

## Attunity Compose 3.1 Release Notes - April 2017

Attunity Compose 3.1 introduces a number of features and enhancements, which are described in the following sections:

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## Enhanced Missing References Support

In some cases, incoming data is dependent on or refers to other data. If the referenced data is missing for some reason, you either decide to add the data manually or continue on the assumption that the data will arrive before it is needed.

From Compose 3.1, users can view missing references by clicking the **View Missing References** button in the Manage ETL Sets' **Monitor** tab or by switching the console to Monitor view and selecting the **Missing References** tab below the task list.

## Surrogate Key Enhancement

Compose uses a surrogate key to associate a Hub table with its satellites. In the past, the column containing the surrogate key (ID) was of INT data type. This was an issue with entities containing over 2.1 billions records (which is the maximum permitted INT value). The issue was resolved by changing the column containing the surrogate key to BIGINT data type.

## Support for Archiving Change Tables

From Compose 3.1, you can determine whether the Change Tables will be archived (and to where) or deleted after the changes have been applied. Archiving Change Tables is important for organizations that need to keep a record of data updated during CDC operations.

This option was added to the **New/Edit Data Source** window.

## Support for Fact Table Updates

In previous version of Compose, the fact table in a transactional star schema was not updated with changes that arrived in the corresponding data warehouse table. Now, the fact table in a transactional star schema will be automatically updated with any changes applied to the corresponding data warehouse table.

## Performance Improvements

- » **Initial load optimization:** The option to optimize initial loading of the data warehouse and data mart tables has been moved to the **Advanced** tab in the data warehouse and data mart settings window.
- » **RUNNO\_UPDATE column optimization:** The value in the `RUNNO_UPDATE` column in the data warehouse and the data mart tables is now inserted/updated using UPSERTs. Additionally, whereas previously both the `RUNNO_INSERT` and `RUNNO_UPDATE` columns were indexed, from Compose for Data Warehouses 3.1 only the `RUNNO_UPDATE` column will be indexed. The use of UPSERTs and a single index will usually result in faster queries and updates, and require less space in the data warehouse.
- » **Task Start Optimization:** The time required by Compose for Data Warehouses to start a task has been shortened.

## Support for NULL Overrides in the Data Warehouse

When updating a non-null data warehouse column with a null value, users can now choose whether to set the target value to null or leave the target value unchanged.

## Creation of Data Marts in Separate Schemas or Databases

The option to create the data mart tables in a schema and/or database other than the default has been added to the **Advanced** tab in the data mart settings window.

**Note** Currently supported on Microsoft SQL Server only.



## Post-Upgrade Procedures

For each of your Compose projects, a script will be created in the following location, after the upgrade completes:

```
<compose_product_dir>\data\projects\<project_dir>\ddl-  
scripts\ComposeUpgrade_<project_name>__<timestamp>.sql
```

You need to run the script *directly* in the data warehouse defined for the project(s).

The script consists of the following two sub-scripts.

- » **Script 1:** Changes the surrogate key data type from INT to BIGINT in the data warehouse tables.
- » **Script 2:** Updates the data in the RUNNO\_UPDATE column in the data warehouse tables.

**Note** This may take a while as the script is run on the entire data warehouse.

## Resolved Issues

The following issues have been resolved in this release.

Component/Process	Type	Description	Ref #
ETL tasks	Issue	Lengthy ETL tasks would sometimes report that they were on standby. This was resolved by adding information about running statements to the log file.	148889
ETL CDC Task	Issue	When changing a Teradata table's primary index and then running a CDC ETL task to update the changes, the task would fail.	149120
ETL CDC Task	Issue	Changes with the same timestamp would not be sorted according to their execution order.	146629
CDC Task	Issue	When an entity contained thousands of changes on the same business key, Compose would run a separate set of SQL statements for each row.	149517
Microsoft SQL Server OS Language for non-Unicode: Chinese (Traditional, Hong Kong SAR) Server collation: Chinese_Hong_Kong_Strike_90_CI_AS	Issue	Clicking "Test Connection" would return the following error:  <code>COMPOSE-E-ENGCONFAI, Java connection failed error: 'Could not find a Java charset equivalent to collation 040CD01000.'</code>	145080

## Known Issues

The following are the known issues in this release.

Component/Process	Description	Ref #
Pivot Table	When the same column is included in two different dimensions, the pivot table shows the wrong data.	CMPS-3995
MySQL Source	A cryptic error is shown when the MySQL source password field is empty. The error remains even when a password is entered.	CMPS-3801
Monitor	The task progress bar may occasionally disappear and return after a short delay.	CMPS-3239
DDL Scripts	Some of the DDL scripts contain the database name and some do not.  If you need to run the scripts manually, make sure to run them on the database specified in the script.	CMPS-2922
New Data Warehouse	When adding a new data warehouse, a "Database is required" message is shown immediately after selecting the database type.	CMPS-2886
Relationships	The following relationships cannot be defined as history type 1: <ul style="list-style-type: none"> <li>» A self-referencing entity (i.e. a relationship between the originating entity and itself).</li> <li>» A sequence of relationships that eventually loop back to the originating entity (e.g. A to B, B to C, and C to A).</li> </ul> <p><b>Workaround:</b> Define them as type 2.</p>	CMPS-3038
Discovery	Discovering tables that have column names with spaces, results in missing mappings for those columns.  <b>Workaround:</b> Create the mappings manually.	CMPS-3294
Logs	The logs are in four different locations: <ul style="list-style-type: none"> <li>» <b>&lt;product_dir&gt;\data\logs</b> - Server log file</li> <li>» <b>&lt;product_dir&gt;\data\projects\[proj_name]\logs</b> - Workflow/command task logs</li> <li>» <b>&lt;product_dir&gt;\java\data\logs</b> - Java server log file</li> <li>» <b>&lt;product_dir&gt;\java\data\projects\</b></li> </ul>	CMPS-1177

Component/Process	Description	Ref #
	<b>[proj_ name]\logs</b> – Data warehouse/data mart logs	
Monitor	The information displayed in the Compose monitor for incremental facts may be inaccurate.	CMPS-4045
Data Marts	A data mart that is not valid will change its status to valid if the Attunity Compose service is restarted.	CMPS-3665
Oracle ETL Task	Aborting a data warehouse ETL task that loads data to Oracle does not end the active session with Oracle.	CMPS-3688
Change Table Archiving	<p>If a Change Table in the landing area was updated as the result of a DDL operation (e.g. a new column was added), Compose will archive the original Change Table instead of the updated one.</p> <p>In this case, you need to:</p> <ol style="list-style-type: none"> <li>1. Manually apply the change to the archived Change Table (using <code>ALTER TABLE</code>).</li> <li>2. Regenerate the data warehouse ETL set.</li> </ol>	N/A
Upgrade (Logs)	Due to a change in directory structure, after upgrade, logs that were present before the upgrade cannot be accessed via the console.	N/A