TDM RELEASE NOTES

TDM (TEST DATA MANAGEMENT) V8.1 RELEASE NOTES

These Release Notes describe the new fixes and updates in TDM release V8.1.

Certification of this TDM release is based on:

- Fabric 7.2.
- PostgreSQL 15.4.

RELATED DOCUMENTS

- Fabric_Release_Notes_V7.2.
- TDM_Upgrade_Procedure_to_V8.1.

MAIN FEATURES AND IMPROVEMENTS

1. Support of SQLite and Postgres as Fabric System DB

- Previous Fabric versions supported only Cassandra to serve as Fabric System DB (to store history of jobs execution, etc.). From Fabric 7.2 onwards, it is possible to use either Cassandra, SQLite or PostgreSQL. This also requires some adjustments in the TDM code to support the use of non-Cassandra Fabric System DB.

  For more information about Fabric System DB, read:

  https://support.k2view.com/Academy/articles/02_fabric_architecture/06_cassandra_keyspaces_for_fabric.html

- You may check the TDM Upgrade document for more details regarding the configuration changes:
  https://support.k2view.com/Academy/Release_Notes_And_Upgrade/TDMV8.1/TDM_Upgrade_Procedure_to_V8.1.pdf.html

2. Implementation Simplification

- Automating the implementation to support an entity delete act: generate the target LU tables with the target keys and automate the generation of the Delete Broadway flow.

  For more information about implementing the delete entity, read:

  https://support.k2view.com/Academy/articles/TDM/tdm_implementation/08_tdm_implement_delete_of_entities.html

- TDM 8.1 added the **TDMOrchestrator** flow to the Shared Objects, thus avoiding the need of generating this flow separately on each LU.

3. Custom Logic Improvements

Enabling 2 execution modes for the Custom Logic flows:

1. **Direct call** –
   a. A new added mode, where the batch process directly calls the Custom Logic flow, getting the entity list without pre-populating the entities in a dedicated table. This approach is **available only when the flow is based on one DbCommand**, i.e., runs one Select query to get the required entities. This mode is recommended in order to have a better performance when running a task: it does not need to complete the population of all entities in a predefined table before starting the task execution. The task execution consumes the output cursor of the Select statement and runs the task execution on any chunk of consumed entities.
   b. Provide a product custom logic flow that enables the user to set a Select statement in the task and executes this query to get the task's entities.

2. **Indirect call** - the indirect call creates and populates a dedicated table in the TDM DB instead of Cassandra. The table is created per execution and is dropped from the DB when the task execution has been completed.

   For more information about the Custom Logic, read:
   https://support.k2view.com/Academy/articles/TDM/tdm_implementation/11_tdm_implementation_using_generic_flows.html

4. Parameters Handling – Improvements

a. Performance Improvements - Removing the Parameters Materialized Views

- Previous TDM versions created a Materialized view in the TDM DB on each combination of BE and source environment to have the linkage between the root entity and their child entities. From TDM 8.1 onwards, the parameters handling does not create the MATERIALIZED VIEW anymore. This ensures a better performance, since it is not needed to refresh huge Materialized views on each LUI sync (Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35121).

  For more information about the parameter's handling, read:

  https://support.k2view.com/Academy/articles/TDM/tdm_implementation/07_tdm_implementation_parameters_handling.html

  https://support.k2view.com/Academy/articles/TDM/tdm_architecture/07_tdm_parameters_handling.html

b. Simplify Implementation

- TDM 8.1 does not require defining all the LU's parameters as fields in the LU_PARAM LU table.

c. Tasks – Adding the IN and NOT IN Operators on Parameters

- An addition of the IN and NOT IN operators to Task's parameters to simplify the parameters setting (Freshdesk ticket https://k2view.freshdesk.com/a/tickets/34163).

d. Performance Improvement on Combo Parameters

- Improving the performance when checking if a parameter is a combo parameter. A combo parameter has a limited number of values and accordingly the TDM portal displays a valid drop-down list of values for this parameter type. Freshdesk https://k2view.freshdesk.com/a/tickets/35762.

e. Supporting Parameters for Entity Clone Task

- Adding a support of parameters for a TDM task that includes an Entity Clone selection method. Clone the first entity that is found by the selected parameters.

f. Supporting Spaces in Parameter Names

- The support of spaces in the LU parameters' names (Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35097).

5. Masking and Sequences Improvements

a. TDM Portal

- The addition of a new checkbox - Mask Sensitive Data - to the Environment. This checkbox indicates that the environment contains sensitive data, and that it should therefore be masked before it is saved into Fabric. This checkbox has been added to the Task window as well and is populated based on the task's source environment.

  For more information about the Mask Sensitive Data, read:

  https://support.k2view.com/Academy/articles/TDM/tdm_gui/08_environment_window_general_information.html

- TDM 8.1 removes the masking flags (Globals) from both the Task Variables and the Environment Variables. Instead, the user can select the Masking Sensitive Flag in the Environment or Task windows.

b. TDM Library

- A **new custom value** has been added by TDM 8.1. This category is set to true if the task needs to either mask sensitive data or replace the entity IDs (sequences) before loading them to the target. **The main use of this new category is for PII fields that must have unique values, such as SSN**. For these fields, it is recommended to set this new category.

  For more information about the TDM masking implementation, read Step 5 - Mask the Sensitive Data section - in:

  https://support.k2view.com/Academy/articles/TDM/tdm_implementation/11_tdm_implementation_using_generic_flows.html

- TDM 8.1 added a new Actor for the data generation flow to ensure the referential integrity on generated PII fields.

  For more information about the data generation implementation, read:

  https://support.k2view.com/Academy/articles/TDM/tdm_implementation/16_tdm_data_generation_implementation.html

- Sequences: populate only the TDM_SEQ_MAPPING table in the TDM DB to avoid a duplication sequence population of the TDM_SEQ_MAPPING table in k2masking keyspace and in the TDM DB.

- Sequence: enable the user to exclude the replaced sequences from the execution report.

  For more information about the sequence implementation, read:

  https://support.k2view.com/Academy/articles/19_Broadway/actors/08_sequence_implementation_guide.html

c. Catalog Masking

- Integrated TDM 8.1 with the new Fabric 7.2 feature – Fabric Catalog – to enable masking of PII fields by the Fabric Catalog. TDM 8.1 added new TDM templates to generate LU population flows that invoke Fabric Catalog for masking the PII fields before storing the data in Fabric.

  Note that this functionality is only available on Fabric Web-Studio.

  For more information about Fabric Catalog masking, read:

  https://support.k2view.com/Academy/articles/39_fabric_catalog/README.html

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6. Entity Reservation Improvements

a. Adding a Reservation only Permission Set on a TDM Environment

- Adding a support of a TDM environment's permission set that allows the users only to reserve entities on the environment, without read and write permissions. These users can create a Reserve only tasks on this environment (Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35235).

  For more information about the TDM portal's environment's permissions, read:

  https://support.k2view.com/Academy/articles/TDM/tdm_gui/10_environment_roles_tab.html

b. Reserve Only Task with Parameters' Selection Method

- TDM 8.0 added a support of the Parameters selection method to 'Reserve only' tasks (this option depends on the TDM configuration). The **Filter out Reserved Entities checkbox** was enhanced for Reserve only tasks for filtering out all reserved entities, including those that are reserved by the user that executes the task (Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35669).

7. Replacing the TDM Translations with MTables

- TDM 8.1 replaces the previous TDM translation with MTable objects to support a development of the TDM on both Fabric Studios: Desktop-Studio and Web-Studio.

8. TDM Custom JMX Statistics

- The previous TDM versions required a manual update of the TDM LU to enable the TDM custom JMX statistics generation. This manual update of the TDM LU is no longer required, instead, you need to set the POPULATE_JMX_STATS Global to true to enable the TDM custom JMX statistics generation.

9. TDM Portal – Adding the Select a Predefined Entity List Option for Extract and Load Tasks

- Adding the 'Select a Predefined Entity List' selection method for Extract and Load tasks (this option was previously available only for Extract tasks).

10. TDM Portal – Adding Validations on Added/Removed LUs to/from a Business Entity

- Adding validations on LUs that have been added/removed to/from a Business Entity (BE), in order to verify that the BE definition is aligned with the Fabric implementation.

11. TDM Portal – Generate Tasks

- Adding a marking of mandatory data generation parameters.
- Keeping the order of the data generation parameters to be aligned with the task creator setting when opening a data generation task.
- Supporting special characters in the data generation's parameters' values.

RESOLVED ISSUES

- **Parameters handling**:
  - Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35673 - fixed the handling of an LU parameter with a value that contains double quotes or special characters.
  - Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35742 - fixed the check (regex) of the task's parameter value to identify numeric parameters.

- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35302 - fixed an entity clone issue - removing the root_entity_id attribute from the LUIs. The root entity id has been added to the task_execution_entities table instead.
- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35518 - fixed the TDM SourceDbQuery Actor: when manually added to a Broadway population flow, it got an incorrect type (PopulationArgs instead of SourceDbQuery type).
- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35596 - fix the fnGetRootEntityId function: add the DB schema to the SQL statements.
- Fix the processing of a Reference tables related to a child LU in the task.
- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35616 - TDM Portal - fixed the task creation: do not enable a double-click on the Finish button to avoid errors. Wait until the task API returns a response before the user can click again the Finish button to update the task.
- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35342 - TDM Portal – fixed the horizontal scroller in the TDM windows.

- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35319 - TDM Portal - fixed the display of a TDM environment's permission set that contains only one permission (read or write) if the environment's type is Both (read and write).
- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35318 - TDM Portal - task summary – populated the number of entities with 'N/A' for post-execution processes.
- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35723 - TDM Cassandra query aborts when querying batchprocess_entities_info, causing the task to fail. TDM 8.1 replaced the Select statement with the use of the BATCH_DETAILS Fabric command to get all batch entities and their status.
- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35234 - fixed an error that occurs when opening a task without parameters. This error was caused due to an unnecessary call to the analysisCount API when moving to 'Requested Entities' tab.
- Freshdesk ticket https://k2view.freshdesk.com/a/tickets/35039 - displays the number of processed entities on all root LUs for Reserve tasks.
- The addition of a Global variable for the table schema when accessing the tdm_generate_task_field_mappings TDM DB table.
- Reserved Entities window –actions on a selected entity ID are now enabled, even if the entity ID has a non-numeric value.
- TDM Portal - fixed the task summary execution status from 'running' to 'failed' for a failed task execution.
- TDM Portal - fixed the tester's permissions on Reference only task: the tester is now able to create a data version on the selected tables if the user has data version permissions on the task's environment.
- TDM Portal - Task with a Custom Logic selection method - fixed the default value's population in Boolean external parameter.
- Freshdesk https://k2view.freshdesk.com/a/tickets/35693 - fixed the start execution time population for Reference tasks.

- **Task execution report**:
  - Reference task: Freshdesk ticket https://k2view.freshdesk.com/a/tickets/34015 - added the number of records of the processed Reference tables to the task execution report.
  - Reserve task: fixed the report to display the task's environment in the target environment's fields instead of the source environment's fields.
  - Avoiding a display of the task execution overridden parameters if the task execution does not override the task's attributes.