

WhereScape RED

Release Notes

Version 8.2.1.1 | September 2018

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WhereScape RED 8.2.1.1 Release Update

WhereScape is pleased to announce that WhereScape RED 8.2.1.1 is now available.

Upgrading to version 8.2.1.1

Login to <https://www.wherescape.com> and download RED 8.2.1.1 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 8.1.1.0.

- Improved Extensibility for Custom Database Customers
- Enhancements for Data Vault Support
- New Stored Procedure Editor
- Graphical Table Join Syntax Generation Wizard
- New and improved user guide with HTML5

Improved Extensibility for Custom Database Customers

Customers deploying data warehouse objects to 'custom' databases (other than natively supported database types including Oracle, SQL Server, Teradata and DB2) already have been able to set the syntax for update blocks, scripts and table create DDL, with the use of templates. This capability has been extended in RED 8.2.1.1 with the addition of the ability to define the syntax for other options, including alter table, drop table, create index, drop index, etc.

Enhancements for Data Vault Support

The following enhancements were implemented for the RED Data Vault support:

1. Source Mapping Objects Imported from WhereScape 3D

In RED 8.1.1.0, RED users were able to define source mapping objects so that a table object could be populated from more than one source. From RED 8.2.1.1, models with source mapping objects defined in 3D can be imported into RED.

2. Enhanced DV Hash Key Wizard

The hash key creation wizard now allows hash keys to be edited or deleted from within the wizard and for multiple change hash keys to be defined in a data vault stage table (source multiple satellite tables).

Maintain Hash Key Columns

Please select columns to use in the hash by moving columns from the Available list to the Selected list. Enter a name for the Hash then use the Add button to add the Hash to the list of Change Hash keys below.

Available Columns: product_code, customer_code

Selected Columns:

Hash Key Name:

Add

Hash Key Column	Source Columns
dss_change_hash_1	budget_quantity, budget_sales_value, budget_date

Modify

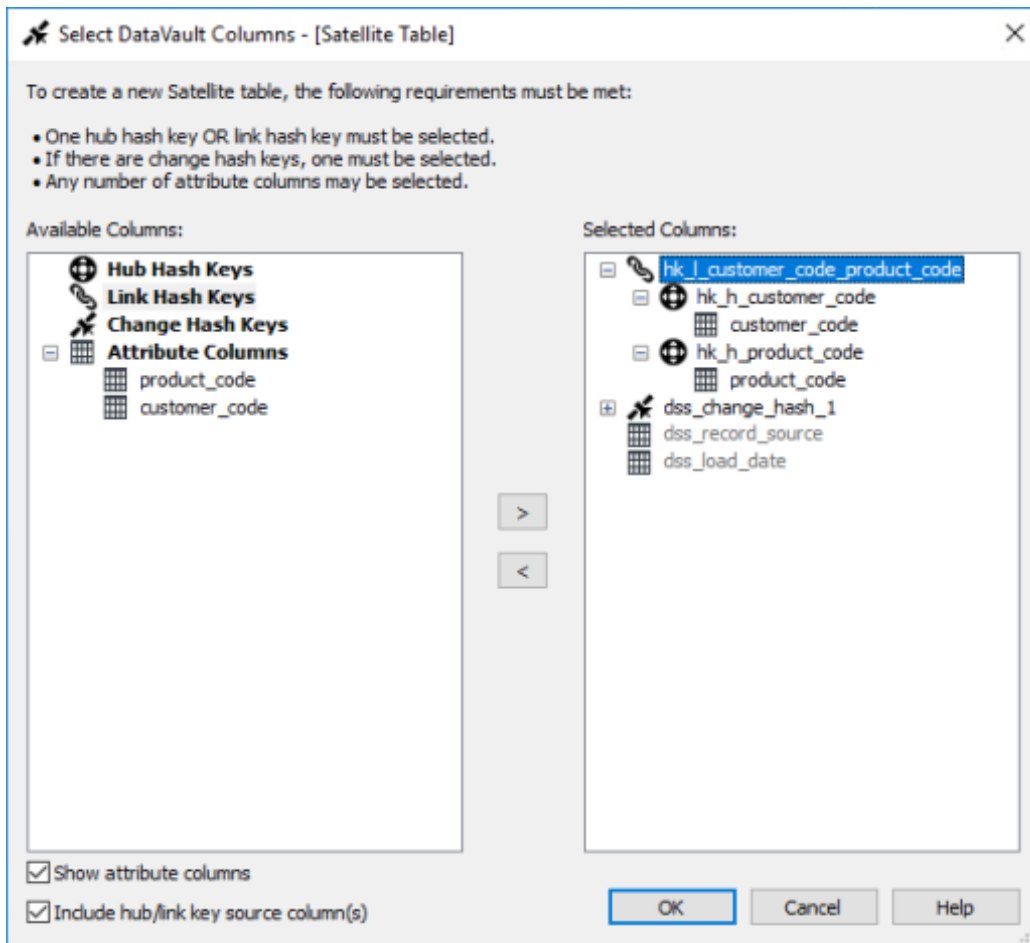
Delete

Show hash key source columns

Back Finish Cancel

3. Enhanced DV Object Wizard

The DV object creation window now allow more flexible design of these tables.



New Stored Procedure Editor

The stored procedure editor has been replaced and introduces several enhancements including SQL syntax highlighting, option to display line numbers, improve searching and bookmarks.

```

dbo Development (Licensed to Jonny - all targets and object types customdb) - update_tut_ss_stage_sales_det
File Edit View Format Compile Execute Tools Window Help
Builder Scheduler X Diagram update_tut_ss_stage_sales_det X
-----
-- DBMS Name      : SQL Server
-- Script Name    : update_tut_ss_stage_sales_det
-- Description    : Build the staging table tut_ss_stage_sales_details
-- Generated by   : WhereScape RED Version 8.2.1.0 (build 180715-200043 pre-release)
-- Generated for  : Jonny - all targets and object types customdb
-- Generated on   : Monday, July 16, 2018 at 16:59:32
-- Author        : WhereScape QuickStart
-----
-- Notes / History
-----
CREATE PROCEDURE update_tut_ss_stage_sales_det
  @p_sequence      integer
, @p_job_name      varchar(256)
, @p_task_name     varchar(256)
, @p_job_id        integer
, @p_task_id       integer
, @p_return_msg    varchar(256) OUTPUT
, @p_status        integer      OUTPUT
AS
SET XACT_ABORT OFF -- Turn off auto abort on errors
SET NOCOUNT ON   -- Turn off row count messages

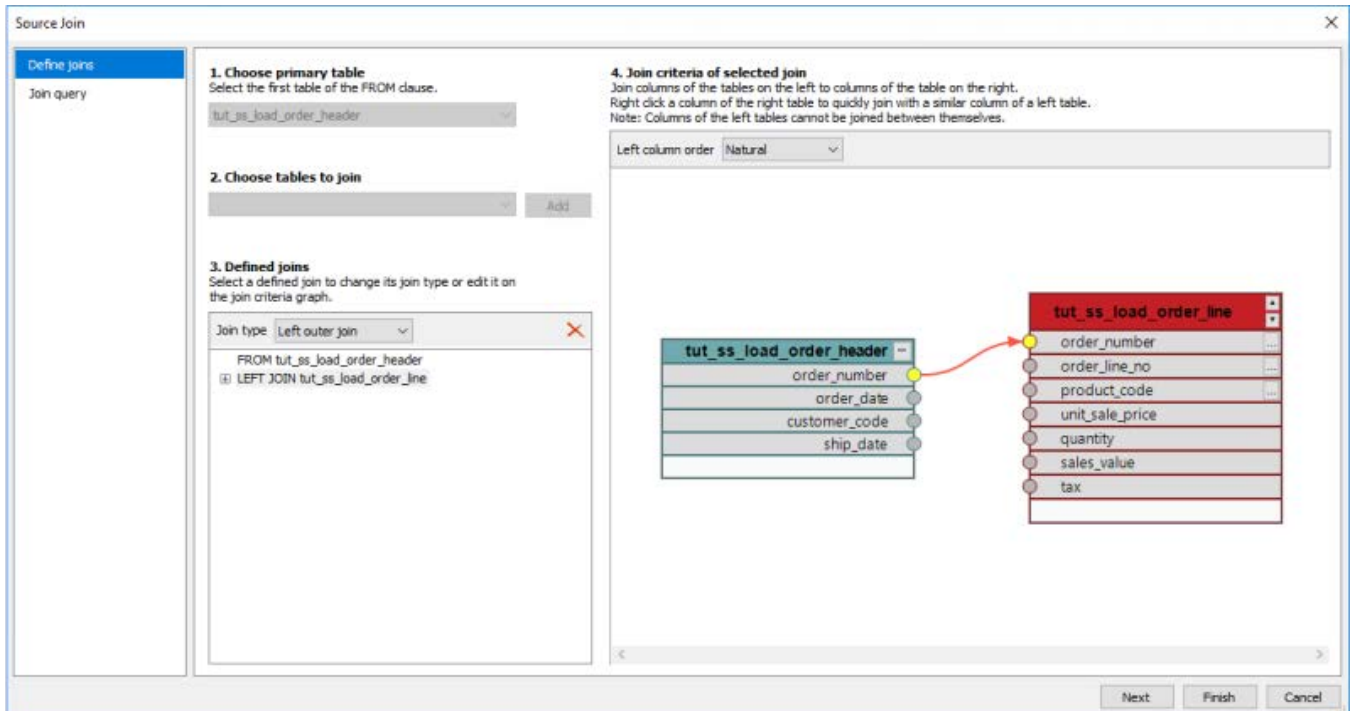
-----
-- Control variables used in most programs
-----
DECLARE
  @v_msgtext      varchar(255) -- Text for audit_trail
, @v_sql          nvarchar(255) -- Text for SQL statements
, @v_set          integer      -- commit set
, @v_analyze_flag integer      -- analyze flag
, @v_step         integer      -- return code
, @v_update_count integer      -- no of records updated
, @v_insert_count integer      -- no of records inserted
, @v_count        integer      -- General counter
, @v_db_code      varchar(10)  -- Database error code
, @v_db_msg       varchar(100) -- Database error message

-----
-- General Variables
-----
DECLARE
  @v_return_status integer      -- Update result status
, @v_getkey_status integer      -- GetKey procedure status
, @v_row_count     integer      -- General row count
, @v_truncate_date datetime     -- Used to set date to midnight
, @v_dss_source_system_key integer -- Used for dimension joins
, @v_dss_current_flag char(1)   -- Used for dimension joins
, @v_dss_create_time datetime    -- Used for date insert
, @v_dss_update_time datetime    -- Used for date insert

```

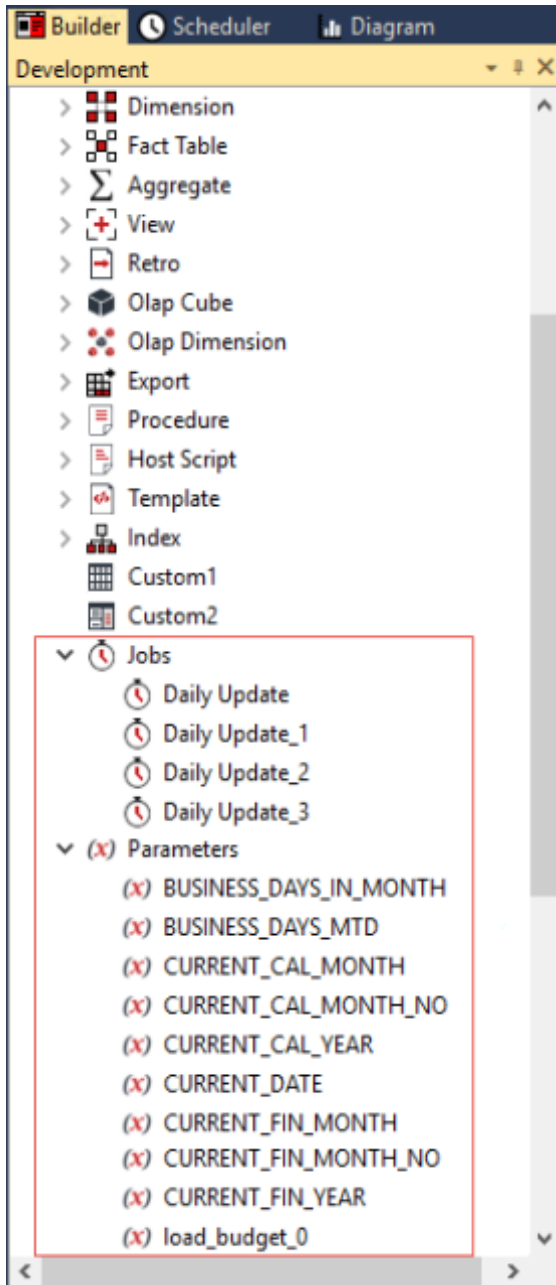
Graphical Table Join Syntax Generation Wizard

When DW tables are populated from more than source table, the join for these tables can now be constructed with a graphical wizard. In addition, when the columns to be joined between tables have the same or similar names, the wizard suggests likely candidates for the join. This saves the effort of manually searching for matching columns.



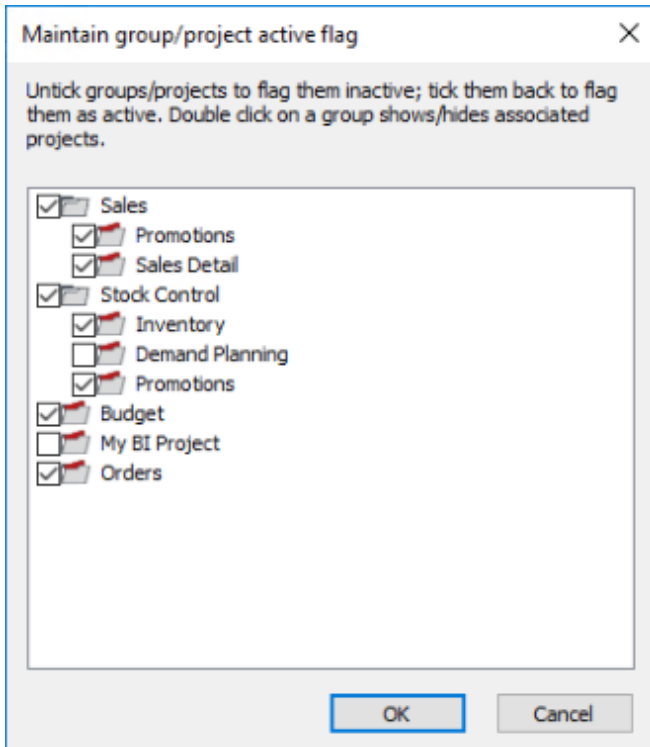
Jobs and Parameters Accessible from Object Browser and Projects

Scheduler job objects and RED parameters are displayed and can be edited directly from the RED object browser pane on the left. This also allows these objects to be included into RED projects for easier code deployment.

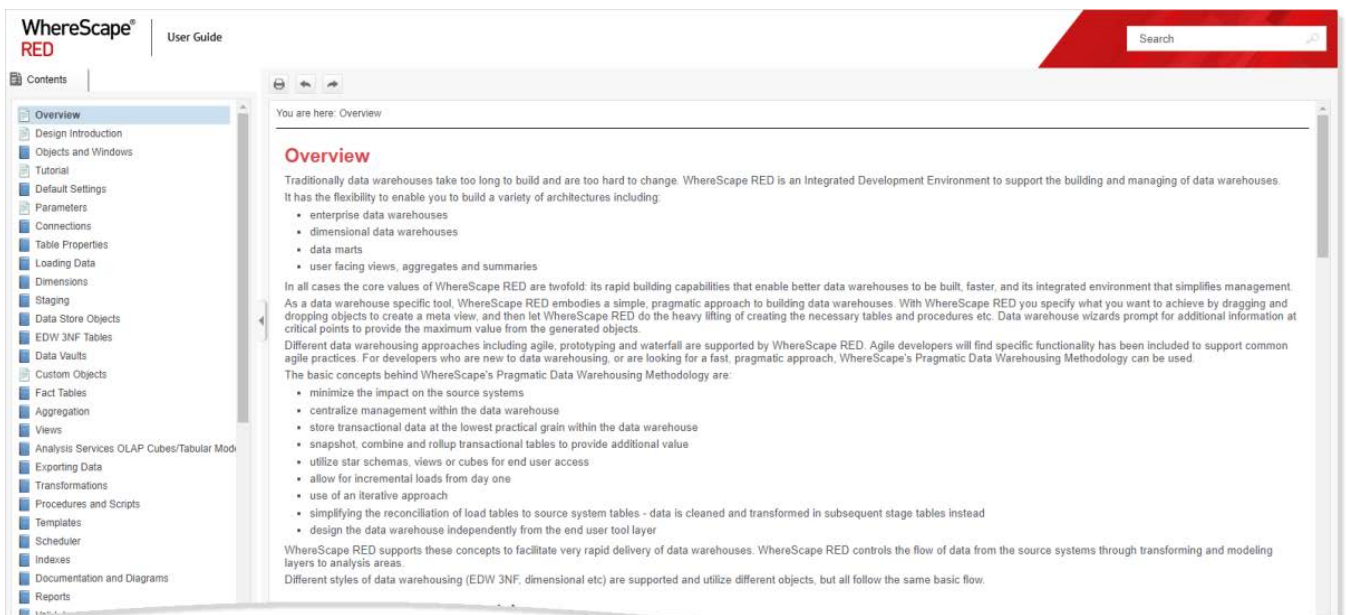


Option to Set Groups or Projects to Inactive

Customers taking advantage of projects to encapsulate development initiatives can now make selected projects inactive so that they can be excluded from the browser tree, the application object tree and the object list for creating new scheduler tasks. This is managed through the new **Maintain group/project active flag** window.



New and improved user guide with HTML5



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—Chapter 13 (Upgrading WhereScape RED) and Chapter 17 (Scheduler Installation and Configuration).
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 8.1.1.0 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.

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 Doclmages installer folder.

Previous Image File	New Image File	Action(s) required
1. company_logo.jpg (528 x 108) has been replaced.	C:\Program Files (x86)\WhereScape\Doclmages\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.	C:\Program Files (x86)\WhereScape\Doclmages\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 8.2.1.1

The following changes have been implemented since Version 8.2.1.0.

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	Jira Ticket	Description
Improvements		
Common	RED-9741	Resolved a 4000 character limit on join statements, introduced with the new table join wizard.
Common	RED-9759	Resolved an issue where some target properties for custom connection objects can be cleared while maintaining other table property attributes.
Common	RED-9762	Resolved an issue with write procedure to disk feature in the updated procedure editor.
Common	RED-9765	A default template for the code generation of source mapping objects is now retained.
Issues		
Common	RED-9698	Refinement of the workflow to define the source table join, as part of rebuilding a procedure.
Oracle	RED-9724	Fixed an error with the command line application build workflow, affecting Oracle and Teradata repositories.
Common	RED-9733	Resolved a display issue in the table join wizard, when toggling between natural and alphabetical column ordering on high resolution monitors.
Common	RED-9739	Retain the relationship between a source mapping object and a scheduler task, when an update to the source mapping object is deployed in an application.
Custom	RED-9752	Resolved an issue where SQL blocks for custom DB target objects failed to execute, via the Windows scheduler.
Common	RED-9776	Resolved an issue with index regeneration, affecting objects with automatic indexes and more than one business key column

Detailed Changes in RED 8.2.1.0

The following changes have been implemented since Version 8.1.1.0.

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	Jira Ticket	Description
Improvements		
Common	RED-1173	Implement enhanced RED procedure editor that includes support for syntax highlighting.
Common	RED-2030	Display job and parameter objects in the object browser screen and allow these objects to be assigned to projects.
Teradata	RED-2416	Column compression cascades to downstream objects when the downstream column/table is create via drag-and-drop
Oracle	RED-553	Build ANSI format join syntax in Oracle procedures
Common	RED-6721	Added option during application loads to disable table rows counts on existing objects.
Common	RED-7105	Resolved an issue creating a load table that is sourced from a table with the same name as an existing RED object.
Custom	RED-8575	Add option to generate PowerShell scripts for post-load processing of load tables in custom database targets
Custom	RED-8592	Added the ability to define the truncate table syntax RED uses for custom database objects.
Common	RED-8659	Add the ability to edit and delete existing hash key columns from the stage table Maintain DV Hash Key wizard.
Common	RED-8663	Source driving date for slowly changing dimension from the column transformation, if one is present.
Teradata	RED-8669	Improve the performance of WsParameterRead and WsParameterWrite on Teradata
Common	RED-8796	Expose table relationships to the template metadata service
Common	RED-8845	Enhance track back diagrams to include any source mapping objects.
Teradata	RED-8879	Updated datatype mapping file between Oracle / Sql Server and Teradata.
Common	RED-9139	Added option to allow the import of retro objects from 3D into RED.
Common	RED-9167	Allow template variables to be set while generating template based scripts for load objects
Custom	RED-9186	Implemented validate against database and alter table functionality for objects stored in custom database targets
Custom	RED-9203	RED extended to support create index DDL statements generated via templates.
Common	RED-9205	Enhance the data vault stage table wizard to allow more than one change hash key to be defined
Common	RED-9215	Enhance application delete feature to delete associated indexes
Common	RED-9302	Enhance data vault utility template to support unmapped source columns in source mapping objects.

Database	Jira Ticket	Description
Common	RED-9361	Enhance application imports from 3D to support loading of source mapping sets
Custom	RED-9362	RED extended to support drop index DDL statements generated via templates.
Custom	RED-9376	Added the ability to define the drop table syntax RED uses for custom database objects.
Common	RED-9379	Target attributes of a connection object are now grouped in a separate tab of the connection properties screen.
Common	RED-9389	Added column and function picker to 'Where' clause builder dialogue for load objects.
Common	RED-9390	Option to add attribute columns to new Data Vault 2.0 tables.
Custom	RED-9398	Applications imported from 3D now allow the DDL template to be applied from the default for the target connection from for custom database objects.
Common	RED-9401	Allow the default pre-load action for a new load object to be set on the target connection.
Custom	RED-9407	Added the ability to define the drop view syntax RED uses for custom database objects.
Custom	RED-9414	Syntax to count the number of rows in a DW table is now configurable for custom databases.
Custom	RED-9415	Syntax to display the data in a DW table is now configurable for custom databases.
Common	RED-9422	Implemented an enhanced interface to generate the source table join syntax for table procedures and views
Common	RED-9428	Add option to allow inclusion of hub hash source columns in a change hash key via the wizard.
Common	RED-9429	Add option to allow inclusion of hub hash source columns in a DV satellite table via the table creation wizard.
Common	RED-9431	Enhancement to allow multiple scheduler jobs to be aborted in the same polling interval
Oracle	RED-9444	Improvements to DV templates for Oracle customers.
Common	RED-9446	Preserve existing RED object - project relationships when importing objects with the same name from 3D.
Common	RED-9448	Added the ability to multi-select RED objects to add to a deployment application.
Common	RED-9470	Add projects to the list of available objects in the delete screen for building a RED application.
Common	RED-9472	Migrate Setup Administrator to HTML5 format help files.
Common	RED-9473	Migrate SQL Admin to HTML5 format help files.
Common	RED-9474	Migrate RED to HTML5 format help files.
SQLServer	RED-9475	Correct an issue that could cause the scheduler to crash after processing an SSIS load.
Common	RED-9477	Add an active status flag to project and project group objects and allow inactive projects and groups to be hidden.
Common	RED-9488	Corrected a reversal of output between the detail and audit logs for Linux scripts run via a Windows scheduler.
Common	RED-9503	Add option to copy result and message text to the clip board from scheduler screen.
Common	RED-9536	Add option to set extended property variables for index objects

Database	Jira Ticket	Description
Common	RED-9557	Added option to regenerate procedures and scripts in bulk from the template usage report.
Common	RED-9558	Fix issue where the change source column dialogue does not allow table names longer than 44 characters to be entered into the new table field.
Teradata	RED-9569	Improved the wording of the warning message displayed when aborting scheduler jobs on Teradata
Common	RED-9596	Add the ability to rebuild or regenerate custom procedures from the context menu for table objects.
Issues		
Teradata	RED-5231	Fix fault where more documentation fields than are available for Teradata load tables were configurable in the options menu
Common	RED-7312	Correct issue where work view objects were not appearing in generated documentation.
Oracle	RED-8856	Correct generated SQL for dimension, data stores and 3NF objects so that the DSS_LOAD_DATE column is not included in the EXCEPT clause for new row identification.
Common	RED-8862	Correct an issue in "Zero Keys" report where the business key is truncated.
SQLServer	RED-8877	Correct a fault where simultaneous application loads could cause tasks to be associated with an incorrect job
Teradata	RED-8921	Correct issue where Sql Server feature "delete rows not in source" was exposed for Teradata in error
SQLServer	RED-9189	Resolve issue where Sql Server index types defined in 3D will not process correctly when the application is loaded into RED
Common	RED-9514	Resolve a display error when deleting an object in the middle pane that looked as though it deleted two objects.
Common	RED-9538	Corrected a fault with load table creation when sourced from a file with a long name
SQLServer	RED-9540	Resolved error when loading an application via setup administrator in SQL Server with more than 1000 objects
SQLServer	RED-9548	Resolved an issue with Native ODBC bulk insert loads using the unicode extract file switch
Common	RED-9583	Resolve issue where comment import was not apply comments in some circumstances
Common	RED-9587	Resolve issue with the support of tab delimited files created in version of RED prior to 8.0.1.0
Common	RED-9601	Resolve error when generating documentation on high resolution monitors with text scaling set to 125% or more
SQLServer	RED-9602	Resolve an issue where in some circumstances adding a dimension to a cube can cause RED to crash.

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