Critical manufacturing
an ASM PT company

Same-Version Deployment

12.0.1

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DOCUMENT ACCESS

Public

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Same-Version Deployment

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Overview

This scenario demonstrates the complete **Change Package** and **Global Data Orchestrator** flow in Critical Manufacturing MES. A central process engineer prepares an approved cookie manufacturing model in `Porto - CoE` and distributes it to `Dresden - Development` through the **Global Data Orchestrator**. Both Customer Environments run MES version 12.0.

The top-level object used is the `Belgas [A]` **BOM**. The example shows how a coherent manufacturing definition moves between Customer Environments without assembling a separate file manually.

This same-version flow is the starting point for the following **Change Package** scenarios.

Prerequisites

Review the Prerequisites before starting.

Step 1: Create a Master Data Deployment Plan

The **Master Data Deployment Plan** routes the package to `Dresden - Development`.

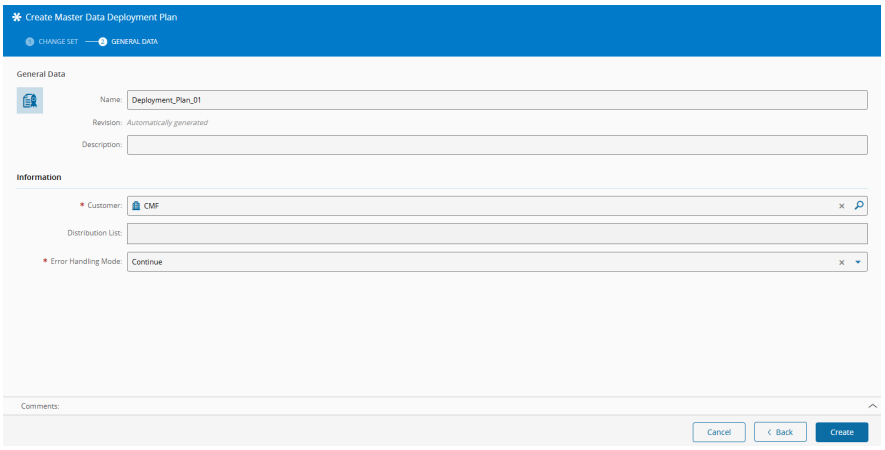
1. Sign in to Customer Portal.
2. Navigate to the **Global Data Orchestrator** page group and select **Deployment Plans**.



3. Select **New** from the action bar. Complete the **Change Set** step, then select **Next**. On **General Data**, configure the following fields:

- **Name**: `Deployment_Plan_01`.
- **Customer**: Select `CMF`.
- **Error Handling Mode**: Select **Continue**. This mode lets the plan continue if an error occurs.

4. Select **Create** to complete the operation.

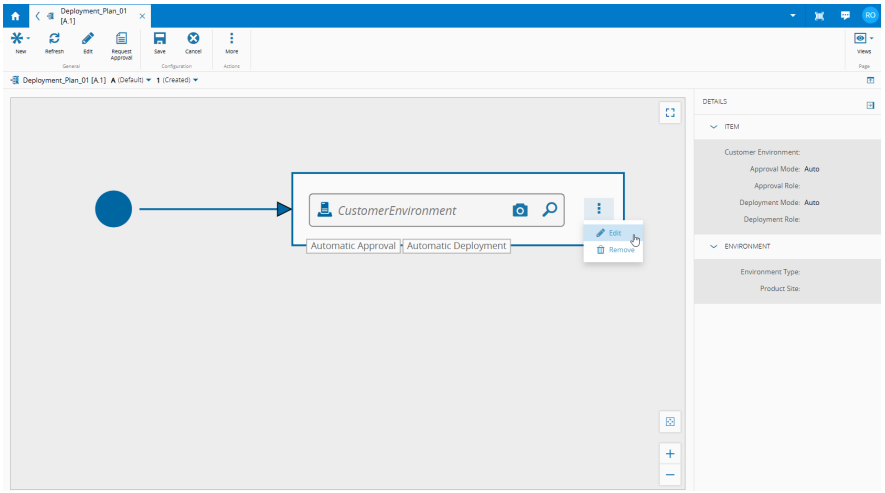


The system creates `Deployment_Plan_01` with a generated revision.

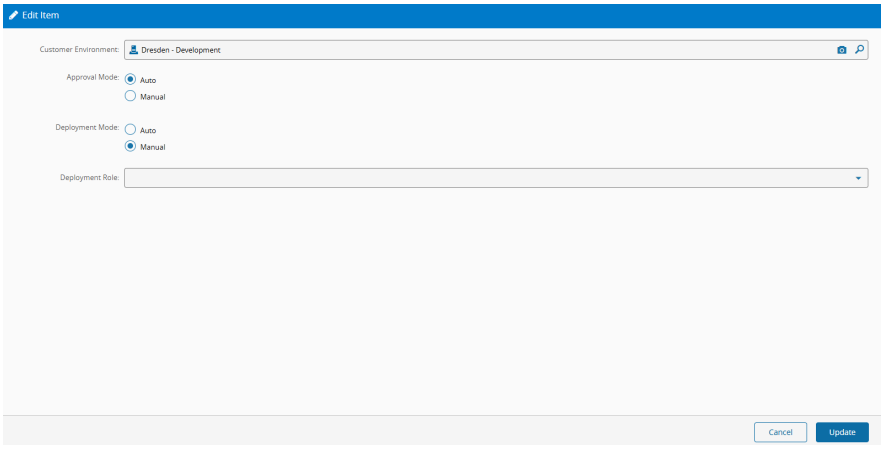
Step 2: Configure the Master Data Deployment Plan

Configure one **Master Data Deployment Plan Item** to send the **Change Package** to `Dresden - Development`.

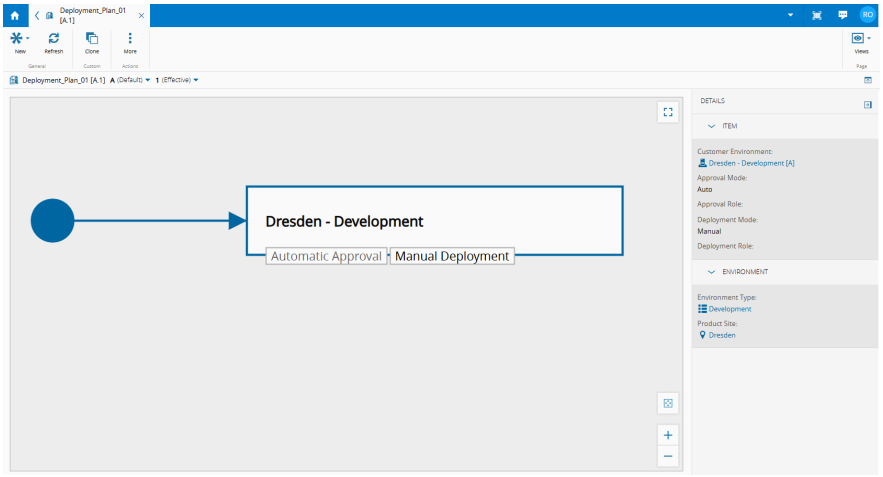
1. Pick the destination Customer Environment by using the search bar or scanning a barcode or QR code with . You can also define this by selecting , then press **Edit**.



2. Select `Dresden - Development` as the destination Customer Environment. Set the **Deployment Mode** to **Manual** and the **Approval Mode** to **Auto**.



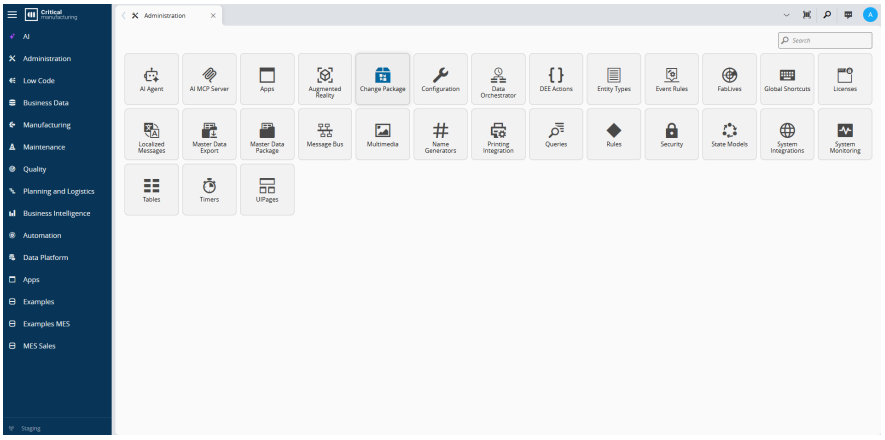
3. Select **Update**, then select **Save** on the action bar to apply the changes.
4. From the action bar, select **Request Approval** on the top ribbon, and then press **Set Effective**.



The **Master Data Deployment Plan** is now Effective and available for selection when creating the **Change Package**.

Step 3: Create a Change Package

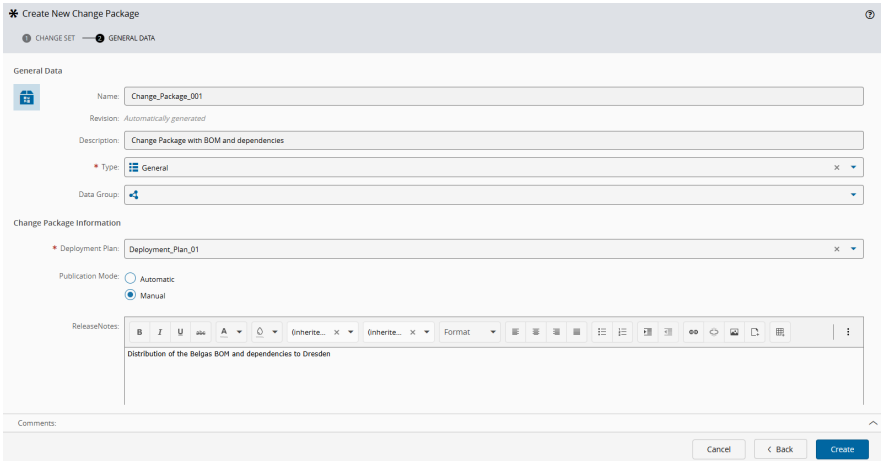
1. Sign in to the `Porto - CoE` MES environment.
2. Open the **Administration** group page and select **Change Package**.



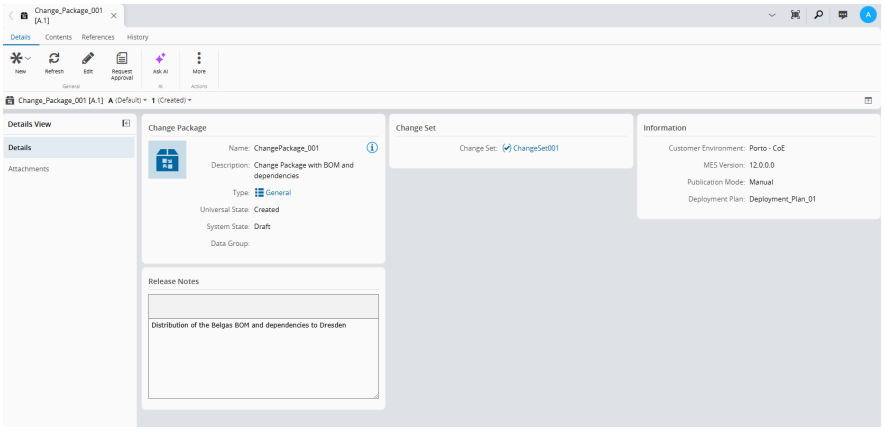
3. Select **New**, create the required Change Set, and then select **Next**.

> **Useful Documentation**
>
> - How to: Create a Change Set
> - Change Package

4. On **General Data**, enter the following values:
    - **Name**: `Change_Package_001`.
    - **Description**: `Change Package with BOM and dependencies`.
    - **Type**: **General**.
    - **Master Data Deployment Plan**: `Deployment_Plan_01`.
    - **Publication Mode**: Manual.
    - **Release Notes**: `Distribution of the Belgas BOM and dependencies to Dresden`.



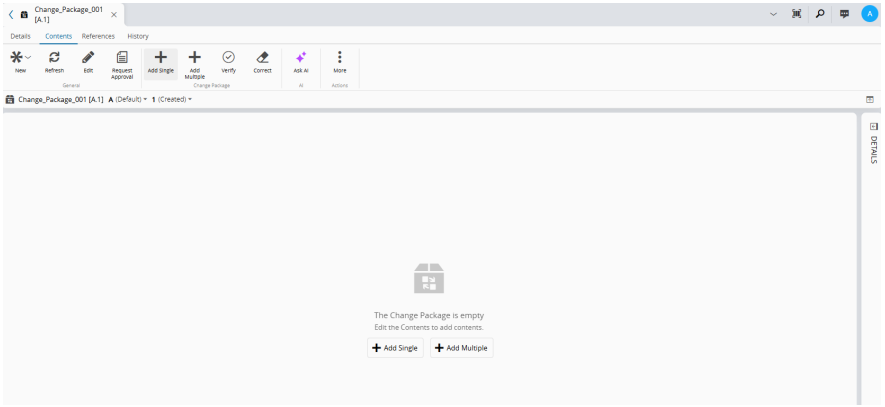
5. Select **Create** to complete the operation.



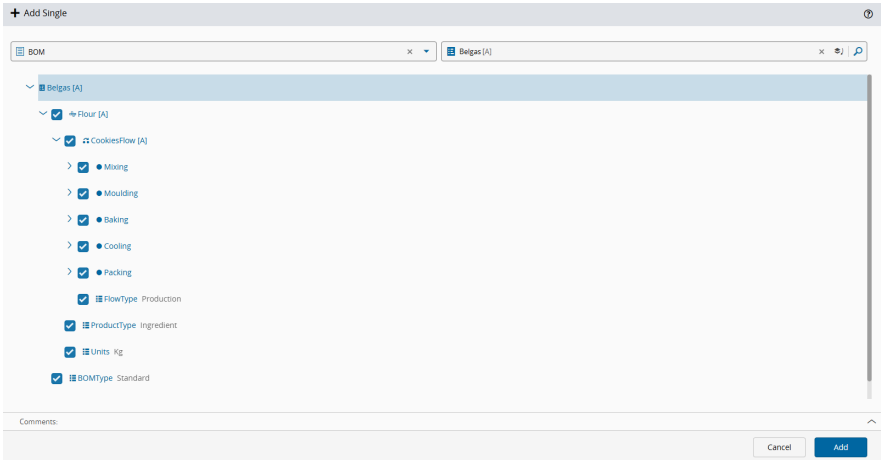
The system creates `Change_Package_001` in the `Draft` state. It records `Porto – CoE` as the Customer Environment and stores the current MES version.

Add Change Package Items

1. Open the **Contents** tab.
2. Select **Add Single** from the action bar or from the empty page section.



3. Select **BOM** as the Entity Type.
4. Select `Belgas [A]` as the object.
5. Optionally, expand the dependency tree and review the automatically selected items.



6. Select **Add** to include the selected **BOM** and its dependencies in the **Change Package**. On the **Contents** tab, the **BOM** appears as the top-level item, followed by its dependencies.

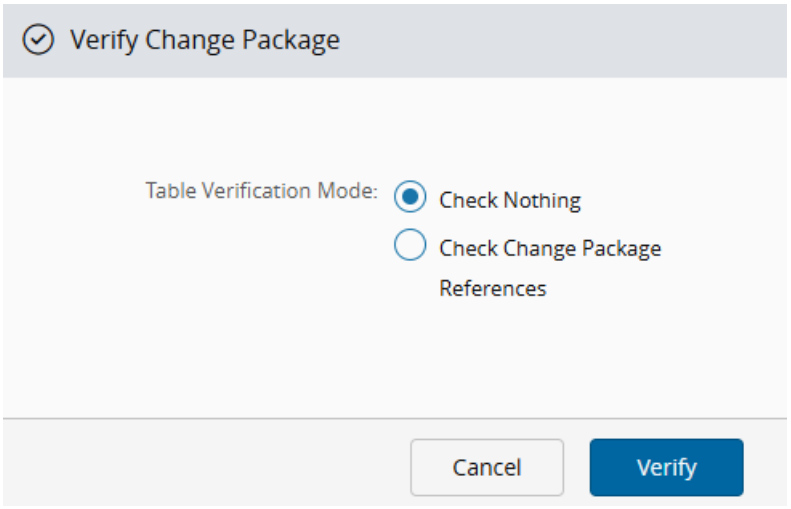
Verify the Contents

Running **Verify** here is optional. The system verifies the **Change Package** when you request approval and before publishing. If verification reports errors, the approval

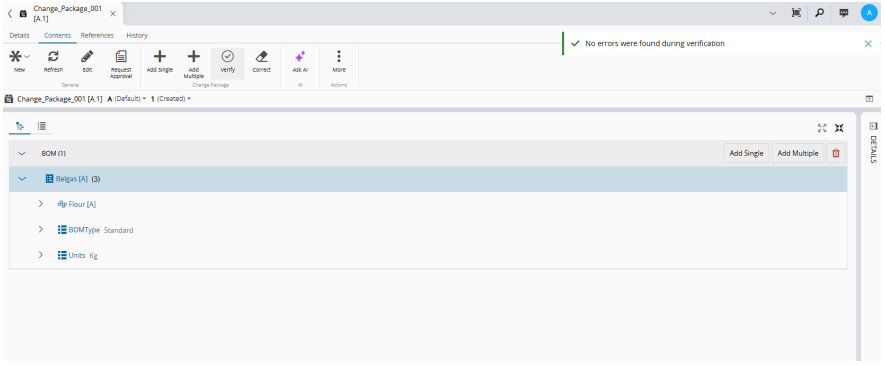
request is aborted or publishing is blocked. Run **Verify** here to review and correct issues before requesting approval.

> **Info**
>
> For details, see Verify Change Package and Publish Change Package.

1. After reviewing the Change Package Items, select **Verify** from the top action bar.
2. In the **Verify Change Package** wizard, keep the default **Table Verification Mode** (**Check Nothing**) and select **Verify**.



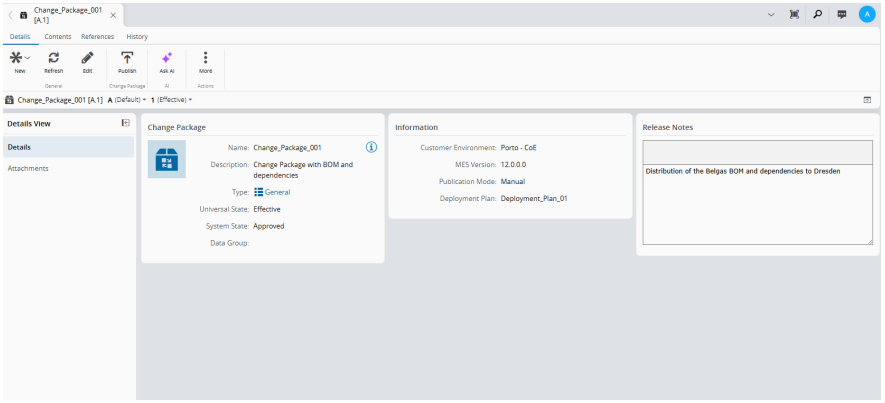
3. Review the verification result.



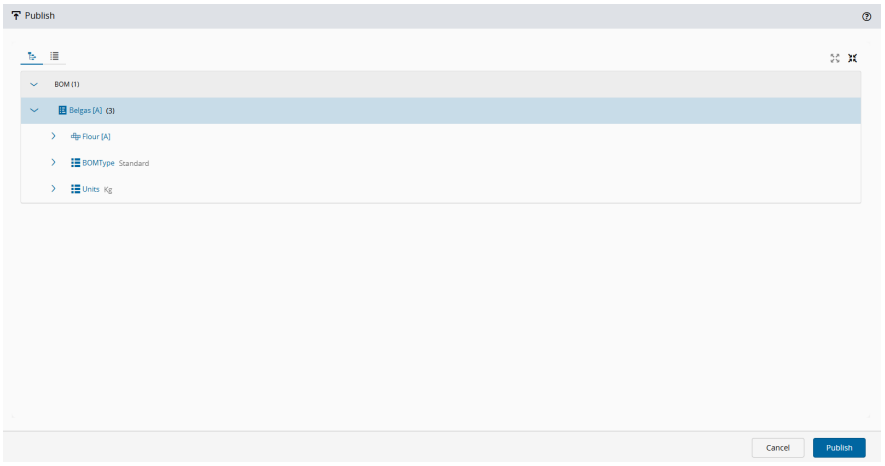
> **Note**
>
> If this verification reports invalid objects, references, or table rows, select Correct while the Change Package is still in the `Created` state. Review the removed branches, add any required replacement items, and run Verify again. Continue only after verification completes without errors. For more information about the Table Verification Mode options, see Verify Change Package.

Approve and Publish the Change Package

1. Select **Request Approval** from the top ribbon. The **Change Package** becomes Effective and its system state changes from `Draft` to `Approved`. Because **Publication Mode** is **Manual**, the package remains available for a separate publication action.
2. Select **Publish** from the action bar.



3. Review the items from the **Publish** wizard.
4. Select **Publish**.

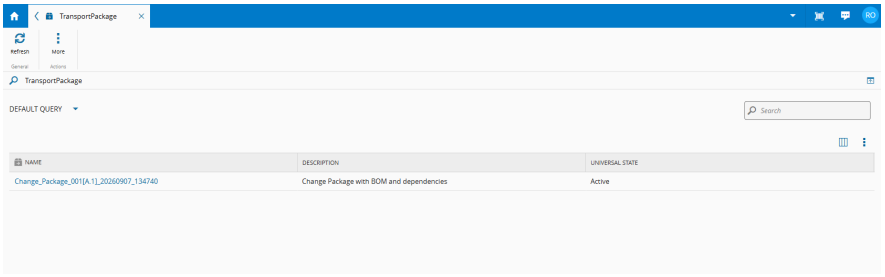


Info

The source system verifies the package again and sends the publication request to the Global Data Orchestrator. When the request succeeds, it records the publisher and publication date, and terminates the Change Package after creating the corresponding Transport Package.

Step 4: Confirm Transport Package Creation

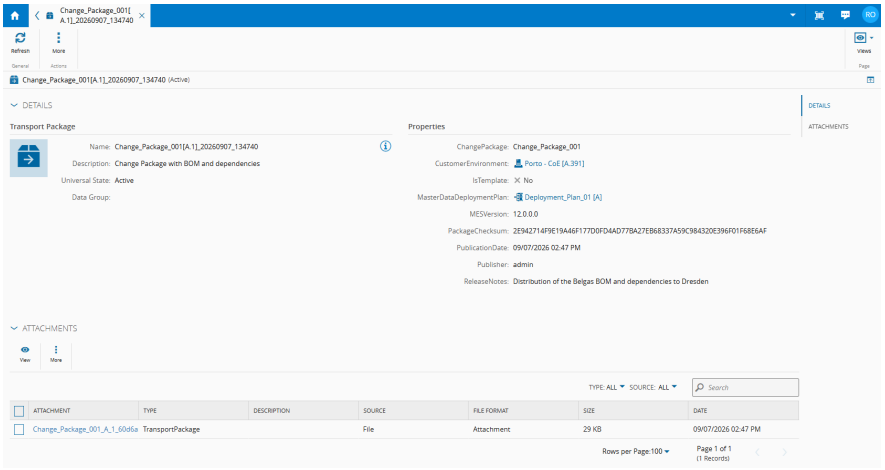
1. Open the **Global Data Orchestrator** in Customer Portal and access **Transport Package**.
2. Locate the **Transport Package** created from `Change_Package_001`.



3. Confirm the following traceability information:
   - Source **Change Package**: `Change_Package_001` and its revision.
   - Source Customer Environment: `Porto - CoE`.
   - Selected **Master Data Deployment Plan**.
   - MES version: `12.0.0`.

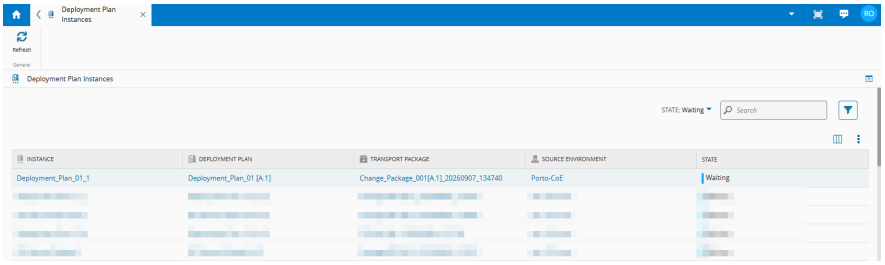
- Publication date and publisher.
- Description and release notes.

4. Confirm that the encrypted package payload and its checksum are available.



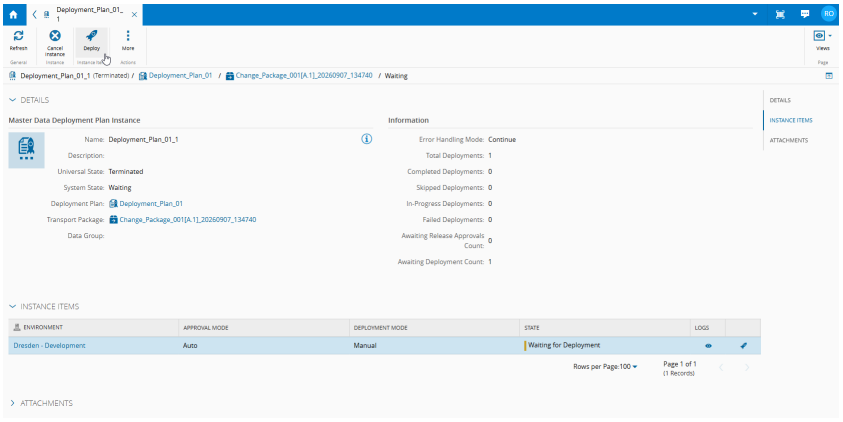
Step 5: Deploy to Destination Customer Environment

1. Open the **Global Data Orchestrator** and access **Deployment Plans Instances** page.

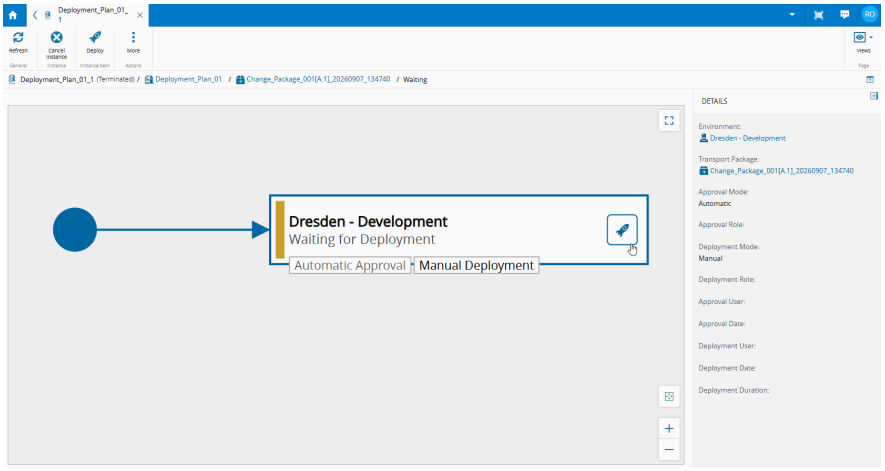


2. Open the **Instance** created by the **Master Data Deployment Plan** in Step 1 (`Deployment_Plan_01_1`).
3. For this scenario, go to **Views** and select **Diagram** to deploy from the diagram.

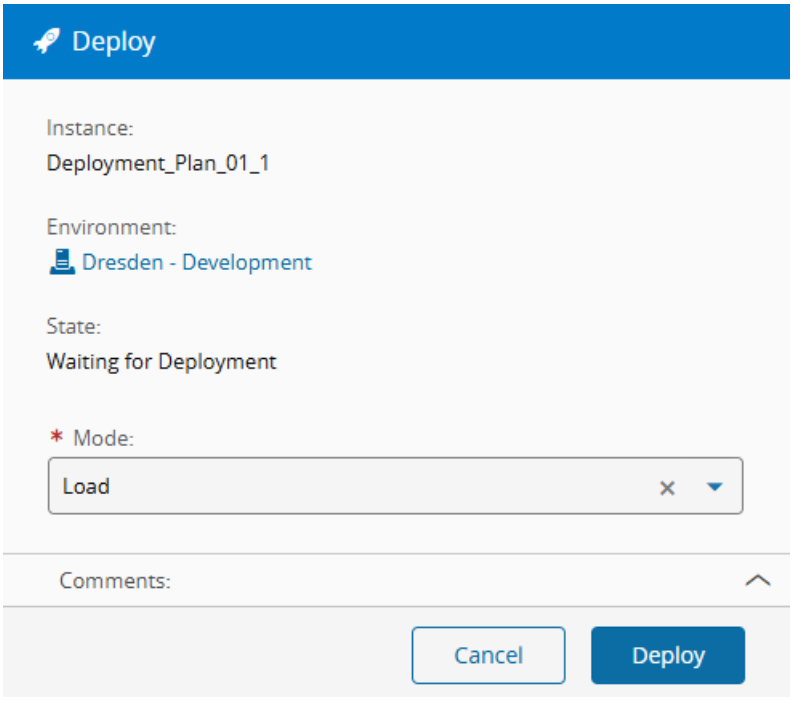
> **Note**
>
> You can also deploy directly from the Details view. In the Instance Items section, select the `Dresden - Development` instance item, then select Deploy from the top action bar. Continue with the Running Mode selection in item 6.



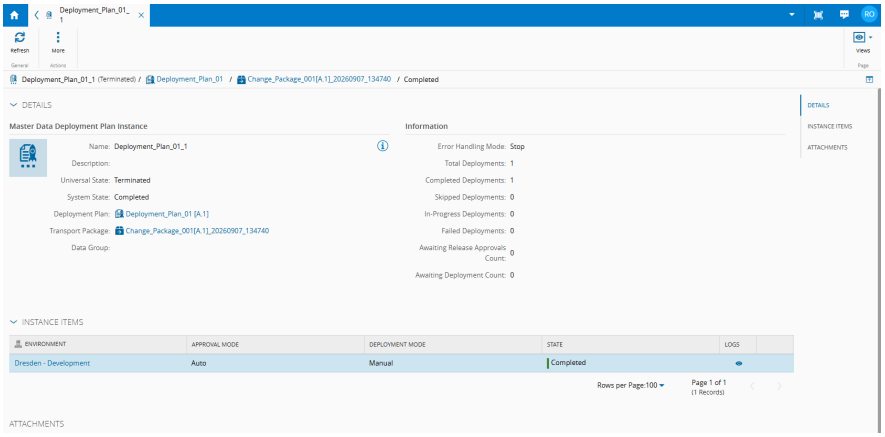
4. Confirm that the **Master Data Deployment Instance Item** for `Dresden - Development` is in the `Waiting for Deployment` state and is ready for manual deployment.
5. Select **Deploy** on the `Dresden - Development` item in the diagram.



6. Select **Load** for the **Running Mode**, then select **Deploy**.



7. Monitor the deployment log until the **Master Data Deployment Instance Item** reaches the `Completed` state.

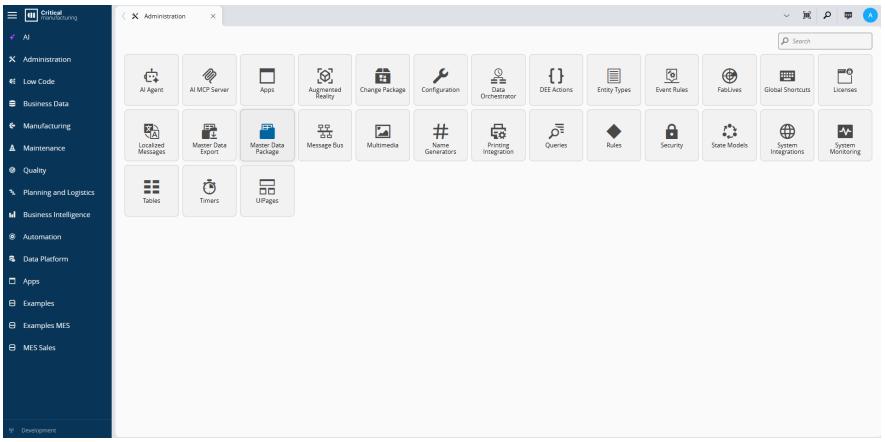


When the item reaches the `Completed` state, the package has been deployed to `Dresden - Development`. Since every Customer Environment in this scenario uses version 12.0, no package version conversion is performed by the system.

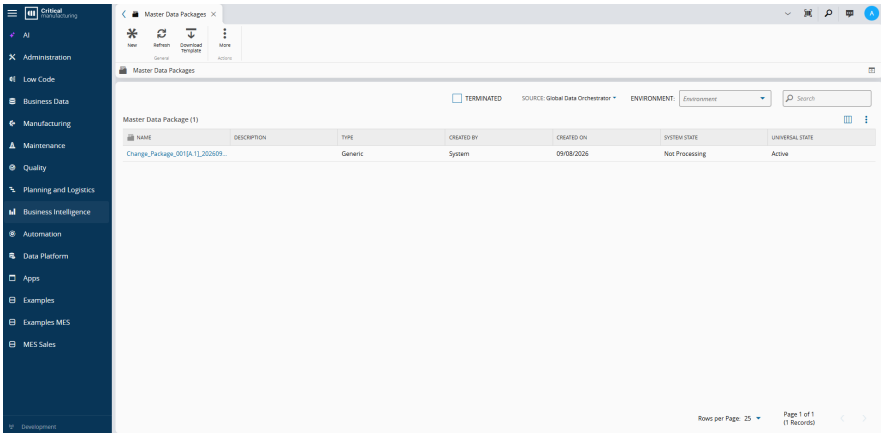
Step 6: Validate the Destination Environment

Perform the following validation in `Dresden - Development`.

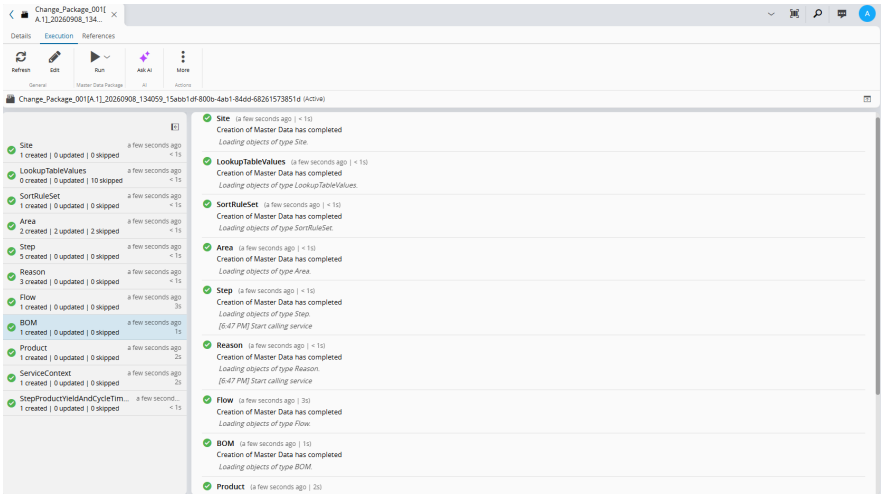
1. Sign in to the destination MES Customer Environment (`Dresden - Development`).
2. Navigate to **Administration** and access **Master Data Package**.



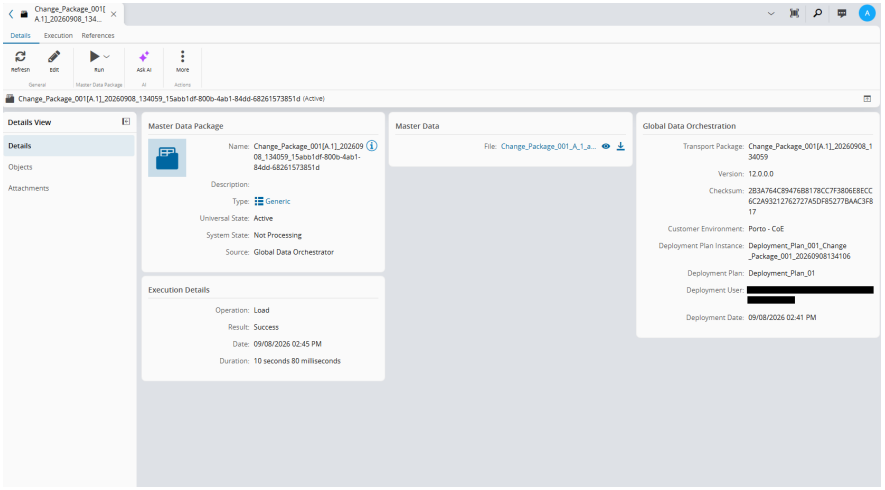
3. Use the **Source** filter to select **Global Data Orchestrator**, then locate the **Master Data Package** generated for the received **Transport Package**.



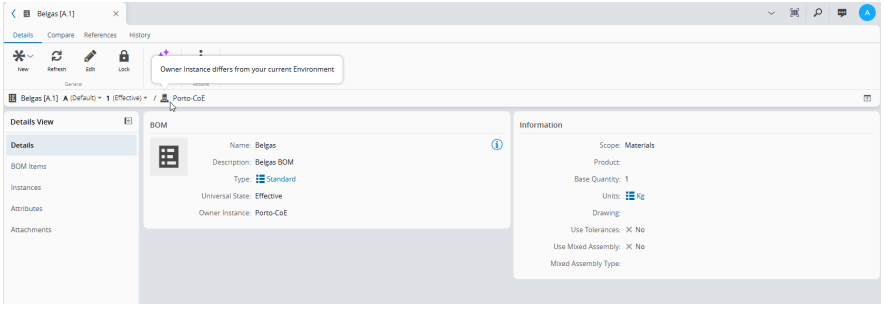
4. Open the **Master Data Package** and confirm on the **Execution** tab that the package load completed without errors.



5. Optionally, check the operation result under Execution Details in the **Details** tab.



6. Optionally, open an object created by the import and confirm that it displays the **Owner Instance** badge.



Info

When a Master Data Package import creates an object, it assigns the `OwnerInstance` value. When it updates an existing object, the object keeps its current OwnerInstance value.

The destination instance cannot modify properties controlled by another Owner Instance. Properties configured for local override remain editable at the destination. For more information, see Manage Object Ownership.

What You Learned

By completing this scenario, you distributed the `Belgas [A]` **BOM** and its dependencies from `Porto - CoE` to `Dresden - Development` through a manually initiated deployment.

Review the final state in each system:

System	Expected Result
`Porto - CoE`	`Change_Package_001` is `Terminated`.
Global Data Orchestrator	The encrypted Transport Package exists and the Master Data Deployment Instance Item has the `Completed` state.
`Dresden - Development`	The `Belgas [A]` BOM and its selected dependencies are loaded.

Table: Expected result of the same-version Change Package scenario

Troubleshooting

Symptom	Recommended action
An object cannot be added to the Change Package.	Confirm that the object is exportable, is in the required lifecycle state, is a top-level object, and is not owned by another Customer Environment.
Verification reports errors.	Review unavailable objects and invalid references. Use Correct while the package is in the Created state, restore required items, and perform the Verify operation again.

Symptom	Recommended action
A Master Data Deployment Plan is not available during creation.	Confirm that the intended Master Data Deployment Plan is `Effective` and that the source MES environment has an active Critical Manufacturing MES license that includes the Global Data Orchestrator module. Also check the Customer Portal session, source Customer Environment ID, and connectivity.
The deployment fails because a Secret is missing.	Ask your platform administrator to confirm that the referenced Secret exists, is accessible to the destination deployment process, and contains the key specified in Private Key Secret Name.
The deployment fails.	Review the deployment log in the Global Data Orchestrator, correct the destination or connectivity issue, and retry the failed deployment item.
An error occurs when loading an item through a Master Data Package in the destination instance.	Identify the missing dependency and load it manually into the destination instance. For example, export the ServiceContext Smart Table required by a Step from the source instance using Master Data Export, then upload it through Master Data Packages. Load the original Master Data Package again.

Table: Same-version Change Package troubleshooting guidance.

Next Scenario

Continue to Cross-Version Deployment to distribute Master Data to destinations running different MES versions.

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