



WHERESCAPE RED RELEASE NOTES

8.0.1.0

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WHEREESCAPE RED 8.0.1.0 OCTOBER RELEASE UPDATE

WhereScape is pleased to announce that WhereScape RED 8.0.1.0 is now available.

UPGRADING TO VERSION 8.0.1.0

Login to <https://www.wherescape.com> and download RED 8.0.1.0 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.

SIGNIFICANT NEW FEATURES AND IMPROVEMENTS IN RED 8.0.1.0

CUSTOM DATABASE SUPPORT

WhereScape RED is designed to support custom database targets which provide customers with the option to deploy their data warehouse objects in a separate on-premise database environment or on the cloud, through a hosted data warehouse platform/service, such as Amazon Redshift, Microsoft Azure and Snowflake.

WhereScape RED expanded its custom database targets functionality to provide improved automation for creating and managing data warehouse objects residing in custom database platforms.

This includes the following capabilities:

- Utilize PowerShell Scripts for Table Updates
- Ability to define extended properties for use in PowerShell Script Processing
- Option to Set Data Types for DSS Columns in Custom Database Targets
- Provision of enablement packs for several custom database technologies (Amazon Redshift, Microsoft Azure and Snowflake)

Note that the advanced support features for custom database targets to enable PowerShell script update processing is currently only supported on SQL Server and Oracle RED repositories and the Windows Scheduler.

SYSTEM WIDE ENHANCEMENTS

Other significant system enhancements implemented in this release include the following:

- Ability to Control Automatic Index Creation
- Provision of a Template for Set based processing of Fact Tables in SQL Server
- Ability to Set Default Table and View Creation Templates by Connection
- Certified RED on SQL Server 2017 and Oracle 12.2

All these enhancements are designed to aid WhereScape RED customers in future proofing their existing WhereScape RED managed Data Warehouses.

Details of each feature is provided in the succeeding sections below.

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CUSTOM DATABASE SUPPORT

The following provides a summary description of the features in the enhanced WhereScape RED Custom Database functionality.

For more information about these features, please refer to the *WhereScape RED User Guide*.

UTILIZE POWERSHELL SCRIPTS FOR TABLE UPDATES

Users can now choose between an SQL block or a Windows PowerShell script for the update process of data warehouse table objects, stored in a custom database target. In both cases, templates are utilized to build the update process to populate the tables.

Note that the advanced support features for custom database targets to enable PowerShell script update processing is currently only supported on SQL Server and Oracle RED repositories and the Windows Scheduler.

Please refer to the section *Script Templates for Custom Database Table Objects* of the *WhereScape RED User Guide* for more information.

EXTENDED PROPERTIES DEFINITION

WhereScape RED now has a facility that enable users to define and manage extended database properties for connections and objects, which can be used in a range of scenarios. This feature involves defining the extended properties to specify the variables and their scope; and then assigning values to the defined extended properties.

Please refer to the chapter *Extended Properties* of the *WhereScape RED User Guide* for more information.

DATA TYPES FOR DSS COLUMNS IN CUSTOM DATABASE TARGETS

WhereScape RED now has a facility that enable users to set the data types that are used in the DSS columns added to new table objects stored in a custom database. This also includes setting default values that are used when generating update procedures for Slowly Changing Dimension tables and Load tables.

Please refer to the section *DSS Columns for Custom Targets* of the *WhereScape RED User Guide* for more information.

ENABLEMENT PACKS FOR CUSTOM DATABASE TECHNOLOGIES

WhereScape provides enablement packs for a variety of target “custom” database types, which includes Snowflake, Amazon Redshift and Microsoft Azure SQL data warehouse.

Please contact your WhereScape representative for more information about these enablement packs that enable WhereScape RED to support these database technologies.

SYSTEM WIDE ENHANCEMENTS

The following provides a summary description of the system wide enhancements implemented to WhereScape RED in this release.

CONTROL AUTOMATIC INDEX CREATION

Users now have the option to turn ON/OFF the automatic creation of metadata for indexes when creating new objects.

Please refer to the section *Connection Types* of the *WhereScape RED User Guide* for more information.

RED TEMPLATE FOR SET BASED PROCESSING OF FACT TABLES IN SQL SERVER AND ORACLE

WhereScape RED now provides a template for Set based procedure generation to load Fact tables in an SQL Server or Oracle database. The new template (`wsl_sqlserver_proc_fact_set` or `wsl_oracle_proc_fact_set`) is now available from the **Template** objects list.

Please refer to the section *Rebuilding Procedures* of the *WhereScape RED User Guide* for more information.

SET DEFAULT TABLE AND VIEW CREATION TEMPLATES BY CONNECTION

Users can now set the Default DDL Template to use for new Tables and Views, via the **Target Connection Settings** of the **Connection Properties** window.

Please refer to the section *Connection Types* of the *WhereScape RED User Guide* for more information.

CERTIFIED RED ON SQL SERVER 2017 AND ORACLE 12.2

WhereScape RED now officially supports SQL Server 2017 and Oracle 12.2.

IMPORTANT MESSAGES

- 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.
- 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 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.

Note: If upgrading from a previous version, please review and action all the previous version-specific **Important Messages** below, that are relevant for your RED Upgrade.

- 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.

Important Messages when upgrading from 6.8.6.0 or 6.8.6.1 or earlier

- Teradata 13.10 is no longer supported as a metadata repository/target from RED release, 6.8.7.0.
- SQL 2005 will no longer be supported as a metadata repository/target from RED release, 6.8.7.0. This is in line with Microsoft no longer providing extended support for SQL 2005 from April 12, 2016:
<https://www.microsoft.com/en/server-cloud/products/sql-server-2005/>
- The SQL Block statement terminator has been changed from ';' to <EOS> from 6.8.6.2 onwards. If you have existing SQL Blocks which rely on ';' as the statement terminator you can change the default back to ';' in Tools>Options>Code Generation.
- Analysis Services connections running in Multi-dimensional mode have a new setting named SSAS Client Version, which enables users to target a specific version of the Analysis Services client run-time. If the SSAS Client Version is not explicitly set, RED will default to a setting of 2012.

- The existing template engine and the old Hive and PDW templates have been replaced with new versions. Any user created templates will need to be redone in the new language. Refer to the Templates chapter in the respective User Guide (chapter 23 for RED; chapter 24 for Teradata)
- License keys issued for version 6.8.6.1 allowing Custom targets or Custom object types are no longer accepted; you will require a new license key from WhereScape.
- If you have created objects stored on Tabular databases in version 6.8.6.0 and wish to Recreate the object(s), you should run **Relationships/Generate Relationships** on each object after upgrading RED. This only needs to be completed once before Recreating the object. See significant New Features and Improvements for more information.

Important Messages when upgrading from 6.8.5.0 or earlier

- Users with Export objects that use double quote character as an enclosing character will need to open and re-save the Properties for each Export Object.
- Customers using cursor based update procedures on SQL Server, Oracle and DB2: Note that we have changed the calls to procedures/functions get_<DIM_NAME>_key within the updated procedure generation to named notation.
- Changes were made to the WhereScape RED Target Licenses and customers with those licenses will need to have their licenses re-issued. Please contact your WhereScape Sales Representative or email sales@wherescape.com.
- APL users: All APL XML functionality has been migrated into Setup Administrator, including importing models from WhereScape 3D.

- The RED Generated Documentation is now using different images with different sizing. The format of the company_logo.jpg image has also been changed from .jpg to .png. Customers that have created their own banners will need to resize the images according to the table below and also convert the company_logo.jpg image to .png. The new .png files can be found in the WhereScape RED DocImages installer folder.

Previous Image File	New Image File	Action(s) required
1. company_logo.jpg (528 x 108) has been replaced by:	C:\Program Files (x86)\WhereScape\DocImages\company_logo.png new image size: (408 x 134)	company_logo.jpg needs to be converted to company_logo.png and resized.
2. poweredbyred.png (331 x 100) has been replaced by:	C:\Program Files (x86)\WhereScape\DocImages\poweredbyred.png new image size: (415 x 134)	poweredbyred.png needs to be resized.

Important Messages when upgrading from 6.8.4.0 or earlier

- No important messages.

Important Messages when upgrading from 6.8.3.0 or earlier

- No important messages.

Important Messages when upgrading from 6.8.2.0 or earlier

- For UNIX/Linux exports and loads in versions after 6.8.2.0, the logic used for defining the SID value for connecting to the repository has been modified. If the ORACLE_SID environment variable is set in your Unix/Linux environment, this will be the variable used. If this environment variable is not set, then the value from the Linux/Unix connection object will be used.

DETAILED CHANGES IN RED 8.0.1.0

The following changes have been implemented since Version 6.9.1.0.

Note: 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.

Database	Key	Release Note
Improvements		
Common	RED-2323	Enhanced the scheduler to increase the number of maximum job threads available from 9 to 50. Caution: Users must be aware that adding additional threads to a job increases the communication overhead with the DB server containing the Data Warehouse repository. Each job thread holds a dedicated connection to the server for its lifetime.
Common	RED-7721	Default settings in the Tools>Options and User Preferences menus were amended for new RED repositories to make common options and preferences enabled by default.
	RED-8110	The bodies of SQL procedures, included in generated HTML documentation are now syntax highlighted.
Common	RED-8141	Generated documentation for Satellite objects now includes a Links diagram.
Common	RED-8207	Extended RED's column case conversion capability to apply to columns based on File loads.
SQL Server	RED-8219	Enhanced RED's support for Set based processing of Fact tables in SQL Server (template based).
Custom	RED-8242	Added the capability to process tables types, other than Load tables via PowerShell scripts—including template generated PowerShell scripts. This enhancement applies to objects in a custom database target, SQL Server or Oracle RED repository and Windows scheduler.
Common	RED-8244	A new option to "retain selected values" was added to the Select Project screen. If this option is used, the last values defined in the Group and Project fields are used by default, when an object is added to a project or group.
SQL Server	RED-8264	RED now supports Microsoft SSIS 2017.

Custom	RED-8288	The default transformation for the DSS_LOAD_DATE column in Custom database targets has been changed to CAST(CURRENT_TIMESTAMP AS TIMESTAMP) in order to be compatible with more database management systems.
SQL Server	RED-8297	Added the capability to configure DSS column data types for custom database types via the Tools>Options>DSS Tables and Columns tab.
SQL Server	RED-8299	Added the capability to set the initial default for start and end dates in slowly changing dimension procedure generation for custom database targets.
SQL Server	RED-8326	Added the capability to define extended property variables that are used in the interaction with RED connections and objects.
Custom	RED-8372	Implemented after-load transforms for custom tables processed via the RED scheduler.
Common	RED-8376	A new option to Regenerate scripts was added in the Code context menu when you right-click a Load table displayed in the Objects list pane.
Common	RED-8377	A new option to Regenerate scripts was added in the Code context menu when you right-click multiple Load tables displayed in the middle pane.
Common	RED-8378	A new option to enable or disable target mapping, based on name between the source repository (including 3D) and the target RED repository was added in the RED Setup Administrator.
SQL Server	RED-8413	RED now supports Microsoft SSAS 2017.
Oracle	RED-8430	RED now supports Oracle 12.2.
Common	RED-8446	DSS columns are now included in the list of procedure options for the batch processing field.
Common	RED-8491	WhereScape now provides a Windows application extension called WslMetadataServiceClient that can be used from PowerShell templates to simplify access to RED metadata content. This DDL is accessed from WSL provided templates in custom database enablement packs. Please contact your WhereScape customer representative, if you require details on how to use this DDL.
Custom	RED-8517	The RED audit messages are now displayed in the Results pane when executing scripts interactively.
Common	RED-8519	A load script is now automatically created for a new Load table object sourced from a database, if the load type is script based load.

Custom	RED-8532	The last used update Script Template for an object type is used by default, when creating a new object of the same type. This also applies when the Update Type of an object of the same type is changed from Procedure to Script.
Common	RED-8534	The last setting of the Word Wrap Displayed Code check box in the Transformation tab of the Column Properties screen is now retained and becomes the default when opening the Transformation tab.
SQL Server	RED-8611	Resolved issue, where Load tables processed via File loads in SQL Server would error on the scheduler, following an upgrade to RED 6.9.1.0.
Oracle	RED-8757	Enhanced RED's support for Set based processing of Fact tables in Oracle (template based).
Custom	RED-8766	Under some circumstances with custom databases, parameters were not being replaced by the scheduler. This has been fixed.

Resolved Issues

Oracle	RED-7614	Section 9.3 Creating an Oracle User of the Setup Administrator Help/User Guide was updated to include permissions for multiple schema configurations.
Teradata	RED-7720	Resolved issue in Teradata, where the RED generated procedure for permanent Stage tables incorrectly updates the dss_create_time column for existing rows.
SQL Server	RED-8048	Resolved SQL syntax issue in the procedure generation for a dimension table, if a manual Where clause was applied.
SQL Server and Oracle	RED-8061	Fixed partitioned Fact table update procedure rebuild issue, when started from the right-click context menu.
Teradata	RED-8132	Resolved issue in Teradata, where if the index naming scheme was "full table name" or "base name" the primary index was being named based on the source table, rather than the target table which could fail if the index name already exists.
SQL Server	RED-8144	Resolved intermittent issue, where the status of running jobs on a Windows scheduler are not updated due to metadata locking by child jobs.
Common	RED-8152	Changed the default setting in the Change Detection tab > Null Support option from disabled to enabled.
SQL Server and Oracle	RED-8169	Added the option to control how permanent Stage table objects are loaded from an application in RED's Setup Administrator (ALTER or DROP & CREATE).
Common	RED-8171	Reinstated the capability to use relative application file names in command line application loads.

Common	RED-8222	DDL statements generated by meta validation functions are now pre-processed to correctly handle End-Of-Statement tokens, before they are executed.
Custom	RED-8260	Resolved issue, where the processing of Load tables in custom database targets via the scheduler does not work, if the required SQL statement was too large.
Common	RED-8338	Resolved issue, where columns in a new Fact table could be defined with a key type of Type 2 dimension joins, in error.
SQL Server	RED-8349	Resolved issue, where procedure objects with 64 character names are not loaded, if they already exist in the target repository during application loads.
Common	RED-8458	Resolved issue, where some file loads are failing on the Windows scheduler due to an incorrect format file when the Load table object is imported or upgraded from an older version of RED.
SQL Server	RED-8460	Resolved issue, where the format file was created incorrectly in tab delimited file loads, processed on the Windows scheduler.
SQL Server	RED-8462	Resolved issue, where the source record terminator attribute is not being applied for Load tables with a load type of File load on the Windows scheduler.
Teradata	RED-8492	Renamed a long variable name in the Ws_Act_Post_Load stored procedure for Teradata to be compliant for customers that implement a 30 character object naming limit.
SQL Server	RED-8508	Corrected the syntax error, when calling the get key function in the generated procedure for SET+CURSOR dimensions.
Oracle	RED-8515	Resolved issue, where the Oracle PL/SQL package source lines were being converted to lower case, before the package is compiled.
Teradata	RED-8531	Resolved issue, where the Teradata index type mappings are not being preserved when importing from 3D to RED via Setup Administrator.
Oracle	RED-8566	Resolved issue, where scheduler jobs on SunOS scheduler would remain in pending state following a RED upgrade.
Oracle and Teradata	RED-8571	Enhanced the column delimiter code, used in the hash key generation function for Data Vault objects on Teradata and Oracle in the utility template. Important: Existing Data Vault customers using RED 6.9.1.0 templates on these platforms may elect to retain the old hash key function.
Teradata	RED-8593	Resolved issue, where RED Setup Administrator created Teradata NOPI tables with an active Secondary index, instead of an inactive Primary index.

Oracle	RED-8599	Resolved issue, where database link loads into Oracle result in missing source columns when run through the scheduler. This issue manifested in version 6.8.6.0.
SQL Server	RED-8619	Resolved issue, where a file load could fail due to file locking issue when Windows scheduler log level was set to 9.
SQL Server	RED-8626	Resolved issue, where the validate index on a Load table could fail because the index is being looked up in the incorrect database, in a multi-database deployment.