

Label Design

15/07/2026 2:57 pm BST

[Relates to version](#)

Tags: 8.6

A label design is the layout of the label where elements like company name, logo, product description, barcode, quantities, dates, etc., are placed on the label. Some elements are static like name and logo, but others change such as order number and part number.

The full definition of a label design consists of 2 key elements :

- A Bartender label design template, generated in [BarTender](#) and then uploaded to MES. This contains the layout, formatting and data fields required.
- The label design definition in MES, defining the source of data for each of the fields (including translations if applicable), the controls around the label (label type) and the printer(s) it can be printed on.

Steps to Configure Label Printing

Standard and Product Specific Labels

The following is relevant for both standard and product specific labels.

BarTender

- Design a label and save it (.btw file).

MES UI

Label Type

- Label Type must be created. Here you will specify if it *Product Related* or not.
- For *Product Specific* label types only, approval requirements must be configured.

Label Design page

- Create a new label design and select a label type.
- Upload the .btw file that was created in BarTender.
- Add all the fields that are on the BarTender label design.
 - You must provide the same share names that you added in *properties* on the label design .btw file.
 - **For product specific labels only**, you must be at least one field which has the source, *ProductLabelData*.
- The Live field must be set to *Yes*.

Label Printers page

- On the **Label Printers** page, assign the label design to a printer.

Workflow action

- **Label Print**: This action relates to standard labels. They have not been subjected to an approval process. There is no preview of the label.
- **Label Print With Preview** action: These are product related labels. You can preview and have the option to scan the previewed label.

Product Specific Labels Only

The following steps only applies to product specific labels and must be completed in addition to the steps above.

Product Label Data page

- Create a new product label.
 - Select a product to assign to the product label design.
- Select the draft version of the product label created and access the **Product Label Data** page and edit the fields that will be printed.
- You have the option to select a language and use an existing translation in the system.

Product Label Approvals page

- Create a new approval request and add a change reference.
- On the **Manage Approval Request** pop-up, assign a *Product Label Data* to the approval request.
- Add an approval jpg image.
- In the **Notify Approvers** pop-up, select approval requirements, select the user and send an email with a link to the **Review Label Data Approval Request** pop-up.
- On the **Review** page, the approver needs to add their response.
- On the **Manage Approval Request** page, you can click the **Make Live** button with an option to obsolete older versions of the product label data.

Label Types

Label Types allow you to:

- Define the degree of control you want.
- Define whether labels of this type are product specific or not product specific.
- Configure controls and permissions required for approval of creation and updates.

This enables you to adapt the system to a range of use cases, from highly regulated environments with strict product labelling requirements to simple internal tote/traveller labels.

New Label Type

1. Navigate to the **Label Printing Dashboard**, click the **Label Design** button and click the **Label Types** button.
2. Click the **New** button in the **Label Types** pop-up.

New Label Types

The following properties can be defined for New Label Types:

Blue fields in the form are required and are flagged with an asterisk () in this document.*

- **Name***: Give the label type a name.
- **Description**: Provide a description for the label type.
- **Product Related***: Specify if it's product related. Options:
 - **Yes**: If a label type is product related, then all labels of this type are restricted to only being used as product labels. Product labels carry an additional layer of functionality, including defined permissions and approvals, and print reconciliation functionality. Product Labels also have the ability to explicitly define product data within the label (e.g. translations) - this data is also controlled. For more information about approval requirements, see [Product Specific Label Design](#).
 - **No**: If a label type is not product related this does not prevent it being used in the manufacture of a product but it does exclude all of the product label approval, data fields and reconciliation functionality. Labels that are not product related are not controlled and do not have defined approvals processes.

Label design

The label design specifies the label name and type, the default number of labels per batch of product, and the source of data (SQL Statement).

Add Label Design

1. Navigate to the **Label Printing Dashboard**, click the **Label Design** button and click the **New Design** button.
2. Complete the **Add/Edit Label Design** pop-up.

Add/Edit Label Design

The following properties can be defined for *Add/Edit Label Design*:

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Label Design Details

- **Name***: To be referenced when linking to product labels.
- **Label Type***: Determines the level of control/approvals process.
- Target quantity of labels = $x * [\text{Item/Lot Qty}] + y$, where:
 - **x = Label Qty Factor**: Number of labels required per item/lot qty. Specifies the default quantity of labels expected per batch/item for this label design.
 - **Item/Lot Qty**: The lot quantity for the lot which the label is printed for.
 - **y = Label Qty Offset**: Specifies an additional number of labels expected per production run (e.g., for retained label prints).

For example, if you need to print two labels per item and to retain an additional label for record keeping then $x=2$ and $y=1$.

Label Design Version Details

- **Version***: When you create a new Label design, you automatically create the first corresponding version of the label design. This defaults to version 1.
- **Sql Statement**: This specifies the SQL statement that will be used to populate label fields (e.g., for run time data).
- **Live***: Live label design versions are those that are available to be used in production. Options: *Yes (default), No*.
- **Comments**: Any additional useful information for the user.
- **Driver And Firmware**: Sometimes the quality of a printed label can be affected by a driver/firmware update. It may be useful to the customer to record the version of the driver/firmware on the printer when the design was created and made live.

Design versions

Specifies the label design, including:

- BarTender design template (.btw file).
- Definition of the label field data sources that will be used.

Examples of label field sources are:

- **Product Data**: Product name and description and is only relevant for product specific labels.
- **Prompt**: Data entered by the operator, e.g., exact weight.
- **SQL Query**: Manufacturing data, e.g., expiry date.
- **Literal**: Factory address.

Version History

Navigate to the **Label Design** screen, select a label design version, and click the **History** button to display a record of the version's history. From here, you can download the .btw file assigned to a label design version.

Upload BarTender Template

Select the label version and click the **Upload Template** button. Click the the **Select Files** button or drag and drop a file into the **Upload Template** pop-up.

Label Fields

Once you have a design and version in place, you need to define where the data will be sourced from for each of the fields in the label.

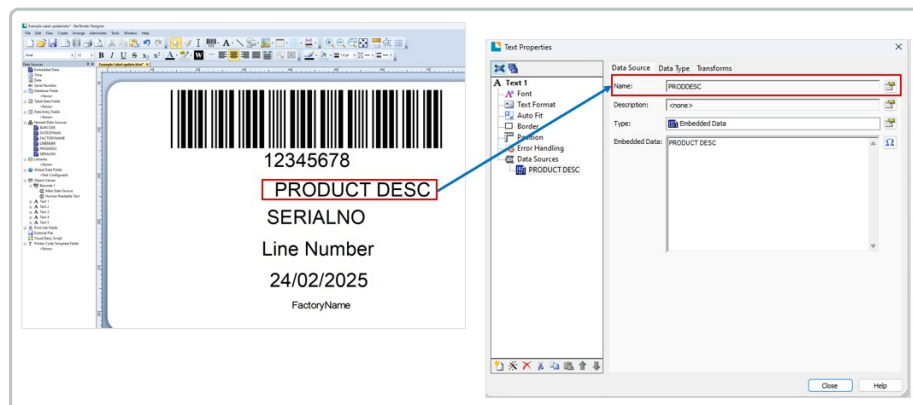
1. Navigate to the **Label Printing Dashboard**, click the **Label Design** button.
2. Select a label version you want to create a field for, and click the **Fields** button.
3. In the **Label Fields** pop-up, click the **New** button.
4. Complete the **New Label Field** pop-up.

New Label field

The following properties can be defined for *New Label Field*:

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- **Share Name***: This must match the name of the corresponding object in the **BarTender** label design. A BarTender label design template, created in BarTender and uploaded to MES, contains the layout, formatting, and data fields required.



- **Source**: Defines where the information will come from:
 - **Literal**: Use a literal where a field should be the same for all labels generated. The value of the literal field can be changed by upversioning and editing the field value, without needing to create a new BarTender template. This is a set value. Note that you set a default value here. Setting a field up as a literal at this stage allows you to update to a specific value at workflow action level withing workflows. The **Text/Value** field displays when *Literal* is selected.
 - **Product Label Data**: This is only relevant for product specific labels. This field will be defined at product level within corresponding product labels (e.g., translated product description). The **Auto-Generate Data Fields** checkbox displays when *Product Label Data* is selected:
 - **Auto-Generate Data Fields**: For Product Label Data fields, selecting *Auto-Generate Data Fields* means that any time you create a new product label referencing this design, the field will be auto generated for the product label where it can be defined for that product (i.e., product and/or language-specific). This should always be left ticked.
 - **Prompt**: The operator will be prompted to enter data when printing the label (e.g., which production line the job was completed on or which test machine was used for testing). The **Text/Value** field displays when *Prompt* is selected. The default Text/Value here can be useful for highlighting if required information is not provided

- **Sql:** The data will be populated from a SQL search. Where you have specified a SQL statement in the label version, you can map the individual columns within the SQL statement to the field in the BarTender label template. The **Sql Column** and **Text/Value** fields display when *Sql* is selected. The Text/Value is printed if the SQL returns a null for this column. This may be important to make it obvious if critical information is missing from the label (versus a field which is intentionally blank).
- **Max Length:** This is important when managing labels, as the layout of the labels and the length of fields are controlled in BarTender to ensure the final appearance of the label is acceptable and fits on the material it is being printed on (e.g., cloth labels for clothing). Field lengths should also be managed in MES to ensure that only valid data is sent in a print job.

Workflow and Printing

If it is a standard label, it is ready to use in workflow and print. If it is a product specific label, then you will need to complete further configuration covered in the [Product Specific Label Design Elements](#) documentation.

Setup Label Printers

Refer to the [Assign Label Design to Printers](#) for instructions for setting up printers for label printing.

For detailed instructions on setting up printers for label printing, refer to the [Assign Label Design to Printers](#) documentation.

Workflow

After creating the label you need to configure it in a workflow to enable printing of the label. There are two label print action options:

- **Label Print:** Relates to standard labels and there is no preview of the label.
 - **Label Print With Preview:** These are product related labels. You can preview and have the option to scan the previewed label.
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