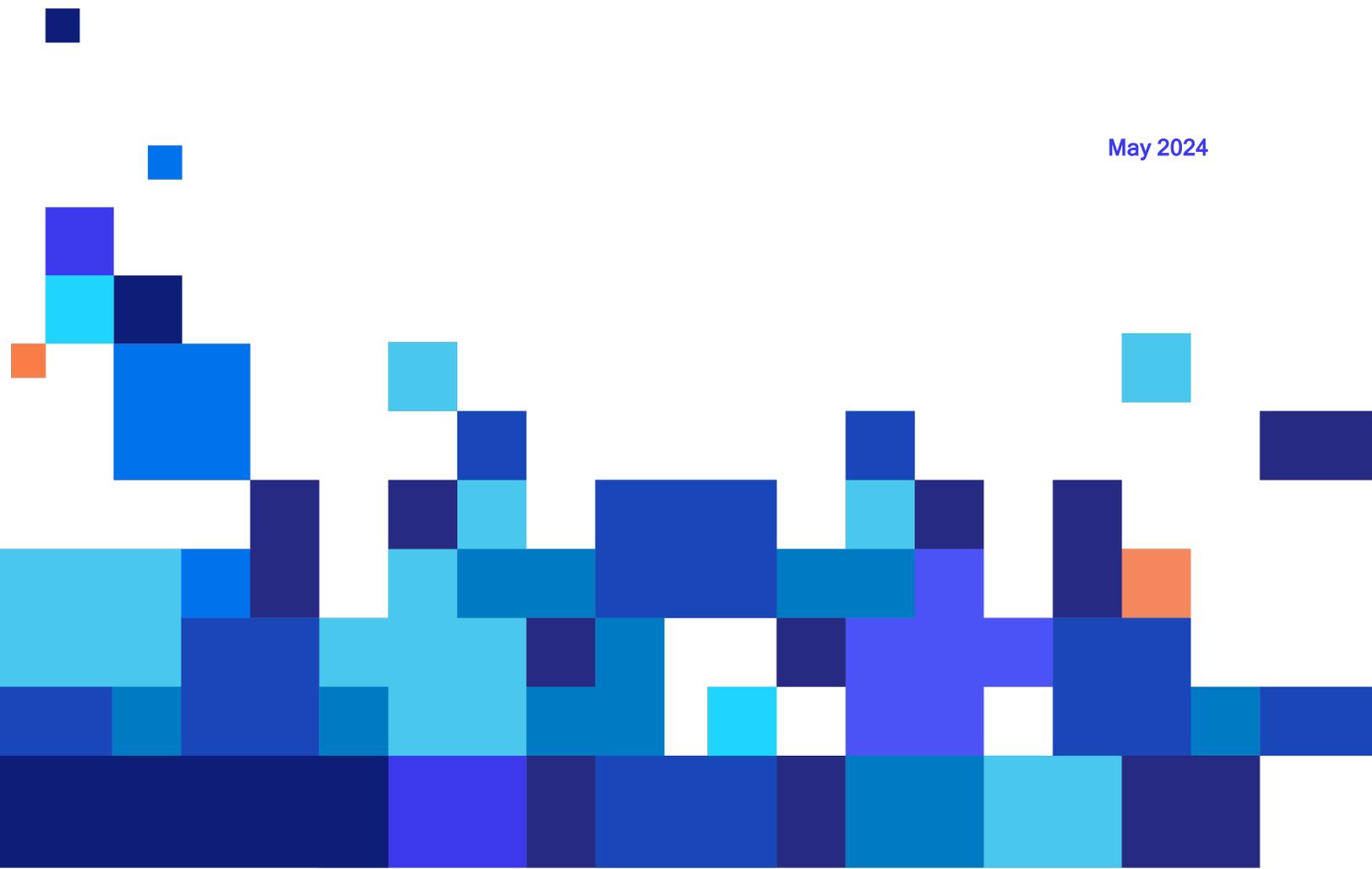


Loftware Enterprise SP

Version APP.CM.005

Coding & Marking Applications User Guide

May 2024



© May 2024 by Loftware, Inc. All rights reserved. Version APP.CM.005

Loftware, Loftware Cloud, Loftware Cloud Enterprise, Loftware Enterprise, Loftware Enterprise Labeling Solutions, Loftware Print Server, Loftware LPS, LLM, Loftware Connector, Loftware Smartflow, Loftware DaVinci, and Loftware Spectrum are trademarks of Loftware, Inc. NiceLabel and Label Cloud are trademarks of Euro Plus d.o.o., a member of the Loftware group of companies. Prisym is a trademark of Prisym ID Ltd., a member of the Loftware group of companies.

Adobe is either a registered trademark or trademark of Adobe in the United States and/or other countries.

Amazon and all related marks are trademarks of Amazon.com, Inc. or its affiliates.

Apache®, Apache Log4j™, and Apache Tomcat® are either registered trademarks or trademarks of the [Apache Software Foundation](#) in the United States and/or other countries.

Apple, iPad, iPhone, and Safari are trademarks of Apple Inc., registered in the U.S. and other countries and regions. IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.

QR Code is registered trademark of [DENSO WAVE INCORPORATED](#).

Android, Chrome, Chromium, and Google Chrome are trademarks of Google LLC.

IBM and AIX are trademarks of International Business Machines Corporation, registered in many jurisdictions worldwide.

Intel and Pentium are trademarks of Intel Corporation or its subsidiaries.

Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

Microsoft, Azure, Excel, Microsoft Edge, SQL Server, Visual C++, Visual Studio, Windows, and Windows Server are trademarks of the Microsoft group of companies.

Mozilla is a trademark of the Mozilla Foundation in the US and other countries.

Oracle, Java, MySQL, and NetSuite are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

PostgreSQL is a trademark or registered trademark of the PostgreSQL Community Association of Canada, and used with their permission.

Red Hat and Red Hat Enterprise Linux are registered trademarks of Red Hat, Inc. in the United States and other countries.

SAP, ABAP, SAP Fiori, SAP S/4HANA, and SAP S/4HANA Cloud are the trademarks or registered trademarks of SAP SE or its affiliates in Germany and in other countries.

"SUSE" is a trademark of SUSE LLC or its subsidiaries or affiliates.

United States Postal Service, USPS, and USPS Intelligent Mail are registered trademarks of the United States Postal Service.

All other marks are the property of their respective owners.

Loftware Enterprise SP contains barcode components licensed from IDAutomation.com, Inc. These products may only be used as part of and in connection with Loftware Enterprise SP.

www.loftware.com

Contents

Coding & Marking Applications	5
Prerequisites	6
Setting up the Applications	7
Import the Applications	7
Create Remote Sites	7
Install the Loftware Print Agent	7
Download and Install Printer Drivers	8
Configure Devices in Loftware Enterprise SP	8
Before Using the Applications	8
Using the Applications	9
Configuration Dashboard	9
Line Configuration	10
Add a Line	11
Modify a Line	13
Template Configuration	14
Add a New Template Group	15
Modify a Template Group	16
Product Configuration	17
Add a Product	18
Modify a Product	19
Data Configuration	20
Add a New Source of Data	21
Diagnostics Dashboard	22
Print Diagnostics	22
Device Status	24
Supervisor Dashboard	26
Operator Dashboard	27
Line Control	27

Job Selection	30
Template Group Selection	31
Job Submit	32
Print Preview	33
Job Execution	34
Cross Reference Tables	35
MCLineConfig	35
MCTemplates	35
MCProducts	36
MCProdSave	36
MCDataSources	37
Customizing the Operator Dashboard	38
Changing the Logo	38
Setting up the Desktop Shortcuts and Default Line	39
Using External Sources of Data	41
Using External Templates	42

Coding & Marking Applications

The Loftware Coding & Marking Applications package is intended to be used in environments where facility supervisors, quality engineers, and operators need to configure, control, visualize, and troubleshoot production operations.

The package includes the following applications:

- **Configuration Dashboard:** For supervisors and quality engineers to configure and view details for the lines, templates, and products.
- **Diagnostics Dashboard:** For all users to view print diagnostics and device status, as well as test devices to ensure they are working as expected.
- **Supervisor Dashboard:** For supervisors to view all devices configured at a facility and view details for the product lines at a facility.
- **Operator Dashboard:** For operators to view and control the operations of a line on the facility floor.

This guide provides the following information:

- Prerequisites for using the applications
- Steps that an administrator should take to import, customize, and configure the applications for your environment
- Information on using the applications

Prerequisites

This guide assumes the following:

- Loftware Spectrum 4.7.1 to 5.0 or Loftware Enterprise SP 5.1 or later is installed, licensed, and running.
- You have a working knowledge of Loftware Enterprise SP.
- You have a list of devices and associated IP addresses that are to be used for each line.
- You have product information for each line if you are going to be using the internal cross reference table for product information.

Setting up the Applications

Perform the tasks in this section to set up the Coding & Marking Applications package for use.

Import the Applications

Note: If you are a Loftware Cloud Enterprise SP customer, Loftware Cloud Operations must import the Coding & Marking Applications for you.

To import the applications to your Loftware Enterprise SP environment, place the **Coding&MarkingApplicationsV5.lcp** file in the **C:\Loftware\Spectrum\Spectrum\product\SolutionPacks** folder on the Loftware Application Server and then restart the Loftware Enterprise SP service. It may take a few minutes to install. When complete, the **Coding & Marking** folder is displayed in Loftware Enterprise SP under your root folder.

If you have previously imported the Coding & Marking Applications package and want to import the most recent applications, contact Loftware for assistance.

Create Remote Sites

Create a Remote Site in Loftware Enterprise SP and specify the number of devices you will be connecting to via this remote site. For more information, see [Configure a Remote Site](#) in the *Loftware Enterprise SP User Guide (Help)*.

Install the Loftware Print Agent

From the newly created Remote Site, download the Loftware Print Agent (LPA) onto a separate server and then install the LPA. For more information, see [Install the Loftware Print Agent](#) in the *Loftware Enterprise SP User Guide (Help)*. When finished, use the **Status > Remote Sites** page in Loftware Enterprise SP to check that the connection status is good, and that Loftware Enterprise SP is communicating with the remote site.

Download and Install Printer Drivers

On the same server as the LPA, download and install all the Loftware drivers from <https://drivers.loftware.com> for each device to be used for your production operations.

To ensure that your device settings are applied when printing and that all users have the same device settings, you must define the settings for the device on the Windows Server where the Loftware driver is installed. For more information, see [Define Default Printer Settings](#) in the *Loftware Enterprise SP User Guide (Help)*.

Configure Devices in Loftware Enterprise SP

In Loftware Enterprise SP, create or identify a folder outside of the **Coding & Marking** folder to save the new devices to, and then create the new devices using the **Server** Family and **Loftware** Model with the **LPA** Connection Type for each device. For more information, see [Create an LPA Device Connection](#) in the *Loftware Enterprise SP User Guide (Help)*.

Before Using the Applications

1. Before using the Line Configuration page of the **Configuration Dashboard** application, determine which label templates are needed and map out the lines with devices and line locations.
2. Before creating label templates in Loftware Enterprise SP, determine the following:
 - a. Which Loftware Enterprise SP folder the label templates will be stored in. It is recommended that this folder be outside of the **Coding & Marking** folder.
 - b. Whether that folder will be versioned. If you will be promoting labels to Loftware Enterprise SP instances, such as from development to production, the folder must be versioned.
 - c. Whether the customer would like to use Workflow approvals to manage label modifications.
3. Create your label templates and save them to the designated folder.

Using the Applications

To use the Coding & Marking Applications, in Loftware Enterprise SP go to the **Applications** page and navigate to the **Coding & Marking** folder.

[Configuration Dashboard](#)

[Diagnostics Dashboard](#)

[Supervisor Dashboard](#)

[Operator Dashboard](#)

[Cross Reference Tables](#)

Configuration Dashboard

The **Configuration Dashboard** consists of four areas that need to be configured to supply data to the **Operator Dashboard** and the **Supervisor Dashboard**, if desired.

Coding & Marking Configuration

Before adding any new configurations, you will need to add all relevant devices in the Devices page. You will also need to create any templates that will be used on the line in the Label Design page.

- Line Configuration
- Template Configuration
- Product Configuration
- Data Configuration

Line Configuration

Use this page to add a new production line, modify an existing line, or delete a line. The first page is preloaded with sample values which can be deleted once you have configured real lines.

Line Configuration

[Add a New Line](#)

Select ... Find

Plant	Line	Source of Data
Portsmouth	Dairy	Internal
Portsmouth	IceCream	Internal

[Modify Selected Line](#) [Delete Selected Line](#)

[Home](#)

Add a Line

Add a Line

Plant: Product Lookup

Line Name:

Source of Data: ▼

Device Name	Device FQN	Line Location	Display	Recall	▲

Add a Device: ▶ ...

Line Location:

Display: True False (Only 1 display device should be set per line.)

Recall: True False

Back Add Row

Field	Description
Plant	Name of the plant or facility the product line is in. Make sure this value is consistent across all lines in the same plant. This value cannot be changed on the Modify page once set.
Line Name	Name of the production line. This value cannot be changed on the Modify page once set.
Source of Data	Where this line gets its data from. Select Internal for this option if you are using the internal cross reference tables to populate the Operator Dashboard . The values that populate this field come from the entries in the Data Configuration page.
Product Lookup	This check box controls whether the user is presented with a table to select from or a field to enter a product ID when selecting the next job. When selected, the user will need to scan or enter a unique product ID when selecting a job. This value will be the same for all devices on the line.

Field	Description
Device Table	Once a device is added to the line, it will be displayed in this table.
Add a Device	Use the device selector to add a device to the line. A device can only be configured to one line. You will see an error if the device is already configured on a different line.
Line Location	The physical area on a line where the printer will reside. This value needs to match what is used when configuring Template Groups.
Display	If set to true, this device will be used to populate the Device Information panel in the Operator Dashboard . Only one device per line can be set to true.
Recall	Set this value to true if the device is a Recall-only device. If Recall is set to true, you have the option of setting a Store Name Override in the Product Configuration page. This value will replace the name of the label sent with the name of a label already stored on the printer.

Modify a Line

This page can be used to modify existing devices on the line or add additional devices to the line. To update the **Source of Data**, select a value from the drop-down list and then click **Update**. Select a row in the table to modify or delete an existing device. To add a row, click the **Clear Selection** button to clear any selected values and enable the **Add Row** button.

Modify a Line

Plant: Product Lookup

Line Name:

Source of Data:

Device Name	Device FQN	Line Location	Display	Recall	Lookup
VJ2361	/Default/VJ2361	Secondary 1	true	false	false
VJ6320	/Default/VJ6320	Primary 1	false	false	false

Add a Device:

Line Location:

Display: True False (Only 1 display device should be set per line.)

Recall: True False

[Back](#)

Template Configuration

Use this page to add a new label template group or to modify or delete an existing template group. A label group consists of all the labels printed to all the devices on a particular line.

Template Group Configuration

[Add a New Template Group](#)

Select Co...  

Template Group
DairyLabels
IceCreamLabels

[Modify Group](#) [Delete Group](#)

[Home](#)

Add a New Template Group

Add a Template Group

Template Group Name:

Line Location	Template	Template FQN

Line Location: ▼

Template FQN: - ...

Add a Row

[Back](#)

Field	Description
Template Group Name	Name of the template group.
Template Table	When a template is added, it will be displayed in this table.
Line Location	Select from a list of existing Line Locations (from the Line Configuration application).
Template FQN	Use the label selector to select an existing label.

Modify a Template Group

Select a template group row in the table and click the **Modify Group** button. To make changes to an existing row, select the row, make any modifications, then click **Update Row**. To delete a template, select the template row and then click the **Delete Row** button. To add a new template to the group, click **Clear Selected Row** to clear any selected values, and then click the **Add Row** button. Select a line location and template, and then click **Add Row**.

Modify a Template Group

Template Group: **DairyLabels**

Select a row to modify: Clear Selected Row

Line Location	Template	Template FQN
Primary 1	Bottle	/Default/Coding & Marking/Labels/Bottle
Secondary 1	Exp	/Default/Coding & Marking/Labels/Exp

Line Location:

Select a template - ...

Update Row
Add Row
Delete Row

[Back](#)

Product Configuration

Use this page to add new products that can be run on Coding & Marking lines, or to modify or delete an existing product. Customers may link to their own sources of data for this information, but the queries will need to be updated to work with their tables. For more information, see [Data Configuration](#).

This table is populated with sample products which can be deleted when no longer needed.

Product Configuration

Add a New Product

Select Co... ▼

↑
↓

Product	Product Id	Product Desc	Template Group	Active	^
ED CLS 3GAL CHOC CHOC	1435	ICE CREAM	IceCreamLabels	true	↑ ↓
SNL 3GAL CANADIAN VANILLA	4470	ICE CREAM	IceCreamLabels	true	
Farmland Chocolate Milk	84625	Chocolate Milk	DairyLabels	true	
Farmland Whole Milk	15477	Whole Milk	DairyLabels	true	

Modify Selected Product
Delete Selected Product

[Home](#)

Add a Product

Add a Product

Product Name: Active

Product Id:

Product Desc:

UPC:

Ingredients:

Template Group: ▼

Name Override: Enter the template name on the device if this product is being printed to a recall-only device and an override is needed.

Product Logo:
Logos should be in the /Default/Images/User Images folder.

[Back](#)

Field	Description
Product Name	Name of the product.
Active	This check box must be selected for this product to be available for selection in the Operator Dashboard .
Product Id	A unique product identification value.
Product Desc	A brief description of the product.
UPC	UPC if desired.
Ingredients	List of ingredients. There is a 500-character limit.
Template Group	Select a template group for this product.

Field	Description
Name Override	This field should only be used when the product is being printed to a recall-only device. The value entered here should match the value of the template on the device.
Product Logo	The fully-qualified name of an image in Loftware Enterprise SP to be used for the product image on a label.

Modify a Product

Select a product row and click **Modify Selected Product**. Make any modifications, and then click **Update**.

Modify a Product

Product Name: Active

Product Id:

Product Desc:

UPC:

Ingredients:

Template Group: ▼

Name Override: Enter the template name on the device if this product is being printed to a recall-only device and an override is needed.

Product Logo: Logos should be in the /Default/Images/User Images folder.

[Back](#)

Data Configuration

This page provides the ability to use external sources to supply data to the **Operator Dashboard**. The values that are entered into this table are used as events/triggers within the business rule. Data services and business rules need to be configured to access the external data and are executed based on the triggers. Once configured, a source of data can be selected from the **Line Configuration** page. To ease configuration, it is recommended that you limit the number of sources of data where possible.

Data Configuration

In order for a source of data to be selected for a line, it must exist in this list.

These are the existing sources of data:

Source of Data	Description	Use External Templates
Internal	This is the default source of data used by the Operator Dashboard. This data source points to the internal MProducts table.	false
ACME	This is just a test of the data source functionality	false

Delete Selected Source
Add a New Source of Data

[Home](#)

By default, the "Internal" source of data is used, which points to the internal MProducts table. When you add a new source of data, you should enter a description that identifies exactly where the external data is coming from.

Field	Description
Delete Selected Source	Select a row and click this button to remove the source of data from this list. This does NOT remove it from the lines that have been configured to use it, and it does not remove the event/trigger from the business rule configuration. Deleting a data source should be guided by an administrator that understands the inner-workings of the Operator Dashboard .

Field	Description
Add a New Source of Data	See Add a New Source of Data .
Use External Templates	This should be set to true only if the customer's source of data is passing in template names rather than using the concept of a template group. For more information, see Using External Templates .

Add a New Source of Data

Once it is determined that an external, or alternative, source of data is needed, click the **Add a New Source of Data** button to add that value to this table.

Add a New Source of Data

When adding a new source of data, work with an admin to create and configure the underlying Data Service and Business Rule to support the new source of data.

Name:

Description:

If this Source of Data will pass individual template names, as opposed to a template group value, check this box:

[Back](#)

Field	Description
Name	Name of the value that will be used as an event/trigger by the business rule that provides data to the Operator Dashboard.
Description	Describe exactly where the source of data is coming from.
External template check box	Select this check box if the customer's source of data is passing template names rather than using the concept of a template group. For more information, see Using External Templates .

Diagnostics Dashboard

The **Diagnostics Dashboard** application should be used to diagnose any issues when printing labels or connecting to a particular Coding & Marking device.

Coding & Marking Diagnostics

Print Diagnostics
 Device Status

Print Diagnostics

Use this application to test print to a Coding & Marking device. You cannot use the standard **Print** page to print to a Coding & Marking device; you must use this application.

Print Diagnostics
[Back](#)

***Device:** /Default/VJ_6420

***Label:**

Job Name:

***Print Qty:** Unlimited

Store and Recall

Recall

-

...

● Overall Status:
ok

-

...

**Mandatory fields for print request*

Print

Device Status

Field	Description
Device	Select a device to print to.
Overall Status	A color-coded indicator of the overall status of the selected device.
Label	Select a label to print.
Job Name	Give the job a name, which will be visible on the device's control panel.
Print Qty, Unlimited	The print quantity should be unlimited when printing to a Coding & Marking device.
Store and Recall, Recall	Store and Recall is the default. Only select Recall if the device is recall only.
Print	Submits the job to the selected device.
Device Status	Gets a detailed status from the selected device.

Device Status

Use this application to see all the status details returned by the device in grid form. Because different devices return different status messages, this application is useful when determining exactly what is returned from the selected printers.

Device Status
[Back](#)

Select a device:

/Default/VJ_2361 ← ... Get Status

Printer Name Videojet 2361

Printer Type High Resolution Ink Jet

Status warning

State online

Fatal Errors false

Paper Error false

Print Head Error false

Clear Data

Device Status

Item	Internal Id	Title	Description
warning	VJCLR_Prevent...	Preventative	Preventative maintenance required.

Device State

Item	Internal Id	Title	Unit	Value	Description
state	CurrentJob			Farmland Whole	
state	JobSelectionDate			2022/11/22	
state	FirmwareVersion			4.03.00 (23207)	
state	BatchProductC...			0	
state	TotalProductCo...			1200	
state	PrintThroughput		ppm	0	
state	PrintEfficiency			0	
state	LongtermPrintT...		ppm	0	
state	LongtermPrintE...			0	

Device Consumables

Item	Internal Id	Title	Unit	Value	Description
consumable	Ink	Ink			Current printer ink.
state	ChangeDate	Consumable		2022/10/27	Consumable date of change in the printer.
state	Level	Taso	percent	100	Consumable current level.

Field	Description
Device	Select a device to get a status from.
Get Status	Submit the request for status from the device.
Clear Data	Clear all the data in the grid.

Supervisor Dashboard

The **Supervisor Dashboard** application is used to mimic the **Operator Dashboard** by reporting all the states returned by all the printers on a particular line. This allows administrators to see if the line is ready for production runs. You can check the status of an individual device or of an entire line.

Device & Line Status

Device: - ... Add Device

Line: Dairy (Portsmouth) ▼ Add Devices From Line

Remove Device Last Updated: 11/28/22 10:24 Update status

Device Name	Model Name	Job Name	Communication Status	Printing Status	Device Status
VJ_2361	Videojet 2361	Farmland Whole Milk	Up	Active	Warning
VJ_6420	Videojet DataFlex 6320 LH 53mm	Farmland Whole Milk	Up	Active	Good

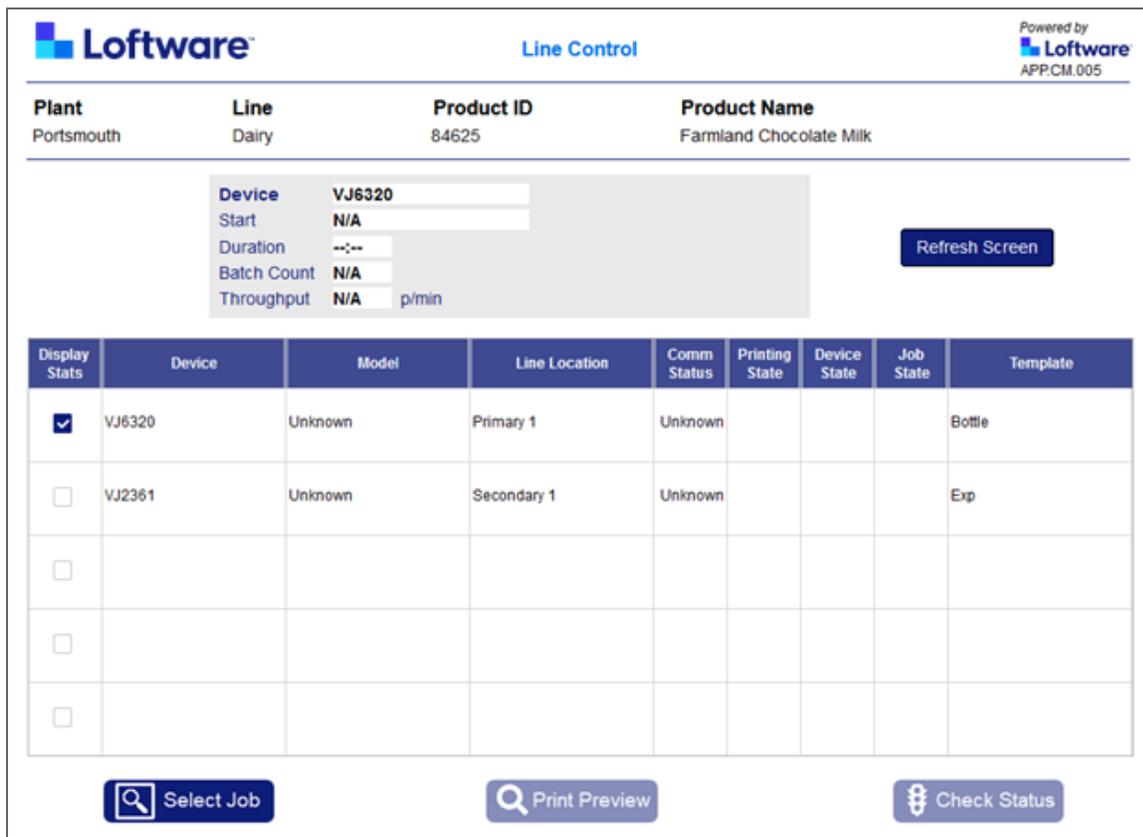
Field	Description
Device	Select a device to get status from.
Add Device	Add a device to the table and query for status.
Line	Select a line from the drop-down list.
Add Devices From Line	Add all devices configured on the selected line to the table and query for status.
Remove Device	Remove the selected device from the table.
Update Status	Refresh the status of all listed devices. Automatically refreshed every 30 seconds.

Operator Dashboard

The **Operator Dashboard** application sends print requests to a production line and monitors status.

Line Control

The first page that is displayed is the **Line Control** page. The header displays the last job selected by the operator and then polls the devices for status.



Display Stats	Device	Model	Line Location	Comm Status	Printing State	Device State	Job State	Template
<input checked="" type="checkbox"/>	VJ6320	Unknown	Primary 1	Unknown				Bottle
<input type="checkbox"/>	VJ2361	Unknown	Secondary 1	Unknown				Exp
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								

Area	Field	Description
Title	Logo	This logo can be replaced with a customer's logo if desired.
	Application Version	The version of the Operator Dashboard application.
	Page Name	Name of the page being displayed.

Area	Field	Description
Header	Plant	Determined by the line selected upon loading.
	Line	Determined by a parameter passed by the URL from a desktop shortcut. The default line can be set in the business rule VJ_ProductionBR(lineTest) for administrative users.
	Product ID	Unique product identifier. Reflects the last value submitted by the operator in the Print Preview page.
	Product Name	Name of the last product name value submitted by the operator in the Print Preview page.
Device Stats Pane	Device	The device specified as the display device for the line in the MCLineConfig table.
	Start	When the job was submitted to the line.
	Duration	How long the job has been running.
	Batch Count	How many times the job has executed.
	Throughput	Prints executed per minute.

Area	Field	Description
Device Table	Display Stats	Indicates whether this device is the display device.
	Device	Device on the line.
	Model	The model reported back from the device.
	Line Location	The physical area on a line that the device is in.
	Comm Status	Whether Loftware Enterprise SP can communicate with the device via the LPA.
	Printing State	Whether the device is reporting online or offline.
	Device State	Summary of the states reported by the printer.
	Job State	Whether the job running on the device matches the job in the header.
	Template	The template configured to print to the device on the line.
Buttons	Refresh Screen	Triggers the polling of devices on the line for status.
	Select Job	Transitions the operator to the next page to select a new job.
	Print Preview	Previews the label for the selected device.
	Check Status	Returns detailed device status message from the selected device.

Job Selection

This page can be used by an operator to select the next job to be sent to the production line. The **Product** table displays all active products from the MProducts cross reference table. The operator selects a product and then clicks **Next** to transition to the next page.

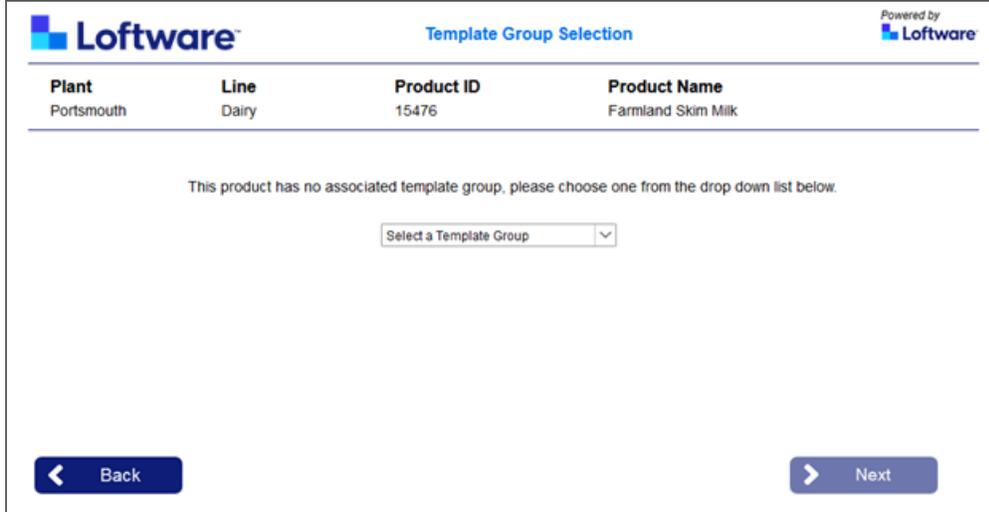


Product ID	Product Name
1435	ED CLS 3GAL CHOC CHOC CHIP
84625	Farmland Chocolate Milk
15476	Farmland Skim Milk
15477	Farmland Whole Milk
4470	SNL 3GAL CANADIAN VANILLA

Area	Field	Description
Product Table	Product ID	Unique product identifier from the MProducts table.
	Product Name	Product name from the MProducts table.
Buttons	Back	Reloads the Line Control page.
	Next	Transition to the next page after selecting a product.

Template Group Selection

This page only appears if there is no template group returned from the query run on the previous page. The operator must select the template group to be used.



Plant	Line	Product ID	Product Name
Portsmouth	Dairy	15476	Farmland Skim Milk

This product has no associated template group, please choose one from the drop down list below.

Select a Template Group

Back Next

Area	Field	Description
Select a Template Group drop-down	Template group	Determines what labels will be sent to all the devices on the line.
Buttons	Back	Reload the Job Select page.
	Next	Transition to the next page.

Job Submit

This page is for validation purposes. It displays the devices, model, line location, and template for the selected product and line. No action is needed by the operator other than transitioning to the next page.


Job Submit
Powered by
 Loftware

Plant	Line	Product ID	Product Name
Portsmouth	Dairy	15477	Farmland Whole Milk

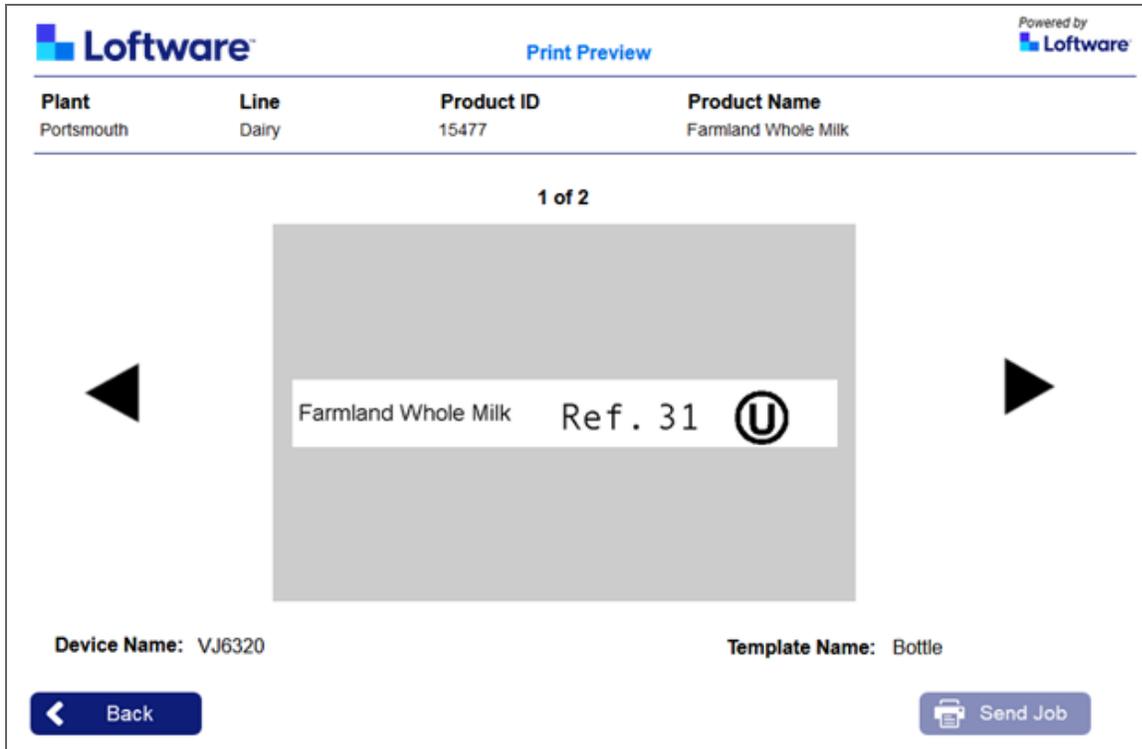
Device	Line Location	Template
VJ6320	Primary 1	Bottle
VJ2361	Secondary 1	Exp

< Back
Next >

Area	Field	Description
Device Table	Device	Device on the line.
	Line Location	The physical area on a line that the device is in.
	Template	The template configured to be printed by the device on the line.
Buttons	Back	Reload the Job Select page.
	Next	Transition to the next page.

Print Preview

This page forces the operator to preview the labels for the selected product on the line. They must preview all the templates before the **Send Job** button is enabled.



Area	Field	Description
Preview Area	Preview count	Shows the preview count and total templates to be viewed.
	Previous/Next	Allows the operator to go back to the previously viewed template or forward to the next template to be viewed.
	Template preview	The representation of the label to be printed.
	Device Name	The device the label will be printed on.
	Template Name	The template that is being previewed.

Area	Field	Description
Buttons	Back	Reload the Job Submit page.
	Send Job	Sends the job to all the devices on line then transitions to the next page.

Job Execution

This is the final page of the **Operator Dashboard** application. It displays the status of the job that was just submitted.



Plant	Line	Product ID	Product Name
Portsmouth	Dairy	15477	Farmland Whole Milk

Device	Line Location	Template	Job Status
WJ6320	Primary 1	Bottle	Job Submit Error
VJ2361	Secondary 1	Exp	Job Submit Error

Area	Field	Description
Device Table	Device	Device on the line.
	Model	The model reported from the MCLineConfig table.
	Line Location	The physical area on a line that the device is in.
	Template	The template that was sent to the device.
	Job Status	The status of the job that was sent to the device.
Buttons	Check Status	Returns detailed device status for the selected device.
	Home	Transitions the operator back to the Line Control page.

Cross Reference Tables

The four tables that supply data to the applications are named MCLineConfig, MCTemplates, MCPProducts, MCPProdSave, and MCDataSources.

MCLineConfig

This table contains all the data specific to product line configuration.

DisplayOrder	ColumnName	Data Type
1	id	Number
2	created	DateTime
3	modified	DateTime
4	created_issuer	String
5	last_updated_issuer	String
6	plant	String
7	linename	String
8	devicefqm	String
9	devicename	String
10	linelocation	String
11	lead	String
12	recall	String
13	lookup	String
14	sourceofdata	String

MCTemplates

This table contains the label - line location - device mapping information.

DisplayOrder	ColumnName	Data Type
1	id	Number
2	created	DateTime
3	modified	DateTime
4	created_issuer	String
5	last_updated_issuer	String
6	templategroup	String
7	linelocation	String
8	templatename	String
9	templatefqm	String

MCPProducts

This table holds all the product information.

DisplayOrder	ColumnName	DataType
1	id	Number
2	created	DateTime
3	modified	DateTime
4	created_issuer	String
5	last_updated_issuer	String
6	productname	String
7	productid	String
8	productdesc	String
9	upc	String
10	ingredients	String
11	active	String
12	templategroup	String
14	logo	String
15	storenameoverride	String

MCPProdSave

This table stores the last product ID, product name, and template group selected for a particular plant/line. The number of rows should always match the number of lines. This table is populated when the operator clicks the **Send Job** button from the Print Preview page.

DisplayOrder	ColumnName	DataType
1	id	Number
2	created	DateTime
3	modified	DateTime
4	created_issuer	String
5	last_updated_issuer	String
6	plant	String
7	linename	String
8	productname	String
9	productid	String
10	templategroup	String

MCDataSources

This table stores the value and the description of the event/trigger that triggers the business rules to get data from an external or alternate source of data and whether that source of data is passing in template names.

DisplayOrder	ColumnName	DataType
1	id	Number
2	created	DateTime
3	modified	DateTime
4	created_issuer	String
5	last_updated_issuer	String
6	sourceofdata	String
7	description	String
8	externaltemplates	String

Customizing the Operator Dashboard

You can optionally customize the **Operator Dashboard** in the following ways:

[Changing the Logo](#)

[Setting up the Desktop Shortcuts and Default Line](#)

[Using External Sources of Data](#)

[Using External Templates](#)

Changing the Logo

Use the following steps to customize the logo displayed in the top left of the applications.

Import the Logo

1. In **Label Design**, click **+** > **Image**.
2. Click **Browse** to select your logo, and then click **Open**.

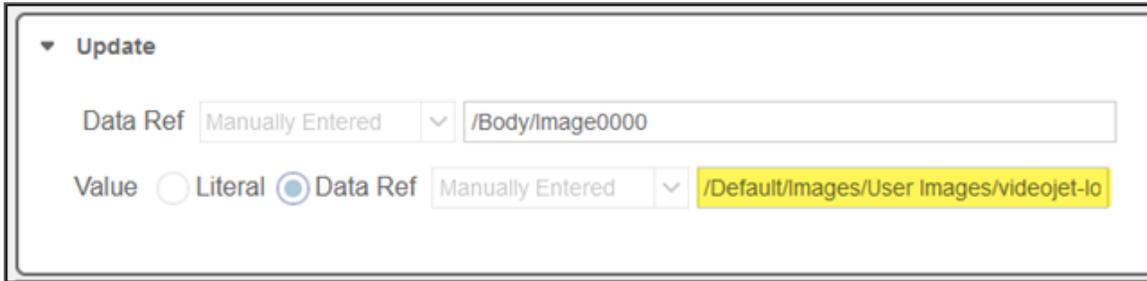
Note: Loftware Enterprise SP supports images that use an RGB color model and one of the following file formats: PNG, GIF, JPG, BMP, SVG, or PCX.

3. Click **File** > **Save**, enter a name for the logo, and save the logo to the **Images\User Images** folder.

Set the Logo in the Operator Dashboard

1. In **Application Design**, open the **VJ_ProductionBR** business rule in the **Coding & Marking > Operator Dashboard** folder.
2. Click **File** > **Version Control** > **Check-Out** to check out the business rule for edits.
3. In the **Triggers** pane on the left, scroll down to and click the **lineTest** trigger (this is the first trigger that is run when you launch the **Operator Dashboard**).

4. In the second **Update** block, change the **Data Ref** value from */Default/Images/User Images/videojet-logo* to the fully-qualified name of the image you just imported.



▼ Update

Data Ref ▼ /Body/Image0000

Value Literal Data Ref ▼ /Default/Images/User Images/videojet-lo

5. Save the business rule and then click **File > Version Control > Publish** to publish it for use.
6. To confirm that your logo has been applied, go to **Applications** and open the **Operator Dashboard** application.

Setting up the Desktop Shortcuts and Default Line

The **Operator Dashboard** is intended to be launched by the line operator from a desktop shortcut. The shortcut passes in a line parameter that sets the desired line so that the operator cannot change lines or access other areas of Loftware Enterprise SP. Use the following steps to create the desktop shortcut and set the default line.

Create the Desktop Shortcut

1. In the **Applications** start page, click the ellipses in the **Operator Dashboard** application tile and select **Open in New Tab**.
2. Double-click the URL in the browser window to select the URL, then click and drag it to the desktop. A Loftware Enterprise SP shortcut should display on the desktop.
3. Right-click the shortcut and select **Properties**.

4. Click the **Web Document** tab and add the following to the end of the URL, replacing *<linename>* with the name of your line:

```
?dataMap=%2Fselected%2Flinename%3D<linename>
```

Example

```
?dataMap=%2Fselected%2Flinename%3DIceCream
```

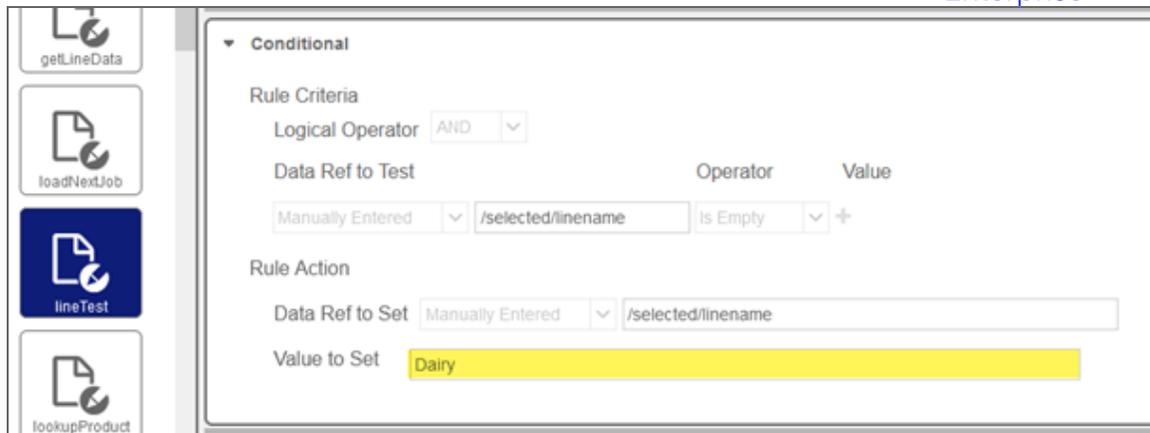
5. Click the **General** tab and change the name of the shortcut to the chosen line name.
6. Click **Apply** and then click **OK**.
7. Repeat steps 1-6 on each computer at each production line.

When the line operator clicks the shortcut, they are required to sign in and then the **Operator Dashboard** launches with the line already selected.

Set the Default Line

The Administrative user needs access to other areas of Loftware Enterprise SP, so they need to set a default line to load when they sign in. There is a trigger in the business rule that sets the line to a value if no parameter is passed into the URL.

1. In **Application Design**, open the **VJ_ProductionBR** business rule in the **Coding & Marking > Operator Dashboard** folder.
2. Click **File > Version Control > Check-Out** to check out the business rule for edits.
3. In the **Triggers** pane on the left, scroll down to and click the **lineTest** trigger (this is the first trigger that is run when you launch the **Operator Dashboard**).
4. In the third **Conditional** block, under **Rule Action**, change **Value to Set** to the desired line name.



5. Save the business rule and then click **File > Version Control > Publish** to publish it for use.

Now when the administrator launches Loftware Enterprise SP, the default line is selected.

Using External Sources of Data

The **Operator Dashboard** is configured by default to use the "Internal" source of data. When a line is set to an Internal data source, it gets its data from the cross reference tables (MCPProducts or ACMEProducts) that are internal to Loftware Enterprise SP. You can configure additional sources of data by modifying existing business rules and by creating new business rules and data services. This should only be done by someone with intimate knowledge of the **Operator Dashboard** business rules and application triggers. Once configured, supervisory users can select a source of data for each line configured.

The following are the high-level steps to add an external source of data.

1. Determine what the external data source is and its proper connection string.
2. Create a new data service in Loftware Enterprise SP that connects to the external source.

3. Use the **Data Configuration** page of the **Operator Dashboard** to add a name to the new data source and specify whether this data source will pass in template names. This will be used as the event/trigger in the business rule.
4. Create a new business rule with the getLinePrinters, loadNextJob, and getLineData triggers from the **ACME_BR** business rule.

Tip: You can use **File > Save As** to create a copy of the **ACME_BR** business rule and then modify the triggers accordingly.

5. Add triggers to **VJ_ProductionBR** for the getLinePrinters, loadNextJob, and getLineData triggers from your new business rule.

Tip: See the triggers for the **ACME_BR** business rule for examples.

6. Use the **Line Configuration** page to set the data source for the line.
7. If you want to pull additional label data from external sources, use an onload trigger on the print preview page.
8. To enable the variable data to be shown on the print preview page, make sure the Data Refs in the label match the value coming from the business rule.

Using External Templates

As part of the data configuration, you have the option to specify external templates. When set to true, or when the check box is selected, the **Operator Dashboard** expects the template names to be part of the data passed in from an external source when a new job is selected.

A business rule has been added to the **Operator Dashboard** called **ExternalDataBR** that mimics the passing of external data. It is expected that you customize this rule to query for the required data from the external source and map the data accordingly.

Requirements for Using External Template Names

- You must still complete the Line Configuration using the Configuration Dashboard.
- You must add additional logic to the **ExternalDataBR** to specify the label location in Loftware Cloud Enterprise SP.
- The column names that store the template names in the external source of data for a given product must exactly match the Line Location value in the Line Configuration.
- The template names that are passed in must match the template (label name) in Loftware Cloud Enterprise SP.