Critical manufacturing
an ASM PT company

Tutorial: Step Validate Sub Materials

12.0.2

November 2026

DOCUMENT ACCESS

Public

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Tutorial: Step Validate Sub Materials

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Estimated time to read: 2 minutes

Objective

Learn how to validate sub-materials during track-out to ensure correct material hierarchy and traceability.

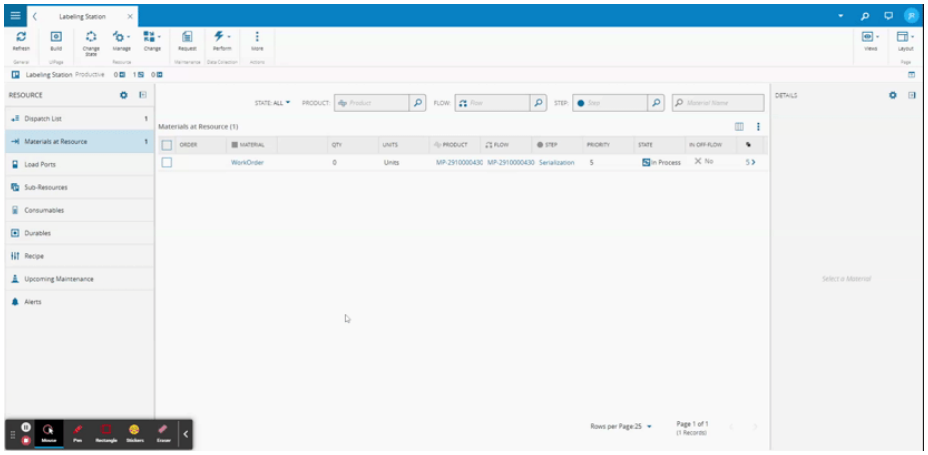
Step 0: Validate Preconditions

Before performing track-out validation, ensure:

- Feature is enabled:
  - `/SMT/ValidateSubMaterials/IsEnabled = True`
- Step Type is correctly configured:
  - Matches `/SMT/ValidateSubMaterials/StepTypeTrigger`
- Materials:
  - Have sub-materials
  - Are not top-level materials
  - Require validation (`/SMT/ValidateSubMaterials/IsEnabled/ = True`)

Step 1: Prepare Material for Track-Out

- Move the material to a step where validation is required
- Initiate the **Track-Out** operation
- During track-out, the validation screen is automatically displayed
- Use a scanner (recommended) or manual input
- Scan materials according to expected structure



Scenario A: 3-Level Structure (Work Order > Panel > Board)

- Scan materials **in sequence**:
  - Panel, followed by Board(s)
- Ensure each scan:
  - Matches the expected level
  - Belongs to the correct parent
- Observe system feedback:
  - Green: valid scan
  - Red: invalid scan

Scenario B: 2-Level Structure (Work Order > Board)

- Scan boards in **any order**
- Ensure all required boards are scanned

Step 4: Resolve Validation Errors (if any)

Common issues during scanning:

- Incorrect material type

- Material does not belong to parent
- Duplicate scan
- Missing required materials
- Quantity exceeded

Correct errors by:

- Re-scanning correct materials
- Completing missing scans

Step 5: Complete Track-Out

- Proceed once all materials are validated (all green)
- Track-out is completed successfully

Expected Result

- All sub-materials are validated against their parent
- Material hierarchy is confirmed
- Track-out proceeds only after successful validation

Frequent Configuration Questions

Why can't I proceed with Track-Out?

Ensure that all required materials have been validated and that all necessary scans have been completed before performing the Track-Out operation.

Why am I frequently receiving validation errors?

Verify the following:

- The materials are being scanned in the correct sequence, especially in a three-level hierarchy scenario.
- The material hierarchy is correctly configured and reflects the expected parent-child relationships.

Why am I getting duplicate scan errors?

Ensure that each material is scanned only once during the validation process.

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