

WhereScape 3D

Release Notes

8.1.1.0

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WHEREscape 3D VERSION 8.1.1.0 APRIL RELEASE UPDATE

WhereScape is pleased to announce that the WhereScape 3D Version 8.1.1.0 is now available. The Version 8.1.1.0 release notes document details the changes since the last release.

Upgrading to Version 8.1.1.0

To upgrade to Version 8.1.1.0, login to <http://www.wherescape.com> to download 3D from the downloads page in the Support section.

Detailed Changes from Previous Versions

Details of changes made in previous versions of 3D are available on the <http://www.wherescape.com/support/3d-release-notes/> page in the Support section.

Kind Regards,

WhereScape 3D Team

VERSION 8.1.1.0

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SIGNIFICANT FEATURES VERSION 8.1.1.0

The following significant new features have been added since Version 8.0.1.0

- Improvements to model conversions
 - Customizable matching in model conversion rules
 - Use profiling for matching criteria
 - Run multiple model conversions sequentially
 - Customizable RDBMS filter
 - WhereScape provided model conversions are read only
 - Improved renaming support
 - Entity type synchronization
- New template features
 - Variable type conversions
 - String support functions
- Improved the interface for source mappings

Improvements to model conversions

You can now easily customize the matching criteria of a model conversion rule. You can choose to match on the following:

- Entity types
- Entity name
- Attribute Properties
- Profiling Metrics
- And more....

This includes the overall logic for the matching criteria to enable you to understand how the rule will be matched.

The screenshot shows the 'Rules' management interface. At the top, there is a search bar with the text 'Type here to filter rules'. Below it is a table of rules:

Name	Rule type
Consolidate entity source mappings on Stage	Redirect entity source mappings
Create Loads from Stages [etn]	Copy entities
Split Loads to sources	Split entities per source entity
Merge Loads	Merge entities by source mappings
Rename entities	Rename entity
Rename load attributes to source name	Rename attribute
Rename attributes	Rename attribute
Add Load record source transformation [dss]	Add data transformation
Add Load load date transformation (SQL Server) [dss]	Add data transformation
Add Load load date transformation (Oracle) [dss]	Add data transformation

The 'Rename entities' rule is selected, and its configuration dialog is open. The dialog has the following sections:

- Match on entity type:** A list of checkboxes with 'Hub', 'Link', and 'Load' checked. Below the list is a text field containing the expression: `{ Hub OR Link OR Load OR Satellite OR Satellite-History OR Stage-Data Vault Stage }`.
- Add matching for:** A dropdown menu.
- Matching definition:** A text field containing: `Match entity with Entity type: { Hub OR Link OR Load OR Satellite OR Satellite-History OR Stage-Data Vault Stage }`.
- Rename using:** A dropdown menu set to 'Entity name'.
- Apply on:** A dropdown menu set to 'Entity name'.
- Rename entity:** A text area containing the following code:


```
{%- set rename = renameUsing -%}
{%- set rename = rename | replace({ " ": "_" }) -%}
{{- rename -}}
```
- Buttons:** 'Define template' (with a help icon), 'OK', 'Cancel', and 'Apply'.

The definitions of the bundled Model Conversions can no longer be modified in 8.1.1.0 release.

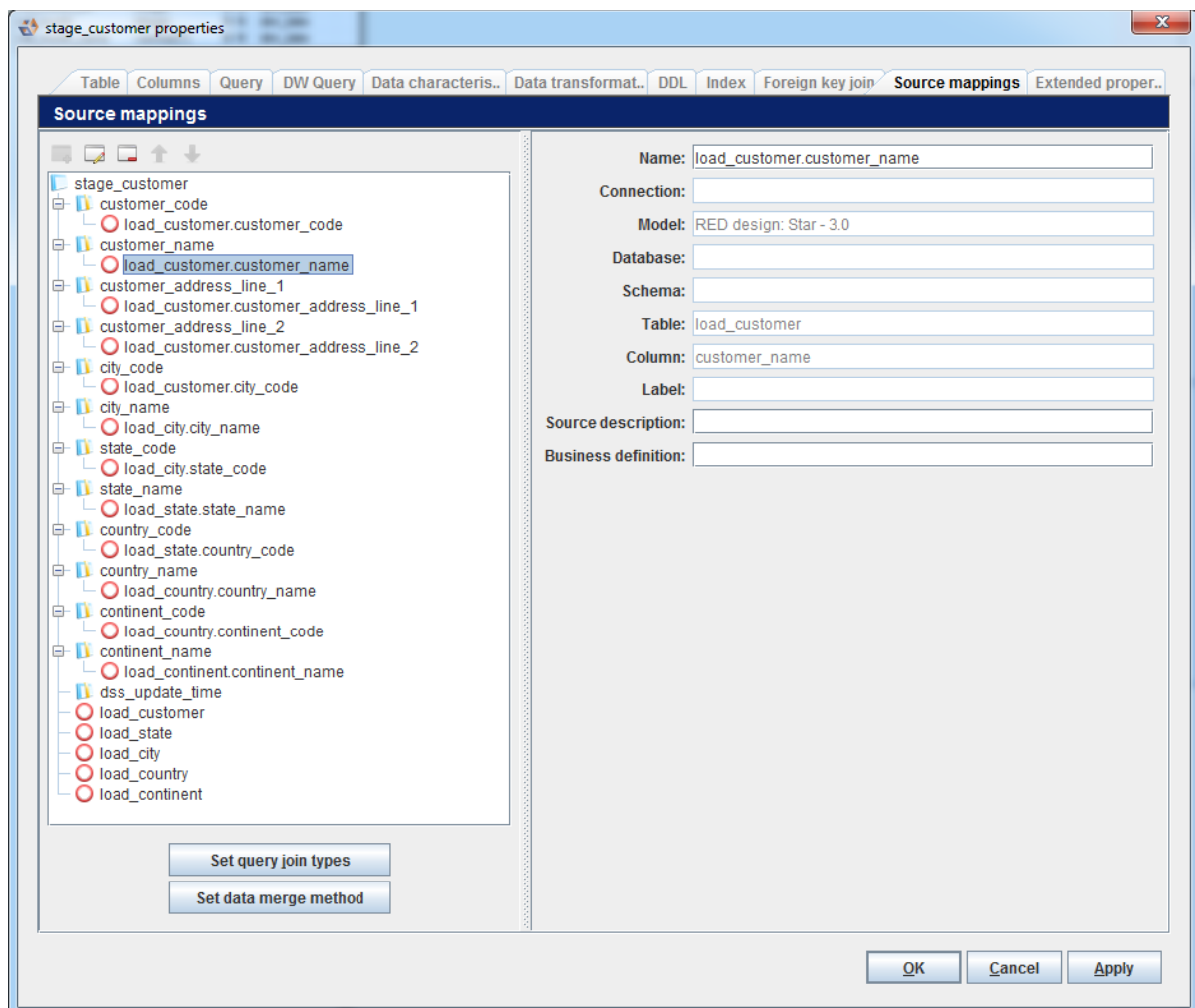
If you have previously used the WhereScape provided Model Conversions, these will be renamed during the upgrade and you can continue to use them.

IMPORTANT: We recommend backing up your Repository before installing/upgrading to 8.1.1.0. to ensure that you have a backup of your model conversions to fall back, in case you encounter behavioral issues.

Improvements the interface for source mappings

You can now easily map sources to an entity using the new graphical user interface.

Previous Source Mapping UI:



New Source Mapping UI:

The screenshot shows the 'stage_customer properties' dialog box with the 'Source mappings' tab selected. The interface displays a visual mapping between source tables and a target stage table.

Source Tables:

- load_customer:** customer_code (varchar(30)), customer_name (varchar(45)), customer_address_line_1 (varchar(40)), customer_address_line_2 (varchar(30)), city_code (varchar(3)), dss_record_source (varchar(255)), dss_load_date (datetime).
- load_country:** country_code (varchar(2)), country_name (varchar(256)), continent_code (varchar(2)), dss_record_source (varchar(255)), dss_load_date (datetime).
- load_city:** city_code (varchar(3)), city_name (varchar(256)), state_code (varchar(2)), dss_record_source (varchar(255)), dss_load_date (datetime).
- load_continent:** continent_code (varchar(2)), continent_name (varchar(256)), dss_record_source (varchar(255)), dss_load_date (datetime).
- load_state:** state_code (varchar(2)), state_name (varchar(256)), country_code (varchar(2)), dss_record_source (varchar(255)), dss_load_date (datetime).

Target Table: stage_customer

Entity level	Column	Length
customer_code	customer_code	varchar(30)
customer_name	customer_name	varchar(45)
customer_address_line_1	customer_address_line_1	varchar(40)
customer_address_line_2	customer_address_line_2	varchar(30)
city_code	city_code	varchar(3)
city_name	city_name	varchar(256)
state_code	state_code	varchar(2)
state_name	state_name	varchar(256)
country_code	country_code	varchar(2)
country_name	country_name	varchar(256)
continent_code	continent_code	varchar(2)
continent_name	continent_name	varchar(256)
dss_update_time	dss_update_time	datetime
	Add attribute	

Source mapping details:

- Name: load_customer.customer_name
- Connection: [Empty]
- Model: RED design: Star - Original
- Database: [Empty]
- Schema: [Empty]
- Table: load_customer
- Column: customer_name
- Label: [Empty]
- Source description: [Empty]
- Business definition: [Empty]

Source mapping ordering:

- ↑ ↓ load_customer.customer_name (Selected)

Buttons: OK, Cancel, Apply

DETAILED LIST OF CHANGES VERSION 8.1.1.0

The following changes have been implemented since Version 8.0.1.0.

Note: Details of changes made in previous versions of 3D are available on the <http://www.wherescape.com/support/3d-release-notes/> page in the Support section.

New Features	
BLUE-2173	Added new model conversion rules to add/delete entity/attribute extended properties.
BLUE-2152	Added the option to retain non-sourced attributes when using the "Split entities per source entity" rule.
BLUE-2149	Improved renaming in model conversion rules with access to the template functionality.
BLUE-2148	Allow filtering in the table of rules and when selecting a rule type for a new rule.
BLUE-2145	Allow sequentially running multiple model conversions in a single process.
BLUE-2142	Allow model conversion rules to match on profiling metrics.

Improvements	
BLUE-2208	The Tutorials have been removed from within WhereScape 3D.
BLUE-2206	Advanced copy has been added as a button to the workflow frame.
BLUE-2196	Added a Teradata specific predefined dim_date to Star schema category. Note: If targeting Teradata, delete dim_date and rename dim_date_teradata to dim_date and the attribute dim_date_teradata_key to dim_date_key
BLUE-2189	Added new ways to display source mappings with the correct ordering.
BLUE-2185	Added the option to the split entity rules to copy the attribute types from the PK.
BLUE-2181	The WhereScape provided model conversions are now read only.
BLUE-2177	Added some new String functions to the template language.
BLUE-2163	Allow exporting multiple model conversions to a single XML file.
BLUE-2160	Improved displaying of logic for matching criteria in model conversion rules.
BLUE-2159	New template features including functions and tests.
BLUE-2155	Added an option to the Split Relationship rule to determine the name to use for the attribute that references the PK entity.
BLUE-2154	Added the option to retain the source mapping on the PK attribute when using the Split Entity rule.
BLUE-2146	Added the option to the Split Entity rule to split all the attributes to a single entity or to individual entities.
BLUE-2144	The RDBMS filter option for a model conversion is now configurable.
BLUE-2143	Added entity extended properties to the Export to RED xml.
BLUE-2137	Allow customizing the matching criteria in a model conversion rule.
BLUE-2134	Allow specifying matching criteria in the 'Enforce naming standards' model conversion rule.
BLUE-2058	Improved options in the "Assign attribute type" model conversion rule.
BLUE-2056	Added the option to the Rename Attribute rule to rename based on the foreign key attribute name.

BLUE-2035	Introduced Standard and Advanced mode as options in the installer for setting the initial enabled functionality.
BLUE-1972	Updated the Teradata JDBC driver to 16.10.
BLUE-1966	Updated the entity type icons to match WhereScape RED.
BLUE-1958	Allow rolling back changes to discovery and profiling methods.
BLUE-1290	Allow model conversion rules to remove unwanted matching criteria.
Bugs	
BLUE-2186	The manual expand tree option was not displaying correctly on reopening of the properties of an ODBC connection.
BLUE-2184	Fixed an issue with flipping a relationship in the diagram.
BLUE-2157	Fixed custom profiling a filtered selection of attributes that has been reordered.
BLUE-2156	Some model conversions worked correctly but provided the incorrect logging.
BLUE-2136	Fixed discovering a source to a new version that contains views
BLUE-2135	Fixed the discovery of data type size and scale in the WhereScape defined discovery method for Oracle.
BLUE-2094	Improvements to the Data Vault model conversions.
BLUE-2093	Improved the model conversion "Generate load and stage for DV" to support hashing the correct attribute names.
BLUE-1925	Added a new provided discovery definition for Teradata 16 or higher to support discovery of data types in views.
BLUE-1440	Set values to zero for views for certain entity metrics in the WhereScape defined profiling.
BLUE-1302	Renaming entity, attribute or relationship types will prompt a wizard to resolve their usage in any model conversions.

PREVIOUS RELEASE SIGNIFICANT FEATURES

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SIGNIFICANT FEATURES 8.0.1.0

The following significant new features have been added since Version 2.10.0.0

- Improved DDL template support
- Added template support for queries

SIGNIFICANT FEATURES 2.10.0.0

The following significant new features have been added since Version 2.9.0.0:

- Model conversion logger and snapshots.
- Alignment of Data Vault 2.0 with RED changes and improvements to the model conversions.

SIGNIFICANT FEATURES 2.9.0.0

The following significant features or improvements have been added since Version 2.8.0.2

- Added changing hash to Satellites of a Data Vault
- Data type mappings for Hive and to support TPT loads in Teradata
- Allow deletion of profiling results
- Updated tutorials

SIGNIFICANT FEATURES 2.8.0.2

The 3D 2.8.0.2 update fixes a RED export issue by providing a prompt to determine how potentially invalid data types for dss columns for Teradata are processed.

SIGNIFICANT FEATURES 2.8.0.1

The 3D 2.8.0.1 update fixes an issue when upgrading a repository with an entity type named 'View' which would cause the repository upgrade to fail.

SIGNIFICANT FEATURES 2.8.0.0

The following significant new features have been added since Version 2.7.0.1

- **Data Vault improvements**
 - Add relationship between Links and Hubs
 - Entity types added to RED design category
- **Model conversion rules**
 - New rule: Assign relationship type
 - The 'Exclude views' option in 'Copy entities' rule has been removed
 - The 'Create view' rule requires setting a 'View' entity type
 - Described in the user guide
- **The entity object property field was removed**
- **Improvements to synchronizing RED object types**
 - The improvements have been incorporated for use with the upcoming RED release
- **Allow custom databases for target locations**
- **Discovery of view queries**
- **Support for Teradata timestamp(0) and MSSQL varchar(max)**
- **Additional features to the UI**

SIGNIFICANT FEATURES 2.7.2.0 BETA

- **No significant features were added in this release.**

SIGNIFICANT FEATURES 2.7.1.0 BETA

- **Data Vault entity types added to RED design category**
- **Discovery of view queries**
- **Support for Teradata timestamp(0) and MSSQL varchar(max)**

SIGNIFICANT FEATURES 2.7.0.1

- **CSV parser supporting multi-character delimiters and newlines in values**
- **Model conversion rules have a description field**
- **Discovery improvements**
 - Oracle XML discovery includes data type size and scale
 - Teradata indexes without names

SIGNIFICANT FEATURES 2.7.0.0

- **CSV parser supporting multi-character delimiters and newlines in values**
- **Model conversion rules have a description field**
- **Discovery improvements**
 - Oracle XML discovery includes data type size and scale
 - Teradata indexes without names

SIGNIFICANT FEATURES 2.6.2.0 BETA

- **Data vault 2.0 support**
 - Entity type icons for hub, link and satellite tables
- **Model conversion rules**
 - Additional rule
 - Delete attribute source mappings
 - Improvements to existing rules
 - Support for more variables
 - New options for some rules

SIGNIFICANT FEATURES 2.6.1.0 BETA

- **DDL language expansions**
 - Table type filtering
 - Source query support
- **Data Vault 2.0 support**
 - Hash key transformations
 - Data Vault staging out views
- **RED external targets**
- **Model conversion rules**
 - Additional rules
 - Adding relations
 - Removing transformations
 - Merge entities by source entity
 - Populate entity queries
 - Assign schema
 - Improvements to existing rules
 - Applying steps only for certain RDBMS
 - Variables and basic logic support for transformations
- **Diagram walker for large diagrams**
- **Derive relations wizard can assign primary keys**

SIGNIFICANT FEATURES 2.6.0.0

- **Improved usability**
 - Regenerating DDL on an entity allows manual changes to be merged back in
 - XML and Generic Profiling allow a connection retry period to be set
 - Display data shows calculated columns
 - Display data generates SQL aliases
- **Performance improvements**
 - CSV file discovery can be performed on a limited number of rows
 - File profiling (CSV, XML and JSON) can be performed on a limited number of rows
 - Export to RED on a shared repository has been optimized for speed

SIGNIFICANT FEATURES 2.5.2.0 BETA

- **Model conversions**
 - Direction of source mappings when copying tables
 - Apply data type mappings
 - Copy columns within a table
 - Table and column names as variables
 - Schema handling
 - Setting views
- **Generated documentation**
 - Hidden entities and attributes
- **Handling of simple JSON and XML files**
 - Discovery
 - Profiling
 - Sample data
 - Pivot table
 - Duplicate data

SIGNIFICANT FEATURES 2.5.1.0 BETA

- **Additional RED integration**
 - Generated JOIN queries can now be altered before exporting to RED
- **Support for composite joins**
 - Generic and XML defined Discovery
 - Generic profiling
 - Query generation
 - DDL generation
 - RED integration
- Hierarchical joins supported
- Joins with aliases supported
- JDBC connections can now have multiple JAR files assigned

SIGNIFICANT FEATURES 2.5.0.0

- **Additional RED integration**
 - Transformations created from the data type mappings
 - Catering for altering index types
 - Default values and nullable columns
- **User defined content**
 - Custom reports
 - Stored queries
- **Shared repositories**
 - Storing connection passwords central, local or entering when connecting
- **Updated branding**

SIGNIFICANT FEATURES 2.4.2.0

- **3D work flow assistance**
 - Simplified default functionality
- **Prototyping capabilities to verify the data warehouse design**
 - Denormalizes a sample of the data behind the data warehouse design
 - Shows a basic pivot table for the designed star schema
- **Merging models**
 - Allows for moving changes between models
 - Supports conflict resolution
- **Improved usability and user experience**
 - Setting under View to increase the fonts
- Runs on a bundled version of Java 8
- New model conversion to generate load and stage tables for data vaults
- Data type mappings have been updated
- **Improved RED integration**
 - Improved diagram performance
 - Updated tutorials and user guide

SIGNIFICANT FEATURES 2.3.2.0

- **Usability / ease of use redesign**
 - Improved handling of surrogate keys
 - Adjustment of default values
 - Allowing diagrams to open as read only
 - Navigating from the tree to the diagram
 - Introduction of a category manager
 - Restoring the tree state at start-up
- Setting table background colors in the diagram
- Search and replace functionality in the model conversion rules
- Improved lineage tracking
- Improved subtype handling by the model conversion
- Discovery of files without header rows
- General maintenance and bug fixes
- Added query join types (only INNER JOIN was being supported before)
- Teradata views now get their data types correctly discovered
- Generated documentation has been expanded to contain additional business semantics
- Display data now uses the data transformations
- Models now can be exported in the Common Warehouse Metamodel format

- **RED integration Level One**
 - Joins on stage tables
 - Unique short names
 - Change detection fields
 - RED projects
 - Syncing of object types
 - Business key flags
 - Surrogate key flags

SIGNIFICANT FEATURES 2.2.1.0

- Simplified database schema selection on connections
- WhereScape 3D can now be installed in a custom location
- Events viewer
- New wizard to rename multiple columns
- Java 8 support (a custom JDBC-ODBC bridge supporting ODBC 3.x was added)
- **Model conversions**
 - Sharing model conversions (export and import functionality)
 - Model naming standards (a new rule to enforce naming standards and automate abbreviations)
 - A new rule to generate indexes
 - The 'Delete entities' rule now provides the option to cascade delete any foreign keys
- Simplified connection and model creation
- Redesigned the copy/import/transition functionality
- Large diagrams handling
- Diagrams can now be saved as PNG images

SIGNIFICANT FEATURES 2.1.0.1

- Effort calculation
- Distribution keys enhancements
- Improved RED integration
- Extended relationship profiling
- Duplicate data detection

SIGNIFICANT FEATURES 2.1.0.0

- 3D to RED export/import is now enabled
- New model conversion rules for:
 - Rename attribute
 - Redirect attribute source mappings
 - Add attributes from source entities

SIGNIFICANT FEATURES 2.0.0.8

- Data transformations (BETA)
- PowerDesigner support for views, groups and code as name
- Hadoop Distributed File System can now be a host connection
- File encoding can now be selected on local file system host connections (e.g.: various EBCDIC encodings)
- Updated context menus

SIGNIFICANT FEATURES 2.0.0.7

- Data quality functionality
- Business rule validation
- Automated star schema design generation from source systems
- Automated stage and load tables generation from star schemas
- New filtering and validation screens for profiling results (BETA)
- WhereScape RED “fixed” categories
- Silent installation options

SIGNIFICANT FEATURES 2.0.0.6

- Significantly improved diagram layouts using a new layout engine
- Sample data generation can now be scheduled.
- Several enhancements to model conversion rules.
- Referential integrity profiling.