TDM RELEASE NOTES

TDM (TEST DATA MANAGEMENT) V9.0 RELEASE NOTES

These Release Notes describe the new fixes and updates in TDM release V9.0.

Certification of this TDM release is based on:

- Fabric 8.0.
- PostgreSQL 15.4.

RELATED DOCUMENTS

- Fabric_Release_Notes_V8.0.
- TDM_Upgrade_Procedure_to_V9.0.

MAIN FEATURES AND IMPROVEMENTS

1. Synthetic Data Training and Generation based on AI

- Introducing a full integration of the TDM task with AI-based synthetic entities generation. The TDM 9.0 supports **both methods of a synthetic entities' generation**:
  - **Rule-based** entities' generation.

    AI-based entities' generation.
- TDM 9.0 supports the **following tasks for AI-based** entities' generation:
  - Creating an entity subset and running a **training** on the subset. Training tasks can create separate training models on various subsets. The created training models are stored and can be used to generate AI-based entities on demand.
  - AI-based **generation** of synthetic entities, which is based on a selected training model.

    Reloading of pre-generated entities to a selected target environment.
- Note that the AI-based solution currently supports one LU.

2. Task Redesign

- Redesign of the task creation flow in order to simplify the task creation or edit to be more intuitive. A **graphic architectural widget** guides the user on the task's related component:
  - Source – defines the data source of the task's entities and/or tables. The data source can be either a source environment or a synthetic data generation.
  - Subset – defines the entities' subset or the tables' filter. For example, select 50 customers that live in NY and have a Gold status.
  - TDM data store – this is Fabric which can be used as a staging DB to save the task's entities and/or tables.

o Target – defines the target environment for the task. It can be either a testing environment or AI training to create a training model for AI-based synthetic entities' generation.

- View the below example of the task's graphic widget. The task extracts entities from Production and loads them into the UAT environment:
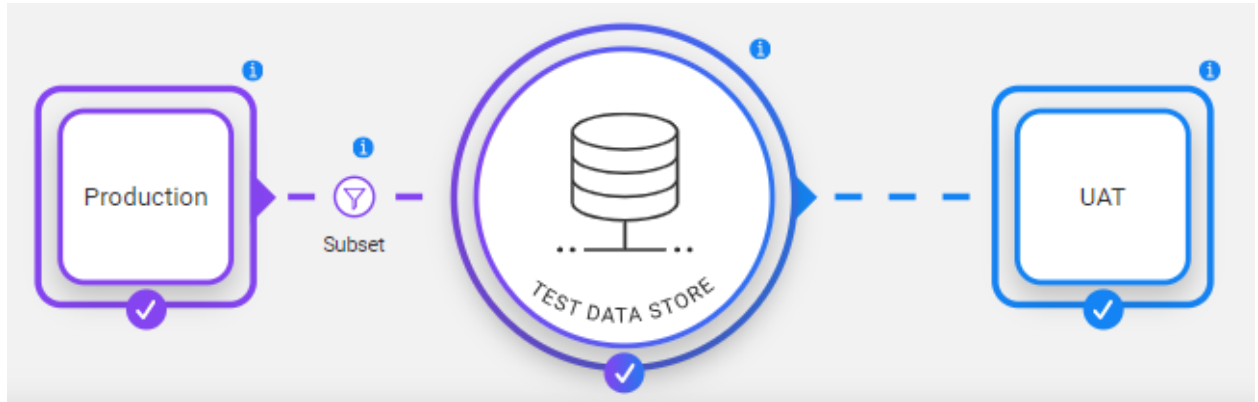
- The user can click on each one of the components to open its form and update its settings.
- The task also has the following 3 icons: Save, Save & execute, and Advanced settings.
- The task name can be either set by the user or generated by the TDM portal.

3. Rule-Based Synthetic Data Generation Enhancements

- Enables the user to reload all entities of a selected previous data generation task execution.
- In general, it is possible to edit the number of generated records per table in the task. TDM 9.0 enables the implementor to disable the editing functionality of the number of generated records for a table list.

4. Task – Additional Enhancements

a. Table Level Improvements

- Adding a support of a task that provisions tables without entities. The user can select all or some of the tables in the source environment's DBs.
- Supporting a Catalog masking of the table's sensitive data.
- Enabling the user to set a filter on each table to select a subset of records from the table.
- The user can either extract the tables from the source DB or select pre-created versions (data snapshots) from the TDM store. The user can select a different data version on each table.

b. Support of Pre-execution Processes

- Supporting an execution of Broadway flows that can run in the beginning of the task execution. Now the task can run pre and post execution processes. For example –
    - o Run a pre-execution process to build a mapping table for the task execution.
    - o Run the task to extract a subset of customers from Production and load them to the UAT environment.
    - o Run a post-execution process to send a mail to the tester after the task execution ends.
- Both – pre and post execution processes – run an asynchronous mode for a better performance in order to prevent the task execution job from waiting for these processes to end (ticket #36436).

c. Entities Sub-setting Enhancements

- Supporting all selection methods for all task types - extract, load, delete, or reserve.
- Supporting an entity clone for all selection methods. The entity clone is no longer a selection method but is rather an attribute on the Target component for a Load task action.

d. Task Execution Monitor Window

- Removing the "blinking" of the window upon refreshing the execution status.
- Display of the progress bar even if the task has a small number of entities and removal of the refresh button, which is no longer needed.

5. TDM Portal - Additional Enhancements

- Task list - adds a delete icon next to each task and shortens the columns' names in the tasks table.
- Including the setting tabs – Environments, Business Entities, etc. - in the Settings tab.
- Removing the API Doc tab since it is duplicated with the API option in the Web platform menu.

6. Unify the LU Instance Structure

- Concatenating the task execution ID to the LUIs, created by a data snapshot (versioning) and the AI-based generated LUIs.

7. Installing the TDM from the K2exchange

- The K2exchange is a store-like platform for publishing and consuming Fabric's modules that are not part of the product and that are hence considered as extensions.

The TDM 9.0 is offered as an extension module in Fabric Web Studio. The Web Studio allows project implementors to get the TDM from the list of extensions, install and embed it into their project with a click.

8. Format Preserving Masking

- Fabric 8.0 adds support for format-preserving masking that enables to **preserve the original format in the masked value** and to set the same masked values to all fields that have the same normalized ('naked') value, although they have a different format.

- A new optional parameter has been added to the Masking Actor, named 'formatter'. This parameter can be set with either a formatter flow or an Actor to maintain the original format. A new Actor has been added - SimpleMaskingFormat - for performing the formatting of the input value.

- More information is available at:
    - https://support.k2view.com/Academy/articles/26_fabric_security/06_data_masking.html
    - https://support.k2view.com/Academy/articles/19_Broadway/actors/07_masking_and_sequence_a ctors.html

9. Fabric Catalog Improvements

a. Complex Fields Masking

- The Catalog now supports parsing of text fields with a complex structure (JSON or XML). The complex structures are parsed and they undergo auto-profiling by using the same profiling rules as all other Catalog fields.

- More information is available at:
    - https://support.k2view.com/Academy/articles/39_fabric_catalog/plugins/01_complex_field.html

b. Catalog Advanced Masking Settings

- Catalog Advanced Masking Settings pop-up window enables setting up additional parameters for the masking:
    - Masking indicators (such as 'Use Environment'). These indicators can be used during task executions in TDM. They override the default values of the Masking Actor – on the Classification level.
    - Formatter name and parameters for a format-preserving masking. The formatter can be an actor (e.g., SimpleMaskingFormat Actor, mentioned above in section 8) or an inner flow.
- More information is available at:

> o https://support.k2view.com/Academy/articles/39_fabric_catalog/10_catalog_settings.html

RESOLVED ISSUES

- Tickets #36664 and #37254 - fixing the delete keys generated for the delete tables and flows.
- Ticket #36662 - adding a delete icon to enable a tester to delete a task created by him.
- Ticket #36592 - fixing the environment setting for a delete only task.
- Ticket #36527 - improving the fnCheckMigrateAndUpdateTDMDB job performance.
- Tickets #36506 and #37513 - fixing the setting of the active environment when running a task with a predefined entity list based on a MigrateList Mtable record with a populated environment.
- Ticket #36486 - adding a support of a Fabric role that has a comma in its name in the TDM Permission Group mapping.
- Ticket #36663 - fixing the backward compatibility issue with existing sequencing flows/Actors created in previous TDM versions.
- Ticket #37514 - fixing the task execution process to update the task status to completed before the TDM LUI sync in order to enable a re-execution of the task even before the TDM LUI sync is complete.
- Do not enable a delete of the admin permission group mapping.
- Enforcing the Source Environment Sync Restriction on a Task Creation and Execution if the task's source environment's Override Sync Mode is set to Do not Sync in the TDM portal.
- Fixing the task execution monitor window – the TDM portal did not display the start execution of a child LU till all the root LUs are executed.
- Fixing the clean-up process of the task executions that create data snapshots (versions) from the TDM DB to avoid deleting data snapshots that are still valid and haven't yet expired.
- Rule-based synthetic data generation - the generated sequence must be set with MASK_NO_CACHE on empty input to generate a new sequence on each record and prevent a duplicated key.
- Fixing the stop and resume of a task execution when the task runs a custom logic flow.
- Parameters handling –
  - o Performance improvement – set a single check if the LU param table needs to be altered instead of checking its structure for each LU instance.
  - o Adding the source environment to the tdm_params_distinct_values table.

- o Replacing the UNION ALL with UNION when there is an OR operator between the selected parameters in order to avoid a duplication if the entity matches both parameters.
- o Ticket #36903 - fixing the classification of Alphanumeric parameters.
- o Increasing the default value of the combo_max_count field to 100 in order to display the valid values in the task if the parameter has up to 100 possible values.

- TDM portal – Environment window – disabling the environment fields for editing for a tester.

- Fixing the getAllGlobals API to exclude the TDM product Globals.

- Fixing the PK on product_logical_units to include BE_ID + LU_ID fields.

- Fixing the getCustomLogicflows API to prevent duplicated results if there is InActive System attached to the environment.