



DATAMART 7.0.55 RELEASE NOTES

July 2022

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Release information

Release Version: 7.0.55
Release Date: July 2022

Introduction

This document describes the features and functionality of the Lucernex DataMart 7.0.55 release.

Need help with installing or using DataMart?

For updated installation and usage procedures, please see the *DataMart User Guide* in the Lucernex Online Help.

Important! You will need to completely uninstall DataMart before installing the new version.

DataMart version support

We only support DataMart versions 7 and above. We highly recommend upgrading to ensure that you have the most recent bug fixes and continued support from our staff.

If you need any assistance upgrading, please contact Accruent Support.

Ideas for improving Lucernex

We invite you to submit your product enhancement requests on the Lucernex Ideas page. The Ideas page is available [in Accruent Access via the Ideas tab in the toolbar](#). Ideas you post can be viewed by both Accruent employees and other Lucernex customers. On the Ideas page you can:

- vote for or against an idea
- add and respond to comments
- view the status of an idea

Your ideas help us to understand what is important to our customers. Our product management team actively monitors the Ideas page and updates it when required. Contact Accruent Support if you have questions about the Ideas page.

New features

The following sections describe the major enhancements delivered in this release.

Updated partitioning behavior

In this release, there were updates to how DataMart partitions your tables. In the sections below, we go into more detail about these updates. This section summarizes the expected behavior for table partitioning.

By default, a full brush or a delta run *does not* reorder the fields in your partitioned tables. If a new field is added to DataMart, the field is simply added to the end of the applicable partitioned table.

However, if you apply the **Global Fields First** setting described in the *New Table Partitioning configuration options* section below to an *existing* mapping, DataMart will reorder the fields in your partitioned tables in the next full brush.

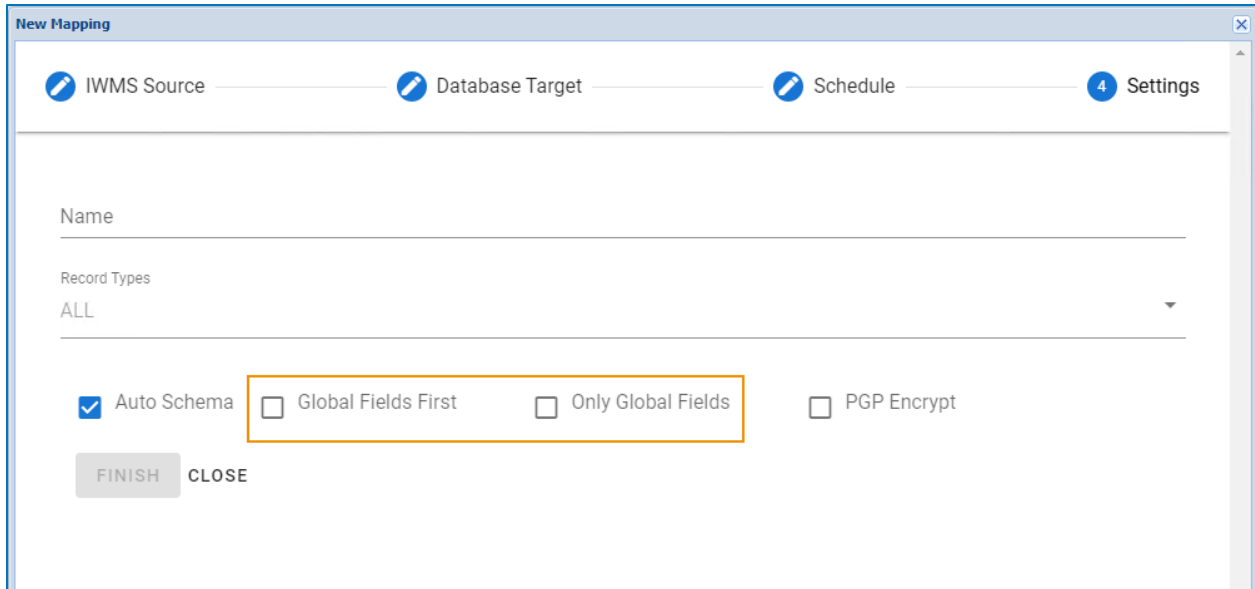
Additionally, you can tell DataMart to reorder your tables with the next full brush by using the **Re-order table partitioning** check box described in the *New Re-Order partitioned tables setting for Full Brush* section below.

New Table Partitioning configuration options

In 4.0.24, we introduced a feature that checks the number of fields which exist on a database table. If the maximum number has been exceeded, new fields are added to a subsequent table. This functionality is called table partitioning. Table partitioning is driven by the standard column quantity and row size limitations imposed by SQL server. When you run a full brush, DataMart reorders your columns alphabetically and then breaks the data into partitions.

We added two new configuration options to **Step 4** of the **Update Mapping** window. These options are used to control how the fields in your mapping are ordered across table partitions. These new settings are:

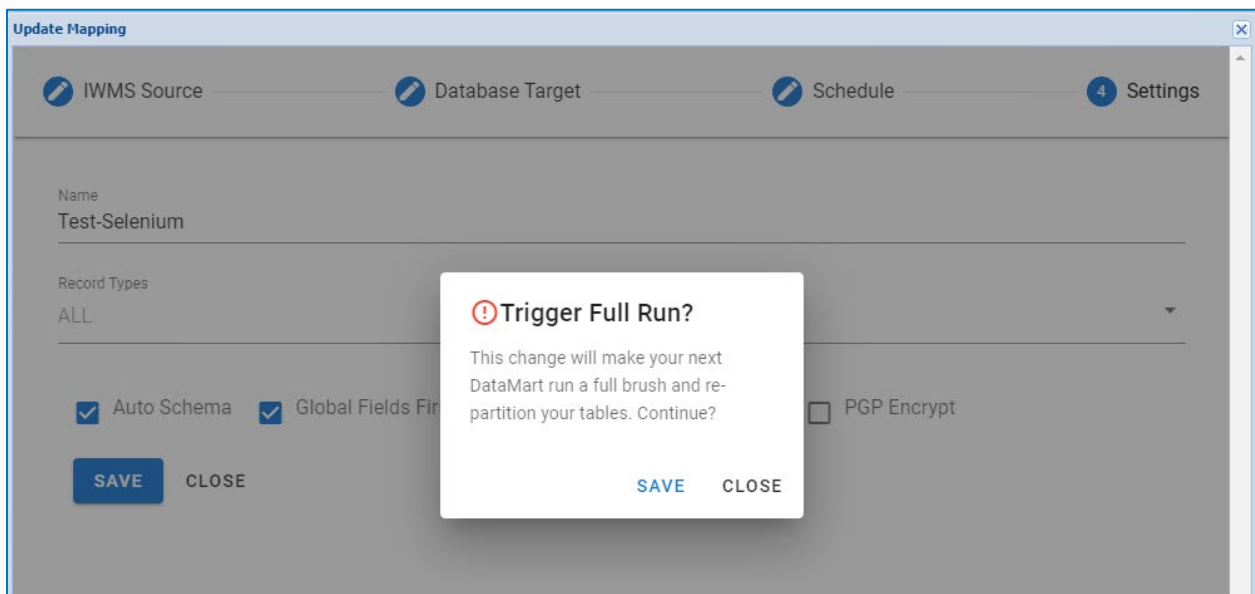
- **Global Fields First** – when selected, DataMart will retrieve global fields before retrieving user-defined fields.
This setting will cause the global fields to be added to the first partitioned table. User-defined fields will always start on the second partitioned table.
- **Only Global Fields** – when selected, DataMart will *only* retrieve global fields for the mapping.



The "New Mapping" dialog box shows a progress bar with four steps: IWMS Source, Database Target, Schedule, and Settings (the current step, indicated by a blue circle with the number 4). Below the progress bar, there is a "Name" field, a "Record Types" dropdown menu set to "ALL", and three checkboxes: "Auto Schema" (checked), "Global Fields First" (unchecked), and "Only Global Fields" (unchecked). A "PGP Encrypt" checkbox is also present but unchecked. At the bottom, there are "FINISH" and "CLOSE" buttons. An orange rectangle highlights the "Global Fields First" and "Only Global Fields" checkboxes.

If you change these settings on an existing mapping and save your changes, DataMart will return the following warning:

“This change will make your next DataMart run a full brush and re-partition your tables. Continue?”



The "Update Mapping" dialog box shows the same progress bar as the "New Mapping" dialog. The "Name" field is filled with "Test-Selenium". The "Record Types" dropdown is set to "ALL". The "Auto Schema" checkbox is checked, and the "Global Fields First" checkbox is also checked. The "PGP Encrypt" checkbox is unchecked. At the bottom, there are "SAVE" and "CLOSE" buttons. A white warning dialog box is overlaid on top of the "Update Mapping" dialog. The warning dialog has a red exclamation mark icon and the title "Trigger Full Run?". The text inside the warning dialog reads: "This change will make your next DataMart run a full brush and re-partition your tables. Continue?". At the bottom of the warning dialog, there are "SAVE" and "CLOSE" buttons.

Important! If you click the **Save** button in this warning message, your change will be saved. Your next run will be a full run, and DataMart will re-partition your tables.

New Re-Order partitioned tables setting for Full Brush

When you click the **Full Brush (Rebuild Database)** button 🛠️ in the **Actions** column on the **Dashboard**, you now have the option to select a new **Re-order table partitioning** check box. This setting replaces the **Preserve table partitioning** check box which existed previously.

When the **Global Fields First** check box is selected:

- If you select the **Re-order table partitioning** check box:
 1. If a new global field has been added to Lucernex, it will be added to the first table partition in the appropriate alphabetical order.
 2. Your user-defined fields, including any added after the previous successful full run, will be rearranged and sorted in alphabetical order starting from the second table partition.
- If you do not select the check box:
 1. If a new global field has been added to Lucernex, it will be added to the end of the first table partition.
If there are multiple new global fields, they will be added to the end of the first table partition in alphabetical order. Previously added global fields are not reordered.
 2. Any user-defined fields added after the previous successful full run will be added to the end of last partitioned table.
If there are multiple new user-defined fields, they are added to the end of the last partitioned table in alphabetical order. Previously added user-defined fields are not reordered.

When the **Only Global Fields** check box is selected:

- If you select the **Re-order table partitioning** check box:
 - If a new global field has been added to Lucernex, it will be added to the first table partition in the appropriate alphabetical order.
- If you do not select the check box:
 - If a new global field has been added to Lucernex, it will be added to the end of the first table partition.
If there are multiple new global fields, they will be added to the end of the first table partition in alphabetical order. Previously added global fields are not reordered.

Foreign key fields and table partitioning

Please note the following behavior:

- If a foreign key field is a global field, it will follow the table partitioning rules defined above for global fields.
- If a foreign key field is a user-defined field, it will follow the table partitioning rules defined above for user-defined fields.

RESTful queries to import/export table partition mappings

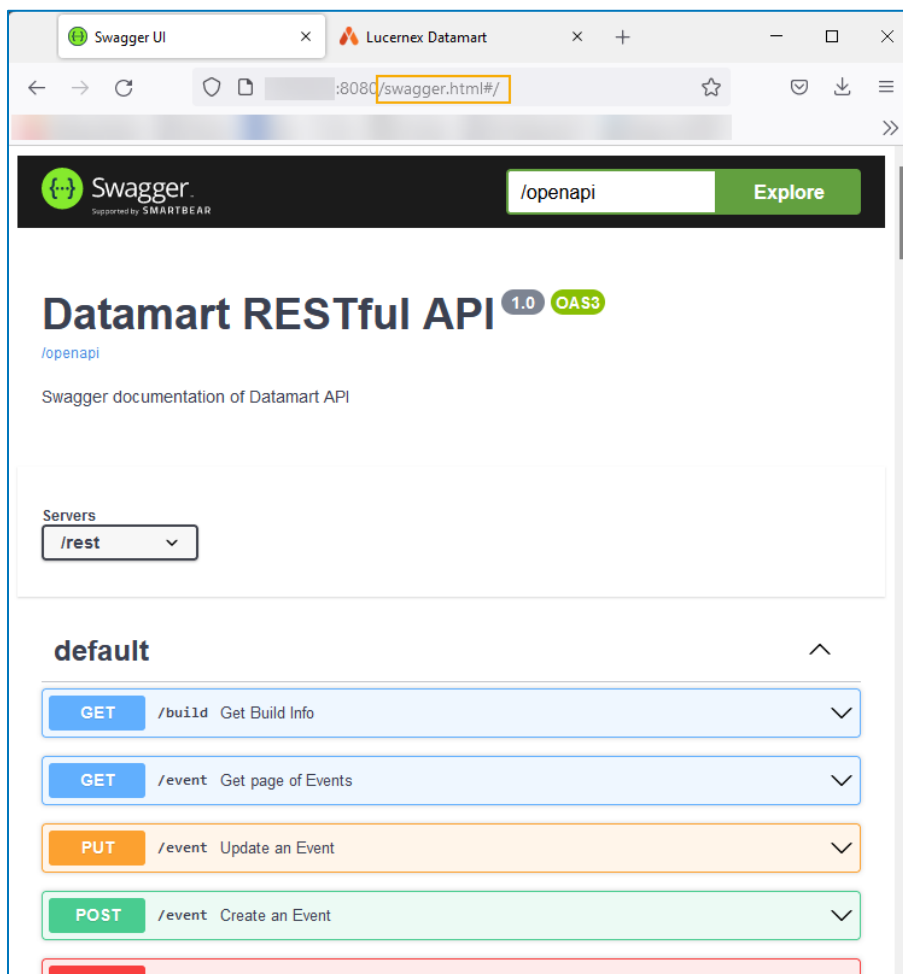
DataMart's functionality is provided via a set of RESTful web services. You can use these services to capture your partition mappings by performing a RESTful query to DataMart. Doing this will allow you to create a backup of your partition mappings to use in an emergency, which reduces the risk of breaking any integrations you may have with DataMart. You can then use a RESTful POST call to reapply the partition mappings you exported from DataMart.

DataMart integrates with [the Swagger API Documentation Tool](#), which provides documentation of the DataMart RESTful API. This tool provides you with an easy way to create the GET and POST calls you need to import and export the JSON files that contain your partition mappings.

Access Swagger

To access Swagger:

- Add **/swagger.html** to the end of your DataMart URL.



Export Partition Mapping File

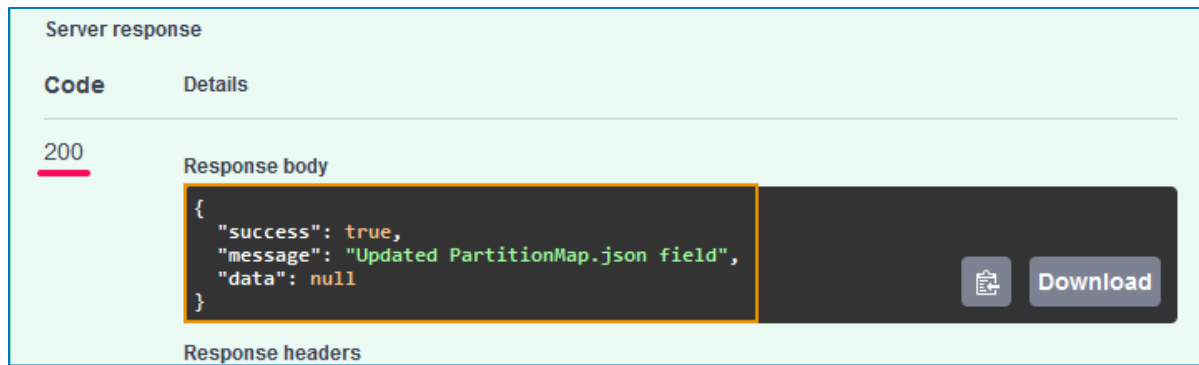
To export your partition map:

1. Scroll down to the **GET /mapping** query section.
2. Click the **GET** button to expand that query.
3. Click the **Try it out** button.
4. Click the **Execute** button to run the query.
This will generate a list of your DataMart mapping records.
5. If you have more than one mapping:
 - a. Find the name of the mapping you want to back up.
The name will be stored in the **name** parameter of the response body.
 - b. Copy the value of the **id** parameter in the response body.
This is the primary key of that mapping record.
6. Scroll down to the **GET /partition-map/json** query section.
7. Click the **GET** button to expand that query.
8. Click the **Try it out** button.
9. Enter the ID you copied in step 5 in the **mappingID** field of the **Parameters** section.
10. Click the **Execute** button to run the query.
This query may take a while, as partition maps can be quite large.
11. Scroll down to the response body of the query.
12. Click the **Download** button in the lower-right corner of the response body.
This downloads the JSON partition mapping file to your machine.
13. Store the partition mapping file in a secure location so that you have it as a backup in case of emergency.

Import Partition Mapping File

To import your partition mapping file:

1. Scroll down to the **POST /partition-map/json** query section.
2. Click the **POST** button to expand that query.
3. Click the **Try it out** button.
4. Enter the ID of the mapping record you want to import in the **mappingID** field of the **Parameters** section.
If you enter the ID of a different mapping record, the record you import will overwrite the existing record.
5. Click the **Browse** button.
6. Find and select the partition mapping file.
7. Click the **Execute** button to run the query.
The query executes. If it is successful, you should receive a response body with a success message.



Improvements and issues fixed

The following additional enhancements and fixes have been delivered in this release.

Component	Summary
General	DataMart now properly stores special characters such as & , ' , % , < , and > .
General	DataMart now gets the same number of Budget Template, Bid Package Template, and schedule task records as displayed in the Lucernex user interface.
General	DataMart now supports Open JDK 8.
Connection with IWMS	<p>In DataMart 5.29 and 6.77, the CustomCodeTableID field in the CustomCodeField table was not populating with data. This field is used to query and connect custom code fields and custom code tables.</p> <p>This issue was determined to be as a result of the XML file provided by Lucernex omitting the CustomCodeTableID field. We have updated Lucernex so that CustomCodeField records are properly rendered in the XML file.</p>
Delta runs	<p>During delta runs, DataMart was not changing the value of user-defined fields to null when the field's value changed to null in Lucernex. This issue has been resolved.</p> <p>This fix is on the IWMS-side, so it will not be deployed until the 22.08 PROD release.</p>
Delta runs	We resolved an issue that caused delta runs to not run as scheduled after a certain number of runs had completed.

Component	Summary
Errors	We resolved an issue that caused VirtualExpenseForecast errors to be returned during a run.
Expected behavior	<ul style="list-style-type: none">• DataMart will only get data for folders that have at least one document uploaded to them.• DataMart will only get data for budget line items that have values loaded for them.
Mappings	We resolved an issue that prevented the PGP Encrypt check box from saving on a mapping.
Security	We made some updates to our installer file to improve security.
SQL Connection	We resolved an issue where if DataMart lost the connection with the SQL Database in the middle of a run, it reestablishes the connection. This issue only impacted customers using multiple persistent threads.

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