NiceLabel Control Center 10 User Guide

Rev-2024-3

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1. About NiceLabel Control Center

NiceLabel Control Center allows you to manage your entire label printing system from one place securely. For businesses, small or large, it helps save time, reduce errors and costs, and increase efficiency in your label printing processes.

With Control Center you can:

- Produce consistent and compliant labels.
- Monitor, analyze, and improve your label printing processes.

Web-based access allows you to manage users, groups, printing applications, and integrations for your system without maintaining any IT infrastructure. Depending on your operational needs, you can also install Control Center on-premise in your IT environment as part of NiceLabel Label Management System.

Control Center helps different individuals manage and use your labeling system:

- **Global IT Administrators** manage global security, access, and synchronization while centrally monitoring labeling in multiple locations.
- **Local IT Administrators** install, configure, test, and solve problems in single locations to keep production running.
- **Label Designers** create and test documents, applications, and integrations and use workflows and print management for your label templates.
- **Quality Assurance Managers** approve changes in workflows, get reports, ensure regulatory compliance, and reduce risk.
- **Operations Managers** standardize print processes and get production data to identify ways to improve efficiency and avoid errors.

Control Center is available as part of the following NiceLabel products:

- **NiceLabel LMS Pro/LMS Enterprise** (on-premise):
    - NiceLabel **Control Center** is a cloud-based application that allows you to share and store your labeling files and print labels. Control Center connects all printers of all users who have their Desktop Designer connected to Control Center.
    - NiceLabel **Web Printing** is a web application that is part of Control Center. Web Printing allows you to centrally deploy your labels from Control Center's storage.
    - NiceLabel **Desktop Designer** is an application for designing and printing labels. Install Desktop Designer on your computer and connect it to Control Center. In Control Center, you can see all your printers connected to your Desktop Designer.

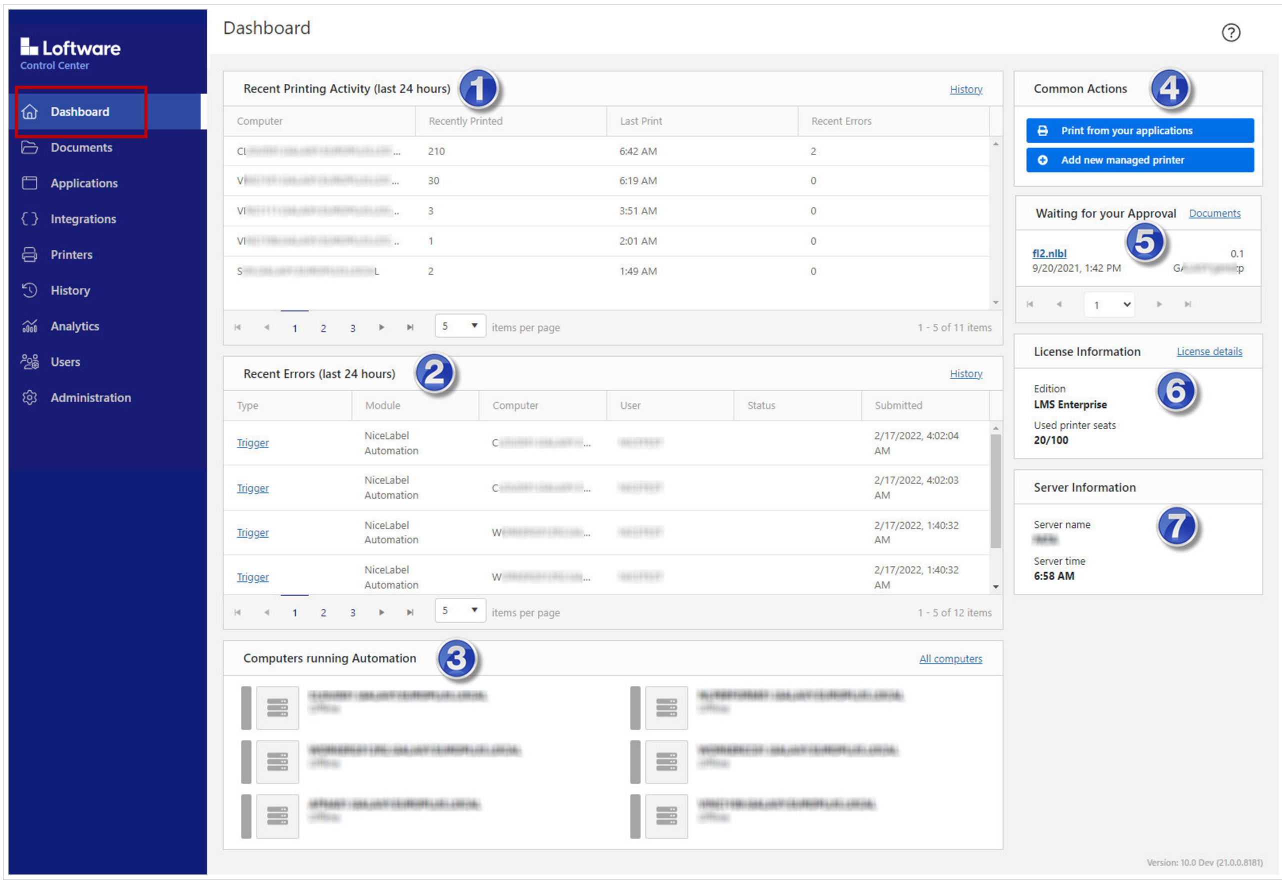
- NiceLabel **Print** is a stand-alone application for fast and easy printing, without the need for opening labels in Desktop Designer.
- NiceLabel **Automation Pro/Enterprise** is an application that automates repetitive tasks like automated printing.
- NiceLabel **Web Client** is an application to access and use your labels, shared in Control Center.

1.1. Using Control Center

Open NiceLabel Control Center from your browser to start centrally managing your entire label printing system from one place. Your **Dashboard** is your starting point for managing your label printing system centrally from Control Center.

1. Open Control Center:
   - For **Label Management System**, open `http://`**`yourserver`**`/epm`. Replace *yourserver* with your installation server name. For first -time sign in information, read Section 2, "On-Premises Installation".
2. The Control Center sign-in page opens. Sign in with your Microsoft or Google account.

When you sign in, your **Dashboard** opens:



Your **Dashboard** gives you an overview of your entire labeling system:

1. **Recent Printing Activity (Last 24 hours)** includes which computers printed, print counts, times, and errors.
2. **Recent Errors (Last 24 hours)** include error types, modules, computers, users, statuses, and submission dates.
3. **Computers Running Automation** includes all your computers running NiceLabel Automation.
4. **Common Activities** include links to frequently-performed Control Center actions like **Print from your Applications** and **Add New Managed Printer**.
5. **Waiting for your Approval** includes files in workflows shared with you to review and approve or reject.
6. **License Information** includes product information and the number of printer seats you're using.
7. **Server Information** includes Control Center server name and server time.

Use the menu on your left to open other Control Center pages:

> **NOTE**
> You can hide Control Center pages for your users by updating user **Access Roles**.

1. **Dashboard**
2. **Documents**
3. **Applications**
4. **Integrations**
5. **Printers**
6. **History**
7. **Analytics**
8. **Users**
9. **Administration**

See important information about your entire labeling system on your **Dashboard** when you open Control Center.

1.2. Display Language

Control Center is a web application that runs in your browser. To change the language of your Control Center user interface, you must manually change language preferences in your browser (or your system for Microsoft Internet Explorer).

NOTE

Before you change your display language, make sure your language is available in Control Center.

1.2.1. Google Chrome

In Google Chrome, you change your display language in **browser settings**.

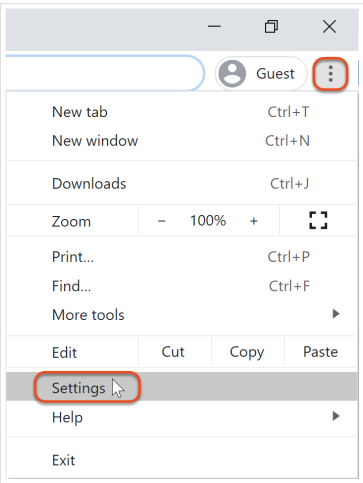
If your preferred language is not available, Control Center displays in English by default.

TIP

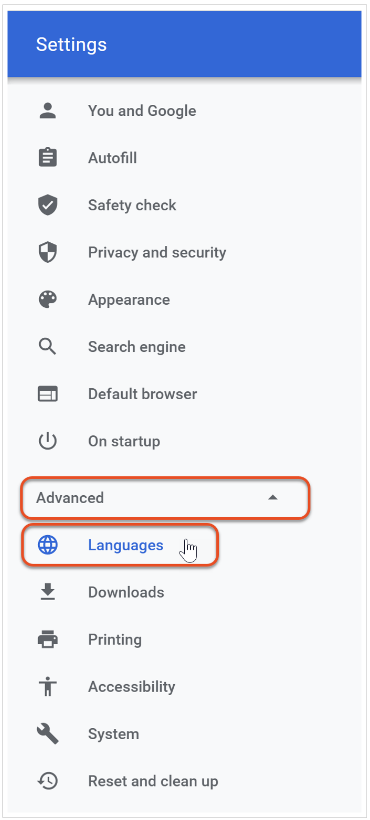
If your preferred language is not available, Google Chrome can temporarily translate pages into your preferred language.

To change your Control Center display language in Google Chrome, do the following:

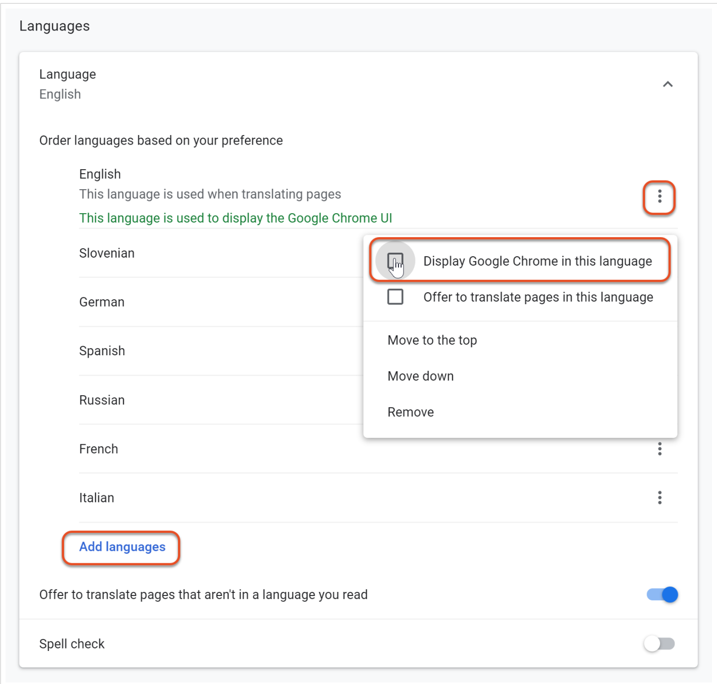
1. On your top right, click **Customize and control Google Chrome** (⁝) > **Settings**.



2. Go to **Advanced** > **Languages**.



3. Click **Language** to expand language options. Find your preferred language and click **More actions** (⋮) > **Display Google Chrome in this language**.



If your preferred language isn't listed, click **Add languages**. Select your preferred language from the menu and click **Add**. Your new language is now listed (at the bottom of your list), but **your preferred language is still not set**. **Repeat step 3** to set your added language.

4. Click **Relaunch** to restart Chrome and apply your changes.

> **NOTE**
> Refresh your browser and reopen Control Center to apply your changes.

Your Control Center user interface now displays in your preferred language.

1.2.2. Microsoft Edge

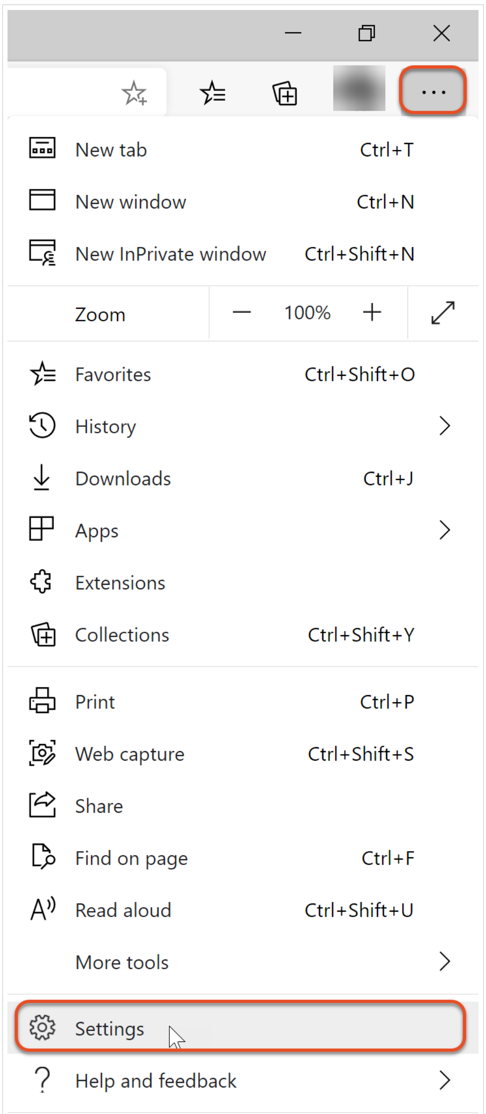
In Microsft Edge, you change your display language under **browser settings**.

If your preferred language is not available, Control Center displays in English by default.

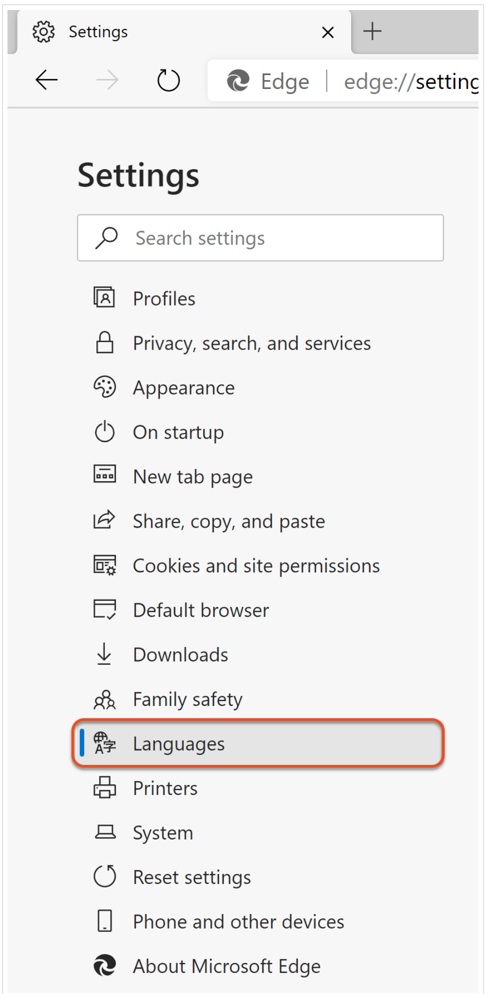
> **NOTE**
> You must sign in to your Microsoft Edge to change your browser's display language.

To change your Control Center display language in Microsoft Edge, do the following:

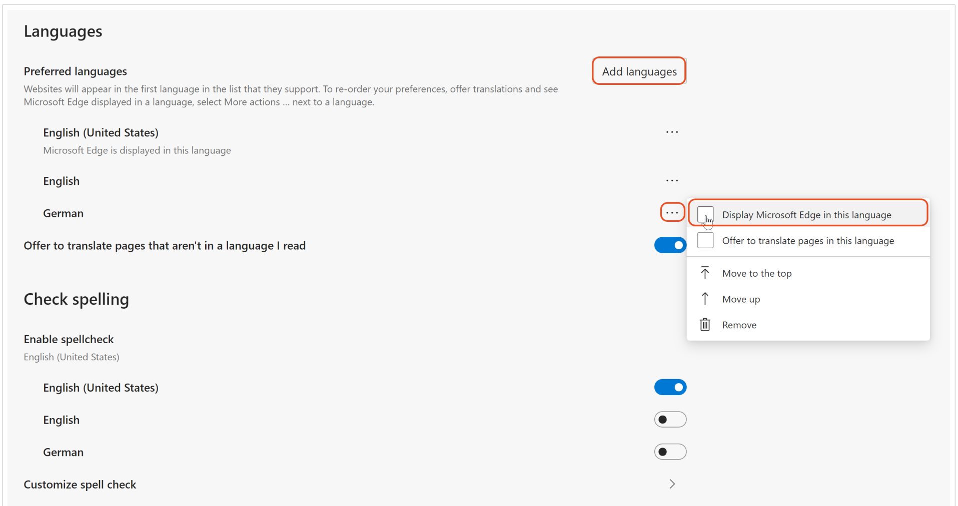
1. Go to **Settings and more** (··· or **Alt+F**) > **Settings**.



2. Click **Languages**.



3. Next to your preferred language, click (···) and choose **Display Microsoft Edge in this language**.



If your preferred language is not on your list, click **Add languages**. Select your language from the dropdown list. Click **Add**.

4. Click **Restart** to apply your language change.

> **NOTE**
> Refresh or reload your already opened tabs containing Control Center to apply your change.

Your Control Center user interface now displays in your preferred language.

1.2.3. Mozilla Firefox

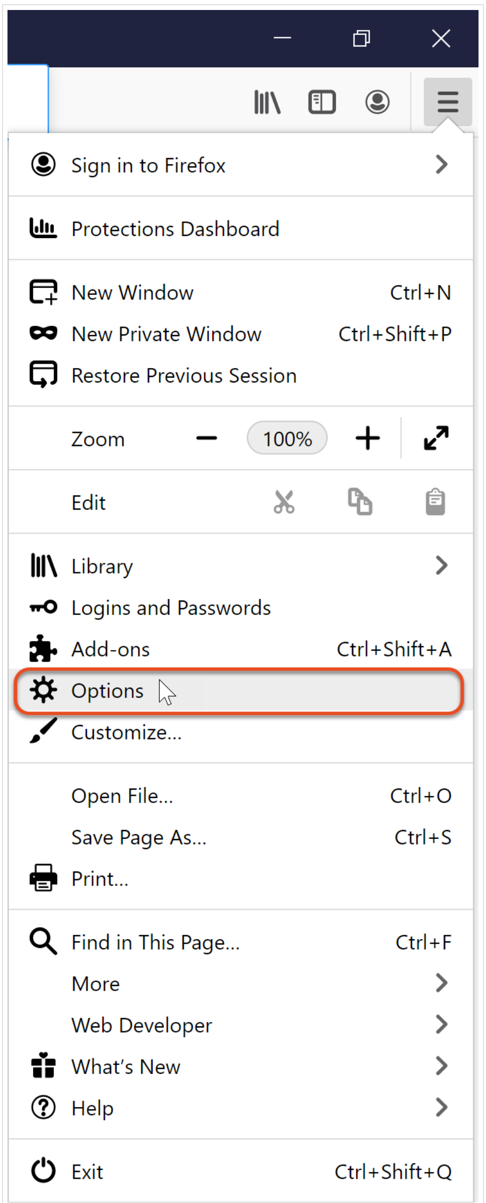
In Firefox, you change your display language for multilingual web applications and pages under **browser options**.

If your preferred language is not available, Control Center displays in English by default.

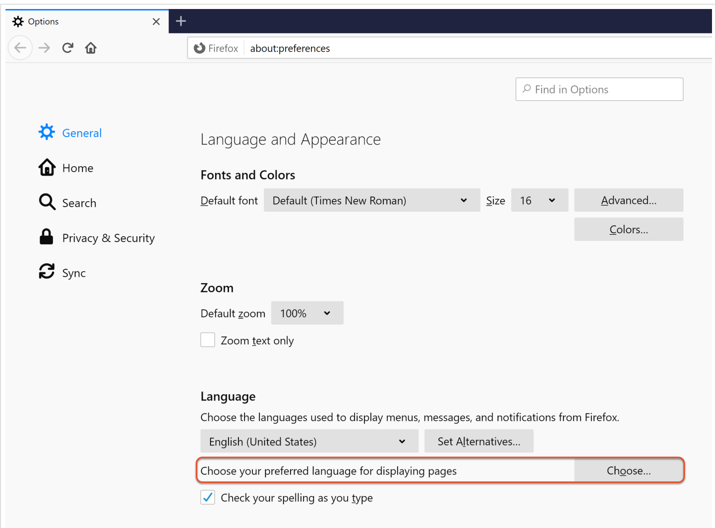
> **NOTE**
> Firefox also allows you to only change your display language for your Firefox interface. This method does not affect your Control Center display language.

To change your Control Center display language in Mozilla Firefox, do the following:

1. On your top right, click **menu** (≡) > **Options**.

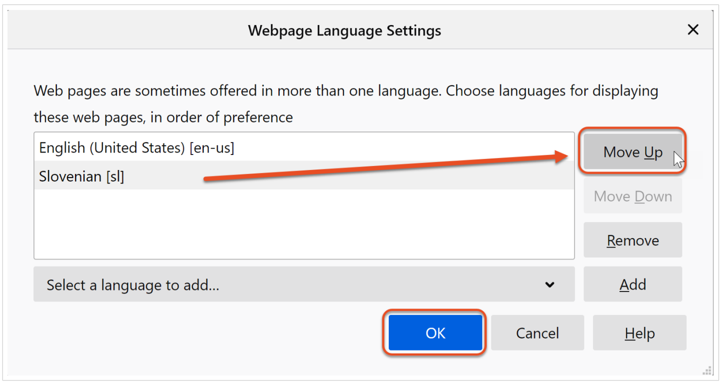


2. Scroll down to **Language and Appearance** > **Language**.



3. Next to **Choose your preferred language for displaying pages**, click **Choose...**.

4. Change the order of your webpage display languages. **Place your preferred language at the top of your list**.



If your preferred language is not on your list, click **Select a language to add...**. Select your preferred language from the drop-down menu and click **Add**. Your new language is added at the top of your list. Apps and websites display in the language listed at the top of your list (if the translation is available).

> **NOTE**
> Refresh or reload your already opened tabs containing Control Center to apply your change.

5. Click **OK**.

Your Control Center user interface now displays in your preferred language.

2. On-Premises Installation

If you use NiceLabel Label Management System and you want to install Control Center on-premises, carefully follow our Control Center 10 On-Premises Installation and Activation Guide.

Whether you need a centralized stand-alone labeling system or large-scale labeling deployments, you can adapt your Control Center installation work with your existing IT system:

- Simple installation on a single computer
  - Installing on a single clean computer.
  - Installing on a computer that hosts the SQL Server.
- Advanced installation where your Control Center and its database run on separate machines:
  - Installing with database on a stand-alone SQL server.
  - Installing with database in a failover cluster.
  - Installing with cloud databases.

To share your Applications with Printer Operators, install Web Printing.

IMPORTANT

When you complete your installation, activate your product.

3. Documents and Workflows

Control Center includes **Documents**, a centralized storage location for your label templates, applications, and related files.

In Control Center you can:

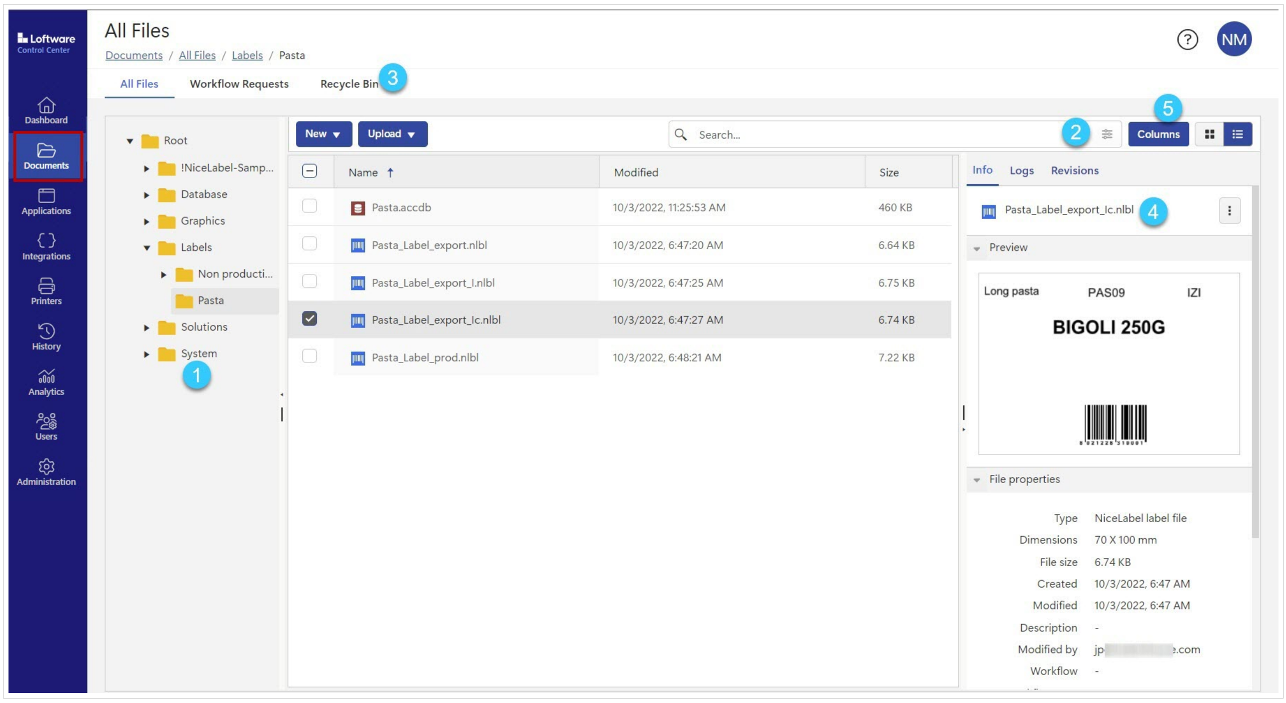
- Manage your **Documents** storage content.
- Manage folder permissions.
- Manage workflows.

3.1. Documents

Documents in Control Center is web-based shared storage for your label files, solutions, graphics, and other files. **Documents** works like Google Drive or similar platforms where you can inspect and manage your folders and files and set permissions for users and groups:

- Manage workflows
- Manage revision control system
- Create label reports
- Compare label files

You can store all types of files in **Documents**, not just NiceLabel file types.



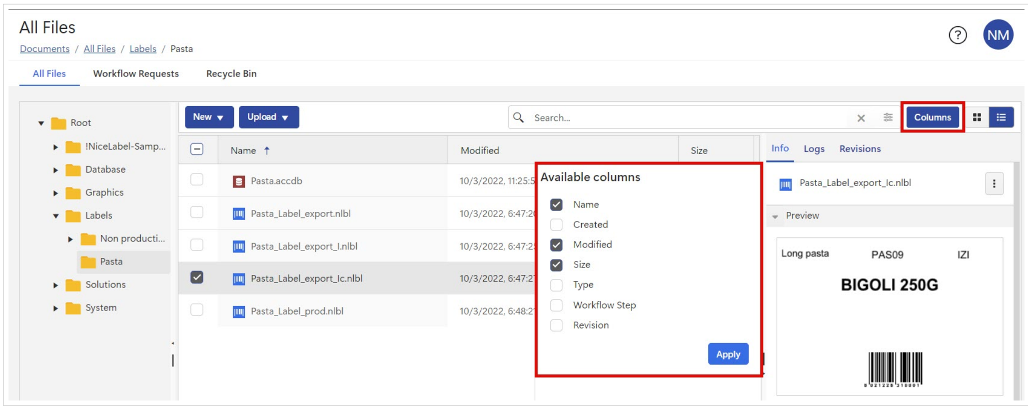
1. Folder list (tree view)
2. Search options
3. Main tabs
4. Document properties and preview pane
5. Columns selection

> **NOTE**
> Options availability depends on your Control Center edition and user rights set in Access Roles.

In **Documents**, you can:

- Search for files and label data.
- Preview your labels, graphics, and PDF files.
- Move files and folders.
- View file properties.
- Upload and download files.
- Open files using WebDAV or HTTP syntax.
- Access the database files in your Document Storage from Web Printing.
- Manage file permissions.

The default **Documents** view shows three columns: **Name**, **Modified**, and **Size**. To add or remove columns, click the **Columns** button, then select or deselect available columns and click **Apply**.



3.1.1. Managing Files and Folders in Documents

You can manage files and folders in **Documents** in a similar way as in Google Drive or other web based file sharing applications. You can use buttons, context menus (by right-clicking on files or folders), and keyboard shortcuts. Context are the most effective way to manage your files. Context menus have dynamic content, based on the file types and user rights.

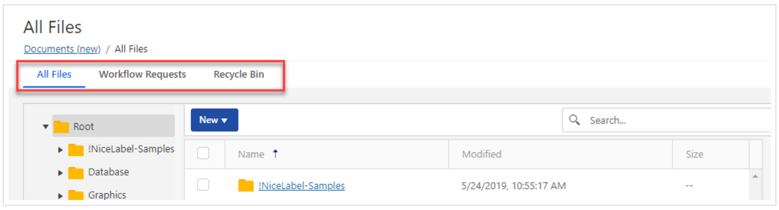
In **Documents**, you can:

- Cut/Copy/Paste files and folders.
- Upload, download, and delete files and folders.
- Preview your label files, images, and PDF files. Label previews allow you to enter variable values.
- Search by different file or folder properties.
- View file history and revisions
- Manage deleted files.
- Manage workflows.
- Compare label files and revisions.

Right-click on items to access options. You can also use keyboard shortcuts.

Tabs, Buttons, and Thumbnails

At the top of the page, there are three main tabs:



- **All Files** is the default and main page where you manage your files and folders.
- Upload, download, and delete files and folders.
- Preview your label files, images, and PDF files. Label previews allow you to enter variable values.

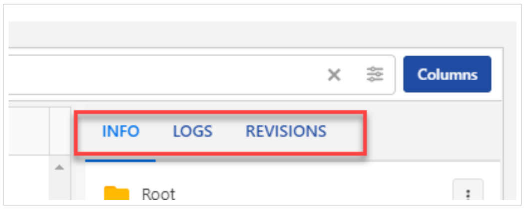
NOTE

You must be a member of the Administration access role to manage files in **Recycle Bin**.

IMPORTANT

When you delete your files or folders from the **Recycle Bin**, you can't restore them anymore. Deleting files and folders from **Recycle Bin** is permanent and includes also deleting all related revisions and logs.

Context menus change if you enable additional features like revision control, workflows, and access permissions.



- **Info** shows file or folder properties, workflow and revision data, and a small file preview.
  If you want to check a bigger preview or a PDF file preview, click the three dots at your selected file, then click **Preview...**. In the **Preview** window you can zoom in or zoom out your label, image, or PDF file.
  Label Preview enables you to test the preview with variable values.
  The **Preview** option is not supported for files other than labels, graphics, and PDFs. But you can download the files and open them locally.

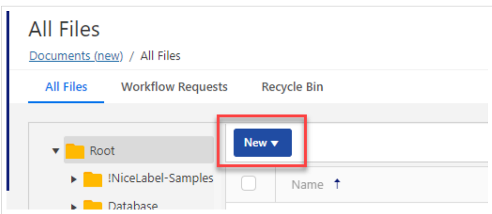
- **Logs** thumbnail enables you to check your detailed file and folder events:
  - Create
  - Rename
  - Move
  - Check in/Check out/Discard checkout

  Logs thumbnail shows the last 5 events. You can check all events if you click **See full log**.

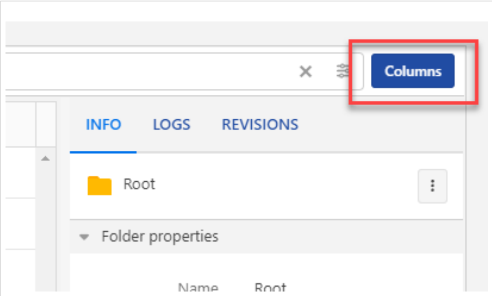
- **Revisions** thumbnail shows the last 5 revisions of a selected file and options to download the file, preview the file and create a **Label report**. To see all details of the current and previous revisions, click the **Full revision history** link. **Revision History** window opens. You can:
  - Create a **Label report**.
  - Revert your files to previous versions.
  - Download files.
  - Compare revisions.

Buttons:

- **New** (in the **My Files** tab).
  You can create folders or upload folders and files in the folder that is selected in a tree view.

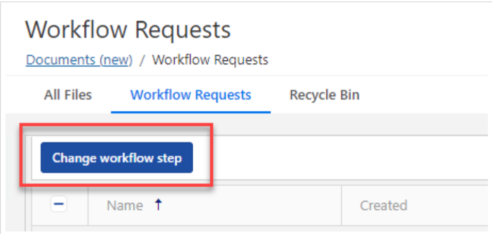


- **Columns** (in all three tabs):



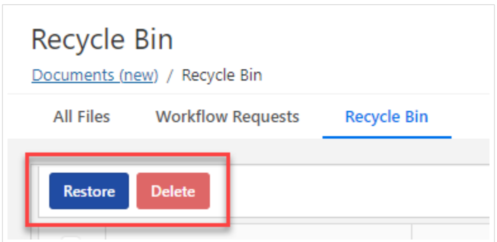
Add or remove columns to modify your view.

- **Change workflow step** (in the **Workflow Requests** tab):



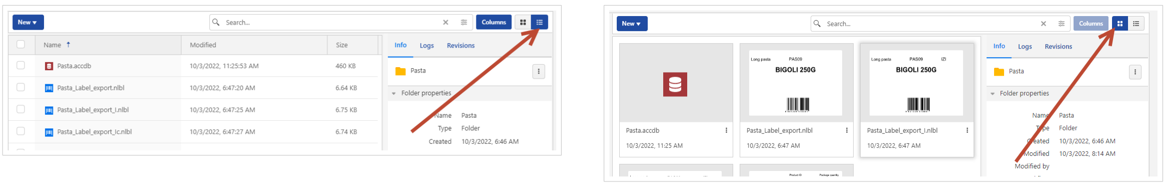
You can change workflow steps to single or multiple selected files or folders.

- **Restore** and **Delete** in **Recycle Bin** tab:



When you remove your files and folders, they move to **Recycle Bin** tab where you can restore or permanently delete them. You must be a member of the Administration access role to manage files in **Recycle Bin**.

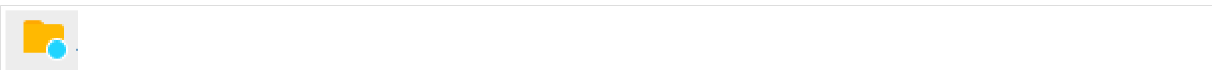
- Icons in the top right corner to switch between the card and list view of your files and folders.



The default list view and thumbnail view

Icons modifiers

- Cyan dot:



Workflow is set to folder or file.

- Blue dot with arrow down:

The file is checked out.

- Lock symbol:

You have no permissions on the folder.

- Decommission symbol:

The file is decommissioned.

Using Context menus

By right-clicking your folders you get the additional options to:

- Upload files and folders. (You can also upload your files or folders by dragging and dropping them into the pane next to the tree view.)
- Cut, copy, and paste files and folders.
- Change folder permissions.
- Create Label Reports.
- Remove files and folders. You can later restore removed folders in the **Recycle Bin** tab.

By right-clicking your files, you get the options to:

- Rename your files.
- Download files. You can download only one file at a time.
- Copy, cut, and paste your files.
- Remove your files. You can restore removed files in **Recycle Bin** tab.

> **NOTE**
> When pasting files or folders with the same name, files or folders will not be replaced, but names will get suffixes " (01)", " (02)", etc.

By right-clicking your solution files you get the additional options to:

- Edit your solution in your NiceLabel Desktop Designer application.
- Run your solution in your NiceLabel Desktop Designer application.
- Create Label reports.

NOTE
NiceLabel V6 form files (.xff) are not supported anymore. Control Center treats V6 form files as unknown formats. You can still open, edit V6, and run form files in the latest Designer PowerForms.

By right-clicking your label files, you get the additional options to:

- Edit your labels on your Desktop Designer.
- Print from Desktop. NiceLabel Print application opens where you can print labels.
- Preview your labels.
- Compare your labels.
- Create Label reports.

NOTE
NiceLabel V6 label files (.lbl) are not supported anymore. Control Center treats V6 label files as unknown formats. You can still open, edit, and print V6 label files in the latest Desktop Designer.

Context menus change if you enable additional features like revision control, workflows, and access permissions.

Control Center returns to your last open folder when you close and re-open **Documents**.

Keyboard shortcuts in Documents

Keyboard shortcuts are mostly the same as in other Windows applications or Google Docs:

Action	Press
Select all (Selects the first 50 items unless you scroll down to display more).	Ctrl+A
Copy	Ctrl+C
Paste	Ctrl+V
Cut	Ctrl+X

Action	Press
Move selection up	↑
Move selection down	↓
Add an upper item to the selection Remove an upper item from the selection	Shift+↑
Add a lower item to the selection Remove a lower item from the selection	Shift+↓
Deselect all items	Esc
Select a range of items	Drag mouse
Delete file or folder	Delete
Rename	F2
Edit label	Enter

3.1.2. Searching for files and label data

Searching in **Documents** works like searching in your file explorer. You can search the folder that is currently opened in the main pane. If you want to search the whole **Documents**, go to the **Root** folder.

Partial search is enabled by default. For example, when you enter the word *lab*, your result includes *label* and *laboratory*. To disable partial search, enter your keyword inside quotes, for example, *"lab"*.

NOTE
You can search only files and folders that you can access.

Advanced search for label content includes:

- File name.
- Workflow step.
- Description that you entered when designing labels in **Label Properties** > **Info**.
- Printer name.
- Object name that you entered when designing labels in Object Properties > **General** tab.
- Object content, for example, fixed texts.
- Variable name
- Variable default value (**Provisional value** in variable properties).

To open the Advanced search window, click the icon right to the **Search** field.

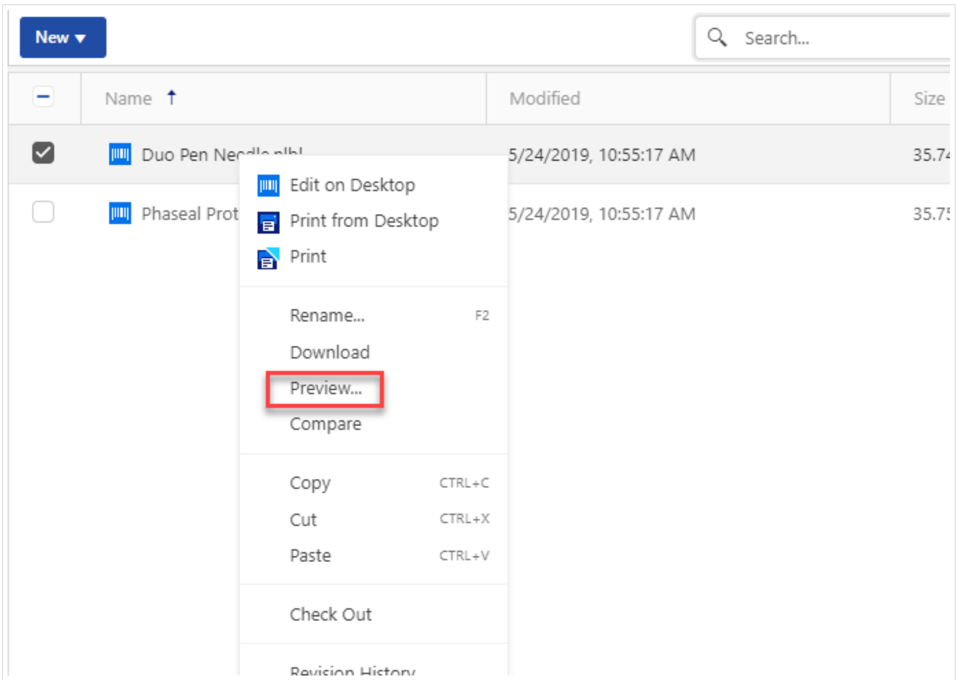
3.1.3. Previewing Label Files

You can preview your label files directly in the **Documents** without opening your labels in Desktop Designer.

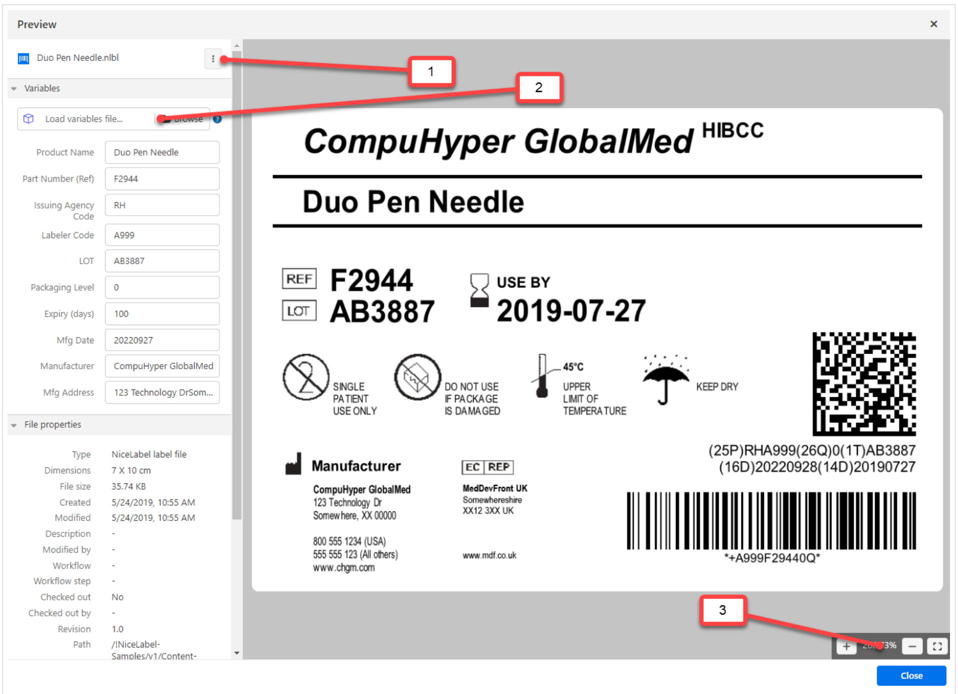
To see your label preview:

1. Right-click your label file and click **Preview** in the context menu.

   NOTE
   You can't preview solutions (.nsln files).



2. The preview opens in an embedded window.



1. By clicking this icon you can edit, print, or download your label file.
2. You can browse for the sample text file containing variable data (name:value pairs).
3. Label preview zoom options with a full-screen button.

> **NOTE**
>
> If you enter the **Initial value** data in your label variable properties, **Variables** values fields shows **Initial value** content.

> **NOTE**
>
> When you select a double-sided label, the preview shows only the front side. To see both sides, right-click the label file, then click **Print** from the context menu. The **Preview and Print** window opens with a print preview of both sides of your label.

Control Center can also preview images and PDF files. Right-click the file, and click **Preview**. You can preview files with extensions .bmp, .png, .jpeg, .gif, .tif, .wmf, .emf, and .pdf.

If you work with file revisions, you can preview files of any revision from the **Revision history** for the selected file.

> **NOTE**
>
> When opening your label preview, you can enter the values for variables and see how they appear when printed. You can also use database values.

NOTE
Control Center generates label previews using the installed printer on your Control Center. If the printer does not exist, Control Center uses a virtual printer instead.

Applying Values From Data Files to Variables

You usually design your label templates with variables that don't have any default value defined. This ensures that no hard-coded values would be used during printing. On the other hand, it makes the label preview and comparison more difficult because you have to provide the values for variables before Control Center generates the label preview. When generating the label preview, you can enter values manually.

You can also provide Control Center with the external data file (a list of variables and their values). Control Center applies the data file for the generating label previews. The data file must provide the *name:value* pairs. If the variable of the same name is not defined in the label, the *name:value* pair is discarded.

NOTE
You can let Control Center find the data file based on the rules defined below, or you can click the folder icon next to the label name/preview and override the defaults with your data file.

Data file structure

You can create your variable data file in XML or delimited structure.

XML structure

You provide your variables within `<Variables />` root element in your XML file. Provided variable names with attribute names and variable values with the element value.

```
<?xml version="1.0" encoding="utf-8"?>
    <Variables>
    <variable name="customer">Pizzeria Manhattan</variable>
    <variable name="country">Belgium</variable>
    <variable name="Lot_nr">478887566</variable>
</Variables>
```

Delimited structure

Create every *name:value* pair in a newline. Variable name is to the left of the equals character (=), variable value is to the right.

```
customer=Pizzeria Manhattan
country=Belgium
Lot_nr=478887566
```

Data file naming convention

The name of the data file can be the same as the name of the label, but using the extension **`.values`**. This private data file allows you to provide different data file for each label.

If you have a label named **`label.nlbl`**, name your data file **`label.values`**.

The other option is to use the same generic data file for all labels. In this case, name the data file **`default.values`**. The *name:value* pairs within will be used for all labels.

NOTE
If both files exist in the same folder, the file **`label.values`** will take precedence over the file **`default.values`**.

Data file location

You can store your data file in any location in the Documents storage.

Example

You stored your label **`pasta.nlbl`** in the folder `/food labels`. The path to your label is `/food labels/pasta.nlbl`.

Control Center searches for your data file in the following order.

1. The private data file in same folder as the label file.

   ### Example

   `/food labels/pasta.values`

2. The private data file in the subfolder SampleValues.

   ### Example

   `/food labelsfolder1/SampleValues/pasta.values`

3. The generic data file in the same folder as the label file.

   ### Example

   `/food labels/default.values`

4. The generic data file in the subfolder SampleValues.

   ### Example

   `/food labels/SampleValues/default.values`

When Control Center finds first available `.values` file, the search stops and the contents of the data file is used for the label preview.

> **NOTE**
> Using the `SampleValues` subfolder is useful when you have a workflow process defined in the label folder, but you do not want the same workflow to govern your data files. In this case, you can store the new version of the data file without going through all workflow steps.

3.1.4. Direct File Access

You can access your files stored in **Documents** directly from your browser. Here is the syntax:

WebDAV syntax:

`\\<server>@8080\DavWWWRoot\folder\label.nlbl`

Secure connection to **Documents**:

`\\<server>@SSL@8080\DavWWWRoot\folder\label.nlbl`

HTTP syntax:

`http://server:8080/folder/label.nlbl`

Secure connection to **Documents**:

`https://server:8080/folder/label.nlbl`

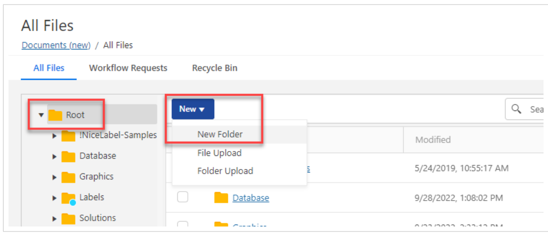
3.1.5. Custom Fonts

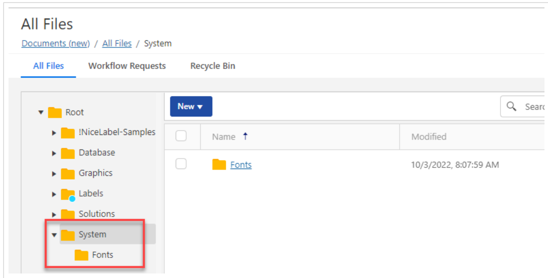
If you use custom fonts for labeling, you can upload and store your fonts in Control Center **Documents**.

The dedicated font storage location in **Documents** is `/System/Fonts`. Control Center uses fonts from `/System/Fonts` for label previews.

To upload your custom fonts to **Documents**:

1. Go to **Documents** > **System** > **Fonts** folder. If the **System** folder doesn't exist yet, create one at the root level and create a **Fonts** subfolder.





2. Upload your folders to the **System/Fonts** folder.

> **NOTE**
> You can't use custom fonts with the **Text on ellipse** effect. Read the Desktop Designer User Guide for more details.

> **NOTE**
> To use custom fonts in the **Rich Text Box** object, make sure you enable the **Alternate rendering** option. Read the Desktop Designer User Guide for more details.

3.2. Folder Permissions

Manage your folder permissions when you want to limit access to certain folders in **Documents** to specific groups of users. You can customize access permissions for folders and subfolders by specific access roles and apply them to all access role members.

> **NOTE**
> For the on-premise Control Center, you must enable Authentication first.
>
> If you don't enable authentication, Control Center applies the default permissions. All users have full permissions on all folders stored in **Documents**.

3.2.1. Folder permissions rules

These rules define folder permissions in **Documents**:

- You set folder permissions for folders together with access roles. Users can be members of multiple roles that affect reading, writing, editing, and deleting permissions in Documents storage.
- All permissions you set for a folder apply both to folder contents and to subfolders.
- Subfolders inherit permissions from parent folders, but you can set custom permissions for each subfolder.

3.2.2. Additional Workflow-related folder permissions rules

When you apply specific workflow processes to your folders, these additional rules apply:

- If you have read-only access to a folder, you can only read the last approved-published revision of your files. If files are not yet approved-published, you can't read them.

  NOTE
  Users in production environments must have read-only access to ensure they see only approved-published revisions.

- When you have full folder access (read and write permissions), you can read all file revisions.

3.2.3. Changing folder permissions

NOTE
You can manage folder permissions if you log on to Control Center as Administrator.

Folder permissions depend on Access Roles.

You can set folder permissions by editing **Access Roles**.

1. Go to the **Users** tab > **Access Roles** and click a role to customize from the list.

   NOTE
   If you want to add a new role, click **Add** and then follow the steps below.

   For more information about adding Access Roles see a dedicated topic.

2. Go to **Permissions for this role** window > **Documents** tab to set general and default permissions for all folders.

3. To set custom permissions for specific folders or subfolders, scroll down to **Custom Document Permissions**.

4. Select a folder and click **Customize**.
   Control Center opens the **Customize permissions** dialogue for the folder you select.

5. Click specific storage and workflow permissions to apply to this role and folder.

   NOTE
   Access role settings you change for this folder apply to all users assigned with this access role.

6. Click **Customize**.
   Permissions you set for this role and folder now display in the **Custom permissions** dialog of **Custom document permissions**.
7. Click **Save** to save your settings and continue working.

Custom folder permissions you set are saved and now apply to all access role members.

3.2.4. Specific access permission options

> **NOTE**
> For On-premise Control Center you need the Enterprise license and Authentication enabled.

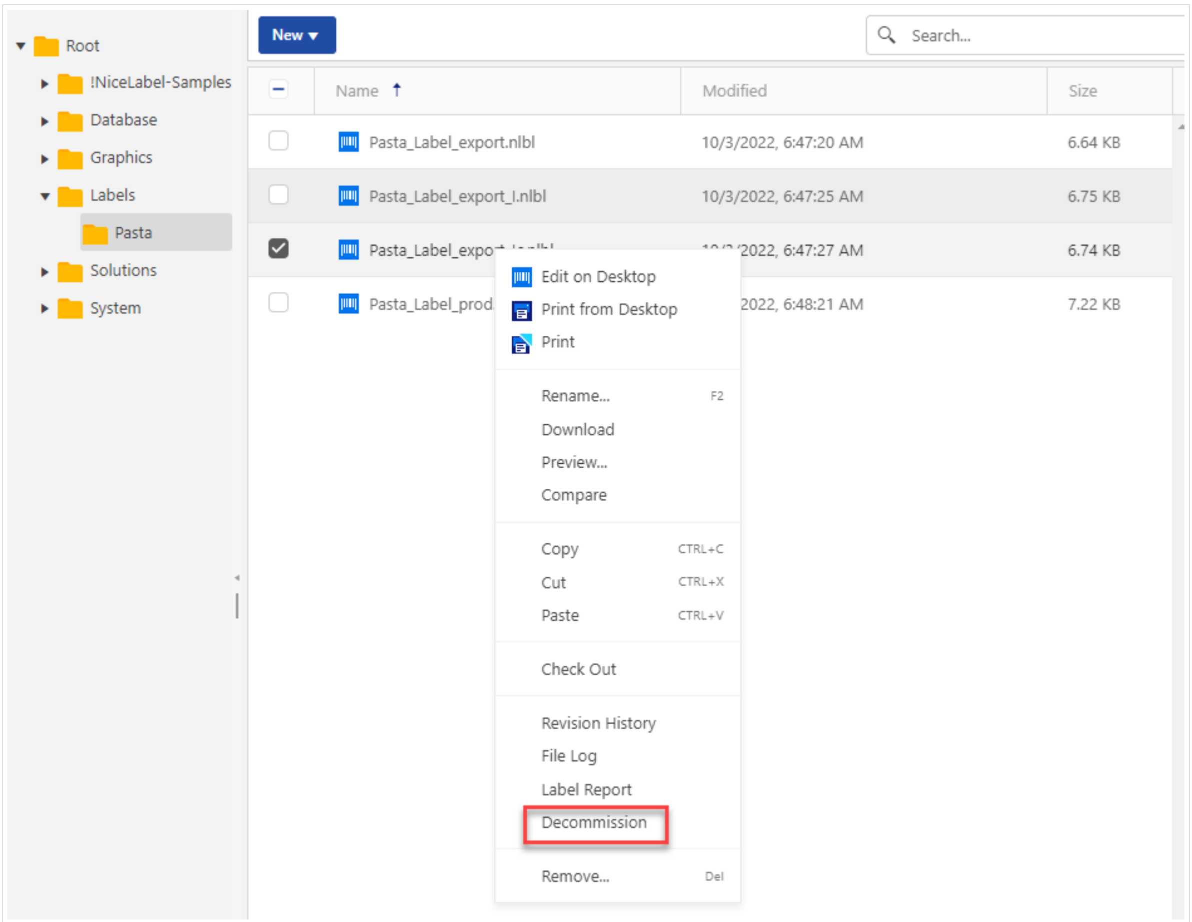
Decommissioning Files

If a published label or solution file becomes obsolete during its life cycle, decommissioning allows you to make the file unavailable for read-only users. Decommissioning makes deleting obsolete files from the Documents storage unnecessary. The Decommissioning Files option just hides the obsolete files and makes it available again using recommissioning.

Decommissioning/Recomisioning is only available if you enable Workflows and Versioning.

To decommission your file in the **Documents** storage:

1. Right-click the file to display the context menu and click **Decommission**. The confirmation window pops up.



2. Click **OK** to continue. The confirmation window opens. Type in the reason why you are decommissioning the file.

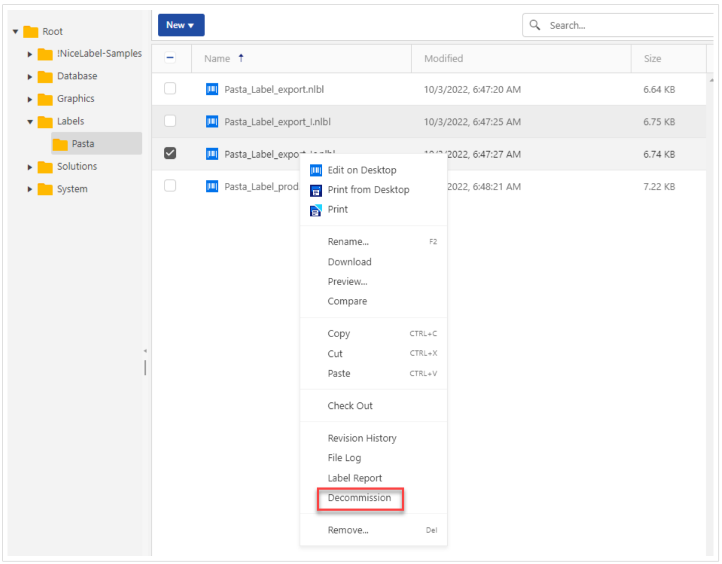
   After you have decommissioned the file, the file icon gets updated: . This icon indicates that the file is no longer visible to the read-only users.

> **NOTE**
> You can decommission files even if they are not currently published. This option is available also for files that are still in the approval process or have been unpublished in the past.

Recommissioning files:

To make the decommissioned files visible again, use recommission option:

1. Right-click the document to display the context menu and click **Recommission**.



2. The confirmation window opens. Type in the reason why you are recommissioning the file. The file is again visible to the members of access roles with read-only privileges.

> **NOTE**
> You can view the decommissioning/recommissioning events and their details in Control Center **History**.

By default, members of Administrator and Approver access roles have permission to decommission files. To allow other access roles to perform decommissioning:

1. Go to **Administration** > **Access Roles**.
2. Select the access role.
3. In **Permissions for this Role** go to the **Documents** tab.
4. In **Default document permissions** > **Workflows** enable or disable **Decommission** / **Recommission files**.

3.2.5. Removing published files

By default, only members of the Administrator role access role can remove published files from Documents storage. Administrators can also allow removing the published files to any other access role.

To grant the selected access role the right to remove published files from Documents storage:

1. Go to **Administration** > **Access Roles**.
2. Select the access role.
3. In **Permissions for this Role** > select **Documents** tab.

4. Under **General Document Permissions (all folders)** enable **Delete published files** .
5. Click **Save** (on the top or bottom of the page) to save your settings and continue working.

> **NOTE**
> You can delete folders that contain published files. If you do not have permission to delete the included files, an error dialog with a list of files that cannot be deleted pops up.

3.3. Label Reports

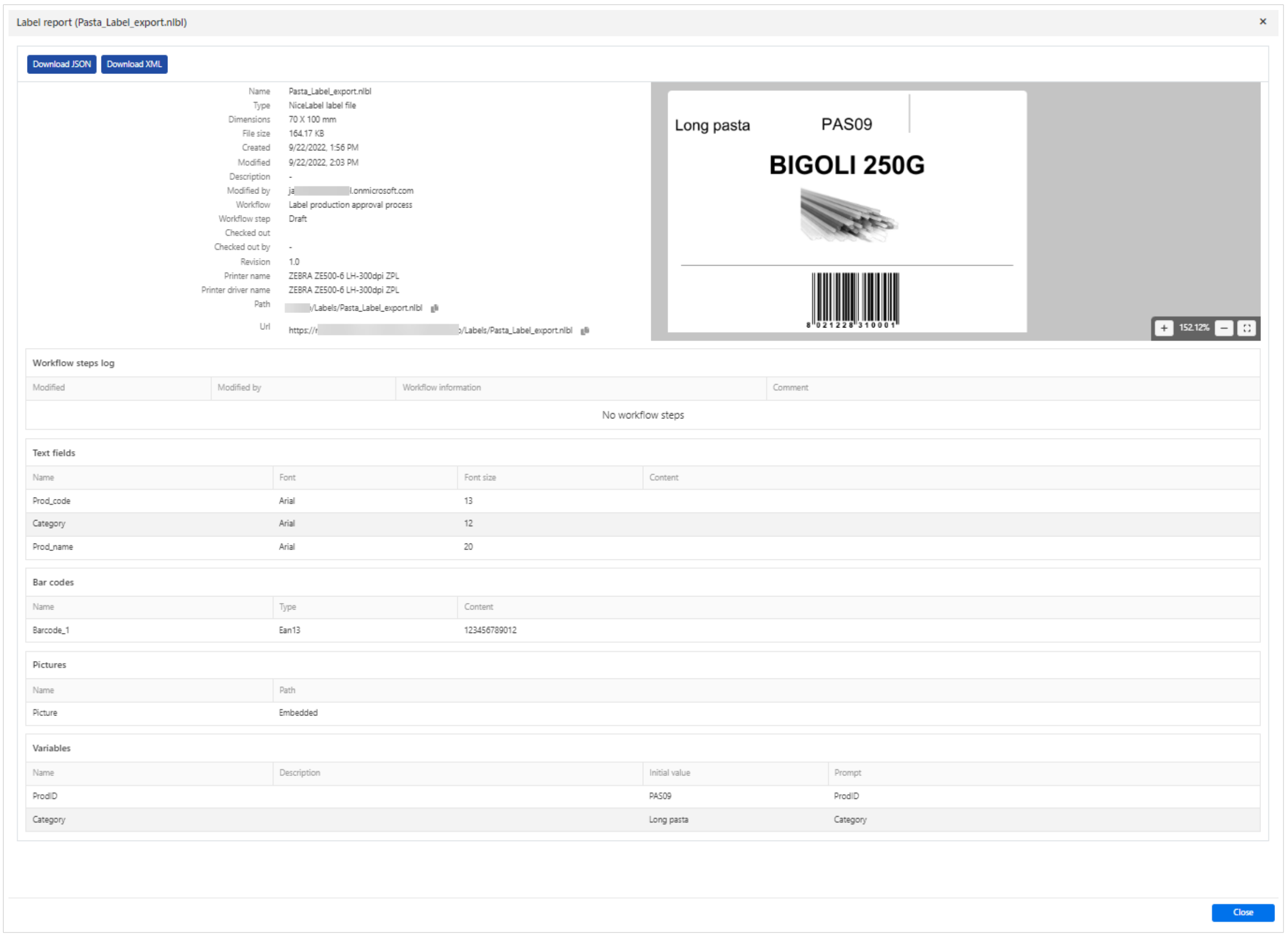
You can use the **Label Report** feature to create a detailed description of the structures and previews of your label templates.

In the **Label Report**, you can see detailed information about your selected label templates. You can generate label reports on the single label template, group of label templates, all your label templates in the selected folder, or on the specific revision of the label files.

Label Report contains:

- Meta-data (name, author, description, printer data)
- Workflow step log (date, user, data, comment)
- Structural information (list of label objects and variables with their contents)
- Label preview

  > **NOTE**
  > Variable values show on label preview only if you provide **Initial value** data on your label design. If there is no initial value, question mark signs show on the label preview.



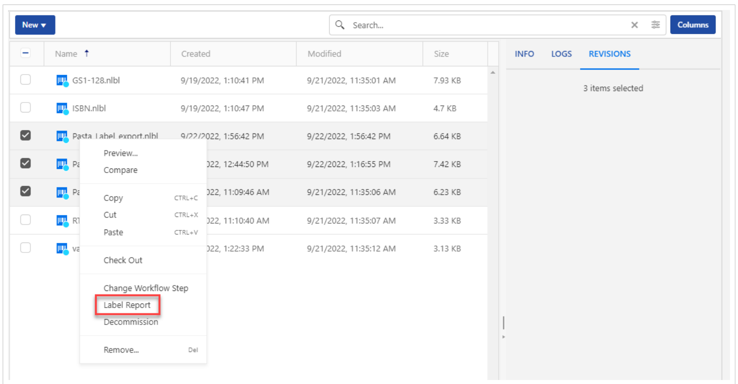
You can use **Label Report** information to build a label catalog (a list of all labels you use in your environment). This helps you to keep track of the number of label templates, their structures, and their intended usage. Before creating a new label template, you can verify your label catalog if a similar label already exists. You can use the existing label template as a master template for your new label.

You can download your label structures in JSON or XML format.

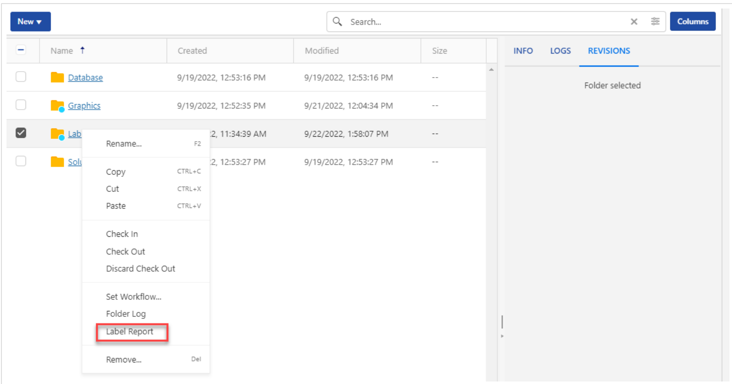
3.3.1. Generating Label Report

You can get your label report:

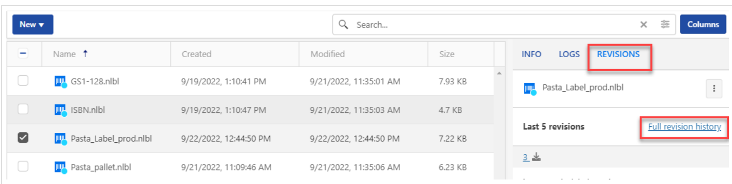
- **On your selected label file(s).** You can select one or more label files by right-clicking on them and select **Label Report**. Label report opens.



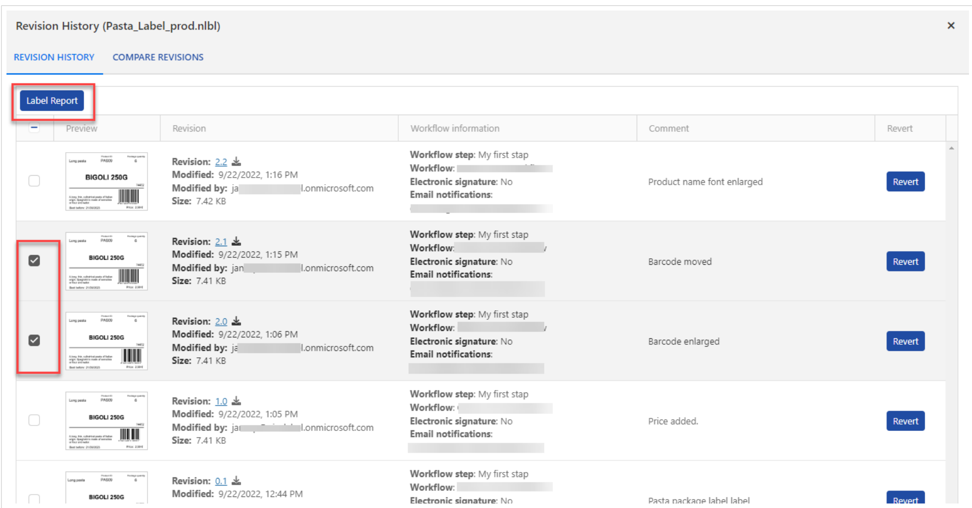
- **In your folder.** Select your folder, then right-click it and select **Label Report**. Label report will be generated for all label files in this folder and subfolders.



- **For a specific revision of your label file.** Select your label file and go to the **Revisions** tab. Click the **Full revision history**.



The **Revision history** window opens. Select your revision(s), then click the **Label Report** button.



> **NOTE**
> Control Center generates label previews using the installed printer on your Control Center server. If the printer does not exist, Control Center uses a virtual printer instead.

> **NOTE**
> If a stored label has **Prevent font replacement** option enabled, label preview becomes unavailable in case of missing fonts. See Desktop Designer User Guide for details.

3.4. Comparing label files

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Compare feature provides previews and a graphical comparison of different label files or different revisions of the same label file.

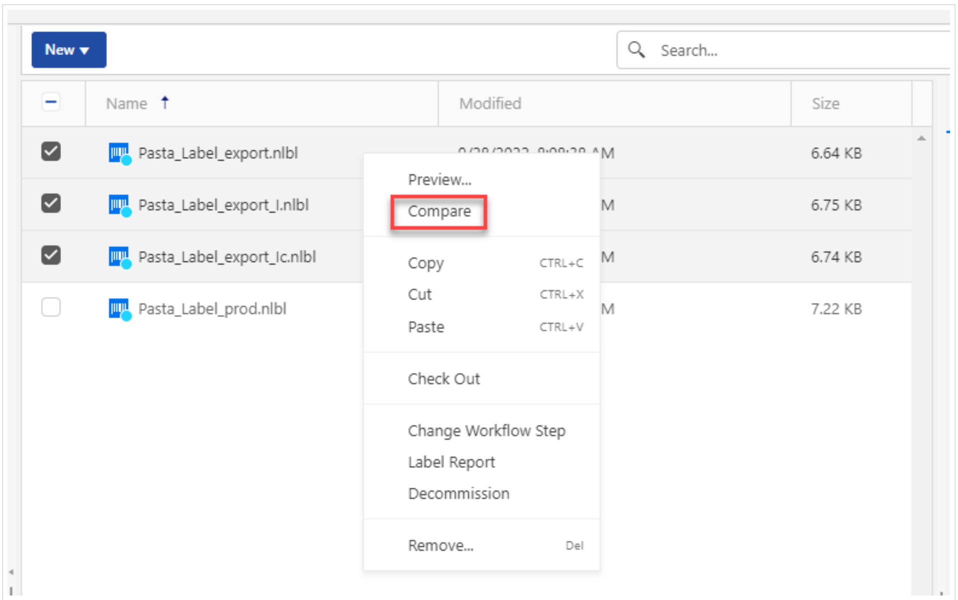
The color coding allows you to spot all differences.

> **NOTE**
> Graphic comparison is available for the label (.NLBL) files and graphics.

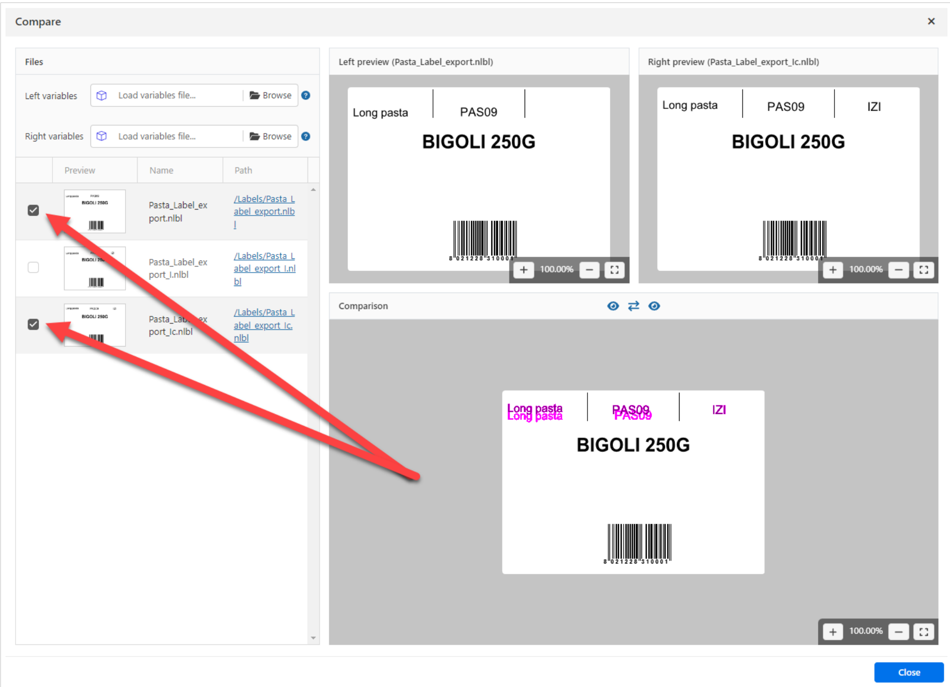
3.4.1. Comparing Different Label Files

To compare different label files, do the following:

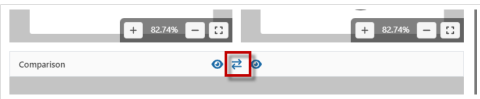
1. Open **Documents** in Control Center and navigate to the folder with labels you want to compare.
2. Select two or more labels in the same folder.
3. Right-click in the file selection pane and select **Compare**.



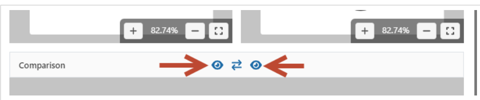
4. Select two label files for comparison. The superimposed image of label differences shows the previews of the two selected labels. Changes in label designs display in color.



By default, dark magenta belongs to the left preview and bright magenta belongs to the right preview. To switch both magenta colors, press the middle icon with two arrows.



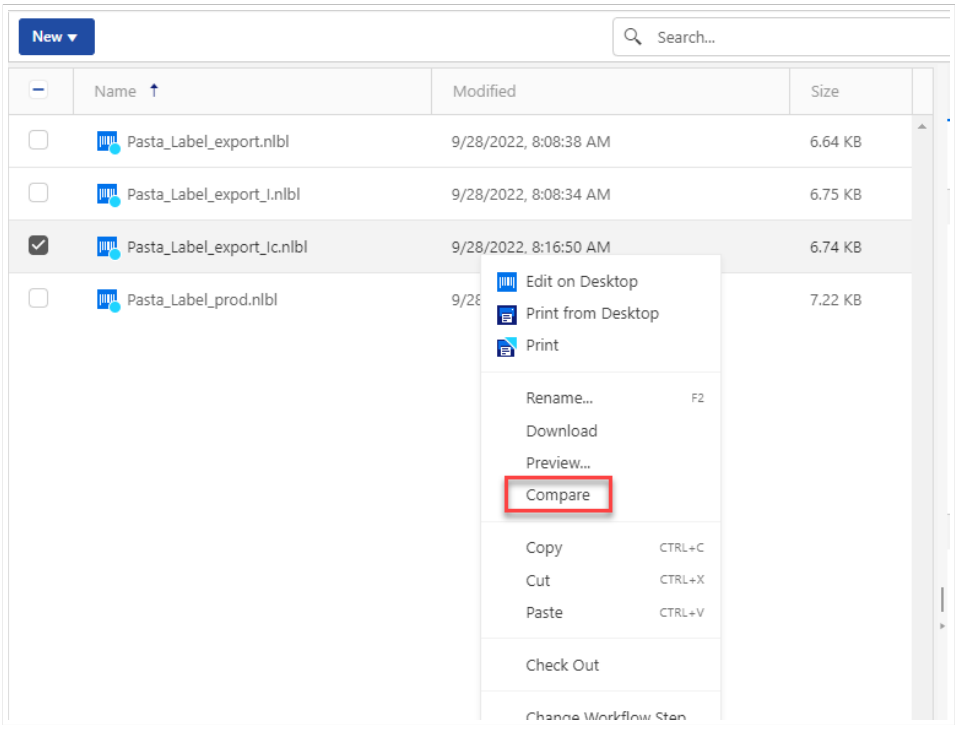
To disable/enable left or right preview in the **Comparison** window, click the eye icons.



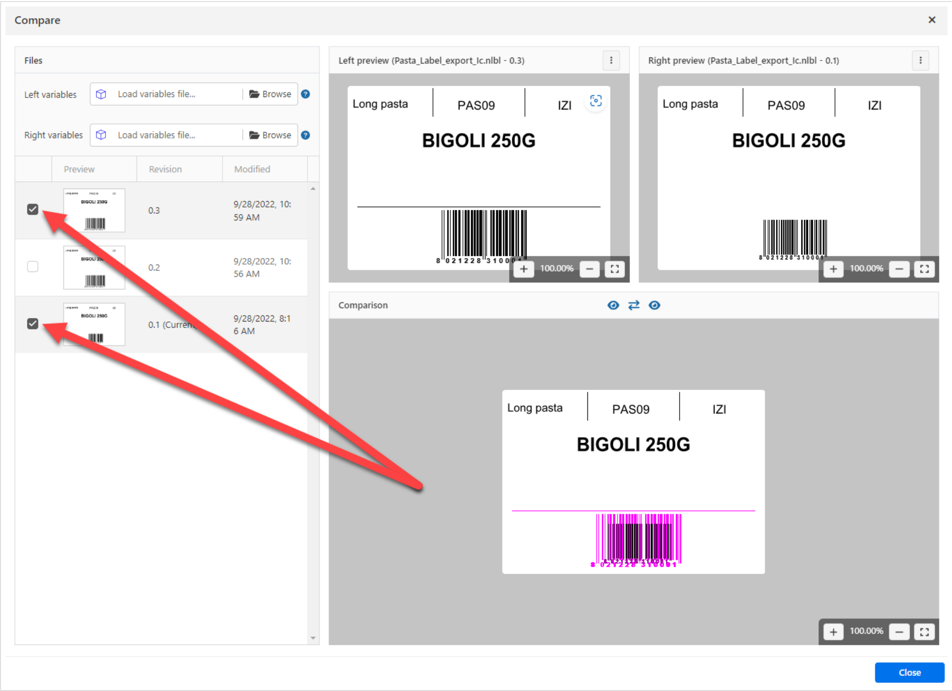
3.4.2. Comparing Revisions of the Same Label File

To compare revisions of the same label file:

1. Right-click the label that has at least two revisions and select **Compare**.



2. Select two revisions for comparison. The superimposed image of label differences shows below the preview of the two selected labels. Changes in label designs display in color.



Applying Values From Data Files to Variables

You usually design your label templates with variables that don't have any default value defined. This ensures that no hard-coded values would be used during printing. On the other hand, it makes the label preview and comparison more difficult because you have to provide the values for variables before Control Center generates the label preview. When generating the label preview, you can enter values manually.

You can also provide Control Center with the external data file (a list of variables and their values). Control Center applies the data file for the generating label previews. The data file must provide the *name:value* pairs. If the variable of the same name is not defined in the label, the *name:value* pair is discarded.

> **NOTE**
> You can let Control Center find the data file based on the rules defined below, or you can click the folder icon next to the label name/preview and override the defaults with your data file.

Data file structure

You can create your variable data file in XML or delimited structure.

XML structure

You provide your variables within **`<Variables />`** root element in your XML file. Provided variable names with attribute names and variable values with the element value.

```
<?xml version="1.0" encoding="utf-8"?>
    <Variables>
    <variable name="customer">Pizzeria Manhattan</variable>
    <variable name="country">Belgium</variable>
    <variable name="Lot_nr">478887566</variable>
</Variables>
```

Delimited structure

Create every *name:value* pair in a newline. Variable name is to the left of the equals character (=), variable value is to the right.

```
customer=Pizzeria Manhattan
country=Belgium
Lot_nr=478887566
```

Data file naming convention

The name of the data file can be the same as the name of the label, but using the extension **`.values`**. This private data file allows you to provide different data file for each label.

If you have a label named **`label.nlbl`**, name your data file **`label.values`**.

The other option is to use the same generic data file for all labels. In this case, name the data file **`default.values`**. The *name:value* pairs within will be used for all labels.

> **NOTE**
> If both files exist in the same folder, the file **`label.values`** will take precedence over the file **`default.values`**.

Data file location

You can store your data file in any location in the Documents storage.

> **Example**
>
> You stored your label **`pasta.nlbl`** in the folder `/food labels`. The path to your label is `/food labels/pasta.nlbl`.

Control Center searches for your data file in the following order.

1. The private data file in same folder as the label file.

   Example

   `/food labels/pasta.values`

2. The private data file in the subfolder SampleValues.

   Example

   `/food labelsfolder1/SampleValues/pasta.values`

3. The generic data file in the same folder as the label file.

   Example

   `/food labels/default.values`

4. The generic data file in the subfolder SampleValues.

   Example

   `/food labels/SampleValues/default.values`

When Control Center finds first available **`.values`** file, the search stops and the contents of the data file is used for the label preview.

NOTE

Using the `SampleValues` subfolder is useful when you have a workflow process defined in the label folder, but you do not want the same workflow to govern your data files. In this case, you can store the new version of the data file without going through all workflow steps.

3.5. Versioning (Revision Control System)

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Documents includes a Revision Control System for versioning your labels, images, and other related files. Your Revision Control System stores a history log of your files and allows you to:

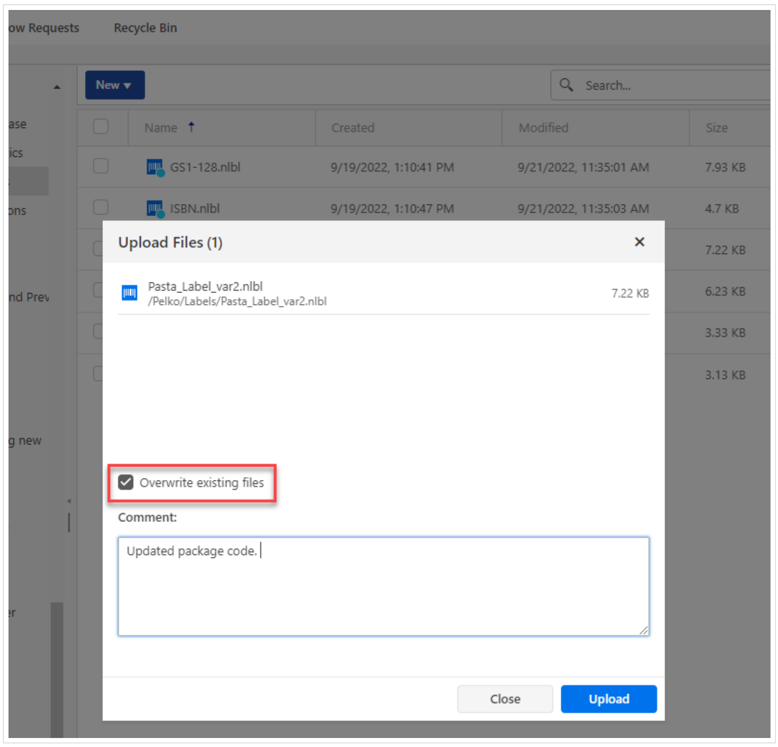
- Edit all revisions (versions) of your files.
- Track changes made to your files.
- Revert to the previous revisions.

When you edit a label file from **Documents** in Desktop Designer and then save it, Control Center generates a new file revision (version). Control Center keeps all previous file revisions so you can revert your label files to older versions.

NOTE

To keep all file versions available, enable Versioning for your Control Center first. Go to the **Administration** tab > **Versioning and Workflows** > **Document Storage Settings** section.

You can also create a new file with the same name and upload it to **Documents**. In this case, enable **Overwrite existing files** checkbox. Revision number increases in this case.



NOTE

By default, label files in **Documents** are locked for editing. You can open your label files in read-only mode. To edit your label files, you must check them out in **Documents**. or in Desktop Designer.

3.5.1. Working with Revisions

The revision control system ensures transparency when reviewing your labels, solutions, or other labeling assets in the **Documents**. After each document check-in, your Control Center stores information about workflow promotions, check-ins, changes, and user comments. Control Center also keeps track of who and when performed all the actions.

When checking in your files, you can choose between minor and major file versions.

- **Minor revisions** mark smaller user edits when you work on drafts apply smaller corrections.
  If you check out your document, then edit your document, then check the document in without promoting it to the next workflow step, Control Center creates a new minor version by default.
- **Major revisions** mark significant changes in your documents made before a label or solution designer assigns files to the approvers. Typically, new major revisions correspond with workflow step promotions.
  The administrator can choose which workflow step marks a change in your documents as a new major revision.

3.5.2. Checking out files or folders

Before you can start editing your files in **Documents**. you have to check them out. The checked-out files are marked and locked for editing for any other user. All other users can see the current revision of the files. You can check out files in Designer or in Control Center.

To allow other users to make changes to the files, you have to check in files or discard check out status. The methods are available in the Designer and Control Center user interface.

To check out your files or folders in Control Center, right-click your selected files or folder, then select **Check Out** in the context menu.

To check out your files or folders in Designer, click the **Check Out** icon in **Document Storage** tab.

WARNING

If you click **Discard Checkout**, you irreversibly lose all changes that any of the users did after checking out files. To keep the changes, check in your files or folders.

In the **Info** panel you can see who checked out the file, so you can ask them to save their work before you discard check out.

3.5.3. Checking in files or folders

When you are finished editing your files and want to make them available to other users, you must check in your files or folders. You can check in files in Desktop Designer and Control Center.

To check in your files or folders in Control Center, right-click your selected files or folder, then select **Check In** in the context menu.

To check in your files or folders in Desktop Designer, click **Check In** icon in the **Document Storage** tab.

WARNING

If your solutions use dynamic values (**Remember the last used value** option), the dynamic variables file (.dvv) must be checked out. If .dvv file is checked in, an error will occur when printing, and labels will not print.

Instead of using dynamic values, use global variables or **Save Variable Data** / **Load Variable Data** actions in your solutions.

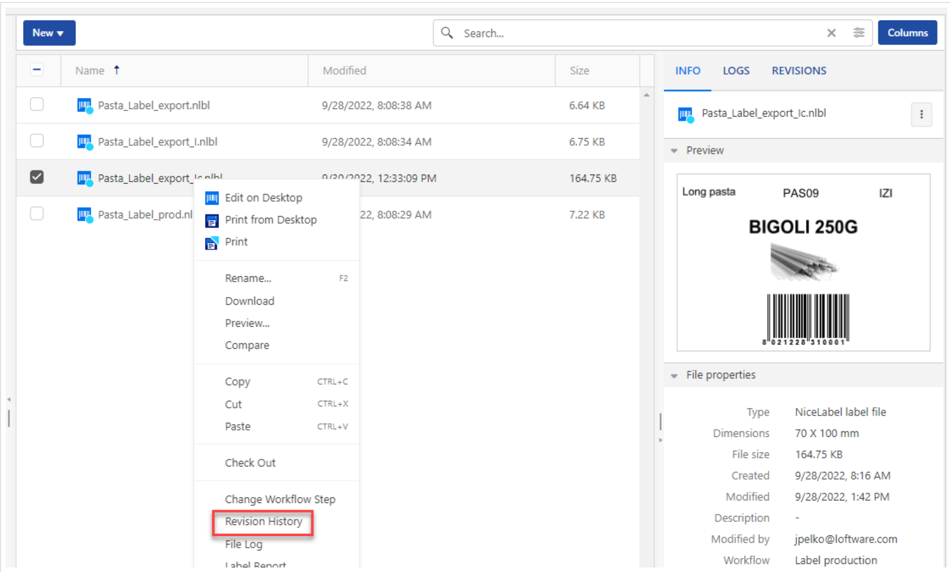
When you check in your file, the file revision increments, and your entered comment is logged.

3.5.4. File Revision history

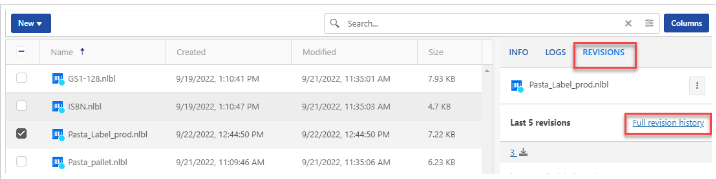
Every change to your files are logged in Control Center database. The file revision history includes all events occurring for files, including revisions and workflow changes.

To see all activities for the file, do the following.

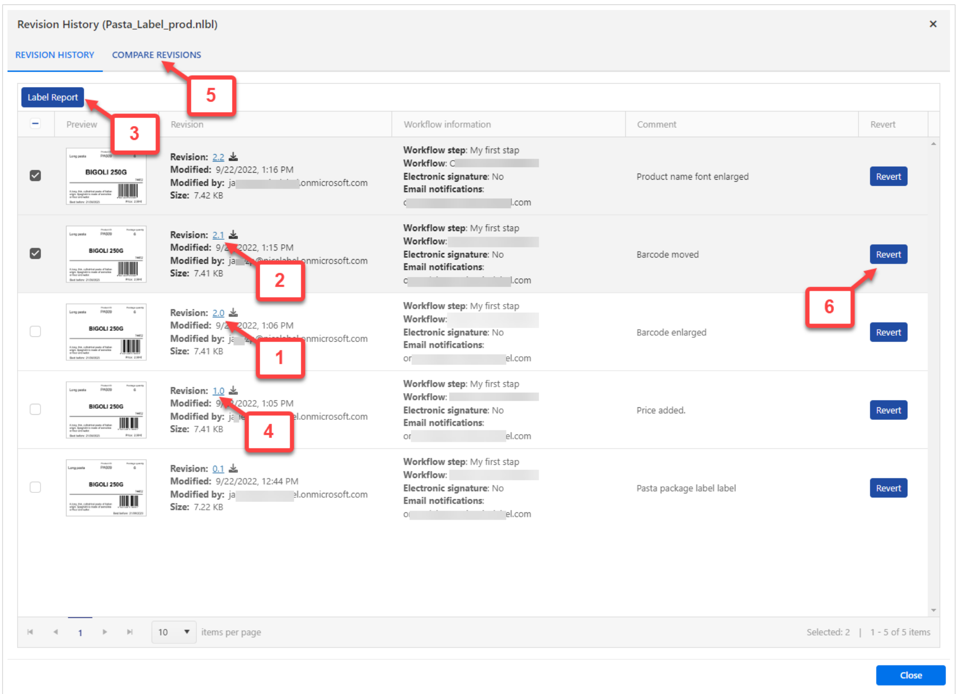
1. Right-click your file, then click **Revision History** in the context menu.

   You can also select your file, then go to the **Revisions** tab and click **Full revision history**.

2. The **Revision history** window with all details opens.



1. Major revision number.
2. Minor revision number.
3. Create label report. A label structure report opens in a new browser tab Label report includes meta information about your label including the graphical preview, and a list of all label objects and variables. You can also download label report as XML file.
4. Download the label file. You can download local copies of all existing label revisions from **Documents** to your computer. Open your downloaded copies in Desktop Designer and use them to create new revisions.
5. Compare all revisions. You can graphically compare the changes from one document revision to another.
6. Revert the current revision to the selected revision. You can revert files to any of their previous revisions. This action copies the selected file revision and adds it as the latest (current) revision.

> **NOTE**
> Reverting to label revision is reserved for access roles with Read/Write permissions for the current folder. See how to set access permissions for folders in the section Managing folder permissions.

You can also preview any revision of your label file. Use this feature to avoid opening labels in Desktop Designer.

3.5.5. Requesting Label Revisions

In some cases, you might want to use some older label revisions in your Automation or PowerForms solutions.

> **NOTE**
> You can open and edit files depending on your Access Role. Access Roles are based on user permissions.

Requesting HEAD Revision (Latest Available)

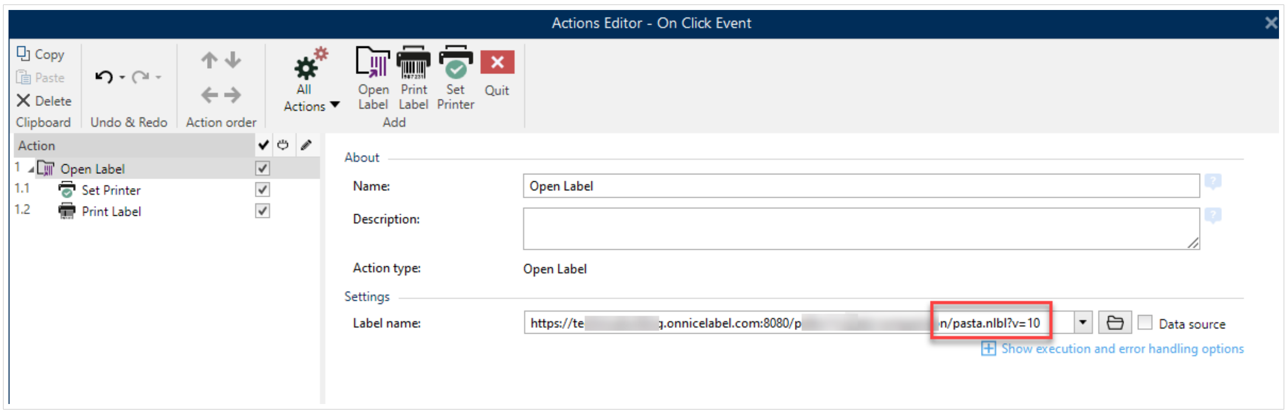
If you request a file without specifying any revision, the latest available revision will be used in your printing solution.

- If you have read/write access to the files, you can open the files with the last revision.
- If you have read-only access to the file, you get:
  - The last revision (if the folder doesn't have any workflow enabled).
  - The last approved-published revision (if the folder is assigned to the workflow process).

Requesting Specific Revision

To request a specific revision in your printing solution, provide the revision as a parameter after the file name. For example, to request revision 10 of the file **`pasta.nlbl`**, use the syntax:

```
pasta.nlbl?v=10
```



> **WARNING**
> Users without permission to use older revisions will get an error message when running solutions with older revisions.

Requesting the Last Published Revision

To request a specific revision, provide it as a parameter after the file name.

To request the last published revision of file **`pasta.nlbl`**, use the syntax:

```
pasta.nlbl?v=P
```

If no file revision is approved, your solution will show the error message.

3.6. Workflows

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Control Center allows you to enable workflows along with Section 3.5, "Versioning (Revision Control System)". Workflows let you set additional quality controls in your label printing process. Workflows include sequences of connected steps that follow workflow logic. Every workflow has at least a starting step and a final step. There might be one or more possible promotion steps from the current step.

IMPORTANT

You must enable authentication in Control Center to use workflows.

Using workflows, you can track the status of your label files.

When you include folders in your workflow process, the revisions users see when they request label files depend on their access role privileges. For more information, read Managing folder permissions.

3.6.1. Approval Process

IMPORTANT

Enable authentication in Control Center to use the approval process.

Approval steps depend on the type of workflows you use. Control Center sets the hierarchy of workflow steps for each default workflow and which steps are permitted next.

Files you upload to Document Storage in workflow-enabled folders start on the **Draft** step. When authors complete their initial layout and label contents, they move the file to the next step: **Request approval**. When configured, approvers receive email notifications for files they're assigned to review and approve. Approvers can **Reject** files (this notifies Authors to make changes) or approve them. Approval moves the files to the **Approved** step. Each workflow defines available steps and the transitions from one step to another.

NOTE

To successfully send notification emails, your email server must be whitelisted.

If your email server is not whitelisted, the following error occurs:

Value cannot be null. (Parameter 'address')

Moving files to the Approved step can require users to provide login credentials again. Re-authenticating this way confirms the correct users are still logged in. The Two-step label production approval process includes this re-authentication by default.

The **Approved** step (or **Published** step in some workflows) is the final state for files. You cannot use labels in production until they are approved and published. Operator role members (or any users with print-only permissions) can only see files on the **Approved**/**Published** step. Authors can work on new revisions of label files, but these changes are not visible to print-only users until their revisions reach the **Approved** state.

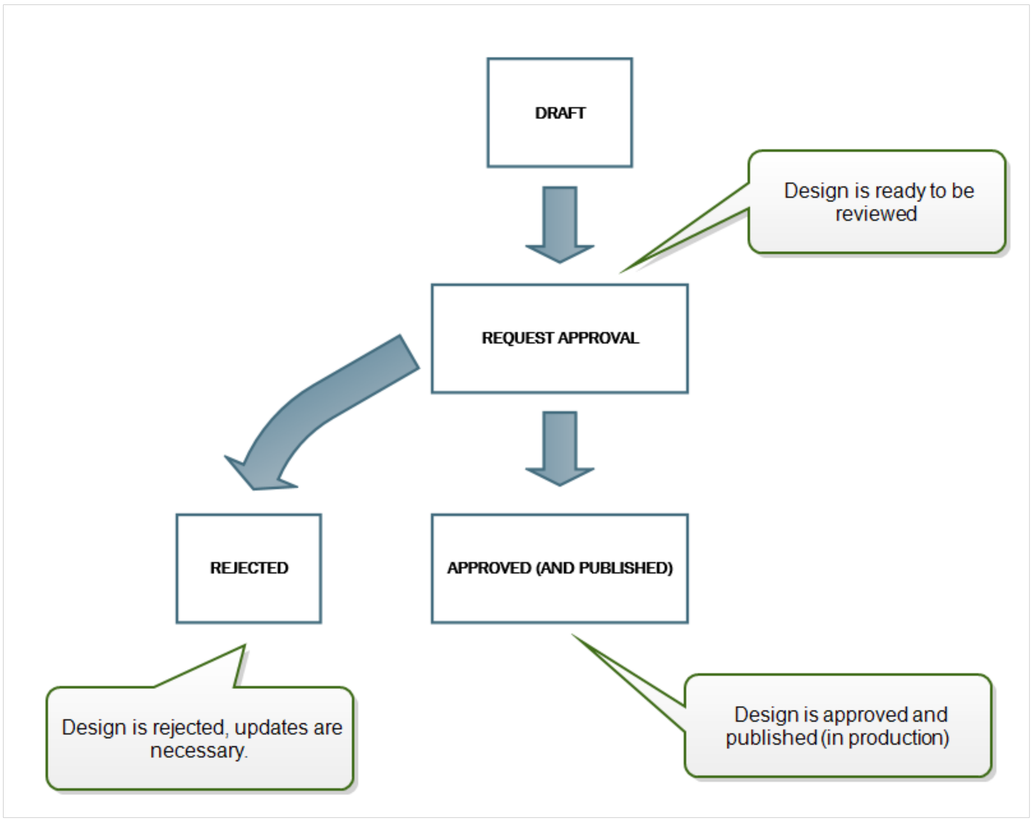
> **NOTE**
> Files only become visible to **Operator** access role members (print operators and print-only users) when they are approved/published.

3.6.2. Label Production Approval Process

This workflow uses standard approval processes. Documents start as drafts. When ready, the authors request approval. Approvers either approve the documents or reject them. If rejected, authors can make additional changes and request approval again. When approved, documents are published automatically.

Operators can only see published documents. Operators have print-only permissions and can only use the latest approved (and published) documents. If unapproved revisions exist in Document Storage, they remain invisible to print operators.

The system documents each workflow step change. When users change steps, they must enter mandatory comments.



3.6.3. Two-Step Label Production Approval Process

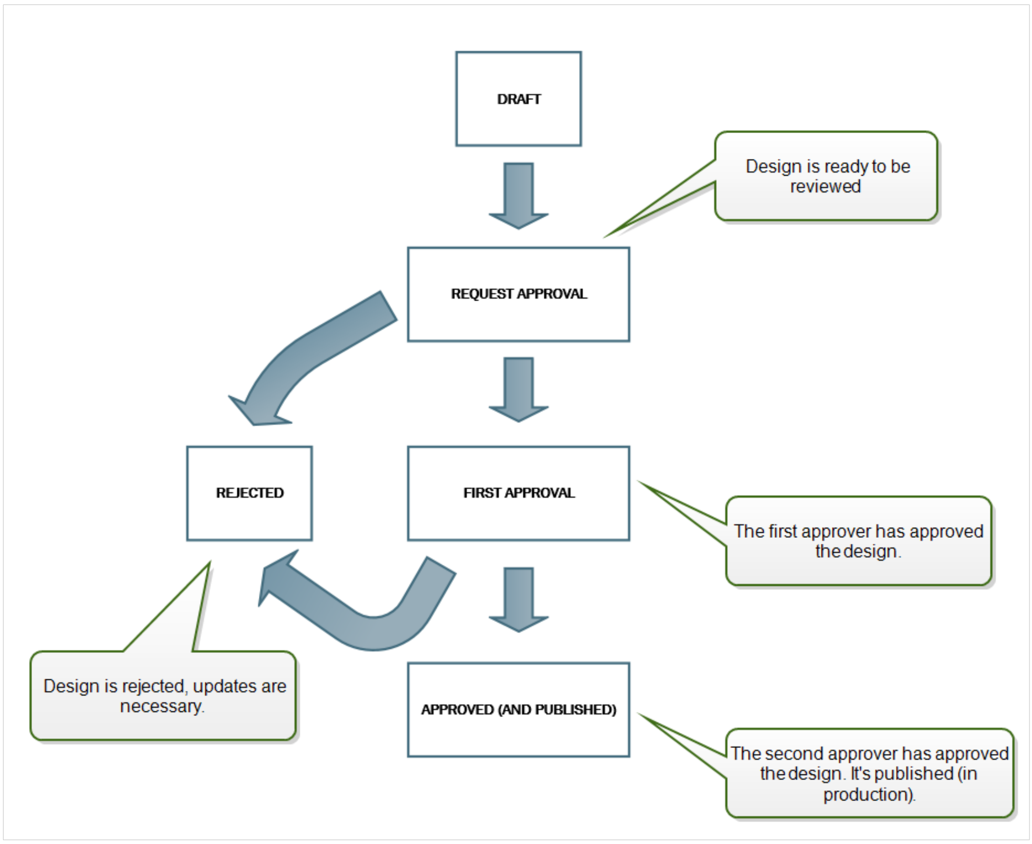
This workflow is similar to the **Label production approval process** workflow with a single difference. This workflow enables the two-level approval process. Before the document is approved (and published), two independent approvers must review and approve the document. Only after the document has surpassed both approving steps, it becomes published.

> **NOTE**
> Independent approvers must be logged in Control Center as unique users.

This process can be configured to have two separate approvers (or two groups of multiple approvers) defined for each step of the approval process.

- **Request first approval**: assigns unique users for the "step one" approval.
- **Request final approval**: assigns unique users for the "step two" approval.

To reach the approved status, the document must be approved by a unique member of both groups.



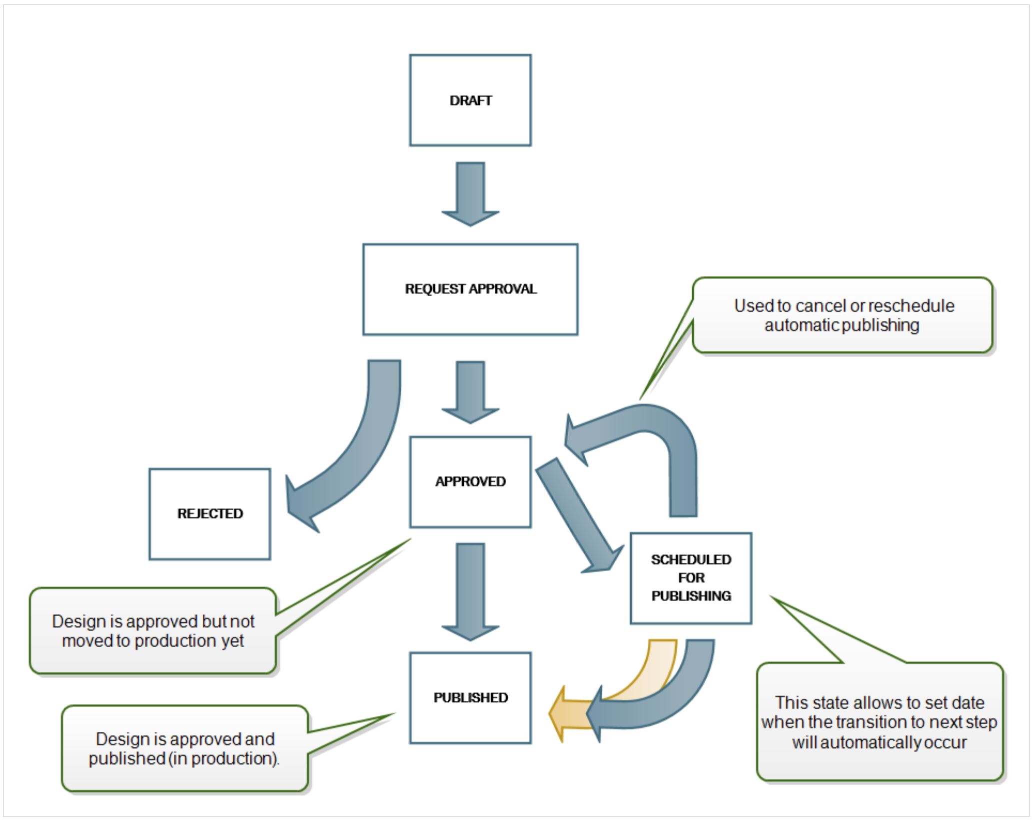
3.6.4. Label Production Approval Process with Delayed Publishing

This workflow is similar to the **Label production approval process** workflow with one difference. This workflow differentiates between the **Approved** and **Published** states. When the document is approved, it is functionally complete, but not automatically used by the print operators yet. In some environments, the move into the final Published state must be performed with a delay. The document might have to wait until the next work shift, or until a specific date, such as after the public holidays, or when a production order requires new label designs. You can schedule the future date and time for the publishing to occur.

The transition to the Published state can be done manually, or automatically by the system. The state Approved is not a final state, but is followed by:

- **Published**. In this case, the transition into the Published state is completed by the user.
- **Scheduled for publishing**. In this case, the transition into the Published state is completed by the system on a date and time as defined in the workflow.

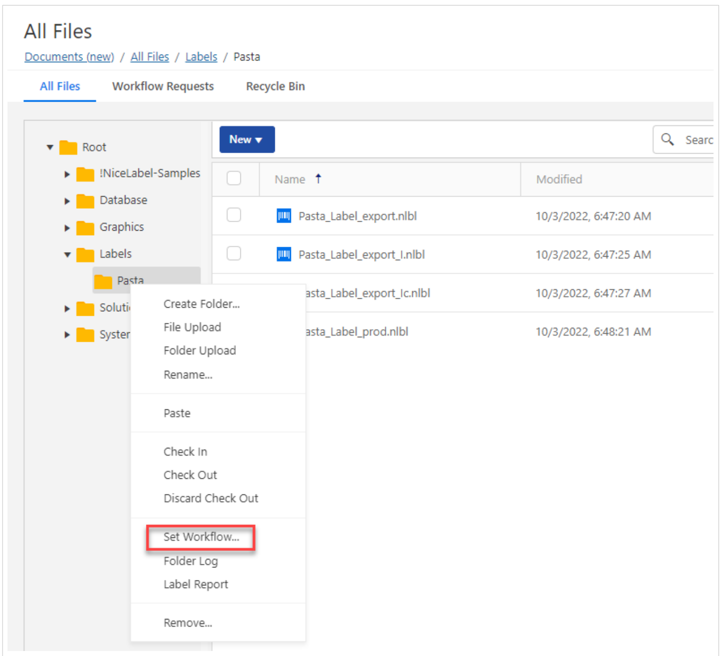
In both cases, the change of the step is logged into the system database.



3.6.5. Enabling Workflows

You enable your workflows if you go to the **Administration** tab > **Versioning and Workflows**. Set **Workflows for document storage** to **Enabled**.

1. Go to the **Documents** tab.
2. Right-click the folder where you would like to enable workflow control, then click **Set Workflow**



3. Select the option you want to enable for the folder.

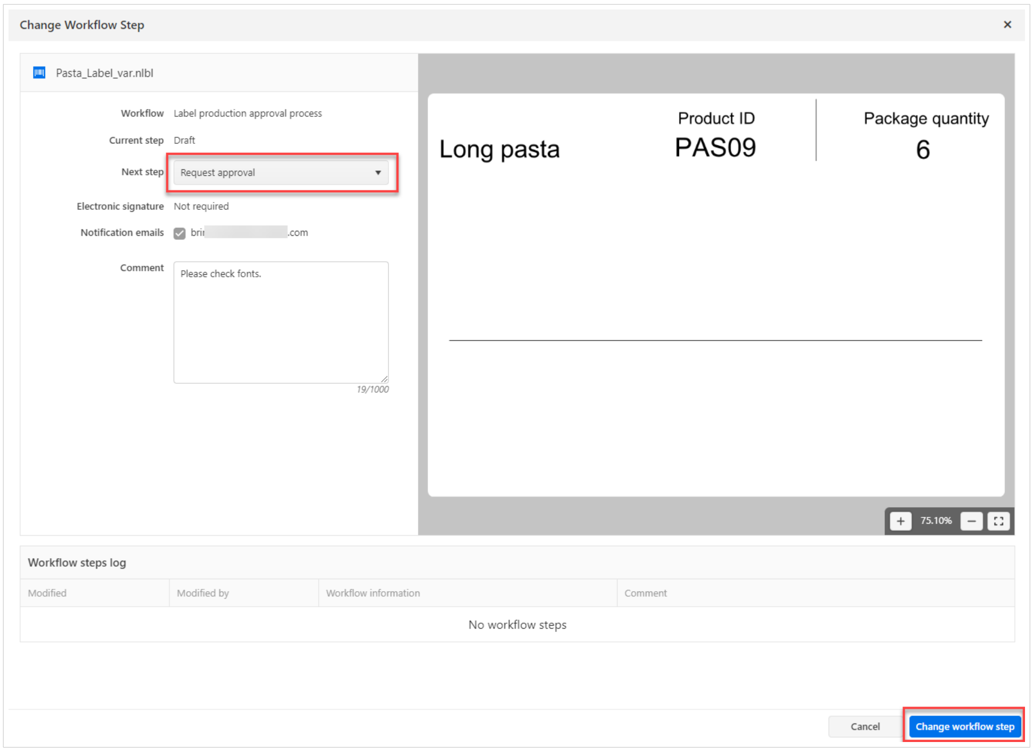
    - **No workflow** disables workflow control for the current folder.
    - **Inherit workflow from parent folder**. When you change the workflow on the parent folder, the change applies also to your current folder.
    - **Select workflow** defines the workflow for the current folder. You can select the built-in workflows or use your custom-created workflow.

3.6.6. Assigning Workflow Steps to Files or Folders

All files in the workflow-controlled folders are assigned to one of the workflow steps.

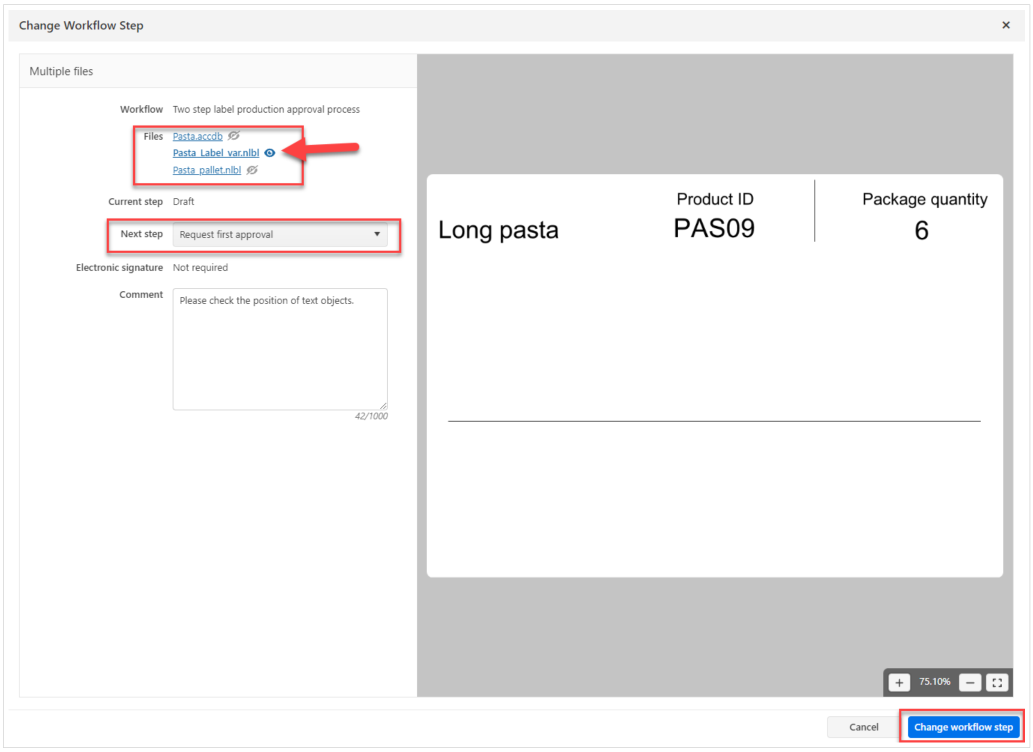
When you upload new files or enable a workflow for the existing folder, your files are in the initial step of the workflow. In the case of built-in workflows, such as **Label production workflow** and **Two step approval**, the initial step is **Draft**. When you change the workflow step for the selected files or folder, the new step is automatically assigned to the documents, for example, **Request approval**. You can only change the workflow step to the next step(s) as defined by the workflow rules.

You can change the workflow step if you right-click selected files to open the context menu., then click **Change Workflow Step**.



*Changing workflow step to the next available step. In this case from **Draft** to **Request approval**.*

Control Center allows you to simultaneously change the workflow step for multiple files or folders. Select your files or folders and right-click to open the context menu. Select the **Change Workflow Step** option to promote your files to the next available workflow step.



Changing workflow step to multiple files with selected preview.

There are two conditions to promote multiple files or folders to the next workflow step:

- All selected files or folders must be on the same workflow step.
- None of the files or folders must be checked out.

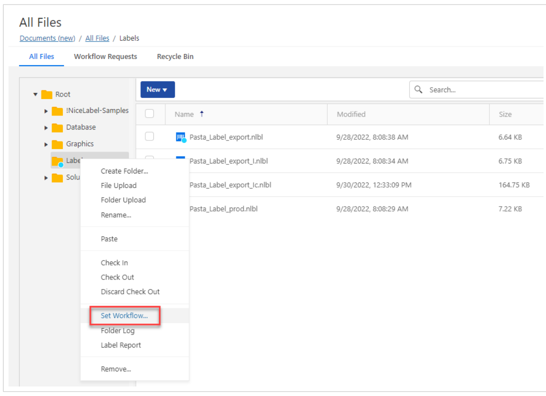
When your files or folders are assigned to the **Approved** step, print-only users can access it. Print-only users are usually members of the built-in access role **Operator**, but you can also create your own roles.

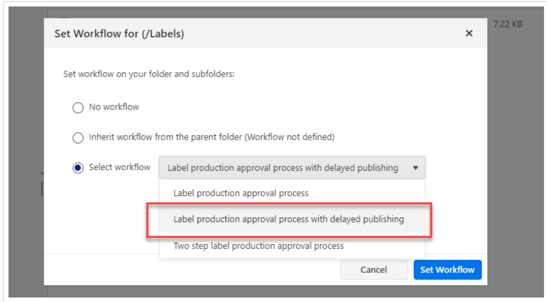
Print-only users can be also allowed to print files in other workflow steps (in case of solution developing and testing). Go to **User Management** to change or add roles to users.

3.6.7. Configuring Delayed Publishing

To enable delayed publishing of approved files and schedule file publishing:

1. Assign your folder to **Label production approval process with delayed publishing** workflow.



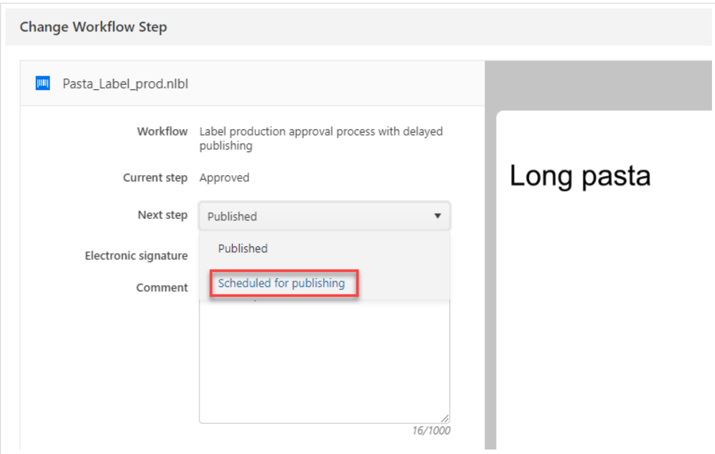


2. Process your files through the workflow process until you reach the **Approved** step.

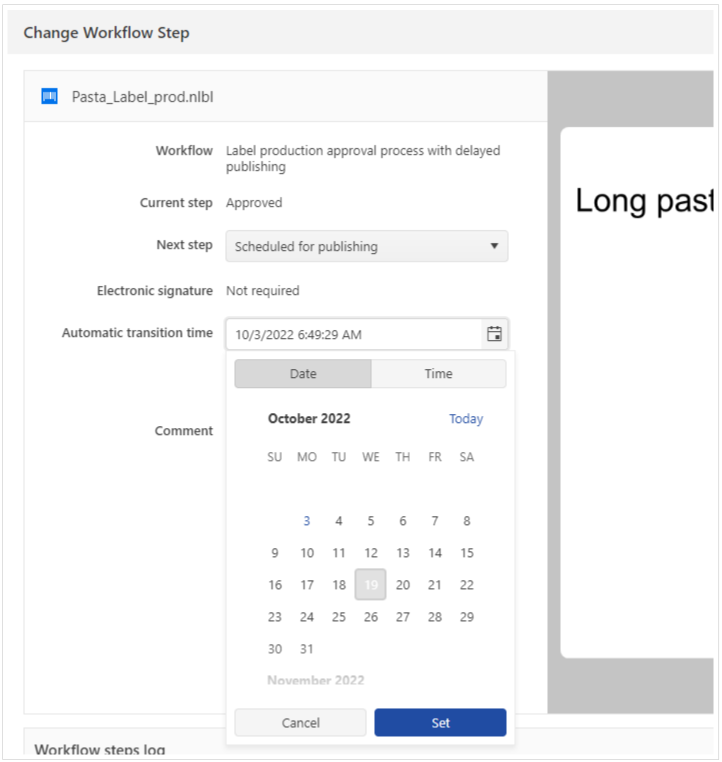
> **NOTE**
> In this process, the **Approved** step is not the final step. To enable your files to print, files must reach the **Published** step.

3. Right click your selected files and click **Change Workflow Step**.

4. In the **Next step** drop-down menu select **Scheduled for publishing**.



5. Choose **Automatic transition time** when your document should be published.



6. Enter the comment and click **Change workflow step**.

Control Center monitors all scheduled actions, and performs the workflow step changes automatically at the defined time.

3.6.8. Limiting Folder Access for Approvers

You may want to update Approver privileges when:

- You only want one approver to be able to work with documents in a folder. If you are a member of the **Approver** Access role grants access to all folders by default.
- The approver can work with files in *Folder1*, but not with files in *Folder2*.

The solution is to disable file access to the **Approver** Access role and then allow access case-by-case by adding users to other roles.

To change the workflow step from **Request approval** to **Approved**, **Rejected**, or any other defined step:

- The user must be a member of the **Approver** access role.
- The **Approver** access role must have read/write permissions for the **Documents** storage folder that contains the documents in the **Approval** step. For details, read the section Managing folder permissions.

> **NOTE**
> If you want to approve or reject documents and you are not the **Approver**, you can also approve or reject the documents, but you should be a member of the **Administrator** role.

To limit the **ApproverAccess role** from your folder:

1. Log in to Control Center as the administrator.
2. Go to the **Users** tab > **Access Roles**.
3. Click **Add**. The **Create new access role** window opens.
4. Type in a name of a new role, for example, *Selective access*, then scroll down to **Users in this role** and add users. Click **Save**.
5. Expand the **Approver** role and make sure the users from *Selective access* role are also a member of the **Approver** role.
6. Change **Folder permissions** to folders where you want to limit folder access.
7. Update the **Approver** role, by disabling all permissions, then edit the *Selective access* role by enabling Workflows permissions.

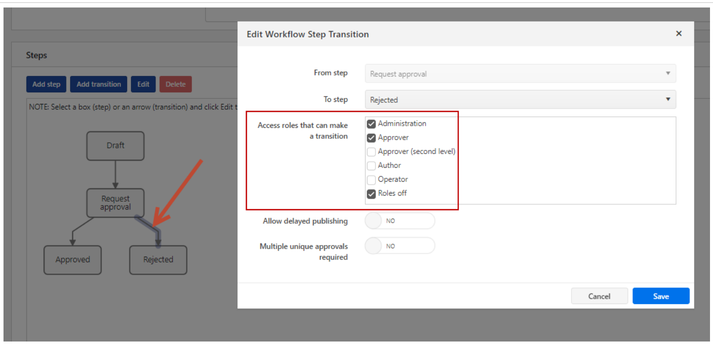
Only *Selective access* role members can approve files in your folder now. **Approver** role members have no access to this folder.

3.6.9. Changing Workflow Steps Transitions Permissions

You can add or remove Access Roles that can make transitions between workflow steps.

To change the permissions:

1. Go to the **Administration** tab > **Versioning and Workflows**.
2. In the **Workflows** section click the workflow where you want to change the permissions.
3. The **Steps** window opens. Double-click the arrow (transition) where you want to change the permissions.
4. Add or remove Access roles.



5. Click **Save**.

Your Workflow steps transitions permissions are now changed.

3.6.10. Creating Custom Workflows

Control Center allows you to create new custom workflows. Use custom workflows to match the specifics of the labeling process in your company.

Before you decide to create and use custom workflows, analyze your labeling process and the built-in Control Center workflows first. Consider these three available options:

- Introduce an entirely new workflow. In this case you are creating a new workflow from scratch. Although this is the most flexible option, make sure you know your approval process well enough before you start building a workflow. This saves your time and helps you eliminate potential future errors.
- Edit the built-in workflows. In this case, we recommend you to duplicate and customize the most appropriate built-in workflow. Because the steps in a duplicated workflow are already configured, you must only make the necessary changes to adapt the workflow steps to your label approval process.
- Try to redesign and match your labeling process with the built-in workflows. This option makes sure your selected workflows are fully tested and functional from start.

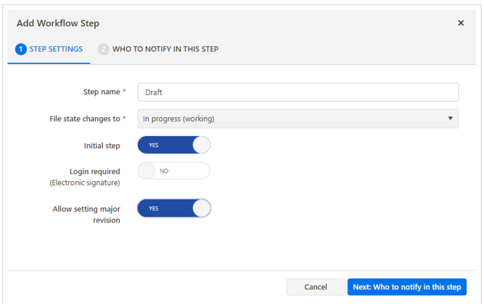
Before you start creating or editing the workflows, get familiar with the terms used in your workflow editor:

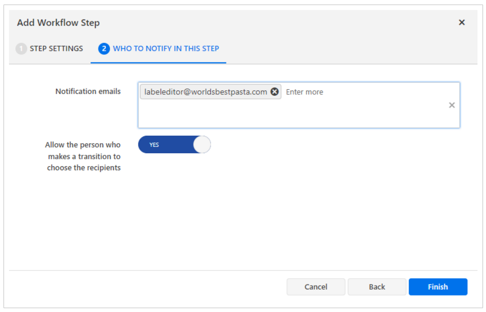
- **Steps**: Each workflow contains one or more phases called steps. During the approval process, your documents go through the predefined approval steps. You can create, name, and order your steps, then assign states to each step.
- **States**: States determine what you can do with a document during a workflow step. States include **Working**, **Locked**, and **Published** (see below for a detailed description of states). Users assigned to custom workflow steps can only use the states you assign to your steps.
- **Transitions**: You control the workflow's direction with transitions. For example, when a reviewer rejects someone's changes, you can direct that document back to the submitter, or forward it to a different reviewer. All steps can transition forward or backward, except your initial step.
- **Delayed publishing**: Workflows can contain timed approvals that automatically transition your documents form **Approved** step to **Published** at the time you choose.
- **Who to notify in this step**: You control who gets email notifications for each workflow step.
- **Enabled workflows**: You can toggle workflows on and off. All workflows require **Versioning** to be enabled.

NOTE
To create customized workflows, you must be a member of the **Administration** Access Role.

To create a new workflow:

1. Go to **Administration** > **Versioning and Workflows**.
2. If you want to add a new custom workflow, click **Add**. The editing window for a new workflow opens.
   If you are adding a custom workflow based on one of the existing workflows, select the existing workflow and click **Duplicate**. The editing window for a duplicated workflow opens. Further configuration steps are the same as for a new workflow except for the already configured steps.
3. > **NOTE**
   > This step is available only in On-premise Control Center.
4. Add and configure your workflow steps. Click **Add step** in the **Steps** field to add new steps. To edit an existing workflow step, click the step and click **Edit**.
   - Type the **Step name**.
   - Select the **File state changes to** for this step:
     - **In progress (working)**: Reviewers can check in, check out, and change the document. Use this state for earlier approval steps when you expect multiple changes to the document, such as draft, first level approval, etc.
     - **In approval (locked)**: The document is read-only in this state. Reviewers can only review the document. Use this state to keep documents unchanged on the current step. For example, when requesting approval.
     - **Published (locked)**: All members of all access roles can see the documents. Use this state when documents are ready to use in production.





   - Set your first workflow step as the **Initial step**. You can only define one step as the initial step.
   - **Login required (Electronic signature)** is an additional security measure that prevents unauthorized users from making changes to workflow steps.
     After you enable the **Electronic signature**, users authorized to promote the documents to the next workflow step must authenticate again with Control Center credentials.

NOTE

While authenticating with the **Electronic signature**, your session remains open. After the successful authentication, you can continue promoting your document.

- **Allow setting major revision**: If your document had a minor version in the preceding workflow step, the promotion changes the current (minor) revision number into a major revision.
  This option is not available if you enable the option **Use only major revision numbers**. Check its status in **Administration** > **Versioning and Workflows**. Read more in section Versioning and Workflows.

Example

Document's revision number in the "Draft" step was 3.2. After promoting the document to the "Request for approval" step, its revision number goes to 4.0.

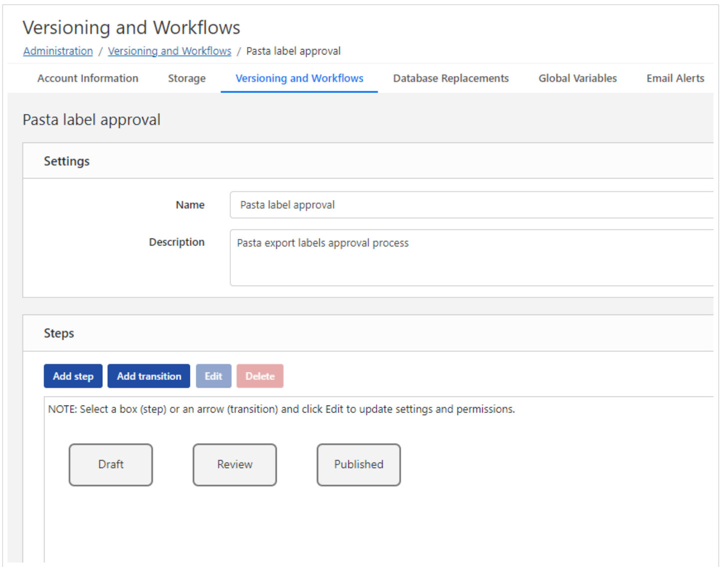
- **Notification emails**. When a documents reach the workflow steps, the listed users receive emails with the links to the documents.

NOTE

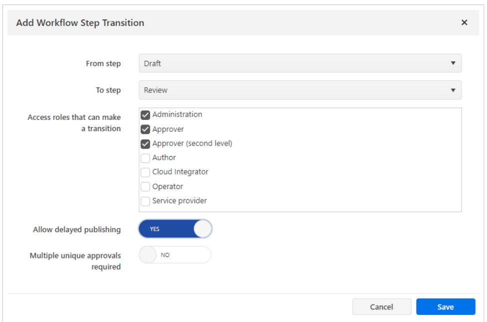
If you change the workflow step for multiple documents at once, the listed recipients receive separate emails for each document.

- For each workflow step, you can define which users receive notification emails after a document reaches the current step using **Allow the person who makes a transition to choose the recipients** option.

Repeat the configuration for all of your planned workflow steps. The new steps are listed under the **Steps** of your new workflow. Click **Create** in the top-right corner when you are done.



5. To send notification emails to the users who should be informed about the changes in workflows, click **SMTP Settings**.
6. After defining the steps for your workflow, define how will you promote the documents to the next workflow step. The transition allows you to define the promoting options for your documents: approvals, rejections, and time delays before publishing. Click **Add transition** to define the transition to the next step in your workflow. The **Add Workflow Step Transition** window opens. Define your order of the steps, who can make transitions, delayed publishing, and multiple approvals.



7. After you define your custom workflow, you can apply this workflow in your **Documents** the same way you apply the built-in workflows. See section Enabling Workflows for details.
8. If you want to delete your workflow, make sure that none of the files in your **Documents** use the workflow or any of its steps.
   If an error or warning occurs while deleting your workflow, try deleting the individual steps first. When deleting the workflow step that is in use, a warning displays the names of the files that use the workflow step you are trying to delete.

   NOTE
   You can't delete the built-in workflows.

4. Applications

Applications are a fast and safe way to share your label templates and Solutions with internal or external users - printer operators. Applications give you the flexibility to share your labeling files with multiple users in multiple locations while maintaining control of how your labels are printed. With Applications, you can quickly scale and adapt your labeling process to your needs.

Sharing your label templates or Solutions with Applications ensures:

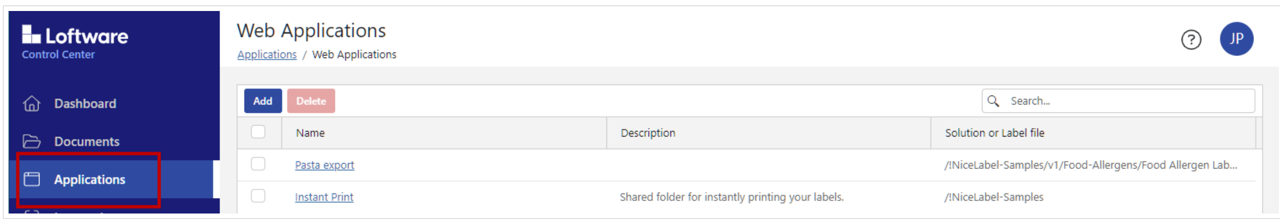
- Your users always get the latest versions of approved labels templates and Solutions.
- You can enforce user login policy.
- You keep track of your label printing history.
- You can manage your used printer licenses by setting usage limits for your Application printers and users.

Learn how to:

- Create and share your new Applications.
- Configure your Applications for specific users or groups.
- Restrict application logins and printers.
- Record printing actions.
- Use file database connections in your Applications.
- Access and use your shared Applications.

4.1. Creating and Sharing Applications

With **Applications**, you share your label and Solution files stored in your Control Center **Documents** with your internal users or external users (for example, print operators).



> **IMPORTANT**
> For **Label Management System on-premises**, make sure you install NiceLabel Web Printing on your server before you share your Applications. *Web Printing* is a web application that allows you to centrally deploy your Applications to your print operators.

4.1.1. Creating New Applications

To create your new Application and configure general **Settings**:

1. Go to the Control Center **Applications** tab, and click **Add**.
2. Enter a **Name** for your Application. Give your new shared Application a meaningful name to make it easier to identify later.
3. Enter your **Description**. Explain the purpose of your Application.
4. Select your **Application type**. You can choose to open:
    - **Single solution or label file**
    - **Folder with one or more solution or label files**
      With this option selected, you don't need to create separate Applications for each file in your folder. You can add or remove label templates from your folder.

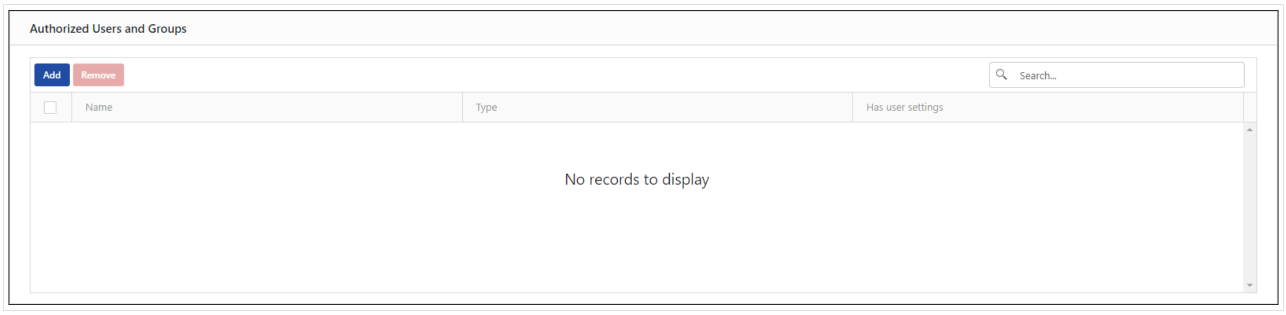
> **WARNING**
> Applications don't work with dynamic values (**Remember the last used value** option). Use workarounds instead, for example, write and read variable values to your database.

5. Under **Path**, click **Browse** and navigate to your label template, Solution, or folder stored in your Control Center **Documents**.
   You can also type the file path directly. Begin your relative file path with a slash: (/).
   `/Labels/Test_label.nlbl`
   If your label or solution file uses a file database connection (with Microsoft Excel or Access database), read Using File Database Connections in Applications to ensure the accessibility of your data.

Your next step is to define the Application's **Authorised Users and Groups**.

4.1.2. Defining Application's Authorised Users and Groups

Define your authorized users and groups to restrict access to your shared Applications and make your labeling environment more secure.



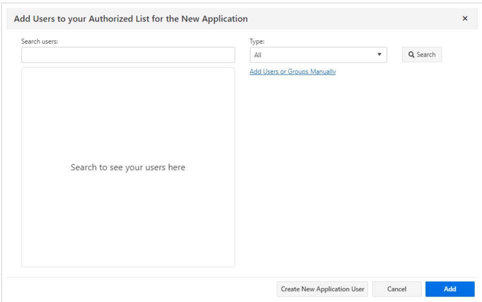
TIP

You can skip this part and add your users later.

Defining LMS Authorised Users and Groups

Define your **Authorized Users and Groups**:

1. In **Applications** > **Applications** click **Add**. **Create New Web Applications** page opens.
2. In the **Authorized Users and Groups** section click **Add**. The **Add Users to your Authorized List for the New Application** dialog opens.



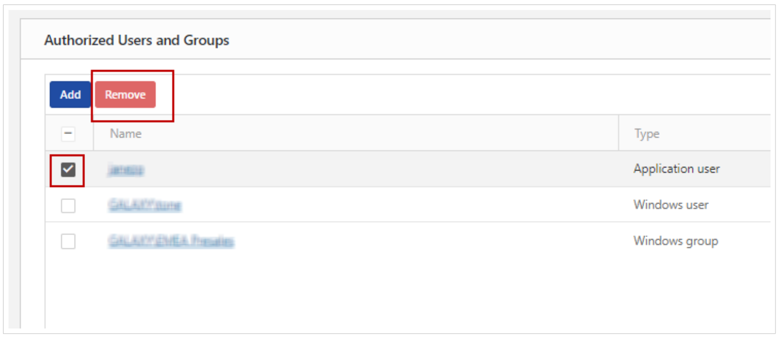
   Share your Application with existing users or groups. Use the **Search users** field to type your selection.
   If your company uses the active directory, you can either select specific **Windows users** or **Windows groups**. To open your shared Application, all added users must authenticate themselves using **Windows authentication**.
3. Click **Create New Application User** to add your new Control Center user. Enter the **Username** and set the **Password**. Click **OK**. You can now share your application with the new application user.

Your added users or groups are now listed among the **Authorized Users and Groups** and can start using your shared Application.

NOTE

Notify your Application Users manually about the new shared Application.

To restrict access to your shared Applications, you can later remove your added users or groups from the **Authorized Users and Groups**. Select them from the list and click **Remove**.



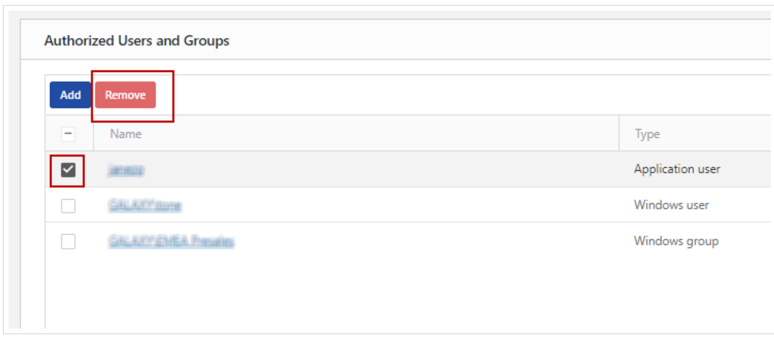
Defining Authorised Users and Groups for multiple users

In certain cases, you want to assign your Application to a list of Windows users. To speed up the process of adding multiple users, list these users in a table and manually add them to your shared Application:

1. In **Applications** > **Applications** click **Add**. **Create New Web Applications** page opens.
2. In the **Authorized Users and Groups** section click **Add**. The **Add Users to your Authorized List for the New Application** dialog opens.
3. Click the **Add Users or Groups Manually** link. A dialog opens.
4. Under **Type**, select if you want add Windows users or groups. .
5. Paste or enter your users, each in a separate line.
6. Click **OK**.
7. Click **Add**.

Your added users or groups are now listed among the **Authorized Users and Groups** and can start using your shared Application.

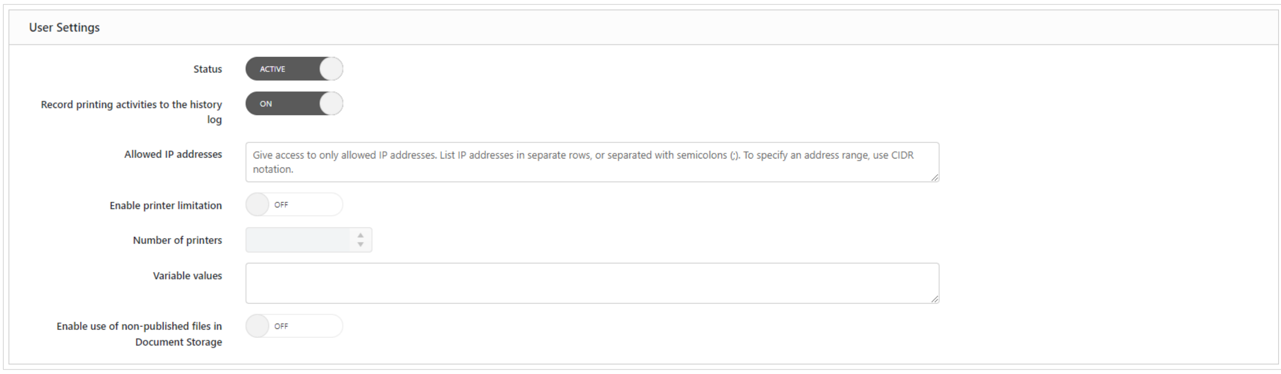
To restrict access to your shared Applications, you can later remove your added users or groups from the **Authorized Users and Groups**. Select them from the list and click **Remove**.



4.1.3. Configuring Application's User Settings

Configure your user settings to:

- Customize and track your printing activities.
- Limit who can access your Applications and how many printers (printer licenses) they can use.



Configure **User Settings**:

1. In **Applications** > **Applications** click **Add**. **Create New Web Applications** page opens.
2. Navigate to the **User Settings** section.
3. Under **Status** toggle between **Active** or **Suspended**.
   Your applications are **Active** by default. This means that your users can start working with them immediately. If you want to prevent the usage of your Application, set the status to **Suspended**. This is useful during your testing phase or if you wish to postpone the use of your Application.
4. Under **Record printing activities to the history log** toggle between **On** and **Off**.
   Record printing activities to history log keeps track of user printing actions within your shared Application. This option allows you to start or stop the recording of printing activities in Control Center.
   See the recorded activities on the Control Center History page.

   > **NOTE**
   > Recorded information items are: label name, label quantity, printer name, variable values, etc.

5. Restrict your Application logins and printer usage:
   Web Printing gives you Application access control and allows you to limit the number of used printers for your shared Application.

   a. **Allowed IP addresses** enables you to give access to your Application's login only to computers with certain IP addresses. Your shared Application blocks computers with non-defined IP addresses. Enter each address in a separate row, or separate them with a semicolon (;). To specify your address range, use CIDR notation. You can convert subnet mask notation into CIDR notation using online calculators.

Defining a range of permitted IP addresses

To allow login from any IP in range 192.168.0.1–192.168.0.254, define the range as 192.168.0.0/24.

b. To **Enable printer limitation** toggle between **On** or **Off**. When **On**, define the **Number of printers** your Application users are allowed to print on.

> **WARNING**
> Each printer used in your shared Application takes one **printer license**. This setting makes sure you don't accidentally run out of available printer licenses that come with your NiceLabel license.

Number of printers is the maximum number of allowed printers per user for your Web Application. If users exceed this number, they can no longer print to additional printers.

6. Under **Variable values**, you predefine values for custom variables for your shared label or solution file.
Variable values are commonly used for pre-defining Application (Solution) languages or settings, or label template active layers.

Language as a variable

For example, users from two different regions use the same Application simultaneously. Users from the first location need the Application in the French language, while users from the second location need their version in the German language.

While each region must have the Application in its own language, all users need to experience the same look and feel of the Application.

In this case, you define the same Application for users in both locations and define the starting value of your *language* variable. Use this variable as a filter in your database table, displaying strings in the right language. Usually, the criteria are simple relations, such as *field_name = variable_value*.

To set variable *language* to starting value French, use the following syntax: "language" = "French"

> **NOTE**
> Check for typing errors in variable names and values. Also, make sure to test your Application before you allow your user to log in. Your Application doesn't display an error if you assign values to non-existing variables.

If your variable name includes space, use double-quotes (**""**) to define your variable.

7. **Enable use of non-published files in Document Storage** allows you to permit your Application users to work with versions of label templates and Solutions that are not published (approved). By default, Applications only share label templates and Solutions that complete all your workflow steps and are marked as approved. Sharing non-published files can be useful as part of various testing scenarios.

8. Click **Save**.

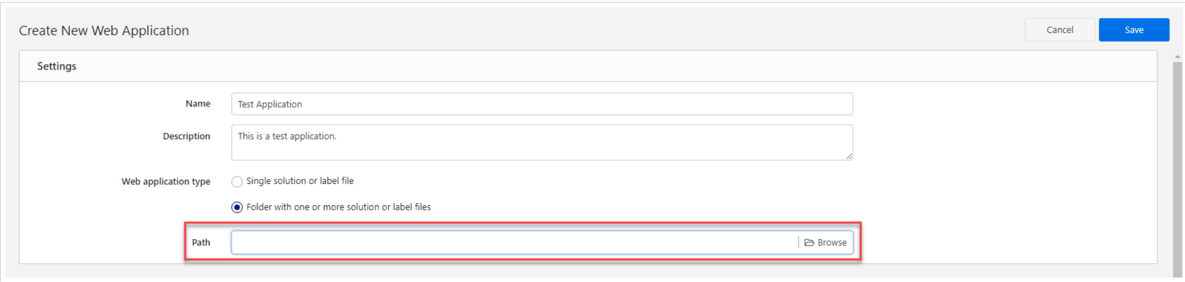
> **NOTE**
> If you use LMS product, after you save changes on the Applications page, send a notification email to your users or groups manually.

Your new Application is now accessible in Control Center, under the **Applications** page, and ready for sharing.

4.1.4. Updating and Removing Applications

You can always go back and reconfigure your **Applications**:

1. Go to **Applications** and click on the Application you want to update.
2. Change your settings and configure your **Application** according to your needs.
   If you want to replace your label or Solution file, change the **Path** under **Settings**.



3. Click **Save**.

To **remove your Applications**, select them from the **Applications** list and click **Delete**. Deleting your Applications won't delete your label or Solution files connected to your Application.

4.2. Configuring Applications for Specific Users and Groups

You can configure your Application settings per single user or group. These settings are valid only for the specific user/group that you define and have no impact on the general configuration of your Application.

With User Settings, you can limit the maximum number of allowed printers to print to and define variable values. Limiting printers helps you to control your printer licenses.

You can also assign initial variable values to your groups or users. for example, users in different countries print with the same printing solution but use different (country specific) variable values.

To enable and configure specific user settings:

1. Go to **Applications**. Click your Application.

2. In the **Authorized Users and Groups** section, click on your user or a group. The **User Settings** window opens.
3. **User settings** allows you to enable specific per-user or per-group configuration settings.
4. **Enable printer limitation** allows you to limit the number of printers your user or group can use.
5. **Number of printers** is the maximum number of allowed printers per single user or group. If the user or group exceeds this number, they can't print to additional printers.

   > **WARNING**
   > Each printer used in your shared Application takes one **printer license**. This setting makes sure you don't accidentally run out of available printer licenses that come with your NiceLabel license.

6. **Variable values** predefine values for certain variables that belong to your shared label or Solution.

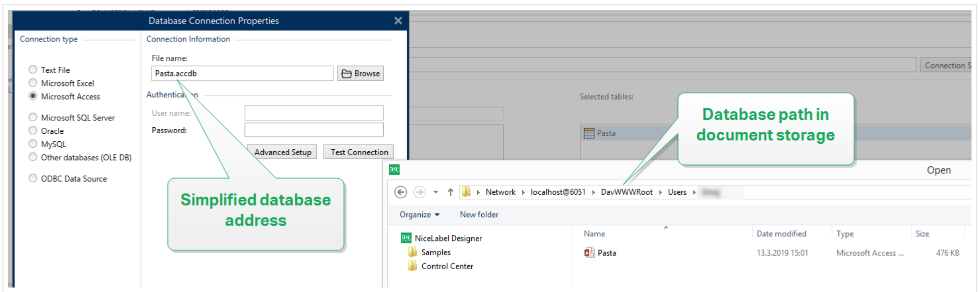
These settings override the general settings that you configure for your applications.

4.3. Using File Databases in Applications

Label templates and Solutions in your shared Applications are often connected to a database. Your connected database works as a dynamic data source for objects on your label templates.

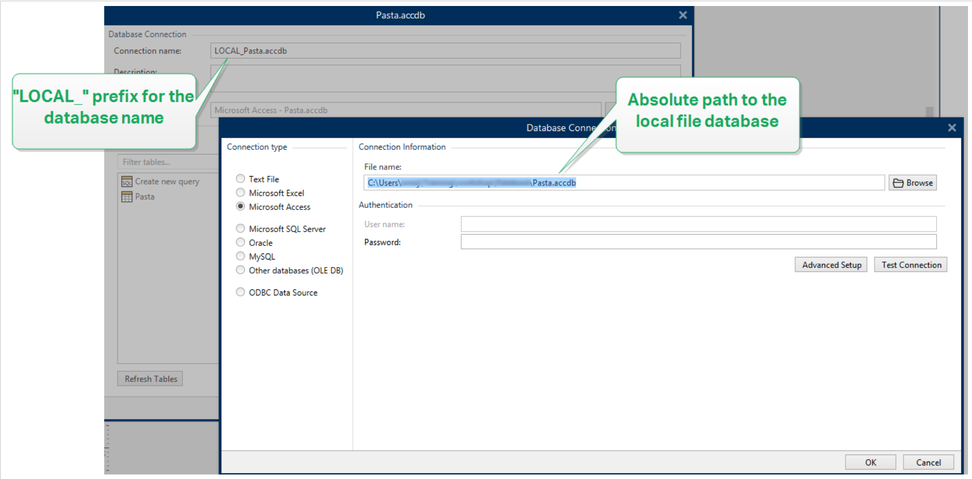
You can choose where to store your database. To ensure your file database (Microsoft Access or Excel) is accessible from your shared Application, choose one of the following options to store your database:

- Store your database in Control Center > **Documents**. We recommend storing your label files in the same folder as your database.
  NiceLabel automatically simplifies your database URL in the database connection window:



- Store your database **locally on the server** that also runs your Web Printing site. Define your database connection in Desktop Designer as a file path on the server where your database is stored.
- Store your database **locally on the computer** that runs your Application NiceLabel Web client (Web Printing) can use your local database.

> **NOTE**
>
> In case your Control Center can't connect your database (either file database or SQL), you can access your database directly with Web Client. In this case, start your local database names with the "**LOCAL_**" prefix.



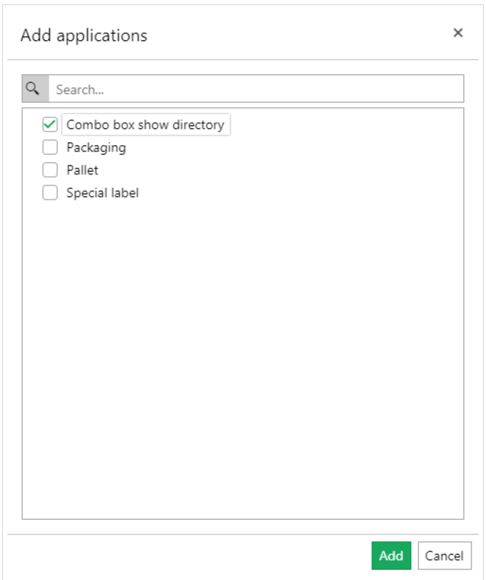
When you store your database, connect your label templates or Solutions to your database. Go to NiceLabel Desktop Designer > **Dynamic Data Manager** > **Database Connections** to browse and connect to your database.

4.4. Sharing Applications with Application Users and Groups

The **Users** and **Groups** pages allow you to instantly share your Applications.

To start sharing **Web Applications** with your **Users**:

1. Go to **Users** tab.
2. Click your user from the **Users** tab or group from the **Groups** tab. The configuration page opens.
3. Navigate to the **Web Applications** section. Click **Add**.
4. The **Add Web Applications** dialog opens. All available applications are listed. Select the Application your want to share.



5. Click **OK**.

6. Click **Save**.

Send a notification email to your users or groups manually. Once your user or members of your added groups log into `http://server/powerformsweb/` (where the `server` is the name of the server that hosts your Control Center), they can start using your shared Application.

4.5. Using Applications

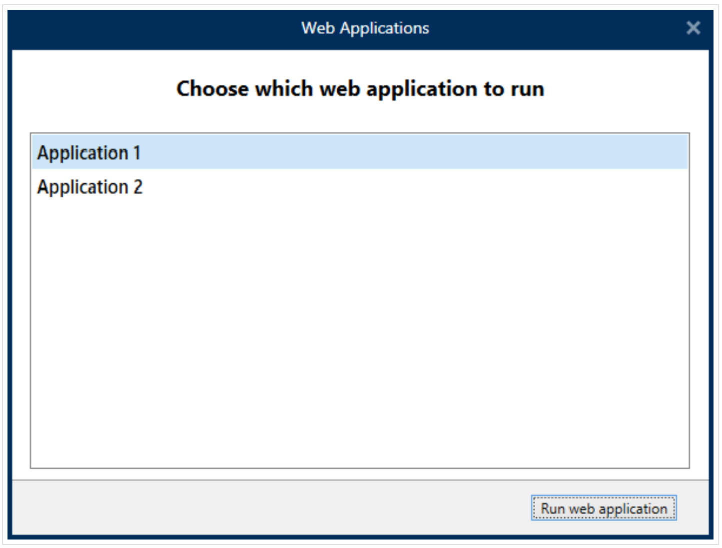
Applications give you access to the latest versions of approved label templates and Solutions. Applications you open automatically update so you can immediately use up-to-date Solutions and print the correct labels.

Before you start working with shared Applications, install Web Client on your computer. Web Client installation is necessary only before using the shared web applications for the first time.

1. Open your browser and type this address (your Web Printing URL):
   `http://server/powerformsweb/`
   ... where `server` is the name of the server that hosts your Control Center.

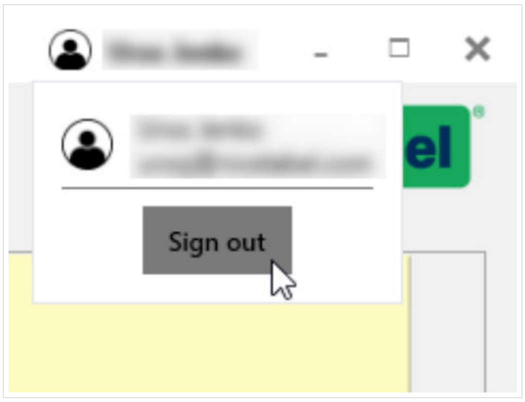
2. You land on the **Web Printing** page. If you haven't installed any Applications before, click the link to download and install Web Client on your desktop.
   If you are an Application user or a member of an Application group, the login window opens. Enter your user name and password that your Control Center administrator assigned to you.

3. If you are authorized to use more than one Application, the **Applications** selection dialog asks you which Application do you want to run. Select the preferred Application and click **Run web application**.



Your Application opens in NiceLabel **Web Client** and it's ready to use.

If you (an Application User or member of an Application Group) selected the **Remember me** option (step 3) while signing in, your Application window displays your **user name** in the Application's title bar. If there are other users working with shared Applications on your computer, you can click **Sign out** (in your user menu) and the next user must sign in using their own user name and password assigned to them by your Control Center administrator. By clicking on your **user name** you access your **user menu**.



From the **user menu**, you can:

- Switch between your multiple shared Applications.
- Get notified about minor Web Client updates.

Print operators can access **Web Client** and your shared Applications by entering your Web Printing URL in the browser or from their computer's start menu. Depending on your User privileges, you can also access your Applications from the Login page and from the Control Center's Dashboard page.

TIP

Make a bookmark in your browser If you receive Applications from different Control Center deployments.

5. Integrations

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✓	✓

Control Center also enables you centralized management of all Automation configurations and triggers running on computers connected to Control Center.

5.1. Automation Manager

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✓	✓

Automation Manager in Control Center provides you centralized access to all configurations and triggers running on Automation Servers on your local computers. Automation Manager in Control Center connects to Automation Manager on your local computers, so you can make changes instantly from your Control Center.

Large organizations often have multiple Automation servers running different Automation configurations. When production problems occur, viewing Automation logs on multiple Automation servers is inconvenient, takes time, requires remote access, and increases security risks.

Automation Manager in Control Center works like your local Automation Manager, but adds computer names so you can quickly locate your Automation configurations and triggers.

> **NOTE**
> Run Automation Manager on local computers or in when possible. Automation Manager in Control Center works best when you manage many Automation instances. With slow networks, your changes may take more time to affect Automation servers installed locally.

In Control Center, you can:

- Access all your triggers and see live trigger statuses.
- Start and stop your triggers.
- Load triggers from different configurations from **Documents**.
- Access all trigger logs to see execution details.
- See triggers with errors or warnings, and get notifications when errors occur (In **Administration** > **Email Alerts**).

- Add triggers from **Documents** to your local computers or in .
- Manage users and permissions for adding, editing, viewing, and deleting triggers (In **User Management** > **Access Roles**).

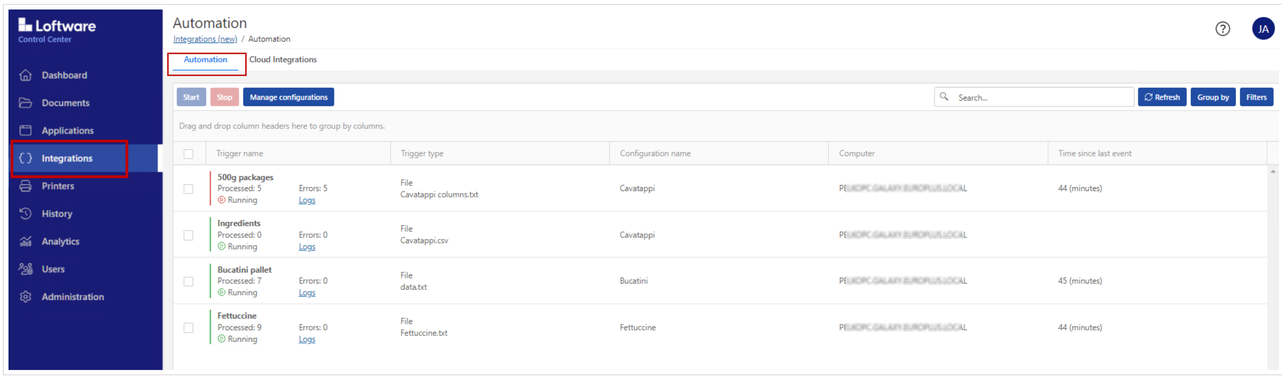
You can centrally manage all your triggers and configurations on all your computers or in with Automation Manager in Control Center.

5.1.1. Triggers

Automation Manager in Control Center provides you centralized access to all configurations and triggers running on Automation Servers on your local computers. Automation Manager in Control Center connects to Automation Manager on your local computers, so you can make changes instantly from your Control Center.

The **Automation** page in Control Center is your entry point for monitoring and managing all your Automation configurations and triggers.

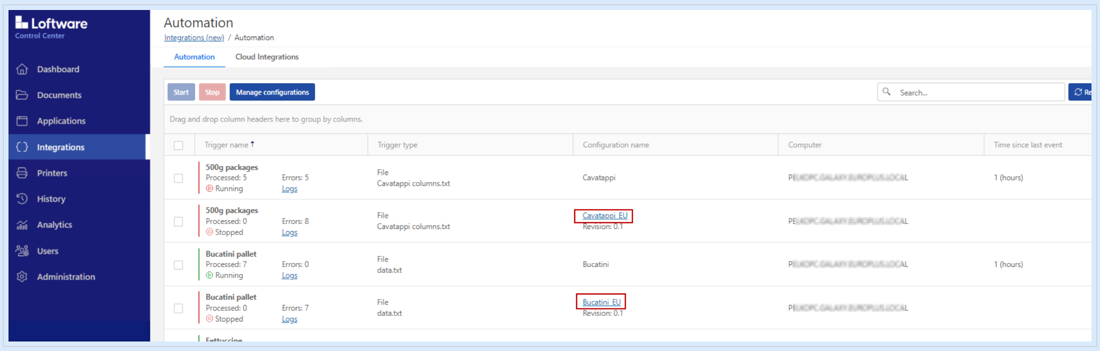
In Control Center, go to **Integrations** > **Automation**.



You can:

- Access all your triggers and configurations.
- See which triggers are located on which computers and view Automation logs.
- See time elapsed since the last trigger event.
- See triggers with errors.
- Check trigger statuses:
  - Running
  - Stopped
  - Server Offline
- See configuration names and types.
- Manage all your triggers and configurations:

- Start and stop your triggers.
- Refresh your trigger list in Control Center.
- Reload your triggers.
- Remove your triggers.
- Copy configurations from **Documents** in Control Center to Automation Managers on local computers in your network.
- Sort your trigger list.
- Search your triggers.
- Group your trigger lists by configuration names.
- Group your trigger lists list by server names.

> **NOTE**
>
> If possible, upload and run your Automation configurations from **Documents** in your Control Center. This way you enable centralized access to your triggers. You can edit your triggers from your computer with Control Center and Automation Builder installed.
>
> Click the link in the **Configuration name** column name to open the trigger location in **Documents**.
>
> 
>
>
> In **Documents**, double-click your trigger file to edit it in Automation Builder.

Centralized management of all your Automation triggers saves you time, avoids system downtime, and minimizes security risks.

5.1.2. Starting and Stopping Triggers

Automation Manager in Control Center provides you centralized access to all configurations and triggers running on Automation Servers on your local computers. Automation Manager in Control Center connects to Automation Manager on your local computers, so you can make changes instantly from your Control Center.

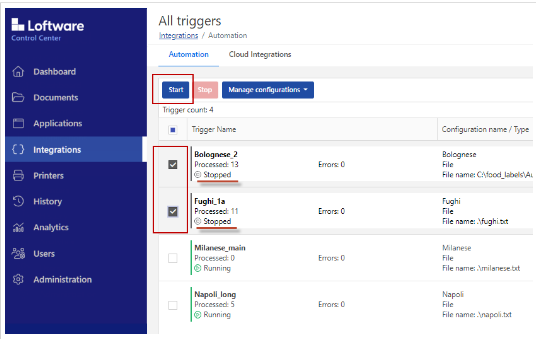
You can start and stop triggers running on local computers connected to Automation Manager in Control Center.

> **NOTE**
> You can search for triggers by name, Automation computer name, or configuration name.

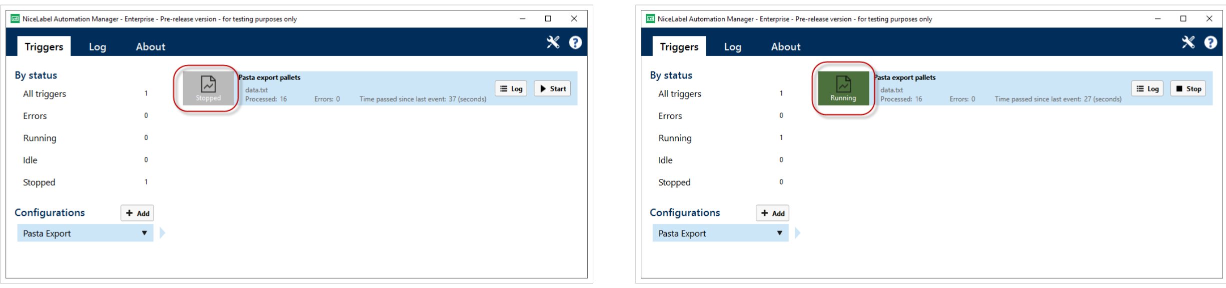
Starting triggers

To start triggers in Control Center:

1. Go to **Integrations** > **Automation**.
2. Check the boxes of triggers you want to start.
3. Click **Start**.



Your triggers start on your computers. Automation Manager changes your trigger icons from grey to green to show your triggers are running.



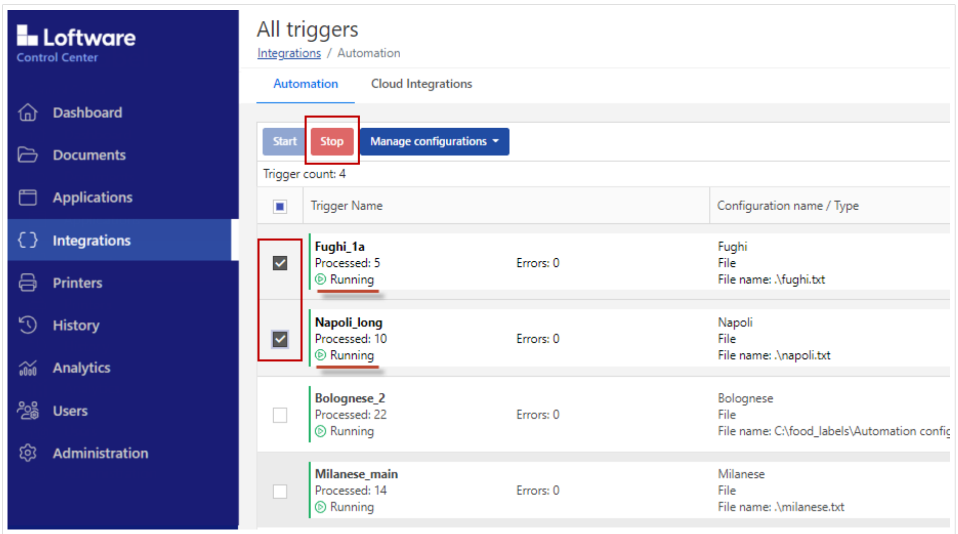
Stopped triggers vs Running triggers

Stopping triggers

To stop triggers in Control Center:

1. Go to **Integrations** > **Automation**.
2. Check the boxes of triggers you want to stop.

3. Click **Stop**.



Your triggers stop on your local computers.

5.1.3. Setting Trigger Permissions

You can set Automation configuration and trigger management permissions for your Automation users in Control Center. Users with permissions can manage configurations and triggers on local computers from AutomationManager in Control Center.

With permissions set, your users can:

- Start and stop triggers.
- Add configurations.
- Reload and remove configurations.

To enable permissions for users in Control Center:

1. Go to **Users** > **Access Roles**.
2. Click the role you want to change.
3. In **Permissions for this Role** click **Applications**.
4. Enable **Start/Stop triggers, add/remove and reload configurations (Automation Manager, Control Center)**.

Users now have permission to manage all triggers listed in Control Center.

5.1.4. Configurations

Automation Manager in Control Center provides you centralized access to all configurations and triggers running on Automation Servers on your local computers. Automation Manager in Control Center connects to Automation Manager on your local computers, so you can make changes instantly from your Control Center.

From Automation Manager in Control Center, you can add, reload, and remove configurations to and from Automation servers on local computers.

NOTE
NiceLabel V5 NiceWatch configuration files (.mis) are not supported anymore. Control Center treats V5 configuration files as an unknown format. You can still open and edit V5 configuration files in the latest Automation.

Adding configurations

You can load Automation configurations from **Documents** to Automation servers on local computers. Running configurations on local computers helps you decentralize your automated printing processes and allows your users to manage Automation configurations.

Users can start, stop, and modify locally stored Automation triggers.

You can also manage all configurations from Control Center.

NOTE
You must store your Automation configurations in **Documents**.

To add configurations to local computers:

1. In Control Center go to **Integrations** > **Automation**.
2. Click **Manage configurations**.
3. **Manage configurations** window opens. Click **Add**.
4. The **Documents** explorer window opens. Browse to your configuration and click **Next: Select computer**.
5. Select the computer where you want to deploy the configuration and click **Finish**.

Your configuration is now deployed to the Automation server on your local computer.

Reloading configurations

IMPORTANT
When your users change and save configurations in Automation Builder, you must reload the configurations for them to take effect.

Reloading configurations in Control Center works the same as reloading configurations in Automation Manager on local computers. For detailed instructions, read your Automation User Guide.

To reload configurations in Control Center:

1. Go to **Integrations** > **Automation**.
2. Click **Manage configurations**.
3. **Manage configurations** window opens. Select configurations you want to reload and click **Reload**.

Your configurations reload. Your new configurations settings now affect your printing.

Removing configurations

Remove configurations from your list in Control Center to prevent running obsolete triggers by mistake.

To remove configurations in Control Center:

1. Go to **Integrations** > **Automation**.
2. Click **Manage configurations**.
3. **Manage configurations** window opens. Select configurations you want to reload and click **Remove**.

> **NOTE**
> Removing configuration from your list in Control Center doesn't delete configuration files from your local computers or **Documents**.

By pressing the **Remove** button, your configuration is removed from your list. Triggers from removed configurations are no longer listed.

5.1.5. Automation Logs

Automation Manager in Control Center provides you centralized access to all configurations and triggers running on Automation Servers on your local computers. Automation Manager in Control Center connects to Automation Manager on your local computers, so you can make changes instantly from your Control Center.

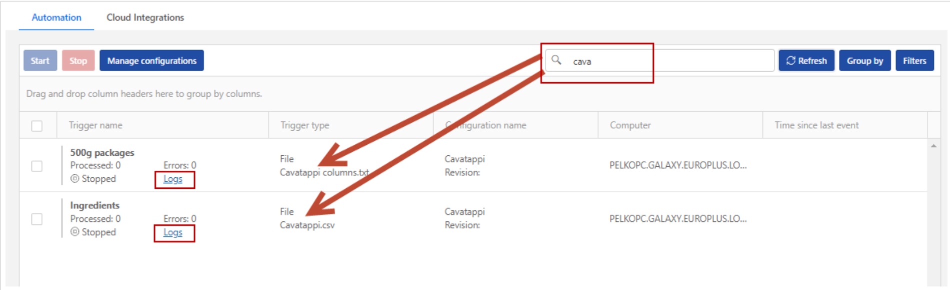
You can check and filter Automation logs for triggers running in Automation Managers on local computers connected to Control Center. Automation logs all activities to a local database so you can view history and troubleshoot trigger executions.

Your **Logs** pane displays information for all events related to filters you apply.

To check and filter triggers in Control Center:

1. Go to **Integrations** > **Automation**.

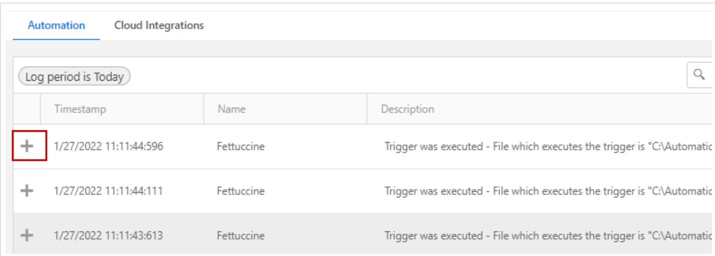
2. Search for your trigger in your trigger list and click **Logs** (in the **Trigger name** column).



3. Your logs window opens. You can filter your logs by:

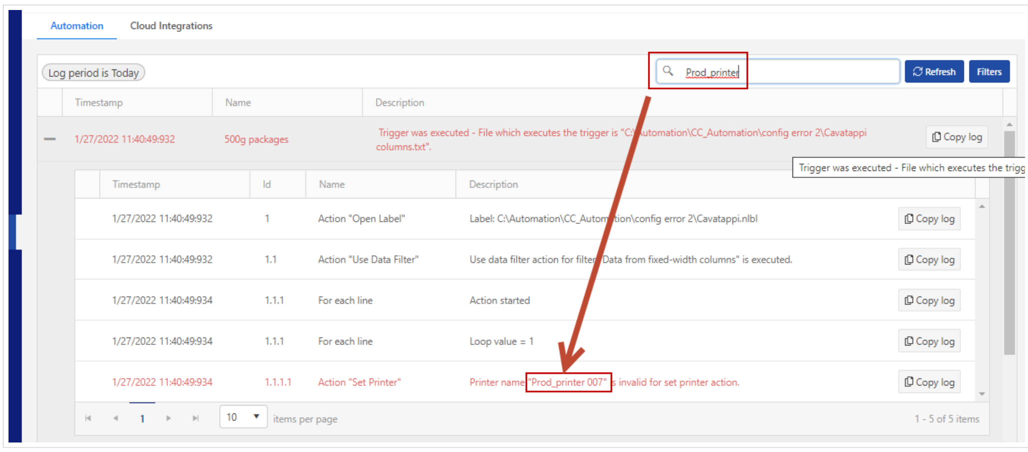
   - **Log period** (time periods): predefined or custom
   - **Event level**: Error, Warning, or Information

4. Click the **+** icons to the left of your log timestamps to see events and action details (like information, warnings, and errors) in your log files.



Expanded log from your current day. Only logs with errors and warnings are shown.

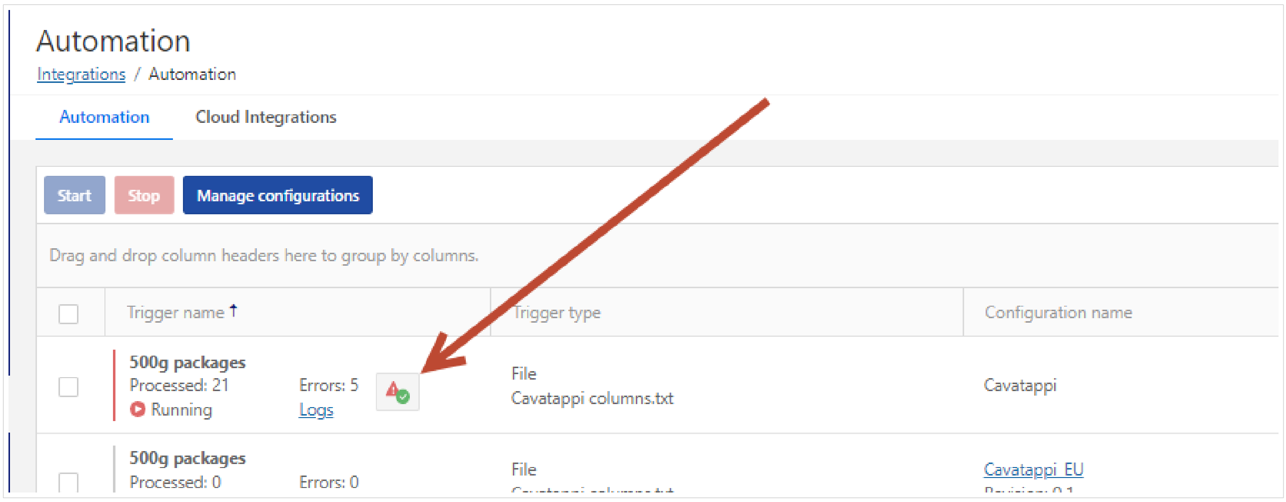
You can also search by event description.



By pressing the **Copy log** button, you can copy a text file with log events of the trigger or isolated action to your desktop.

The **Download** button enables you to create an Excel file with all logged events in your **Log period**.

You can reset the errors counter in Control Center by clicking the icon.



If you run Automation on a local computer, the counter resets also in local Automation Manager. Resetting the counter doesn't remove errors from the log.

Check your Automation logs to troubleshoot problems. If you cannot execute your triggers or actions, Automation records error descriptions in your log files to help you identify and resolve issues.

5.2. NiceLabel Automation integration with Loftware Integration - Oracle EBS

5.2.1. About Loftware Integration - Oracle EBS and integration with NiceLabel Automation

Loftware Integration - Oracle EBS (formerly Loftware Oracle Agent) is a component that enables supported Loftware solutions to integrate with Oracle® E-Business Suite (EBS) so that Oracle® Warehouse Management (WMS) applications can receive and process label print requests. Loftware Integration - Oracle EBS can be updated independently of the Loftware solution, ensuring that the solution can have the most up-to-date integration capabilities available.

An Oracle administrator installs Loftware Integration - Oracle EBS in the Oracle EBS system database and configures it to securely connect with a Loftware solution. An administrator of the Loftware solution can configure an Oracle integration for use with label templates without needing to enter Oracle credentials.

This guide helps you to deploy the NiceLabel Automation configuration to support the Loftware Integration - Oracle EBS and explains the integration processes.

The latest Loftware Integration - Oracle EBS version natively supports NiceLabel.

How to obtain the software?

If you are a new customer interested in Loftware Integration - Oracle EBS, or an existing NiceLabel customer interested in using Loftware Integration - Oracle EBS in conjunction with NiceLabel, contact Loftware Sales.

The Automation integration `.zip` file contains:

- NiceLabel Automation configuration (`.misx` file)

> **NOTE**
> NiceLabel Automation is an application that automates repetitive tasks.
>
> Learn more about NiceLabel Automation.

- NiceLabel Automation integration with Loftware Integration - Oracle EBS guide

Before you start, check the System Requirements.

5.2.2. System requirements

Loftware Integration - Oracle EBS

For a successful integration, the requirements for Loftware Integration - Oracle EBS are:

- Oracle Database 19c
- The Loftware Integration - Oracle EBS must be installed in your Oracle EBS database. For a detailed installation process, see the Getting Started with Loftware Integration - Oracle EBS.

NiceLabel

For a successful integration, the requirements for NiceLabel are:

- NiceLabel installation:
  - LMS Enterprise 10.5 or later
- NiceLabel Automation prerequisites:
  - Printer drivers must be installed. You can install printer drivers directly on your computer, or you can register the drivers from the print server you may have.

NOTE

For the best printing experience, we recommend you install Loftware printer drivers.

To install Loftware printer drivers, see the Printer driver installation guide.

If you already have printer manufacturer's drivers, you can replace them with Loftware printer drivers to optimize your printing process.

If you already have Loftware printer drivers, we recommend you update them to the latest versions. See Updating printer drivers.

- The user account that the NiceLabel Automation Service runs from, must have read permission to the folder or folders in Document Storage, where labels are stored.
- All printers must be visible to the computer and the user account under which the Automation Service runs. Automation creates print jobs on this computer and sends them to the printers using Windows Spooler. The printers must be accessible for printing for the user account under which Automation Service runs. Make sure to use a real user account when using network printers (do not use a Local System Account).

- Other NiceLabel System requirements.

5.2.3. Software overview

NiceLabel

Your NiceLabel product allows you to create and edit labels (Desktop Designer), have access to document storage with versioning, approval processes, user management, and print history (Control Center) and provides an integration system (Automation).

Your NiceLabel product contains:

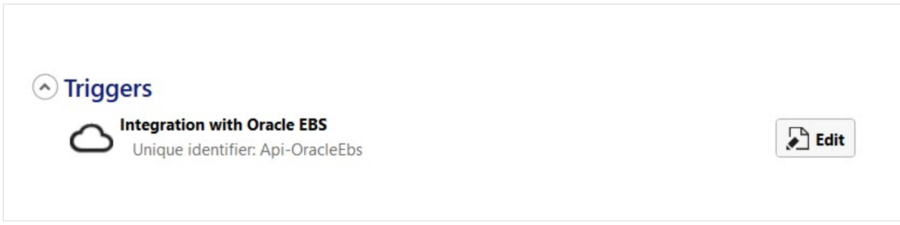
- NiceLabel **Desktop Designer** is an application for designing and printing labels. Install Desktop Designer on your computer and connect it to Control Center. In Control Center, you can see all your printers connected to your Desktop Designer.
- NiceLabel **Control Center** is a cloud-based application that allows you to share and store your labeling files and print labels. Control Center connects all printers of all users who have their Desktop Designer connected to Control Center.
- NiceLabel **Automation** is an application that automates repetitive tasks like automated printing.

When NiceLabel Automation receives a data payload from the Loftware Integration - Oracle EBS, it first fetches the correct label from **Documents** in Control Center, populates the fields in the template with the business data provided in the Oracle payload, and prints a label to the requested label printer.

NiceLabel Automation exposes the HTTP REST APIs that are consumed by Loftware Integration - Oracle EBS. NiceLabel Automation synchronously sends the response for each call.

NiceLabel Automation

The integration bundle provides a pre-built NiceLabel Automation connector (trigger). You deploy the provided Automation configuration (`.zip` file) and start the trigger. The NiceLabel Automation configuration contains one Cloud Trigger that provides the API endpoint for the Loftware Integration - Oracle EBS.



The action in a trigger is based on the built-in action Run Oracle XML Command File. This action can parse the XML payload from the Loftware Integration - Oracle EBS and execute the print actions accordingly.

All actions before this one are there to ensure the label names in the XML include a full URL prefix to the location in your **Documents** page in Control Center. The URL is read from the NiceLabel configuration file and appended into the XML payload.

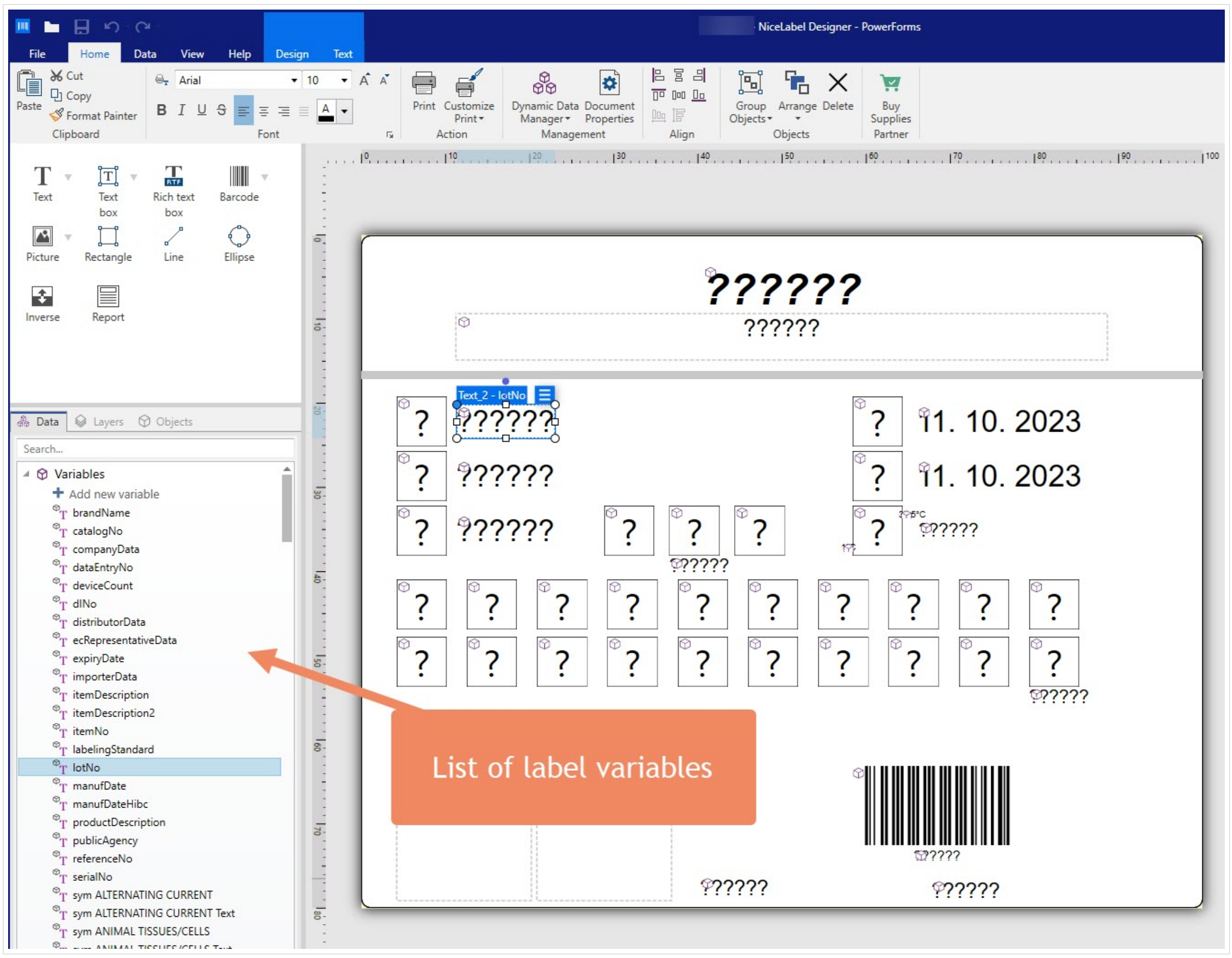
After the actions in the trigger are complete, a JSON response is sent back to the Loftware Integration - Oracle EBS.

Designing labels in NiceLabel Desktop Designer

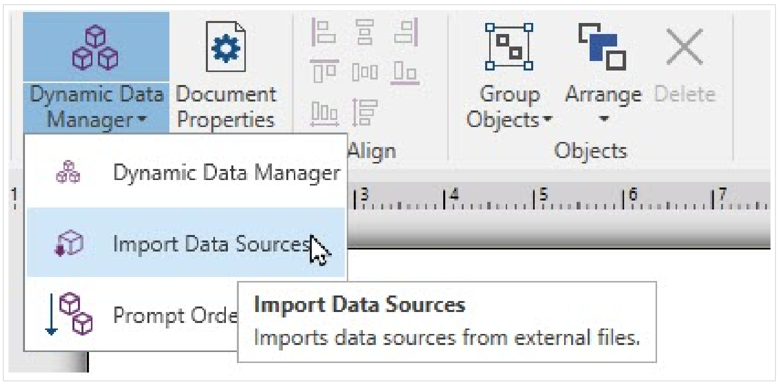
With NiceLabel Desktop Designer you can create and edit labels and connect them to dynamic data sources. See how to create a new label in Desktop Designer.

When Loftware Integration - Oracle EBS consumes the NiceLabel API, it provides the JSON payload with the data for NiceLabel Automation, including key-value pairs for the label variables.

Each label, connected to a dynamic data source, contains the variables as data sources for the label objects. These variables connect to label objects and provide values for those objects at print time.



The variables defined in the label must have the same names as the data fields in the Oracle applications. You can create variables in the label manually, but you can also import variables from the existing labels or the Oracle XML payloads.



Label referencing names

You must store your labels in the **Documents** in your Control Center. Reference the name of your labels from the root folder in **Documents**.

For example, if you have a label `label.nlbl` stored in a folder called **Labels** , which is in the **Project1** folder; the correct form of the full path to the template is `/Project1/Labels/label.nlbl`.

If you don't provide the full name to the label templates in Documents in your Control Center, including the full path to the label template, Automation has to find a label template:

- the same folder where MISX is stored
- folder .\Labels
- folder ..\Labels
- default label folder

See Using project folders to manage files needed on the label or form for more information.

5.2.4. Integration setup

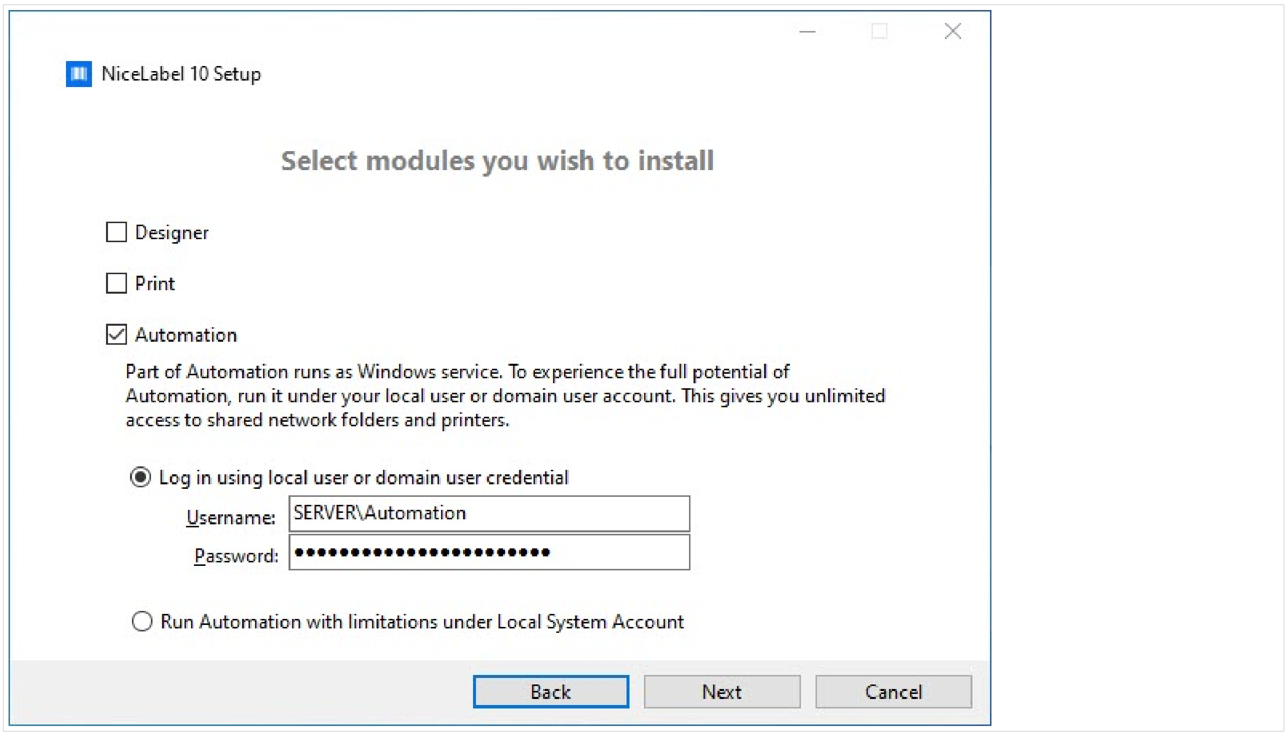
Deploying NiceLabel Automation

To deploy the pre-configured Automation configuration, you must load it into NiceLabel Automation Manager and start the triggers.

Installing and activating NiceLabel Automation

NiceLabel Automation is part of NiceLabel desktop applications installation. The required module to run the Automation configurations is "Automation."

For more details, see the NiceLabel installation guide.



For activating NiceLabel Automation, see Licensing and activating NiceLabel.

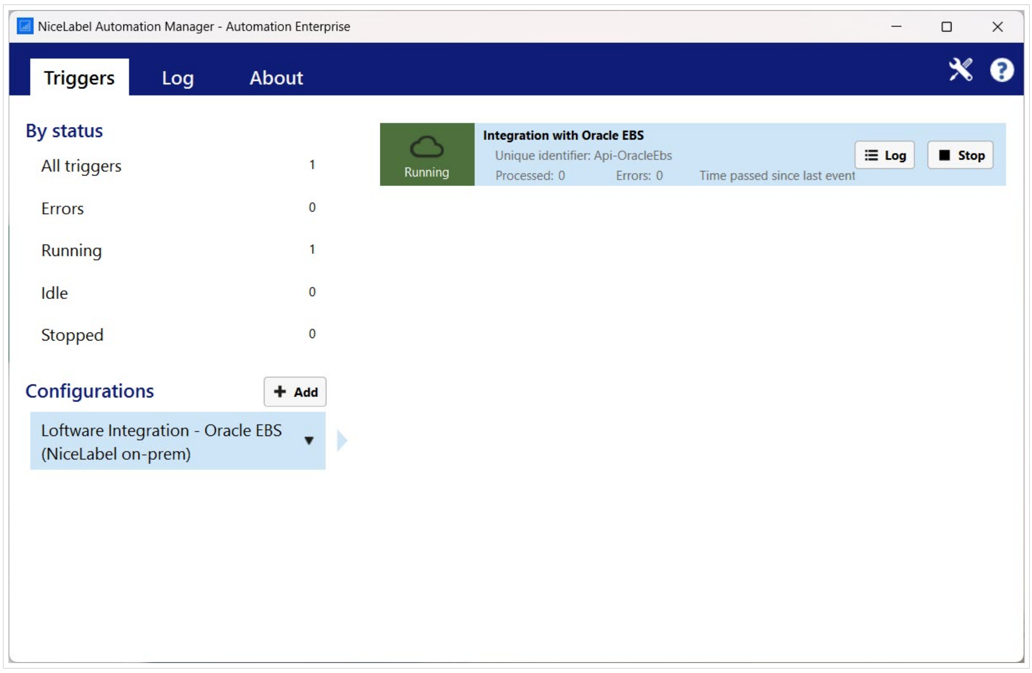
Deploying triggers in Automation

Before you can start deploying triggers, make sure you have NiceLabel Automation installed on your computer and that your NiceLabel product is activated.

For activating LMS Enterprise, see Activating NiceLabel LMS Pro/LMS Enterprise and signing in to License Center.

1. Extract the `.zip` file to a folder in **Documents** in your Control Center.
2. Run NiceLabel Automation Manager.
3. Go to **Triggers**, then click the **+Add** button.
4. In the **Open** window, browse for your `.misx` file and click **Open**.
   Automation Manager loads the configuration and lists the triggers in the right-hand pane.
5. Select all triggers and click **Start** on any of the triggers. All triggers will start. Triggers' icons turn green, and the status changes to "Running."

> **IMPORTANT**
> Once started, the triggers will automatically start upon the server reboot.



5.2.5. Authentication for NiceLabel APIs

The URL endpoint for NiceLabel on-premise products is custom (on your server), but you still need an integrator key to authenticate the call to the API.

> **NOTE**
> Your NiceLabel integrator key can be created before or after Loftware Integration - Oracle EBS is installed.

To generate the integrator key:

1. In your browser, open your local Control Center. The URL is custom for your installation, for example, `http(s)://<YourServerName>/epm`.

   Replace <YourServerName> with the name or IP address of your server where your Control Center is installed.

   > **NOTE**
   > Using either http or https depends on whether your web server enables encryption.

2. Go to **Integrations** > **Cloud integrations**.
3. Click **Add**.
4. Type in the name of the integrator. The integrator key is auto-generated.
5. Click **Save**.

5.2.6. API endpoints

To consume the API, use the following URL:

API	URL
Loftware Integration - Oracle EBS trigger	http(s)://<YourServerName>/epm/api/trigger/Api-OracleEbs

Each API request must include a custom header with the name **Integrator-Key**. Its value is the subscription key obtained in Authentication for NiceLabel APIs.

Replace <YourServerName> with the name or IP address of the server where your NiceLabel Control Center is installed.

Using either http or https depends on whether your web server enables encryption.

6. Printers

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

NOTE

With Essentials LMS Pro license you can't manage your printers, but you can see Cloud printers and Licensed printers details and monitor printer activities.

Manage all your label printers, printer drivers, print jobs, and printing preferences for your entire system, all in one place.

Control Center helps you **manage and expand your entire label printing system securely from your browser**. From Control Center, you upload your printer drivers, connect printers, and install and update printers and drivers to computers in your system. Use printer groups to **control who can access and manage specific printers**. View your entire label printing system from Control Center, including current print jobs in all your queues, errors, required updates, and printer and computer statuses.

As part of NiceLabelLabel Management System, Control Center integrates into your IT environment to give you secure browser-based central print management of your entire labeling printing system.

- **Global IT Administrators** manage global printer installation, updates, settings, profiles, groups, licensing, and drivers, while centrally monitoring labeling in multiple locations.
- **Local IT Administrators** manage local printer installation, provisioning, configuration, updates, settings, profiles, groups, and drivers while monitoring labeling in single locations to keep production running.
- **Print Operators** adjust printing preferences for one or more label printers on your production lines in single locations to print labels.

Printer management helps you avoid downtime by maintaining and overseeing your entire label printing system from your browser, and helps you organize and expand labeling systems large and small.

NOTE

Centrally-managed printers are printers you operate and control from Control Center. When you add printers to Control Center, you can update printing preferences and printer installations from Control Center instead of using printer drivers on individual computers.

How Printer Management helps

Without Printer Management, when you buy a new label printer for your production facility and plug it in, you have to manually call your IT manager to remotely connect your TCP/IP printer to your network. Once connected, to install your TCP/IP printer on the computer that runs your factory printers, you have to walk to the computer, download and install a printer driver, then install your connected printer with the driver on your computer. You have to repeat this process for each new printer and each time you want to update driver settings (like speed or darkness) for your printers or update your printer drivers.

With Printer Management, you can add your new TCP/IP printer to Control Center from any computer on your system. You upload the Loftware printer driver for your printer to Control Center and install the printer with the driver on the computer that runs your factory printers remotely. Now, you can install your new printers, update driver settings for your printers, and update your printer drivers in Control Center from anywhere.

How Printer Management reduces complexity

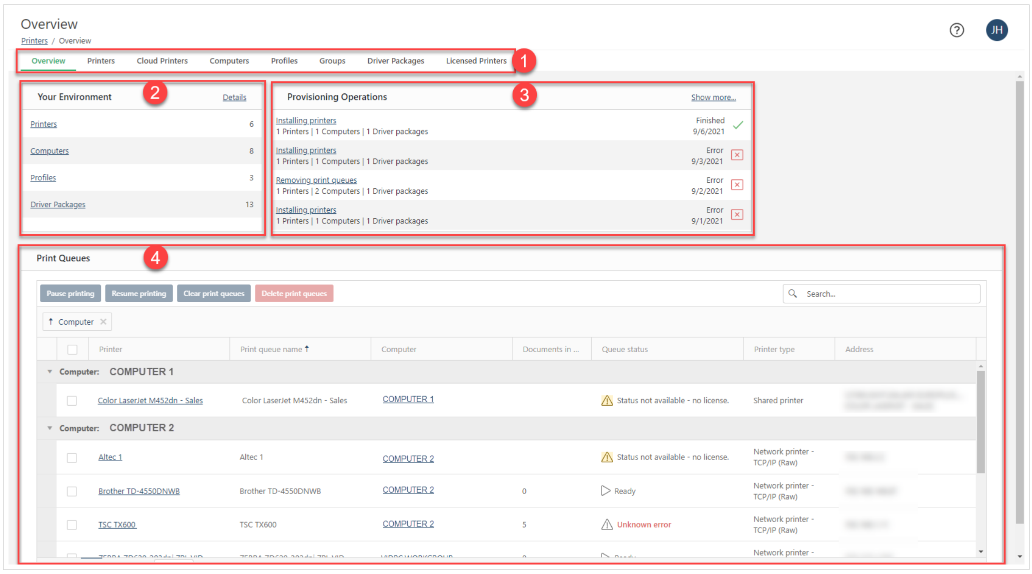
Your company has a large printing system with multiple locations and multiple NiceLabel products installed. You have 50 TCP/IP label printers already connected to your system, and you want to install a new printer. You want to print from NiceLabel Automation on your 2 dedicated Automation servers where you have NiceLabel installed. You need to physically go to or remotely access the 2 servers (computers) and install your new printer (connected to your network via TCP/IP). On each computer, you go to the Loftware website, download the latest printer driver package for your printer, and use the driver package to successfully install your new printer.

In 6 months, you want to install more new printers on one of your computers. Again you have to go to your computer, go back to the Loftware website, download the latest driver packages for your new printers, and install your printers. The Loftware printer driver already running on your computer recognizes you're downloading a newer driver version and updates the driver for the previously installed printer without your knowledge. If you install a printer from a different manufacturer, when you download a new Loftware driver major release update, your previously installed driver also upgrades. Upgrading requires your computer to restart its spooler service, causing your production lines to stop. Because you have multiple computers in your environment and your computers run printers in multiple locations, that means production may stop in multiple factories. The other computer you didn't update still runs older driver versions to print on the same printers. You want to print the same label from multiple automation servers, but now they print correctly from one computer but not the other. When you investigate, you realize the problem is different driver versions. You have to do all that on a remote connection while running Control Center in a confined environment.

To avoid problems in your complex system, you decide to use **Printer Management** to install printers using the correct printer drivers while keeping your entire printing environment updated automatically so all your computers use the same updated versions of all your drivers.

6.1. The Printers interface

Go to **Control Center** > **Printers** > **Overview** to see information about your centrally managed printing environment, recent provisioning operations, and your list of print queues.



The **Printers** > **Overview** page includes:

1. Additional tabs you can click to see detailed information and take more actions:
    - **Overview**
    - **Printers**
    - **Cloud Printers** connect directly to our Cloud Printing service without drivers. You can view cloud printers in Control Center, but you can't manage or install them.
    - **Computers**
    - **Profiles**
    - **Groups**
    - **Driver Packages**
    - **Licensed Printers**
2. Details about your printing **Environment**, including how many **Printers**, **Computers**, **Profiles**, and **Driver Packages** you have connected to Control Center. Click the links to visit relevant tabs. Click **Details** to open your detailed list of centrally managed printers in your system.
3. Recent **Provisioning Operations**.
4. Your list of centrally-managed **Print Queues**.
A **print queue** is a virtual concept~a holding area for storing spooled print jobs while the printer is trying to catch up. You don't actually send print jobs to printers, you send them to print queues until printers start printing at print time. A print queue doesn't require a printer~ it continues to accept jobs while the printer is offline (like while being repaired).
For more information, read **Print Queues** in Section 6.7, “Computers”.

6.2. Printer vocabulary

Printer vocabulary

<table>
<tr><td>Printer</td><td>A printer is a physical hardware device~ the actual printer that prints out labels, tickets, or tags.

Types of printers:
Local printers are printers directly connected to computers with cables like USB or serial ports. You can't install or manage local printers in Control Center.
Network printers are printers that connect to computers via TCP/IP (RAW or LPR/LPD) or network ports. Network printers are the printers you can centrally manage in Control Center.
Shared printers are printers you install on print servers and mark as "shared" in your system. You can view and manage shared printers in Control Center, but you can't install shared printers using Control Center.</td></tr>
<tr><td>Centrally Managed printer</td><td>A centrally managed printer is a printer that is operated and controlled by Control Center. When you add a printer to Control Center, you can manage printing preferences and printer installation from Control Center.</td></tr>
<tr><td>Computer</td><td>A computer is a machine that connects to printers and sends printers data and instructions to print out labels.

Computers can be:
Desktop or laptop computers.
Servers or virtual machines.</td></tr>
<tr><td>Printer driver</td><td>A printer driver is a piece of software that allows computers to communicate with printers and send print requests. Printer drivers have two main functions:
Serving as a bridge between the computer and the printer, allowing the computer to understand the details and hardware specifications of the printer.
Transforming print job data into a language the printer can understand. Each printer has a unique driver written in printer-specific language for that printer model and manufacturer.</td></tr>
<tr><td>Driver package</td><td>A driver package is a compressed (zipped) bundle of the all files you need (like .inf and .dll files) to install printer drivers on Windows for a specific manufacturer. When you download your driver packages for free from Loftware, you're downloading a bundle of all the drivers for all the supported printer models of that specific manufacturer.</td></tr>
<tr><td>Preferred driver</td><td>A preferred driver is the printer driver package you choose to install and use specific printers or groups of printers and for generating centrally managed printing preferences for those printers.</td></tr>
</table>

Print job	A **print job** is a document or set of documents you send to a print queue to be printed.
Print queue	A **print queue** is a virtual concept~a holding area for storing spooled print jobs while the printer is trying to catch up. You don't actually send print jobs to printers, you send them to print queues until printers start printing at print time. A print queue doesn't require a printer~ it continues to accept jobs while the printer is offline (like while being repaired).
Installed printer	An **installed printer** is a printer connected to a computer with a driver through an installation process. You start the process by installing a printer driver on a computer and using it to create a print queue. When you browse "installed" printers in your Windows Control Panel, you aren't actually viewing printers, you're viewing the print queues your drivers create on your computer during the installation process. You can manage this process centrally for your computers, printers, and driver packages in Control Center.
Printing preferences	**Printing preferences** are the instructions that tell each printer how to print labels. Printing preferences include settings for printing media like media size, media type, and rotation. Printing preferences may also include more printing settings (like speed and darkness) depending on your printer model.
Driver profile	A **driver profile** is a set of printing preferences linked to a specific printer driver. Putting printing preferences in profiles allows many printers to share the same set of printing preferences without the need for duplication.
Printer model	A **printer model** is a name given by the printer manufacturer to a type of physical printer device.
Group	Use **groups** to organize your computers and printers into logical structures that reflect the structure of your printing environment or setup. Use groups to define access rights and give only certain users access to your computers and printers.

6.3. How printer management works

Printing preferences

Printing preferences are the instructions that tell each printer how to print labels. Printing preferences include settings for printing media like media size, media type, and rotation. Printing preferences may also include more printing settings (like speed and darkness) depending on your printer model.

With previous versions, you stored your printing preferences in NiceLabel inside individual label templates or within printer drivers on individual computers. This approach wasn't good enough for enterprise environments with thousands of labels, because each change you made to printing preferences had to be applied to all the labels. If you had your printing preferences stored in drivers on computers, then each change to printing preferences had to be applied individually on each computer you printed from.

Now, when you print on centrally managed printers from Control Center, you can instruct your printer to use printing preferences stored in Control Center. If you still have printing preferences stored in your label or locally on the computer that sends the print command, you now have the option to override those preferences and apply the preferences stored in Control Center instead.

Control Center applies your stored printing preferences in DEVMODE at print time. When computers send print commands to centrally managed printers, Control Center replaces the printing preferences computers send with print their commands with the DEVMODE printing preferences stored in Control Center. You can edit printing preferences directly in Control Center with a GUI editor if you use Loftware version 10 printer drivers or newer. Older printer drivers require raw DEVMODE strings.

Printer installation process

Typically, printing environments have TCP/IP printers installed on computers. To print a label, you need:

- NiceLabel installed on a computer.
- Your printer.
- Your printer driver (uploaded to Control Center).

To print labels, you need to **add** your printer to Control Center and **install** it on your computer from Control Center along with your printer driver.

- **Adding printers** to Control Center means saving printer properties like printer name and IP address in Control Center. With your printers added, you can install them.
- **Installing printers** from Control Center means sending your printer information (like IP address and name) along with the printer driver required for your printer from Control Center to your computer for installation.

During installation, when your computer receives the driver and printer information, NiceLabel uses the driver to create a **print queue** on your computer. On your computer, the **NiceLabel Proxy service 10** (which installs on your computer when you install NiceLabel 10) receives the driver and printer information and installs the printer. The NiceLabel Proxy service enables necessary communication between printers, Control Center, and NiceLabel applications installed on individual computers in your printing environment.

From Control Center, once your printers are installed, you can centrally:

- Delete print queues.
- Clear, pause, and resume print queues.
- Update your printer drivers.

6.4. Setup

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Printer Management is a new way to organize your entire labeling system. You can manage updates and printing on all your printers, computers, and drivers centrally from Control Center. **Printer Management**

requires special setup to integrate your printers, driver packages, and computers into a single system before you can print.

> **NOTE**
>
> To use all printer management features and centrally manage your printers, update your Control Center and NiceLabel applications to the latest version. For more information, read Section 6.5, "Migrating from previous versions".

1. On computers you want to print from, **install any NiceLabel desktop application and sign in to your account**. Signing in connects your computer to Control Center and makes it available for centralized **Printer Management**.
2. **Add printer driver packages for your printers**. Centralized **Printer Management** only works with Loftware printer drivers. For more information, read Section 6.10, "Driver Packages".
3. **Add your printers to Control Center**. Printers you add still need to be installed with drivers on computers. For more information, read Section 6.6, "Managing printers".
4. **Install your printers** with their respective drivers on computers you choose. For more information, read Section 6.6, "Managing printers".

> **NOTE**
>
> When you upgrade from previous versions of Control Center, your detailed list of printers appears empty when you open Control Center > **Printers** > **Overview** for the first time, but all your existing printers are still in your system.
>
> Go to **Printers** > **Printers** and click **Add**. From the drop-down menu, choose **Search for more printers in my environment** to see all your printers and choose which printers to centrally manage from Control Center. For more information on adding centrally-managed printers, read **Section 6.6.1, "Adding printers"**.

With your printers, drivers, and computers set up, you can centrally manage your printing, change printing preferences, and keep your drivers up to date from anywhere in Control Center.

6.5. Migrating from previous versions

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Install the latest version of NiceLabel software on your computers to use all new features including centralized **Printer Management**.

Print management data

Legacy print management data does not automatically migrate from previous versions. Follow this process to migrate your **Printer Management** data to Control Center:

1. Update all your NiceLabel applications to the new version. Make sure they're still connected to Control Center.
2. Open Control Center > **Printers** > **Printers**.
3. Click **Add** > **Search for more printers in my environment**.
4. Select your printers and follow the **Import Printers** wizard. The wizard attempts to select a group based on your legacy print management data. If your printers aren't available, wait for your computers to report printer data to Control Center.

For more information, read Section 6.4, “Setup”.

Limitations and differences:

- Legacy print management groups included printer queues. Now, Section 6.9, “Groups” include printer devices.
- Print queues could belong to multiple groups in legacy print management. Now, printers belong to just one group.
- Legacy print management supported dynamic groups (by printer name or status). Now, group membership is static.
- Imported printer groups are based on static groups. If no static groups are available, Control Center tries to import dynamic groups (only by printer name, not by status).

Control Center database backward compatibility

> **NOTE**
> Create a database backup before you upgrade to NiceLabel 10.

The NiceLabel 10 database is not 100% compatible with previous versions. **This means that you can't revert to the previous versions of Control Center once you upgrade your database.**

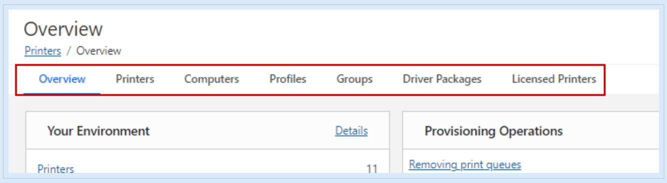
6.6. Managing printers

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Get real-time updates and make changes on every printer in your system from one place.

NOTE

You might not see all the options for managing printers in your **Control Center > Printers** page because of insufficient user rights.



Check the permissions with Control Center administrator in **Users > Access Roles**.

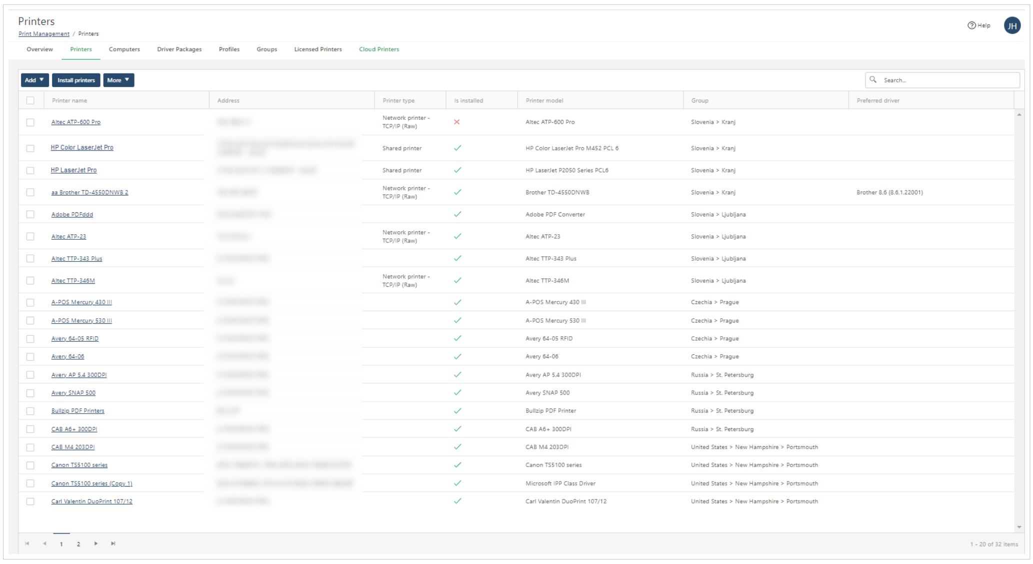
Add your printers to Control Center to centrally manage your printing system from your browser for improved efficiency and reduced maintenance time. **Printer Management** helps you keep your local production lines running smoothly by installing and managing printers in local domains without having to consult your global IT manager. Install printers you add on your computers with the correct Loftware printer drivers to choose printing preferences, monitor your printing system, manage updates, organize printers with profiles, and assign access and permissions with printer groups.

NOTE

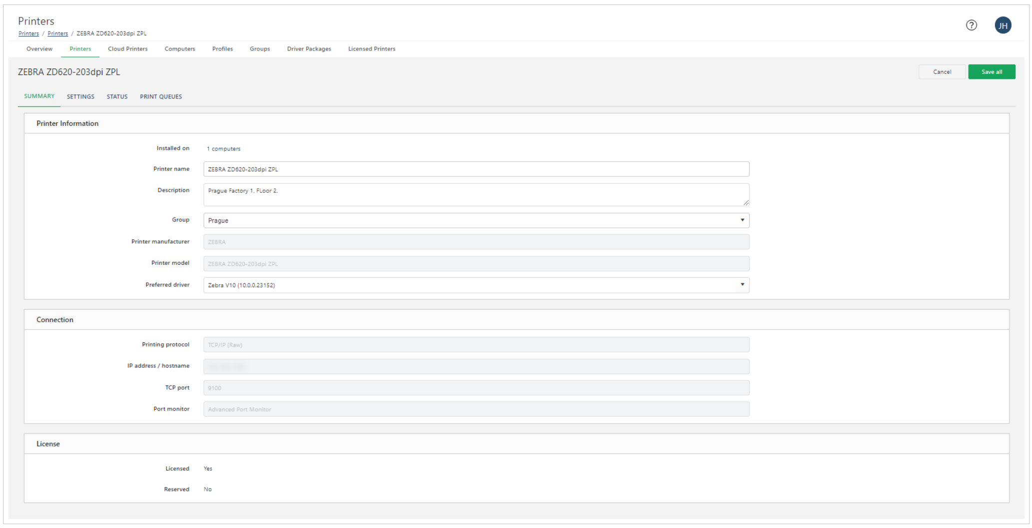
You can centrally manage **Network printers** connected to computers via TCP/IP (RAW or LPR/LPD) or network ports with **Printer Management**. Consider using **Printer management** if your printing operations require at least a few hundred printers. See the troubleshooting topic if you can't see your printers in Control Center.

For more information, read the "Printer" definition in the **Printer vocabulary**.

Add and **install** new printers or **import** your existing installed printers before you can manage them from Control Center.



*Go to **Printers** > **Printers** to see your list of added centrally-managed printers and sort your printer information.*



Click on printer names to view and update printer information, printer settings (including printer preferences), status, and print queues.

Monitor and update all your centrally-managed printers from Control Center to reduce downtime and prevent problems.

6.6.1. Adding printers

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

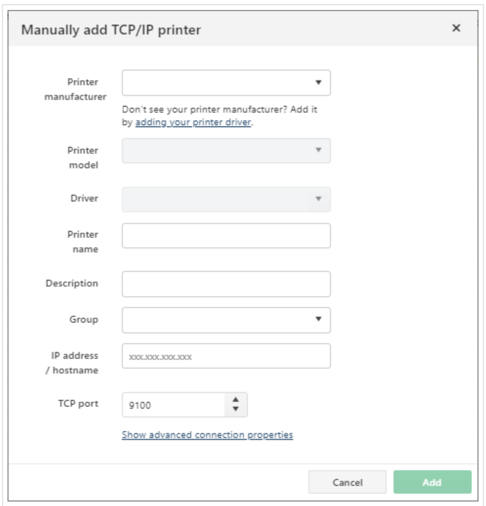
Add your printers to Control Center before you install them on your computers. You can manually add TCP/IP printers, or automatically find printers in your system and choose which printers to add.

Adding printers manually (TCP/IP)

TCP/IP printers provide a raw TCP port for your printing data. Most printer manufacturers use port 9100.

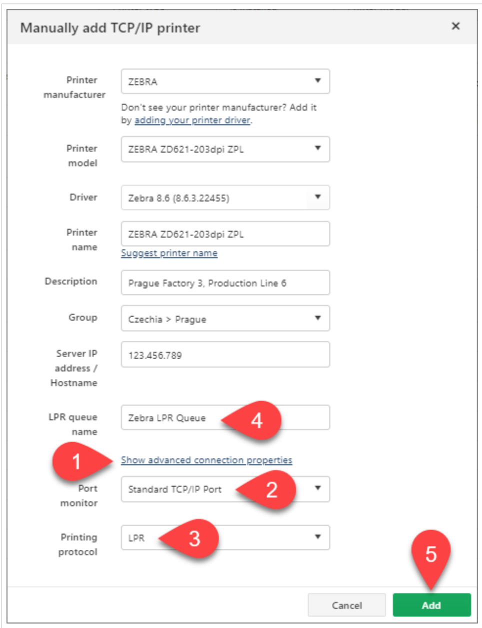
> **NOTE**
> We recommend using advanced port monitor and TCP/IP(RAW) printing protocol when supported by your printer.

1. Go to Control Center > **Printers** > **Printers** and click **Add**.
2. From the dropdown menu, choose **Manually add TCP/IP printer**. The **Manually add TCP/IP printer** window opens.



3. Type your printer information and click **Add**.

4. (Optional) To add LPR printers:



   a. Click **Show advanced connection properties**.

   b. For **Port Monitor**, choose **Standard TCP/IP Port**.

   c. For **Printing protocol**, choose **LPR**. The **LPR queue name** field appears.

   d. Type in your **LPR queue name**.

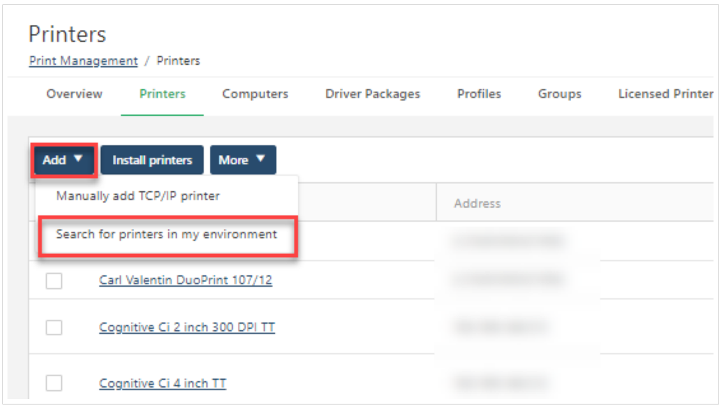
   e. Click **Add**.

Your new TCP/IP printer appears in your list of centrally managed printers. Now you can install your added printer on your computers.

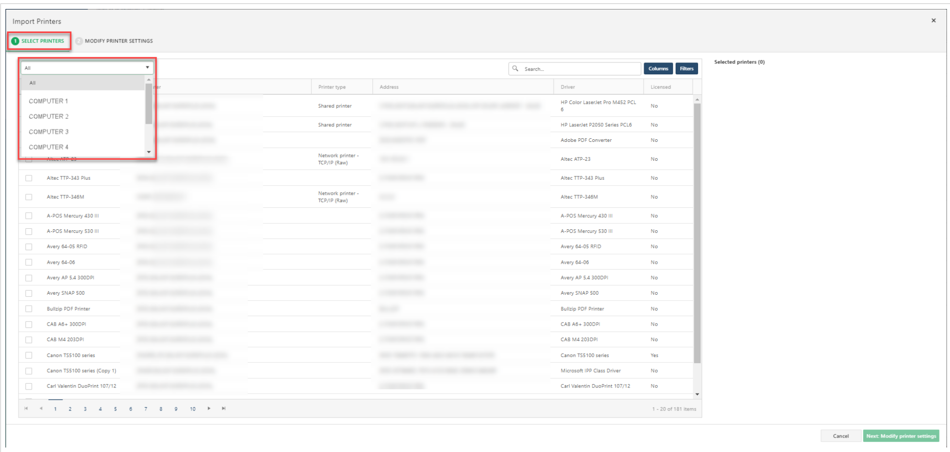
Adding printers automatically with Import Printers

Find existing printers connected to computers in your system to add to Control Center.

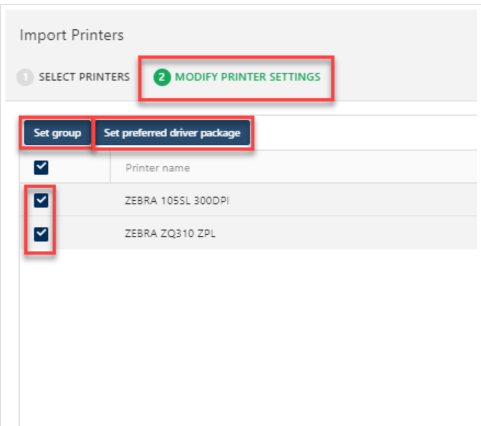
1. Go to Control Center > **Printers** > **Printers** and click **Add**.
2. From the dropdown menu, choose **Search for printers in my environment**. The **Import Printers** window opens.



3. In **Select Printers**, from the dropdown menu, choose your computer to see printers from that computer. Use **Filters** (on your right) to narrow your selection and find printers to add.



4. Select printer(s) to add, and click **Next**.
5. In **Modify Printer Settings**, select your printers to apply settings:



a. Click **Set group** to add your printers to an existing printer group from the drop-down menu. Read more about printer groups: Section 6.9, “Groups”.

b. Click **Set preferred driver package** to connect your printers with an uploaded driver package from the drop-down menu. Setting a preferred driver package to use this driver package to control printing preferences and future installations on other computers.
If your preferred Loftware drivers are version 10 or newer, you can update printing preferences directly in Control Center. If you choose to use older preferred driver versions, you may not be able to change your printing preferences directly in Control Center without DEVMODE.
Read more about drivers: Section 6.10, “Driver Packages”.

> **NOTE**
> Your selected printers must be from the same manufacturer to set shared drivers. You can't connect printer drivers with printers from different manufacturers.

6. Click **Finish** to add your printers.

Importing printers from Excel

You can enter a list of your printers in a predefined Excel template and then import the Excel file in Control Center. This way you simplify entering each printer's data individually.

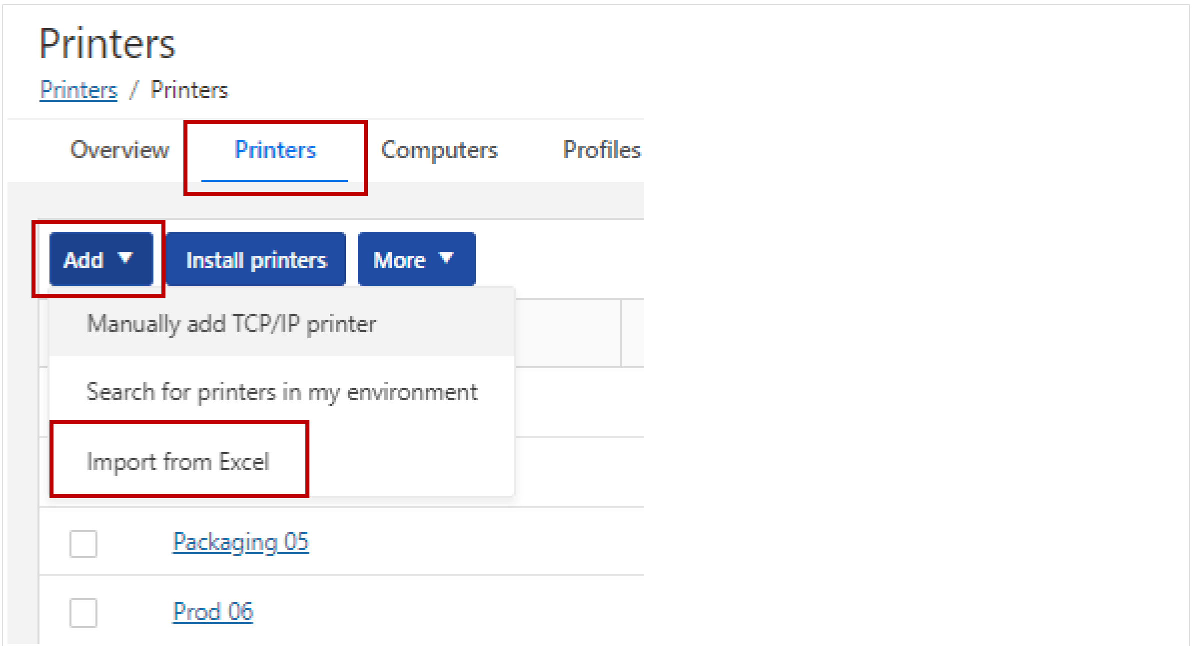
You can also use the Excel table if you don't have user rights to install printers in Control Center. You can send the Excel file to the Control Center administrator who can import the Excel file and install printers.

Your Excel file contains the following printer data:

- Printer name
- IP address
- Port number
- Port monitor type
- Group
- Manufacturer
- Printer model
- Driver package

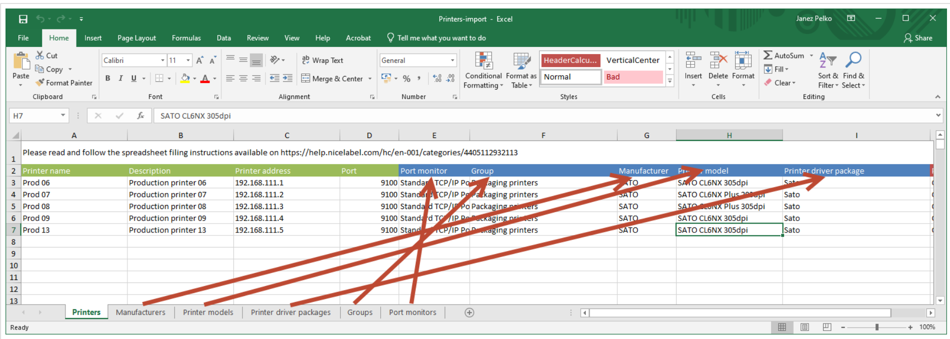
To generate the Excel file and import printer data:

1. Go to Control Center > **Printers** > **Printers** and click **Add**.
2. From the drop-down menu, choose **Import from Excel**. The **Excel Import** window opens.



3. Click the **Download** button. The Excel template `Printers-import.xlsx` saves to your local disc. The Excel file already contains data about your existing driver packages, groups, and port monitors.

4. Open the downloaded `Printers-import.xlsx` and go to `Printers` sheet. Enter your printers' data into green columns (Printer name, Description,...). Copy the values from other sheets in blue columns (Port Monitor, Group,...)

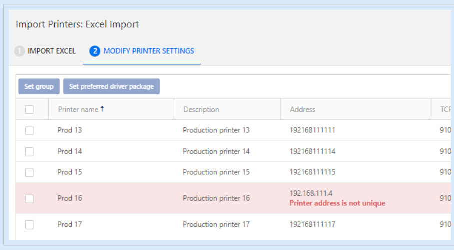
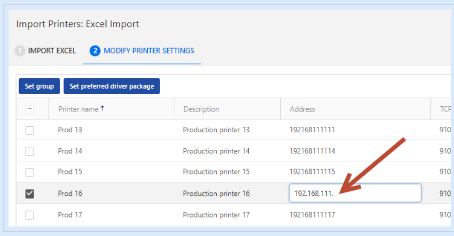


> ⚠ **WARNING**
>
> `Printers-import.xlsx` compares the data in the `Printers` sheet (blue columns) to data in other sheets. If data don't match, the `Package check` column shows an error.
>
> You can't insert driver packages data that is not stored in Control Center.

> ⚠ **WARNING**
>
> If you later add additional printers with Excel, create a new Excel file with only new printer data. Control Center will not import an Excel file with the existing printers.

5. Upload your Excel file to Control Center and click **Next: Modify Printer Settings**.

6. In this step, you can change groups or preferred driver packages for selected printers. (You can also change these properties later in Control Center.)

> **NOTE**
>
> If you get errors, you can modify your data by clicking to the field where error occurs.
>
> 
>
> 
>
>
> You can't delete the whole printer record.

7. Click **Finish** to add your printers.

Your installed printers are imported and appear in your list of printers. Now you can manage printing preferences for your printer or install your printers on other computers.

6.6.2. Installing printers

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Install your added printers on computers in your system with uploaded driver packages before you can centrally manage your printing preferences, see printer statuses, and manage print queues from Control Center.

- **Before you install printers, connect your computers to Control Center.** Read more in Section 6.7, “Computers”.
- **Before you install printers, upload your driver packages to Control Center.** Read more in Section 6.10, “Driver Packages”.

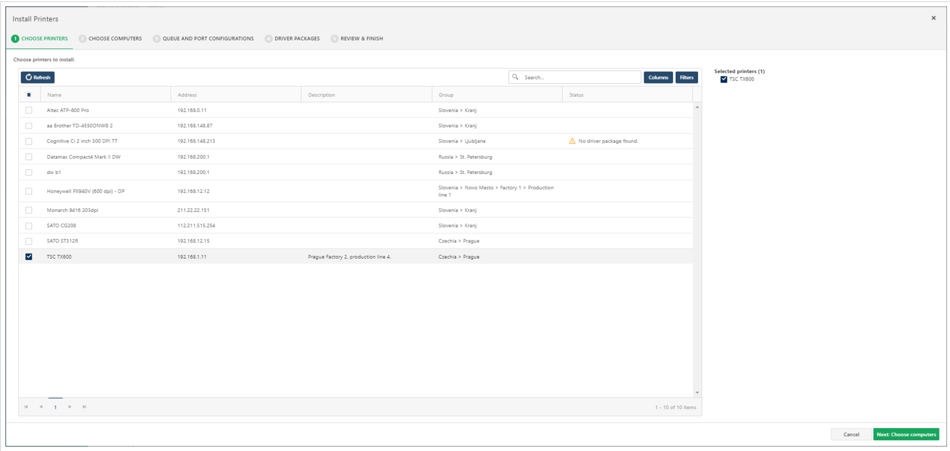
An **installed printer** is a printer connected to a computer with a driver through an installation process. You start the process by installing a printer driver on a computer and using it to create a print queue. When you browse "installed" printers in your Windows Control Panel, you aren't actually viewing printers, you're viewing the print queues your drivers create on your computer during the installation process. You can manage this process centrally for your computers, printers, and driver packages in Control Center.

1. Go to Control Center > **Printers** > **Printers** and click **Install Printers**. The **Install Printers** window opens.

NOTE

If you can't click **Install Printers** you may need installation rights for this printer, or the printer may be shared.

A user that runs the **NiceLabel Proxy service**, must have rights to install printers.



2. Select which printers to install and click **Next**. If you don't see your printer, click **Refresh** to update your list of available printers.

NOTE

You can't install printers without Loftware printer drivers. Read more about drivers: Section 6.10, “Driver Packages”.

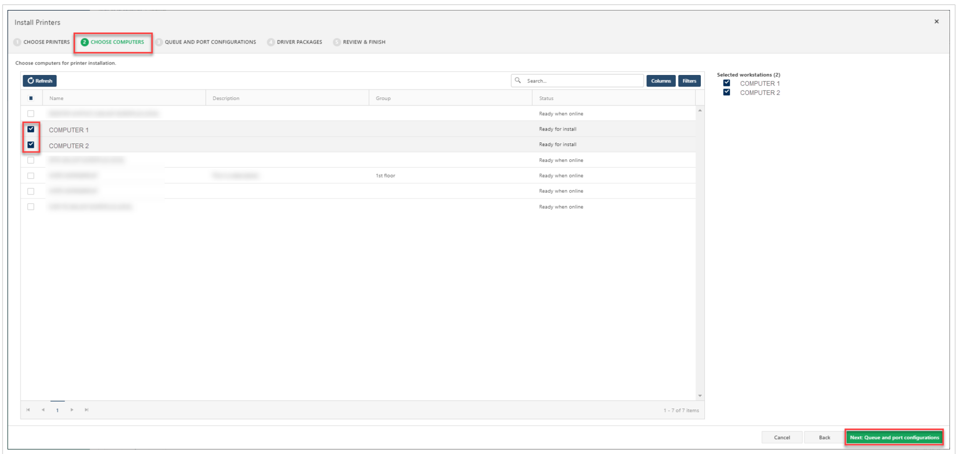
3. Choose the computers to install your printers on and click **Next**.

NOTE

You can install printers on offline computers marked "Ready when online". Installation begins when these computers come back online.

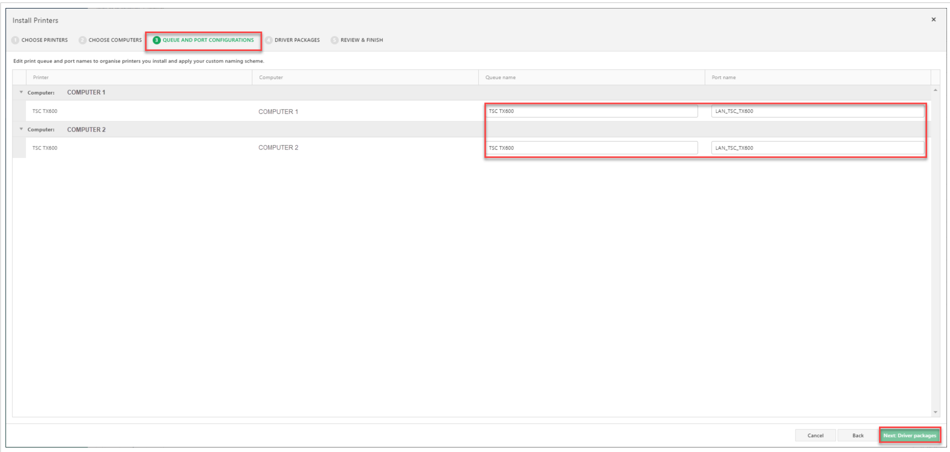
NOTE

You can't install printers on computers using older versions of Desktop Designer, for example V2019 or V2017. Such computers are greyed out in the list of computers.

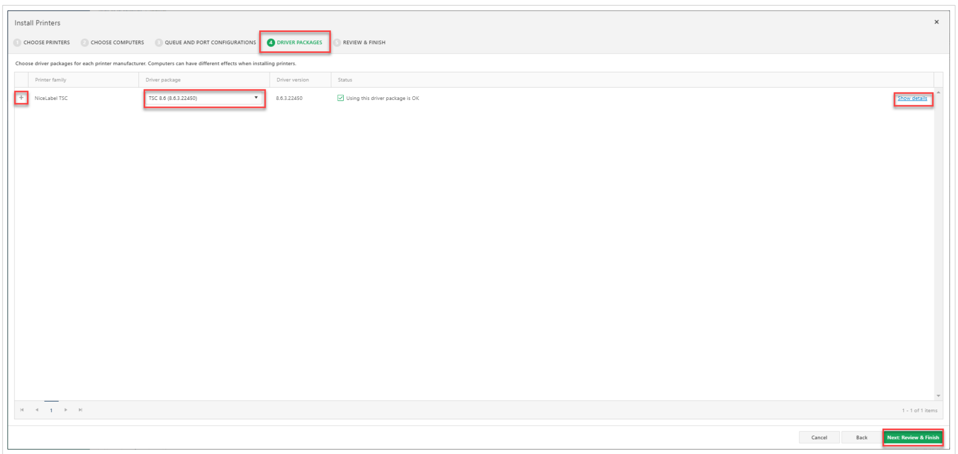


4. Review or update your printer queue and port configurations, and click **Next**.

> **NOTE**
>
> You may not be able to edit some printer queue names.



5. Select a printer driver package for each printer family from your uploaded drivers and click **Next**. Toggle **+** and **-** (on your left) to see more details and the effects your installation may have on your system.



> **NOTE**
> Using different driver versions for the same printer families may produce conflicts.

When you select your driver package, your printer **Status** updates. Check your status before you install your printer:

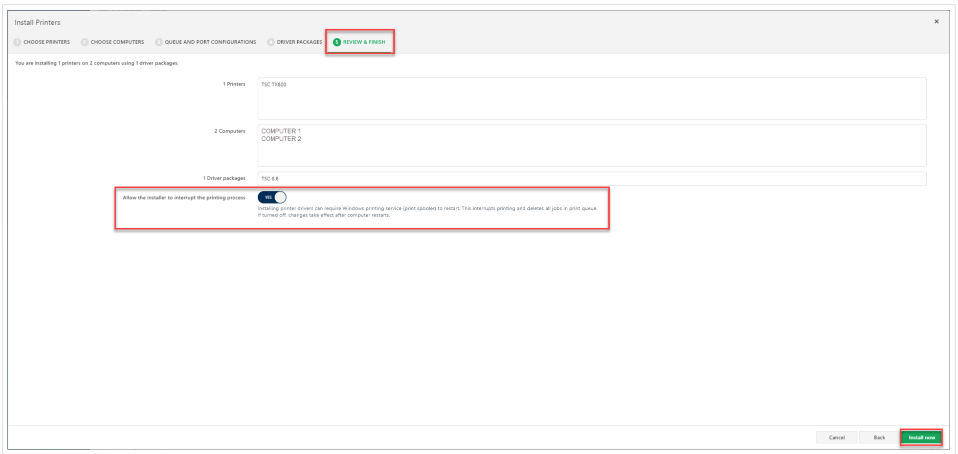
a. **Installs new printer. No side effects.**

b. **Updates printer driver. Requires print spooler restart. Interrupts printing in progress.**

c. **Updates printer driver. Update also affects this unselected print queue.**

d. **This printer uses a different preferred driver package. Installing this driver package may affect printing preferences and print queues or cause errors.**

6. Review your settings and choose whether to allow your installation to restart printer spoolers. Choosing **Yes** may affect current print jobs in your queue. If turned off, changes take effect after your computer restarts.



7. Click **Install now** to install your printers on your computers with your drivers.

Your printer installation begins. You can see your installation status in **Printers** > **Overview** > **Provisioning Operations**. For more information, read Section 6.6.5, “Provisioning Operations”.

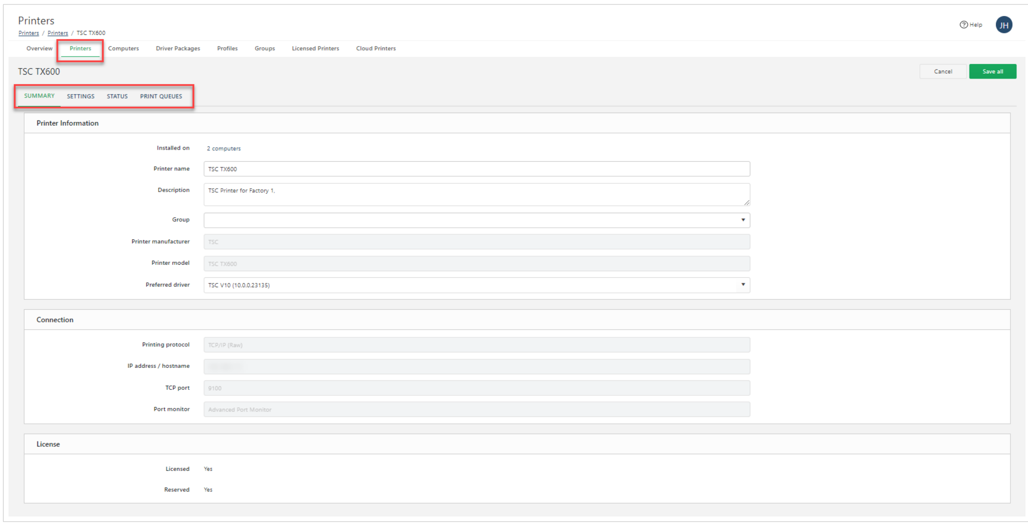
6.6.3. Managing Printing Preferences

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Printing preferences are the instructions that tell each printer how to print labels. Printing preferences include settings for printing media like media size, media type, and rotation. Printing preferences may also include more printing settings (like speed and darkness) depending on your printer model.

With **Printer Management**, you can update printing preferences for all your installed printers instantly in Control Center. When your printer operators want to update settings, they don't need access to computers or any additional system permissions to change printing preferences. You can give printer operators permission to edit printing preferences for specific printers, computers, driver packages, or printer profiles in Control Center. When your printer operators log in to Control Center and update printing preferences for their printers, the changes take place immediately and reduce printing downtime.

To manage printing preferences, go to **Printers** > **Printers** and click on a **Printer name** to update. The **Printer** page opens:



Use the tabs (on your top left) to update your printer settings, then click **Save all** to apply your updates:

- **Summary**: view and update general printer information.
  - Under **Printer information**, edit the fields to update your **Printer name**, **Description**, **Group**, and **Preferred driver** for this printer to use for setting printing preferences and future installations.
    If your preferred Loftware drivers are version 10 or newer, you can update printing preferences directly in Control Center. If you choose to use older preferred driver versions, you may not be able to change your printing preferences directly in Control Center without DEVMODE.
  - Click the link under **Installed on** to view computers with print queues for this printer.
  - Under **License**, check if your printer is licensed and/or reserved. For more information, read Section 6.11, “Licensed printers”.
- **Settings**: choose how to manage printing preferences for your printer.
  - Toggle **Centralized settings** to save your centrally-managed printing preferences in Control Center or locally on your printer or label.
    Now, when you print on centrally managed printers from Control Center, you can instruct your printer to use printing preferences stored in Control Center. If you still have printing preferences stored in your label or locally on the computer that sends the print command, you now have the option to override those preferences and apply the preferences stored in Control Center instead.
  - **Use shared settings profile.** Applies settings from the shared printer profile you choose from the drop-down list to your printer. For more information, read Section 6.8, “Profiles”.

    - **Use printer-specific preferences.** Configure printing preferences like print speed, darkness, offsets, and more for your printer directly in Control Center. Available settings depend on your printer model and printer driver version. Some driver versions require adding printing preferences with DEVMODE.
      Set your preferred printer driver to the latest version to use printer-specific preferences.
- **Status**: view your current printer status including availability and errors.
- **Print queues**: view queues statuses and pause, resume, clear, and delete print queues for your printer.

Managing your printers centrally in Control Center helps you install, monitor, and update your printers and settings from one place.

6.6.3.1. Managing Printing Preferences with DEVMODE

> **NOTE**
> To centrally manage your printing preferences directly in Control Center with a GUI, use Loftware printer drivers version 10 or newer.

Older printer driver versions have no GUI support in Control Center, but you can still import and share printing preferences for your printers by downloading the **Get Printer Settings** utility for free from our NiceLabel utilities page. This method allows you to set your printing preferences directly on your NiceLabel printer driver installed on your computer, copy these settings with **Get Printer Settings**, and paste your preferences into Control Center. When you paste your preferences into Control Center, you can apply them to specific printers or printer profiles to share on multiple models of the same printer.

Get Printer Settings is a simple utility for extracting printer settings from WIndows for printers you select and saving those settings to file or providing settings in the GUI. This structure is called **DEVMODE**. DEVMODE is a binary data structure that includes all settings available in the printer driver. For more information, see Understanding Printer Settings and DEVMODE topic in Automation User Guide

Control Center applies your stored printing preferences in DEVMODE at print time. When computers send print commands to centrally managed printers, Control Center replaces the printing preferences computers send with print their commands with the DEVMODE printing preferences stored in Control Center. You can edit printing preferences directly in Control Center with a GUI editor if you use Loftware version 10 printer drivers or newer. Older printer drivers require raw DEVMODE strings.

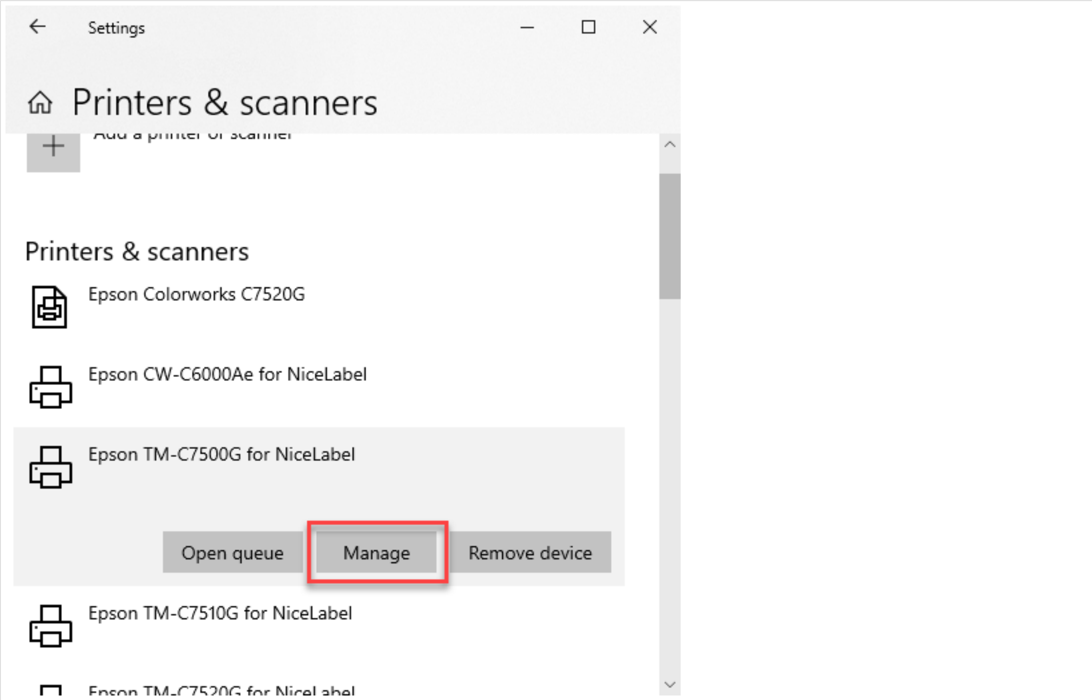
To use printer-specific preferences with older Loftware printer driver versions:

1. If you want to install new printers, add your preferred version of the printer driver package you want to use for setting printing preferences to Control Center. If you're not installing new printers, you can add DEVMODE printing preference strings without uploading driver packages or setting a preferred driver.
   To avoid potential printing errors, make sure the driver package version you upload matches the driver package you have downloaded on your computer where your printer is installed. This is the printer driver you use to generate DEVMODE strings.

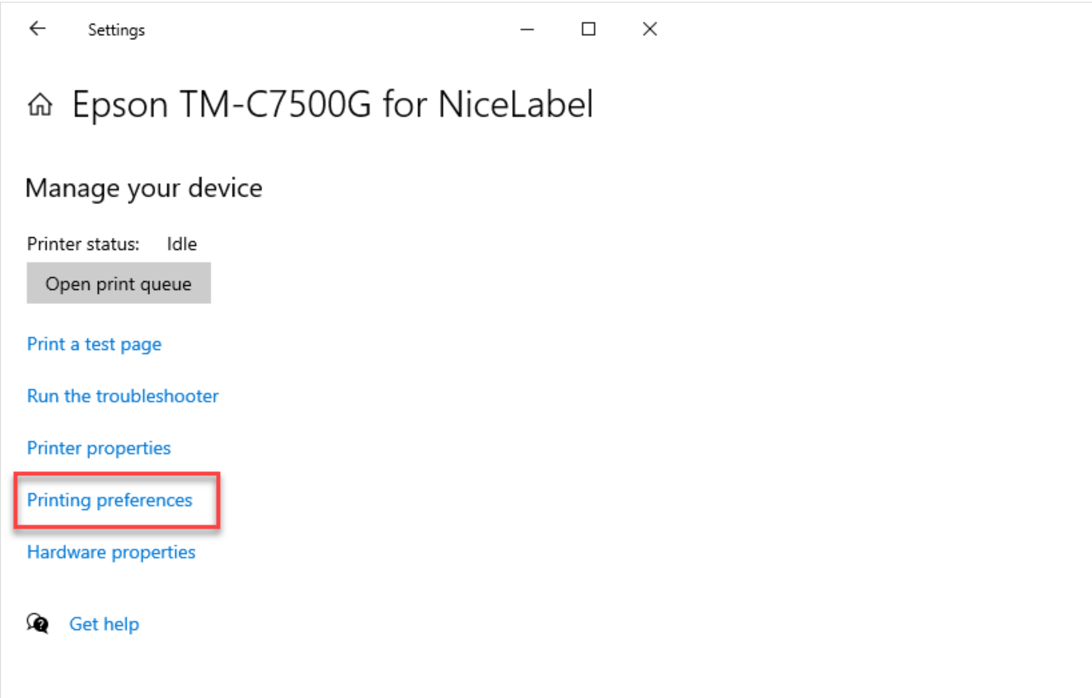
We recommend updating the driver on your computer with the latest version of your printer driver from our driver downloads page and uploading the same version to Control Center to set as your preferred driver. You use your preferred driver to install and manage preferences for multiple printers of the same model in your environment.

2. On the computer where your printer is installed with your Loftware printer driver, go to **Windows** > **Settings** > **Printers & scanners**.

   a. Select the printer you want to update and click **Manage**.



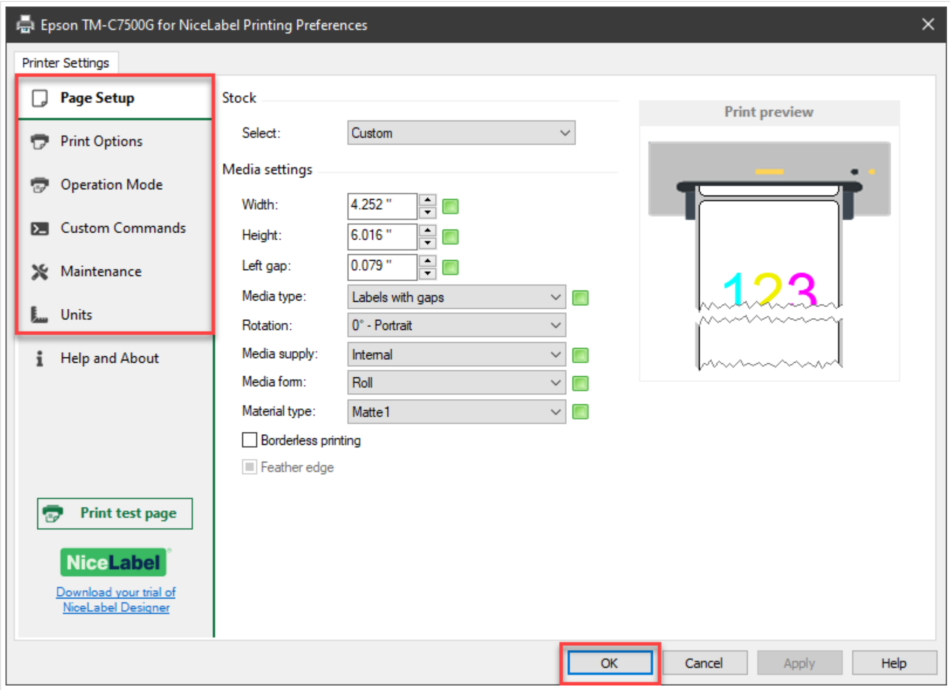
   b. The printer page opens. Click **Printing preferences**.



3. The **Printing Preferences** page opens for your Loftware printer driver. Use the tabs on your left to navigate and update your preferences for this printer. The preferences you will choose act as a template for other printers in Control Center.

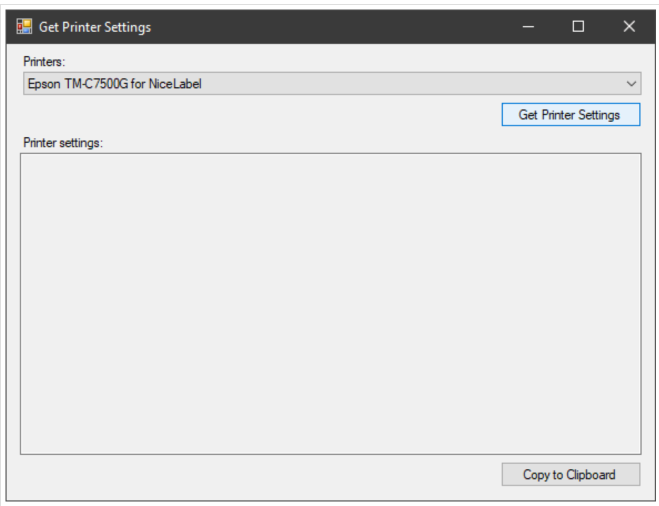
   > **NOTE**
   > Available printer preferences depend on your printer driver version.

   Click **OK** to save your updated printing preferences.

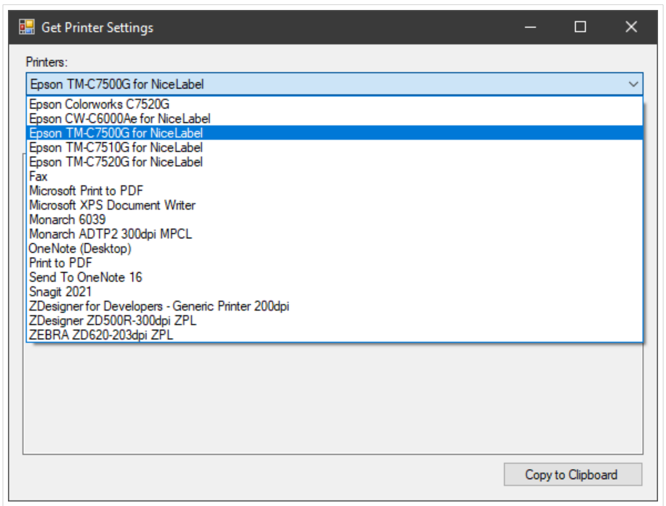
   

4. Download the free **GetPrinterSettings** utility .zip package from https://www.loftware.com/customer-center/downloads/nicelabel-utilities.

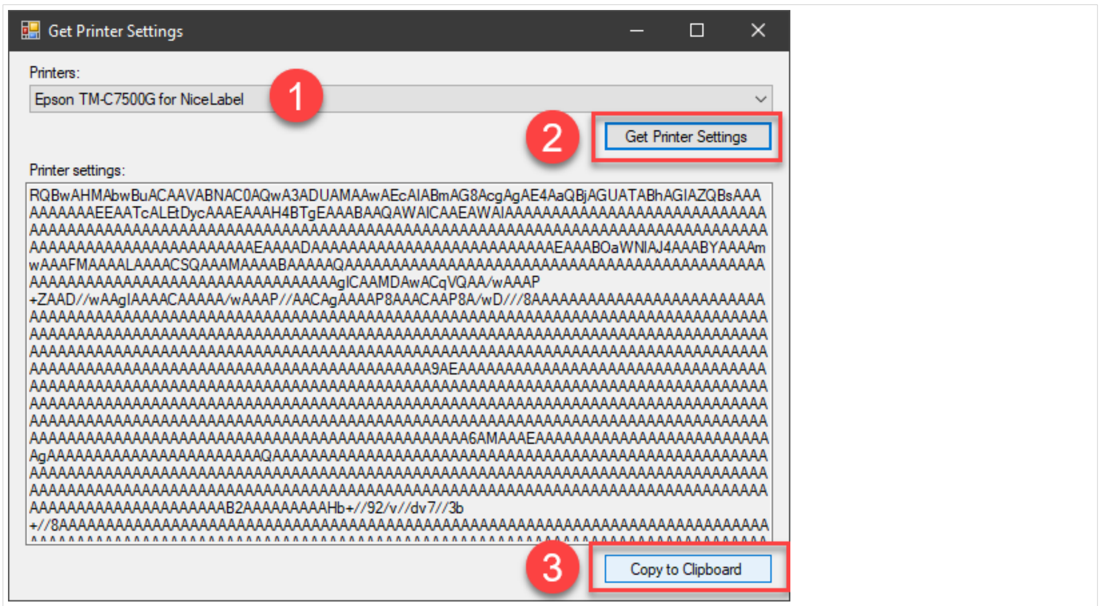
   a. Extract and run **GetPrinterSettings.exe**. The **Get Printer Settings** window opens.

   b. Select your printer from the dropdown list.



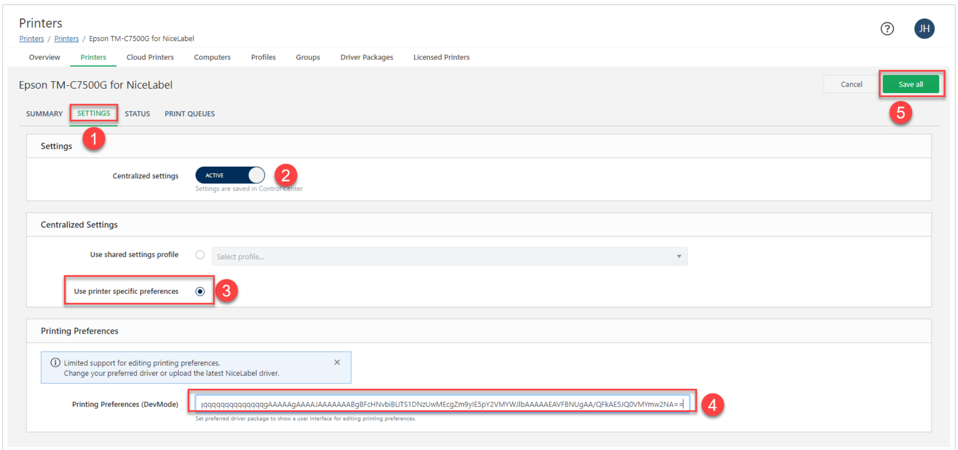
c. Click **Get Printer Settings** to generate your DEVMODE text string of saved printing preferences. Click **Copy to Clipboard** to copy your string.



5. In Control Center, go to **Printers** > **Printers** and click the **Printer name** of the printer to update. The **Printer** page opens.

6. Under **Printer Information** > **Preferred driver**, choose your uploaded driver version as your preferred driver from the dropdown list.

7. Open the **Settings** tab.



a. Activate **Centralized settings**.

b. Select **Use printer specific preferences**.

c. Under **Printing preferences (DevMode)**, paste your DEVMODE string.

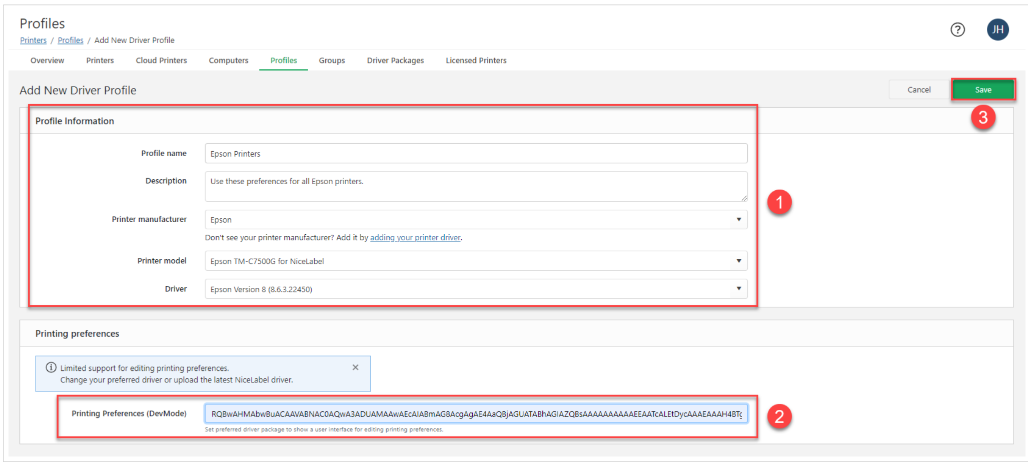
d. Click **Save all**.

Your printing preferences from your printer driver are saved in Control Center.

6.6.3.2. Using DEVMODE Printing Preferences in Profiles

Use the same process to add DEVMODE strings of saved printing preferences to new printer profiles. Apply your saved DEVMODE printing preferences to multiple printers of the same model in your environment by adding your printers to the profiles you create.

Create your profile following the instructions on Section 6.8, “Profiles”:



1. Add your **Printer Information**.

2. Use **GetPrinterSettings** to paste the **Printing preferences** from your printer driver on your computer as a DEVMODE string.

3. Click **Save** to create your profile.

Your printing preferences are saved in your new printer profile. You can now add printers of the same make and model to this profile to apply your printing preferences when you print. For more information, read Section 6.8, “Profiles”.

6.6.4. Environment

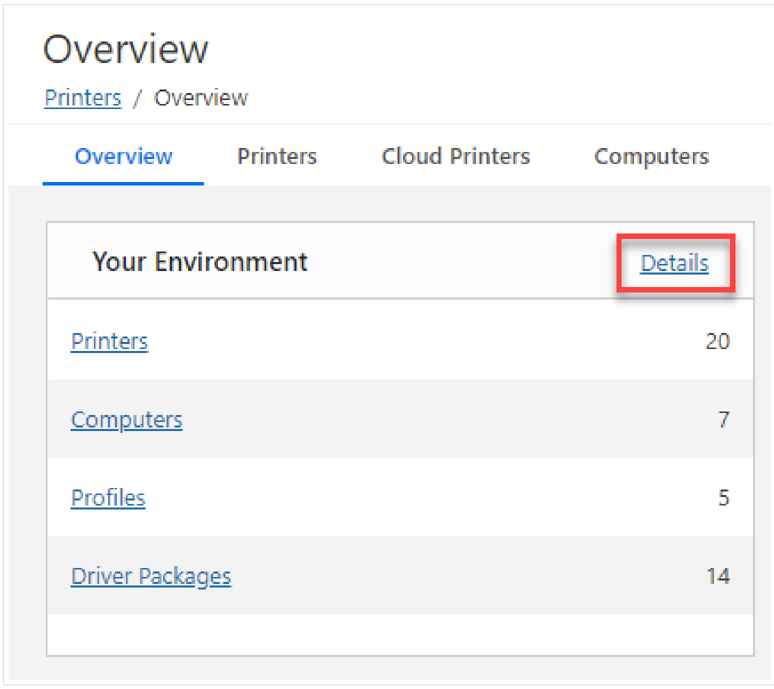
EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Your printing **Environment** page gives you a detailed view of your centrally managed printers so you can understand your overall printing system, ensure consistent printing results from different printers, and minimize the chance of downtime.

Use your printing **Environment** page to:

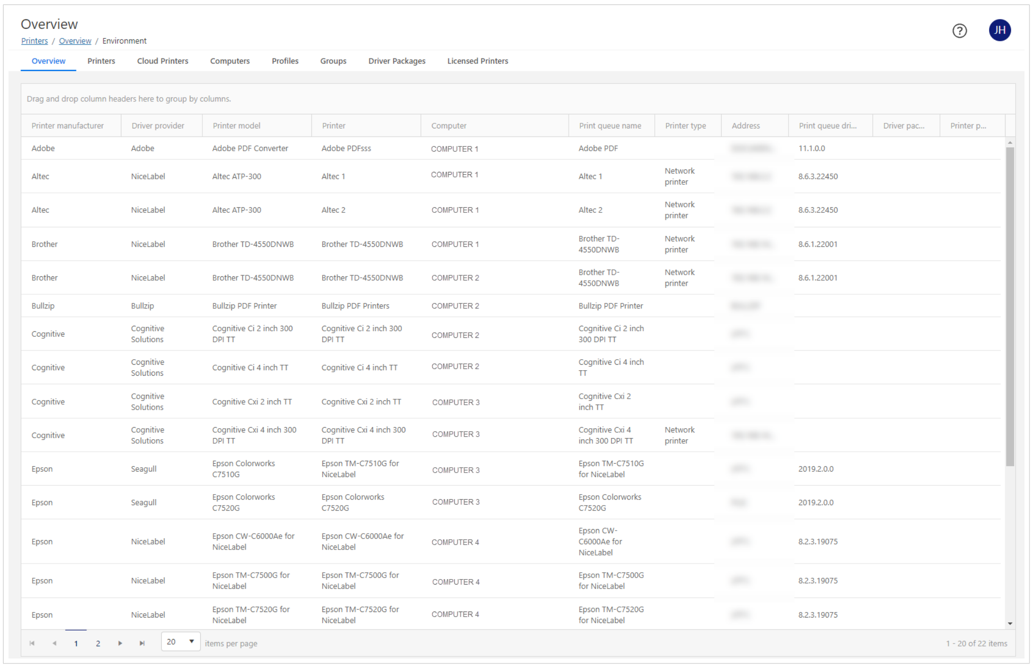
- Consolidate drivers you use across your system.
- Know which driver to install before beginning installation.
- Upgrade multiple printers at once.

Go to Control Center > **Printers** > **Overview** to see an overview of **Your Environment**.



Your Environment shows the number of **Printers**, **Computers**, **Profiles**, and **Driver Packages** in your system. Click the links to go to the associated pages.

Click **Details** to open your **Environment** page.



Your **Environment** page shows a list of your centrally managed printers installed on connected computers. Each row represents one installed print queue.

Drag and drop column headers to group by one or more columns and refine your view. Columns include:

- **Printer manufacturer**
- **Driver provider**
- **Printer model**
- **Printer**
- **Computer**
- **Print queue name**
- **Printer type**
- **Address**
- **Print queue driver version**
- **Driver package** (Driver version)
- **Printer preferred driver package** (Driver name)

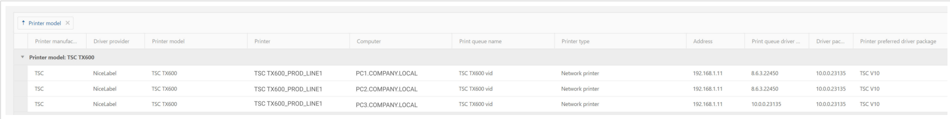
Use the **Environments** page to get more information about your entire printing system and to avoid errors while maintaining, updating, and installing printers and printer drivers.

6.6.4.1. Consolidating printer drivers

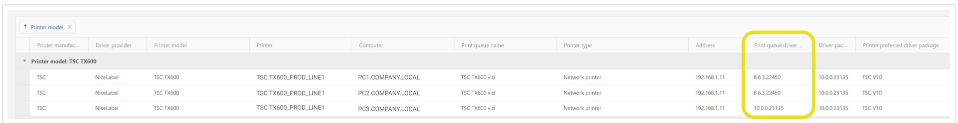
Using different printer drivers in your printing environment may cause inconsistencies in your printing output. Use the **Environment** page to identify different driver versions on printers in your system so you can consolidate them into a single driver version for consistent printing results.

To consolidate your printer drivers:

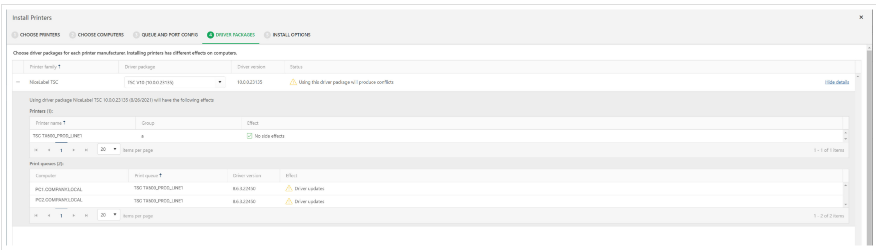
1. Go to Control Center > **Printers** > **Overview** > **Environment**.
2. On your list, drag and drop the **Printer model** column header to group by printer model.



3. Under **Print queue driver version**, look for computers running outdated driver versions. Update the older printer driver so all your labels print consistently on all printers.



4. To update your driver, install your printer on any computers running outdated versions using the **Install Printers** wizard.
    a. Go to Control Center > **Printers** > **Printers** and click **Install Printers**. The **Install Printers** window opens.
    b. Select your printer with outdated printer drivers.
    c. Select computers using outdated printer drivers.
    d. For your **Driver Package**, select the newest driver package version. You see alerts that your drivers will update.



    e. Install your printers with your upgraded driver package.

When your installation completes, all your printer driver packages are consolidated on printers of the same model in your environment.

TIP

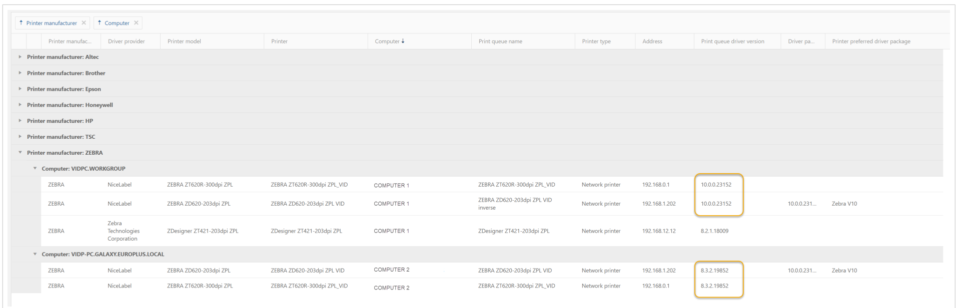
You can also upgrade all your printers using the same driver package by **replacing your driver package**. Go to **Printers** > **Printers** > **Driver packages**, select a driver package, and click **Replace driver package**. Read Section 6.10, “Driver Packages” for more information.

6.6.4.2. Be certain when installing new printers

Installing new printers on multiple computers with other printers already installed can cause unintended effects. Installing a new print queue version updates all the print queues using that printer driver. Use the **Environment** page to know which driver package version to use for installation.

> **NOTE**
>
> Whenever possible, use 1 printer driver provider and 1 driver package version for all printers of the same printer family.
>
> For example:
>
> - All Zebra printers in your environment use Loftware version 10 printer drivers.
> - All Sato printers in your environment use Loftware version 8 printer drivers.

1. Go to Control Center > **Printers** > **Overview** > **Environment**.
2. On your list, drag and drop the **Printer manufacturer** and **Computer name** column headers to group by those columns.



3. Under **Print queue driver version**, look for computers running different driver package versions on different computers for the same printers. You can:
   - Install a new printer for both printers. Depending on which printer driver version you choose, you also update other print queues on one or both computers.
   - Run the **Install Printers** wizard twice for each computer. Select the driver version that is already installed. No drivers update in this scenario.

> **NOTE**
>
> You can only install new printers with Loftware printer drivers. Installing new printers doesn't affect printers using drivers from other providers.

6.6.5. Provisioning Operations

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Review all your centrally-managed printer and driver updates, installations, and removals, all in one place.

Provisioning Operations are tasks you assign from Control Center that execute on connected computers in your system. Installing printers, updating drivers, or removing print queues creates a new entry in your log of pending, ongoing, and completed **Provisioning Operations** in Control Center. Use your list of provisioning operations to see the status of your operations, view scheduled operations, and review operations with errors. Provisioning helps you maintain your centrally managed printing system and plan future updates.

NOTE

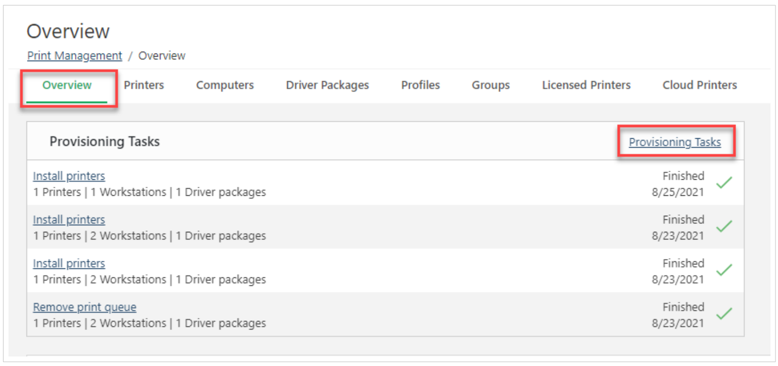
Provisioning operations do not appear in **History**. Provisioning operations remain on your **Provisioning Operations** page for 30 days after creation, then they delete automatically.

How provisioning helps

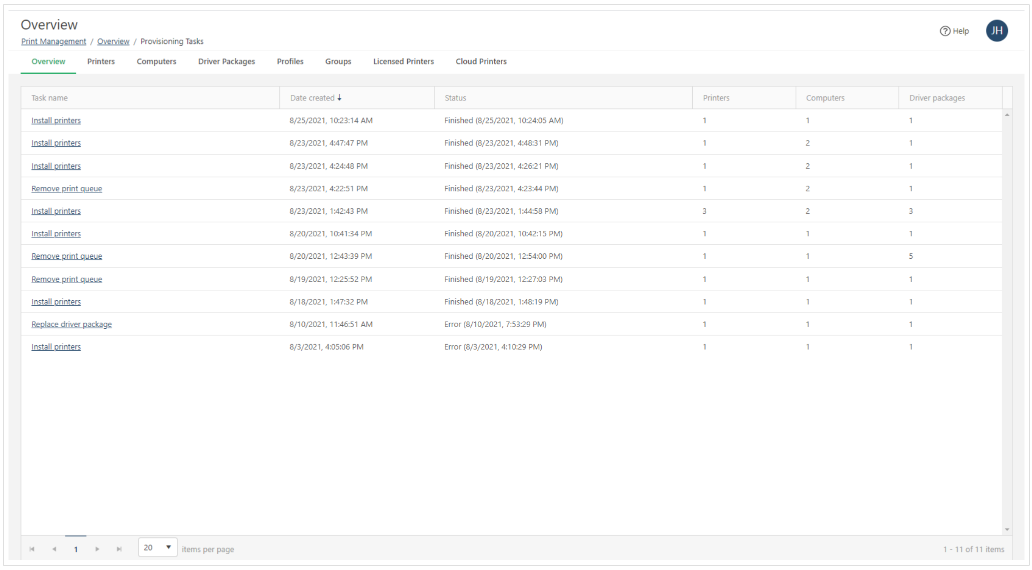
Installing and updating drivers in enterprise environments can be difficult to coordinate and schedule. To avoid shutting down production just to install updates, printer drivers are not always kept up to date on every computer. A lack of coordination can result in you running different versions of the same driver on different computers, leaving your printing process prone to downtime, errors, and printing inconsistencies across your system.

With centralized provisioning operation management, you can immediately see what updates, installations, and removals you have scheduled, the status of completed operations, and whether they were successful or had errors. Use this information to better understand your daily operations in multiple locations and schedule routine updates across your entire printing system.

Go to Control Center > **Printers** > **Overview** to see your most recent provisioning operations:



Click on **Provisioning Operations** to open your list page of all provisioning operations in your system:

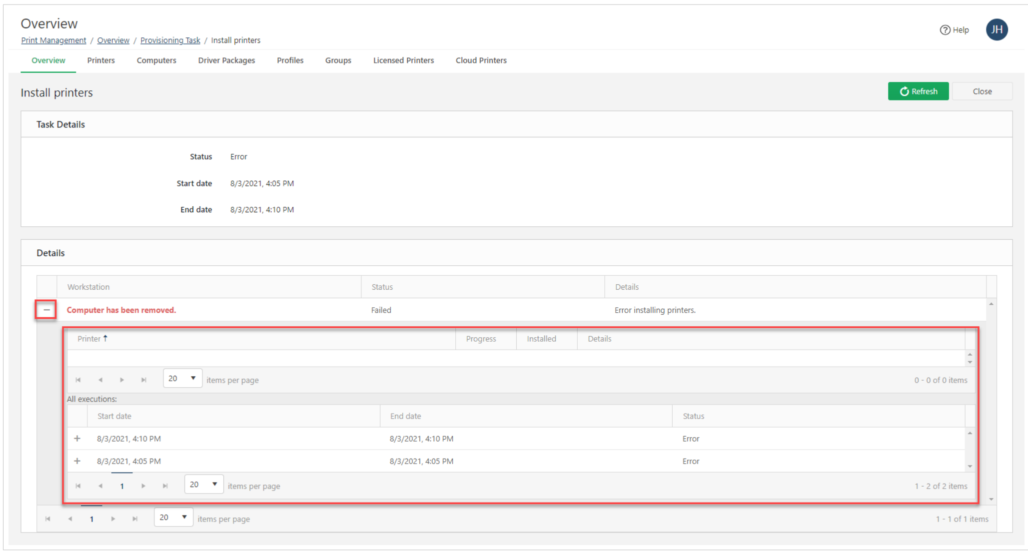


*Your detailed list includes provisioning **Operation name**, **Date created**, **Status** (Finished or Error), and the number of **Printers**, **Computers**, and **Driver packages** each operation affects.*

NOTE

If your provisioning operation fails, you can see the cause listed in Control Center. if you need more information, consult the log on your connected computer.

Click an **Operation name** to open the **Operation page** and see more information including **Computer**, **Status**, and **Details**:



*Toggle **+** and **-** next to individual computers to see **Printers** affected, **Progress**, whether the printer is **Installed** (Yes or No), and **Details** of all executions of your selected operation.*

Provisioning operations in Control Center help you see your centrally-managed updates and installations, diagnose problems, and maintain your global printing system.

6.7. Computers

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

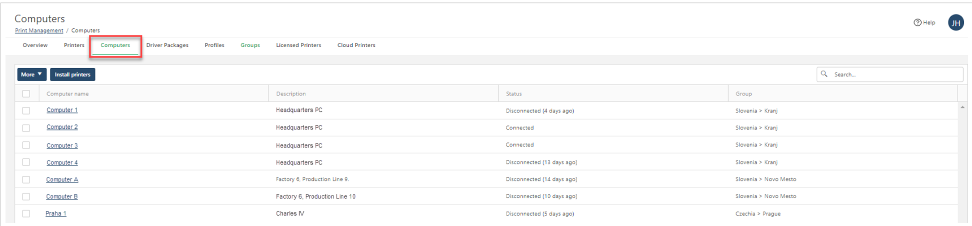
Get real-time updates and make changes on every computer in your system from one place.

Use **Computers** in Control Center to see which printers are installed on which computers, check if specific printers are installed, and manage **Print queues** installed on all your computers. Computers available for centralized printer management include desktop and laptop computers, servers, and virtual machines that can connect to printers and send printing instructions. Install printers you add to Control Center on your computers with your uploaded printer driver packages to start centrally managing your label printing system.

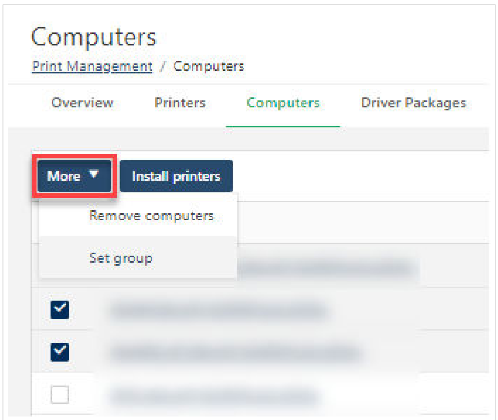
On computers you want to print from, **install any NiceLabel desktop application and sign in to your account**. Signing in connects your computer to Control Center and makes it available for centralized **Printer Management**.

> **NOTE**
> Print management features in Control Center only work if you install the latest NiceLabel software on your computers.

- Go to Control Center > **Printer Management** > **Computers** to see your list of connected computers. Click column headers to sort your list by column.



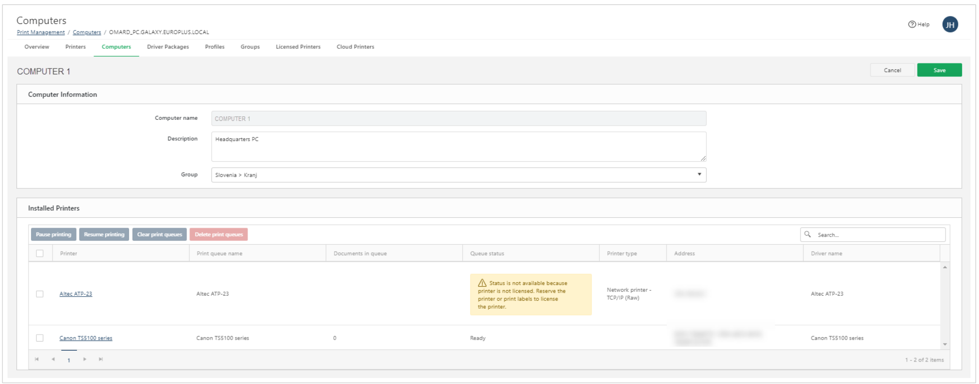
- Add your computers to printer **Groups** to make sure your printer operators with access to specific groups have permissions to install and update printers on computers they need. To add computers to groups, select your computers and click **More** > **Set group**. For more information, read Section 6.9, “Groups”



- To remove computers from your list of connected computers, select your computers and click **More** > **Remove computers**.

> **NOTE**
> You can only remove offline computers. To remove a connected computer, first disconnect it from Control Center, then remove it from this page.

- Click on computer names to view and update **Computer Information** and see a list of centrally-managed **Installed Printers** for specific computers.



  - **Print queues**: view queues statuses and pause, resume, clear, and delete print queues for your printer.

Centrally managing your connected computers from Control Center helps you quickly install printers and control your printing process.

6.7.1. Print queues

Print queues are an essential component of centrally managed printing. Print queues appear in your **Overview** page, **Printer Settings** page, and **Computers** detail page.

A **print queue** is a virtual concept~a holding area for storing spooled print jobs while the printer is trying to catch up. You don't actually send print jobs to printers, you send them to print queues until printers start printing at print time. A print queue doesn't require a printer~ it continues to accept jobs while the printer is offline (like while being repaired).

- Jobs you send to printers actually go to print queues first.
- When your printers are printing jobs, print queues store additional spooled print jobs.
- Print queues are independent from printers and can continue to accept jobs even when printers are offline.
- In Control Center, the **Print queues** page lists all your printers, but you can only manage queues for your licensed printers.
- Performing actions on print queues for unlicensed printers uses a printer license seat for that printer.
- Deleting a print queue creates a provisioning operation.

6.8. Profiles

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Create and update custom printing preferences for multiple printers in your system at once, from one place.

A **driver profile** is a set of printing preferences linked to a specific printer driver. Putting printing preferences in profiles allows many printers to share the same set of printing preferences without the need for duplication.

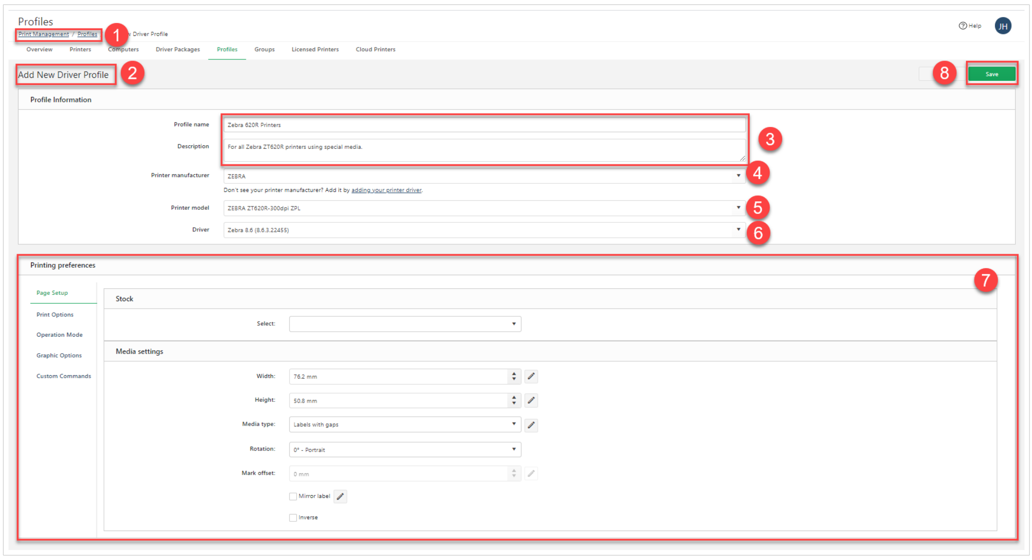
Assign driver **Profiles** to your printers to apply the same printing preferences on multiple printers of the same model without manual configuration. **Profiles** are sets of printing preferences for specific printer models in Control Center. Centrally-managed **Profiles** save you time setting up, accessing, and updating printing preferences for individual printers of the same model in your system.

NOTE
You can add centrally-managed printers of any manufacturer or model to your profiles, but **we recommend only using printer model-specific profiles**. You can also use manufacturer-specific printer profiles to manage generic settings like speed and darkness.

Open Control Center > **Printers** > **Profiles** to see your detailed list of profiles.

Working with Profiles

To add new profiles:



1. Go to **Printers** > **Profiles**.

2. Click **Add** (on your top left). The **Add New Driver Profile** page opens.

3. Choose a new **Profile name** and **Description**.

4. Choose your **Printer manufacturer** from the drop-down menu.

> **NOTE**
>
> If you don't see your printer manufacturer, add the correct printer Section 6.10, "Driver Packages" for your printer to Control Center.

5. Choose your **Printer model** from the drop-down menu.

6. Choose your **Driver package** from the drop-down menu. **Printing Preferences** appear for your selected printer.

7. Choose shared **Printing preferences** for all printers assigned to your profile. Available printing preferences depend on your printer model and manufacturer. For more information, read Section 6.6.3, "Managing Printing Preferences".

8. Click **Save**. Your new profile appears on your list on **Printers** > **Profiles**.

To update profiles:

1. Go to **Printers** > **Profiles**.

2. Click an existing profile name. The profile page opens.

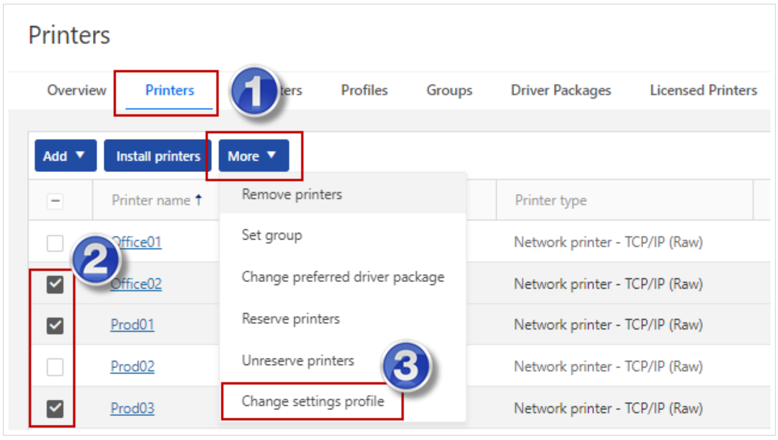
3. Update your existing **Profile Information** and **Printing preferences**.

4. Click **Save**. Your updated profile appears on your list on **Printers** > **Profiles**.

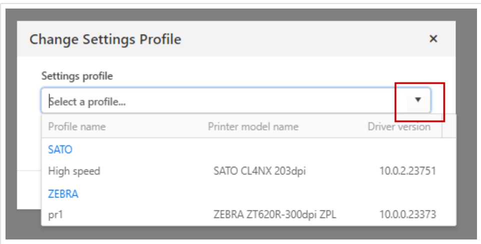
To delete profiles:

1. Go to **Printers** > **Profiles**.
2. Select existing profiles and click **Delete**. The **Delete Driver Profiles** window opens.
3. Click **Delete**. Your profile no longer appears on your list on **Printers** > **Groups**.

Adding or changing profiles to printers



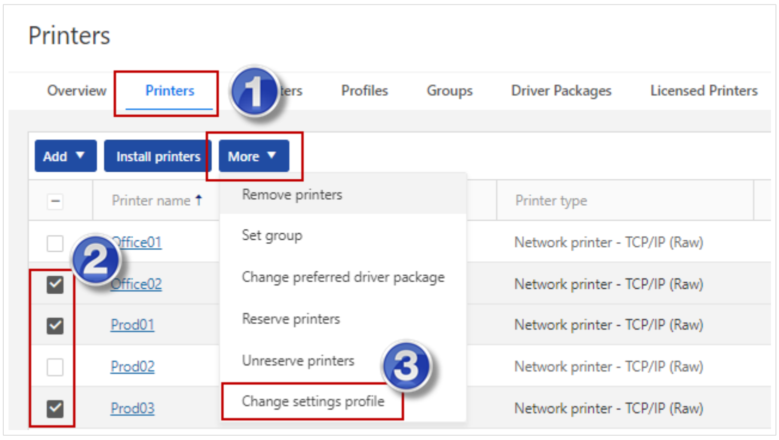
1. Go to Control Center > **Printers** > **Printers**.
2. Select printers you want to add or change profiles.
3. Click **More** > **Change settings profile**.
4. Select your printer profile.



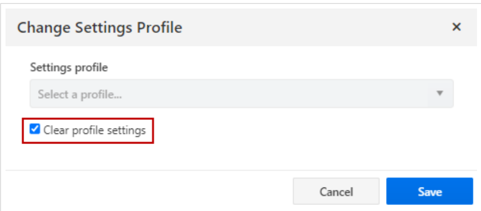
5. Click **Save**.

Creating profiles for specific models of your centrally-managed printers helps you save time configuring and update multiple printers at once.

Removing profiles from printers



1. Go to Control Center > **Printers** > **Printers**.
2. Select printers you want to remove profiles.
3. Click **More** > **Change settings profile**.
4. Click **Clear profile settings**.



5. Click **Save**.

6.9. Groups

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Organize all the printers in your system into groups to control your entire printing system from one place.

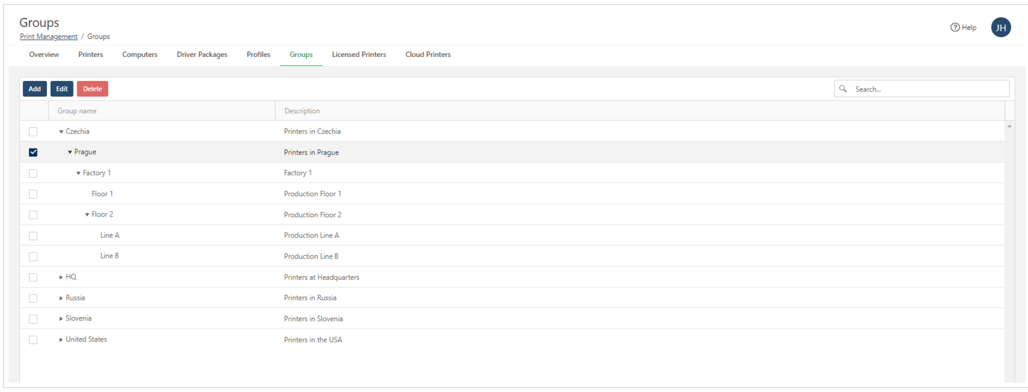
Use **groups** to organize your computers and printers into logical structures that reflect the structure of your printing environment or setup. Use groups to define access rights and give only certain users access to your computers and printers.

Organize centrally managed printers in your system into groups and set printer group permissions by user or by Access Role in Control Center. You can create groups and subgroups for all the printers in your global system so you stay organized. Assign printer group permissions for your printer operators in **Users** to allow them to change printing preferences for all the printers in specific subgroups.

NOTE

You can also add **Section 6.7, “Computers”** to **Groups** so your Acces Roles with group permissions can install printers.

Open Control Center > **Printers** > **Groups** to see your list of names and descriptions of groups you create.



Organize your printer groups and subgroups to reflect your IT environment. For example, you can group by physical location.

Working with groups

To add new groups:

1. Go to **Printers** > **Groups**.
2. Click **Add** (on your top left). The **Add Group** window opens.
3. Choose a new **Group name** and **Description**.
4. Click **Add**. Your new group appears on your list on Control Center > **Printers** > **Groups**.

To add new subgroups:

1. Go to **Printers** > **Groups** and select an existing group.
2. Click **Add** (on your top left). The **Add Group** window opens with your existing group as the **Parent group**.
3. Choose a new **Group name** and **Description**.
4. Click **Add**. Your new subgroup appears on your list on Control Center > **Printers** > **Groups**.

To update groups and subgroups:

1. Go to **Printers** > **Groups** and select an existing group.
2. Click **Edit** (on your top left). The **Edit Group** window opens.
3. Choose a new **Parent group**, **Group name**, or **Description**.

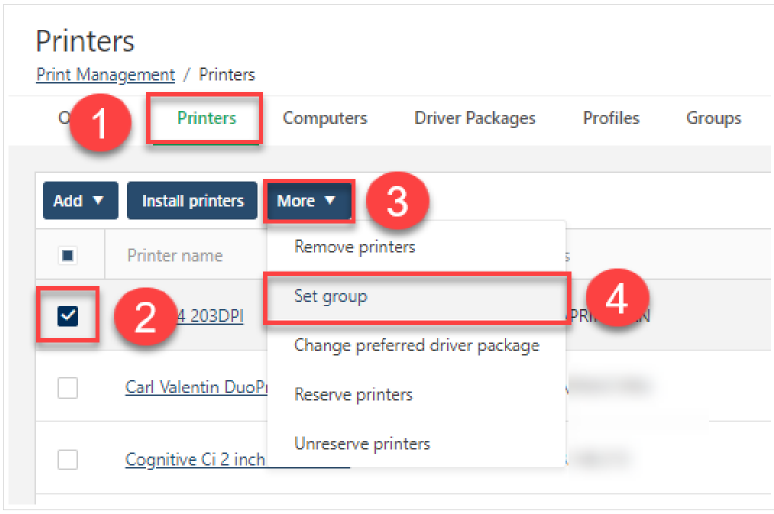
4. Click **Save**. Your updated group appears on your list on Control Center > **Printers** > **Groups**.

To delete groups:

1. Go to **Printers** > **Groups**.
2. Select your groups and click **Delete**. The **Delete Group** window opens.
3. Click **Delete**. Your group no longer appears on your list on Control Center > **Printers** > **Groups**.

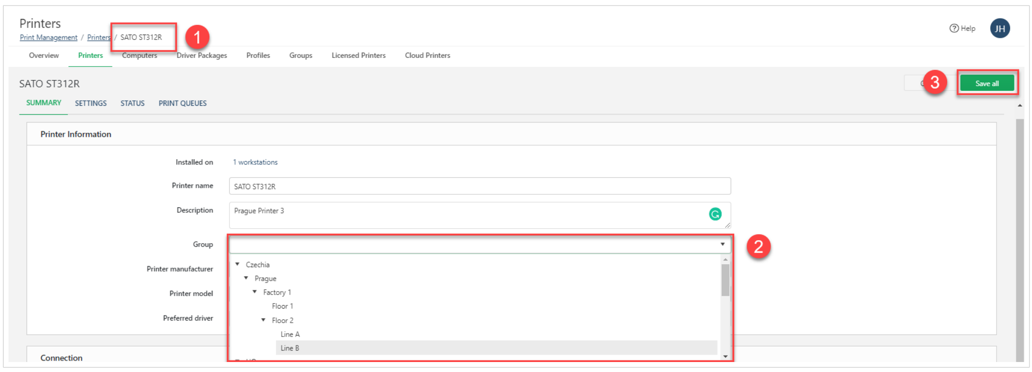
Adding printers to groups

To add installed printers to your existing groups from your printer list:



1. Go to **Control Center** > **Printers** > **Printers** to see printers in your system.
2. Select printers to add to a group.
3. Click **More** to open the drop-down menu.
4. Click **Set group**. The **Set Group** window opens.
5. Select a group from the drop-down menu and click **Set**. Your group appears on your printer list on **Control Center** > **Printers** > **Printers**.

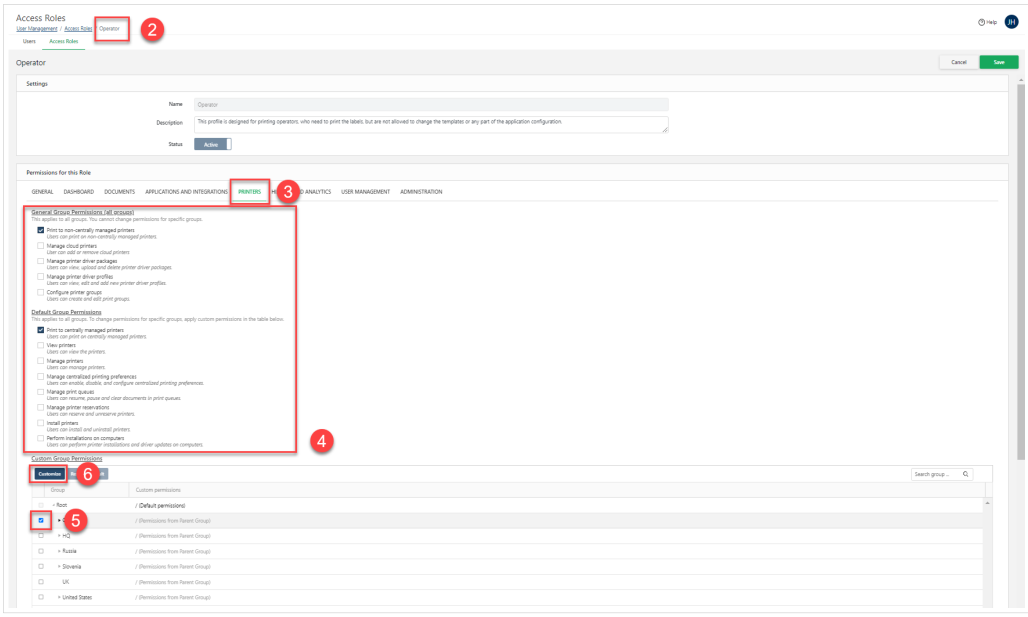
To add installed printers to your existing groups or update group membership from printer pages:



1. Go to **Control Center** > **Printers** > **Printers**, click a printer name to open the printer page.
2. Under **Printer Information**, choose a **Group** from the drop-down menu (Click **X** to remove your printer from any group).
3. Click **Save all** (on your top right). Your group appears on your printer list on **Control Center** > **Printers** > **Printers**.

Adding group permissions for Access Roles

Assigning printer management permissions by group gives your **Operators** (and other Access Roles you customize) access to only the printers they're responsible for to keep your system more secure.



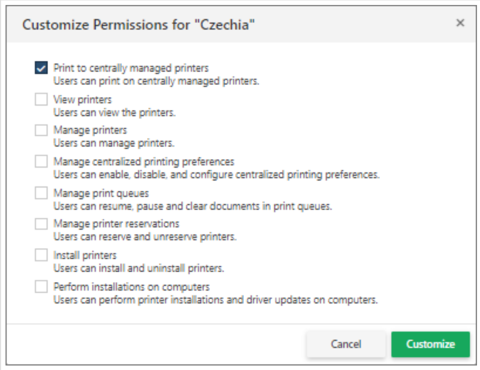
1. Go to **Control Center** > **Users** > **Access Roles**.
2. Click an **Access Role** name to edit. The **Access Role** page opens.
3. Under **Permissions for this Role**, click **Printers**.
4. Choose **General** and **Default** group permissions for your Access Role. These permissions apply to all groups. To restrict access to only some groups or subgroups, unselect all general and default permissions and add **Custom Group Permissions** for specific groups for your Access Role.

   NOTE

   Assign your Access Roles group permissions for only the subgroups they need to access. Subgroups inherit permissions from parent groups, so assigning permissions to a group also applies to permissions to all subgroups in that group.

5. To choose permissions for specific groups or subgroups, under **Custom Group Permissions**, select a group to update.

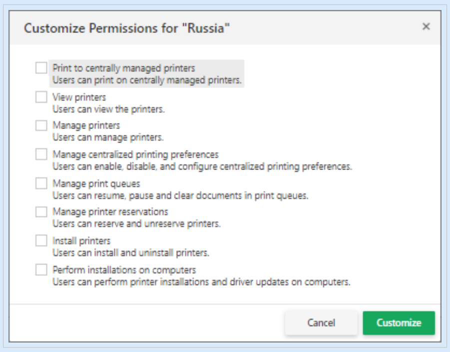
6. Click **Customize**. The **Customize Permissions** window opens.



7. Choose custom group permissions for your Access Role and click **Customize**. Your updated permissions appear on your **Custom Group Permissions** list of groups.

NOTE

To remove access to groups for your Access Roles, under **Custom Group Permissions**, remove all permissions.



Use **Groups** to map your printing facilities, give your users access to printers they manage, and maintain your entire label printing system.

6.10. Driver Packages

EDITION AVAILABILITY:	NiceLabel LMS Pro ✗	NiceLabel LMS Enterprise ✓

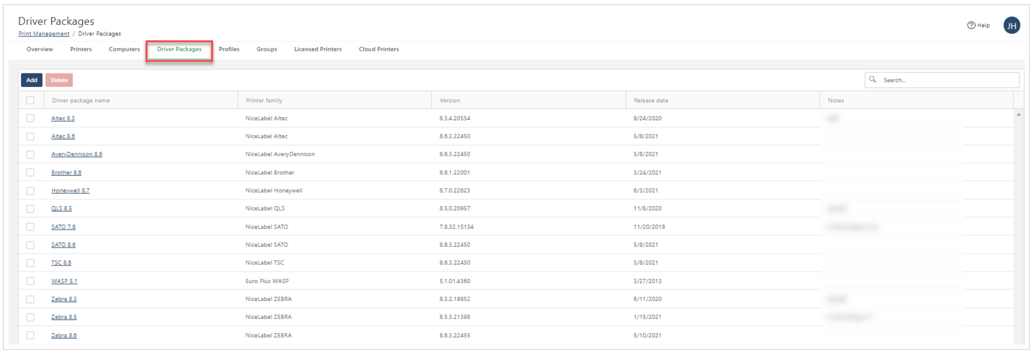
Control all printer drivers and driver versions your printers use on all computers in your system.

Central driver management in Control Center helps you maintain a stable printing environment by ensuring that all your printers use the same driver versions. Different driver versions produce different printing results, so using the same driver version for all the printers of the same family in your system keeps your printing consistent on all your printers. Centralized driver management keeps downtime to a minimum when you install or update printer drivers across the computers in your system. Printer drivers allow computers and printers to communicate and relay hardware specifications, printing preferences, print requests, and other printing instructions.

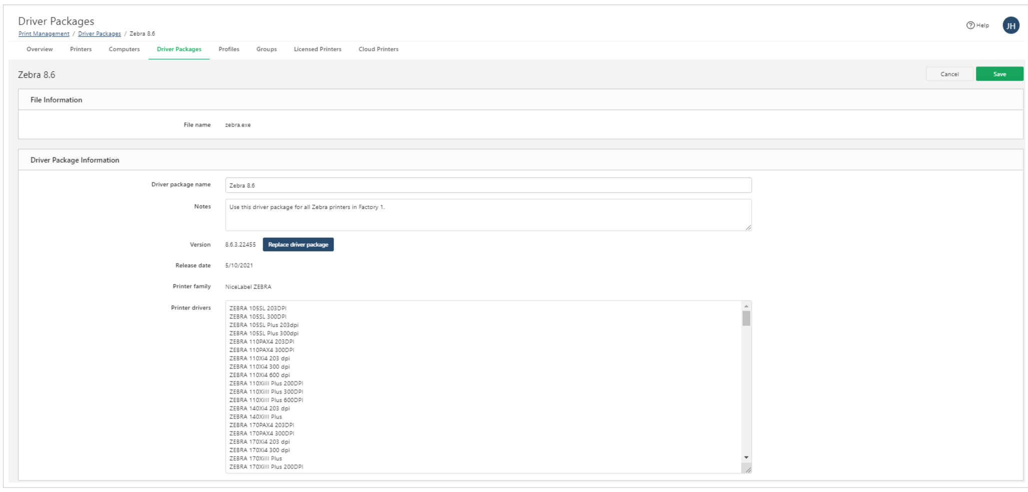
A **driver package** is a compressed (zipped) bundle of the all files you need (like .inf and .dll files) to install printer drivers on Windows for a specific manufacturer. When you download your driver packages for free from Loftware, you're downloading a bundle of all the drivers for all the supported printer models of that specific manufacturer.

> **NOTE**
>
> Centralized printer management only works with Loftware printer drivers.

Go to **Control Center** > **Printers** > **Driver Packages** to see all the driver packages uploaded to Control Center.



Click on driver package names to view and update driver package information, replace driver packages, and see a list of printer models your driver package supports:



How centrally managed drivers help

Without **Printer Management**, updating printing preferences like print speed and darkness requires physically going to each computer connected to your printer and opening driver settings. When your printer operators working directly with printers want to update preferences (like changing darkness from 11 to 15), they need to physically or remotely access all the computers where the printers are installed. Because they need system access to change settings on multiple computers, security problems result from granting the additional access permissions required only to change printer settings.

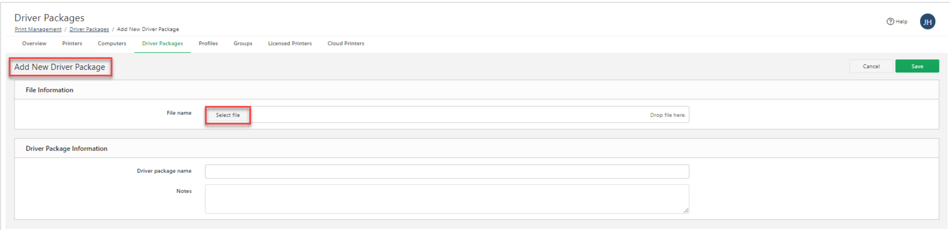
With **Printer Management**, you can update printing preferences for all your installed printers instantly in Control Center. When your printer operators want to update settings, they don't need access to computers or any additional system permissions to change printing preferences. You can give printer operators permission to edit printing preferences for specific printers, computers, driver packages, or printer profiles in Control Center. When your printer operators log in to Control Center and update printing preferences for their printers, the changes take place immediately and reduce printing downtime.

Adding driver packages

Before you can install printers on your computers from Control Center, download the correct Loftware printer drivers for your printers from our driver downloads page.

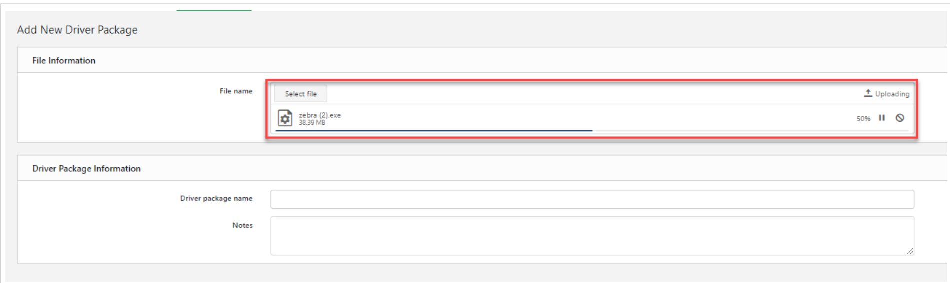
> **NOTE**
> For access to all centralized Printer Management features, we recommend downloading and installing Loftware version 10 printer drivers. Version 10 printer drivers fully support printer provisioning and web-based centralized printing preferences in Control Center.

1. To add driver packages, click **Add**. The **Add New Driver Package** window opens.

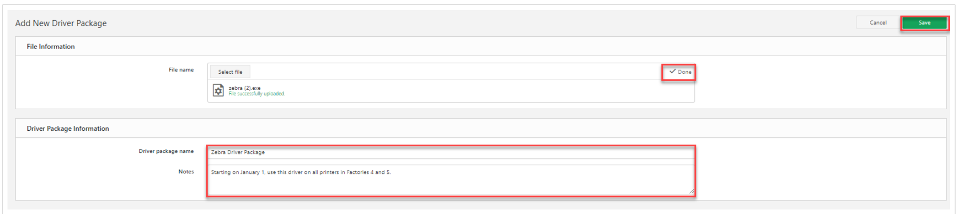


2. Under **File Information**, click **Select file** and find your downloaded driver package .zip file.

3. Select your driver package file and click **Open** to upload your driver package. Your file begins uploading to Control Center



4. Under **Driver Package Information**, type your **Driver package name** and any **Notes** about the driver package.



5. Click **Save**.

Your new driver packages appear on your list in **Control Center** > **Printers** > **Driver Packages**.

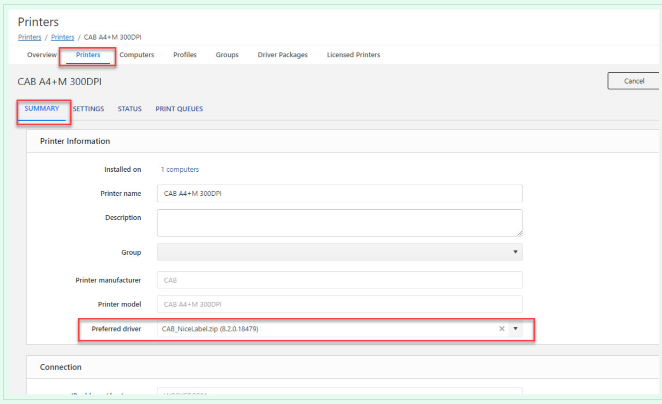
Replacing driver packages

Replace existing driver packages for your printers when you add updated driver packages to Control Center. Replace your driver packages to maintain as few driver versions as possible in your system for consistent printing outputs on all your printers. Minimize downtime and potential printing problems by replacing old drivers for multiple printers at once and seeing how your replacement affects your printers and computers before installation begins.

TIP

You can have multiple versions of the same printer driver installed in Control Center. In some cases, users print to the same printer, but with different driver versions.

You can set preferred driver packages when you assign specific printers to new workstations. On your **Printer** page click your printer and the **SUMMARY** window opens. In the **Printer Information** section select your driver in the **Preferred driver** drop-down menu.



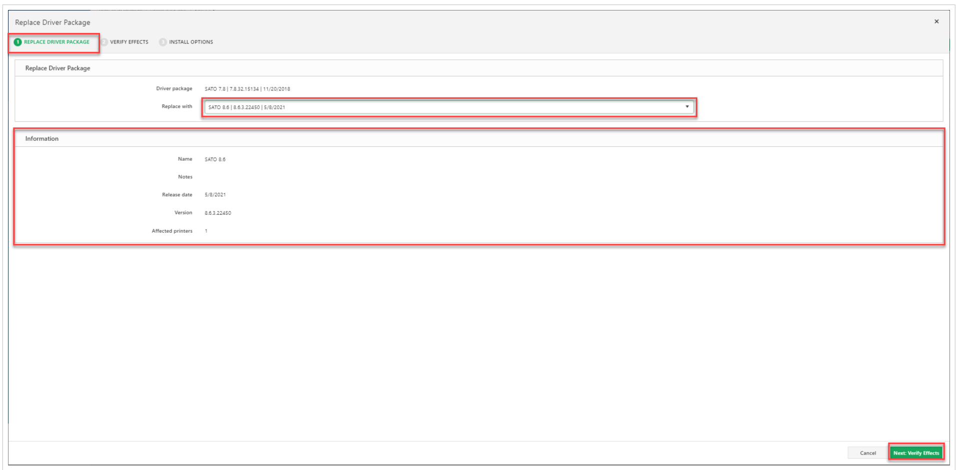
Using the same driver version (preferably the latest version) on all workstations helps you to minimize errors caused by wrong printer settings.

If you select a non-preferred driver version, a warning message appears.

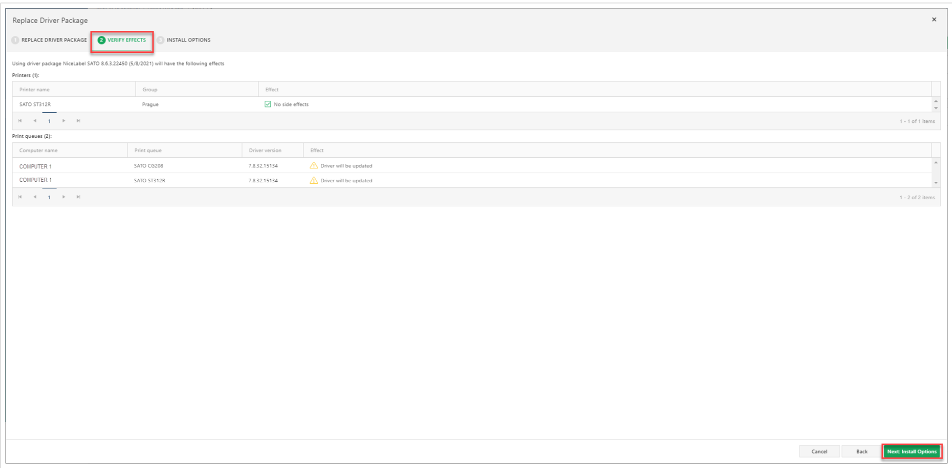
If your preferred Loftware drivers are version 10 or newer, you can update printing preferences directly in Control Center. If you choose to use older preferred driver versions, you may not be able to change your printing preferences directly in Control Center without DEVMODE.

To replace driver packages:

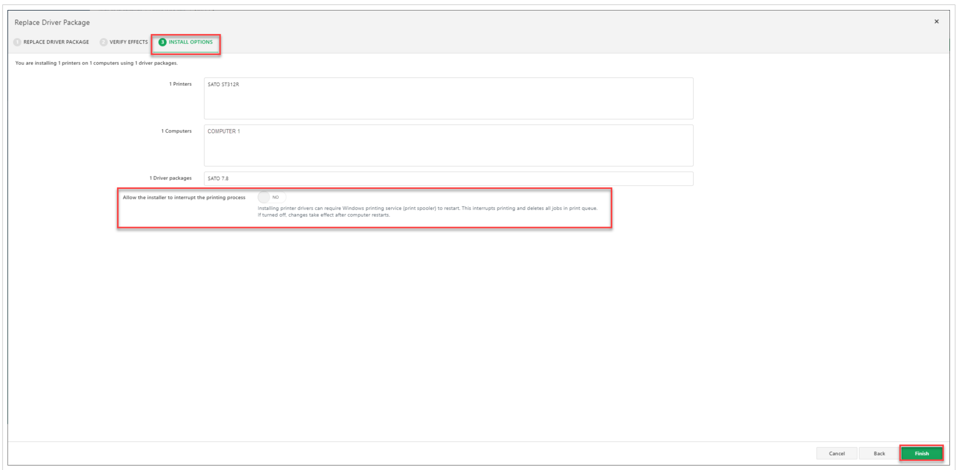
1. Click a driver package name on your list in **Control Center** > **Printers** > **Driver Packages**.
2. Under **Version**, click **Replace driver package**. The **Replace Driver Package** window opens.
3. Choose an updated driver package from the drop-down menu. Choosing a replacement driver package displays more information.



4. Click **Next** to verify the effects of replacing your driver package. The **Verify Effects** tab opens with a detailed list of effects.



5. Click **Next** to choose installation options. The **Install Options** tab opens.



   a. Review your settings and choose whether to allow your installation to restart printer spoolers. Choosing **Yes** may affect current print jobs in your queue. If turned off, changes take effect after your computer restarts.

6. Click **Finish** to replace your driver package.

Your driver package is replaced with an updated version for your printers and computers.

Removing driver packages

> **NOTE**
> Driver packages you remove from Control Center remain installed on your individual computers.

To remove driver packages from Control Center:

1. Go to **Printers** > **Driver Packages**.
2. Select driver packages to remove.
3. Click **Delete**.

Your driver package no longer appears on your list in **Control Center** > **Printers** > **Driver Packages**.

Centrally managing your printer drivers in Control Center helps you install and update drivers, plan driver updates to reduce downtime, quickly correct inconsistencies, and change printing preferences for your entire system.

6.11. Licensed printers

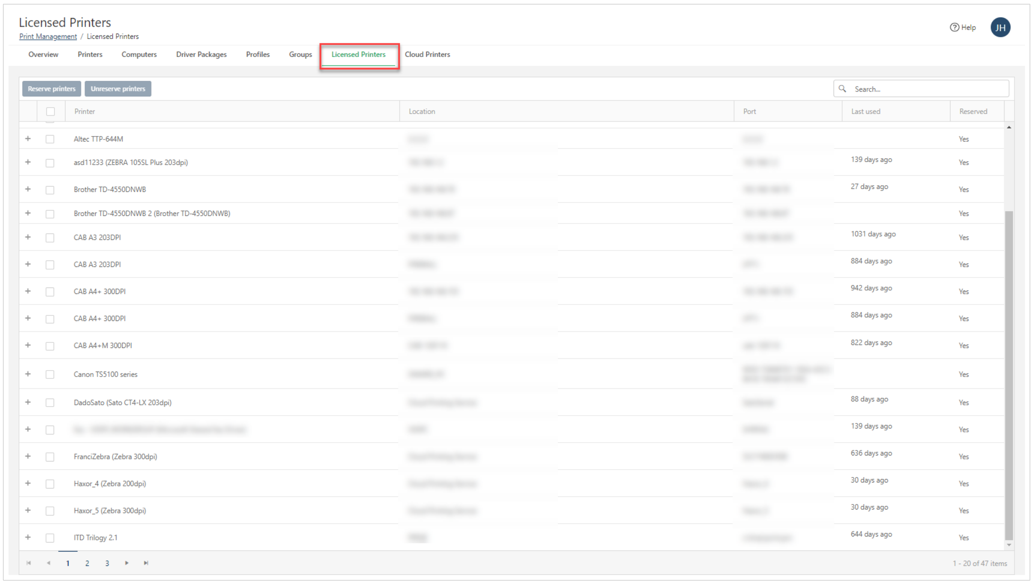
In NiceLabel Control Center you can see all the licensed printers in your system and reserve or unreserve printers from one place.

> **NOTE**
>
> Licensed printers are printers that occupy printer seats. Printer seats are claimed automatically when printing or manually by reserving printers.

Printers you use for printing labels appear on the **Licensed Printers** list in Control Center and take up your printer seats. To see how many printers are on your license, view your **License Information** on your **Dashboard** in Control Center. After 7 days of no printing, Control Center removes your unused printers from the **Licenced Printers** list, and they no longer count towards your printer seats until you print from them again. For more information, read Counting licensed printers.

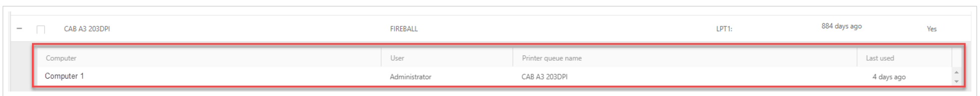
> **NOTE**
>
> Printer seats are printer usage units. With each printing to a different physical or virtual (XPS, PDF) printer, a printer takes one printer seat.

Go to **Control Center** > **Printers** > **Licensed Printers** to see your **Licensed Printers**:



Your detailed list of licensed printers.

- Click the column headings to sort your list by **Printer**, **Location**, **Port**, **Last used** (in days), and **Reserved** status (Yes or No).
- Toggle **+** and **-** (on your left) to see more details for each licensed printer, including **Computer**, **User**, and **Printer queue name**.



- To make sure specific printers are always available to print, select your printers and click **Reserve Printers**. Reserved printers stay on your list of reserved printers even after 7 days of no activity. By reserving printers, the print seats stay reserved until you click **Unreserve Printers**. For more information, read Reserving license seats.

- When a computer is printing, the **Printer** column shows the print queue name and printer model by default. When 2 or more computers are printing to 1 printer, the **Printer** column shows the printer name because there are multiple print queues.
- When you reserve printers from the **Printers** page, a new column appears on the **Licensed Printers** page. If the printer hasn't yet been used to print, the **Computer** column stays empty. Changing printer names on the **Printers** page doesn't change the printer name field on **Licensed Printers**.

Use **Licensed Printer** information to reserve your mission-critical printers and reduce printing delays by controlling all the printers in your label printing system. For more information on printer licensing, read Activating your license.

6.12. Reserving printers

NOTE

All NiceLabel products use printer-seat-based licensing. That means printer seats determine how many printers you can print to at a time.

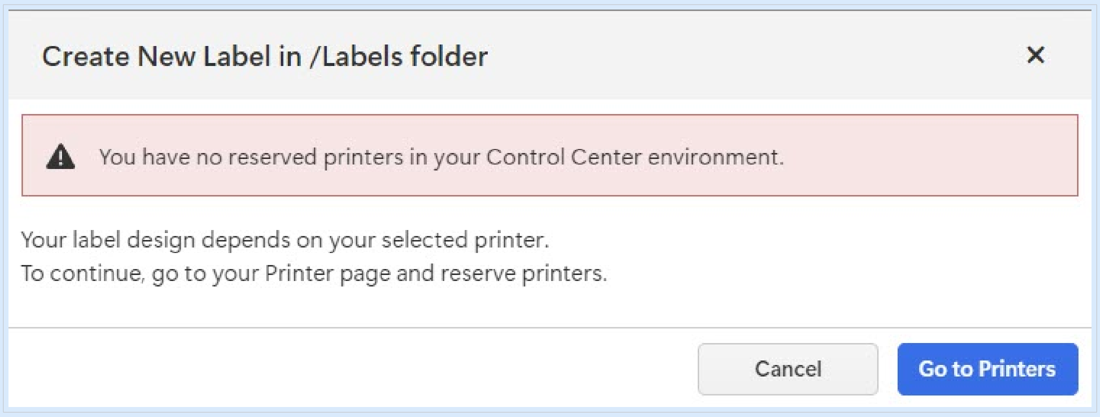
Printer seats are printer usage units. With each printing to a different physical or virtual (XPS, PDF) printer, a printer takes one printer seat.

To avoid exceeding your printer seat limit, read how NiceLabel licensing works.

Your reserved printers are always ready for printing. Reserving your printers secures your limited printer seats for printers essential to your operations and makes sure specific printers are always available to print.

IMPORTANT

If you don't reserve at least one printer, a warning shows on your screen.



7. History

Control Center offers a detailed history log of all events in the printing system and a flexible sorting and filtering system, which assists you in finding the events that you're interested in. The events can either be displayed on a single list or split into the following categories:

- **Printing**. Events and details related to print jobs.
- **Errors**. NiceLabel applications printing errors.
- **System**. Audit log with all Control Center activities.
- **Alerts**. List of issued NiceLabel applications printing, Control Center, and licensing alerts. See also Email Alerts topic.
- **All Activities**. Detailed print jobs events log.

To access your history logs, click the **History** tab in Control Center

WARNING

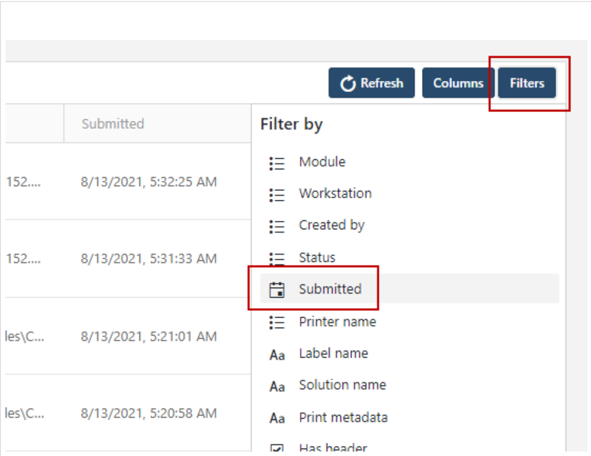
In time, the size of logged data can reach several Gigabytes which starts to affect the performance of the Control Center. To avoid performance issues, you can archive your History logs if you go to **Administration** > **Storage (Archiving?)**. See the instructions in Managing Storage and archiving History logs topic.

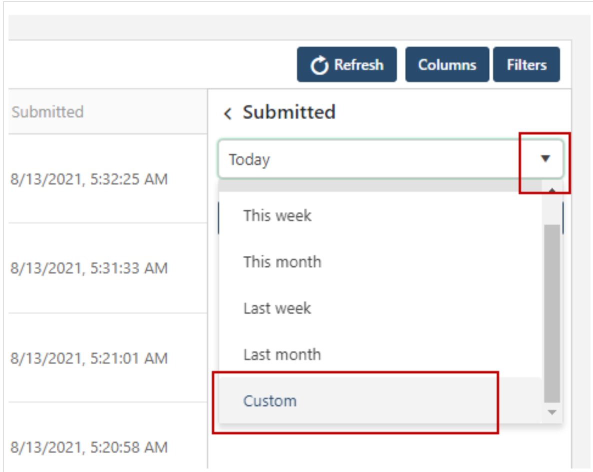
NOTE

Control Center shows timestamps in your local (server) time, but timestamps are stored in the Control Center database in the UTC timezone.

7.1. Data Filtering and Columns

A default view to the collected data is one day of event history. You can quickly adjust the time frame if you click **Filters** > **Submitted**. You can select predefined time intervals or define your custom time interval.





After you define the preferred time interval, the page updates and shows the events from the defined interval.

To make a precise selection of your print jobs, define a custom filter by clicking the items in **Filters** list. You may create a filter on other parameters, such as printer names, workstation names, user names, label names, and many more.

NOTE

You can remove filter items in all categories, except in **Submitted**, where you can only change the default time frame.

You can also disable displaying the columns that are not important to you. Click the **Columns** button and deselect the columns you want to remove. You can enable the columns back anytime.

7.2. Printing

The **Printing** page displays the list of printing events. Each event includes information about the print job application (module), workstation, user, printer, and printing status.

To display detailed information about the selected printing event, label preview, and possible error, click the row with the selected print job. **Print History Details** window opens.

Use **Filters** and **Columns** buttons to narrow down the search for your print jobs and customize displaying of the **Printing** page. Filters help you when you are searching for a print job you want to reprint.

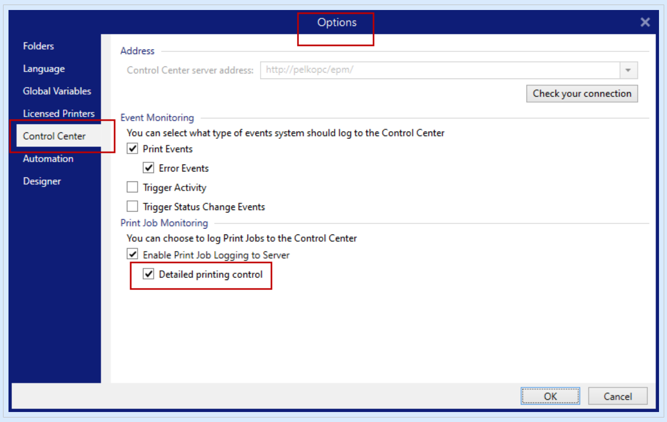
NOTE

In **Print History Details** window you can reprint your labels. When you press **Reprint** button, a window with additional options opens. You can define which print jobs you want to print, select some other printer to print your print jobs, and add your comments.

NOTE

For more details about print job statuses, read the section Job Statuses.

Status. in the **Label** section specifies the last known status of the print job as reported from the Loftware printer driver. To see these statuses, enable the option **Detailed printing control**. To enable this option, open Desktop Designer and go to **File** > **Options** > **Control Center** tab.



NOTE

Print History Details > **Print Job** section also displays **Metadata** if available. You can define Metadata in a NiceLabel form or in Automation at advanced print options in **Print Label** action.

You can download the **Printing** log as an Excel sheet if you click the **Download** button at the bottom of the page.

Size of printing history log

Each print job creates a new printing history log in your Control Center database. Print history logs contain **Print job** details (status, label name, print quantity, print time,...) and **Label** details (variable name, variable type, and variable value) for each printed label.

When you print frequently, your Control Center database size might grow rapidly. Labels with more variables and longer variable values create more extensive logs. Typically, each printed label creates a 1KB-2KB log. Graphics don't affect the sizes of logs and **Print job** details create an insignificant amount of data.

To archive your printing history logs and free your database space, see the Archiving topic.

7.3. Errors

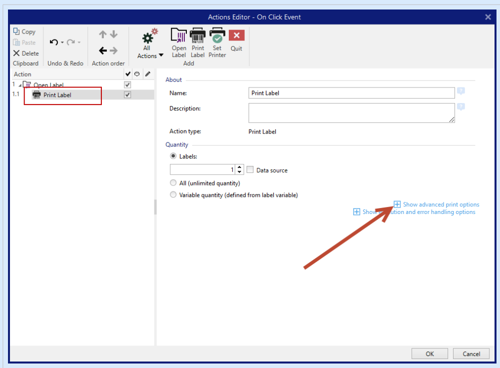
The **Errors** page displays an overview of logged printing errors. Each error event includes information about the print job application (module) computer, user, and printing status.

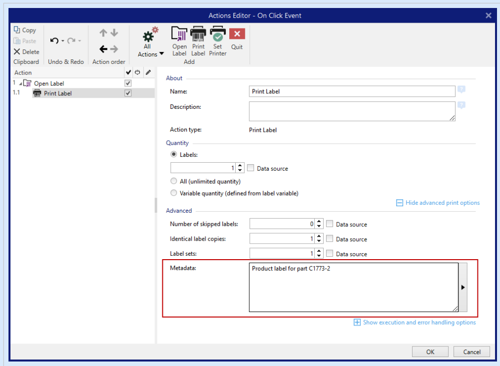
Use **Filters** and **Columns** to narrow down the search for your printing errors and customize your **Errors** page display.

To display detailed information about the print job with error, click the row with the selected error event. **Print History Details** window opens.

> **NOTE**
> For more details about print job statuses, read the section Job Statuses.

> **NOTE**
> **Print History Details** > **Print Job** section also displays **Metadata** if available. You can define Metadata in a NiceLabel form or in Automation at advanced print options in **Print Label** action.





You can download the **Errors** log as an Excel sheet if you click the **Download** button at the bottom of the page.

7.4. System

System page displays a list of all operations, procedures, or events in your Control Center, for example:

- **Audit types**:
  - Client authentication
  - Document storage
  - Versioning and Workflows

    - Global variables
- **Event action**:
    - Successful login
    - Workflow step changed
    - Automatic revision conversion
    - Check In
- **Details**:
    - File path
    - Workflow name
    - User name
    - Module
- **Workstation**
- **User**
- **Submitted** date nad time.

Use Filters and **Columns** to narrow down the search for your Control Center events and customize displaying of the **System** page.

You can download the **System** data as an Excel sheet if you click the **Download** button at the bottom of the page.

7.5. Alerts

Email Alerts feature automatically sends detailed information about errors in printing or in applications. The **Alerts** page displays a list of all **Email Alerts** sent from your Control Center to users.

For a detailed description of creating and managing Email Alerts, see our dedicated topic.

If there are multiple identical label printing errors, **Alerts** page doesn't display alerts for each of these errors. In case of repeating printing errors, you receive a new alert every 15 minutes.

> **NOTE**
> If there are multiple identical label printing errors, **Alerts** page doesn't display alerts for each of these errors. In case of repeating printing errors, you receive a new alert every 15 minutes.
>
> The 15-minute alert delay only happens if you are continuously printing identical label files using the same printer. If you change the label file or printer, you receive an alert immediately after your computer reports an error.

Use **Filters and Columns** to narrow down the search for your alerts and customize displaying of the **Alerts** page.

You can download the **Alerts** data as an Excel sheet if you click the **Download** button at the bottom of the page.

7.6. All Activities

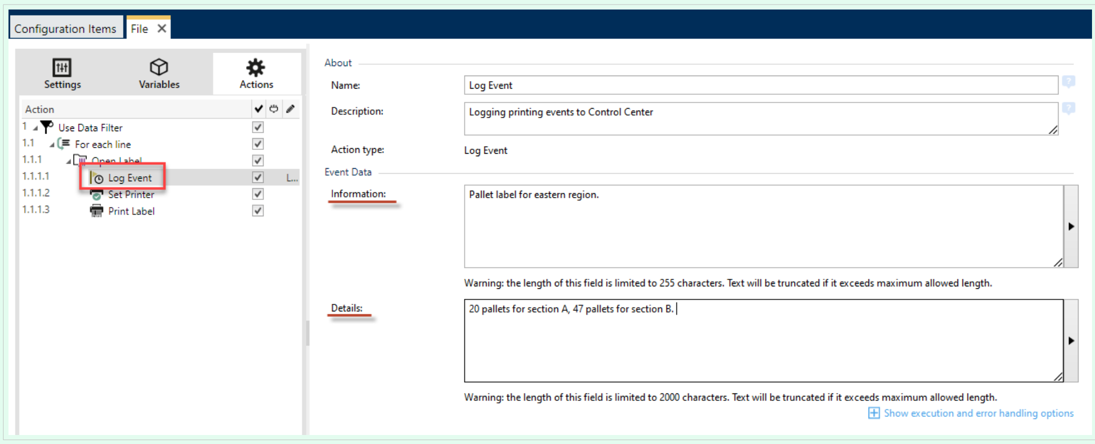
All Activities displays all printing activities, but successfully executed and with errors. Control Center logs printing activities and details from all NiceLabel applications. In **All Activities** you can see also errors caused by misconfigured NiceLabel solutions and configurations, for example if your labels don't print because of invalid variable content or wrong printer name.

Records with error events are written in red.

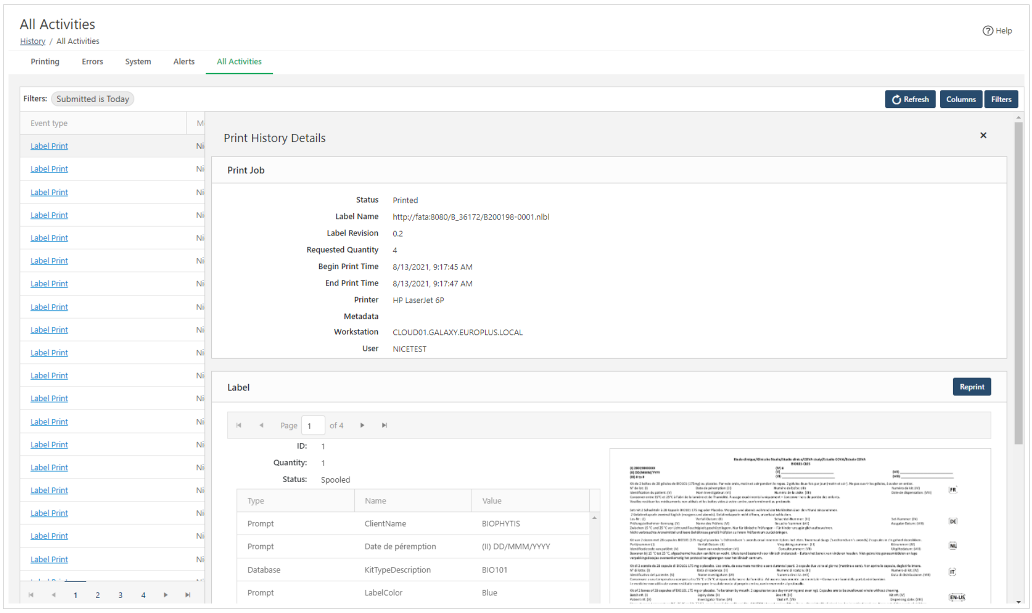
TIP

In **All Activities** you can add your own log records with customized information and details about your printed labels or errors.

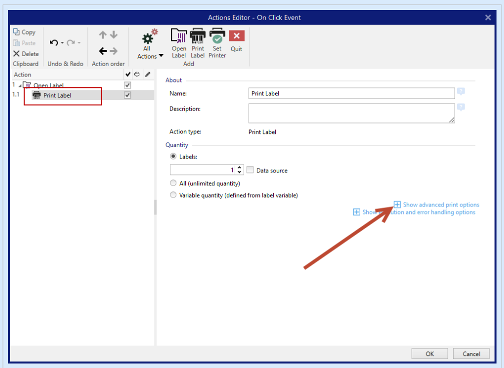
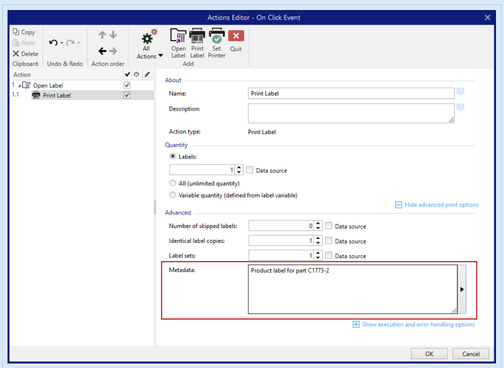
Add **Log Event** action to your Automation configuration or Desktop Designer solution with **Information** and **Details** data.



To display detailed information about the print job, click the row with the selected event. **Print History Details** window opens.



> **NOTE**
>
> For more details about print job statuses, read the section Job Statuses.

> **NOTE**
>
> **Print History Details** > **Print Job** section also displays **Metadata** if available. You can define Metadata in a NiceLabel form or in Automation at advanced print options in **Print Label** action.
>
> 
>
>
> 
>

Use **Filters** and **Columns** to narrow down the search for your printing activities and customize displaying of the **All Activities** page.

You can download the **All Activities** data as an Excel sheet if you click the **Download** button at the bottom of the page.

7.7. Job Statuses

7.7.1. Print job statuses

Possible print job statuses are:

- **Deleting:** job has been deleted from the spooler.
- **Deleted:** spooling process has been interrupted because the print job has been manually deleted from the print queue.
- **Error:** error condition on the printer - typical reason could be head opened on the printing device.
- **Error - Printing:** The error condition is due to a port conflict.
- **Paused:** this print job has been paused.
- **Printed:** print job has been successfully sent to the printing device.
- **Printing:** printer is processing the sent print job .
- **Restarting:** complete print job will be resent to the printing device.
- **Queued:** print job is in the waiting line in the spooler and will be sent to the printing device, when it has finished processing the previous job.
- **Start spooling:** print job has started to be sent to the printing device.
- **Spooling:** print job is being sent to the print spooler.
- **Spooled:** print job has been created in the print spooler without errors.
- **Spool failed:** while print job has been sent to the printing device, an error has occurred during print or the job was canceled.

7.7.2. Label job statuses

NOTE

You have to use printer driver in order to see label job status. If you do not use printer driver, the final label status is "Spooled".

The possible label job statuses are:

- **Preparing:** data for label job is just being processed and will be sent into print spooler.
- **Send failed:** label job could not be sent to the printing device successfully. The printer has reported a problem.
- **Sent:** label job has been successfully sent to the printing device.

- **Sending:** label job is being sent to the printer.
- **Spool failed:** while print job has been sent to the printing device, an error has occurred during print or the job was canceled.
- **Spooled:** label job has been created in the print spooler without errors.

8. Analytics

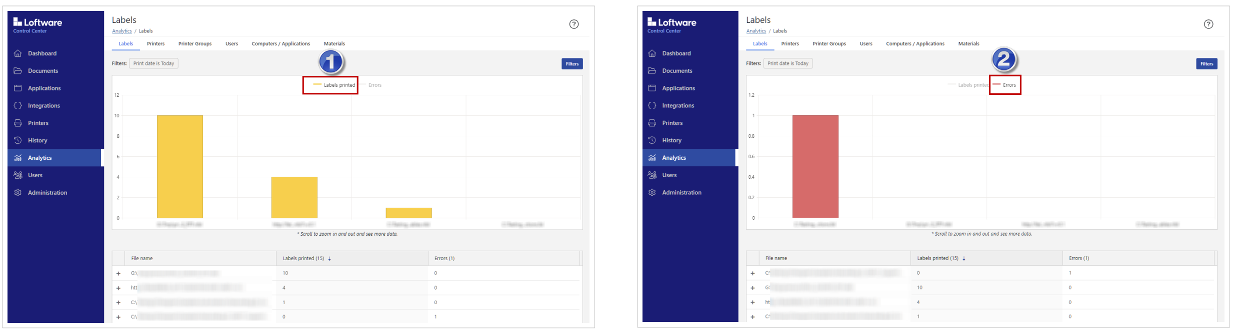
Analytics in Control Center helps you monitor and analyze your entire label printing process, giving you ways to understand what and how you print. In enterprise environments, Analytics helps you know:

Which **users** print which **labels** from which **computers** with which **programs** on which **printers** using which **materials**.

You can quickly sort and find information you need with these data Filters and tabs:

- **Labels**—file names, amounts printed, printers used, dimensions, stock numbers.
- **Printers**—models, amounts printed, dimensions, stock numbers.
- **Printer Groups**—which groups, amounts printed, dimensions, stock numbers.
- **Users**—user names, amounts printed, printers used, dimensions, stock numbers.
- **Computers/Applications**—computers, modules (Automation, Control Center, Designer, Print, Printer Driver, SDK, Web Printing), labels printed, printers used, dimensions, stock numbers.
- **Materials**—label dimensions, stock numbers, amounts printed, printers used.

Use Analytics to sort, monitor, and analyze your printing process in Control Center. Analytics helps you organize and plan your printing tasks, improve your printing processes, and find ways to decrease your printing costs.



*Click the top of your bar graph to switch views between your **Number of printed labels** (1) and **Number of errors** (2). Scroll to zoom in and out and see more data.*

To use Analytics, click the **Analytics** tab in your Control Center.

NOTE

If your Analytics graphs and detailed lists are empty, or you experience other display errors, try disabling your browser adblocker. For the best experience, we recommend disabling your adblocker or whitelisting Control Center.

8.1. Label Analytics

Know which **labels** print **how often** on which **printers** using which **materials**.

When you want to decrease labeling costs, use Analytics in Control Center to view and analyze which labels you print the most so you can get the biggest savings with the smallest changes to your labels. You can customize print date ranges and see specific label data with Filters.

To view and filter your label printing data, follow these steps:

1. Open **Analytics** in Control Center.
2. To sort your data by label file name, click the **Labels** tab (on your top left).
   To sort your data by label dimensions, click the **Materials** tab (on your top left).
   Analytics displays your bar graph and list of label printing data (toggle to display number of errors).
3. Scroll down to view your list of file names, numbers of printed labels, and numbers of errors.
   - **File names** contain full paths of labels you print. If your labels are parts of solutions, Analytics displays full solution paths and your label names.
   - **Number of printed labels** shows how many labels you print on rolls. If you print your labels on sheets of paper, Analytics displays how many pages you use (ex: **33 pages of labels**).
   - **Number of errors** shows how many errors occurred.
4. Toggle **+** and **-** (on your left)to view detailed lists for specific computers.
   - Click on a column to sort column data.
   - Sort by labels, label dimensions (width x height)/stock number, labels printed, or errors.
   - Analytics displays your label information in the following ways:

Display Example:	Meaning:
10 x 5 cm	Dimensions in cm
3" x 6"	Dimensions in inches
30 x 22 mm	Dimensions in mm
40 x ?	Width is constant, but label height is variable. Your label length depends on the amount of data in your label.
10 x 7 cm / A4	When you print on sheets of paper, Analytics shows label dimensions and paper size.
30 x 20 mm / A4 - STOCK9i9i	Analytics shows your label dimensions, paper size, and stock number.

5. Analytics displays printing data from today on your graph and list by default. To see data from another print date range, go to **Filters** > **Print date** (on your right).
   - Use the drop-down menu to select pre-defined date ranges.

- Customize your print date range by selecting **Custom** and choosing a date range with **From** and **To**.
- Click **Add** to apply your filter to your graph.

6. To see data from specific users, go to **Filters** > **Label name** or **Label dimension** filters (on your right).
    - Click active filters above your graph to open a drop-down menu and select/deselect more labels. Click **Save** to apply your updates.
7. Apply multiple filters at once to fine-tune your data view and find exactly what data you need.
    - For more information, see Section 8.6, “Analytics Filters”.
8. Click **Download** (on your bottom right) to export your data.
    - Analytics includes your applied data filters and only exports data you see.
    - Your data downloads as an .xml file you can open in Microsoft Excel.

Use Analytics to view and analyze label printing data during print date ranges you select. Use this data to optimize your printing processes and find ways to decrease your costs.

8.2. Printer Analytics

Know which **printers** print which **labels** and **how often**.

When your printing workloads are not evenly distributed between your printers, use Analytics in Control Center to view and analyze which printers print the most labels so you can more efficiently distribute your workloads. You can customize print date ranges and see specific printer data with Filters.

To view and filter your printer workloads, follow these steps:

1. Open **Analytics** in Control Center.
2. Click the **Printers** tab (on your left).
Analytics displays your bar graph and list of printer data (toggle to display number of errors).
3. Scroll down to view your list of printers, labels they print, and errors.
    - **Number of printed labels** shows how many labels you print on rolls. If you print your labels on sheets of paper, Analytics displays how many pages you use (ex: **33 pages of labels**).
    - **Number of errors** shows how many errors occurred.
4. Toggle **+** and **-** (on your left) to view detailed lists for specific computers.
    - Click on a column to sort column data.
    - Sort by label dimensions (width x height)/stock number, or labels printed.
    - Analytics displays your label information in the following ways:

Display Example:	Meaning:
10 x 5 cm	Dimensions in cm
3" x 6"	Dimensions in inches
30 x 22 mm	Dimensions in mm
40 x ?	Width is constant, but label height is variable. Your label length depends on the amount of data in your label
10 x 7 cm / A4	When you print on sheets of paper, Analytics shows label dimensions and paper size
30 x 20 mm / A4 - STOCK9i9i	Analytics shows your label dimensions, paper size, and stock number

5. Analytics displays printing data from today on your graph and list by default. To see data from another print date range, go to **Filters** > **Print date** (on your right).
   - Customize your print date range by selecting **Custom** and choosing a date range with **From** and **To**.
   - Click **Add** to apply your filter to your graph.
6. To see data from specific printers, go to **Filters** > **Printer** (on your right).
   - Click the active **Printer** filter (above your graph) to open a drop-down menu and select/deselect more users. Click **Save** to apply your updates.
7. Apply multiple filters at once to fine-tune your data view and find exactly what data you need.
   - For more information, see Section 8.6, “Analytics Filters”.
8. Click **Download** (on your bottom right) to export your data.
   - Analytics includes your applied data filters and only exports data you see.
   - Your data downloads as an .xml file you can open in Microsoft Excel.

Use Analytics to view and analyze printer workloads during print date ranges you select. Use this data to optimize and redistribute uneven printing workloads.

8.3. Printer Group Analytics

Know which **printer groups** print which **labels** and **how often**.

When your printing workloads are not evenly distributed between your printer groups, use Analytics in Control Center to view and analyze which printer groups print the most labels so you can more efficiently distribute your workloads. You can customize print date ranges and see specific printer group data with Filters.

To view and filter your printer group workloads, follow these steps:

1. Open **Analytics** in Control Center.
2. Click the **Printer Groups** tab (on your top left).
   Analytics displays your bar graph and list of printer group data (toggle to display number of errors).
   - **Number of printed labels** shows how many labels you print on rolls. If you print your labels on sheets of paper, Analytics displays how many pages you use (ex: **33 pages of labels**).
   - **Number of errors** shows how many errors occurred.
3. Scroll down to view your list of printer groups and labels they print.
4. Toggle **+** and **-** (on your left) to view detailed lists for specific computers.
   - Click on a column to sort column data.
   - Sort by label dimensions (width x height)/stock number, labels printed, or errors.
   - Analytics displays your label information in the following ways:

Display Example:	Meaning:
10 x 5 cm	Dimensions in cm
3" x 6"	Dimensions in inches
30 x 22 mm	Dimensions in mm
40 x ?	Width is constant, but label height is variable. Your label length depends on the amount of data in your label
10 x 7 cm / A4	When you print on sheets of paper, Analytics shows label dimensions and paper size
30 x 20 mm / A4 - STOCK9i9i	Analytics shows your label dimensions, paper size, and stock number

5. Analytics displays printing data from today on your graph and list by default. To see data from another print date range, go to **Filters** > **Print date** (on your right).
   - Use the drop-down menu to select pre-defined date ranges.
   - Customize your print date range by selecting **Custom** and choosing a date range with **From** and **To**.
   - Click **Add** to apply your filter to your graph.
6. To see data from specific printer groups, use the **Printer group** filter (on your right).
   - Click the active filter (above your graph) to open a drop-down menu and select/deselect more Printer groups. Click **Save** to apply your updates.
7. Apply multiple filters at once to fine-tune your data view and find exactly what data you need.
   - For more information, see Section 8.6, “Analytics Filters”.
8. Click **Download** (on your bottom right) to export your data.
   - Analytics includes your applied data filters and only exports data you see.

- Your data downloads as an .xml file you can open in Microsoft Excel.

Use Analytics to view and analyze printer group workloads during print date ranges you select. Use this data to optimize and redistribute uneven printing workloads.

8.4. User Analytics

Know which **users** print which **labels** on which **printers** and **how often**.

When your printing workloads are not evenly distributed between your users, use **Analytics** in Control Center to view and analyze which of your users print the most labels so you can more efficiently distribute your user workloads. You can customize print date ranges and see specific user data with **Filters**.

To view and filter your user printing workloads, follow these steps:

1. Open **Analytics** in Control Center.
2. Click the **Users** tab (on your top left).
   Analytics displays your bar graph and list of user data (toggle to display number of errors).
3. Scroll down to view your list of users, labels they print, and errors.
   a. **Number of printed labels** shows how many labels you print on rolls. If you print your labels on sheets of paper, Analytics displays how many pages you use (ex: **33 pages of labels**).
   b. **Number of errors** shows how many errors occurred.
4. Toggle **+** and **-** (on your left) to view detailed lists for specific users.
   - Click on a column to sort column data.
   - Sort by printers, label dimensions (width x height)/stock number, labels printed, or errors.
   - Analytics displays your label information in the following ways:

Display Example:	Meaning:
10 x 5 cm	Dimensions in cm
3" x 6"	Dimensions in inches
30 x 22 mm	Dimensions in mm
40 x ?	Width is constant, but label height is variable. Your label length depends on the amount of data in your label
10 x 7 cm / A4	When you print on sheets of paper, Analytics shows label dimensions and paper size
30 x 20 mm / A4 - STOCK9i9i	Analytics shows your label dimensions, paper size, and stock number

5. Analytics displays printing data from today on your graph and list by default. To see data from another print date range, go to **Filters** > **Print date** (on your right).

- Use the drop-down menu to select pre-defined date ranges.
- Customize your print date range by selecting **Custom** and choosing a date range with **From** and **To**.
- Click **Add** to apply your filter to your graph.

6. To see data from specific users, go to **Filters** > **User** (on your right).
   - Click the active **User** filter (above your graph) to open a drop-down menu and select/deselect more users. Click **Save** to apply your updates.
7. Apply multiple filters at once to fine-tune your data view and find exactly what data you need.
   - For more information, see Section 8.6, “Analytics Filters”.
8. Click **Download** (on your bottom right) to export your data.
   - Analytics includes your applied data filters and only exports data you see.
   - Your data downloads as an .xml file you can open in Microsoft Excel.

Use Analytics to view and analyze user printing workloads during print date ranges you select. Use this data to optimize and redistribute uneven printing workloads.

8.5. Computer Analytics

Know which **computers** and which **programs** print which **labels** on which **printers** and **how often**.

When your printing workloads are not evenly distributed between your computers, use Analytics in Control Center to view and analyze which of your computers print the most labels so you can more efficiently distribute your workloads. You can customize print date ranges and see specific computer and program module data with Filters.

To view and filter your computer/module printing workloads, follow these steps:

1. Open **Analytics** in Control Center.
2. Click the **Computers/Applications** tab (on your top left).
   Analytics displays your bar graph and list of computer and application data (toggle to display number of errors).
3. Scroll down to view your list of computers, modules, amounts of labels printed, and errors.
   - **Computers** are computers you use to print.
   - **Modules** are programs you use to print (Automation, Control Center, Designer, Print, Printer Driver, SDK, Web Printing).
   - **Number of printed labels** shows how many labels you print on rolls. If you print your labels on sheets of paper, Analytics displays how many pages you use (ex: **33 pages of labels**).
   - **Number of errors** shows how many errors occurred.

4. Toggle **+** and **-** (on your left) to view detailed lists for specific computers.
    - Select columns to sort or drag/drop column headers to group by column data.
    - Sort by printers, label dimensions (width x height)/stock number, labels printed, or errors.
    - Analytics displays your label information in the following ways:

Display Example:	Meaning:
10 x 5 cm	Dimensions in cm
3" x 6"	Dimensions in inches
30 x 22 mm	Dimensions in mm
40 x ?	Width is constant, but label height is variable. Your label length depends on the amount of data in your label
10 x 7 cm / A4	When you print on sheets of paper, Analytics shows label dimensions and paper size.
30 x 20 mm / A4 - STOCK9i9i	Analytics shows your label dimentions, paper size, and stock number.

5. Analytics displays printing data from today on your graph and list by default. To see data from another print date range, go to **Filters** > **Print date** (on your right).
    - Use the drop-down menu to select pre-defined date ranges.
    - Customize your print date range by selecting **Custom** and choosing a date range with **From** and **To**.
    - Click **Add** to apply your filter to your graph.
6. To see data from specific computers or modules, use the **Computer** or **Module** filters.
    - Use the drop-down menu to select/deselect specific computers or modules.
7. Apply multiple filters at once to fine-tune your data view and find exactly what data you need.
    - For more information, see Section 8.6, “Analytics Filters”.
8. Click **Download** (on your bottom right) to export your data.
    - Analytics includes your applied data filters and only exports data you see.
    - Your data downloads as an .xml file you can open in Microsoft Excel.

Use Analytics to view and analyze computer printing workloads during print date ranges you select. Use this data to optimize and redistribute uneven printing workloads.

8.6. Analytics Filters

Use Analytics filters in Control Center to understand your label printing processes. Apply multiple filters at once to fine-tune your data view and find exactly the data you need for analysis, investigation, and optimization.

To apply multiple Analytics filters to your data, follow these steps:

1. Open **Analytics** in Control Center.
   Analytics displays your bar graph and list of label printing data.
2. To filter data from specific items, use **Filters** (on your right). Select a filter and click **Add** to apply.
   - You can apply multiple filters at once. Filters you apply appear above your bar graph.
   - Use the filter drop-down menus to select/deselect specific items. For **Label name** and **Metadata** filters, you can narrow your results to:
     - Contains
     - Does not contain
     - Equals
     - Does not equal
     - Starts with
     - Ends with
   - You can select single or multiple items for each filter. Click your applied filter above your bar graph and use the dropdown menu to add more items to your filter. Click **Save** to update your filter and apply changes on your bar graph.
3. Choose from the following filters:
   - Print date
   - Printer
   - Printer group
   - Label name
   - Label dimension
   - User
   - Computer
   - Module
   - Metadata
     Metadata is extra information about labels you print, stored in databases with print jobs. Metadata you assign does not appear on your labels, but you can use it for sorting, filtering, and other functions.
     Filter your data using custom metadata tags you create for jobs in Automation. Metadata filter tags you type in Analytics are case sensitive and must exactly match your created tags to filter correctly.
     Examples of metadata include:
     - Printer names

- User/system generated values
- Data sources
- Lot numbers

Example

You define lot numbers for your labels in Automation (LotNumber=444, 445, 446, etc...). With Analytics in Control Center, you filter your data with the metadata tag "LotNumber=444" to analyze printing data for only lot number 444.

The metadata filter helps you analyze your print process for specific metadata tags you choose.
For more information on creating and applying metadata in Automation, see the Print Label action description.

4. Analytics displays printing data from today on your graph and list by default. To see data from another print date range, go to **Filters** > **Print date** (on your right).
   - Use the drop-down menu to select pre-defined date ranges.
   - Customize your print date range by selecting **Custom** and choosing a date range with **From** and **To**.
   - Click **Add** to apply your filter to your graph.
5. With your filters applied, you can view your filtered data by selecting tabs (on your left).
   - View filtered data on labels, printers, printer groups, users, computers/applications, or materials.
6. To remove filters and return to your default data view, click the **X** on active filters above your graph.

Use Analytics to apply multiple filters to your printing data during date ranges you select. Use this data to investigate, analyze, and optimize your printing processes.

8.7. Printing Optimization with Analytics

Compare stated **label needs** with actual **usage data** to find **savings** and **optimize** production.

Use **Analytics** in Control Center to see production data and investigate efficiency. Compare how many labels you need with how many labels you print to analyze your label usage and losses, improve your printing processes, and find ways to decrease your printing costs.

Example

You produce 1000 product units per month. For each unit produced, you need 1 label. This means your **label need** is 1000 labels per month (1000 units x 1 label per unit).

Now, use Analytics to see your **usage data**:

1. Open **Analytics** in Control Center.
2. Click the **Labels** tab (on your top left).
3. Use **Filters** > **Print date** (on your right) to see data from **last month**.

Analytics displays your bar graph and detailed list of user printing data.

From your graph, you see you printed 1100 labels last month, 100 more than you need.

Now you can investigate this difference between your label need and your usage data. Ask why you print more labels than you need and use the answers to find and decrease waste, errors, misprints, and malfeasance.

You can now use **Analytics** to view and analyze your usage data during print date ranges you select. Use this data to investigate, optimize production, and find ways to save by decreasing printing costs.

9. Users

Control Center also serves as a centralized user management tool. In Control Center you define how your users access and work within your Label Management System. Assign **Access Roles** and set different **Permissions** to make your labeling environment secure and easy to use.

To start managing your users, first, **define your authentication method** for your users. Your authentication method depends on the product and edition you purchased:

- Label Management System:
  - Authentication
  - Application Users

You can invite your internal or external users to your Control Center.

Your second step is to **manage your user privileges**:

- Add your users or user groups as members of predefined Access Roles or create your own unique access roles.

  NOTE
  Every Control Center user must be a member of at least one Access Role.

- Set your Role Permissions for your access roles to match your labeling needs.

You can control what your users do at both broad and granular levels.

TIP
Use Access Roles and Role Permissions to limit access to your:

- Files and folders stored in your **Documents**.
- Shared Applications for printing.

Different Access Roles and Permissions for different needs

In order to properly set up your NiceLabel label printing system your IT administrators need all permissions enabled. The **Administrator** role is an Access Role with all Permissions enabled and is automatically assigned to the user who activates Label Management System account.

Your printing operators have different needs, their work is limited to running printing Applications and printing labels. To prevent mistakes and improve efficiency the best-suited access role, in this case, is the **Operator** Access Role.

9.1. Authentication

Authentication increases your Control Center security and allows you to assign users and user groups to **Access Roles**.

Your **Authentication Method** enables only authorized users to log in to your Control Center and other Label Management System modules. With an authentication method enabled, Control Center recognizes your users and corresponding permissions.

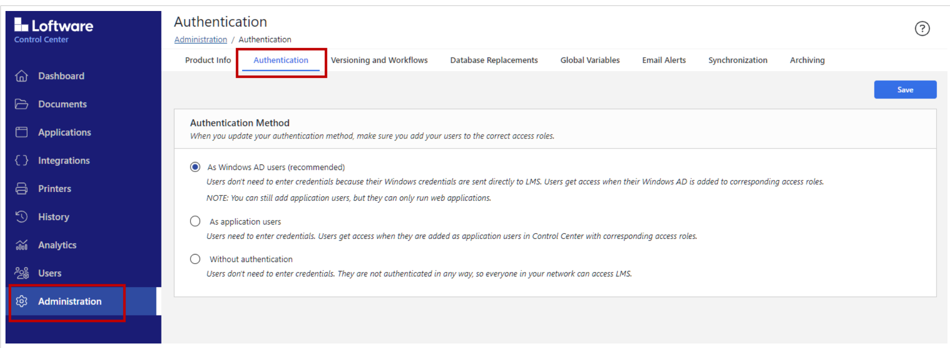
> **NOTE**
> If you lose a stable connection with Control Center, a warning appears on your screen. You enter a grace period, during which you can still work offline, but you must sign in and reconnect your software before your grace period ends.
>
> If you change your username and password, you have to reconnect your software before your grace period ends.

Control Center administrators can set **Access Roles** for different users or groups of users. Each role has a different set of permissions.

> **WARNING**
> To update your authentication method, at least one of your users must be a member of the **Administrator** Access Role.

To update your **Authentication Method**:

1. Go to **Administration** > **Authentication**.
2. Select your **Authentication method**.



- **As Windows AD users (recommended)**: Users are defined in your **Active Directory**. Your server with Control Center must be a member of the same domain or you must establish a domain trust relationship between your two domains.
  Your users get access when you add their Windows AD to an Access Role in Control Center. Your users become **Windows users** and don't need to enter credentials to log in to Label

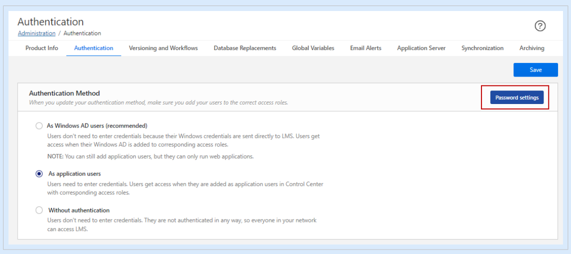
Management System Control Center. Their **Windows credentials** are sent directly to your Control Center. Control Center also recognizes your Windows user groups.

> **NOTE**
> You can still add application users, but they can only run your shared Applications.

> **NOTE**
>
> NiceLabel supports both LDAP and LDAPS (LDAP over SSL) connection protocols.
>
> LDAPS communication is encrypted and secure while LDAP transmits communications in clear text.
>
> Because of the potential for attacks and misuse of insecure LDAP connections, Microsoft recommends using LDAPS with Active Directory domain controllers when possible.
>
> If your system cannot establish an LDAPS connection, you can use an LDAP fallback connection.

- **As application users**: Users need to enter credentials (user name and password). Users get access when they are added as application users in Control Center with corresponding Access Roles.

> **NOTE**
> The default NiceLabel administrator password is **NICE**.

> **NOTE**
> You can define password settings for your application users.
>
> 
>
>
> See the details about the password settings in a topic about application users.

- **Without authentication**: Users don't need to enter credentials when they log in to Control Center. They are not authenticated in any way, everyone in your network can access your Label Management System and has all user privileges (Role Permissions).

All users have access permissions from the **Roles Off** Access Role. By default, all **Roles Off** Access Role users have administrative privileges.

> **IMPORTANT**
> By default, your Control Center authentication method is set to **Without authentication**.
>
> Consider possible security risks when you choose not to use authentication.

3. Click **Save**.

Your **Authentication Method** is updated. If you use authentication, you can now add users to Access Roles and assign permissions.

9.2. Application Users

When inviting your organization members to the Label Management System, you must first define them as users. The **Users** page allows you to centrally manage your users - you can add and group your Application and Windows AD users, assign them privileges, and share Applications with them.

9.2.1. Adding Users

To add new web application user:

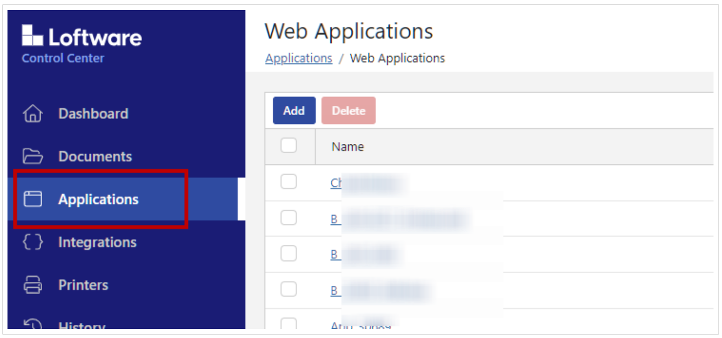
1. Go to **Users** > **Users**
2. Click **Add User**. First Select **Windows AD user** or **Application user**.
   Under **Settings**, type in the required user information. If you selected **Application user**, define username/password using which the application users logs in to your Control Center.

   > **NOTE**
   > If you defined additional password settings, the users must follow your password complexity rules. These can include character types, number of characters, etc.

3. If you selected **Application user**, you can add your user to one or more of your application groups under **Application Groups**.

   > **NOTE**
   > Before you can add your users to your **Application Groups**, first create your groups as described in the Groups topic.

4. Under **Applications**, you can immediately start sharing your label templates or Applications from your Control Center with your users.



5. Under **Access Roles**, you can assign appropriate Access Roles to your users. Access Roles allow you to control the User Privileges in your Control Center.

    a. Click **Add**. The **Add Access Roles** dialog opens. Select the role(s) for your guest user.

    b. Click **OK**.

> **NOTE**
> To see the granted privileges for each access role, go to **Users** > **Access Roles** > click on the role. You can view granted permissions for this particular Access Role under **Permissions for this Role**.

6. By default, the users' status is set to **Active**. Keep the status active to allow your user to log into your Control Center.

7. Click **Save**.

Your invited Application users can now log in to your Control Center with the username and the password you provided.

9.2.2. Access Roles

The **Users** page allows you to assign Access Roles to your added users. This is how you define the level of privileges your newly added user has in Control Center. Read more about the Access Roles and the related User Privileges in the section Managing User Privileges.

To assign Access Roles to your application user:

1. Go to **Users** > **Users**

2. Click on the user from the list. The user configuration page opens.

3. Under **Access Roles** click **Add**.

4. The **Add Roles** dialog opens. The available Access Roles are listed. Assign your user the appropriate role(s).

5. Click **OK**.

6. Click **Save**.

Your user is now a member of the selected Access Role with all the corresponding User Privileges.

9.2.3. Password Settings

If your company does not use the Active Directory, you can still enable authentication for your Control Center. In this case, your authentication method is called "**As application users**" method. This application authentication method allows you to define and manage your Control Center users within the Control Center. These users become **application users**.

> **NOTE**
> In contrast to Windows authentication, the user who has the Administrator Access Role defines the username and password for each individual application user.

To open and manage the password settings for your application users:

1. Go to **Users** > **Users** and click **Password settings**.
2. Define **Password Character Settings**:
   - **Minimal number of characters** allows you to limit your users to create passwords longer than "x" characters. Longer passwords are more secure.
   - **Uppercase, lowercase, letters and numbers** - when enabled, your users must create passwords using a combination of lower and upper case letters, and numbers. This raises password complexity and makes the passwords harder to crack.
   - **Special characters** - when enabled, your users must create passwords that contain special characters. Special characters add to password complexity and make the passwords harder to crack.
   - **Username cannot be part of the password** - enable to make the passwords even more secure. This prevents the users from setting their user names as part of the password.
3. Under **Password Validity**, you can optionally set the number of days the passwords remain valid. After the defined number of days, users will be prompted to enter a new password. If they do not change their passwords, the administrator must change the expired passwords to make them valid again.
4. Under **Password History**, you can define the number of preceding passwords that your users cannot use for logging into the Control Center. Use this option to prevent the users from reusing their passwords after they become invalid.
5. **Account Failed Log-In Attempts Suspension** allows you to set the number of failed login attempts before your Control Center automatically suspends the account. After suspending the user account, the administrator must reactivate that account to make it available again.
   To reactivate the account, go to **User Management** > **Application Users** > select your user > toggle **Status** to **Active**.

6. **Account Inactivity Suspension** sets the number of days of account inactivity before an account is suspended.
   To reactivate the account, go to **User Management** > **Application Users** > select your user > toggle **Status** to **Active**.
7. Click **Save**.

With defined and enforced passwords you improve the level of your Control Center security.

9.3. Groups

Once you define your **Users**, it is a good idea to group your users. **Groups** help you organize your users based on the department, role, or any other organizational group they are working for. Grouping user makes it easier for you to assign privileges, and to share your Applications with multiple users at once.

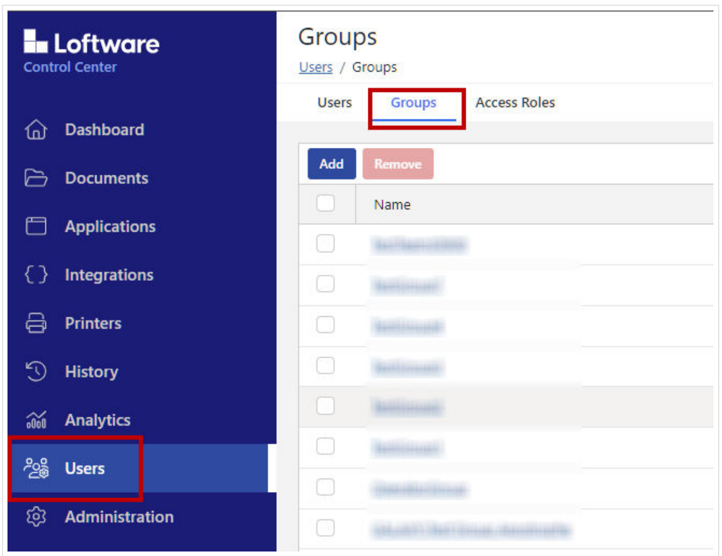
> **NOTE**
> **Application Users** and **Application Groups** refer to users you define in NiceLabel. Application users and groups are different than users and groups you define within your Windows domain or Active Directory. You can use Application users and groups if your environment is configured without Windows Active Directory.

9.3.1. Creating Groups

By creating groups, you can control which groups of users can access **Web Applications** you create in Control Center.

To create a new group:

1. Open Control Center.
2. Go to **Users** > **Groups**.

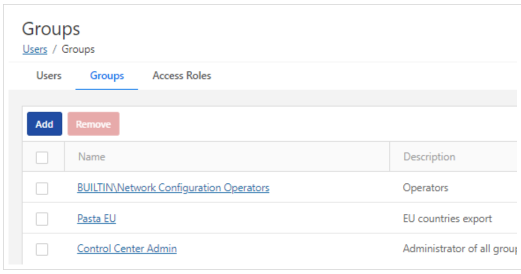


3. Click **Add**. The **Create New Group** window opens.
4. Based on your **Group Type** additional selections and settings open below.
5. Give your new group a **Name** or select AD group. Enter also a description and email address. By default, the Application Group's status is set to **Active**.
6. If you selected **Application Group**, add **Application Users** to your group.
7. Add **Access Roles** to your group or skip this step and add them later.

   > **NOTE**
   > If you skip the **Access Roles** setting, users in this group will have administrator rights.

8. Add **Web Applications** that users in this group will run.
9. Click **Save**.

Your new **Group** is ready and listed. Click group names to change or update your group data.



> **NOTE**
> When you remove your **Active Directory Group** from **Groups** in Control Center, Windows AD group remains in your system, but all access rights and web applications rights are removed from Control Center.
>
> When you remove your **Application Group** from **Groups**, Control Center removes the application group, access rights, and application rights.

9.3.2. Adding Application Users to Application Groups

You can add a single Application User to multiple Application Groups.

> **NOTE**
> Before you add your users to your groups, you must first add them to Section 9.2, "Application Users".

To add **Application Users** to your group:

1. Go to **Users** > **Users**.
2. Click on a user name from your list. The user configuration page opens.
3. Under **Application Groups**, click **Add**.
4. The **Add Application Groups** dialog opens. Select a group or groups from your list.
5. Click **OK**. Your user now belongs to your selected group.
6. Click **Save**.

Your Application User is now Added to your Application Group and has access to Web Applications in your group.

9.4. Access Roles

Using **Access Roles** helps you keep your entire labeling system secure. You can choose exactly what the members of your Access Roles can do and see in Control Center and other NiceLabel modules within Label Management System products.

Use the **Users** > **Access Roles** page in Control Center to set User Privileges for your labeling system according to your own specific security policies. Access Roles allow you to assign different sets of privileges to Control Center users.

> **NOTE**
>
> Before you can set user permissions, you must first enable authentication in your Label Management SystemControl Center.
>
> After you enable authentication, log in to Control Center as an administrator to access the **Access Roles** page.

Control Center includes default access roles with well-balanced permission sets:

> **NOTE**
>
> These default Access Roles have preset ranges of privileges. You can manually change the default permissions for each role except for the Administrator role.

- **Administration**: All permissions granted. Members in this role have full Control Center privileges. Administrators can edit default roles, customize roles, and assign roles to users or groups.
- **Approver:** Allows role members to review, approve, or reject labels or solutions in Document Storage. Approvers send documents to production.

- **Approver (second level):** Allows role members to review, approve, or reject documents on the second document approval step. Approvers send documents to production.
- **Author:** Allows role members to create or edit label templates and solutions. Members in this role can edit labels and forms, and have control over label production.
- **Operator:** Allows role members to print labels and run solutions without editing. Members in this role have read-only access to Document Storage and cannot change any label templates or application configurations.
- **Service Provider**: Allows your service provider to access your account for support, setup, and administration. This role has no members by default.
- **Roles off**: This role is automatically assigned to all Control Center users after you set your **Authentication method** to **Without authentication**. By default, this role has all permissions granted.

Example

John needs full access to **Documents** storage to upload printing solutions and make them available for production. Set John's Access Role to Author.

Annie needs access to the Reports page to prepare reports on printing consumables. You can assign Annie to any default Access Role.

Charlie is a printer operator. He only runs solution files in runtime mode and prints labels. Set Charlie's Access Role to Operator.

Martha is an account administrator. She needs access to all administrative features. Martha belongs to the **Administrator** Access Role.

To learn how to edit default Access Roles or add new Access Roles, read Setting up Access Roles.

9.4.1. Multiple Access Role membership

If your users or user groups are members of multiple Access Roles, their overall security access sums up privileges of all access roles.

When your users are members of two Access Roles, Control Center grants them privileges from their highest Access Role and overrides privileges denied in other roles.

Multiple Access Role membership

Charlie is a member of **Operator** and **Author** Access Roles. His Operator role grants him read-only access to files stored in **Documents**, but his Author role grants him full access to **Documents**. In this case, Charlie has full access to **Documents**.

9.4.2. Creating Access Roles

You can set up **Access Roles** for users in Control Center in two ways. You can edit default Access Roles, or create your own custom Access Roles from scratch. You can also duplicate the existing Access Role and then edit the copy.

- Customize default Access Roles to comply with specific policies or procedures.
- You can keep default roles, use additional customized roles for special use cases, or add new Access Roles.

> **NOTE**
> You can delete your customized Access Roles, but you cannot delete the default Access Roles.
>
> When you delete your customized Access Roles, role members lose their permissions accordingly.

1. To open **Access Roles**, go to **Users** > **Access roles**.
2. You have three options:
   - To edit a default Access Role, click the role you want to edit.

     > **WARNING**
     > Some default or user-defined access roles have enabled the option **Update files and folders**. This might cause the printing of unpublished (draft) revisions of your labels. This functionality serves testing environments so we would suggest disabling the option **Update files and folders** in your production environment.
     >
     > You can disable this option if you scroll to **Permissions for this rule** section and go to the **DOCUMENTS** tab > **Default Document Permissions** > **Storage**.

   - To set up a new Access Role, click **Add**.
   - To copy an existing Access Role, select the role, then click **Duplicate**.
3. Control Center opens **Create New Access Role** configuration page for editing.
   a. In **Settings**, type the role name and description. Make these easy to differentiate from other roles. For default Access Roles, you can edit the role description already there.
   b. Set the role **Status**. Toggle **Active** to make the role available immediately. Toggle **Suspended** to make the role unavailable.

> **NOTE**
> Default Access Roles are always active. You can only change the **Status** of new roles you create manually.

c. Set **Permissions for this Role**. Define which tasks the members of this Access Role can perform. To learn more about setting permissions, read Setting role permissions.

d. In **Users in this Role** click **Add** to add individual users or user groups to your access role. A new pop-up window opens.

- **Application users** lists all existing users who authenticate themselves using application authentication.
- **Application groups** lists all existing groups of users who authenticate themselves using application authentication.
- **Windows users** lists all users that are defined in your company's Active Directory.
- **Windows groups** lists all groups that are defined in your company's Active Directory.

4. Click **Save**.

Your **Access Role** is configured and ready to use.

> **NOTE**
> You can also create an Excel table with a report of all Control Center users and their Access Roles In the **Report of Users and Access Roles** window click **Create report**.

9.4.3. Access Role Permissions

Setting **Permissions** for your **Access Roles** helps you keep your entire labeling system secure. You can choose exactly what Access Role members can do and see in Control Center and other NiceLabel programs.

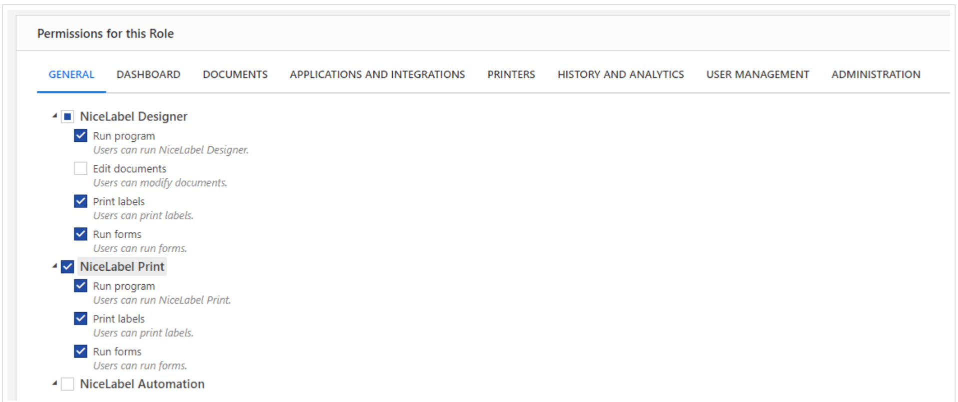
> **NOTE**
> NiceLabel recommends using default Access Roles due to their well-balanced Permission sets. Before you configure Permissions, **consider your security policies** and set Permissions for each Access Role carefully.

For security, your users in different Access Roles need different levels of access to files, folders, and actions when they use Control Center. NiceLabel groups common Permissions levels into default Access Roles. Administrators can customize or create new Access Roles. Use the **Permissions for this role** section in **Access Roles** to control which actions or settings are available to members of each Access Role.

To set **Access Role Permissions**, follow these steps:

1. Log in to Control Center as an Administrator.
2. Go to **Users** > **Access Roles**.
3. **Add** a new Access Role or click on an existing Access Role from the list.
   Create New Access Role
4. Set your Permissions.
   The **Permissions for this role** section includes multiple tabs with lists and detailed descriptions of available Permissions.
   - To **grant** specific Permissions for this role, select your checkboxes.
   - To **disable** specific Permissions for this role, clear your checkboxes.

     > **NOTE**
     > Disabling Permissions also makes them invisible to your Access Role members.

   - Use the **General** tab to set your **global** Role Permissions for your NiceLabel modules and decide what users in this role can do in your labeling system. For example:
     - Run NiceLabel programs:
       - Desktop Designer
       - Print
       - Automation
     - Edit documents
     - Print labels
     - Run forms
     - Edit global variables
     - Edit options
     - Upgrade and deactivate licenses

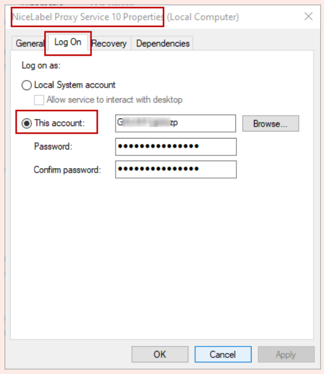
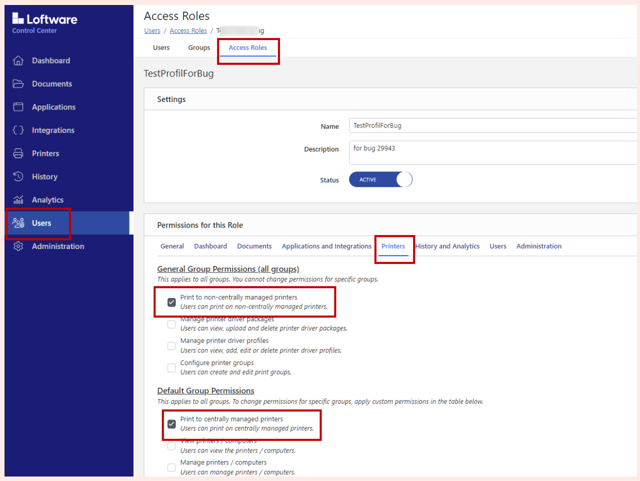
- Use the remaining tabs to set **Role Permissions** that are specific for Control Center. These Permissions apply when your users log in to Control Center. The following Permissions tabs correspond to pages in Control Center:
  - **Overview**: Set access to the overview page in Control Center .
  - **Documents**: Set general, default, and custom Permissions for **Documents** storage: archiving/restoring, purging, setting workflows, etc.

    > **NOTE**
    > To learn more about file access control options, read File Access Control.

  - **Applications**: Set Permissions for Applications and Cloud Integrations management.

    > **NOTE**
    > You can also enable running NiceLabel Automation Manager.

  - **Printers**: Set Permissions for print queue viewing and management, printer group configuration, reservations, and cloud printers.

> **WARNING**
>
> By default, all user rights in **Printers** are disabled. This can prevent all users in all groups printing to shared printers. To avoid such situation:
>
> - Make sure that **NiceLabel Proxy Service 10** on client computers runs under an account with administrative privileges. Don't use **Local System account**.
>
>   Apply this step to all users that print to shared printers.
>
>   
>
>
> or
>
> - Enable the two options as seen in the screenshot below:
>
>   
>

- **History and Analytics**: Set Permissions for viewing errors, alerts, print job logs, label reprinting, viewing data, and system audit logs.
- **User Management**: Enables your user to manage your authentication settings, Access Roles, Application users and groups, and Application user password settings.
- **Administration**: Set multiple administrative permissions for Control Center Access Role users.

5. Click **Save** to apply your permissions.

Your custom Access Role Permissions are saved and applied in Control Center and other NiceLabel programs.

9.4.4. Access Roles

The **Users** page allows you to assign Access Roles to your added users. This is how you define the level of privileges your newly added user has in Control Center. Read more about the Access Roles and the related User Privileges in the section Managing User Privileges.

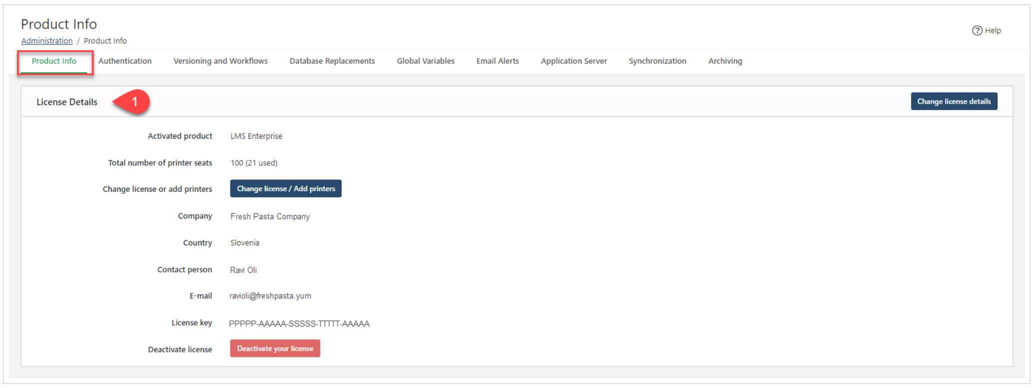
To assign Access Roles to your application user:

1. Go to **Users** > **Users**
2. Click on the user from the list. The user configuration page opens.
3. Under **Access Roles** click **Add**.
4. The **Add Roles** dialog opens. The available Access Roles are listed. Assign your user the appropriate role(s).
5. Click **OK**.
6. Click **Save**.

Your user is now a member of the selected Access Role with all the corresponding User Privileges.

10. Administration

Go to Control Center > **Administration** to see your **Product Information** (Label Management System) and update your Control Center settings from one place.



*Label Management System **Product Information** with your **Licence Details** (1).*

Open additional pages where you can enable features and update settings for Control Center:

NOTE

To make sure you see all **Administration** options, sign in as an **Administrator**.

- Authentication
- Storage
- Versioning and Workflows
- Database Replacements
- Global Variables
- Email Alerts
- Synchronization
- Archiving

Control Center Administrators can centrally manage settings and get information all from one place in **Administration**.

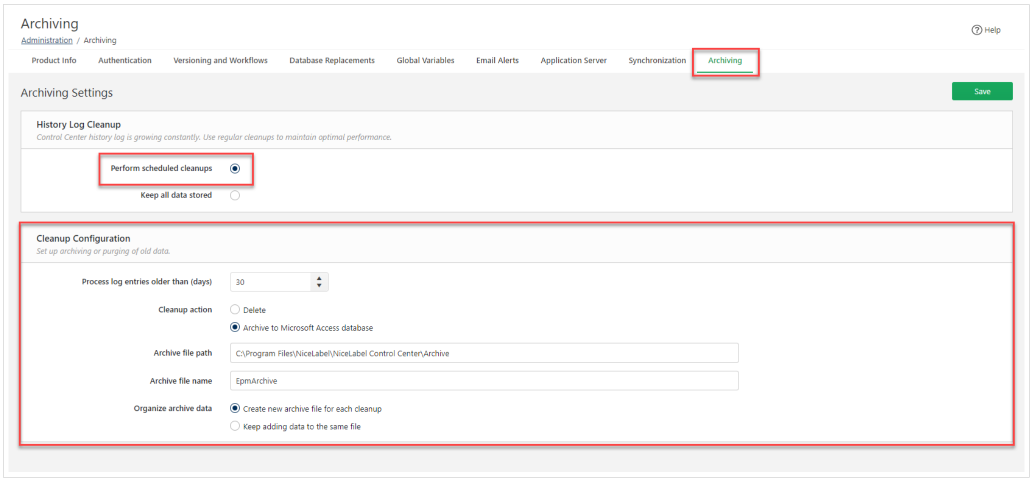
10.1. Storage and Archiving

Your Control Center data includes your documents and printing history logs. All the data is stored in your Control Center SQL database.

You store your label files, solutions, graphics, and other files in the Documents storage. Control Center generates History logs automatically and logs data size depends on the frequency of your printing activities.

Archiving

In time, the size of stored data can reach several Gigabytes, which may affect the performance of Control Center. To avoid performance issues, you can archive your History logs if you go to **Administration** > **Archiving**.



- To enable periodical archiving, select the option **Perform scheduled cleanups**, then define **Cleanup Configuration** settings.
- You can periodically perform cleanup of your Control Center SQL database by deleting the old content or arriving the old content to your local Access database.
- With **Organize archive data** options you can create a new archive file for each cleanup or ad data to the same file.

Recovering archived data

After the history log cleanup, Control Center stores the archived data in Access database files. The archived data is no longer directly visible in the **History** tab. If you want to make the archived data visible again, your Control Center allows you to recover the history data from the archive Access database files.

The recovery procedure imports the archived data back to the Control Center database and makes the data available for viewing and further analysis.

> **NOTE**
> Use the archived data recovery option if you plan to conduct an audit that requires checking the already archived data stored in Access database files.

1. To recover the archived data, run the dedicated **Archive Importer** application that you can find in your Control Center installation folder. The default path is: `c:\Program Files\NiceLabel\NiceLabel Control Center\Utils\ArchiveImporter.exe`.
2. Click **Import**. The file browser window opens.
3. Locate your Microsoft Access archive database file. If your archive uses separate database files with time stamps, make sure you select the file for the relevant time period.
4. Click **Open**. Your archive data becomes visible again in the Control Center **History**.

Because reimporting the archived data adds load to the Control Center database and slows down the performance, you can delete the recovered data after you are done with the audit. To delete the recovered archive data, click **Delete**.

> **NOTE**
> During the archive data recovery, your Access database files remain stored on your computer. If you decide to delete the recovered archive data from your Control Center, you still keep the original Access database files and all history data that is visible on the **History** tab.

The recovered archive data is excluded from the data archiving in Control Center. The recovered data remains visible on the **History** tab until you delete the data using the **Archive Importer** application.

10.2. Database Replacements

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Database replacement lets you change database connections for your labels, solutions, and Automation configurations when switching between multiple database servers.

Database replacements enable you to configure solutions in development environments and run those solutions in production environments without any database configuration changes inside the solutions.

> **NOTE**
> To configure database replacements, you must log on to Control Center as an Administrator.

Database connection string replacements let you configure solutions where parts of database connection strings change while solutions run with connected databases. After running database connection string replacements, your solution still uses the unchanged database configuration, but with a connection to a different database server.

You can use the database replacement option with all types of databases:

- SQL
- Oracle
- MariaDB / MySQL
- Access
- Excel
- CSV and other text files

NOTE
Database replacement is possible with solutions and configurations that run in NiceLabel Print, NiceLabel Web Client, and Automation.

Configuring database replacements define your "from-to" replacement pairs. Each replacement pair contains **Value from** and **Value to** elements. During actions, **Value from** strings becomes **Value to** strings. The number of replacement pairs is not limited.

1. To add new database replacements, open Control Center and go to **Administration** > **Database Replacements**.
2. Click **Add+**. The **Database replacements** page opens.
3. Type the **Replacement name**. Make the name descriptive so you can easily find the replacement later.
4. The **Find text** field lets you search for the existing `From` element of the replacement pair. This is the database connection string you are replacing.
5. Type **Replace with**. This is the `<To>` element of the replacement pair. This is your final database connection string.
6. Click **Save**. Your new replacement is active and listed on the **Data replacement** page.

NOTE
After you click **Save**, database replacements require up to 10 minutes to take effect.

Example

Your action in Automation connects to `mySQLServer` and `myDatabase`. You want to update your database connection string to use the database `NEW_myDatabase` on the server `NEW_mySQLServer`.

You must define two replacements – the first changes the server name, and the second changes the database name.

1. Add the first replacement and name it **Server name replacement**.

2. Type in the **Find text** field: `Data Source=mySQLServer`

3. Type in the **Replace with** field: `Data Source=NEW_mySQLServer`

4. Add the second replacement and name it **Database name replacement**.

5. Type in the **Find text** field: `Initial Catalog=myDatabase`

6. Type in the **Replace with** field: `Initial Catalog=NEW_myDatabase`

NOTE
All database replacements are encrypted in the Control Center database. This ensures the secure replacement of sensitive data, such as user names, passwords, and network addresses.

Database replacement ensures that your solutions and configurations connect to the right databases both in a test environment and in production.

10.3. Global Variables

Global variables are label or solution variables that you share among multiple printing applications and label printing clients.

You can use global variables as unique counters. When several clients print labels with a shared counter, you prevent duplicating of counter values by using the same global counter with all printing clients.

You can also use global variables to set values that change only occasionally.

NOTE
Use global variables if your solutions don't have database connections. Using database values is more practical than using global variables.

Each global variable has a unique internal ID number. This number identifies the global variable within a solution.

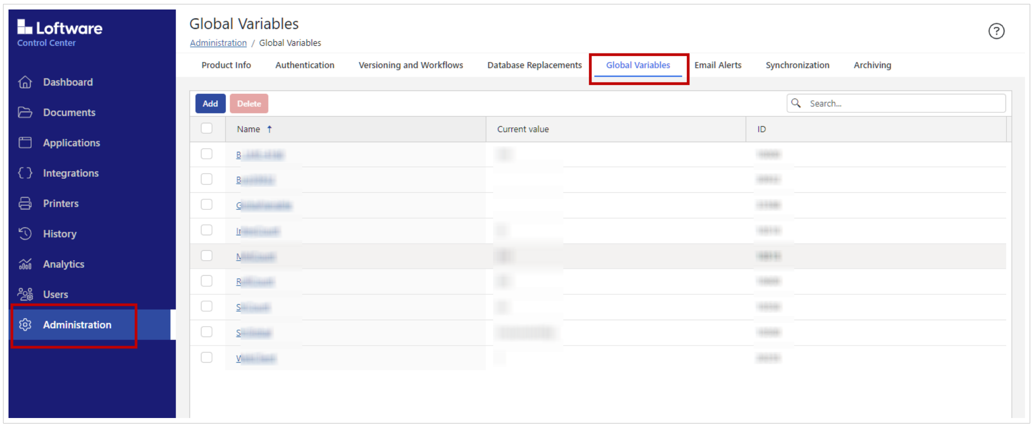
You can create global variables in Control Center or in Desktop Designer. After you design your labels or solutions that use global variables, you must define which global variables are you going to use. Desktop Designer can either work with global variables that are stored locally in the `Globals.tdb` file, or with global variables stored in Control Center.

To select the right source of your global variables in Desktop Designer, go to **File** > **Options** > **Global Variables**.

NOTE

To use the global variables from your Control Center, make sure Desktop Designer and Control Center are connected.

You can manage your global variables in Control Center, if you go to **Administration** > **Global Variables**. Use icons to add, edit, or delete the global variable.



NOTE

You can't delete Control Center global variables in Desktop Designer.

The settings and terms at global variables are the same as in Desktop Designer and apply mostly a to counter. Check Desktop Designer User Guide for more details.

10.4. Email Alerts

Email Alerts enable you to automatically send detailed information about errors in printing or in applications. You can send emails to any email address, even if the recipient is not Control Center user.

With email alerts, you send information about:

- Errors in printing labels from Desktop Designer, Print, or Automation.
- Control Center errors.
- License violations (exceeded number of available printers).
- Printer errors.

You can configure, edit and manage **Email Alerts** if you go to **Administration** > **Email Alerts**.

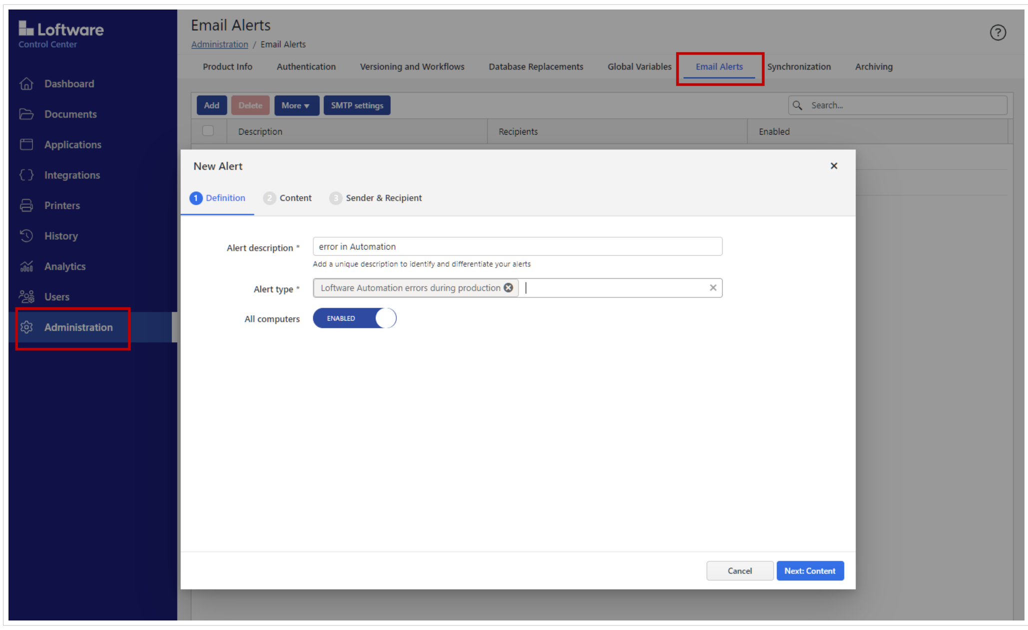
NOTE

If there are multiple identical label printing errors, Control Center doesn't send alerts for each of these errors. In case of repeating printing errors, you receive a new alert every 15 minutes.

The 15-minute alert delay only happens if you are continuously printing identical label files using the same printer. If you change the label file or printer, you receive an alert immediately after your computer reports an error.

Adding new alerts

Go to **Administration** > **Email Alerts** and click **Add**. **Create New Alert** wizard opens.



1. In **DEFINE ALERT** step enter **Alert description**. This is the name of your alert that will display on the list of alerts.
2. By clicking into the **Alert type** filed you can add or remove alert types that will generate and send emails.
3. If you disable the **All workstation** setting, you can type only the workstations that you would like to monitor for alerts.
4. Click **Next: Alert Content**.
5. Define the **Email subject**. You can include your text and one or more of the provided alert information into the email subject using brackets. For example, [Module], [PrinterName], or [ErrorType].
6. Define the content of the email (**Email body**). By default, all the available information is included in the **Email body**. You can delete any of the lines and edit the introduction text.

7. Click **Next: Sender & Recipient**.

8. Define the email address of the sender and add recipient emails. Here you can also disable the alert and enable it later by editing the alert.

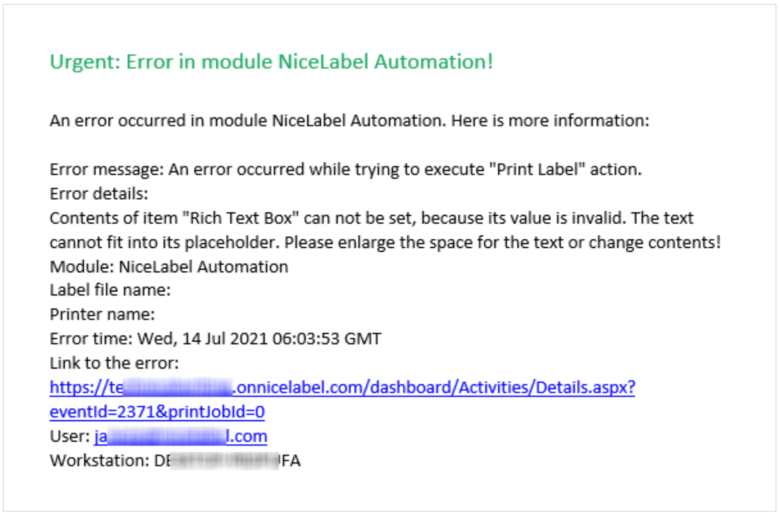
9. To test your alerts, you can send a test email to a recipient that can be the same or different from the members in the **Recipient emails** list.

10. Click **Create alert**.

Your alert is created and added to the list of alerts. If you click on your alert, you can edit the settings and in the last step **Save changes**.

To delete your alert, click the checkbox at the alert, then press the **Delete** button. A window opens to confirm the delete operation.

When an error occurs, Control Center sends an email to the recipients that you defined in **SENDER & RECIPIENTS** window.

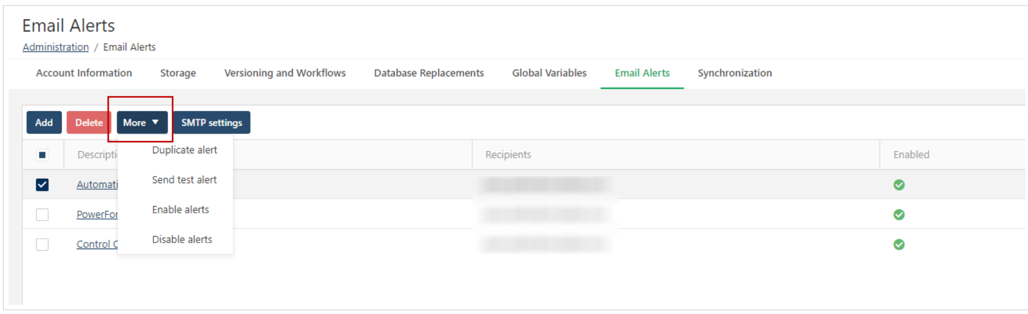

Urgent: Error in module NiceLabel Automation!

An error occurred in module NiceLabel Automation. Here is more information:

Error message: An error occurred while trying to execute "Print Label" action.
Error details:
Contents of item "Rich Text Box" can not be set, because its value is invalid. The text cannot fit into its placeholder. Please enlarge the space for the text or change contents!
Module: NiceLabel Automation
Label file name:
Printer name:
Error time: Wed, 14 Jul 2021 06:03:53 GMT
Link to the error:
https://te[redacted].onnicelabel.com/dashboard/Activities/Details.aspx?eventId=2371&printJobId=0
User: ja[redacted]l.com
Workstation: DE[redacted]FA

Additional alerts options

To use additional options with your alerts, select one or more alerts by clicking the checkboxes, then press **More** button:



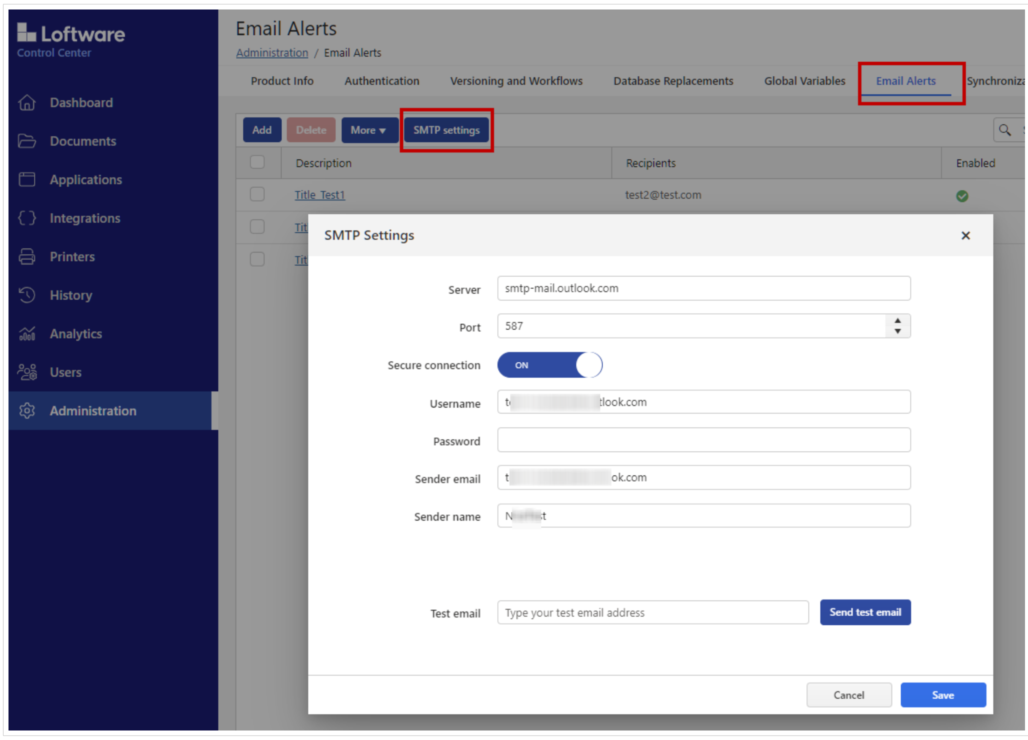
- **Duplicate alert**. If you want to create a similar alert to the existing one, you can duplicate the existing one and modify it. Modify your duplicated alert by clicking on it.

- **Send test alert**. You can send a test alert directly by clicking this option. You don't have to open the alert settings window to send the alert.
- **Enable alerts** or **Disable alerts**. While creating your alerts you might disable them. You can change the Enable or Disable statuses directly by clicking the options. You don't have to open the alert settings window to change the statuses.

SMTP settings

To successfully configure your email alerts, define your email server SMTP settings. Click the **SMTP settings** button to define:

- Server name
- Port number
- Username
- Password
- Sender email and name



To verify SMTP settings, you can send a test email.

You can also use Gmail or similar third-party email providers. In this case, **Port** number is mandatory and **Secure connection** must be enabled.

Detailed procedure for sending alerts over external mail servers is available in our knowledge base article.

Your alerts are now configured. Once an error occurs, the alert sends a notification to the specified email addresses, and the alert event is logged in the **History** section. For more information on the event log, see the History section.

> **NOTE**
> If users don't receive email alerts, they should check their Junk Email folders.

10.5. Synchronization

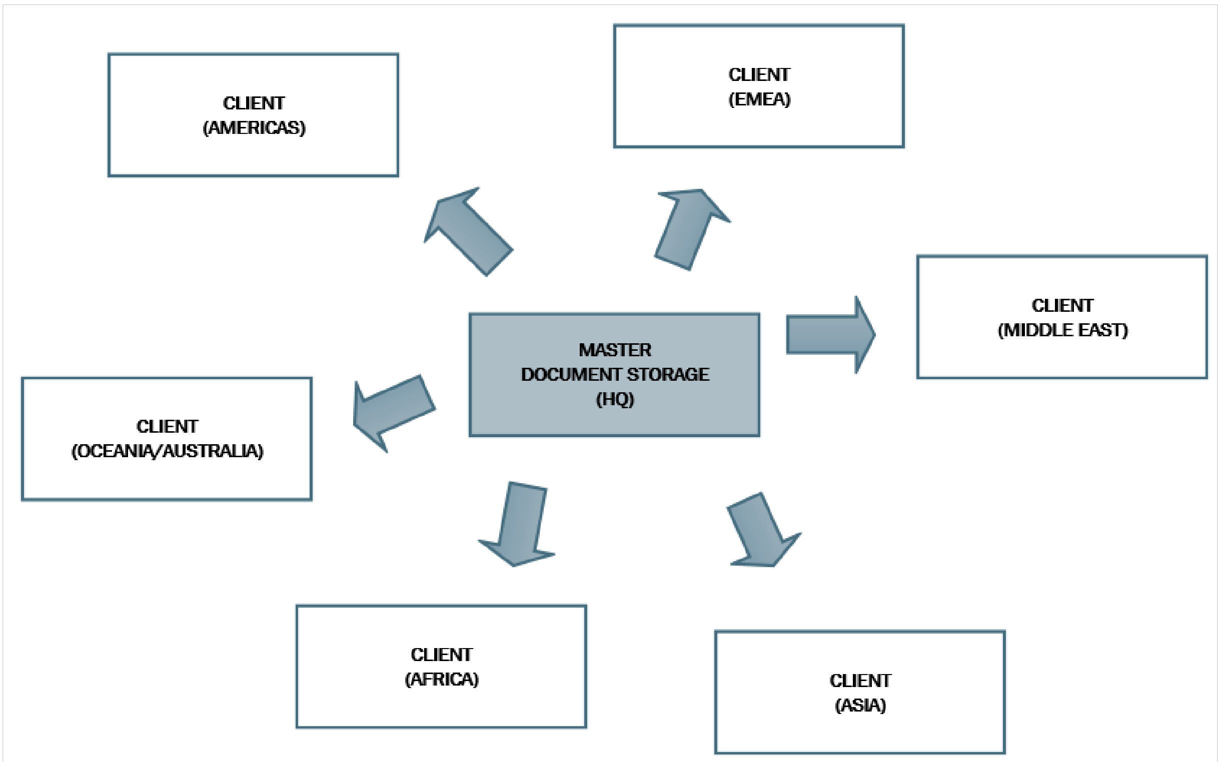
EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

Synchronize your files in the Documents repository on your master Control Center with your client Control Center instances. Your client Control Center instances update Documents repositories with the exact copies of published files and folders from your master Control Center.

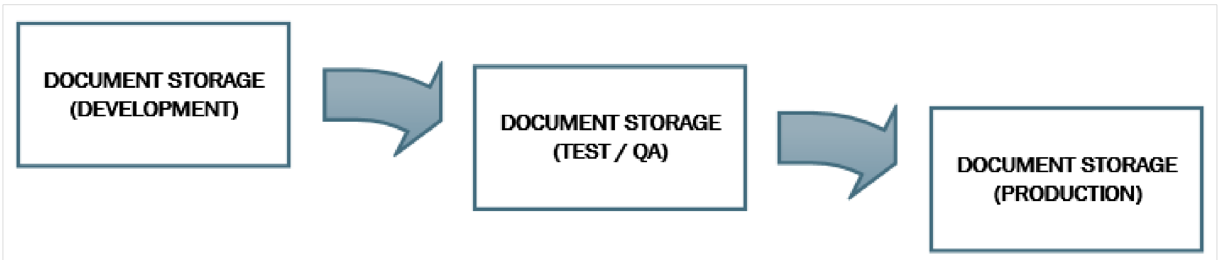
> **NOTE**
> You can synchronize your master LMS with your Loftware Cloud only if LMS is accessible via the Internet.

Use Synchronization for the following purposes:

- **Synchronization of files on geographically distributed locations**. Your master Control Center is located in your company's HQ. You store your label designs and manage your approval process in Documents storage in the master Control Center . When you approve and publish the labels, you distribute the labels to remote production environments. All remote Control Centers are set as clients to the master Control Center.



- **Synchronization of files of multiple-stage deployments (development > test (Quality Assurance) > production)**. Your files follows the chain process from the development towards the production environment. Control Center in the Development environment is master to Control Center in the Test environment and Control Center in the Test environment is master to the Control Center in the Production environment.



NOTE

When the synchronization is enabled, the Documents repository in the client Control Center switches to read-only mode. You can't add or remove folders and files in the client Control Center . You can change workflow types for folders and change workflow steps for the files within these folders. You can also delete files from the replicated Documents repository. Your deleted files get synchronized from your master Documents repository in the next synchronization interval.

> **IMPORTANT**
> If you delete your files on the master server, these files are not automatically deleted on client servers. To prevent errors in production with client servers, you must delete the files from client servers manually.

10.5.1. Enabling Synchronization

First, generate the security key on your master Control Center:

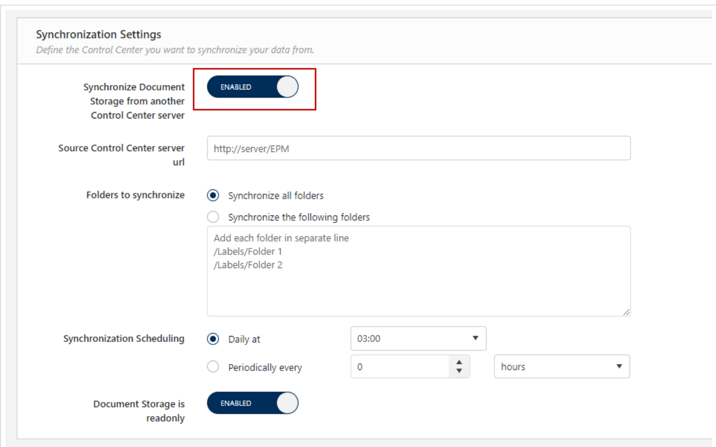
1. Open your master Control Center page.
2. Go to **Administration** > **Synchronization**.
3. Click **Generate key**.

To enable the synchronization on your client Control Center:

1. Open the Control Center page and go to **Administration** > **Synchronization**.
2. Enter the security key (token) generated on your master Control Center.
3. Enable **Synchronize Document Storage from another Control Center server**.
4. Adjust **Synchronization Settings** and **Synchronization Scheduling**.

   > **NOTE**
   > **Document Storage is read-only** option: If enabled, this option makes the replicated Documents repository operate in read-only mode. The synchronized folders and included documents can't be modified. To allow adding additional folders or files to the replicated Documents repository, disable this option.

5. You can define **Synchronization Settings** if you slide the **Synchronize Document Storage from another Control Center server** switch.



NOTE

Source Control Center server URL syntax is different for LMS and Cloud editions.

- In LMS editions use the syntax:
  `http://server/EPM`
  where *server* is the name of your LMS server.
- In Cloud editions use the syntax:
  `http://account.onnicelabel.com/dashboard`
  where *account* is the name of your Label Cloud account.

6. Click **Save**.

You can disable synchronization if you deselect **Synchronize Document Storage from another Control Center server**.

10.5.2. Logging Synchronization Activity

EDITION AVAILABILITY:	NiceLabel LMS Pro	NiceLabel LMS Enterprise
	✗	✓

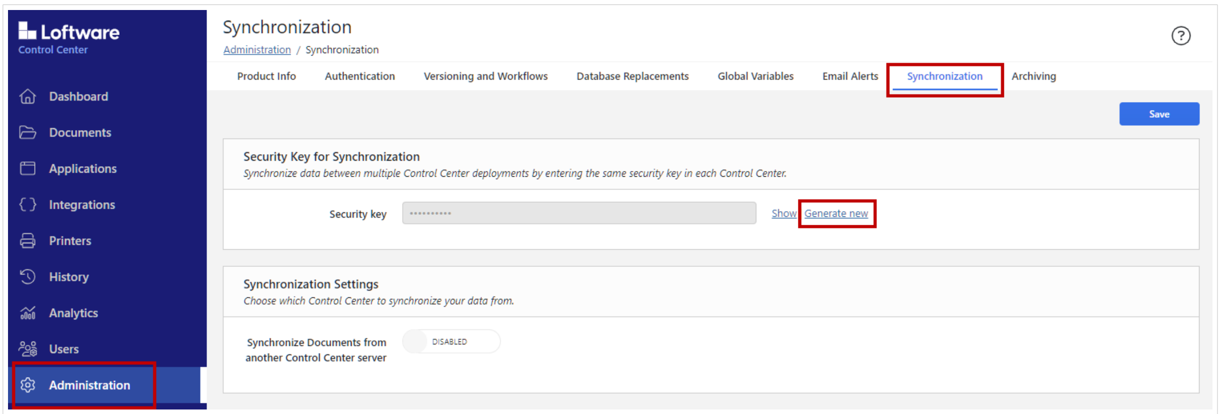
After each synchronization cycle, the information about sync action is added to the System event log. The report contains the following information:

- Start time of sync.
- End time of sync.
- The list of synchronized files (file name, revision).

10.5.3. Synchronization Rules

These are the main rules that the synchronization procedure follows:

- Clients always initiate and configure the synchronization.
- You have to provide the security key that matches the security key on the master Control Center. The security key allows access only to the authorized clients. You can click the **Generate Key** button on the master Control Center to generate your security key, or type in your custom string of characters.



- You can only synchronize files that are part of the workflow process.
- The files that are in the final step of the workflow selected for the particular folder will be synchronized. The final workflow step is usually **approved** or **published**. This depends on your selected workflow.
- When your source files are synchronized on the client, your files on the client are placed in the initial state of the workflow which is defined for the folder on the client. The workflow process for the folder on the client can differ from the workflow process on the master.
- The file revision number is also synchronized. When the file in revision 10 on the master is synchronized with the client, it will retain revision 10 also on the client. Because not all revisions are approved/published, you can expect to have gaps in the revision numbers on the client.
- File decommissioning makes obsolete published files unavailable for read-only users. When the client Documents repository synchronizes with master Control Center, the decommissioned approved files are copied from the master Documents repository but are no longer marked as decommissioned in the client Documents repository. To make these files invisible for the read-only users also in the client Documents repository, decommission them manually. To learn how to decommission a file, see section Specific access permission options.
- Synchronization service periodically retrieves the list and states of files on the master and compares them with client copies. New files, files with higher revision numbers, and files that have reached the final state in the approval process will be updated in the replicated Documents repository.
- Synchronization uses its own authentication method and bypasses the authentication mode configured in the master Control Center. All data exchange is encrypted.