



Critical
manufacturing
an ASM PT company

Remote Shipping

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Remote Shipping

Estimated time to read: 4 minutes

The Remote Shipping functionality is associated with the **Material** and **Container** entities. Its usefulness is visible when there is a need to move or ship **Materials**, and sometimes their **Containers**, from one site to another.

Note

The sites that you use must be connected to each other.

This document will guide you through the setup and usage of the Remote Shipping functionality.

Overview

Remote Shipping comprises sending **Materials**, and optionally their **Containers**, from one Critical Manufacturing MES instance to another. Critical Manufacturing MES supports **Material** and **Container** loops, in other words, **Materials** and **Containers** that are shipped and then returned to the original sending system.

The remote shipping process uses an Integration Entry mechanism through a generic Integration Handler, which is configured to handle Integration Entries with messages related to remote shipping and acknowledgement through the **Process Remote Material Shipment** DEE action (provided out of the box).

Info

For more information, see [System Integrations](#).

Remote Shipping Material

The remote shipping material process works in the following manner:

1. You must ship the material in Critical Manufacturing MES (similar to the local shipping process).
2. The local Critical Manufacturing MES triggers a new Integration Entry with InTransit **Material**, and optionally **Container**, information.
3. The Integration Entry at the source triggers a new Integration Entry in the target system through a web API based on the remote site information.

Remote Receiving Material

The remote receiving material process works in the following manner:

1. The target Critical Manufacturing MES system reads the information from its Integration Entries. It then creates a temporary remote export object with the **Material**, and optionally **Container**, information.
2. In the Facility View you select a **Material** from the Remote field of Materials to Receive and then select **Receive** on the top ribbon.

3. The **Receive** operation will create a **Material**, and optionally **Container**, for its own remote export object and will trigger an acknowledgement message for the source system by using the Integration Entries mechanism.
4. The source system will receive and terminate the **Material**, and optionally **Container**, when it processes the acknowledgement message.

Configuring Remote Shipping

To configure remote shipping between two Critical Manufacturing MES instances, follow these steps:

1. Ensure that the remote shipping infrastructure is up and running and that there is connectivity between the two different sites. This should include network, firewall and security.
2. In the source system create a **Site** object that defines the connectivity parameters to the target **Site**, which has the `IsRemote` set to `true`. In the target system perform the same operation, but in the perspective of the source **Site**, that is, from the perspective of the target **Site**, the target **Site** is source.
3. In the source system create a **Facility**, mark it as remote and associate the previously created **Site** object. In the target system perform the same operation, but in the perspective of the target **Facility**, that is, from the perspective of the target **Facility**, the target **Facility** is local.
4. Add the remote **Facility** as a possible Shipping To Facility from a given **Facility**.
5. Mark as many **Steps** as intended with the Allow Shipping property.
6. Ship **Material** normally and specify whether **Containers** should also be shipped.

Info

For the Shipping process to succeed, the **Product** must exist in both the local and remote **Facilities**.

Info

If the **Material** has user-defined attributes, they will only be created in the remote **Facility** if the same attributes (same name and same data type) exist in the remote **Facility**.



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