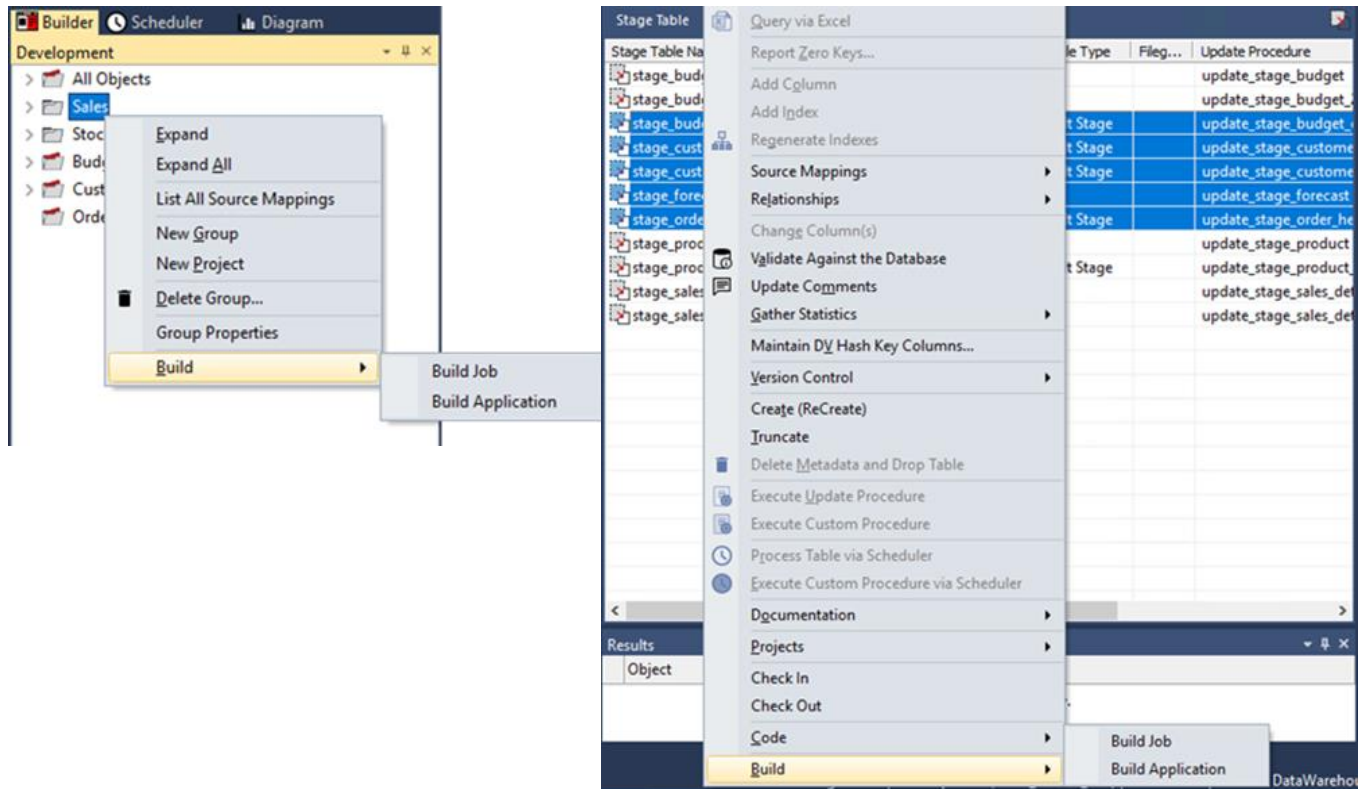

Note:
Task dependencies are not rebuilt as part of the **Build Job** workflow from the **Builder** Window. Therefore, WhereScape recommends that tasks are not manually added, removed or reordered as part of this workflow. If such manual changes are required, it is recommended the **Edit Task** action is used for the generated job from the **Scheduler** window.

A simplified delete object workflow

Previous versions of WhereScape RED allow two options when deleting an object

- Delete the Data warehouse table object and the RED metadata for the object (default) or
- Delete only the RED metadata for the object

This functionality remains the same but the selection of the required option is now condensed into one clearer confirmation screen:
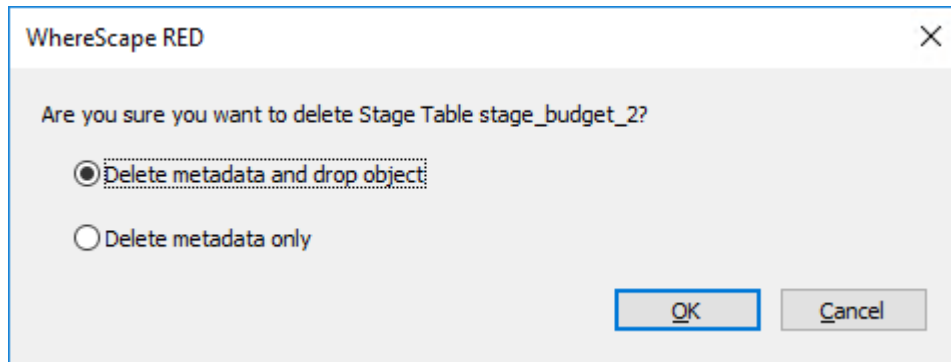

Bulk generation of update routines for Source Mapping objects

RED now provides an additional context menu option called **List All Source Mappings** which can be accessed from the Objects list (left) pane by right clicking:

- a Project or Group
- an Object Type group under the All Objects project
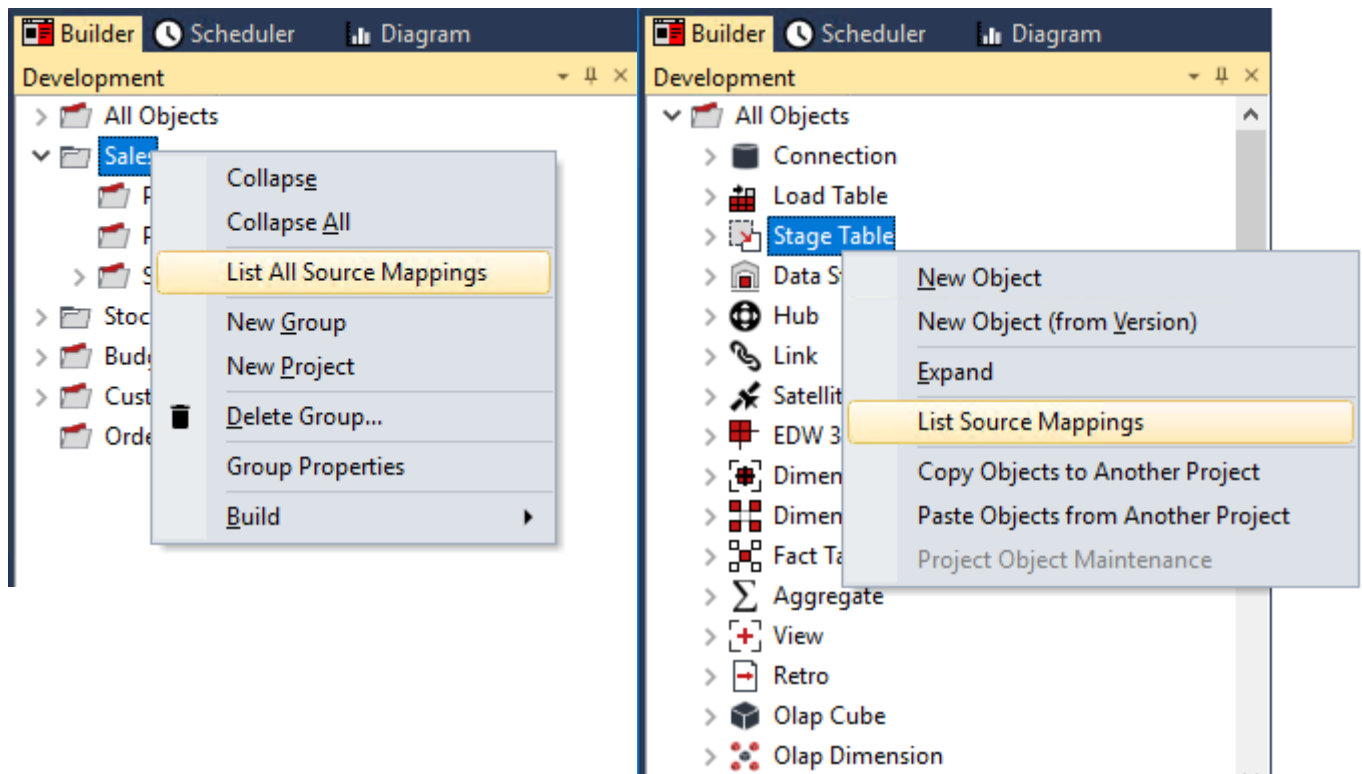
You can then use the **Code** context menu to perform the bulk rebuild or regeneration of update or custom update routines for the selected Source Mapping objects displayed in the middle pane.
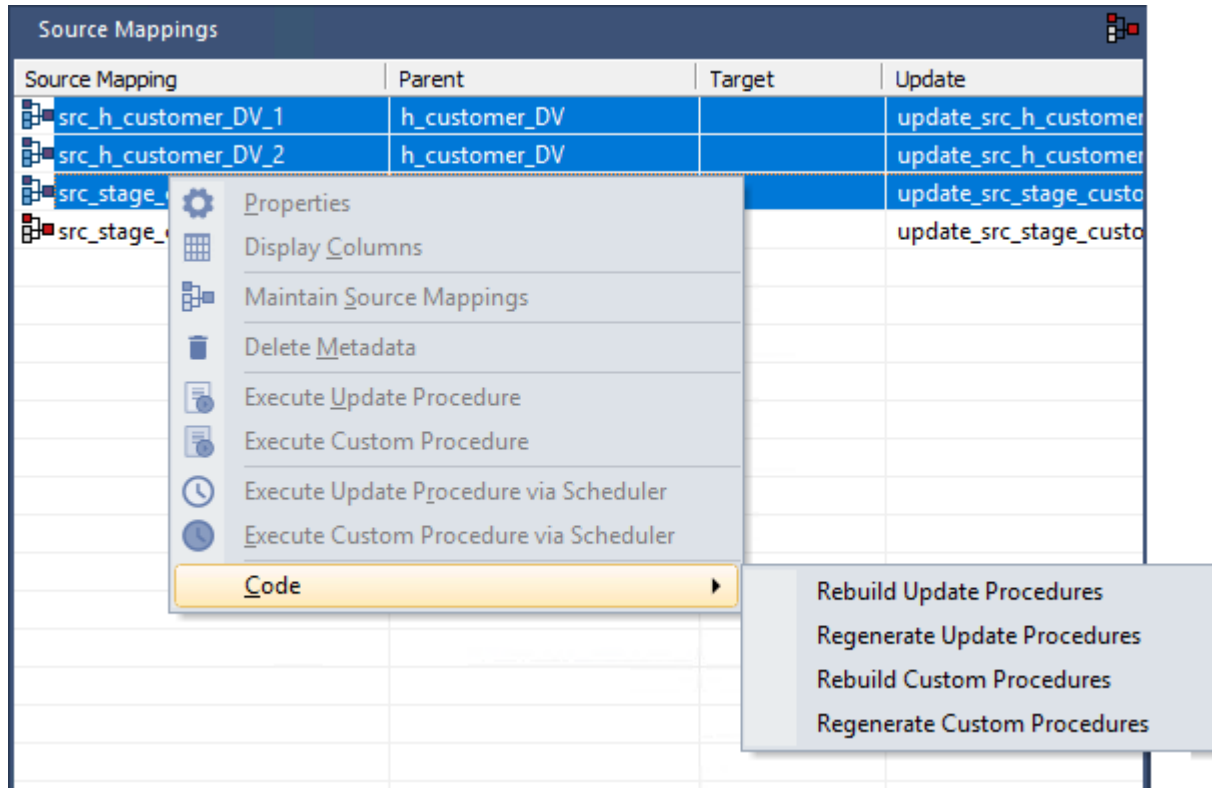
Define the transformation for multiple table columns

WhereScape RED enables you to change the properties of multiple columns in a table at once by multi-selecting the required columns from the Drop Target (middle) pane and then selecting the **Change Columns** option from the right-click context menu.

The **Change Columns** window in RED 8.4.1.0 now includes a **Transformation** option which enables you to configure and implement the transformation for all the selected columns.
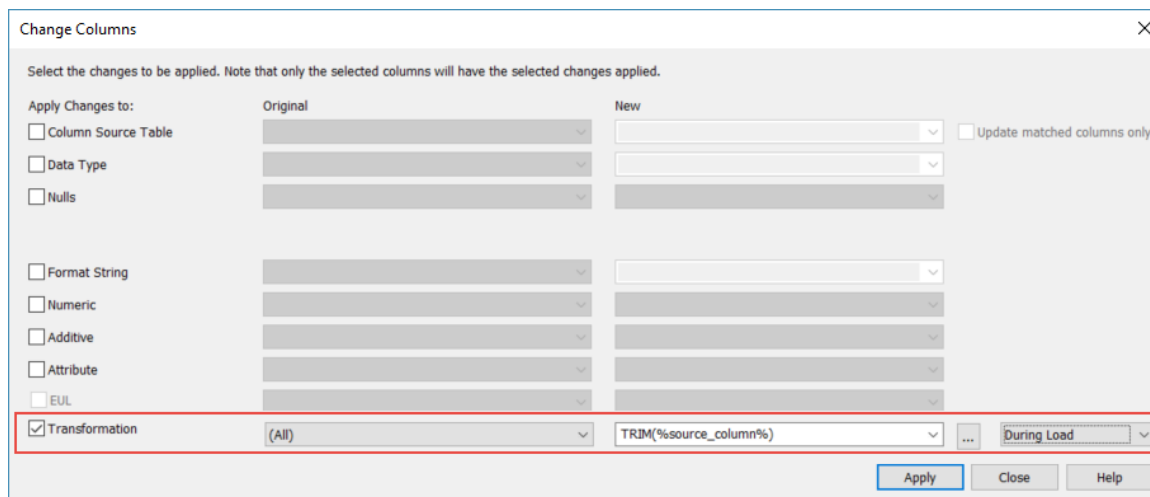
Revert objects to a previous version

RED now enables you to revert an object to a previous version via the new **Revert** option which was added to the **Version Control** context menu of objects.

This enables you to roll back unwanted changes to an object by switching to a previous version before the unwanted changes were implemented.

> **Note:**
> The Revert function only applies to the selected object, related objects are not reverted as part of this operation.
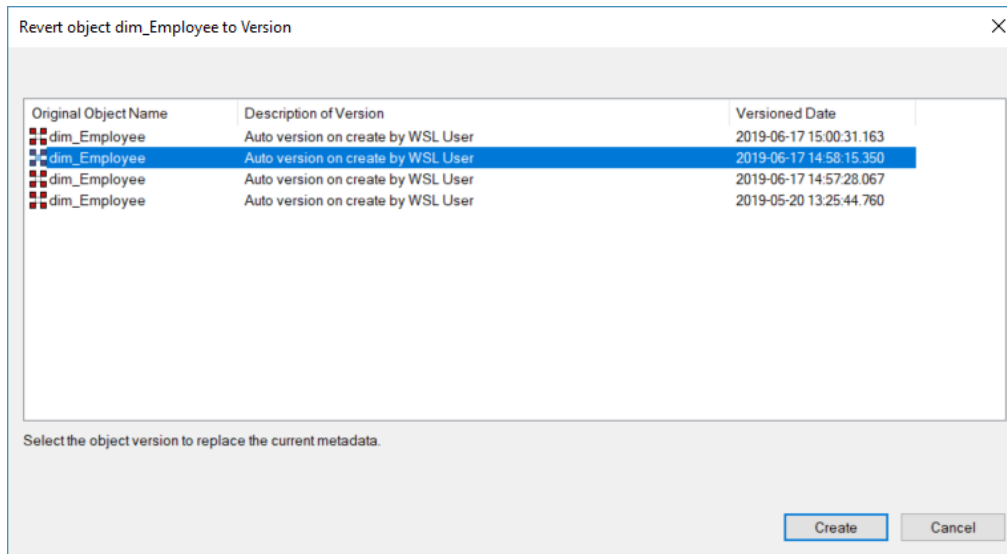
The RED dedicated command line interface (REDCLI) now has production status

WhereScape RED 8.3.1.0 introduced a beta version of a new and enhanced RED command line interface called REDCLI. This powerful solution is now a production component.

In addition, a new feature to generate a routine for an object has been added. The option is called 'generate-routine' and can be found under the object action.

Important Messages when Upgrading from Earlier Versions

When **Upgrading** from previous versions of RED, it is necessary to update each RED metadata repository to complete the upgrade. This is done by completing a **validate and recompile of all metadata procedures** in WhereScape Administrator.

Notes:
If upgrading from a previous version: 1. Please ensure you also upgrade the WhereScape scheduler at the same time. Details for this process are outlined in the WhereScape RED Installation Guide—Upgrading WhereScape RED and Scheduler Installation and Configuration sections. 2. Please review and action all the previous version-specific **Important Messages** below, that are relevant for your RED Upgrade.

Important Messages when upgrading from 8.2.1.1 or earlier

- A new metadata service attribute for the DSN architecture has been added in the RED 8.3.1.0 release. Any existing templates that include authentication to the RED repository must be updated to include this attribute, if the RED repository is migrated to a 64 bit ODBC DSN (if the attribute is not defined, then a 32-bit architecture is assumed).
  For example: [WslMetadataServiceClient.Architecture]::_64bit
- The **Unix** and **Linux Scheduler scripts for Oracle**, **Teradata** have been altered and need to be applied manually.

Important Messages when upgrading from 8.1.1.0 or earlier

- Teradata customers upgrading from RED versions prior to RED 8.0.1.0 please be aware that later versions of Setup Administrator have functionality to test the RED metadata tables' primary indexes. When sub-optimal primary indexes are detected Setup Administrator creates a copy of the affected table with the recommended primary index, copies the data to the new table and finally removes the old table. Please note that sufficient free space in the metadata database is required to temporarily duplicate the largest metadata table that requires migration. Also any custom statistics on these tables will need to be reapplied.
- WhereScape from the RED 8.2.1.1 version have added certification for the following metadata and target databases:
  - Oracle 12C Release 2
  - Teradata 16.20
  - Microsoft SQL Server 2017
- Cube and Cube Virtual objects are to be deprecated in a subsequent release. Cube objects must be migrated to OLAP Cube objects.
- Microsoft is deprecating support for their Microsoft OLE Driver for Oracle. WhereScape recommends that customers currently using this software migrate to the Oracle OLE Driver.
- WhereScape recommends that you use an Oracle or SQL Server metadata repository and the Windows Scheduler, if you wish to use Custom database targets.
- WhereScape wish to advise customers that work is underway to migrate RED to a 64-bit application over the next 12 months. While the transition is planned to minimize the impact to customers, there may be a requirement to transition to 64-bit ODBC data sources, as part for the upgrade path for this future release of WhereScape RED. No changes are required in the interim. More details will be made available closer to the time the work is completed.

Important Messages when upgrading from 8.0.1.0 or earlier

- SQL Server customers taking advantage of the multiple database support feature are recommended to apply three-part naming in their references to SQL Server tables. For example, in a custom procedure please refer to a data warehouse table using the format `<database name>.<schema name>.<table name>`. This will offset the impact of different users or machines having different default databases set.
- Customers using custom database targets to support RedShift or Snowflake are advised to contact their WhereScape representative for information on taking advantage of RED's enhanced custom database support features.
- The Data Vault hash key functions for Teradata and Oracle repositories have been changed in the templates (wsl_teradata_utility_dv and wsl_oracle_utility_dv). Data Vault customers running on Teradata or Oracle who were using these templates from the RED 6.9.1.0 release are advised to retain that version of the template, unless they migrate any key generated using the previous hash key function.
- The Windows and the UNIX/Linux generated Load and Export scripts for Teradata have been updated to use the new environment variables for identifying the TDPID, the user name and the password to connect to the metadata repository, the target database and the source database for Loads and Exports. Please refer to the section Script Environment Variables of the WhereScape RED User Guide for more information.

Important Messages when upgrading from 6.9.1.0 or earlier

- The **Linux Scheduler scripts for Oracle, Teradata and DB2** have been altered and will need to be applied manually.

Important Messages when upgrading from 6.8.7.0 or earlier

- In RED, File and Script-based loads from Windows connections creates a format file for the BULK INSERT operation in the Work Directory of the Windows Connection. This only applies when loading into an SQL Server target. This directory must be accessible to both the machine running SQL Server and the machine running the WhereScape RED Scheduler. Unless these are always the same machine, a UNC path or mapped network path will be required.
- **Legacy hub**, **link** and **satellite** objects, created in RED 6.8.7.0 or earlier are still supported in subsequent releases. However, they do not utilize the Data Vault enhancements introduced in release 6.9.1.0.

Detailed Changes in RED 8.4.1.0

The following changes have been implemented since Version 8.3.1.1.

Database	Jira Ticket	Description
Improvements		
Common	RED-7407	The maximum text length of error messages returned from execution of host script or procedure objects has been increased.
Common	RED-9147	Resolved an issue where the primary key constraint or unique constraint attribute was not reliably being set, following an application deployment from WhereScape 3D.
Common	RED-10222	Scheduler job success and failure command lines have been enhanced to prevent parameter substitution resulting in command line truncation.
Common	RED-10249	An option has been added to REDCLI to build template based update and custom procedures and scripts.
Common	RED-10250	A scheduler job can now be automatically created from the objects multi-selected in the drop target pane (including their dependencies).
Common	RED-10251	An option (Revert to version) has been added to revert an object's definition to the state from a previous version of the object.
Common	RED-10254	The default template for an object type can now be defined at the connection level.
Common	RED-10255	Enhancements have been made to the version context menu for connection procedure, script and template objects.
Common	RED-10256	Enhancements have been made to the workflow for the delete object action.
Common	RED-10257	RED can now regenerate code of all source mapping objects for a single table object.
Common	RED-10260	RED can now automatically create a scheduler job from all the objects in a project or group.
Common	RED-10261	Column transformation can now be set on multiple columns of a table at once.
Common	RED-10262	RED can now build a deployment application directly from a project's context menu or from multi-selecting objects in the builder pane.
Common	RED-10272	Mitigated an issue running REDCLI if the log file name was not unique.
Common	RED-10287	Users can now apply default column transformations for DSS_LOAD_DATE for load objects deployed from WhereScape 3D.
Common	RED-10388	An option has been added to Setup Administrator so the update routine for objects in a deployment application can be generated (for template based code generation only).
Common	RED-10543	RED now has an option to generate automatic indexes for objects deployed in an application.

Database	Jira Ticket	Description
Issues		
Common	RED-8887	Legacy data vault hash key column creation that caused an overlap with new data vault stage table logic has been removed.
Common	RED-9692	Fixed an issue with RED metadata load from disk function with respect to extended property variable assignment.
Common	RED-10236	Changes have been made to the definition of the identity column for metadata table ws_zt_wrk_audit_log and ws_zt_wrk_error_log for Teradata metadata databases.
Custom	RED-10301	Job schedules are now editable for customers with runtime-only licenses.
Custom	RED-10320	Resolved an issue when the EXCEPT option for processing Data Store objects could lead to the dss_load_date value from the source table being over-written with the timestamp that the data store was processed.
Custom	RED-10338	Reinstated [TABLEOWNER] prefix for table names in the update and get key procedures for the date dimension for Oracle repositories.
Custom	RED-10498	An issue deploying applications from 3D containing both a large number of objects and source mapping objects has been resolved.

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