

Routing & Dispatching



Defines the process and rework flows as well as it provides step and resource level dispatch rules

Overview

In any manufacturing environment, it's necessary to define in a controlled manner the different process flows that can be assigned to products and materials. These process flows can also include rework flows to recover material from certain problems.

Dispatching provides a mechanism to define flexible material sorting rules for a step or for a resource so that the operator

knows what is the next material to be processed, or the next resource for a material. Dispatching works based on services. Resources provide services and materials require services at certain processing contexts (Step, Flow, Product, etc.). When there is a match between the service required by the material and the service provided by the resource, the material can be dispatched and processed in that resource.

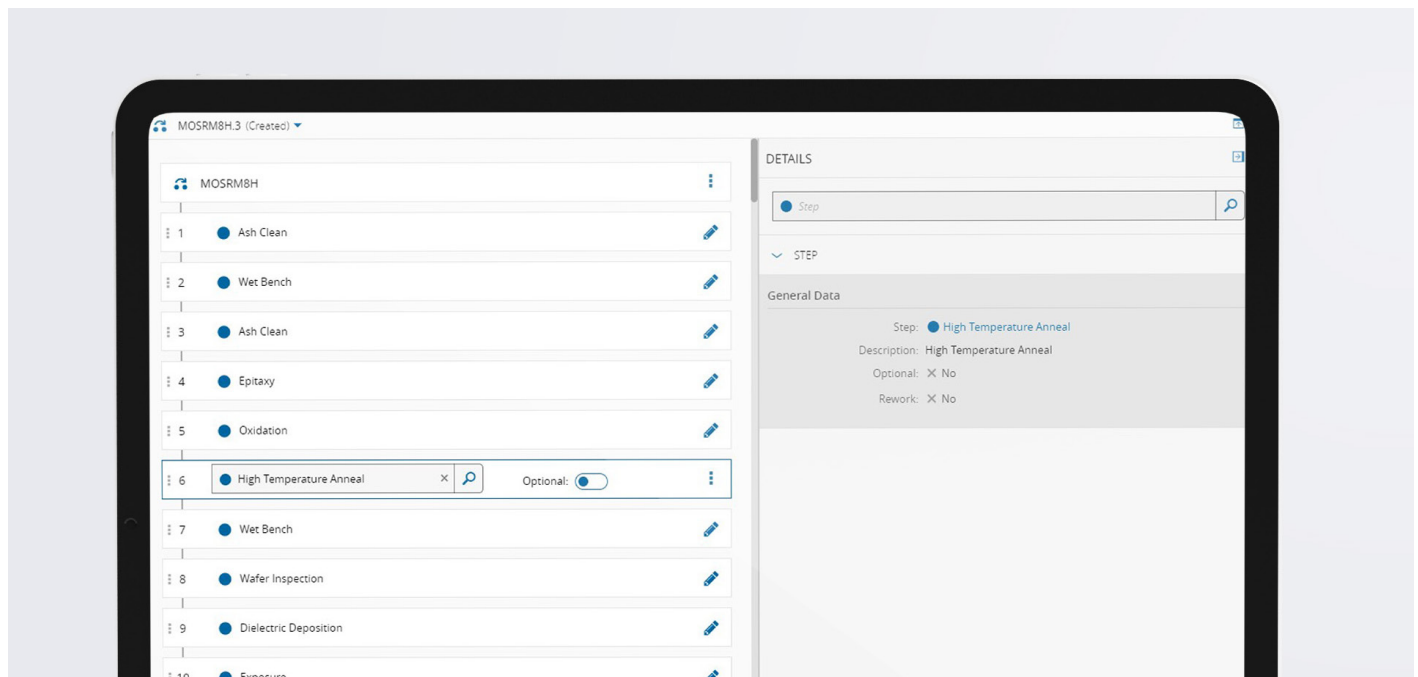


Figure 1 Flow definition

Key Features

- Support for flow version management with access and change control.
- Support for hierarchical flows that contain other flows in order to promote flow re-usability.
- Support for alternate flows, alternate steps, and optional steps.
- Support for non-sequential flows which means that the steps of the flow can be performed in any sequence.
- Support for multiple rework paths at every flow-step combination. A rework path defines a go-to and return point.
- Support for flexible dispatch sorting rules, using predefined or user created rules.
- Support for push (what's next for material?) and pull (what's next for resource?) dispatch rules.

Benefits

- Increased process control
- Increased process automation
- Reduction in the opportunity for errors

The screenshot displays the 'Main Production Flow' structure view. The interface is organized into three main sections:

- Left Sidebar:** A hierarchical tree view of the 'Main Production Flow (Sequential Flow)'. The steps listed are: 1. Mixing, 2. Moulding, 3. Baking, 4. Cooling (highlighted), 5. Baking-2, 6. Cooling-2, and 7. Packing. Each step has associated icons for editing and other actions.
- Flow Details Panel:**
 - GENERAL DATA:** SERVICE (1), RESOURCE (5), DATA COLLECTION (1), CHART (1), FUTURE ACTIONS.
 - Flow Details:**
 - Flow: Main Production Flow
 - Description:
 - Flow Content: Step
 - Alternate Flow: X No
 - Non-Sequential Block: X No
 - Step Details:**
 - Step: Cooling
 - Description: Cooling Step
 - Optional: X No
 - Line Step: X No
 - Rework: X No
- Context View Panel:** Search and selection fields for:
 - Product
 - Product Group
 - Material
 - Material Type
 - Resource
 - Resource Type
 - Clear All button

Figure 2 Flow Structure View