

# Bill of Material Overview

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A Bill of Materials (BoM) is the list of components, sub-assemblies, raw material parts, and the quantity of each that is needed to manufacture a product. BoMs can be multi-level such that a parent can contain a child which can contain a grandchild.

A BoM and Workflow are components of Recipes which in turn are needed to manufacture a product. Products can have multiple BoMs. For example, to reflect different methods of manufacture such as one BoM for in-house painting and another for when painting is sub-contracted.

## BoM Versions

Each BoM can have multiple versions which allow control over product variations and changes.

Minor version updates are used for smaller changes that don't impact the final product version or necessitate adjustments to the manufacturing process or recipe. For instance, adding an alternate part number from a new supplier for an existing component could fall under a minor version update.

Major version updates, on the other hand, are required for more significant changes that alter the final product version or necessitate broader workflow modifications. An example of a major version update would be a change to the manufacturing process, such as sub-contracting a portion of production. These changes require updates to both the BoM and the workflow to ensure proper implementation.

## BoM Types

BoMs are categorised into BoM Types which determine the details of change control and approval permissions and whether they are job specific.

### Controlled and non-controlled BoMs

**Controlled BoMs** are subject to a formal approval process. They are initially created in a draft status and then submitted for approval by changing the status to "Pending Approval". A user with the appropriate permissions must then approve the BoM, which changes its status to "Approved" and allows it to be used in production. Separate recipe approval may also be required. Once a controlled BoM version is approved, it cannot be edited directly. Any changes necessitate creating a new BoM version.

**Non-controlled BoMs**, however, do not require the same rigorous approval process. They can be created directly in an approved status by a user with the necessary permissions. Furthermore, minor changes to approved non-controlled BoMs are permitted without the need for versioning.

### Job Specific BoMs

Job specific BoMs are used for configure-to-order environments where each job has a specific BoM configuration. For each job that you start, you can make changes to the BoM that the job is using without affecting other jobs down the line.

## BoM Manager Screen

The **BoM Manager** screen is accessed from the **Products** and the **Recipes** screens. This is where BoM information is displayed and managed.



The following search criteria lets you focus your searches:

- **Type:** Select a BoM Type from the drop down.
- **Status:** You can select one or more statuses from the dropdown. Values: *Draft, Pending Approval, Approved, Obsolete, Pending Virtual Status, Pre-Production*. For more information, see [BoM version status](#).
- **Hide Job Specific BoMs** checkbox: Check the box to hide Job Specific BoMs.

The **BoM Manager** page consists of the following sections:

- [BoM & BoM Version](#)
  - [Slots & Candidates](#)
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