Critical manufacturing
an ASM PT company

# Tutorial: Terminate Defect Action

## 12.0.2

November 2026

DOCUMENT ACCESS

Public

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# Tutorial: Terminate Defect Action

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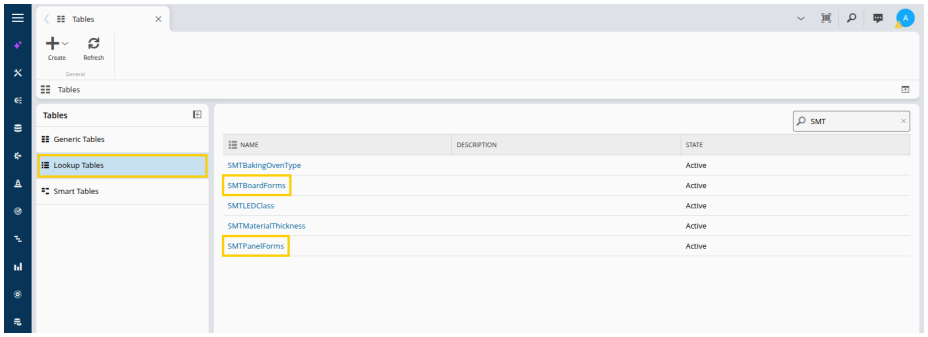
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## Objective

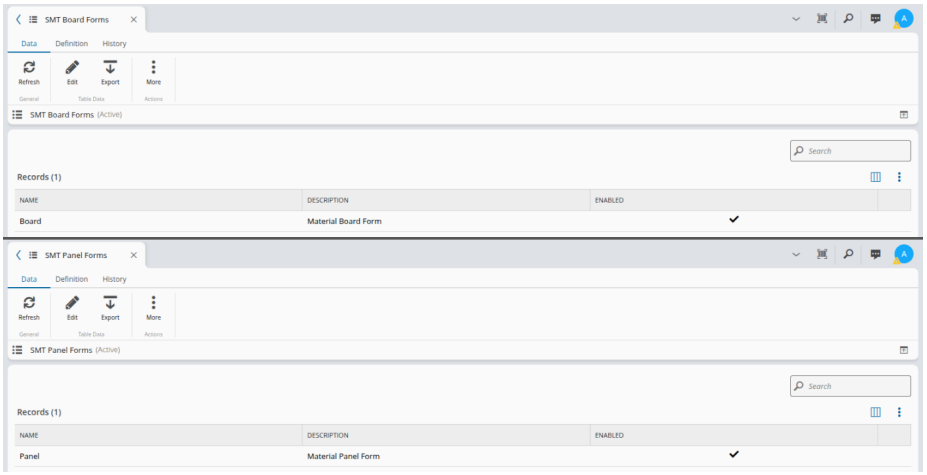
Learn how to configure and execute the **Terminate Defect Action** to automatically terminate defective boards and correctly track X-out scenarios in panels.

## Step 1: Configure Lookup Tables

- Navigate to **Administration > Tables** and open the **Lookup Tables**
- Configure the following:
  - `SMTBoardForms` – material forms representing boards
  - `SMTPanelForms` – material forms representing panels



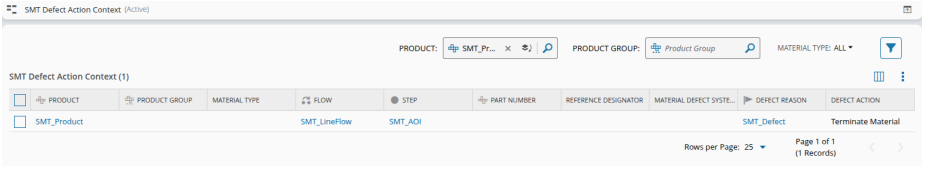

- Add the appropriate material forms




> Ensure values are mutually exclusive between both tables

## Step 2: Configure Defect Action Context

- Open the **SMTDefectActionContext** Smart Table

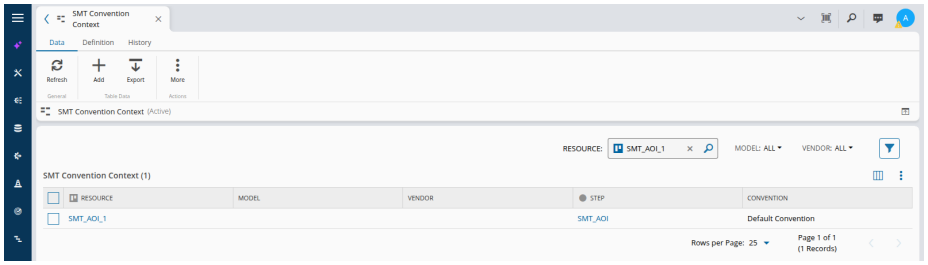



- Create a new entry defining:
  - Product / Product Group
  - Flow / Step (e.g., SMT_AOI)
  - Defect Reason
  - Defect Action = **Terminate Material**

## Step 3: Configure Board Identification Logic (Required for Non-Serialized Materials)

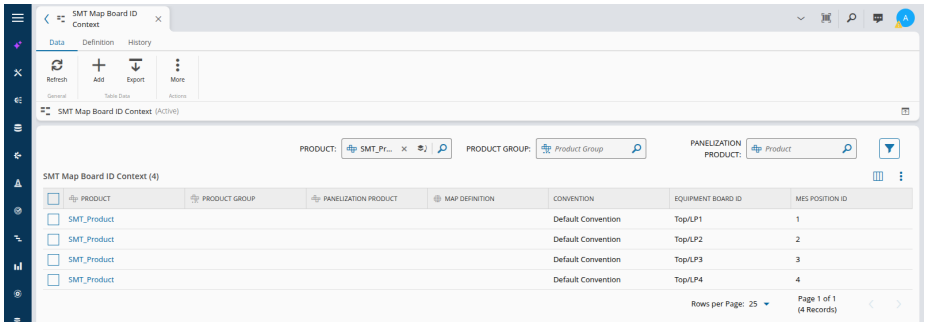
### 3.1 Configure SMTConventionContext

- Open the Smart Table and define the convention used to identify boards per resource and step



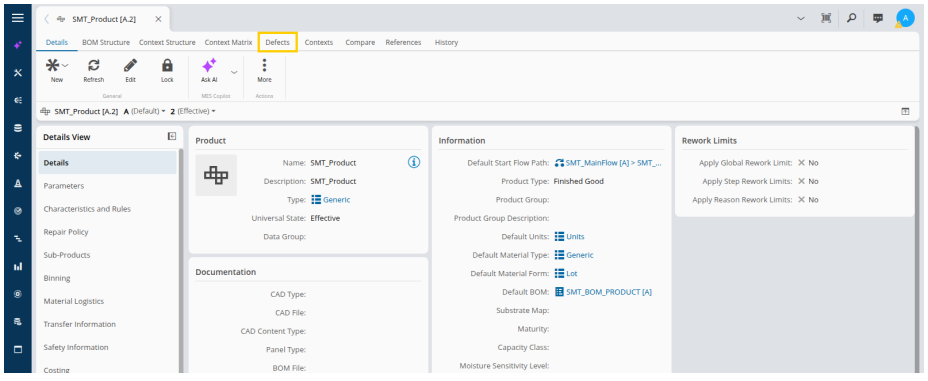

## 3.2 Configure SMTMapBoardIDContext

- Open the Smart Table and define how `MESPositionID` maps to board identifiers

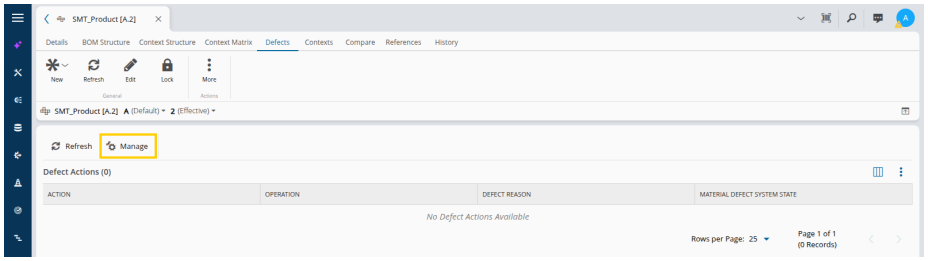



# Step 4: Configure Product Defect Action

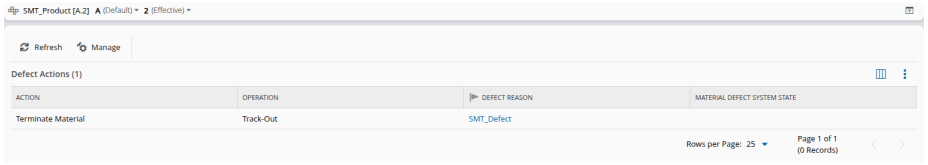
- Navigate to the **Product** and open the **Defects** view



- Click **Manage Defects**

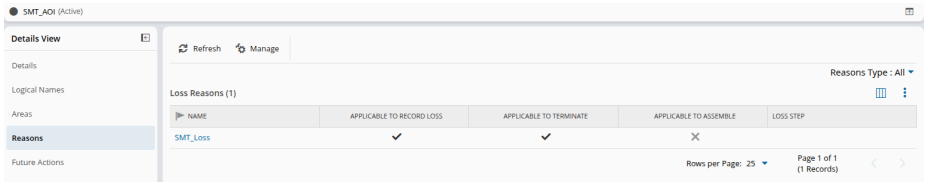



- Configure:
  - **Operation** = TrackOut
  - **Action** = Terminate Material




## Step 5: Configure Loss Reason

- Identify the step where defects are recorded (e.g., SMT_AOI) and configure the **loss reason**



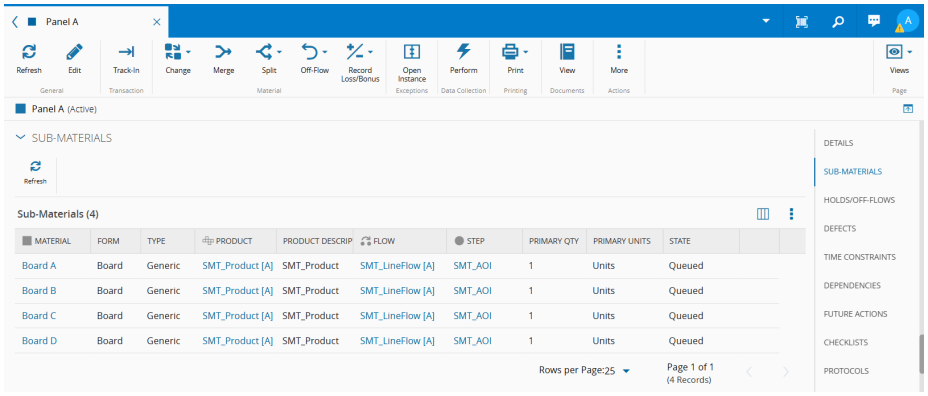

> There is a special case, which is in Line Flows, that requires that the loss reason needs to be configured in the step after, because the Defect Action runs after track-out.

## Step 6: Execute – Serialized Materials Scenario

### Initial State

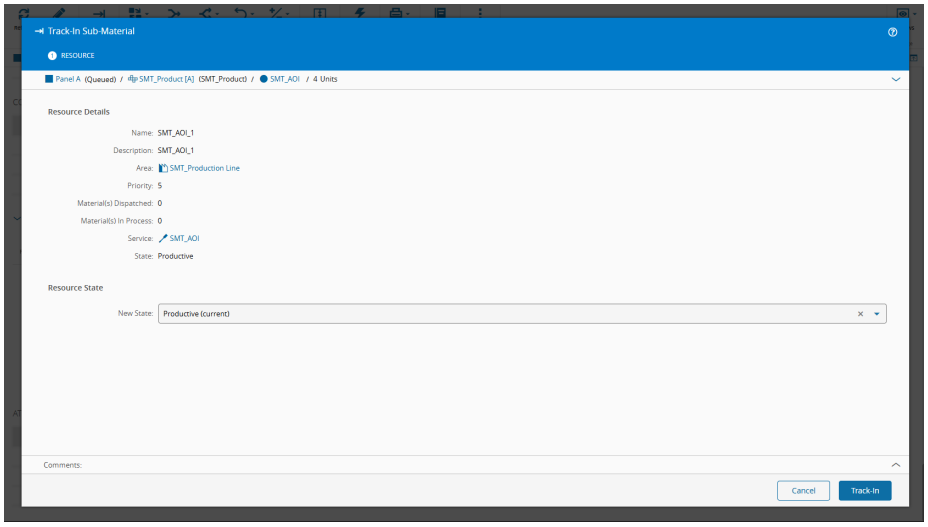
- Panel with multiple serialized boards

- Each board has a `MESPositionID`




## Track-In

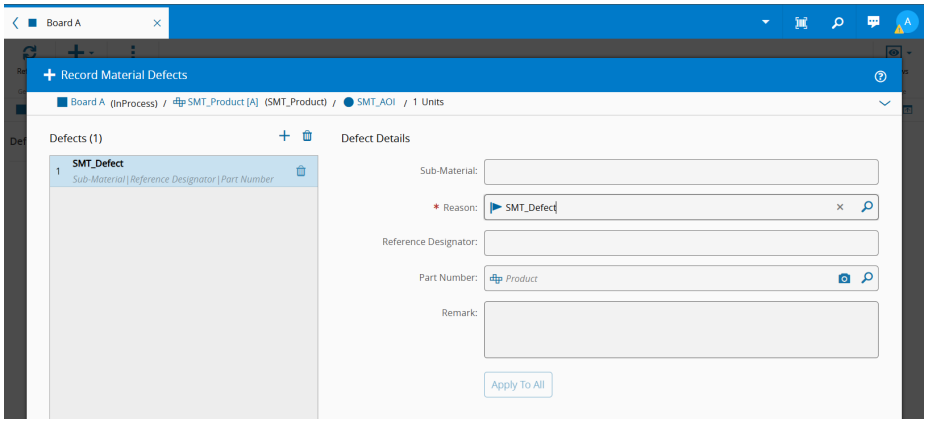
- Track in the panel to the inspection step (e.g., SMT_AOI)



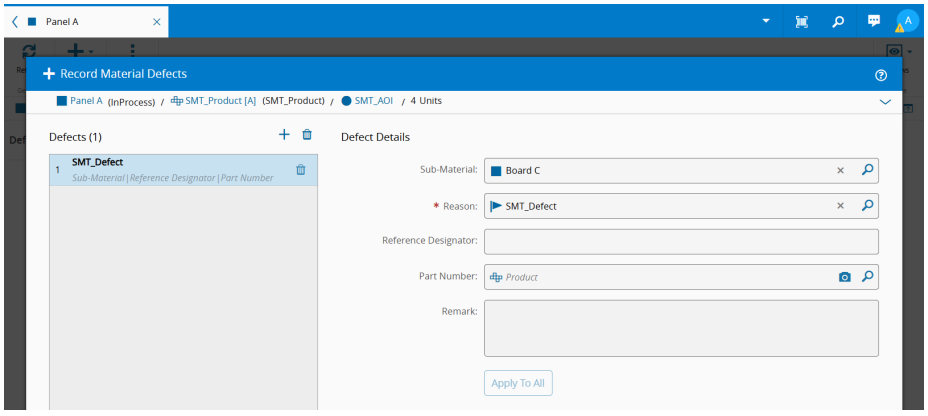

## Register Defects

You can register defects in two ways:

**Option 1: Directly on the board**




**Option 2: On the panel specifying sub-material**




> When registering defects on a panel, you must specify the sub-material

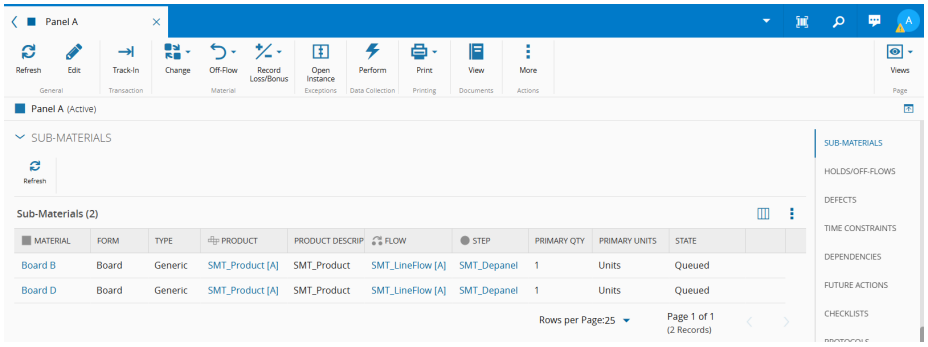
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## Track-Out

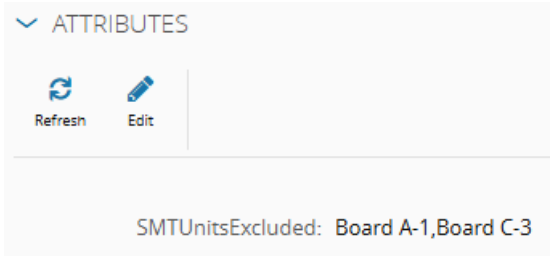
- Track out the panel

Expected results:

- Defective boards are terminated

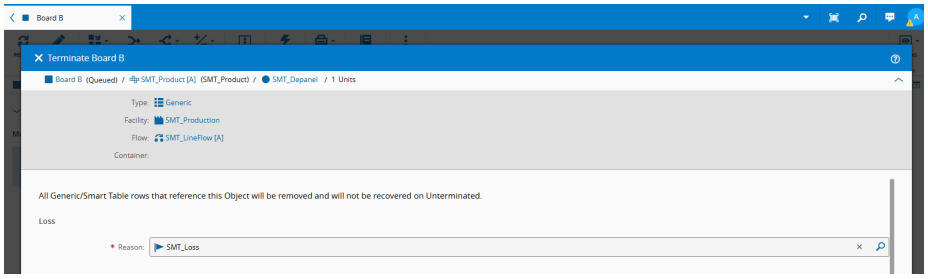


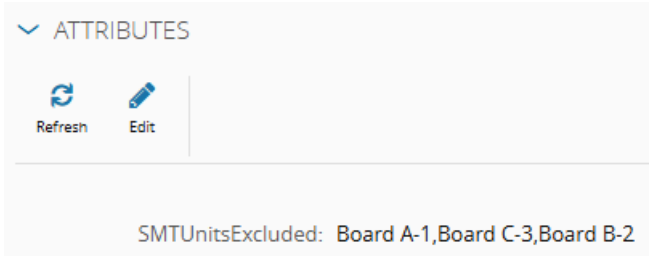

- Panel attribute `SMTUnitsExcluded` is updated




## Additional Behavior

- Manually terminating a board also updates `SMTUnitsExcluded`

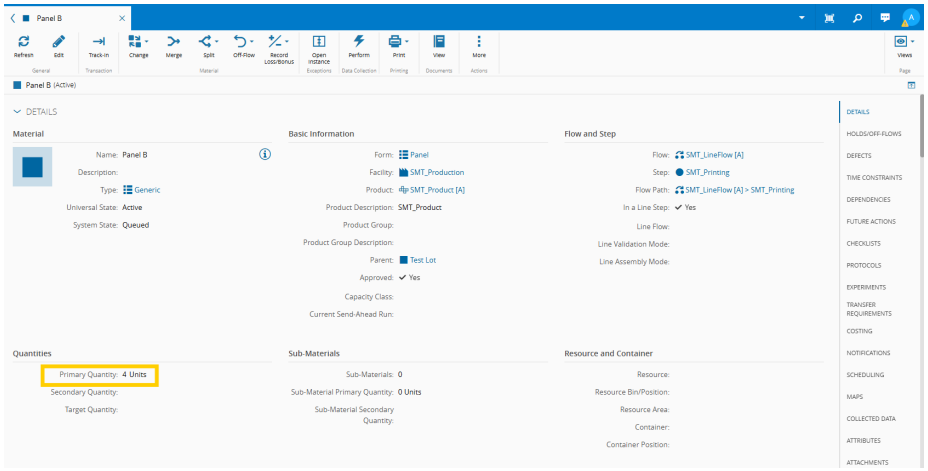


# Step 7: Execute – Non-Serialized Materials Scenario

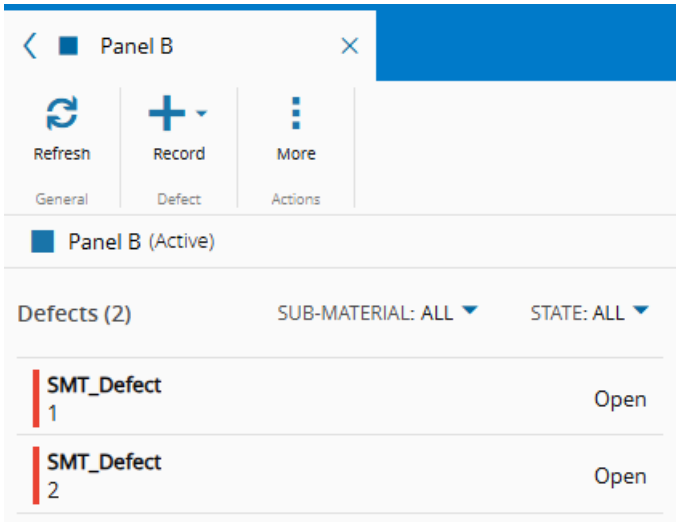
## Initial State

- Panel with non-serialized boards




## Track-In and Register Defects

- Track in the panel
- Register defects using `MESPositionID`

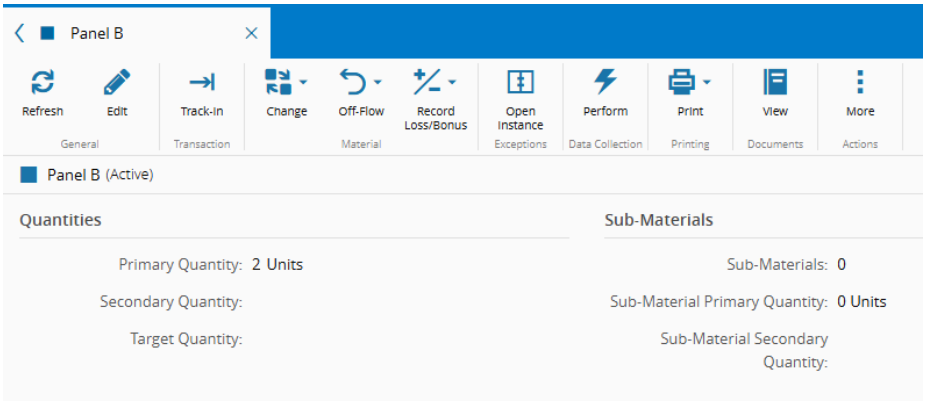


### Track-Out

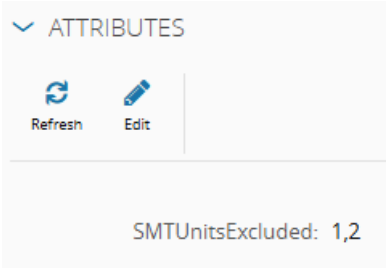
- Track out the panel

Expected results:

- Panel quantity decreases




- `SMTUnitsExcluded` is updated with defective positions only




## Expected Result

- Defective boards are automatically terminated
- Panels track excluded units via `SMTUnitsExcluded`
- Panel is terminated when all boards are defective

## Frequent Configuration Questions

### Why is the Defect Action not being triggered?

Verify that both the Product configuration and the corresponding Smart Table configuration are correctly defined.

### Why is the panel not being updated correctly?

Check that the Lookup Tables and mapping tables are properly configured and contain the expected values.

### Why do I get an error during Track-Out?

Ensure that a sub-material is defined when registering defects at the panel level.

### Why is the loss reason not available?

Confirm that the loss reason is configured in the step immediately following the defect detection step.

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