



WHERESCAPE 3D RELEASE NOTES

2.10.0.0

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WHEREscape 3D VERSION 2.10.0.0 JUNE RELEASE UPDATE

June 2017

WhereScape is pleased to announce that the WhereScape 3D Version 2.10.0.0 is now available. The Version 2.10.0.0 release notes document details the changes since the last release.

Upgrading to Version 2.10.0.0

To upgrade to Version 2.10.0.0, 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 VERSION 2.10.0.0

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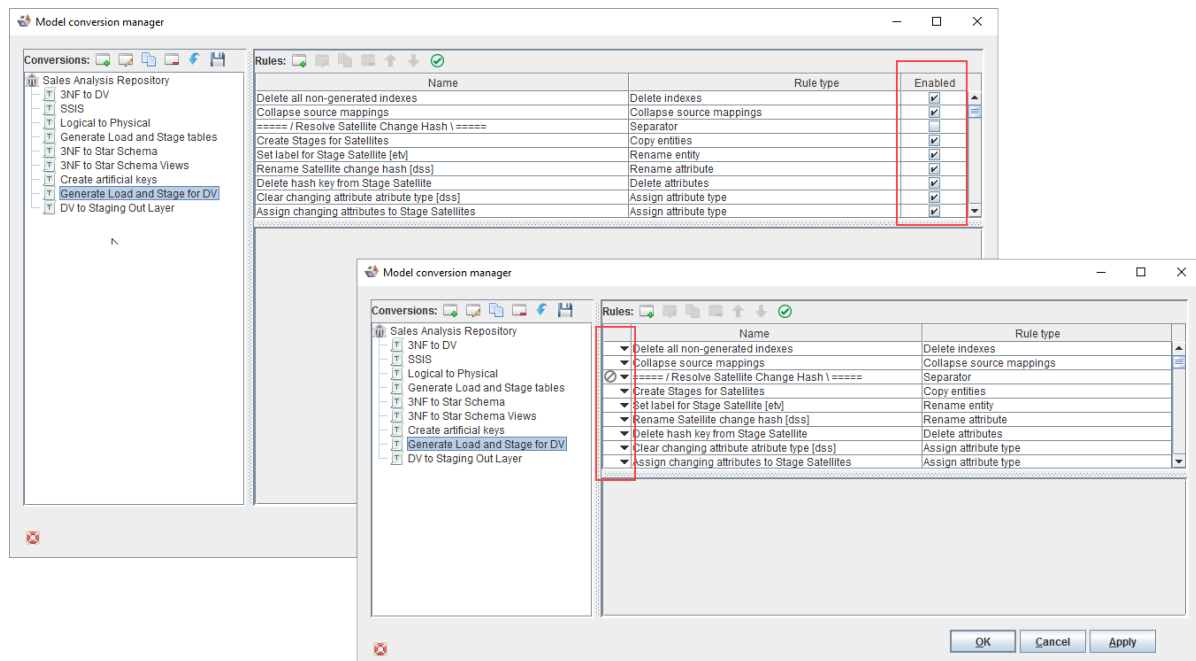
SIGNIFICANT FEATURES VERSION 2.10.0.0

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

Model conversion logger and snapshots

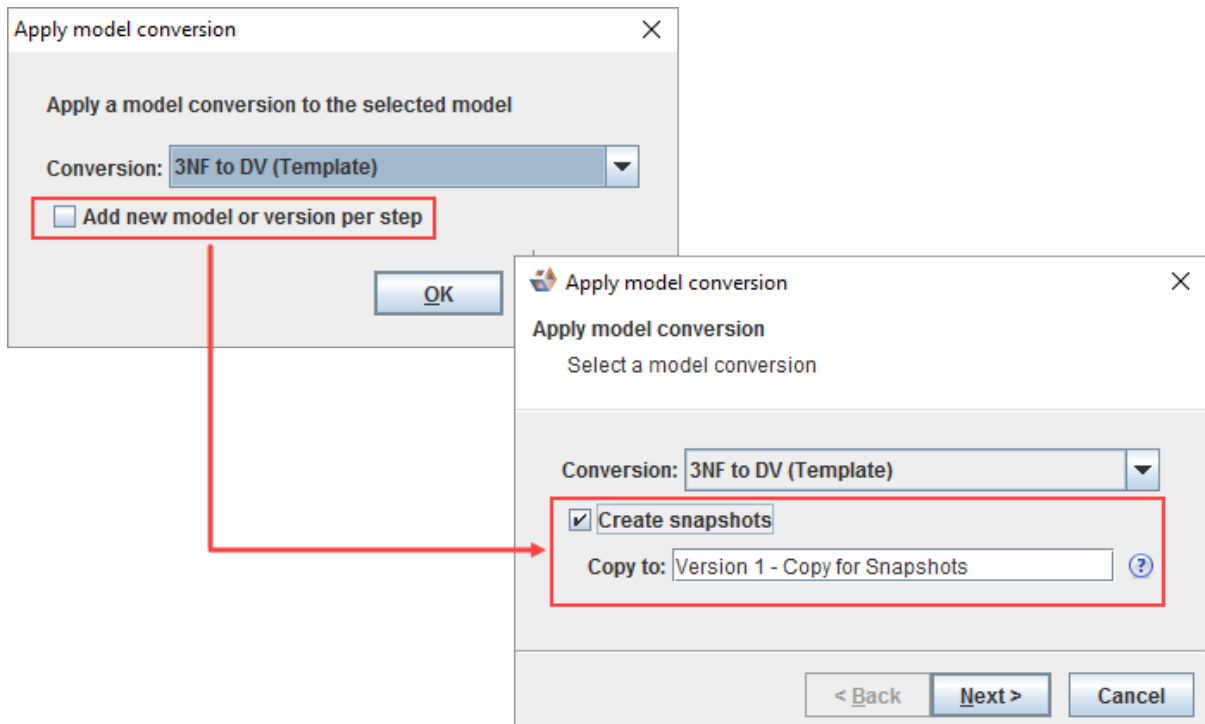
The model conversion manager has been updated to provide a status indication for each rule in the conversion process and the ability to create an optional snapshot.



The **enabled** column has been replaced and moved to the left with a new triple state option:

- Enable
- Snapshot 
- Disable 

The snapshot option allows for reducing the amount of time to perform a model conversion and less clean up, while only creating model versions for the rules of interest.



Applying a model conversion has also been updated to show the current progress.

Copy Star schema complete

Copy model

	Process	Status	Information
✓	Copy source system	Succeeded	
✓	Apply model conversion 'Generate Load and Stage ...	Succeeded	
✓	- Delete indexes	Succeeded	8 indices affected
✓	- Collapse sources mappings	Succeeded	5 entities affected
✓	- Add stage tables for dimensions	Succeeded	2 entities affected
✓	- Add stage tables for facts	Succeeded	1 entity affected
✓	- Consolidate source mappings on stage tables	Succeeded	0 entities affected
✓	- Add load tables	Succeeded	3 entities affected
✓	- Split load tables	Succeeded	11 entities affected
✓	- Use source column names on load columns	Succeeded	0 attributes affected
✓	- Add missing load columns	Succeeded	6 attributes affected
✓	- Rename tables	Succeeded	0 entities affected
✓	- Rename columns	Succeeded	0 attributes affected
✓	- Merge loads	Succeeded	0 entities affected

✓ Completed

Finish

The rules will not only provide whether they had a warning or error, but can also display additional information on how the object (ie. Entity or attribute, etc) was matched and if any modifications were applied.

Log entries can be viewed by clicking the link in the **Information** column.

Log for rule 'Clear unwanted attributes types from load and stage' in 'Generate Load and Stage tables'

Rule: Clear unwanted attributes types from load and stage
 Type: Assign attribute type
 Result: 30 attributes affected

Details	
Entity 'load_states'	
Entity types: Load	
Contains attributes with with type 'Changing attribute'	
Attribute 'state_name'	
Attribute properties: NonGenerated	
Attribute types: Changing attribute	
Attribute name 'state_name' matched pattern '%' (case insensitive)	
Removed matched attribute types: Changing attribute	
Attribute 'country'	
Attribute properties: NonGenerated	
Attribute types: Changing attribute	
Attribute name 'country' matched pattern '%' (case insensitive)	
Removed matched attribute types: Changing attribute	
Attribute 'continent'	
Attribute properties: NonGenerated	
Attribute types: Changing attribute	
Attribute name 'continent' matched pattern '%' (case insensitive)	
Removed matched attribute types: Changing attribute	
Entity 'load_product'	
Entity types: Load	
Contains attributes with with type 'Business key'	
Attribute 'code'	
Attribute properties: NonGenerated	

Close

Data Vault 2.0

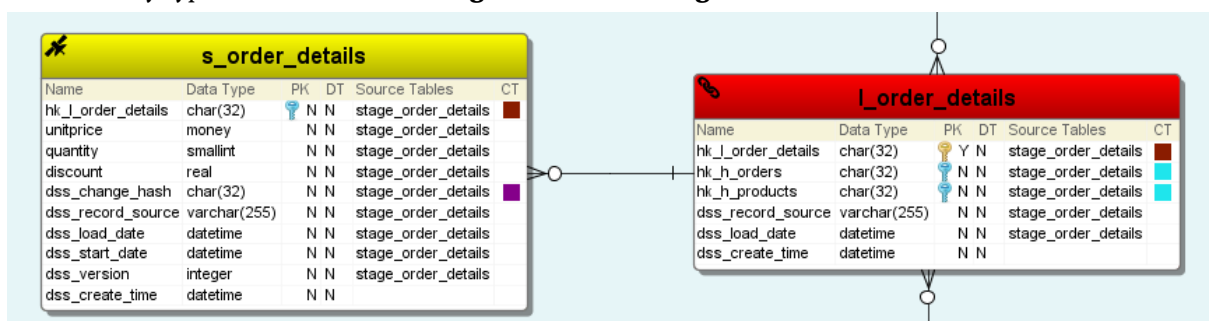
Note:

Existing Data Vault models may not be compatible with the updated model conversions. Any models that export to WhereScape RED will need to be updated or re-designed to take advantage of the new RED Data Vault features.

1 New attribute types have been added to support Data Vault 2.0 implementation:

- **Link hash key** for the Link hash attributes
- **Hub hash key** for the Hub hash attributes
- **Change hash key** for the changing hash attributes

2 A new entity type has been added - **Stage-Data Vault Stage**



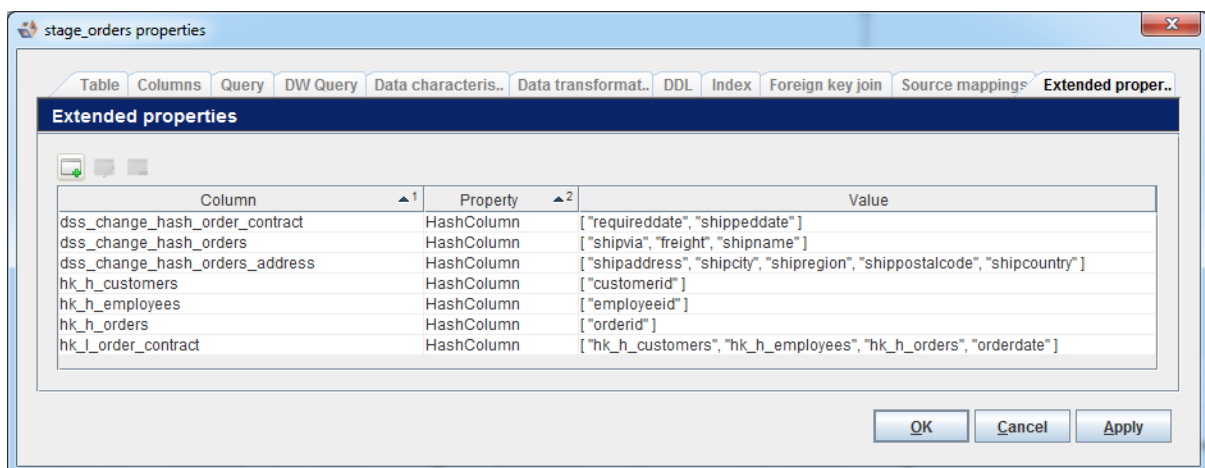
3 The following model conversions have been updated:

3NF to DV

- Modified to use the newly introduced attribute types
- Easier documentation within the rule to add multiple Satellite support
- Improvements to generating the Link for a relationship between two Hubs

Generate Load and Stage for DV

- Modified to use the newly introduced attribute types
- Corrected multiple change hashes in Stage for multiple Satellites
- Does not rely on defining relationships in the source system
- Primary Keys are not necessary for the model conversion, but PKs should be defined for the RED export
- Additional naming to the rules for customization
- By default, generation of the hash data transformations are disabled in the model conversion. Instead, a special named extended property is generated for RED to consume. They reference the attributes within the stage entity. Change hashes are now supported.



Unique naming of hub business keys for a 3D model

If more than one hub has the same business key name then the model conversion will create additional unintended hub hash key(s) in the link table definition.

For models intended for import into RED, WhereScape recommends that all hub table business keys are uniquely named.

Consistent naming of hub business keys in hub and link tables for a 3D model

If the link business key is named differently from the associated hub business key name then the model conversion cannot correctly define the source hash key columns for a link table.

For models intended for import into RED, WhereScape recommends that all hub and link table business keys are consistently named.

DETAILED LIST OF CHANGES VERSION 2.10.0.0

The following changes have been implemented since Version 2.9.0.0.

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-2079	Added a new model conversion rule 'Add extended property'
Improvements	
BLUE-1698	Allow scheduling of profiling or sample data for a group
BLUE-1992	Improved the feedback when applying a model conversion - Phase I
BLUE-2062	Updated the Teradata JDBC driver
BLUE-2069	Added new attribute types and updated DV entity type definitions
BLUE-2077	Aligning the DV2.0 model to the changes in RED with improvements to the bundled model conversions
Bugs	
BLUE-2032	The WhereScape defined definition for discovering Oracle should use the field CHAR_LENGTH for text data type length
BLUE-2037	The repository tree did not refresh correctly after restoring a repository over an existing one
BLUE-2060	Updated the JDBC driver class for Oracle and MySQL
BLUE-2063	Manually applying an entity type onto an entity can result in attributes having null in the name
BLUE-2068	The model conversion for generating the Load and Stage entities did not remove all the source indexes
BLUE-2071	Variables were not substituted in the Enforce Naming Standards model conversion rule
BLUE-2072	A diagram would fail to load correctly when a model conversion is tasked to create an entity
BLUE-2075	Changed the data type mappings for handling the unique identifier data type
BLUE-2076	The merge entity rules were not maintaining the data transformations
BLUE-2078	The export to RED process would push the where_clause tag with the full query
BLUE-2089	Applying data type mappings will no longer create data transformations on an attribute with no source mappings.

PREVIOUS RELEASE SIGNIFICANT FEATURES

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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.