

WhereScape[®] RED Release Notes

Version 8.4.1.0 | July 2019

Table of Contents

WhereScape RED 8.4.1.0 Release Update	. 3
Upgrading to version 8.4.1.0	. 3
Detailed Changes from Previous Versions	. 3
Significant New Features and Improvements in this Release	. 4
Generate update routines during application deployment	. 4
Set default update and custom routine templates for a connection	. 5
Load table DSS_LOAD_DATE columns imported from WhereScape 3D have the appropriate transformation applied by default	
Create applications or scheduler jobs for multiple objects	. 7
A simplified delete object workflow	. 8
Bulk generation of update routines for Source Mapping objects	. 8
Define the transformation for multiple table columns	. 9
Revert objects to a previous version	10
The RED dedicated command line interface (REDCLI) now has production status	10
Important Messages when Upgrading from Earlier Versions	11
Important Messages when upgrading from 8.2.1.1 or earlier	11
Important Messages when upgrading from 8.1.1.0 or earlier	11
Important Messages when upgrading from 8.0.1.0 or earlier	12
Important Messages when upgrading from 6.9.1.0 or earlier	12
Important Messages when upgrading from 6.8.7.0 or earlier	12
Detailed Changes in RED 8.4.1.0	13

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 <u>https://www.wherescape.com</u> 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 <u>https://www.wherescape.com/support/red-release-notes/</u> page in the **Support** section.

Kind Regards, WhereScape RED Team

[©] Copyright, WhereScape Software Ltd All rights reserved.

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

🗂 Metadata Options	Application Files	
Data Warehouse Options	Application Identifier	MyStar
Load Table Stage Table	Application Version	13
Permanent Stage Table	Application Database Type	SQL Server
Dimension	General Options	
Dimension View	Use Native Load for metadata Procedures and Scripts	False
Fact Table	Map Tablespaces/Filegroups to the same name	True
	Apply Group/Project/Object Relationships	True
	Generate update routines for objects	True
	Existing Parameters will be	Kenameo
	User Name	
	Permanent Stage Table Options Hidden	False
	Connections	
	Map Connection References to the same name	True
	Map Target References to the same name	True
	Add Connections as required	True
	E Jobs	
	Assign Jobs to User	WSL User
	Existing Jobs will be	Updated/Overwritten
	Application Files The application load is ready to proceed. The metadata repository will be updated with information stored in the appli- Once the metadata repository has been updated a number of additional action	

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.

122512	 Load Table 	^
arget Settings	Default Post Load Template (none)	present little
Routine Templates	Export	~
	Default Export Template (none)	~
Extended Properties	Stage Table	
lotes	4 Stage	
	Default Update Template wsl_snowflake_pscript_stage	
	Default Custom Update Temp (none)	~
	Data Vault Stage	
	Default Update Template wsl_snowflake_pscript_dv_stage	~
	Default Custom Update Temr (none)	~
	Work Table	
	Default Update Template (none)	~
	Default Custom Update Temp (none)	~
	Data Store	
	Data Store	
	Default Update Template (none)	~
	Default Custom Update Temr (none)	~
	4 History	
	Default Update Template (none)	~
	Default Custom Update Temp (none)	~
	4 Hub	
	4 Detail	
	Default Update Template wsl_snowflake_pscript_dv_perm	~
	Default Custom Update Temp (none)	~
	4 Link	~

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.

Options		- 0	>		
Repository Identification	24				
Repository Privacy Settings > Object Types > Global Naming Conventions V DSS Tables and Columns DSS Tables to Include and Naming	Data types for Snowflake Database Targets				
	dss_create_time	TIMESTAMP			
	dss_update_time	TIMESTAMP			
DSS Columns to Include and Naming	dss_start_date	TIMESTAMP			
DSS Columns for snowflake Targets	dss_end_date	TIMESTAMP			
Check-Out and Check-In > Code Generation	dss_version	INTEGER			
Storage Metadata Versioning Documentation	dss_current_flag	CHAR(1)			
	dss_load_date	TIMESTAMP			
Data Vault	dss_record_source_tmp	VARCHAR(64)			
Available Load Types	Default values for Snowflake Database Targets				
Other	Start Date for Initial Member	CAST('1900-01-01 00:00:00' AS TIMESTAMP)			
	End Date for Current Member	CAST('2999-12-31 00:00:00' AS TIMESTAMP)			
	Start Date for New Member Entry	CAST(CURRENT_TIMESTAMP AS TIMESTAMP)			
	End Date for Expiring Member Entry	DATEADD(DAYS, -1, CAST(CURRENT_TIMESTAMP AS TIMESTAMP))		
	Load Date Transformation	CAST(CURRENT_TIMESTAMP AS TIMESTAMP)			
Prev Next		OK Cancel H	lelp		

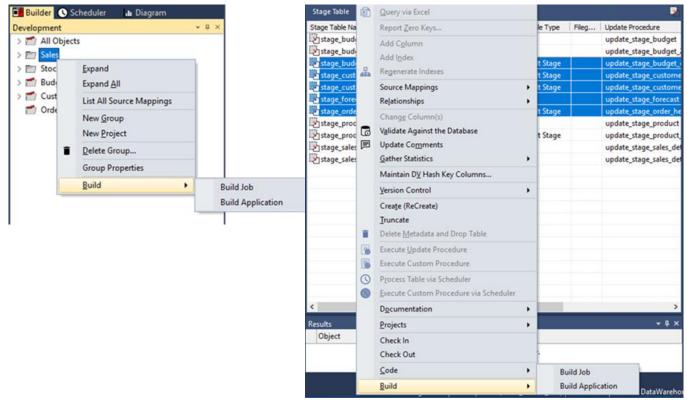
[©] Copyright, WhereScape Software Ltd All rights reserved.

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:

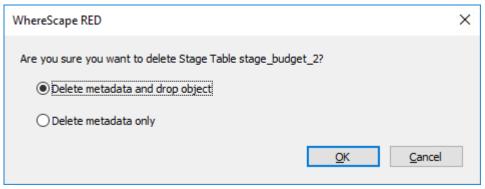
Task dependencies are not rebuilt as part of the **Build Job** workflow from the **Builder** Window. Therefore, WhereScape recommends that tasks are not manually added, removed or reordered as part of this workflow. If such manual changes are required, it is recommended the **Edit Task** action is used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

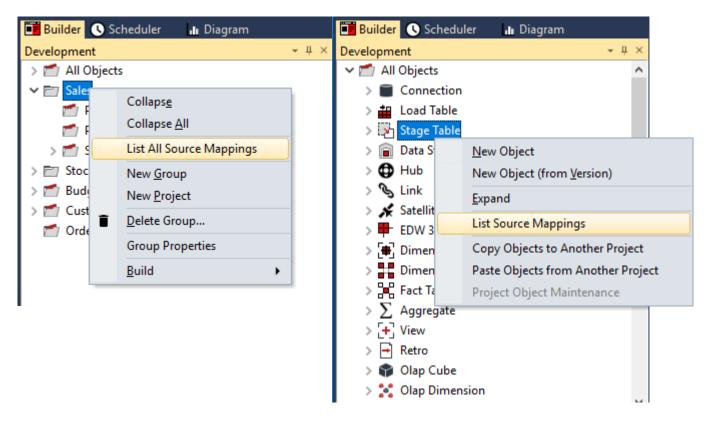
This functionality remains the same but the selection of the required option is now condensed into one clearer confirmation screen:



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.

Mapping Parent T		Target		Update
DV_1	h_customer_DV			update_src_h_customer
DV_2	h_customer_DV			update_src_h_customer
Properties				update_src_stage_custo
Display <u>C</u> olum	nns			update_src_stage_custo
Maintain <u>S</u> our	Maintain <u>S</u> ource Mappings			
Delete <u>M</u> etada				
Execute <u>U</u> pdat	_			
Execute Custom Procedure				
Execute Update P <u>r</u> ocedure via Scheduler				
Execute Custo	m Procedure via Scheduler			
<u>C</u> ode		•	Rebuil	d Update Procedures
			Regen	erate Update Procedures
			Rebuil	d Custom Procedures
			Regen	erate Custom Procedures
	DV_2 Properties Display <u>C</u> olum Maintain <u>S</u> our Delete <u>M</u> etada Execute <u>U</u> pdat Execute Custo Execute Updat <u>E</u> xecute Custo	DV_1 h_customer_DV DV_2 h_customer_DV Properties Display Columns Maintain Source Mappings Delete Metadata Delete Metadata Execute Update Procedure Execute Custom Procedure Execute Update Procedure via Scheduler Execute Custom Procedure via Scheduler Execute Custom Procedure via Scheduler	DV_1 h_customer_DV DV_2 h_customer_DV Properties	DV_1 h_customer_DV DV_2 h_customer_DV Properties

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.

Change Columns			×
Select the changes to be applied. Note that only the selected columns will have the selected changes applied.			
Apply Changes to:	Original	New	
Column Source Table	✓	✓	Update matched columns only
Data Type	~	×	
Nulis	\sim	~ ~	
Format String	V	v	
Numeric	~	~	
Additive	\sim	~	
Attribute	~	~	
EUL	\sim	~	
Transformation	(All) ~	TRIM(%source_column%)	During Load
		Apply	Close Help

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.

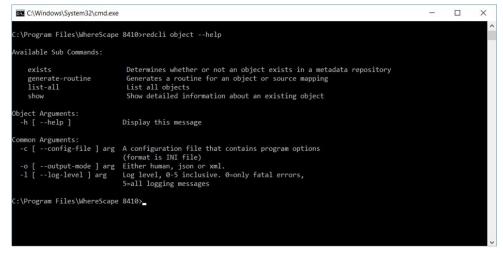
This enables you to roll back unwanted changes to an object by switching to a previous version before the unwanted changes were implemented.

Note: The Revert function only applies to the selected object, related objects are not reverted as part of this operation. Revert object dim_Employee to Version × Original Object Name Description of Version Versioned Date dim_Employee Auto version on create by WSL User 2019-06-17 15:00:31.163 dim_Employee Auto version on create by WSL User 2019-06-17 14:57:28.067 dim_Employee Auto version on create by WSL User 2019-05-20 13:25:44.760 Select the object version to replace the current metadata Cancel Create

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 'generateroutine' and can be found under the object action.



© Copyright, WhereScape Software Ltd All rights reserved.

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 suboptimal 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. Where Scape 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.

[©] Copyright, WhereScape Software Ltd All rights reserved.

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>.. 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.

[©] Copyright, WhereScape Software Ltd All rights reserved.

Detailed Changes in RED 8.4.1.0

The following changes have been implemented since Version 8.3.1.1.

Note

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

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.

[©] Copyright, WhereScape Software Ltd All rights reserved.

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.

Copyright

Copyright © 2019 WhereScape Software Ltd. All rights reserved.

This document may be redistributed in its entirety and in this electronic or printed form only without permission; all other uses of this document and the information it contains require the explicit written permission of WhereScape Software Ltd.

Due to continued product development this information may change without notice. WhereScape Software Ltd does not warrant that this document is error-free.

Trademark

WhereScape and WhereScape RED are trademarks or registered trademarks of WhereScape Software Ltd. Other brands or product names are trademarks or registered trademarks of their respective companies.

WhereScape USA, Inc 1915 NW AmberGlen Parkway Suite 400, Beaverton Oregon 97006 United States T: 503-466-3979 F: 503-466-3978

WhereScape Europe 45 Brook Drive Green Park Reading RG2 6UU United Kingdom T: +44-118-914-4509 F: +44-118-914-4508

WhereScape Asia Pte. Ltd 300 Tampines Avenue 5 #09-02 Singapore 529653 T: +65-6679-5728

WhereScape Software Ltd P.O. Box 56569, Auckland 1446 12-16 Tapora Street

12-16 Tapora Street Quay Park Auckland 1010, New Zealand T: +64-9-358-5678 F: +64-9-358-5679

www.wherescape.com