NiceLabel

NiceLabel Control Center 2017 User Guide

www.nicelabel.com

1 Contents

2 Introduction

2.1 Introduction

NiceLabel LMS is the enterprise solution for client/server based label printing and centralized systems management. It is an online application used to ensure label and brand consistency and to remotely monitor the label printing process in the production environment.

The main management features in the Control Center include:

- **Flexible licensing.** All NiceLabel clients (design and production users) will get license from the Control Center.
- **Central event logging.** All clients will log their printing activities into Control Center.
- **Printer monitoring.** Statuses of label printers are continuously reported to the Control Center.
- **Managing print jobs.** You can monitor status of print jobs from connected clients. You can remotely pause job, restart job, change its priority and even move a job to secondary printer in case of problems.
- **Proactive alerting.** Send out alerts in case of software or printer problems in the production environment.
- **Web management.** Concurrent access to management console using a standard Web browser, Control Center is a web application.
- **Authentication.** Define different permissions for different user roles.
- **Revision control system (versioning).** Track the changes in the files, keep all past versions of the files.
- **Workflows.** Conform the printing process to the established approval procedures. Enable life-cycle on the document level.
- **Licensing and management of NiceLabel Automation.** You can start and stop the triggers on a remote Automation server. Automation server will report all printing events to centralized History.

Architecture

The LMS product uses a distributed architecture with the following modules.

- **NiceLabel client.** This is NiceLabel software installed on workstations, and can be used for label and form design, or just as run-time application. You will use the application NiceLabel Pro to design your labels, and the application NiceForm to create printing applications (forms). Each client that is activated with a license from the Control Center will report all its printing activities to the Control Center.

- **NiceLabel Automation.** This is an event-based service to automate label printing, especially with integration to existing software or hardware systems, such as ERP and CRM software, sensors in the production lines, and changes in a database.
- **NiceLabel Control Center**. This is web application for management of NiceLabel production environment. You can use a standard Web browser to use Control Center. You can run reports upon the collected data to see trends in the label production environment, such as which printer prints the most labels, what kind of errors usually happen, which user experiences most problems. The Control Center can issue an alert upon arrival of a predefined event, such as an error, a warning, or simple confirmation of an executed print job.

2.2 About This Manual

NiceLabel Control Center user guide helps you set up and use this module to manage your NiceLabel-managed printing solution.

The User Guide contains the following sections:

Introduction. Introduces you to the Control Center.

Installation and Activation. Learn how to install and activate the NiceLabel Control Center.

Configuration and Administration. Learn how to set up NiceLabel Control Center and configure its operation.

Using NiceLabel Control Center: Discusses the user interface and shows you how to use NiceLabel Control Center from the user perspective.

Technical Support: Access to technical resources and contacting technical support.

2.3 Typographical Conventions

Text that appears in **bold** refers to menu names and buttons.

Text that appears in *italic* refers to options, confirming actions like Read only and locations like Folder.

Text enclosed in <Less-Than and Greater-Than signs> refers to keys from the desktop PC keyboard such as `<Enter>`.

Variables are enclosed in [brackets].

NOTE: This is the style of a note.

EXAMPLE: This is the style of an example.

This is the style of a best practice.

WARNING: This is the style of a warning.

TIP: This is the style of a tip.

3 Installation and Activation

3.1 Installation

3.1.1 System Requirements

NiceLabel 2017

- CPU: Intel or compatible x86 family processor
- Memory: 2 GB or more RAM
- Hard drive: 1 GB of available disk space
- 32-bit or 64-bit Windows operating systems: Windows Server 2008 R2, Windows 7, Windows 8, Windows 8.1, Windows Server 2012, Windows Server 2012 R2, Windows 10, Windows Server 2016 (Windows Server Core and Windows Nano Server are not supported)
- Microsoft .NET Framework Version 4.5
- Display: 1366 × 768 or higher resolution monitor
- Recommended printer drivers: NiceLabel printer driver V5.1 or higher

Additional Requirements for NiceLabel Control Center and NiceLabel PowerForms Web Components

- Database Server: Microsoft SQL Server 2005, Microsoft SQL Server 2008, Microsoft SQL Server 2012, Microsoft SQL Server 2014, Microsoft SQL Server 2016 (Express Edition of products listed above are also supported)
- IIS 7 and above
- Recommended browsers: Internet Explorer 9+, Google Chrome (latest), Mozilla Firefox (latest)
- Enabled JavaScript in web browser
- Installed printer driver. The label preview functionality requires at least one printer driver to be installed on the Control Center server.
- Enabled TLS 1.0 protocol in Windows. By default, this protocol is enabled in Windows operating system. If you have it disabled, make sure to re-enable it during the installation.

3.1.2 Installing Server Components

You have to install the server components on the Windows Server operating system.

> NOTE: You must be logged on the computer with the administrative permissions to be able to perform the software installation.

To install the **Control Center**, do the following:

1. To ensure complete installation, close all open applications before installing the software.
2. Insert the NiceLabel DVD. An installation window will open automatically.

   NOTE: If the installation wizard does not start automatically, go to the main directory of your DVD and double-click the START.EXE file.

3. Click the option **Install NiceLabel LMS**.
4. Click the option **NiceLabel Control Center**.
5. Before the actual installation starts, the wizard verifies if the prerequisite components are installed on the server. For more information, see topic System Requirements.

   NOTE: If you use IIS 7 or IIS 8, you must install IIS 6 Metabase Compatibility and IIS 6 Management Console before installing NiceLabel software.

6. A database (**NiceAN** is the default database) must be created during setup. Setup searches for available Microsoft SQL Servers in your network. Select the appropriate Microsoft SQL Server name and enter the instance name, if it was set up with a non-default name (for example, SERVERNAME\SQLEXPRESS).

   NOTE: Make sure the Microsoft SQL Server has enabled the **TCP/IP** protocol in **SQL Server Configuration Manager**.

7. If the Microsoft SQL Server is installed on a remote computer and the user you are currently logged in doesn't have the necessary administrative privileges, the install will ask you for administrative privileges for that remote Windows Server. In this case, enter the username/password.

   NOTE: If you wish to install the database to Microsoft SQL running in a Microsoft cluster, you will need to install the database separately from the main Control Center installation. See the instructions in Control Center Installation Guide.

8. The installer will add two Windows users to the server where Microsoft SQL is installed. Local user accounts **EPM_USER** and **EPM_DBADMIN** will be created during this installation. The Control Center web page will use (impersonate) the user EPM_USER to connect to the database.
9. Control Center archives its database regularly. You can decide whether the database will be archived on a daily or weekly basis.

   TIP: For large-scale Control Center deployment in enterprise environments, NiceLabel recommends you to use archiving via partitioning tables. Procedure for this archiving method is described in NiceLabel knowledge base.

10. After the installation completes, click the **Finish** button and Control Center will open in the browser.

Final step of the Control Center setup allows you to start with the installation of NiceLabel Web Printing. To install the application, enable the Install Web Printing checkbox before clicking **Finish**.

NOTE: The checkbox is visible only if Web Printing setup file is found on your system.

3.1.3 Installing Client Components

NiceLabel 2017 is a label and form designer which will help you create label formats and printing applications (forms) for your label-printing users. Typically, you will install the NiceLabel client on the workstations, not on the server.

NOTE: You must be logged on the computer with the administrative permissions to be able to perform the software installation.

To install the client, do the following:

1. To ensure a complete installation, close all open applications before installing the software.
2. Insert the **NiceLabel DVD** in your DVD drive. An installation window will open automatically.

   NOTE: If the installation wizard does not start automatically, go to the main CD directory of your NiceLabel Control Center DVD and double-click the **START.EXE** file.

3. Click on **Install NiceLabel LMS**. A new window will open showing the available products.
4. Click on **NiceLabel 2017 Desktop Suite** then click **Next** to begin the installation. Follow the wizard prompts.
5. The Start menu in your Windows will show a new program group for the NiceLabel software that contains shortcuts for all NiceLabel applications.

3.1.4 Installing Printer Driver

You can use the NiceLabel software to design and print labels to standard office printers (laser, ink jet or matrix) or to professional label printers (thermal printers). If you own a thermal printer, you must install the appropriate printer driver before you can print labels. You will find NiceLabel Printer Drivers for all major thermal printer brands on the NiceLabel DVD and on the NiceLabel Web site.

You can install NiceLabel Printer Driver for your thermal printer using the following methods.

Install from NiceLabel DVD

1. Insert the NiceLabel DVD in your optical drive. The main installation application should start automatically. If it does not, then start Windows Explorer, browse to the CD, and double click the **START.EXE** file.
2. Click **Install NiceLabel Printer Drivers**. The printer installation wizard will start.

3. Select your printer from the list. Click the **Next** button.
4. Select the port where you have connected your printer, and click the **Finish** button.

Install from Web

1. Download the printer driver from NiceLabel web site.
2. Double click the downloaded .EXE file.
3. Select your printer from the list. Click the **Next** button.
4. Select the port where you have connected your printer, and click the **Finish** button.

Install using Windows Add Printer wizard

1. Open the **Control Panel**.
2. Open **Printers (Printers and Faxes)** and select **Add a Printer**.
3. Follow the Add Printer Wizard prompts. The actual steps vary depending on the version of your Windows operating system. It is only important to click the **Have disk** button when prompted for the printer manufacturer and model.
4. Put the NiceLabel DVD in your optical drive and browse to the folder **\Drivers**.
5. Select the folder of your printer name and click the **Open/OK** buttons to return to the Add Printer Wizard. You will see the list of all available printer models of the selected printer.
6. Select your model, click the **Next** button and finish the installation.

3.1.5 Enabling HTTPS Support

If protecting the communication between Control Center and all clients (NiceLabel clients or users browsing the Control Center web page) is important, you can enable the Hypertext Transfer Protocol Secure (HTTPS). This will prevent wiretapping and man-in-the-middle attacks on the Control Center. All exchanged data will remain private also because of the bidirectional encryption of communication between a client and server. Ultimately, the communication between the user and server cannot be read and forged by any third party.

X.509 certificates are used to provide the authenticity. When Control Center is installed, you will have to run Internet Information Services (IIS) Manager on the server and enable HTTPS support for both **Default Web Site** (under which the Control Center runs as the application) and for **EPMWebDAV** (which exposes the access to the Document Storage).

> NOTE: For more information about enabling HTTPS talk to the personnel responsible for informational infrastructure in your company.

When you enable the HTTPS support, you have to access the Control Center with `https://` prefix:

```
https://server/epm
```

Make sure that all products that connect to Control Center use secure web services. Do not mix HTTP and HTTPS protocols.

NOTE: For more information see **Installation Guide**.

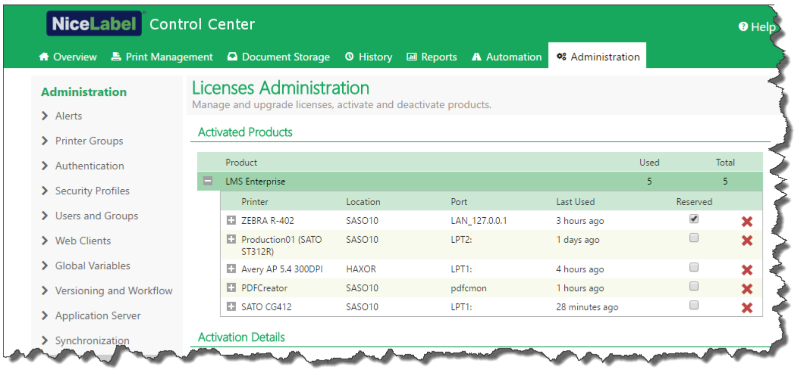
3.2 Activation

3.2.1 Managing Licenses

The Control Center includes the functionality of a licensing server. You can activate your **NiceLabel** clients by entering the same license key as for the Control Center. When the client shares the license with the Control Center, it will report all events to the same Control Center and can be managed through it. Information about all printing events from each workstation is reported to the centralized location.

NOTE: The license in the NiceLabel multi-user products is a printer seat. Each unique printer that you use for label printing counts as one license.

You can see the used printer seats in the **Administration** tab. Select the **Licenses** section. To see which printers are currently in use, click the **Plus** icon in front of the product name.



Activating New Product

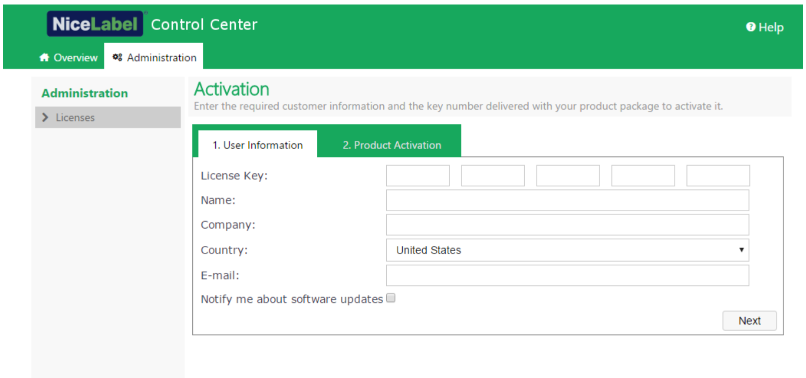
To activate the licenses in the Control Center server, do the following:

1. Open a browser on a computer that as access to the internet.
2. Type in the URL to the Control Center.

   ```
   http://server/name
   ```

   Where server is the name of your computer, where you have installed Control Center.
3. Go to the **Administration** tab, then choose **Licenses** subsection.
4. Select the **Activate new product** link.
5. On the Activation page, enter the required customer information and the **Key Number**

that was delivered in your product package.



6. Click the **Next** button. The **Registration Number** is generated automatically. If the computer has an Internet connection, you can complete the activation by clicking the **Automatic Activation** button.

Upgrade License

To upgrade your existing Control Center license, do the following:

1. Open a browser on a computer that as access to the Internet.
2. Type in the URL to the Control Center.

```
http://server/name
```

   Where server is the name of your computer, where you have installed Control Center.

3. Go to the **Administration** tab, then choose **Licenses** subsection.
4. Select one of the products to upgrade.
5. Click the **Upgrade** link.
4. Notice the **Old Key Number** and the **Registration Number** are already populated. Enter the **Upgrade Key Number** that was issued for your product upgrade.
5. If the computer has an Internet connection, you can complete the activation by clicking the **Automatic Activation** button. **Activation Code** will be generated and your upgraded product functionality will be activated.

Add Licenses

If you want to increase the number of licenses for a particular product activated in the Control Center, you have to activate the add-on license.

To add licenses to your existing product, do the following:

1. Open a browser on a computer that as access to the internet.
2. Type in the URL to the Control Center.

```
http://server/name
```

Where server is the name of your computer, where you have installed Control Center.

3. Go to the **Administration** tab and select **Licenses** subsection.
4. Select one of the products to upgrade.
5. Click the **Upgrade** link and then select the **Add licenses**.

> NOTE: Notice that **Key Number** and the **Registration Number** are already entered.

6. Enter the **Add-on License** hat was issued for your current license.
7. If the computer has an Internet connection, you can complete the activation by clicking the **Automatic Activation** button.

Activating Without Access to the Internet

If the computer where you started the activation procedure does not have Internet access you will have to open the Activation Web page on other computer with the Internet access, manually activate the software, obtain the **Activation Code** and enter it into Control Center to complete the activation.

Do the following:

1. Write down all numbers from the Web page (e.g. **Key Number**,**Registration Number**).
2. Write down the **Activation Web page** address.

> NOTE: The activation web page address to activate the software is provided on-screen.

3. Go to a computer with the Internet access and open the provided Activation Web page.
4. Enter the **Key Number** and the **Registration Number**. Enter other user information when prompted.
5. Click on the **ACTIVATE** button to retrieve the **Activation Code**. Write it down.
6. Go back to the computer where the **Product Activation** page is still open.
7. Enter the **Activation Code**.
8. Click on the **Finish** button to complete the activation process.

Deactivating Products

Deactivating a license key allows you to move the software from one server to another.

To deactivate the product, do the following:

1. Make sure that the computer you use to open Control Center has connection to the internet.
2. If you have user login enabled, log in as user with the administrative permissions in Control Center.

3. Go to **Administration>Licenses**.
4. Select the product you want to deactivate.
5. Click **Deactivate product**.

3.2.2 Activating Clients

You have to activate the NiceLabel client on each workstation.

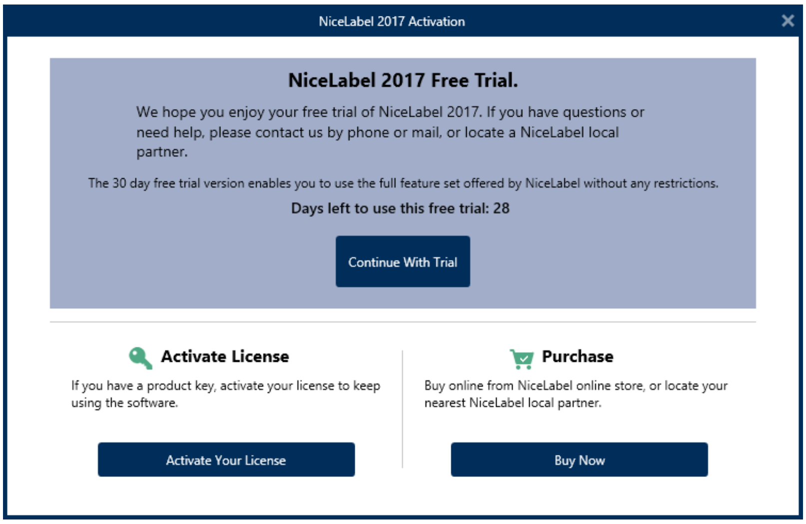
> NOTE: If you do not complete the client activation process, the client will run in a 30-day trial mode with no connection to the Control Center. Print event logging and user management are not available while in trial mode.

To activate the client, do the following:

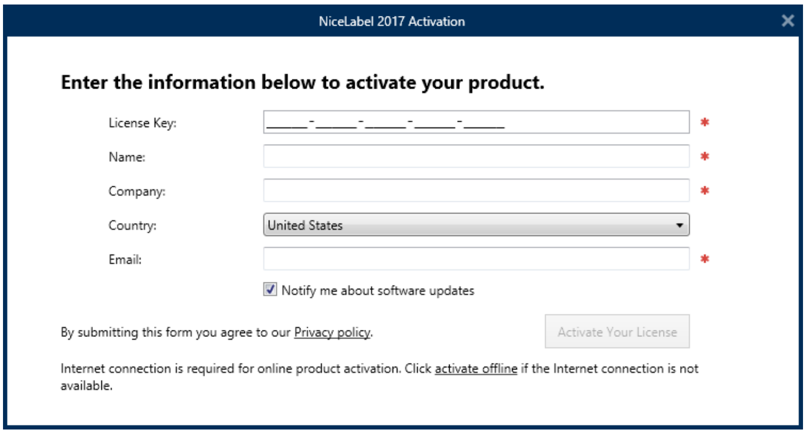
1. Make sure that **NiceLabel LMS Enterprise** or **NiceLabel LMS Pro** license type is activated in your Control Center.

   Run NiceLabel client on the workstation.

   The Activation dialog box will open.

2. 

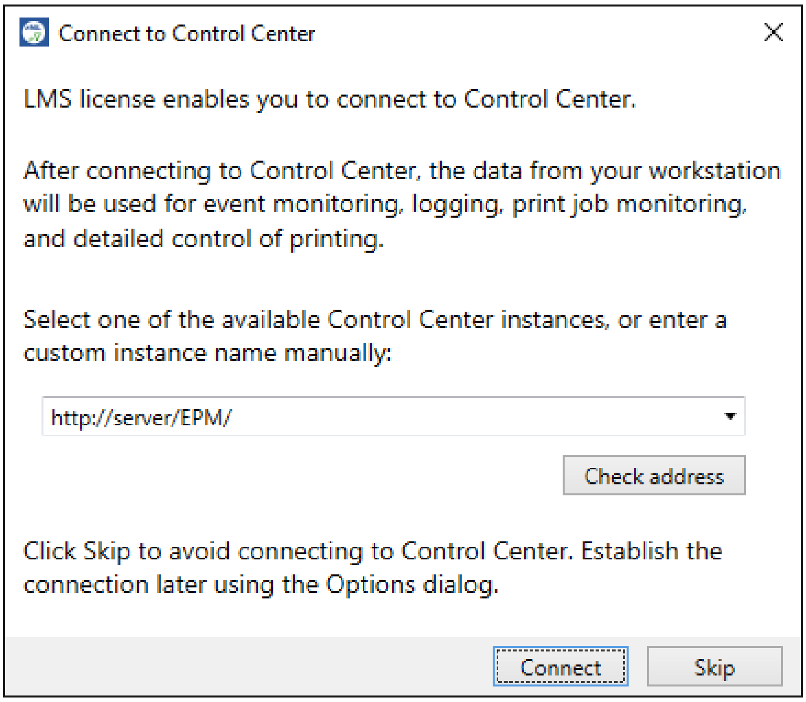
3. Click **Activate Your License** button.
4. Enter the **NiceLabel LMS Enterprise** or **NiceLabel LMS Pro** license key . This is the same license key that you used to activate Control Center.



After entering the license key, all the fields in the dialog box become automatically populated. The license was already activated in the Control Center. The client reads the activation information from the Control Center.

WARNING: If you do not see the fields automatically populated, the client cannot communicate with the Control Center or other clients in the network. For more information and troubleshooting, see the document **Installation Guide**.

5. Click **Activate Your License** button.
6. Enter the name of the Windows server, where Control Center is installed to. Then click **Check address** button to resolve the name.



> NOTE: You can skip this step and connect to the Control Center later from **Options**. Until you connect to Control Center the print event logging and user management is not available.

7. Click **Connect**.

3.2.3 Printer Licensing Mode

Depending on the purchased license, your NiceLabel product might be limited to the number of printers you can use simultaneously. In this case NiceLabel software keeps a track of the number and names of different printers you have used for printing on all NiceLabel clients in your environment. The unique printer identifier is a combination of printer driver name (not printer name), printer location and port.

The printers remain in the list for 7 days from the last usage. To remove a printer from the list, do not use it for a period of 7 days and it will be automatically removed. The software will display the **Last Used** information so you know when the 7-day will pass for each printer. You can bind a printer seat with a specific printer, by clicking the **Reserved** check box. This will ensure the printer availability at all times.

> NOTE: When you exceed the number of seats defined by your license, the software enters a 30-day grace mode. While in this mode, the number or allowed printers is temporarily incremented to twice the number of purchased seats.

Grace period provides plenty of time to resolve the licensing problems without any printing downtime or loss of the ability to design labels. This is usually an effect of replacing printers in your environment, when the old and new printers are used simultaneously, or when you add new printers. If you do not resolve license violation within the grace period, the number of available printers will reduce to the number purchase seats starting from the recently used printers in the list.

4 Configuration and Administration

4.1 Configuration

4.1.1 Changing Language Of The User Interface

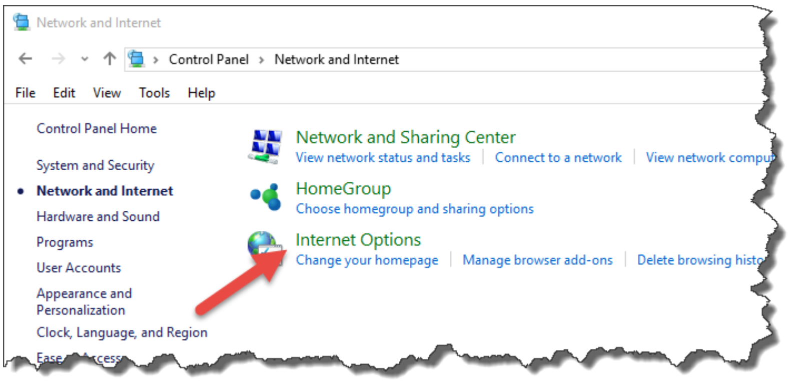
Control Center is a Web application and runs in a browser. To change the language in which the user interface is presented, change language preference of your browser. You can have multiple languages defined in your Windows preferences. The language at the top of the list is the primary language. Control Center will be displayed in this language, if the translation is available. If it is not, the next language is used.

NOTE: If the Control Center is not available in the selected language, it will display in English.

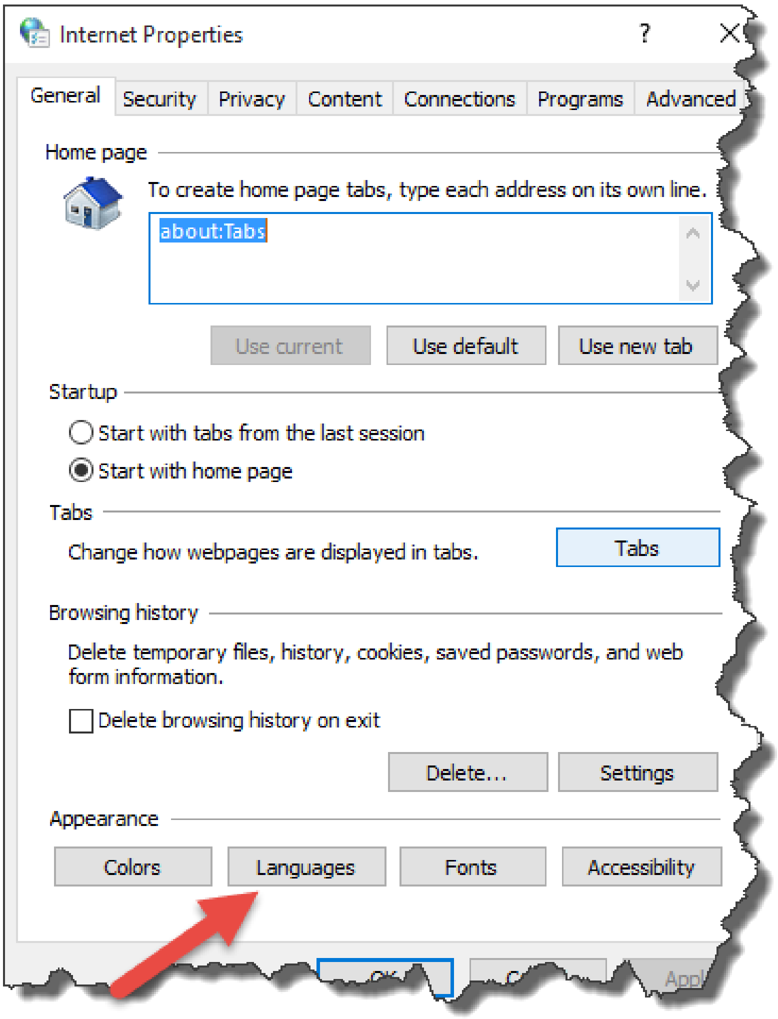
Changing the Language in Microsoft Internet Explorer and Microsoft Edge

To change the Control Center language in Microsoft Internet Explorer and Microsoft Edge, do the following:

1. Open **Control Center**.
2. Select **Network and Internet > Internet Options**.

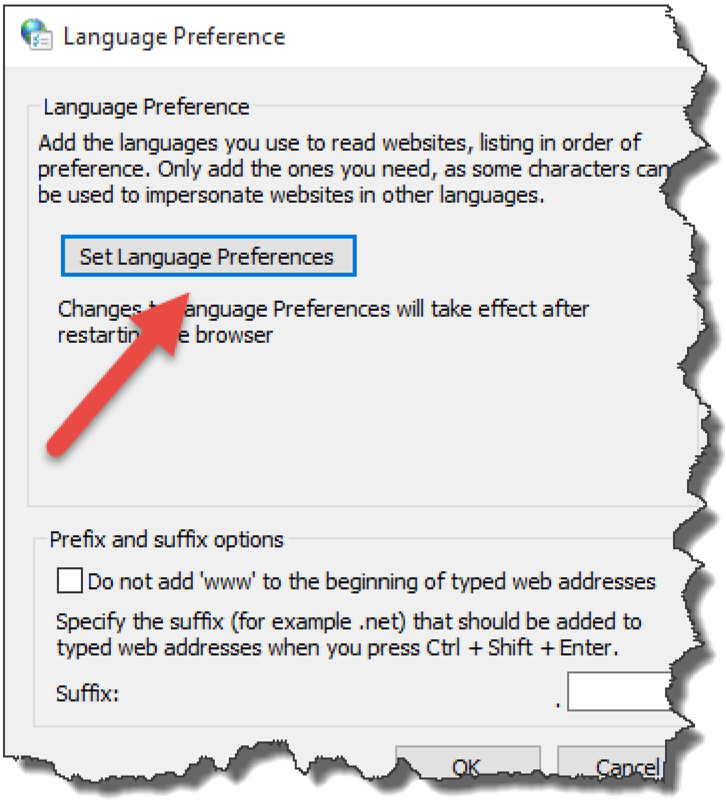


3. In **General** tab, click **Languages** button.



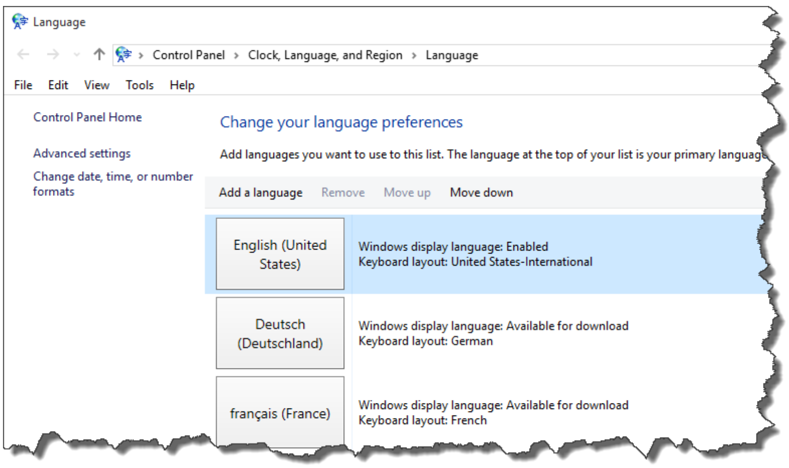
4. If you use Windows 10 or newer, click **Set Language Preferences** button.

   If you use other Windows operating system, skip this step.



5. Change the order of language appearance. Place the main language at the top of the list.

   If the required language is not in the list already, click **Add a language** button, select the language and add it to the list.

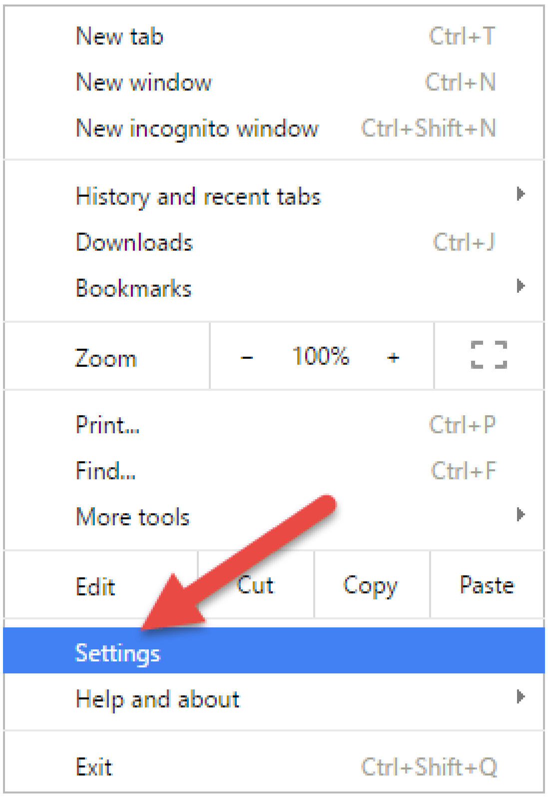


6. Close all dialog boxes.

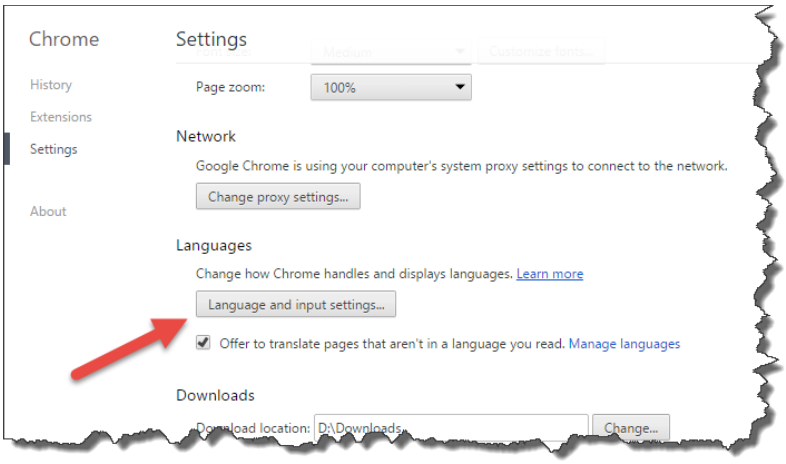
Changing the Language in Google Chrome

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

1. Click the Options button to the right of the address bar and choose **Settings**.

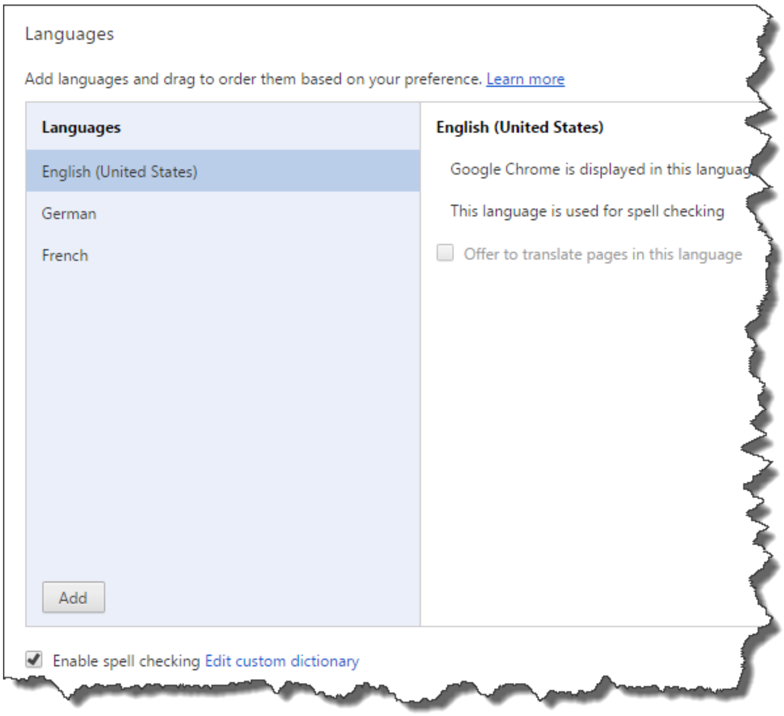


2. Click **Show advanced settings...** at the bottom of the window.
3. Scroll down and click **Language and input settings...** button.



4. Change the order of language appearance. Place the main language at the top of the list.

   If the required language is not in the list already, click **Add** button, select the language and add it to the list.

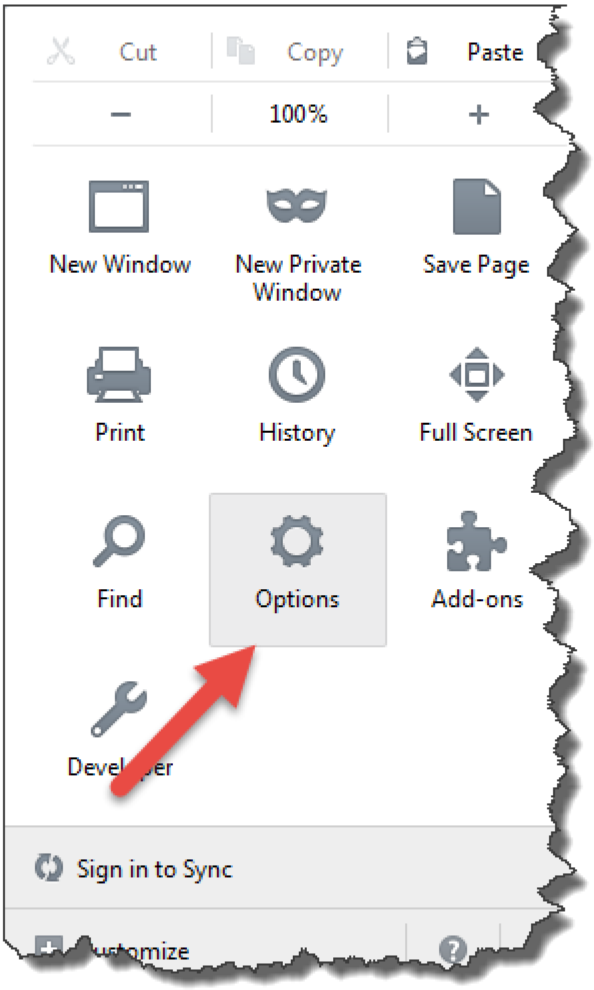


5. Click **Done**.

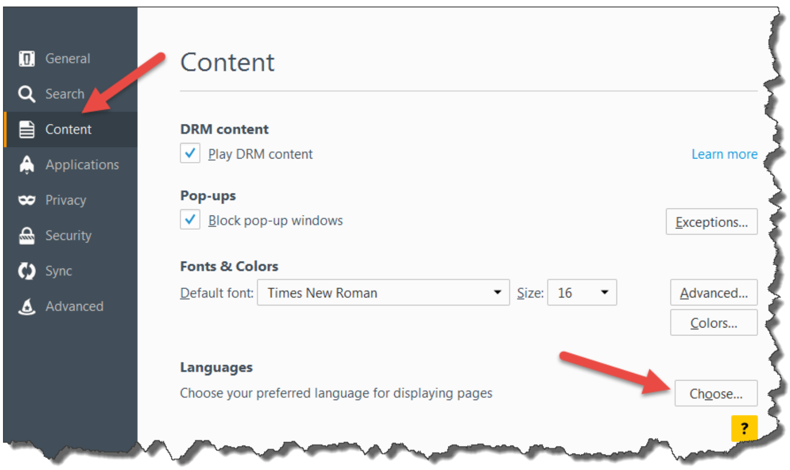
Changing the Language in Mozilla Firefox

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

1. Click the Open menu button to the right of the address bar and choose **Options**.

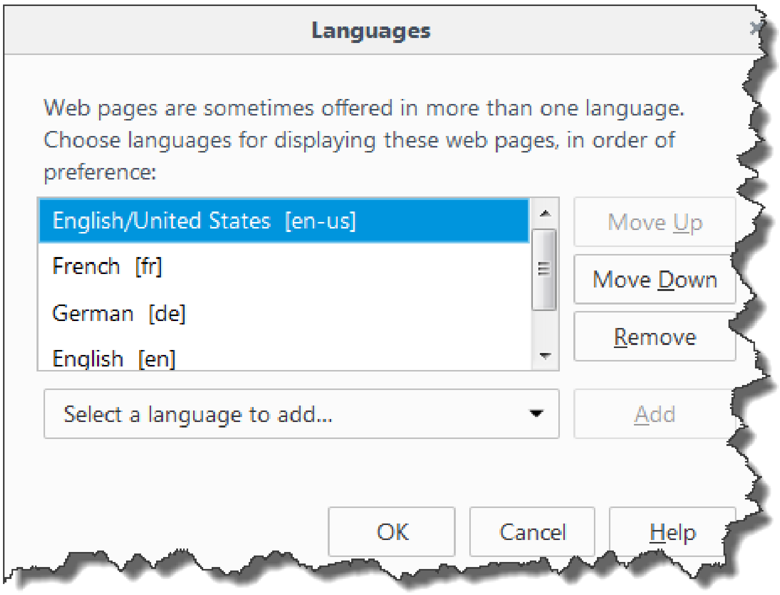


2. In **Content** menu, click **Choose** button in the **Languages** section.



3. Change the order of language appearance. Place the main language at the top of the list.

If the required language is not in the list already, click **Select a language to add...** drop-down, select the language and click **Add** button to add it to the list.



4. Click **OK**.

4.1.2 Configuring Authentication And Access Rights

If security standards of your company require higher level of security to protect access to the Control Center, you can use the authentication feature. When you enabled that, each user must authenticate before using the application. Two authentication modes are available:

- **Windows authentication.** In this case Control Center will use the name of current Windows logged-in user. You do not have to enter any user credentials.
- **Use NiceLabel users.** In this case Control Center will prompt you for the user name and password.

Limiting Approving Privileges to Selected Folders

Only users that are members of the **Approver** profile can execute the approval process. They can change the file step from **Request approval** to either **Approved** or **Rejected** (or any other step defined for the selected workflow). Besides being member of the Approver profile, the users must also have access permissions to the files inside Document Storage.

You might have a situation where only one approver can work with files in some folder. Or you want to allow the approver to work with files in *Folder1*, but not with files in *Folder2*. By default, being member of Approver profile grants him access to all folders. The solution is to disable file access to entire Approver profile and then allow access case-by-case by adding users to other profiles that have file access.

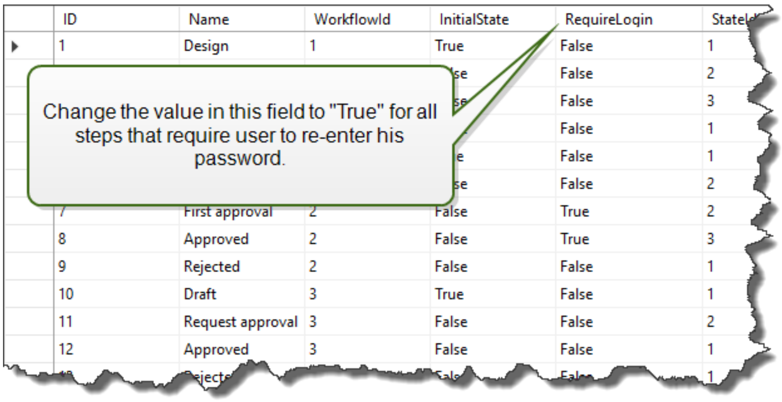
To limit the approver to the particular folder, do the following:

1. Open Control Center in your browser.
2. Go to **Administration** tab.
3. Click **Security Profiles** in the left-hand pane.
4. Click **Add new profile**.
5. Type in a name of a new profile, such as *AccessFolder1*.
6. Click **OK**.
7. Expand the new profile.
8. Click **Add users**.
9. Add the user who will have the approving right on the *Folder1*.
10. Click **OK**.
11. Expand the **Approver** profile.
12. Make sure the same user is also member of this profile.
    Now the user is member of both profiles, *AccessFolder1* and *Approver*.
13. Log in to **Control Center** as administrator.
14. Click on **Document Storage** tab.
15. Right-click the *Folder1* folder.
16. Select **Permissions**.
    Note: You will see Permissions option only if you have login enabled.
17. For Approver change permission to **None**. For AccessFolder1 change permission to **Read/Write**.

Files in folder *Folder1* can only be approved by this user and no other member of the Approver profile.

Enabling "Electronic Signature" for Workflow Steps

The “electronic signature” option requires user to re-enter the password before the critical changes in the label lifecycle management can be made, such as approving the label. This simple security measure prevents unauthorized users from making changes in the workflow steps.



To enable the electronic signature for a specific workflow step, do the following:

1. Open the application **SQL Server Management Studio**.
2. Connect to the Microsoft SQL Server hosting the database of a Control Center.
3. Expand the tree-view to reach **Databases > <selected database (NiceAN by default)> > Tables > nan.Workflow**.
4. Right-click the table **nan.Workflow** and select **Edit top 200 Rows**.
5. In the **Name** field, find the workflow process for which you want to enable the digital signature.
6. Remember the value of the field **ID** for the selected workflow.
7. Right-click the table **nan.WorkflowStep** and select **Edit top 200 Rows**.
8. In the field **WorkflowId**, find the value your remembered in the previous steps. All the records with the same WorkflowId value define the workflow steps for the selected workflow type.
9. Change the value for the field **RequireLogin** into **True** for all workflow steps that must prompt the user to re-enter his password.

Prevent Administrator from Approving Files

By default, the Administrator account has full permissions in the NiceLabel Control Center, including the permission to approve files.

To revoke the permissions to approve files, do the following:

1. Open the application **SQL Server Management Studio**.
2. Connect to the SQL Server hosting the database of a Control Center.
3. Expand the tree-view to reach **Databases > <selected database (NiceAN by default)> > Tables > nan.Settings**.
4. Right-click the table **nan.Settings** and select **Edit top 200 Rows**.
5. Add a new record.

6. For the field **Setting** enter the value **"DisableImplicitAdministratorWorkflowPermission"**.

7. For the field **Value** enter the value **"True"**.

4.1.3 Configuring Archiving

NiceLabel activities like printing, event generation or alerting, are logged and written into the Control Center database. The amount of log data can reach several Megabytes in large enterprise environments. If the log database grows too large it might adversely affect the Control Center performance. To limit the size of Print job log, Event log and Alert log and to ensure consistent storing of the logs, log data is archived and deleted regularly.

During Control Center installation you can decide whether the database will be archived on a daily, weekly or monthly basis. You can also fine-tune the archiving settings later on. In the defined time intervals, the records are moved out of Control Center database into the Microsoft Access file. Archiving is irreversible operation.

> NOTE: For example, 100.000 average sized print jobs take around 150 Megabytes of space in the Control Center database. It is recommended to do database archiving after every 100.000 to 200.000 print jobs or simply enable daily archiving if such an amount of print jobs per day are regularly executed in your environment.

Fine-tuning the Archiving Settings

To change the archiving settings, do the following:

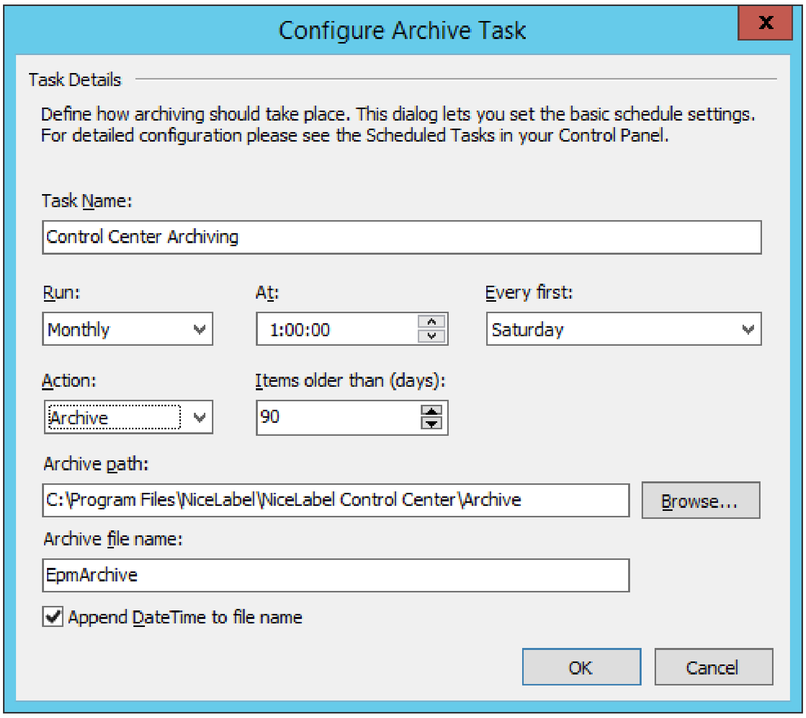
1. On the computer where Control Center is installed, run the application **Control Center Archive Configuration**.

   The current archiving setting are displayed.

2. You can configure the following Archive Task details:

   - **Task Name:** Name of the Archive task (cannot be changed).
   - **Run:** By default, the task runs weekly; for an environment with a lot of printing activity it is recommended to change this setting to Daily.
   - **At:** Time of the day when the task runs.
   - **Every:** Day of the week when the task runs if Weekly or Monthly are selected.
   - **Action:** Select **Archive** if the database should be archived and deleted or **Delete** if no archiving is needed and the older database records should simply be deleted.
   - **Items older than (days):** Minimum age of database records (in days) to be archived or deleted.
   - **Archive path:** Folder where the archive file will be stored.

- **Archive file name:** Name of the archive file where the database records will be archived into.
- **Append Date and Time to file name:** By default, date and time is appended to each archive file. Remove this check mark if you do not need the time stamp.



TIP: For large-scale Control Center deployment in enterprise environments, NiceLabel recommends you to use archiving via partitioning tables. Procedure for this archiving method is described in NiceLabel knowledge base.

4.1.4 Multitier Landscape Management

Increasingly more labeling operations have come to rely on a multitier configuration model as the most efficient way to stage and deploy the labeling-related files. A multitier approach removes all of the risks identified in case of a single system landscape, where a single server is used for development, testing, and production.

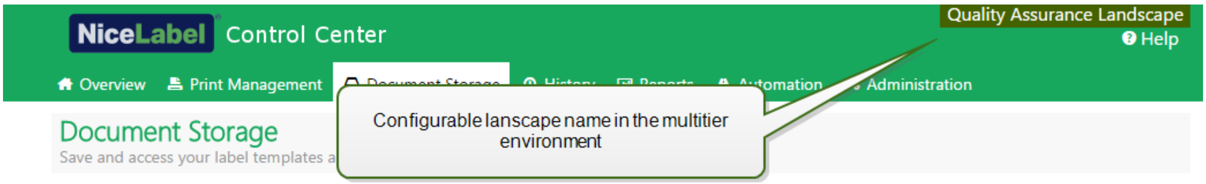
In such alandscape model the new labeling solutions are created and test-driven in Development and Quality Assurance / Testing environments before they are adopted in the Production environment. Usually a three tier landscape is adopted, or at least two tier landscape, where the roles of Development and Quality Assurance are merged on the same environment. Each environment requires a dedicated installation of the Control Center product.

Synchronization of Files Between Landscapes

The synchronization mechanism in Control Center ensures the promotion of approved files from one landscape to the next. For more information about the synchronization functionality, see the topic Synchronization.

Identifying Document Storage in a Multitier Landscape

When working in a multitiered landscape, you can configure custom names for each landscape. This makes it easier to identify to which landscape the current Document Storage belongs to.



To configure a custom landscape name, do the following:

1. Open the application **SQL Server Management Studio**.
2. Connect to the SQL Server hosting the database of a Control Center for which you want to define a custom name.
3. Expand the tree-view to reach **Databases > <selected database (NiceAN by default)> > Tables > nan.Settings**.
4. Right-click the table **nan.Settings** and select **Edit top 200 Rows**.
5. Add a new record.
6. For the field **Setting** enter the value **"InstanceName"**.
7. For the field **Value** enter the custom name for the current landscape.

   EXAMPLE: The entered custom name in the screenshot above is "Quality Assurance Landscape".

4.2 Administration

4.2.1 Alerts

Alert configuration is done using a Web wizard. The wizard guides you through all essential settings in 4 intuitive steps, prompting the user to enter the required settings for each of the alert types.

TIP: Wizard steps are dynamic and change depending on the type of alert being created. Each of the alert types requires a different set of information items.

When configuring the event monitoring, select **Basic configuration** mode and select the type of raised alerts you want to keep an eye on:

- **NiceLabel Designer errors during production:** if printing from NiceLabel 2017 Designer on a connected workstation reports an error, it is going to raise an alert.
- **NiceLabel Print errors during production:** if printing from NiceLabel 2017 Print on a connected workstation reports an error, it is going to raise an alert.

- **Automation errors during production:** if printing from NiceLabel 2017 Automation Builder on a connected workstation reports an error, it is going to raise an alert.
- **License violation:** if a license violation is reported from any of the connected workstations, it raises an error.

> **TIP:** License violation results from exceeded number of allowed printers or from exceeded number of allowed NiceLabel 2017 installations per license.

The second available option is to select **Advanced configuration** module using which you can fine-tune the monitored parameters such as applications, error types, severity and list of workstations you want to monitor.

After you're done with the alert configuration, send a test alert to check if alerting works in case of a real emergency. The alert is saved and activated – it begins monitoring the system for the configured error events. Once an error occurs, the alert sends a notification to the addressee, and the alert event is logged in the **History** section. For more information on the event log, see History.

E-mail (SMTP) alert

This alert sends a custom email message to the specified email addresses. You can customize alert email header and its content.

The suggested (default) message contains all available variables that can be used. The content can be adapted to fit your purpose during alert setup.

The available email content categories (variables) are:

- Error message: [ErrorMessage]
- Error details: [ErrorDetails]
- Module: [Module]
- Label file name: [LabelFileName]
- Printer name: [PrinterName]
- Error time: [ErrorTime]
- Link to the error: [ErrorUrl]
- User: [User]
- Workstation: [Workstation]

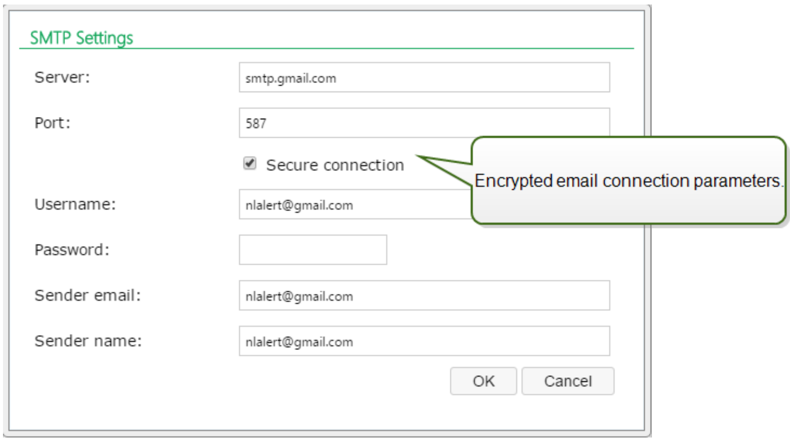
To enable email alert sending, define:

- **Server:** the sending (SMTP) mail server.
- **Username and password:** enter credentials if the SMTP server requires authentication.

Sending Alerts over Gmail or Similar Email Providers

Control Center supports mail servers that only accept encrypted connections (e.g. Gmail and similar). Two conditions must be met in such case:

- If your selected email server runs on a non-standard port, define the **Port** number. Port 587 is recommended.
- Make sure the **Secure connection** option is enabled.



- If using the 2-step verification, enter the App **Password** that was generated for you by the service provider.

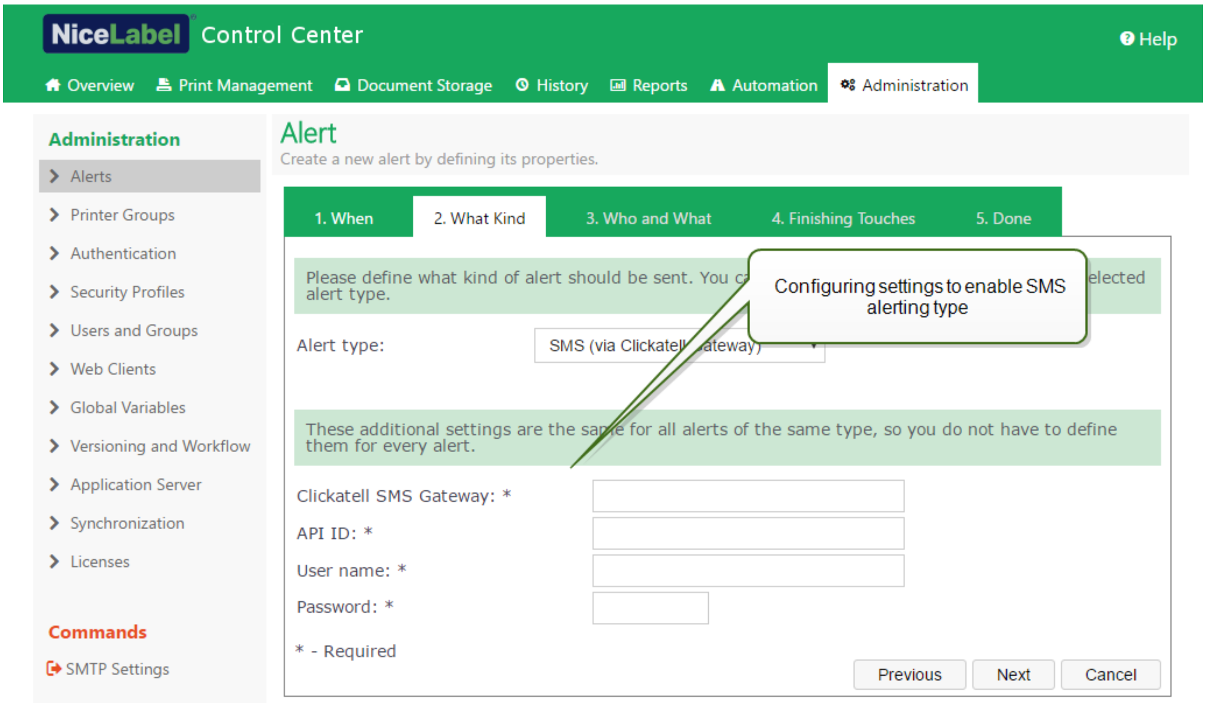
> NOTE: App passwords allow 2-step verification users to access their Google accounts through 3rd party applications. Generate the App Password here and use it to start sending the alerts.

RSS 2.0 Feed

This alert type is actually a link to the RSS feed. Here you are creating a definition for only those alerts that the recipients wish to see in the RSS feed reader of their choice. The user will receive timely updates from the Control Center. Subscribing to a website RSS removes the need for the user to manually check the web site for new content. Instead, their feed reader constantly monitors the site and informs the user of any updates.

SMS (via Clickatell Gateway)

SMS message is sent through the Clickatell SMS Gateway (http://www.clickatell.com). To send SMS alerts, you need to open an account with them and purchase a certain amount of credits.



4.2.2 Authentication

During the authentication process the system validates if the user is who he claims to be. The authentication allows NiceLabel software to determine who the user is and to apply the defined authorization permissions. Different roles can be defined per users.

EXAMPLE: One user is administrator of the system, another user is label designer responsible for graphical label design, and another user's responsibility is label printing. When these users log into the system, NiceLabel software will grant the appropriate access level to them. Certain parts of the software becomes available or hidden, and files in the Document Storage are available in read/write or read/only mode.

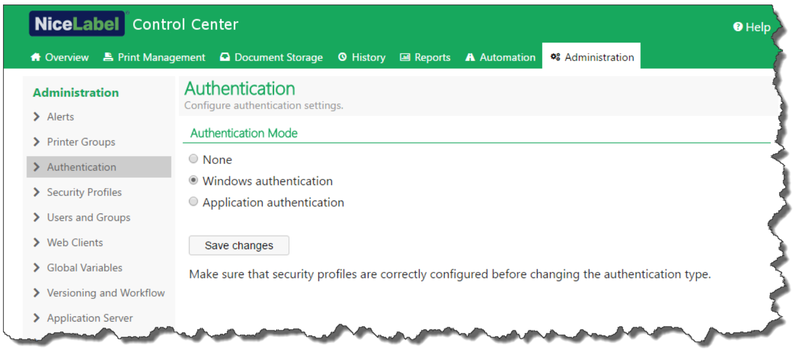
You can select the appropriate authentication mode to fit your environment:

- **None.** Specifies that authentication is not enabled. All users will have the access permissions as defined in the profile **Default**.
- **Windows authentication.** Specifies that your users are defined in the Active Directory. The server with Control Center must be member of the same domain or domain trust relationship between two domains must be established.

  NOTE: This is a recommended authentication mode.

- **Application authentication.** Specifies that your users will be defined inside NiceLabel software. Some limitations apply, when using this authentication mode.

NOTE: Default NiceLabel administrator password is **NICE**.



WARNING: Make sure that you have at least one user name in the Administration security profile before changing the authentication type. This will ensure you can log in as administrator and will not lock yourself out the Control Center. The local Administrator from Windows system, where Control Center is installed, is Control Center administrator by default.

4.2.3 Security Profiles

The security profiles allow the administrator to organize the user roles into security groups. Use profiles to allow users access to the specific functionality in the Control Center and other NiceLabel applications, and type of access into Document Storage. Control Center is available with some predefined profiles, and you can also create your custom profiles.

EXAMPLE: The first user has full access to the Document Storage, so he can upload the printing solution and make it available for production. The second user must have access to the history of printing events, because he needs to know about the consumption of consumables. The third user is printing operator and must be able to run the software in the runtime mode and print labels. The fourth user is administrator of the account and must have access to all administrative functionality.

If a user is a member of a security profile, he will inherit the security permissions configured in the profile. If a user is a member of several security profiles, the overall security access is union of all permissions.

NOTE: The granted permission always take precedence over revoked permission. If user **John** who is member of the **Operator** role (read only access to Document Storage) is also member of the **Author** role (full access to Document Storage), the overall access will be full.

The List of Predefined Profiles

The predefined profiles:

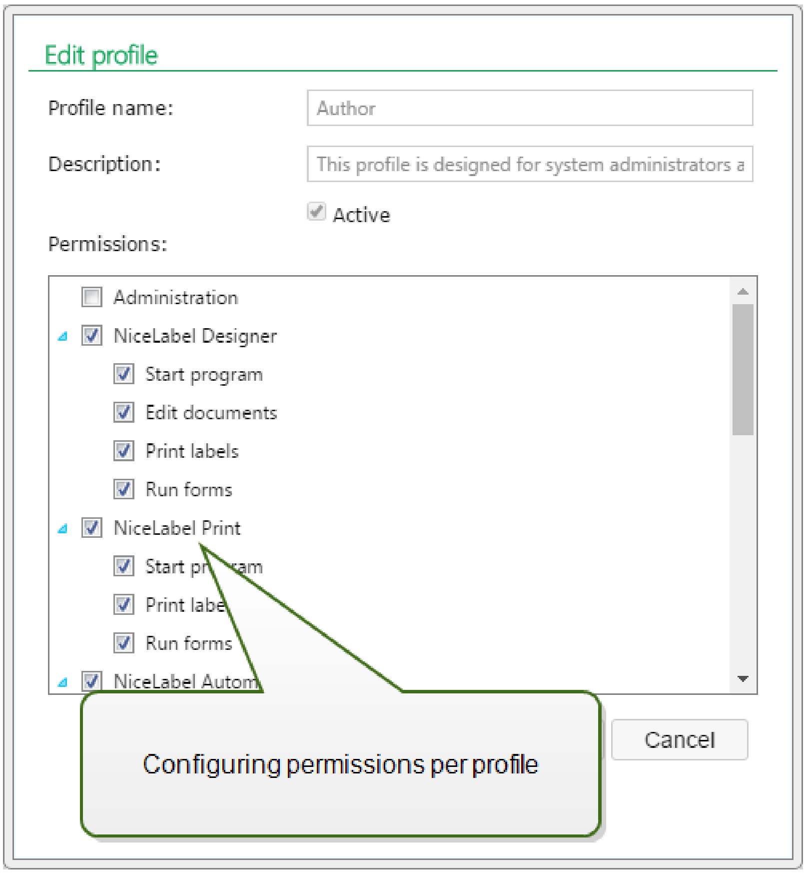
- **Administration.** Administrative permissions.
- **Approver.** This profile is designer for approvers who review the created documents, and decide whether to approve or reject them.

- **Approver (second level).** This profile is designed for approvers who review the created documents, and decide whether to approve or reject them in the second approval step.
- **Author.** This profile is designed for system administrators and production managers who define the label templates and are responsible for label production. User is granted full rights for changing labels and forms.
- **Default.** The privileges from this profile are applied whenever the user login is disabled.
- **Operator.** This profile is designed for printing operators, who need to print the labels, but are not allowed to change the templates or any part of the application configuration.

Configuring Access Permissions for Profile

To configure access rights for the profile, do the following:

1. Open Control Center in your browser.
2. Go to **Administration** tab.
3. Click **Security Profiles** in the left-hand pane.
4. Click the **Edit / Pencil** button next to the profile.
   The **Edit profile** dialog box will open.
5. For each application group, grant the permissions. Tick the options you want to enable for this profile. All members of the selected profile (users and groups) will be assigned with privileges from this profile.
6. Click **OK**.



Adding Users to Security Profile

To apply the security settings from the profile to the users and groups, you have to add users and groups inside the profile.

To add a user to the profile, do the following:

1. Open Control Center in your browser.
2. Go to **Administration** tab.
3. Click **Security Profiles** in the left-hand pane.
4. Expand the security profile.
5. To add Windows users or groups, click **Add Windows users or groups** and select the user(s) or group(s) you want to add.
   To add local NiceLabel users or groups, click **Add users** or click **Add groups**.
6. Click **OK**.

4.2.4 Users And Groups

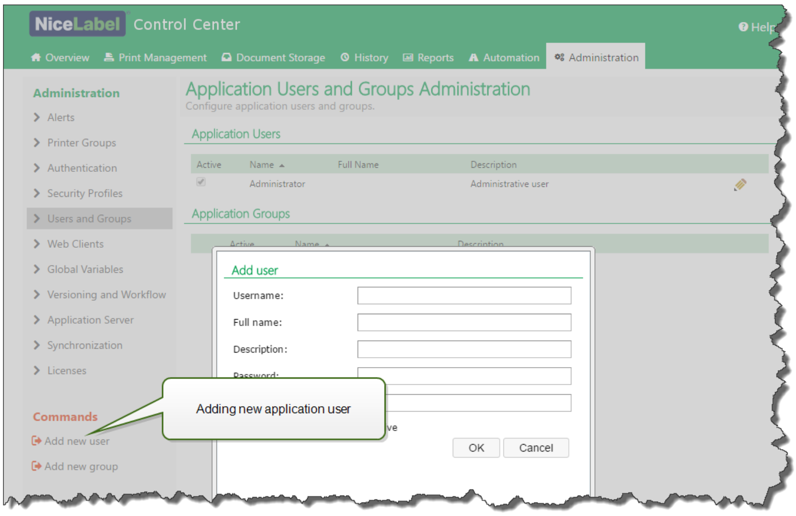
The term **application users and groups** refers to the user and groups defined inside NiceLabel software, as opposed to the users and groups defined on the corporate level inside Windows domain in the Active Directory. You would use application users when your environment is configured without the Windows Active Directory.

NOTE: Some limitations apply, when using this authentication mode. For details, see Limitations of using Application Authentication.

Adding Users

To add a new application user, do the following:

1. Open Control Center in your browser.
2. Go to **Administration** tab.
3. Click **Users and Groups** in the left-hand pane.
4. Click **Add new user**.
5. Type in the requested data.
6. Click **OK**.



Adding Groups

To add a new application group, do the following:

1. Open Control Center in your browser.
2. Go to **Administration** tab.
3. Click **Users and Groups** in the left-hand pane.
4. Click **Add new group**.
5. Type in the requested data.
6. Click **OK**.
7. Expand the new group.

8. Click **Add users**.
9. Select the users to add into the group and click **Add**.

Editing Existing Users and Groups

To edit the existing user or group, click the **Pencil** icon then edit the user's or group's properties.

To delete the user or group, click the **Cross** icon.

4.2.5 Web Clients

Before users can print their labels on the Web, the administrator must define the users as **Web Clients** in the Control Center and associate them with a label file (.NLBL file type) or a solution file (.NSLN file type).

- After a label is selected, the default auto-generated printing form is used for printing.
- After a solution is selected, the form configured as "startup form" is run. The solution must contain at least one form, but it can also contain labels.

  Labels can also be used from external .NLBL files. Their location can be set as:

  - local folder path, for example `C:\Folder\Example`
  - shared network folder, for example `\\SHARED\Folder\Labels`
  - document storage, for example `/labels`

  > NOTE: After the Web Client is run by the associated user, the solution files are directly accessible via Combo Box, List Box, or Radio Group form objects. These objects show the files from Document Storage if relative paths are used.

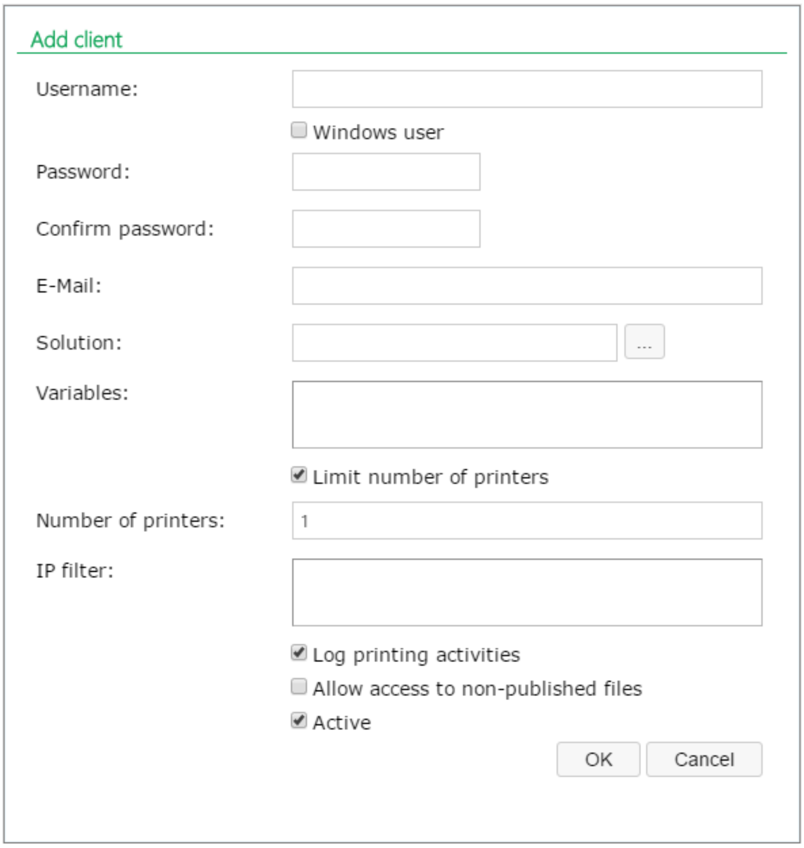
All user management for Web printing users is handled in this tab. When the Web user logs in, a specified label or solution will run in NiceLabel client on his workstation.

NiceLabel Web printing technology allows expansion of label printing from the local network to the external (Web) users. The labels and solutions are managed centrally in the Control Center, but access to them is granted to the outside users, such as suppliers to your company.

The table displays name of the Web Client account and the associated solution file.

Adding Clients

To add new Web printing user click the **Add new client**, then define the properties.



- **Username:** This is the user's name. It is not case-sensitive.
- **Windows user:** If you select the user as Windows user, you do not have to enter the password. In this usage scenario the user will not manually log into the Web Printing site using login dialog box. Instead, he will log in some existing Web application that will send the user credentials to Web Printing site. The login is handled by the existing application. Make sure the Web Printing Site is configured to accept Windows authentication. For more information see **NiceLabel Web Printing Installation Guide**.
- **Password:** You can enter a simple password, but make sure to use password of sufficient complexity, even more if you will open the Web Printing site on the Internet.
- **E-mail:** The user's email. Not a required information.
- **Solution:** Browse for the solution file (.NSLN file type) uploaded in the Storage Server in this Control server. You can define the user without specifying the solution name, but before the user can log into the Web Printing site, the solution name must be defined.
- **Variables:** When the user will log into the Web Printing Site and open his solution, you can predefine values of some variables in the form. For example, the same solution file can be opened simultaneously by different users so they all have the same look and feel of the printing application, while each user must have access to his data only. In this case, you would define the same solution for each user and define starting value of the *filter* variable. This variable is defined as a filter in the database table, displaying records that match the defined criteria. Usually a criteria is a simple relation, such as *field_name*

= *variable_value*.

EXAMPLE: To set variable *filter* to starting value 123, use the following syntax:
"my filter" = "123"

If variable name includes space, also include the variable name in double quotes.

Make sure to check for typo errors in the variable names and values. Also make sure to test the application before you allow the user to log in. When the solution opens, there will be no error message displayed, if you assign value to a non-existing variable.

- **Limit number of printers:** This setting allows you to limit the user to a specified number of different printers.
- **IP filter:** Enter the list of IP addresses from which this client can log in and run the solution. If the client tries to log in from non-authorized computer, the access will be denied. If you want to allow the client to login from any computer, leave this list empty. You can provide multiple IP addresses, either every address in a new line, or delimited by semicolon character (;). To provide ranges of IP addresses, use CIDR notation. You can convert subnet mask notation into CIDR notation with the help of online calculators found in the Internet.
  For example, to allow this user to log in from any IP in the range 192.168.0.1-192.168.0.254, you must define the range as 192.168.0.0/24.
- **Log printing activities:** Enable this option to log all printing activities executed by the Web printing users. Control Center will collect information coming from the printing workstations, such as: name of the label, quantity of labels, printer name that printed labels, values of all label variables, etc.
- **Allow access to non-published files:** Enable this option to allow the users to work with non-published versions of files. By default, Web printing users are only allowed to access published (approved) versions. This option may be used for testing and development purposes – after being approved, the file gets published and becomes normally accessible without enabling this option.
- **Active:** Enable this option to activate the user and allow him to log in. Once the user is active, he can log into the Web Printing site and run his solution. Once the user is active, one license is taken from list of available Web printing licenses. The Web printing user can log in from one workstation at a time. If the same user logs in on another workstation, the first login is canceled and session logged off.

NOTE: In development phase you might have the Control Center installed on the same computer, from which you will run the Web application. Make sure to include either "localhost" or "127.0.0.1" in the list of allowed IP addresses, so you can run Web applications.

Importing Clients

For bulk upload of clients you can import them from the CSV file. You must use the CSV structure as follows.

```
"USERNAME", "PASSWORD", "WINDOWS USER", "EMAIL", "LOG PRINTING ACTIVITIES",
"ACTIVE", "NUMBER OF LOGINS", "SOLUTION", "VARIABLES", "IPFILTER"

"SampleUser", "password123", "FALSE", "sampleUser@nicelabel.com", "TRUE",
"FALSE", "1", "/sample_folder/sample_solution.nsln",
"""Variable1""=""Value1""||""Variable2""=""Value2""",
"192.168.0.1;localhost;192.168.10.0/24"
```

Deleting Clients

You can delete client-by-client by clicking the **Delete** icon next to the client name.

For bulk delete of clients, you can define the clients for deletion in the CSV file and upload it. All defined clients will be removed. You must use the CSV structure as follows.

```
"SampleUser"

"SampleUser1"

"SampleUser2"
```

Exporting Clients

You can export the list of clients into a CSV file. You can use this feature to define clients in some other Control Center, or create a list of clients for backup purposes.

Setting Offline Timeout for Clients

Offline mode allows you to temporarily use Web Printing client without Internet connection. The default time period for offline mode is 1 day. After this time passes, the user has to reestablish Internet connection, or the assigned solution stops working.

To change the default offline timeout period, do the following:

1. Go to the server where Web Printing client is installed.
2. Open the file **web.config** file in text editor. The file is located here: `C:\Program Files\NiceLabel\NiceLabel Web Printing\Web`.

   WARNING: NiceLabel suggests you to avoid changing the file manually. This might break backward compatibility in case of a change on the Web Printing server in one of the future releases.

3. Add element **OutOfBrowserOfflinePeriod** with the value containing number of days that the license will run in offline mode.

   ```
   <configuration>
       <configSections>
       <appSettings>
           <add key="OutOfBrowserOfflinePeriod" value="1" />
   </appSettings>
   ```

4. You can set value between 1 and 30 days. If the value is set to more than 30, 1 will be used instead.

4.2.6 Global Variables

Global variables are shared between several label printing users and printing applications. Global variables are defined outside the current solution and can be used between different solutions. The locking mechanism takes care that each print request gets an unique value for the global variable. Usually, global variables are used as unique counters. Each global variable has an unique internal ID number, by which it is referenced in a solution.

Available actions for the global variables:

- To create a new global variable in Control Center, click **Add new global variable**.

> NOTE: Usually, you will create a global variable in a label designer.

- To edit the existing global variable, click the *pencil* button.
- To delete the global variable, click the *cross* button. Removing global variable is irreversible process. If you remove a global variable that is still in use in some solution, that solution will raise an error.

Properties of the Global Variable

- **ID.** This is the internal ID number. This must be a unique number.
- **Name.** Variable name.
- **Description.** Optional variable description.
- **Current value.** This is the value the variable will use next time when needed. You can update the default value, when needed.
- **Prefix/suffix.** Prefix is a string added in the front of the variable value, suffix is added to the end.
- **Min/max value.** Defines the minimum and maximum values the variable can occupy.
- **Rollover.** Specifies to restart at the minimum value when the maximum value has been reached. You would use this option for counters.
- **Length.** Specifies the maximum number of characters the variable can occupy. Enable **Fixed length**, when the value must contain the exact number of characters.
- **Data format.** Specifies the type of characters that are allowable.
- **Padding.** Specifies the optional characters around the value to fill-in values to the variable maximum length. You can enter the custom pad character. For example, you would use it to add leading zeroes to numeric values.
- **Increment type.** Specifies the counter type. Step determines the value that counter will change for. Count determines the number of labels upon which the counter will change its value.

4.2.7 Versioning And Workflows

TIP: The functionality from this topic is available in **NiceLabel LMS Enterprise**.

The Versioning and Workflow section allows you to enable the built-in support for revision control system and support for workflows. When enabled, both options are accessible in the **Document Storage** tab, which will show additional buttons to work with file revisions and manage file life cycle with workflows.

Using the workflows you can track the statuses of the document in its life cycle.

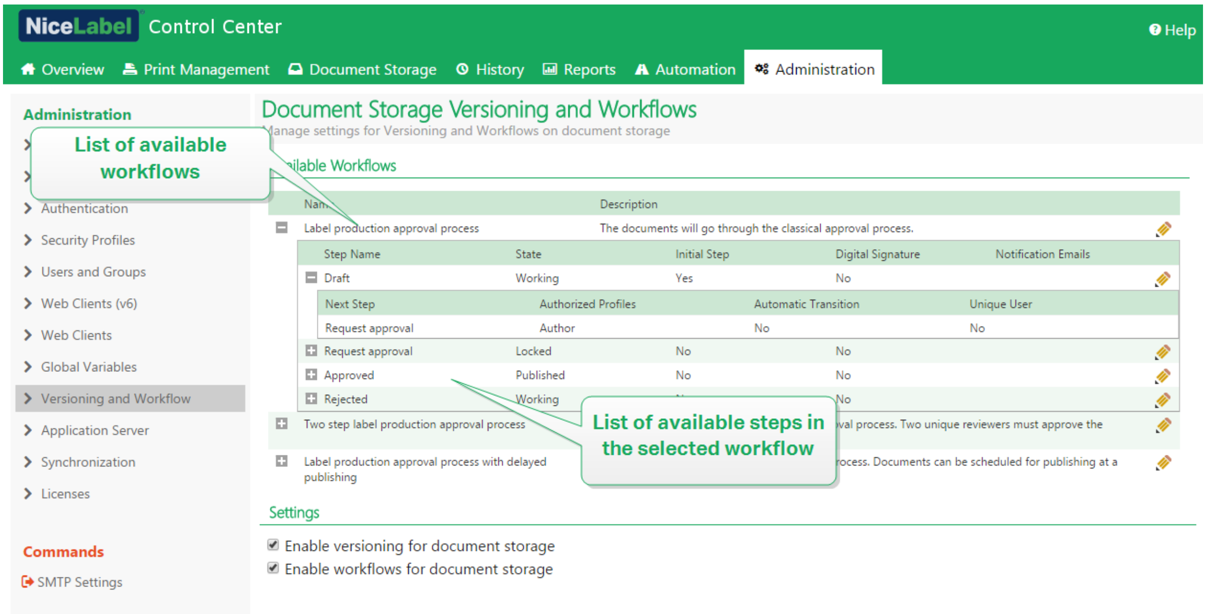
By default, the support for versioning and workflows is disabled.

- To enable versioning, tick the checkbox **Enable versioning for document storage**.
- To enable workflows, tick the checkbox **Enable workflows for document storage**.

> NOTE: To use workflows, you must also enable versioning.

Available Workflows

The product is available with the following predefined workflows. The number of available steps and their relationships are built-in. You can change the names of each workflow and names of the steps within.



For more information about using workflows, see topic Workflows.

> NOTE: If you require custom workflow for your approval process, please contact NiceLabel representative. Custom workflows can be added to your Control Center.

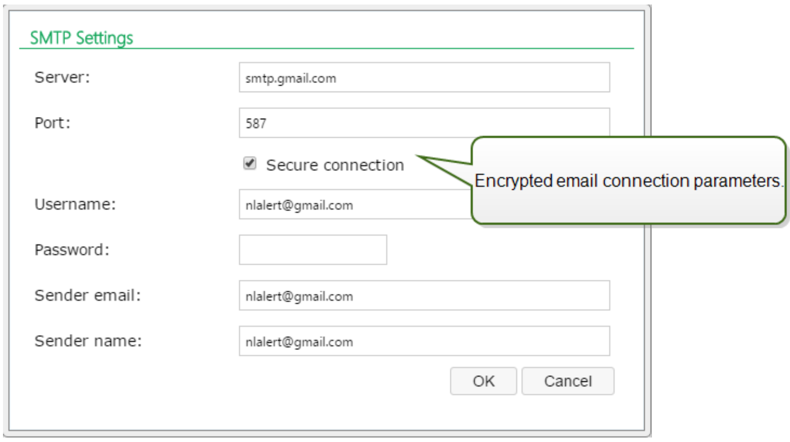
Workflow Properties

You can change the names of each workflow and names of the steps within.

- Step name
- State
- Initial step
- Digital signature
- **Notification emails.** When the document changes its state from one workflow step into another, the responsible persons can be notified about it. Click the pencil (edit) button next to the workflow step and enter the emails of users, that must be notified. E-mail addresses can be separated by new line, comma or semicolon characters. You can also use the e-mail syntax Name Surname <name.surname@domain.com>.

  The sent notification email includes additional information items:

  - reviewer's comment which is entered at workflow step change
  - document link
  - folder which stores the document
- **SMTP settings.** Before the Control Center can send the notification emails, you have to configure the email server for mail delivery. You also have to define the sender name and email address. If your email server runs on a non-standard port, add the port number after the server name, such as server:587.



4.2.8 Application Server

TIP: The functionality from this topic is available in **NiceLabel LMS Enterprise**.

The application server options allow you to enable the RemoteApp technology in your Control Center product. With RemoteApp you can make programs that are accessed remotely through Remote Desktop Services appear as if they are running on the end user's local computer. The Document Storage displays new commands to open label designer, form designer or run-time from the RemoteApp server without any need to have NiceLabel client installed on your workstation.

- **Enable application server.** Tick this option to enable the application server functionality in the Document Storage.
- **Application server URL.** Specifies the server hostname where the RemoteApp server has already been installed. Enter the fully qualified domain name or IP address.
- **Signing certificate thumbprint.** Specifies the thumbprint of the certificate that will be used to sign the `.RDP` files. Each time you want to run the remote NiceLabel application on your desktop, Control Center will generate the `.RDP` file containing commands for the RemoteApp server. The `.RDP` file specifies which application must run and which file from the Document Storage must open. When the `.RDP` file is signed with the certificate, the user will not see the warning about the unknown publisher.

NOTE: For more information about the above configuration options for the Application Server, see the document **NiceLabel Control Center Installation Guide**.

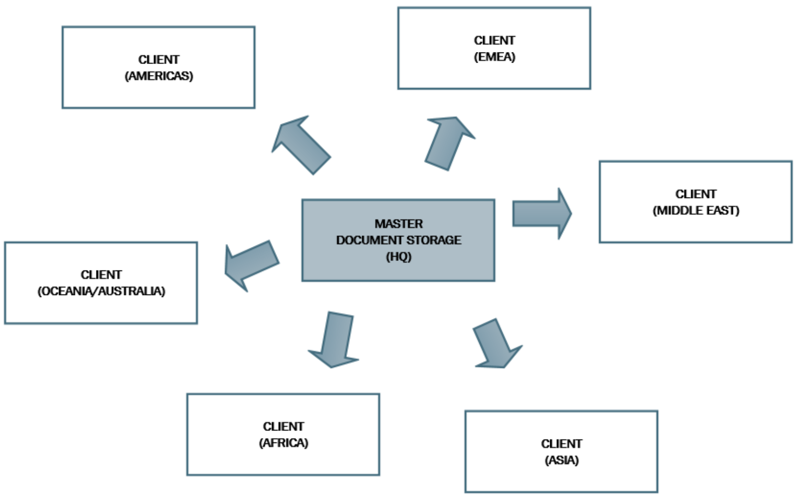
4.2.9 Synchronization

TIP: The functionality from this topic is available in **NiceLabel LMS Enterprise**.

The synchronization feature allows you to keep Document Storage from two or more Control Centers in sync. All changes from the master Document Storage are propagated to the replicated Document Storage, which contains the exact copy of all published folders and files.

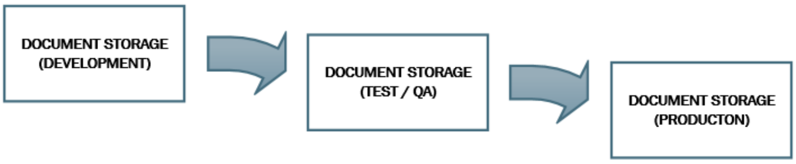
This functionality is frequently used for the following purposes:

- **Synchronization of files on geographically distributed locations.** In this case you have a master server set up in the company's HQ. The label design is done centrally. The label approval is also done centrally. When the labels are approved (and published), they must be distributed to all 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). In this case, the files must travel in the chain 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 Document Storage in the client Control Center switches to read-only mode. You cannot add & remove folders and files. You can change the workflow type for the folder and change the workflow steps for the files within that folder. You can also delete files from the replicated Document Storage. However, the deleted files are synced from the master Document Storage in the next synchronization interval.

Synchronization Rules

These are the main rules that synchronization procedure will follow:

- The synchronization is always configured and initiated on the client.
- You have to provide the security key that matches the security key on the master Control Center. The security key will allow access only to the authorized clients. You can click the **Generate Key** button to generate your security key, or type in your custom string of characters.
- You can only synchronize files that are governed by some 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 the selected workflow.
- When the source files are synchronized on the client, they are placed in the initial state of the workflow which is defined for the folder on the client. Although the folder name is the same in Document Storage on both servers, the workflow process for this folder on the client can differ from the workflow process on the master.
- File revision number is synchronized as well. 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.
- Synchronization service periodically retrieves the list and states of files on the master and compares them with local copies. New files, files with higher revision numbers, and files which have reached the final state in the approval process will be updated in the replicated Document Storage.

- Synchronization uses its own authentication method and bypasses the authentication mode configured in the master Control Center. The Control Center deployments do not have to belong to the same domain. All data exchange is encrypted.

Enabling Synchronization

To enable the synchronization, you have to do the following:

1. Open Control Center page.
2. Go to **Administration > Synchronization**.
3. Enter the security key (token) as is defined on the master Control Center.
4. Enable **Synchronize Document Storage from another Control Center server**.
5. Select folder synchronizing option:
   - **Synchronize all folders:** synchronizes all published files and folders of the replicated document storage with the master Control Center document storage.
   - **Synchronize the following folders:** defines which folders in the replicated document storage should synchronize with the master Control Center document storage.

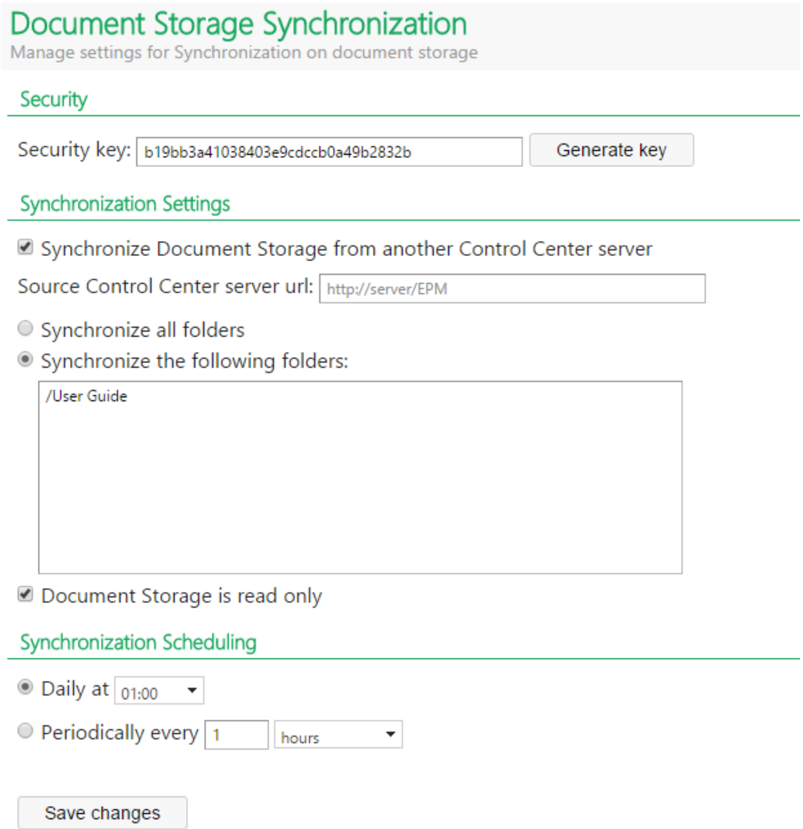
     > **TIP:** Add each folder in a separate line, i.e.
     > /Labels/Folder 1
     > /Labels/Folder 2
6. Set destination document storage state:
   - **Document Storage is read only:** if enabled, this option makes the replicated document storage operate in read-only mode. This means that the synchronized folders and included documents cannot be changed. To allow adding additional folders or files to the replicated document storage, disable this option.

   > WARNING: Synchronized files always overwrite their locally modified copies.
7. Enter the URL to access the master Control Center.

   Use the syntax:

   ```
   http://server/epm
   ```

   where *server* is the Windows name of the computer, where Control Center has been installed
8. Select time interval in which synchronization must occur. There are two options:



- **Daily.** The synchronization will occur daily at specified time. You can select one pre-defined value, or enter your own time.
- **Periodically.** The synchronization will occur periodically in defined time interval (minutes, hours or days).

9. Click **Save changes**.

Logging Synchronization Activity

After each synchronization cycle, the information about sync action will be added to the **Application** event log. The report will contain the following information:

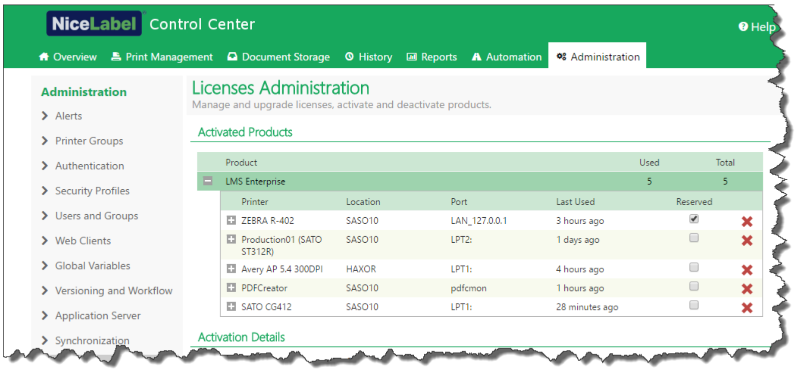
- Start time of sync
- End time of sync
- The list of synchronized files (file name, revision)

4.2.10 Managing Licenses

The Control Center includes the functionality of a licensing server. You can activate your **NiceLabel** clients by entering the same license key as for the Control Center. When the client shares the license with the Control Center, it will report all events to the same Control Center and can be managed through it. Information about all printing events from each workstation is reported to the centralized location.

NOTE: The license in the NiceLabel multi-user products is a printer seat. Each unique printer that you use for label printing counts as one license.

You can see the used printer seats in the **Administration** tab. Select the **Licenses** section. To see which printers are currently in use, click the **Plus** icon in front of the product name.



Activating New Product

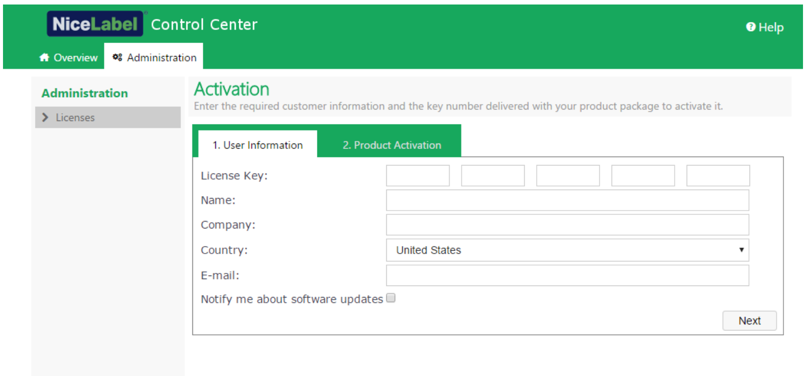
To activate the licenses in the Control Center server, do the following:

1. Open a browser on a computer that as access to the internet.
2. Type in the URL to the Control Center.

```
http://server/name
```

   Where server is the name of your computer, where you have installed Control Center.

3. Go to the **Administration** tab, then choose **Licenses** subsection.
4. Select the **Activate new product** link.
5. On the Activation page, enter the required customer information and the **Key Number** that was delivered in your product package.



6. Click the **Next** button. The **Registration Number** is generated automatically. If the computer has an Internet connection, you can complete the activation by clicking the **Automatic Activation** button.

Upgrade License

To upgrade your existing Control Center license, do the following:

1. Open a browser on a computer that as access to the Internet.
2. Type in the URL to the Control Center.

   ```
   http://server/name
   ```

   Where server is the name of your computer, where you have installed Control Center.
3. Go to the **Administration** tab, then choose **Licenses** subsection.
4. Select one of the products to upgrade.
5. Click the **Upgrade** link.
4. Notice the **Old Key Number** and the **Registration Number** are already populated. Enter the **Upgrade Key Number** that was issued for your product upgrade.
5. If the computer has an Internet connection, you can complete the activation by clicking the **Automatic Activation** button. **Activation Code** will be generated and your upgraded product functionality will be activated.

Add Licenses

If you want to increase the number of licenses for a particular product activated in the Control Center, you have to activate the add-on license.

To add licenses to your existing product, do the following:

1. Open a browser on a computer that as access to the internet.
2. Type in the URL to the Control Center.

   ```
   http://server/name
   ```

   Where server is the name of your computer, where you have installed Control Center.
3. Go to the **Administration** tab and select **Licenses** subsection.
4. Select one of the products to upgrade.
5. Click the **Upgrade** link and then select the **Add licenses.**

   > NOTE: Notice that **Key Number** and the **Registration Number** are already entered.

6. Enter the **Add-on License** hat was issued for your current license.
7. If the computer has an Internet connection, you can complete the activation by clicking the **Automatic Activation** button.

Activating Without Access to the Internet

If the computer where you started the activation procedure does not have Internet access you will have to open the Activation Web page on other computer with the Internet access, manually activate the software, obtain the **Activation Code** and enter it into Control Center to complete the activation.

Do the following:

1. Write down all numbers from the Web page (e.g. **Key Number**,**Registration Number**).
2. Write down the **Activation Web page** address.

> NOTE: The activation web page address to activate the software is provided on-screen.

3. Go to a computer with the Internet access and open the provided Activation Web page.
4. Enter the **Key Number** and the **Registration Number**. Enter other user information when prompted.
5. Click on the **ACTIVATE** button to retrieve the **Activation Code.** Write it down.
6. Go back to the computer where the **Product Activation** page is still open.
7. Enter the **Activation Code**.
8. Click on the **Finish** button to complete the activation process.

Deactivating Products

Deactivating a license key allows you to move the software from one server to another.

To deactivate the product, do the following:

1. Make sure that the computer you use to open Control Center has connection to the internet.
2. If you have user login enabled, log in as user with the administrative permissions in Control Center.
3. Go to **Administration>Licenses**.
4. Select the product you want to deactivate.
5. Click **Deactivate product**.

5 Using Control Center

5.1 User Interface

NiceLabel Control Center application is designed as a web page, to capitalize on the benefits of remote and centralized access offered by such application design. To start NiceLabel Control Center, open your browser then type in the following address.

```
http://server/epm
```

where *server* is the name of your server where you have installed NiceLabel Control Center.

The Overview tab will open in your browser with tabs for the functional areas. You can open an individual section of the application by clicking on the corresponding tab. For example, if you want to see all printing-related events that occurred in your environment, click the **History** tab.

The visibility of the tabs depends on:

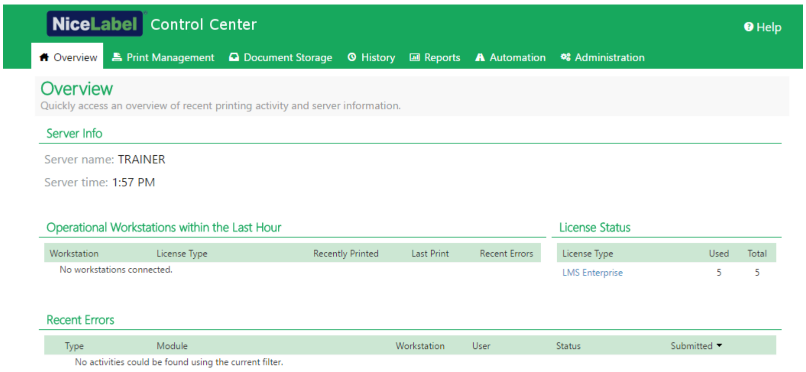
- **The user privileges.** By default, Control Center doesn't have enabled the user login. Each user has administrative permissions and will see the full functionality. When you enable the user authentication, the tab visibility will depend on the user membership in the security profiles.

5.2 Overview

When you open the NiceLabel Control Center, the **Overview** page opens. It's a summary page that displays the current system status including the following information:

- **Server Info.** You will see the server name and server local time.
- **Operational Workstations within the Last Hour.** Shows all clients that sent some event in the last hour. Every workstation's license type is visible, as well as the most recent errors detected. If you wish to see detailed information for any of the indications on the **Overview** page, click on the **Magnifier** icon in front of the shown information.
- **License status.** All activated licenses are shown here, together with the total and available number of licenses.
- **Recent Errors.** Shows all errors that happened in the last twenty-four hour period.
- **The version.** Version of your Control Center is shown in the bottom right part of the

window. This information is mandatory, when contacting the technical support.



5.3 Print Management

5.3.1 Print Management

Print Management serves as a real-time environment for monitoring and controlling of printers and workstations that belong to the domain of a Control Center.

With Print Management, each workstation that is paired with a Control Center becomes instantly accessible. The same goes for all of its connected printers. Every installed printer that is visible to the Control Center can be instantly monitored and managed.

NOTE: Print Management does not require from you to manually establish the connection between your workstations and the server that runs the Control Center. Each time the Control Center or workstation comes online, Print Management statuses are updated automatically.

Left sidebar menu

Left sidebar menu allows you to select which item type should be displayed in the central field. Print Management monitors and manages these three item types:

- View by printers: lists all visible printers connected to workstations that run NiceLabel software linked to the Control Center.
- **Predefined status printer groups:** list printers according to their current status.
    - **Printers with errors** lists printers that report various errors.
    - **Printing now** lists printers that are currently printing.
    - **Ready to print** lists printers that are ready to be used.
    - **Paused printers** lists printers with paused print jobs.

- Custom printer groups: printers can be grouped using various criteria under a newly created printer group. Existing groups of printers are editable at any time. You can always add new printers, remove existing ones, or change the dynamic grouping criteria.
- + Add printer group ...: opens the **Add New Printer Group** dialog. This dialog creates and configures a custom printer group.

Command buttons

The following command buttons give you control over currently active print jobs on selected printers. At least a single printer or one of the workstations must be selected to make the commands active.

- **Pause:** pauses current print jobs on selected printers.
- **Resume:** resumes the paused print job on selected printers.
- **Delete documents in queue:** immediately cancels and deletes the selected active print jobs.
- **Refresh** button reloads the list of printers as defined by the filtering criteria.
- **Settings** button allows you to configure the currently selected group of printers.

TIP: The title above command buttons identifies which item type is currently displayed (All Printers, All Workstations or Printer groups). The number in brackets displays the number of shown items.

Central field

The central field of Print Management page lists the connected printers and workstations according to the defined criteria in the left sidebar menu.

Listed printers or workstations allow selection of individual or multiple items. All commands and settings are done per selected items.

NOTE: After a new printer is added to any of the connected workstations, the **New printers found** notification is displayed. The newly added printer(s) is not automatically listed right after its discovery. To list it among other printers, click **Refresh Page**.

Searching and filtering

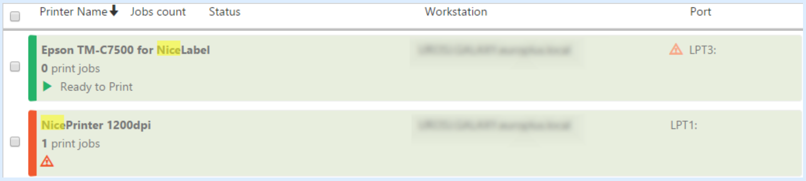
Use searching and filtering to pinpoint the printers or workstations that you wish to manage.

- **Search field:** allows you to find the printers that match the entered characters. Print Management supports incremental search which means that every inserted character is taken as a search term.

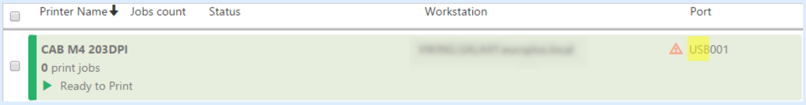
  EXAMPLE

  Printer Management searches through printer names, ports and workstations.

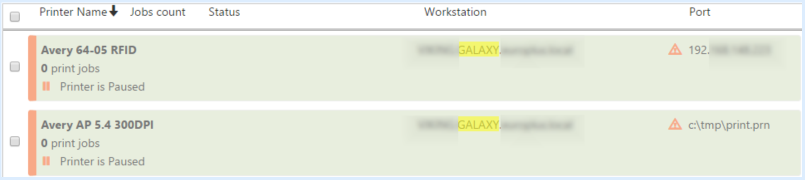
1. After entering "nice", only printers that contain "nice" in their name are displayed as search results.



2. After entering "usb", only a printer connected via USB port is displayed.



3. After entering "galaxy", only printers connected to workstations with "galaxy" in their names are displayed.



- **Filter:** filters out printers by their current print job statuses.
  - **Ready only:** only printers that are ready to be used are displayed.
  - **Paused only:** only currently paused printers are displayed.
  - **Error only:** only printers with reported errors are displayed.

TIP: The entered terms in **Search** and **Filter** fields work hand-in-hand. If only search field is used, the printers that include the entered characters are shown. Filtering works on the entire range of connected printers or on the printers that are found using search terms.

Bottom row

Bottom row of the central table displays the printer count and allows you to activate the View by workstation option.

- **Printer count:** displays the number of currently listed printers (as filtered by the grouping criteria).
- **View by workstation:** activates a collapsible overview of the workstations that are connected to the Control Center. When expanding, all connected printers to the workstation are listed.

TIP: Selection row allows you to select individual or multiple listed workstations. Master selection allows you to select or deselect all workstations at once.

5.3.2 View By Printers

All Printers list is positioned in the central field of Print Management page. It lists all printers that are connected to the workstations paired with Control Center.

Central field

Central field consists of multiple rows. Each row header can be used to customize how the listed items are sorted.

TIP: Selection row allows you to select individual or multiple listed printers. If a single printer is selected, all other rows are deselected. To select multiple printers, use Shift + click. Master selection allows you to select or deselect all printers at once. If using Print Management on tablet or smartphone, clicking on multiple printers adds them to the selection of printers.

- **Printer name:** name of the connected printer. Printer driver name is displayed.
- **Documents in queue:** number of currently active print jobs.
- **Status:** shows current printer status. Reported statuses depend on the selected printing mode. If you are not using NiceLabel printer drivers, the statuses are reported by spooler.
  - **Ready to print:** the printer is online and ready to start printing.
  - **Paused:** printing is currently paused.
  - **Workstation not reachable:** workstation to which the printer is connected is currently not reachable (is offline).
  - **The printer has been deleted:** marks a deleted printer in two cases.
    - It serves as a temporary printer status that is displayed right after the printer has been deleted. The printer disappears from the list after page reload.
    - If the deleted printer was a member of a static printer group, it remains listed among others displaying **The printer has been deleted** status.
  - **Error:** an error has been reported by the printer. Printing is currently not possible.

    Error status includes the following spooler error statuses:

Status	Definition
PaperJam	Paper is jammed in the printer.
PaperOut	The printer is out of paper.
PaperProblem	The printer has a paper problem.
Offline	The printer is offline.
OutputBinFull	The printer's output bin is full.
NotAvailable	The printer is not available for printing.
NoToner	The printer is out of toner.

Status	Definition
PagePunt	The printer cannot print the current page.
UserIntervention	The printer has an error that requires the user to do something.
OutOfMemory	The printer has run out of memory.
DoorOpen	The printer door is open.

NOTE: Additional printer statuses are reported by NiceLabel printer drivers. These reported statuses differ according to the selected printer model.

NOTE: If a printer is paused and reports an error at the same time, it displays both icons.

- **Workstation:** name of the workstation to which the printer is connected.
- **Port:** port that is used for printer connection.

NOTE: An error is reported in case of a port conflict.

Bottom row

Bottom row of the central table displays the printer count and allows you to activate the **View by workstation** option.

- **Printer count:** displays the number of currently listed printers (as filtered by the grouping criteria).
- **View by workstation:** activates a collapsible overview of the workstations that are connected to the Control Center. When expanding, all connected printers to the workstation are listed.

TIP: Selection row allows you to select individual or multiple listed workstations. Master selection allows you to select or deselect all workstations at once.

5.3.3 Custom Printer Groups

Custom printer groups allow you to organize printers that are visible by Control Center.

Grouped printers allow you to monitor and manage the available printers in groups. You can group the printers statically or dynamically. This means that the grouping criteria is either manually inserted or taken from current events or printer statuses.

Click **+Add printer group...** to start adding printers to a newly created group. The central field of Print Management tab opens an empty list of printer groups.

- **+Add printer group...** button: opens the **Add New Printer Group** dialog.

Add New Group

- **Name:** sets a name for the newly added printer group.
- **Description:** allows you to say more about the printer group your are creating.
- **Group type:** defines if the printer group is going to be static or dynamic:
  - **Static printer group** is a group that consists of manually selected printers. The list of printers remains unchanged.

    With this option enabled, select printers from the list of **Discovered printers** and add them to the **Printers in this group** list. Printers can later be added or removed using the **Add >** and **< Remove** buttons.
  - **Dynamic printer group** is a group that consists of printers that match the entered search term.

Existing Printer Groups

Existing printer groups are accessible via left sidebar navigation. After a group is defined, the printers are listed according to the user-defined static or dynamic grouping criteria.

> **TIP:** Selection row allows you to select individual or multiple listed printers. If a single printer is selected, all other rows are deselected. To select multiple printers, use Shift + click. Master selection allows you to select or deselect all printers at once. If using Print Management on tablet or smartphone, clicking on multiple printers adds them to the selection of printers.

- **Printer name:** name of the connected printer. Printer driver name is displayed.
- **Documents in queue:** number of currently active print jobs.
- **Status:** shows current printer status. Reported statuses depend on the selected printing mode. If you are not using NiceLabel printer drivers, the statuses are reported by spooler.
  - **Ready to print:** the printer is online and ready to start printing.
  - **Paused:** printing is currently paused.
  - **Workstation not reachable:** workstation to which the printer is connected is currently not reachable (is offline).
  - **The printer has been deleted:** marks a deleted printer in two cases.
    - It serves as a temporary printer status that is displayed right after the printer has been deleted. The printer disappears from the list after page reload.
    - If the deleted printer was a member of a static printer group, it remains listed among others displaying **The printer has been deleted** status.
  - **Error:** an error has been reported by the printer. Printing is currently not possible.

    Error status includes the following spooler error statuses:

Status	Definition
PaperJam	Paper is jammed in the printer.
PaperOut	The printer is out of paper.
PaperProblem	The printer has a paper problem.
Offline	The printer is offline.
OutputBinFull	The printer's output bin is full.
NotAvailable	The printer is not available for printing.
NoToner	The printer is out of toner.
PagePunt	The printer cannot print the current page.
UserIntervention	The printer has an error that requires the user to do something.
OutOfMemory	The printer has run out of memory.
DoorOpen	The printer door is open.

NOTE: Additional printer statuses are reported by NiceLabel printer drivers. These reported statuses differ according to the selected printer model.

NOTE: If a printer is paused and reports an error at the same time, it displays both icons.

- **Workstation:** name of the workstation to which the printer is connected.
- **Port:** port that is used for printer connection.

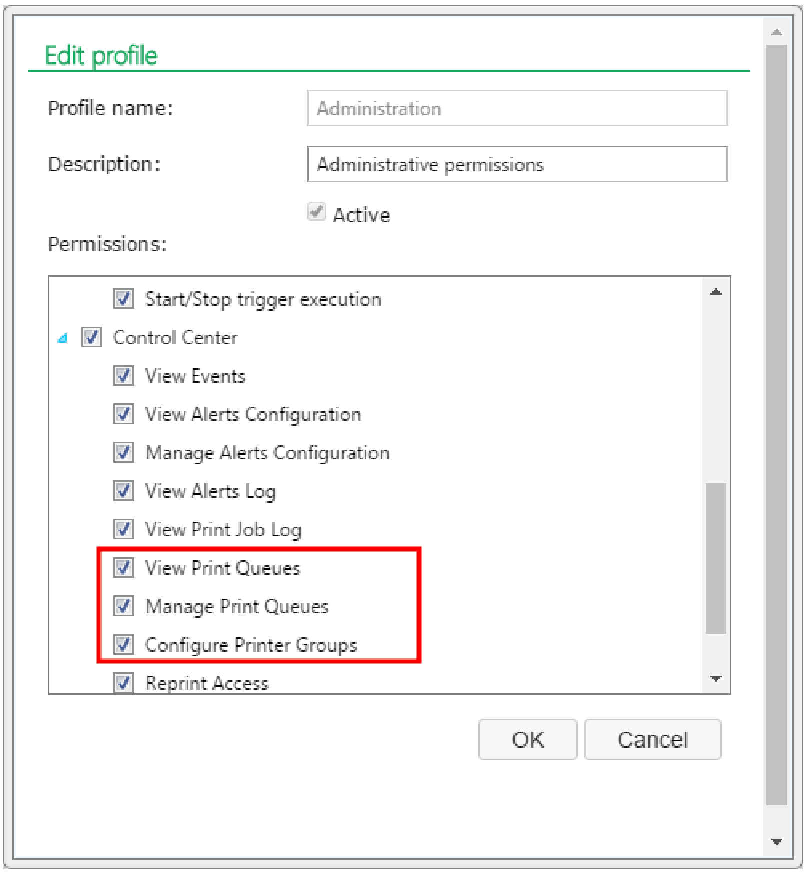
NOTE: An error is reported in case of a port conflict.

5.3.4 Print Management Access Rights

Print Management tab accessibility and range of configurable options can be defined for all Control Center user profiles.

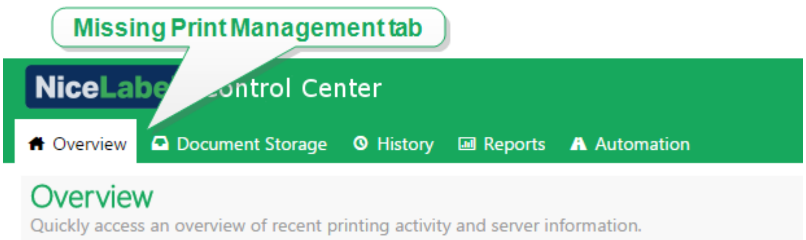
Print Management access rights are based on user authentication. After a user logs into Control Center, the assigned profile defines the range of granted access rights.

To define the access rights for a profile, go to **Administration >** Security profiles. Select a profile and click the **Edit / Pencil** button. After the **Edit profile** window opens, scroll to **Control Center** group of options.



The following profile options are relevant for Print Management:

- **View Print Queues:** defines if the user is allowed to open and use Print Management in Control Center or not. This option keeps the Print Management tab visible or hides it. Deselect it to prevent the users that belong to a certain profile from accessing the Print Management tab.



- **Manage Print Queues:** defines if the user is allowed to pause, resume or delete documents in print queues or not. This option keeps the command buttons visible or hides them. With this option deselected, only **Refresh** command button remains visible. The user can still monitor the print queues, but has no control over them.
- **Configure Printer Groups:** defines if the user can add and/or configure the existing printer groups or not. This option keeps the **+Add printer group...** and **Settings** buttons visible or hides them.

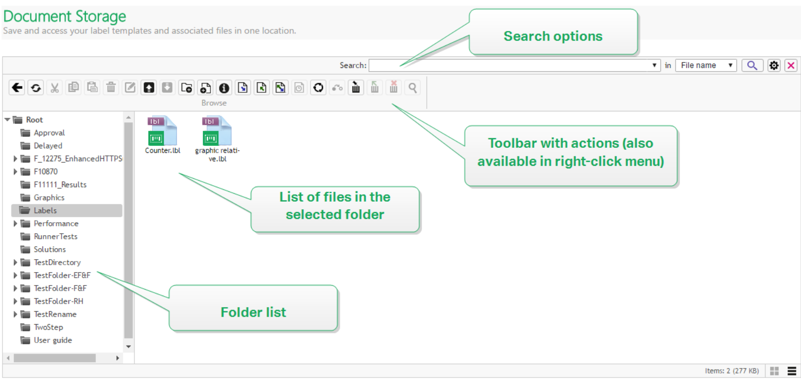
TIP: +Add printer group... button allows the user to add printers to a newly created printer group. **Settings** button allows the user to configure the currently selected printer group.

5.4 Document Storage

5.4.1 Document Storage

Control Center offers the Document Storage feature, which is a shared file repository on the server, where users can store and retrieve their files. While the basic functionality may resemble a shared location on a network, this storage is on a web-based application. It can be shared to a much broader public and accessible from anywhere in the world, not limited to local area network.

Document Storage supports all file extensions, not just NiceLabel-related file types.



NOTE: Not all options shown in the screen shot are available in every Control Center product.

Working with the Document Storage

You can control the items in the Document Storage using the commands in the Toolbar above the contents area. The Toolbar mimics the ribbon functionality, with the intuitive icons.

- You have to upload the files into the Document Storage, before you can use them.
- You can organize files into folders.
- You can select the item display mode from icon to list view.
- You can preview all label files. The image preview will show in a dialog box.
- You can right-click the items to execute commands upon them and see their properties.

The commands in the Toolbar can change, if you enable functionality that is not enabled by default, such as the revision control, workflows and access permissions.

NOTE: You need NiceLabel LMS Enterprise product to have support for revision control and workflows.

You can also right-click folder and files, and use commands in the context menu. If you have configured Application Server role in the Control Center, the toolbar will display additional Application Server options. For more information see the topic Centralized Application Server.

TIP: For best user experience using the Document Storage, make sure to install the Browser Extension, when prompted so.

Searching for the Files and Label Data

If you have to find a particular label file either based on the file name mask or filtered by some content, you can use the search pane in the Document Storage.

When used, only the files that contain entered string (in the file name or in the file contents) will be displayed. The folder tree also shows only the folders that match the search criteria or contain sub items (file or sub folders) that match the criteria. You have to press `<ENTER>` to confirm the entered string.

- **Search by file name.** When you enter a string, Document Storage will filter the displayed items. You will see all folders and files that contain the entered string in their names.
- **Search by file contents.** When you enter a string, Document Storage will display the label files that contain the string anywhere in their content, such as all fixed content for text and barcode objects and names of all variables (and their description, default value and prompts).

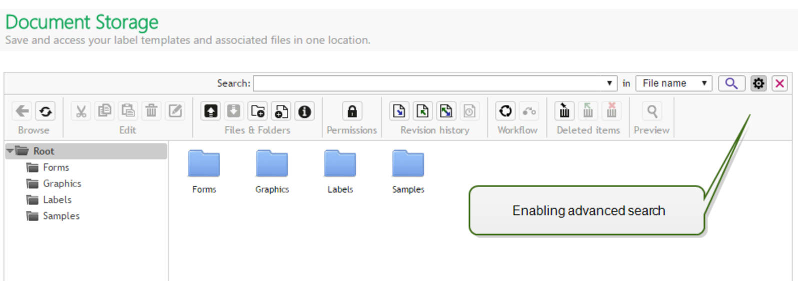
To clear the filter, click the **Clear search** button.

When the Document Storage displays filtered results, this is indicated by a different color of the search toolbar. All files are again shown when you click the **Clear search** button or presses `<ESC>` key.

NOTE: The partial search is enabled by default. When you enter word **lab**, the result will include **label** and **laboratory**. To disable partial search, enter the keyword inside the double quotes, like this **"lab"**.

Advanced search

You can narrow your search by enabling the advanced searching functionality.



In this case you can search by specific fields either inside the label meta-data, structural information or workflow steps.

Advanced search functionality allows search queries, such as the following:

- Find all files that contain string **LV** in the file name and have text object containing text **Batch**
- Find all files that need to be approved (search for by specific workflow step name, such as **Request approval**)
- Find all labels with dimensions 10×7 cm

User can enter the following search keys for advanced search functionality:

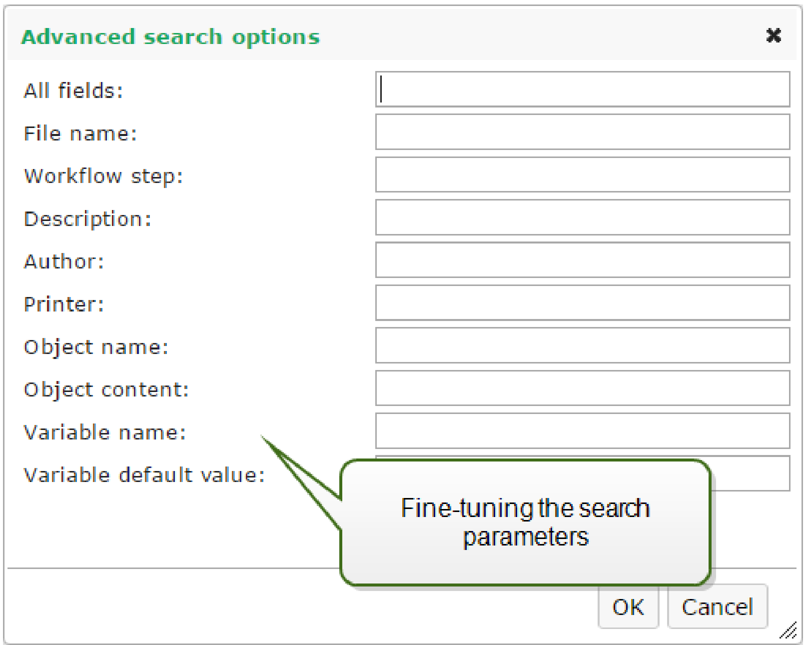
EXAMPLE: Name, Author, Description, PrinterName, PrinterDriver, Width, Height, WorkflowStep, Object, ObjectContent, Text, TextContent, TextFont, Barcode, BarcodeContent, BarcodeType, Graphic, GraphicPath, Variable, VariableDescription, VariableDefaultValue, VariablePrompt

After the search keys you have to enter color character (:) followed by the actual keyword. You can search by concurrent fields, make sure to delimit them with space character.

The following example searches for label that contains both **MyPrinter** and **660** in the printer name and contains a variable named **Counter1**. Label must also contain an EAN barcode.

EXAMPLE: PrinterName:MyPrinter PrinterName:660 Variable:Counter1 BarcodeType:EAN

Last 10 search terms are saved and suggested to the user when he starts typing in the search field.



Previewing Labels

You can preview the label files directly in the Document Storage without opening the label in designer.

To see the label preview, do the following:

1. Select the label file.
2. Click the **Preview** button in the Toolbar.

   You can also right-click the label file and select **Preview label** in the context menu.

If you work with file revisions, you can open label previews of any revision from the **Revision history** for the selected label.

> NOTE: When opening the label preview, you can enter the values for variables and see how they are used in the label template. You can also use values from a data file.

> NOTE: Label preview is generated by the installed printer. If the printer does not exist, a virtual printer is used instead.

> WARNING: When using Application authentication mode (NiceLabel users), the label preview is not available.

Applying values from data file to the variables

The label templates are usually designed with variables that don't have any default value defined. This ensures that there are no hard coded values that would be used during printing. On the other hand it makes the label preview and comparison more difficult task, because you have to provide the values for variables before the label preview is generated. When generating the label preview, you can enter values manually.

You can also provide the external data file with a list of variables and their values and NiceLabel Control Center will automatically use it for the label preview. The data file must provide the *name:value* pairs. There must be name of the variable and there must be value for the variable. All pairs are read from the data file and values sent to the variables of the same name defined in the label. 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

The contents for the variable data can be provided in either of the two available structures.

XML structure

The variables are provided within `<Variables />` root element in the XML file. Variable name is provided with the attribute name, the variable value is provided by the element value.

```
<?xml version="1.0" encoding="utf-8"?>
<Variables>
```

```
    <variable name="Variable 1">Value 1</variable>
    <variable name="Variable 2">Value 2</variable>
    <variable name="Variable 3">Value 3</variable>
</Variables>
```

Delimited structure

The variables are provided in a text stream. Every *name:value* pair is provided in a newline. Variable name is to the left of the equals character (=), variable value is to the right.

```
Variable 1=Value 1
Variable 2=Value 2
Variable 3=Value 3
```

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.

EXAMPLE: If you have a label named `label.nlbl`, the data file must be named `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 the data file in various locations in the Document Storage.

EXAMPLE: The label label.nlbl is saved in the folder /folder1 and therefore available as /folder1/label.nlbl.

The searching for a data file is executed in the following order.

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

   EXAMPLE: /folder1/label.values

2. The private data file in the subfolder SampleValues.

   EXAMPLE: /folder1/SampleValues/label.values

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

   EXAMPLE: /folder1/default.values

4. The generic data file in the subfolder SampleValues.

   EXAMPLE: /folder1/SampleValues/default.values

When the first available `.values` file has been found, the search stops and 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 trough all workflow steps.

Moving Files

To move a file to a different folder while keeping all its revision and associated comments, do the following:

1. Select the file.
2. Click **Cut** icon in the toolbar.
3. Move focus to a folder into which you want to move the file.
4. Click **Paste** icon in the toolbar.

> NOTE: You can also select multiple files and folders for moving. When you select folders, all its content is moved (files and sub folders).

Getting File Properties

You can obtain the file properties, such as file name, file type, size, creation and modification date, name of last user that modified the file, file permissions, selected workflow for this folder, workflow step in which the file is, check out status and revision number.

To see file properties, do the following:

1. Select the file.
2. Click the **Get info** button in the Toolbar.

   You can also right-click the file and select **Get info** in the context menu.

Accessing Files

Accessing files in a Browser

You can use Control Center Web interface to interact with files inside the Document Storage. This is the access method if you want grant access to Document Storage to users, connecting from external locations (such as Internet). In this case make sure that your firewalls allows inbound connections to the Control Center.

> NOTE: If you have NiceLabel client locally installed, double-clicking the label (.NLBL) or solution file (.NSLN) will open it in the **Designer**. The options to Edit or Print & Run files is also accessible in the right-click menu.

Accessing files in NiceLabel Client

WARNING: Direct interaction with the Document Storage requires authentication set to **Windows Authentication** or **None**. Files are not accessible from NiceLabel clients when you use **Application Authentication**. The WebDAV does not work with the Application Authentication.

The users can use the File Open dialog box in NiceLabel software to interact with the files in the Document Storage. The users can also use their favorite file manager, such as Windows Explorer. When you activate NiceLabel client with a license from Control Center, the shortcut to the Document Storage is added to user's Favorites. This shortcut becomes accessible in Explorer and every Windows file-managing dialog box. The files are accessible using the WebDAV connection.

Using WebDAV syntax to open the file

You can use the following WebDAV syntax to open a file:

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

For secure connection to Document Storage use the following WebDAV syntax:

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

Using HTTP sytnax to open a file

You can use the following HTTP syntax to open a file:

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

For secure connection to Document Storage use the following syntax:

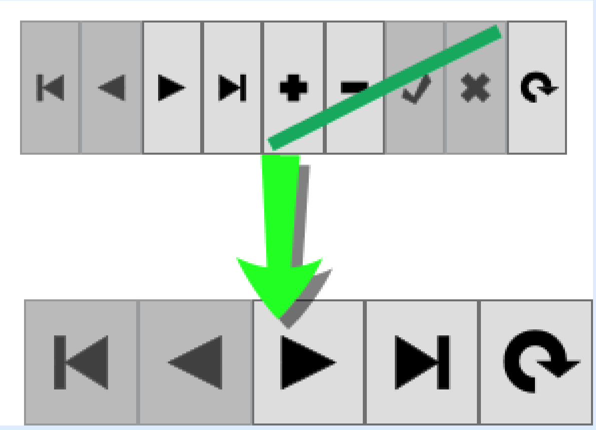
```
https://server:8080/folder/label.nlbl
```

Accessing Database Files in Document Storage from Web Printing

The added web clients in Control Center may have assigned labels or solutions with connections to database files that are stored in Document Storage. Below described are a few specifics for database connections that use local Document Storage paths:

- Web Printing client may access the following database file types: Access (e.g. *.accdb, .*mdb), Excel (*.xlsx, *.xls) and text files (*.cvs, *.txt). OLE or ODBC databases are not accessible in Document Storage.
- Web Printing server makes a temporary copy of the database in `%temp%` folder, reads the requested data and returns it to the Web Printing client. Because the database request works with a temporary copy of the database file, database can be used only as a read-only data source for label or solution files that are in use via Web Printing client.

EXAMPLE: Relative path to database is in use. Database Navigator object connected to Access database appears without Add, Update and Delete record buttons.



NOTE: In cases of multiple database queries, server performance issues might appear due to frequent copying and erasing of the database files, or due to their large size.

NOTE: The described case applies only to the local Document Storage paths (e.g. `.\database.xlsx` or `/solutions/database.xlsx`). If you access the file from Document Storage via full URL address (i.e. `\\myserver@8080\DavWWWRoot\Solutions\database.xlsx` or `http://myserver:8080/Solutions/database.xlsx`), the path is not considered to be a local Document Storage path.

5.4.2 File Access Control

File access control allows you define access permissions on folders. This is a useful option if you want to limit access to certain folders in Document Storage to a specific group of users. The access permissions are defined on folders and are valid to all files in that folder. They are configurable per profiles and are applied to all members of a profile.

To be able to configure file access permissions in Document Storage and prevent users from accessing all files in the Document Storage, you must first enable login into Control Center.

NOTE: If user login is not enabled in Control Center, the permissions of the **Default** profile are in place – all Document Storage folders and files are accessible in full read & write mode.

Access Control Rules

These are the rules that define access control in the Document Storage.

- Access control is defined per folder by profiles. Members of each profile can either have full access (read & write), read access, or no access.
- You can define access permissions separately for each folder.

- All files within the folder will inherit the access permissions as defined for that folder.
- Sub folders can either inherit permissions from the parent folder, or you can define custom permissions per each sub folder.
- Members of Administration profile are granted full access rights to all contents within the Document Storage.

Additional Access Control Rules When Using Workflows

When the folder is governed by some workflow process, the additional rules are:

- When you have read-only access to the folder, you can only retrieve the last approved-published revision. If the file hasn't been approved-published yet, you cannot access it at all. The access privileges are configured in the user profiles.

  > NOTE: The users in the production environments must have read-only access to ensure they can see only the approved-published revisions.

- When you have full access to the folder (read and write permissions), you can retrieve any file revision.

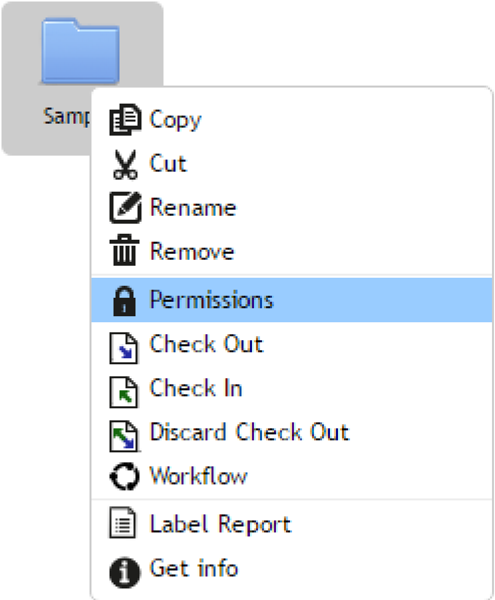
Changing the access permissions for the folder

To change the access permissions for the folder, do the following:

> NOTE: Make sure the user login is enabled in Control Center.

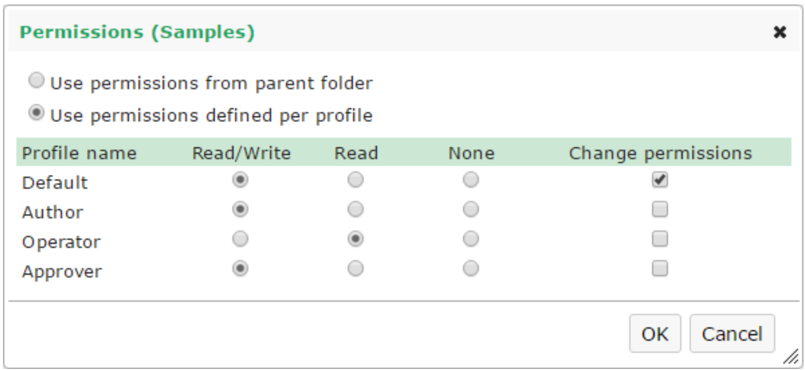
1. Open Control Center and log in with user that has administrative permissions to the Document Storage.
2. Go to **Document Storage**.
3. Select the folder for which you must change the access permissions.
4. Click the button **Permissions** in the toolbar. You can also right-click the folder and select **Permissions** in the list.

   The Permissions dialog will open for selected folder.



5. Select **Use permissions defined per profile**.

6. Select the access permissions you want to grant per profile. All users belonging to that profile will inherit the settings defined here.



7. Enable the option **Change permissions**, when you want members of that profile to be able to change the access permissions for their profile themselves.

The users will have access to the folder and files as allowed by his profile.

5.4.3 Label Report

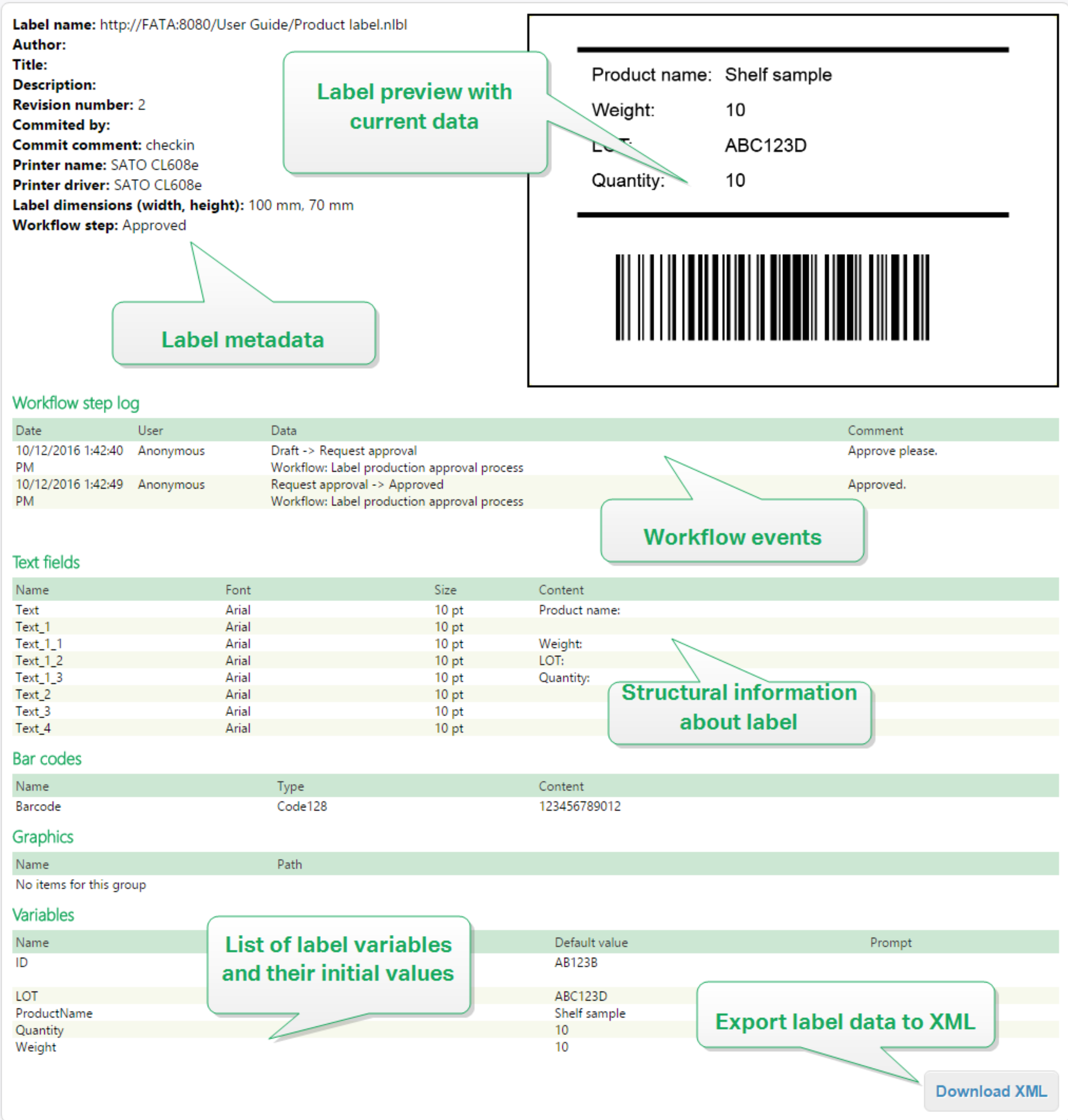
You can use label report feature to create a detailed description about the structure of the selected labels. At the same time, the label preview is generated for the visual reference on the label design.

When the label report is selected, a new tab will open in the browser and will contain detailed information about the selected file(s). You can initiate the report on the single file, group of files, the contents of the entire folder and on the specific revision of the label file.

The report will contain label's meta-data (name, author, description and commit comment), label structural information (list of fixed objects and variables with their contents), and label preview. You can use the provided information to build a label catalog, a list of all labels you use in your environment. This will help you keep track on the number of labels, their structure and intended usage. Before creating a new label template, you can verify your label catalog if a similar label has already been created. You could use the existing label as a master template for a new label.

If you need the label information saved in your existing business & informational system, you can download the provided label structure in the XML file and upload it to your system.

> NOTE: If you have generated report for several labels, you can download XML files for individual labels, or one XML file containing definition of all displayed labels.

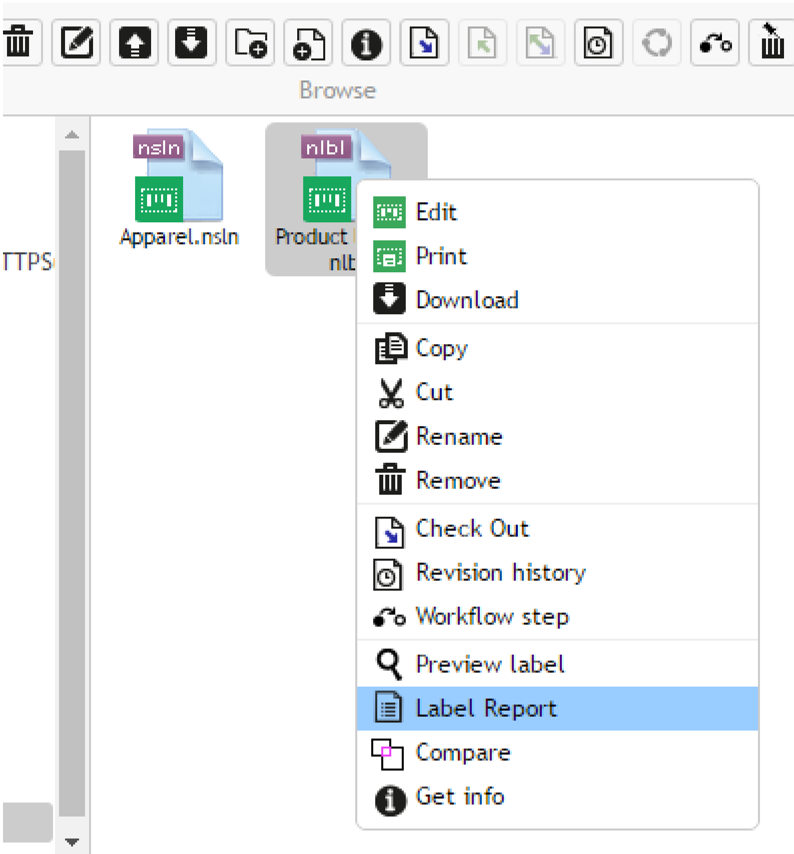


Executing the Label Report

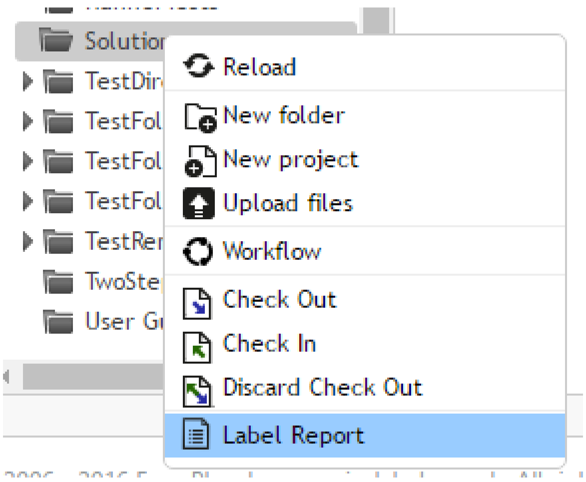
You can invoke the label report from several locations within the user interface:

1. **On the selected label file(s).** You can select one or several label files, right-click on them and select Label Report. The report will display in another tab inside your browser.

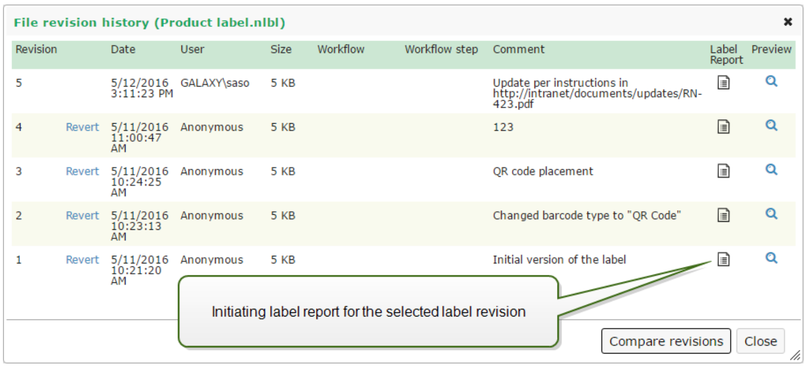
   To select several files click and hold `Ctrl` key while selecting files.



2. **On the selected folder.** Select the folder, then right-click it and select Label Report. The report will be generated for all label files in this folder and all its sub folders.



3. **For a specific revision of the label file.** In the file revision history window click on the document icon to create label report for that particular revision of the label file.



Label Report Contents

For each label document, the following contents will be shown:

Label meta-data

- Label name
- Author (the user that last uploaded or modified the document in the Document Storage)
- Title
- Description
- Revision number
- Committed by
- Commit comment
- Printer name
- Printer driver name
- Label dimensions (width, height)
- Current workflow step

Preview label

- Label preview provides preview of the saved label with assigned data.

> NOTE: Label preview is generated by the installed printer. If the printer does not exist, a virtual printer is used instead.

Label contents

- Workflow step log. Logged information related to the assigned workflow: date, user, data, comment.

> NOTE: This segment is visible only if the workflow is set for the selected document.

- Properties of all fixed text objects. Object name, font, size, content.
- Properties of all fixed barcode objects. Object name, barcode type, content.
- Properties of all fixed graphic objects. Object name, path and file name to the used image.
- Properties of all variables. Name, description, default value, prompt.

5.4.4 Comparing Label Files

TIP: The functionality from this topic is available in **NiceLabel LMS Enterprise**.

This feature provides an ability to graphically compare different label files, or different revisions of the same label file.

Graphical comparison is a great tool whenever you are interested in the changes between label designs. This information might already be provided in the comment field required during each check-in process, but perhaps the detailed level is not satisfactory. The tool will display all selected labels and/or revisions of a single label as thumbnails. You can select the left and right label/revision for comparison. Both selected labels will display on top, followed by a third image of both preview superimposed.

The color-coding allows for all differences to be easily spotted.

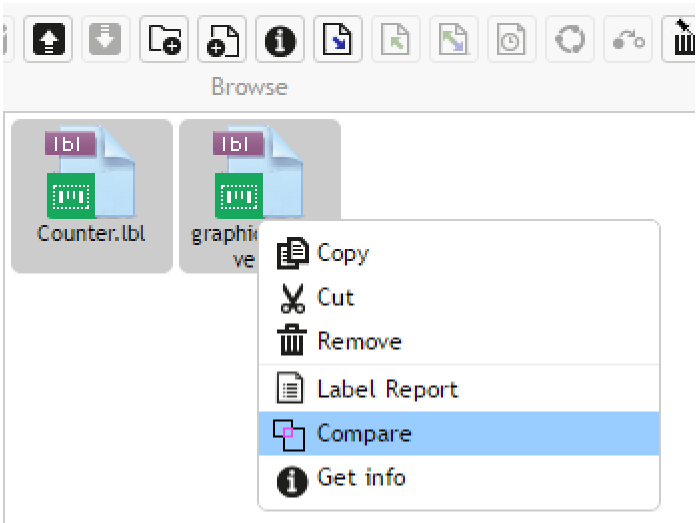
Comparing Different Label Files

To compare different label files, do the following:

1. Select two or more labels in the same folder.

   NOTE: Hold Ctrl key while clicking labels to select multiple labels.

2. Right-click the labels and select **Compare**.

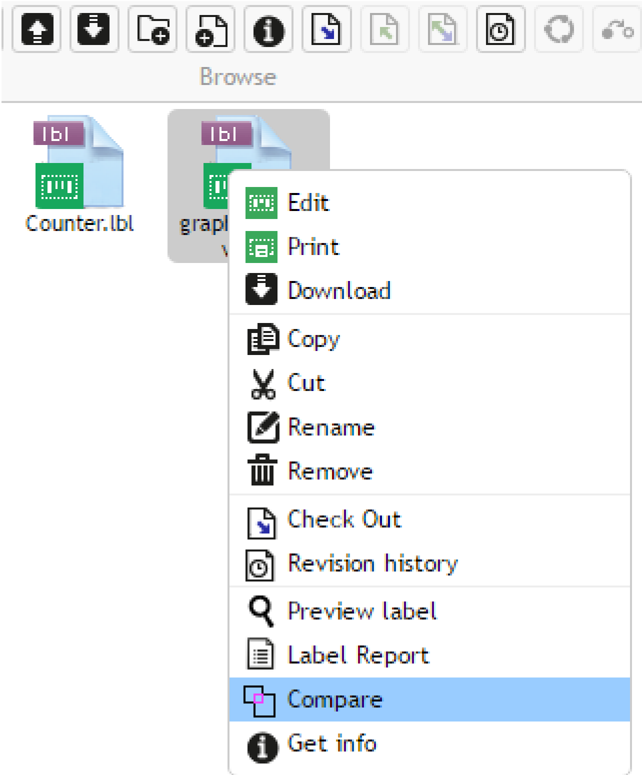


3. Select the left and right label for comparison. The superimposed image of label differences will be shown below the preview of the two selected labels.

Comparing Revisions of the Same Label File

To compare revisions of the same label file, do the following.

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



2. Select two revisions for comparison. One for the left preview, one for the right preview. The superimposed image of label differences will be shown below the preview of the two selected labels.

Applying values from data file to the variables

The label templates are usually designed with variables that don't have any default value defined. This ensures that there are no hard coded values that would be used during printing. On the other hand it makes the label preview and comparison more difficult task, because you have to provide the values for variables before the label preview is generated. When generating the label preview, you can enter values manually.

You can also provide the external data file with a list of variables and their values and NiceLabel Control Center will automatically use it for the label preview. The data file must provide the *name:value* pairs. There must be name of the variable and there must be value for the variable. All pairs are read from the data file and values sent to the variables of the same name defined in the label. 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

The contents for the variable data can be provided in either of the two available structures.

XML structure

The variables are provided within `<Variables />` root element in the XML file. Variable name is provided with the attribute name, the variable value is provided by the element value.

```
<?xml version="1.0" encoding="utf-8"?>
<Variables>
    <variable name="Variable 1">Value 1</variable>
    <variable name="Variable 2">Value 2</variable>
    <variable name="Variable 3">Value 3</variable>
</Variables>
```

Delimited structure

The variables are provided in a text stream. Every *name:value* pair is provided in a newline. Variable name is to the left of the equals character (=), variable value is to the right.

```
Variable 1=Value 1
Variable 2=Value 2
Variable 3=Value 3
```

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.

EXAMPLE: If you have a label named `label.nlbl`, the data file must be named `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 the data file in various locations in the Document Storage.

EXAMPLE: The label label.nlbl is saved in the folder /folder1 and therefore available as /folder1/label.nlbl.

The searching for a data file is executed in the following order.

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

   EXAMPLE: /folder1/label.values

2. The private data file in the subfolder SampleValues.

   EXAMPLE: /folder1/SampleValues/label.values

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

EXAMPLE: /folder1/default.values

4. The generic data file in the subfolder SampleValues.

EXAMPLE: /folder1/SampleValues/default.values

When the first available `.values` file has been found, the search stops and 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 trough all workflow steps.

5.4.5 Revision Control System

TIP: The functionality from this topic is available in **NiceLabel LMS Enterprise**.

Document Storage implements the revision control system for the labels, images, and related files. Over time, you will have a complete history of your files. The system will allows you to work with revisions (version) of files, track changes made to the files, revert to the previous revisions, and restore deleted files.

Every time the designer want to work with the label file, the file must be checked-out to the user. At this time the file is locked to that user. Any other user can open the file in read-only mode only. When the designer checks-in the file, the new file version is created in the Document Storage. The revision number increments by one after each Save operation. The first file version is **revision 1**, the second **revision 2**, and so on. All previous revisions of the file are still available in the database. The designer can always access previous label revisions and make them active. For each check-in operation the user can enter the comment describing the changes in the label design.

Adding a File

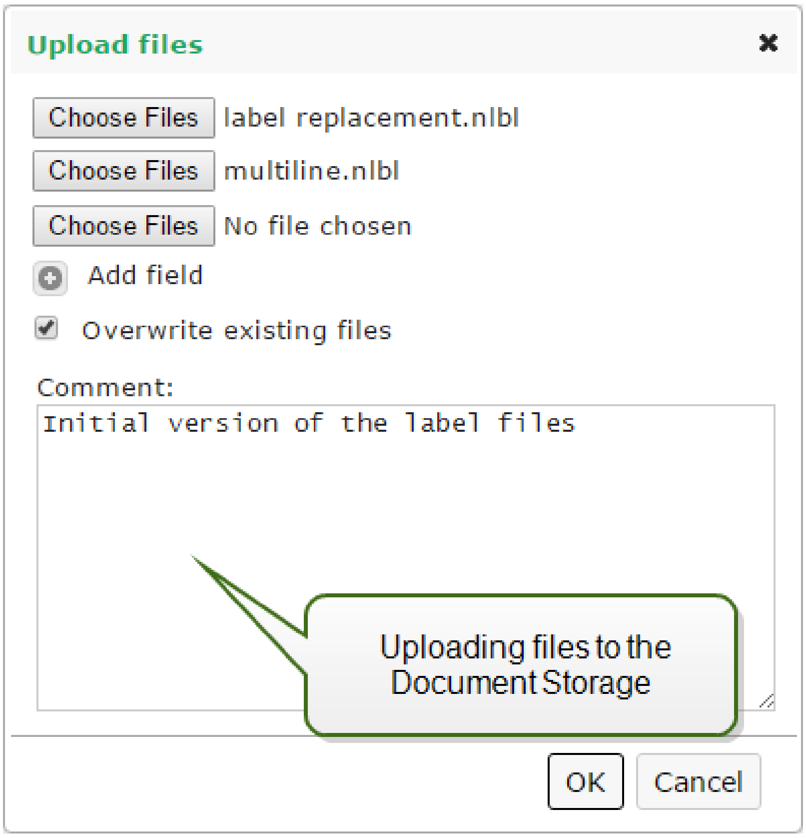
You must add the file into Document Storage to make it available for users.

To add a file, do the following.

1. Click the **Upload files** button in the Toolbar.
2. Browse to the files you want to add.
3. Click **Add field** if you want to add more than three files simultaneously.

   NOTE: If you use Internet Explorer 10 or above, Chrome or Firefox browser, you can select multiple files in the Browse dialog box. Use the standard Windows shortcuts with Ctrl key to select individual files, or with Shift key to select range of files.

4. Enter the optional **Comment**. The Comment is recorded to the file log.



Checking Out the File

Before you can start editing the file, you have to check it out from Document Storage. The checked-out file is marked and locked for editing for any other user. All other users will see the current revision of the file, while the designer already works on a new draft. You can check out file from a Designer or from the Control Center.

To check out file from NiceLabel Designer, do the following:

1. In NiceLabel Designer, open the file from the Document Storage.
2. In Document Storage ribbon, click **Check Out** icon.

To check out the file in the Control Center, do the following.

1. In Document Storage tab, select the file you want to check out.
2. Click the **Check Out** button in the Toolbar.
   You can also right-click the file and select **Check Out** in the context menu.
3. Double-click the file to open it in associated application. E.g. double-clicking the label will open it in NiceLabel Designer.

To allow other users making changes to the file, you have to check it back in, or discard check out operation. The methods are available in the NiceLabel Designer and in Control Center user interface.

Checking Out Multiple Files

Use the standard Windows shortcuts with Ctrl key to select individual files. When you click the

Check Out button, all selected files will be checked out simultaneously. You can also select **Check Out** command, while you have a folder selected. In this case all files in the folder will be checked out.

If an error happens during the processing, the user is informed about the details.

Checking In the File

When you are finished with editing the document, and want to make it available to other users, you have to put the file back into the Document Storage. The process is referred to by "checking-in the file". You can check in the file from NiceLabel Designer and in the Control Center.

When you check in the file, the file revision will increment by one. The entered comment is logged to file log.

To check in the file in NiceLabel Designer, do the following:

1. While the label is still opened in the Designer, go to Document Storage tab in the ribbon.
2. Click **Check In** icon.

To check in the file in the Control Center, do the following.

1. If you have downloaded the file and edited it locally, you have to upload the file back into Document Storage.
   If you have opened the file in editor by double-clicking it, the edited file is already uploaded into Document Storage.
2. Select the file in Document Storage.
3. Click the **Check In** button in the Toolbar.
   You can also right-click the file and select **Check In** in the context menu.
4. Enter the optional **comment**. It's a good practice to enter the comment describing the changes you did in the file.

Checking In Multiple Files

Use the standard Windows shortcuts with `<Ctrl>` key to select individual files, or with Shift key to select range of files. When you click the **Check In** button, all selected files will be checked in simultaneously. You can also select **Check In** command, while you have a folder selected. In this case all checked out files in the folder will be checked in. The comment you enter for the revision change will be applied to all files.

If an error happens during the processing, the user is informed about the details, such as files opened in designer, file check out was discarded, file was deleted.

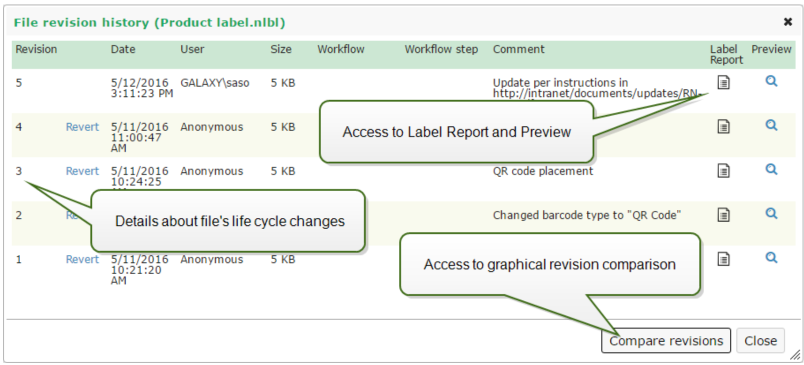
> NOTE: The availability of the files depends on the configuration . For example, when you also enable workflows, the checked-in file is only available to print operators, when it is in the **Approved/Published** state.

File Revision History

Every change to the file is logged to database. Whenever you check-in the document, you can enter the comment describing the changes. The file revision history includes all events occurring for file, including revisions and workflow changes.

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

1. Select the file.
2. Click the **Revision History** button in the Toolbar.
3. The dialog box will display all known details, including revision number, data of change, user who committed the change, size of the file, workflow defined for current folder, workflow step for the file, and comment.



4. The File Revision History provides access to additional commands:
   - **Revert to label revision.** You can revert to any previous file revisions. What this action will do is copy the selected file revision and add it as the new revision.
   - **Preview label revision.** You can preview any revision of the label file on screen. Use this feature to avoid opening labels in the designer, just to see how it looks.
   - **Label report.** A label structure report will be displayed on-screen, including meta information about the label including the graphical preview, plus a list of all label objects and variables. The report can be also downloaded as XML file.
   - **Compare revisions.** You can graphically compare the changes from one document revision to another on-screen.

Requesting Label Revisions

The label files stored inside the Document Storage are accessible using WebDAV protocol. To get access to the label file, the application requiring a label authenticates itself, with the user account the application is running under. Each application runs in a specific user-space. For example, if you run the application interactively in your desktop, it will inherit privileges of your user account.

When the application requests the file, the exact obtained revision depends on the privileges of the user account.

Requesting the HEAD Revision (Latest Available)

If you request a file without specifying any revision (you provide the file name alone), the following will happen:

- If you have read/write access to the file (so you are a designer), you will get the last revision.
- If you have read-only access to the file (so you are user from a production environment), you will get:
    - The last revision (if the folder doesn't have any workflow enabled)
    - The last approved-published revision (if the folder is governed by some workflow process)

Requesting the Specific Revision

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

To request revision 10 of file `label.nlbl`, you would request it as:

```
label.nlbl?v=10
```

The access permissions defined on the folder where the file resides determine if you can access the file or not. If you are not allowed to get that revision, the failure will be reported in the error message.

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 `label.nlbl`, you would request it as:

```
label.nlbl?v=P
```

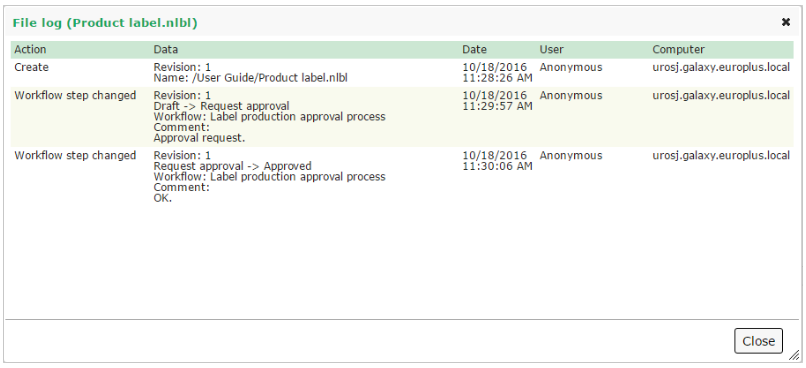
If no file revision has been approved, the failure will be reported in the error message.

File Log

The file log contains the information about file changes and check in / check out actions. This is a subset of information available in the file revision history.

To see the file log, do the following:

1. Select the file.
2. Click **Get info** button in the Toolbar.
   You can also right-click the file and select **Get info** in the context menu.
3. Click **View file log**.



File log (Product label.nlbl)

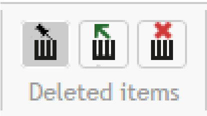
Action	Data	Date	User	Computer
Create	Revision: 1 Name: /User Guide/Product label.nlbl	10/18/2016 11:28:26 AM	Anonymous	urosj.galaxy.europlus.local
Workflow step changed	Revision: 1 Draft -> Request approval Workflow: Label production approval process Comment: Approval request.	10/18/2016 11:29:57 AM	Anonymous	urosj.galaxy.europlus.local
Workflow step changed	Revision: 1 Request approval -> Approved Workflow: Label production approval process Comment: OK.	10/18/2016 11:30:06 AM	Anonymous	urosj.galaxy.europlus.local

Close

Restoring the Deleted Files

The Document Storage contains a Recycle Bin functionality. When you delete a file, it is not actually deleted from the system, but is just marked as deleted. When you want to really remove the file, you have to purge it.

To show the deleted files, to restore them or to purge them from the system use the icons in **Deleted Items** group in the toolbar.



NOTE: To see the **Deleted Items** group in the toolbar, you have to enable versioning for the document storage and must be member of Administration security profile.

5.4.6 Workflows

TIP: The functionality from this topic is available in **NiceLabel LMS Enterprise**.

Control Center allows you to enable workflows next to the revision control system (versioning). Workflows allow you to enable another level of quality control in the label printing process. A workflow consists of a sequence of connected steps, which are controlled by the workflow logic. There might be one or more possible promotion steps from the current step. Every workflow has a starting step and the final step. Using a workflow, you can track the status of the label file.

If a folder is governed by a selected workflow process, the access privileges of the user requesting a label determine which revision will be returned in a response. For more information, see topic File Access Control.

Approval Process

Approval steps are based on the selected workflow type. The hierarchy of the steps and allowable next steps are predefined for each workflow.

When the file is uploaded in the Document Storage in the workflow-enabled folder, its initial state is **Draft**. After the designer (author) is confident about the file layout and content, he moves the file into the next step **Request approval**. If configured, the responsible approvers are notified by an email that the file needs a review. The approver can either **Reject** the file. This notifies the designer that changes are needed. Or the approve it – this moves the file into **Approved** step. Each workflow defines the available step and transitions from one step to another.

Changing the step into **Approved** might require the user to provide his login credentials again. This re-authentication action confirms there is still the right user logged into the terminal. The Two step label production approval process has this re-authentication built-in.

The step **Approved** (or **Published** in some workflows) is the final state for the file. Labels cannot be used in the production, until they are approved and published. The members of **Operator** group (or any user with print-only permissions) can only see the files that are in **Approved/Published** step. The designer (author) can start working on the new revision of the label file, but the file will not be visible to print-only users until the new revision reaches the **Approved** state.

> NOTE: When approved/published, the file becomes visible to print operators (print-only users), members of the **Operator** profile.

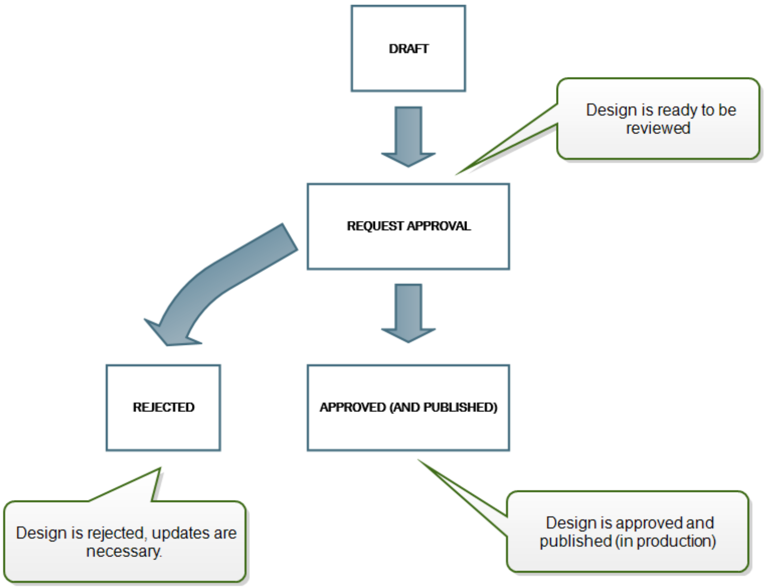
> NOTE: If you require custom workflow for your approval process, please contact NiceLabel representative. Custom workflows can be added to your Control Center.

Label Production Approval Process

This workflow enables the classical approval process. First, the document is in the draft state. When ready, the designer will request document approval. A person with approval permissions will either approve the document or reject it. If it is rejected, the designer can open it in editor and update it. When the document is approved, it is automatically published as well.

Published documents are available to print operators. Such users have print-only permissions and will only be able to use the latest approved (and published) document. There might be other revisions in the Document Storage, but invisible to print operators.

Each change of the workflow step is documented in the system. The user performing the state change must enter the mandatory comment.



Two-step Label Production Approval Process

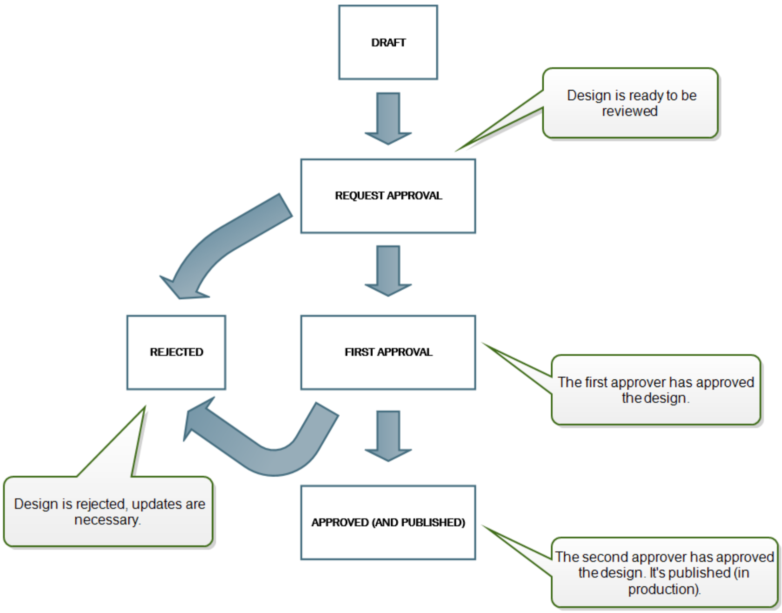
This workflow is similar to the **Label production approval process** workflow with a single difference. This workflow enables the two-level approval process. Before the document is approved (and published), two independent approvers must review the document and both approve it. Only after the document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



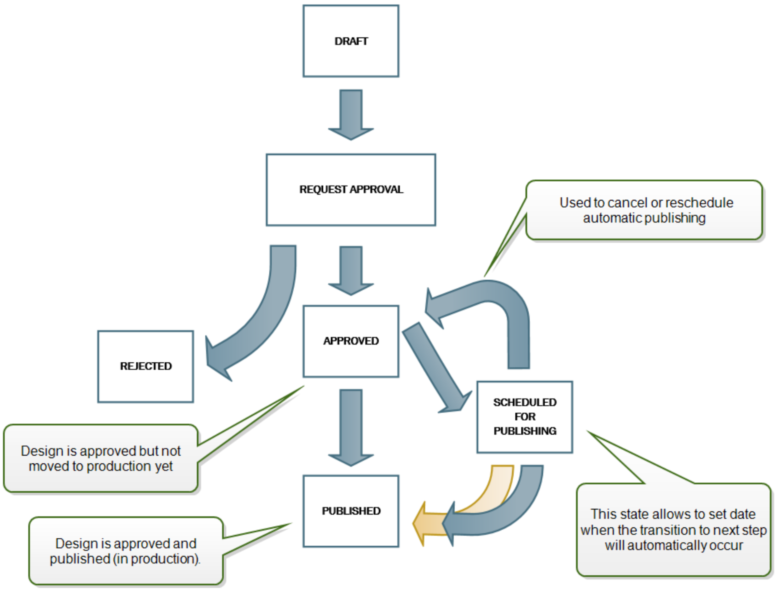
Label Production Approval Process with Delayed Publishing

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 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.

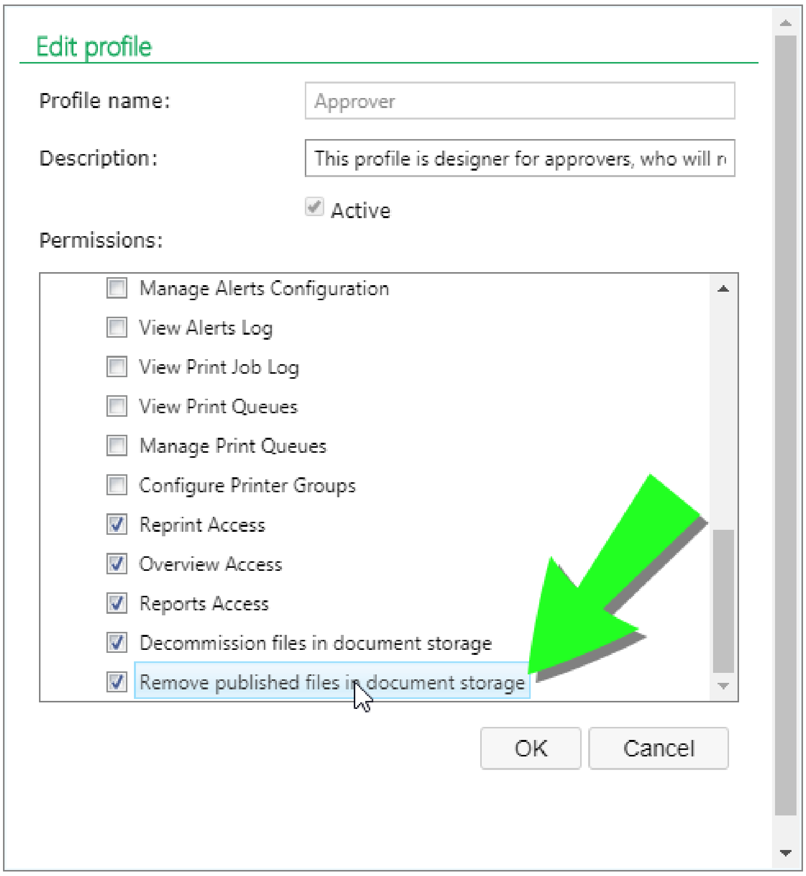
In both cases, the change of the step is logged into the system database.



Removing Published Files

By default, only Administrator can remove a published file from Document Storage. However, the Administrator can allow any other security profile to remove the published files.

To grant the selected profile the right to remove published files from Document Storage, go to **Administration > Security Profiles >** select a profile **>** click the **Edit / Pencil** icon to open the **Edit profile** window. Scroll to **Remove published files from Document Storage** and tick this option.



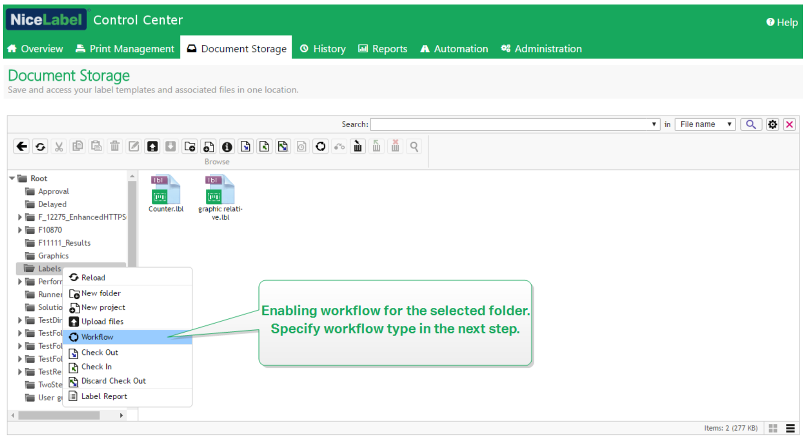
NOTE: You can remove an entire folder that contains published files. If you do not have the permission to delete them, an error dialog with a list of files that cannot be deleted will pop up.

Enabling Workflows

To enable workflows, do the following:

1. In **Administration** tab, select **Versioning and Workflow**.
2. Enable **Enable workflows for document storage**.
3. Go to **Document Storage** tab.
4. Select the folder for which you would like to enable workflow control.
5. Click the **Workflow** button in the Toolbar.

   You can also right-click the folder and select **Workflow** in the context menu.

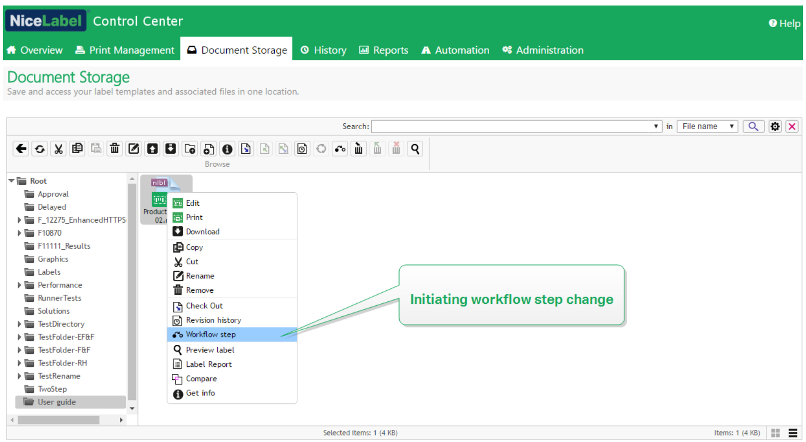


6. Select the option you want to enable for the folder.

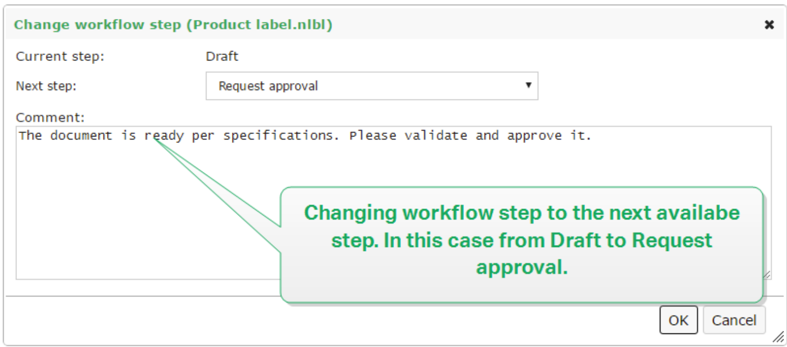
   - **Use workflow from parent folder.** Select this option if the parent folder has defined the same workflow that you intend to use. The workflow logic is inherited from the parent folder. When you change the workflow on the parent folder, the change will propagate to the current folder as well.
   - **No workflow.** Select this option if you want to disable workflow control for the current folder.
   - **Choose workflow.** Select this option to define workflow for the current folder.

Assigning State to File

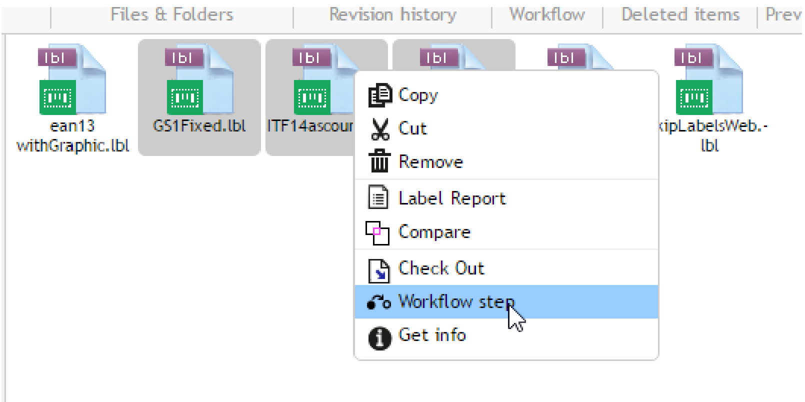
Each file in the workflow-controlled folder must be assigned with a state. The state identifies in which workflow stage the file is currently in.



When you upload a new file, or enable workflow in the existing folder, the initial step becomes the file state. In case of built-in workflows **Label production workflow** and **Two step approval** the initial state is **Draft**. Each time you change a workflow step for the selected file, the new state is automatically assigned to the file. You can only change into the next step as defined by the workflow rules.



Control Center allows you to simultaneously change the workflow step for multiple documents in a folder. Use **Ctrl + click** to select the documents and **right click** to open the context menu. Select **Workflow step** option to promote the documents to the next available workflow step.



NOTE: There are two conditions that must be met to promote multiple files to the next workflow step:
1. All selected files must be on the same workflow step.
2. None of the files must be checked out during the promotion.

Once the file reaches the **Approved** step, it becomes visible to print-only users, who can only access the approved version of the file. These are usually members of the built-in profile **Operator**, but you can also create your own profiles.

Print-only users may in certain cases be also allowed to print working versions of files. Go to **Administration > Web Clients > Edit client** to set this property.

TIP: Such use is intended for solution development and testing.

Publishing Approved File at a Later Time (Scheduled Publishing)

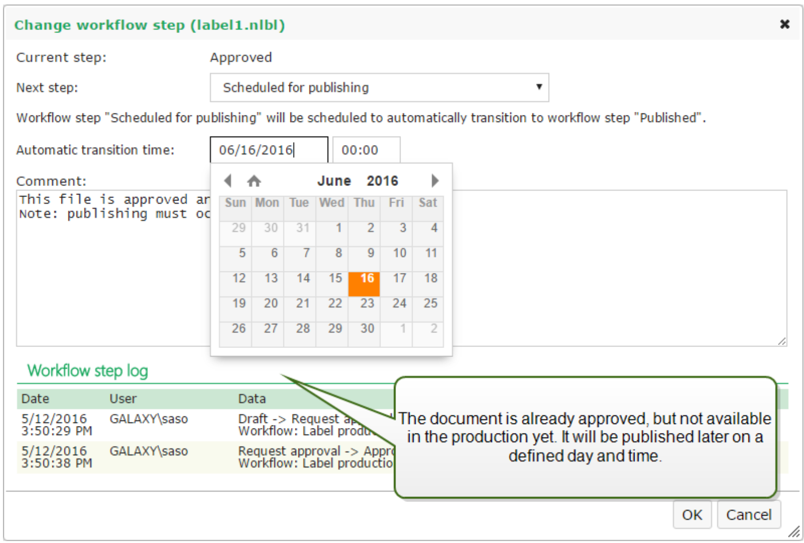
To enable delayed publishing of the approved file, do the following:

1. Make sure the folder which contains the file is configured to use the workflow **Label production approval process with delayed publishing**.
2. Follow the workflow steps.

3. When the file is in the Approved step, it is ready, but not available yet (not published).

> NOTE: The step **Approved** is the final step of other workflow types, but not the workflow for delayed publishing. The final step here is **Published.**

4. Open the workflow step selection dialog.
5. Select **Scheduled for publishing** for the next step.
6. Select **the date and the time** when the transition from Approved to Published step must occur.



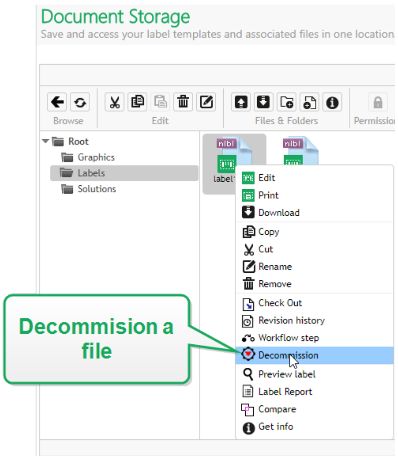
7. Enter **the comment.**
8. Click **OK**.

Control Center will monitor all scheduled actions, and perform the workflow step change automatically at the defined time.

Decommissioning a File

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

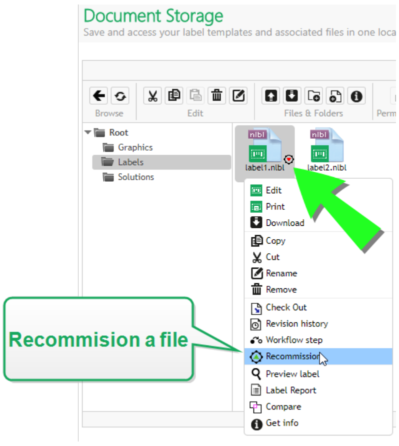
To decommission a file, right click it to display the context menu and click **Decommission.** A confirmation window will pop-up. Click **OK** to continue.



After you have decommissioned the file, an icon appears next to the file (see green arrow in the picture below) in the Document Storage. This icon indicates that the file is no longer visible to read-only users.

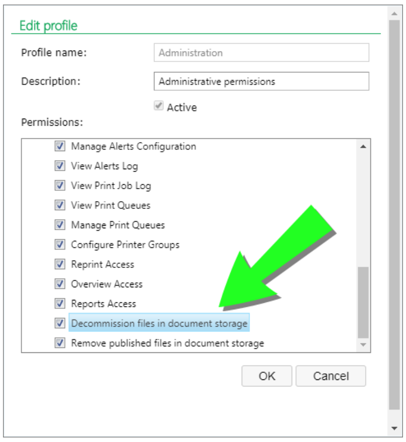
NOTE: A file can be decommissioned even if it is not currently published. This option is available also for files that are still in approval process or have been unpublished in the past.

If you decide to make the decommissioned file visible again, recommission it. Right-click it to display the context menu and click **Recommission**. A confirmation window will pop-up. Click **OK** to continue. The file is again visible to the read-only users.



NOTE: Authentication must be enabled on Control Center to make file decommissioning possible. Both authentication types are supported – Windows and Application authentication.

By default, Administrator and Approver profiles are allowed to decommission files. To allow other user profiles to perform this action, go to **Administration > Security Profiles >** select a profile **>** click the **Edit / Pencil** icon to open the **Edit profile** window. Scroll to **Decommission files in document storage** to allow or deny this option to the users under this profile.



5.4.7 Centralized Application Server

TIP: The functionality from this topic is available in **NiceLabel LMS Enterprise**.

NiceLabel Control Center integrates the Microsoft's RemoteApp technology and help build more efficient labeling solutions around the Centralized Application Server.

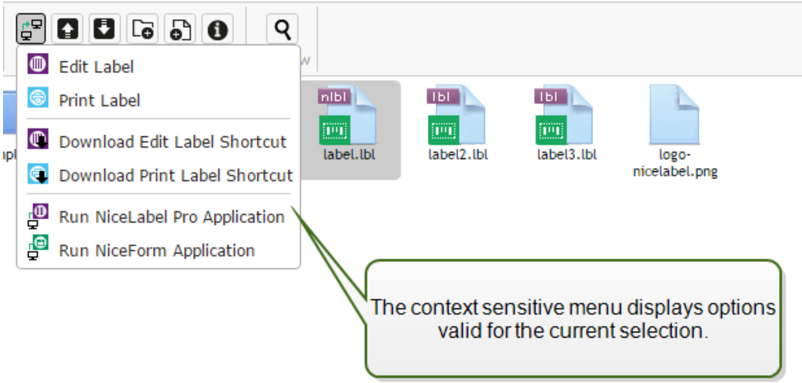
With RemoteApp you can make programs that are accessed remotely through Remote Desktop Services appear as if they are running on the end user's local computer. Instead of being presented to the user in the desktop of the Remote Desktop Session Host server, the RemoteApp program is integrated with the client's desktop. The RemoteApp program runs in its own re-sizable window, can be dragged between multiple monitors, and has its own entry in the task bar and has the look and feel of the installed desktop application. The application runs on the server, but displays its user interface in the client's desktop. Labels can be printed using the printer drivers installed on the RemoteApp server.

NOTE: The bottom line is that you can run NiceLabel applications to design or use your files without any NiceLabel client installed on the workstation. This can reduce the complexity and reduce administrative overhead in many situations.

Application Server Options in the Document Storage

The Document Storage displays new commands to open label designer, form designer, label run-time or form run-time from the RemoteApp server. The commands are available in the toolbar and when right-clicking the file. The options you see are dependent on role and privileges of the currently logged in user. For example, the users from the Production environment will not have permission to edit labels.

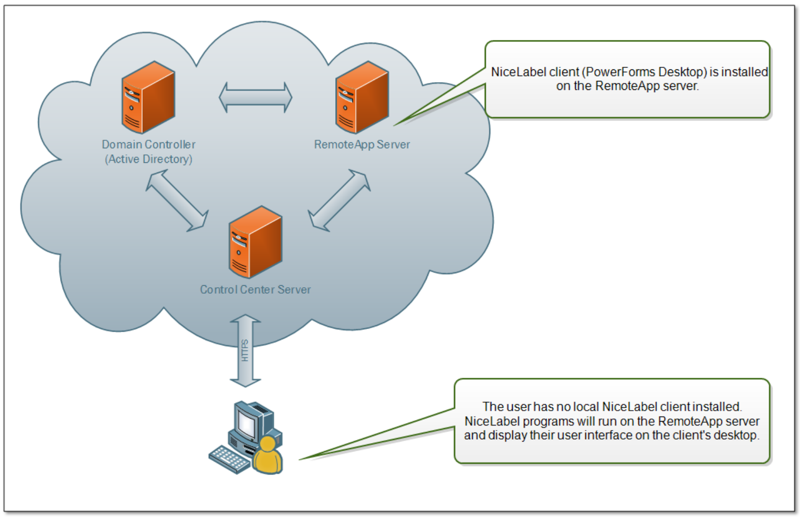
If you use supported browser and have installed browser extension then running these commands will seamlessly run the respective NiceLabel program from the RemoteApp server. If all prerequisites are not met, the browser will download the `.RDP` file, which you have to execute manually to invoke RemoteApp program.



NOTE: If you have the NiceLabel client installed locally, it will take precedence over running the RemoteApp client. To force using RemoteApp client, see Browser Extension.

Technical Background

The NiceLabel Application Server role depends on the Microsoft RemoteApp technology, which must be installed, configured and licensed first, out of scope of the NiceLabel software. Then you can start integrating RemoteApp into NiceLabel Control Center. Before you can deploy RemoteApp programs to users, you must configure the server to host RemoteApp programs. You need Windows Server operating system and configured Active Directory environment. Control Center can be installed on the same machine as RemoteApp, or some other server.



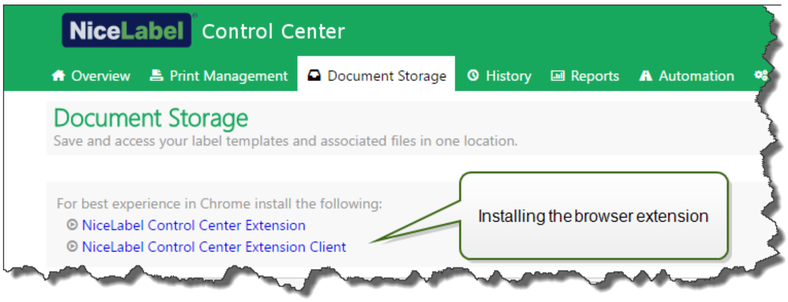
When you select the RemoteApp commands in the Document Storage, such as Edit label, or Run NiceForm Application, Control Center will create the Remote Desktop Protocol `.RDP` file. This is a text file containing configuration for the published RemoteApp. The local installation of Remote Desktop Connection seamlessly processes the `.RDP` file and opens the RemoteApp in a window. If your browser downloads the `.RDP` file, or you see the security prompts about untrusted publisher, your integration of RemoteApp into Control Center is not complete.

NOTE: For more information about the prerequisites and necessary steps to integrate RemoteApp into NiceLabel Control Center see the **NiceLabel Control Center Installation Guide**.

5.4.8 Browser Extension

To enable the best experience using the Document Storage, make sure you install the extension for your browser, when prompted so. The extension will more tightly integrate Document Storage with the NiceLabel client. The browser extension will run NiceLabel client as RemoteApp program from the server seamlessly and without any prompts.

EXAMPLE: Double clicking the label file will open it directly in the label designer and not download the file. Saving the label in designer will save it back to the Document Storage.



5.5 Consolidated Event History

5.5.1 History

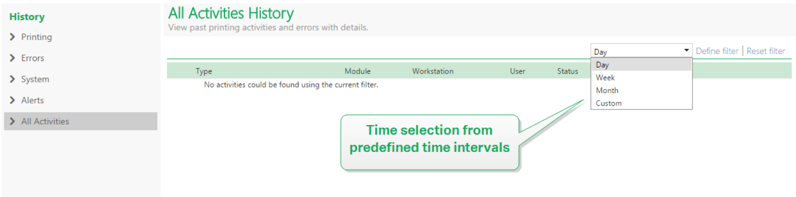
Control Center offers a detailed history log of all events in the printing system and a flexible sorting and filtering system, which assists you in finding the events that you're interested in. The events can either be displayed on a single list or split into the following categories:

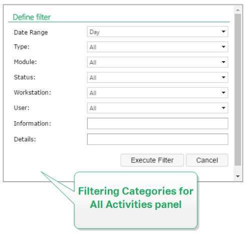
- **Printing.** All events directly related to print jobs.
- **Errors.** Reported printing errors.
- **System.** Audit log with documentary evidence of past activities.
- **Alerts.** List of issued alerts in printing system.
- **All Activities.** Aggregated overview of all past activities.

Filtering the Data

A default view to the collected data is one day of event history. You can quickly adjust the time-frame using the combo box selection with predefined time intervals.

After selecting the preferred time interval, the page updates and shows the events from selected interval. If the items do not fit on a single page, you can navigate to the next pages with results.





To further drill-down for the data of interest and define a custom filter click **Define filter**. You may create a filter on other parameters, such as print application names, workstation names, user names, label names, values of variables and many more.

Printing

Printing History page displays the list of past printing events. Each event includes information regarding source application of the print job, workstation and user who initiated it, which printer it was executed on, when the event took place, and action status.

Printing History offers a comprehensive log of all printing activities performed in the past. The filter enables you to either choose from a preset selection of past time intervals, or to use an advanced filter using which you can accurately pinpoint the printing jobs you're interested in based on the available information.

TIP: Partial search is also possible. For example, searching for "300DPI" shows all printers that contain this substring.

Activity Details page displays detailed information about the selected printing event.

Activity Details

The following information items are displayed in the **Details** section:

- **Status.** Last-known print job status as reported through the Spooler event from Windows operating system. The print job status is updated in real time to reflect the actual live status of the selected print job. For more details about available statues, see topic Job Statuses.
- **Label Name.** Specifies name of the label file that was used for printing.
- **Solution Name.** Specifies name of the solution which stores the file that was used for printing.

  NOTE: Solution Name is visible only if a label in a solution (.NSLN file) was printed.

- **Requested Quantity.** Specifies the number of labels that were instructed to print.
- **Begin Print Time.** Specifies the time, when the data was submitted for printing.
- **End Print Time.** Specifies the time, when the print job was created.
- **Printer.** Shows the name of the printer driver that was used for printing.
- **Metadata.** Shows the content of label metadata (document description) as defined by the user.
- **Workstation.** Specifies name of the computer that executed printing.
- **User.** Specifies name of the user who executed printing. This can be user name defined in Windows AD, or locally defined application user.

The following information is displayed in the **Label Jobs** section.

- **Job selector.** Use arrows to browse through the printed labels within a single print job.
- **ID.** Unique internal ID of the printed label.
- **Quantity.** Specifies the number of labels that were printed.
- **Status.** Specifies the last known status of the label within a print job as reported from the NiceLabel printer driver. To see these statuses you have to enable the option **Detailed printing control** in the printing NiceLabel application (Designer). For more details about available statues, see topic Job Statuses.
- **RF Tag.** Specifies the information encoded in the Radio-frequency tag

  NOTE: RF tag is visible only if a smart label was printed.

- **Details.** Specifies a collection of variable names and their values as used in the label.

  TIP: The collected data can be used for label reprint.

- **Variables.** List of variables which are connected to the label.
- **Print preview.** Preview of the printed label.

Additional Details

To see more label-design related details, such as label time stamp, click the **Additional Details** option in the left-hand pane.

The additional fields provide information about:

- **Has Header.** Provides information if the label contains header label. The header label prints once as the very first label in the batch.
- **Has Tail.** Provides information if the label contains tail label. The tail label prints once as the very last label in the batch.

- **Number of sets.** Specifies the number of print process repetitions. One label set contains all labels from a single batch. The print process can be configured to print a single label set many times (creating copies).
- **Set Number.** Specifies information about which set this is.
- **Label Time stamp.** Displays the time-stamp of the print process, when it occurred.

Reprint

The access to **Reprint** function is available on this page. You can reprint all labels in the job or a selection of labels from a past printing event. The labels can be reprinted on the original client and the original printer. If the label is saved in the Document Storage it can also be printed by some other client (because the client has access to it in the Document Storage) and on some other printer. If you change the target printer, make sure it has loaded labels of the same type & dimensions.

Errors

Errors panel provides an overview of logged printing errors in the system. Each error is displayed with the information describing the type of error, the module that returned the error, the workstation and user that submitted the job which returned the error, and the time of occurrence.

Clicking on one of the entries displays the information regarding the error.

Activity Details

- **Status.** Provides information about the event status.
- **Module.** Provides the name of the application reporting the data.
- **Created.** Specifies time-stamp when the event occurred.
- **Workstation.** Specifies the Windows name of the workstation reporting the event.
- **User Name.** Specifies the name of the user executing the event.
- **Info.** Provides basic event information.
- **Details.** Provides details about the event.

Error Details

- **ID.** Unique error ID.
- **Module.** Provides the name of the application reporting the data.
- **Severity.** Success, information, warning, error or question.
- **Type.** Event type.
- **Group.** For example database errors, printer errors.
- **Info.** Provides general information about what caused the error.
- **Details.** Provides detailed information about what caused the error.

System

System History page provides complete documentary evidence for all activities that affect a specific operation, procedure or event in the Control Center.

Audit records displayed on **System History** page include the below listed activities. Activities are sorted by **Event Types**.

- **Client Login.** Clients logging in (Designer, Print and Web Printing clients):
  - Client login is also logged if incorrect password is entered.
  - Client login is also logged in case of insufficient permissions to start the program.
- **Printer groups.** Changes made in printer groups:
  - Added, deleted or edited devices.
  - Added or removed printer from group.
- **Authentication.** Changes made in authentication mode.
- **Security profiles.** Changes made in security profiles:
  - Profile added, deleted or edited.
  - Member added or removed from a profile.
- **Users and Groups.** User changes and changed group settings:
  - Groups added, deleted or edited.
  - Users added, deleted or edited.
- **WebClient.** Web client changes:
  - Web client added, deleted or edited.
- **VersioningAndWorkflow.** Changes in versioning and workflow:
  - Adjusted settings.
- **License.** License violation on connected workstations are logged. The type of violation is explained in the **Details** row.

  > **TIP:** License violation results from exceeded number of allowed printers or from exceeded number of allowed NiceLabel 2017 installations per license.

Alerts

All printing activities in NiceLabel applications are reported as events. Certain event types are more important than others, for example errors. To be able to react quickly, it is important to be notified as soon as errors happen. You can enable the Control Center to issue alerts with different notification options. Alerts are created based on module, error type or severity. Based on error importance or communication capabilities of the environment, alert action can be an SMTP email, RSS 2.0 Feed, or an SMS message.

The **Alert History** section provides a list of issued alerts in the printing system. All alerts are displayed, and the information available depends on the type of alert that was issued.

Clicking on an alert displays more detailed information about the alert's status, as well as a link to the event that triggered the alert.

All Activities

All Activities panel presents an aggregated overview of all past Control Center activities in a given time period. To filter out the relevant events, click **Define filter** to set your custom filter. The following filtering categories are available:

- **Date Range.** Filters by day, week, month, or a custom time range.
- **Type.** Filters by label printing events or log entries.
- **Module.** Filters by the module used, e.g. NiceLabel Designer or NiceLabel Print.
- **Status.** Filters by print job status.
- **Workstation.** Filters by the connected workstation that sent the printing command.
- **User.** Filters by the assigned user who sent the printing command.
- **Information** and **Details**. Filters by the content that is added to the printed label using the **Log Event** action on the assigned form.

TIP: Log Event action enables you to add basic and detailed descriptions of events that are stored in Control Center. **Information** field allows you to use up to 255 characters, while the **Details** field can include content with up to 2000 characters.

5.5.2 Job Statuses

Print job statuses

The 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. Printing: print job is currently being printed on the printing device.
- **Printed:** print job has been successfully send to the printing device.
- **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.

Label job statuses

NOTE: You have to use NiceLabel printer driver in order to see label job status. If you do not use NiceLabel 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.

5.5.3 Reprinting Labels

You can reprint all labels in the job or a selection of labels from a past printing event. The labels can be reprinted on the original client and the original printer. If the label is saved in the Document Storage it can also be printed by some other client (because the client has access to it in the Document Storage) and on some other printer. If you change the target printer, make sure it has loaded labels of the same type & dimensions.

When using the reprint functionality with remotely stored labels, the label path should be entered in the UNC form (`\\server\share\folder` rather than a windows syntax with a mapped drive to avoid conflicts when the user is logged on under a different Windows account from the one that performed the original print.

To **reprint** the job to another printer, do the following:

1. In History tab, click the printing activity to open its details.
2. Click **Reprint** in the left-hand pane.
3. Select the range to be reprinted and the printer to use for the reprint, and confirm your settings.

Prerequisites for label reprinting

Label reprint action is executed on the remote NiceLabel client by NiceLabel Automation. If you do not have NiceLabel Automation installed, reprint will not be possible.

Make sure the following prerequisites are met:

- The label file is saved in the Document Storage. This ensures that all clients have access to the file and the label can be reprinted on any client.
- NiceLabel clients are activated with the same LMS license as Control Center.
- Make sure the firewall allows inbound connection on the clients to the **NiceLabel Automation** on port 56416 TCP.

> NOTE: For more information, see the Installation Guide.

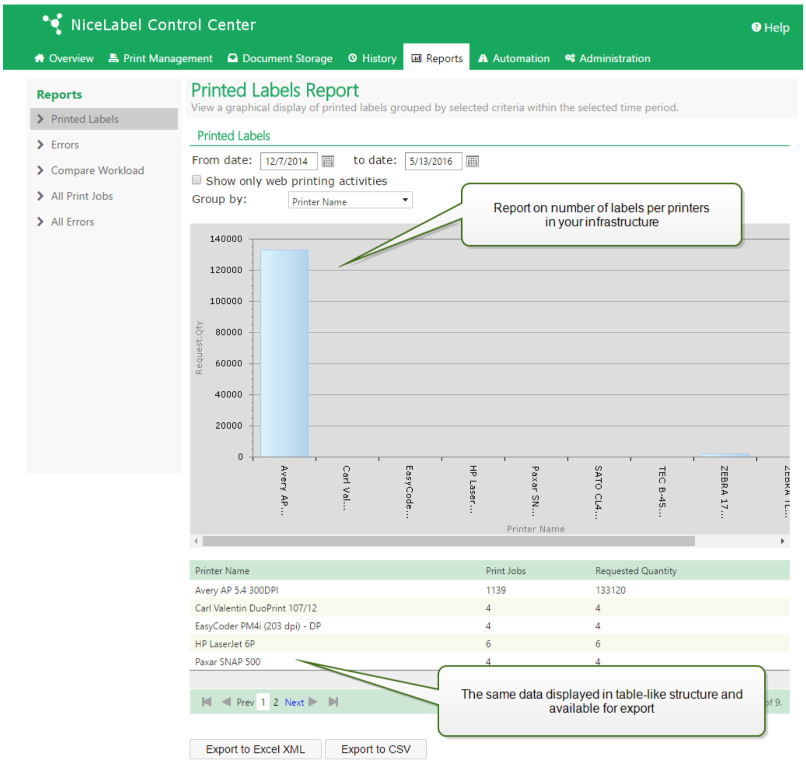
5.6 Reports

5.6.1 Reports

In a networked enterprise environment, cost management and work process planning are two of the main leverages toward achieving an acceptable level of productivity and output, in order to maximize return on investments. At the same time, process tracking and management is exceedingly difficult in the traditionally fragmented label printing environments. Several printer brands, individual near-obsolete and cutting-edge models proprietary and customized supporting software...

All of these factors make centralized data collection a challenge, and even when this is achieved, the data tends to be fragmented and impossible to present in a simple an intuitive shape.

Control Center offers elaborate reporting and graphical representation functions, which allow you to diagnose issues in your printing infrastructure, track throughput in individual parts of it, assess future needs for expansion or overstocked sections, and similar.



Printed Labels Report

The Printed Labels Report provides a graphical representation of the label printing activity for individual segments of the system in a given time period.

Once the date range and primary grouping are selected, the page displays a bar graph representation of printing activity for the selected primary grouping. It is possible to display the comparative label printing totals for the following categories:

- Printers
- Workstations
- Printer Groups
- System Users
- NiceLabel Users
- Solution name

Errors Report

The Errors Report provides a graphical representation of the reported errors for individual segments of the system in a given time period.

Once the date range and primary grouping are selected, the page displays a bar graph representation of printing activity for the selected primary grouping. It is possible to display the comparative error totals for the following categories:

- Printers
- Workstations
- Printer Groups
- System Users
- NiceLabel Users
- Solution name

Compare Workload Report

The Compare Workload Report provides a graphical comparison of label printing workloads for individual segments of the system in a given time period.

Once the date or date range is selected, the primary grouping should be set. Once the **Compare By** grouping is selected, select the individual members of the group, and add them to the chart by clicking on **Add to Chart**. This process can be repeated for as many individual segments as there are in the system.

NOTE: It is not possible to compare members of different primary groupings.

It is possible to display the workloads for the following categories:

- Printers
- Workstations
- Printer Groups
- System Users
- NiceLabel Users
- Solution name

All Print Jobs Report

The All Print Jobs Report is a spreadsheet report of all print jobs logged by the Control Center. It allows the user to view all print jobs for a certain time period, and then limit the results to individual groups.

The first selected group displays a drop-down category of data, and when a second group is selected, it appears as subcategories inside the first group. It is possible to add more than two groupings for the print jobs display.

This report is primarily intended to be used as exported data, and it offers the choice between exporting the data to Excel or in CSV format.

All Errors Report

The All Errors Report is a spreadsheet report of all errors logged by the Control Center. It allows the user to view all errors for a certain time period, and then limit the results to individual groups.

The first selected group displays a drop-down category of data, and when a second group is selected, it appears as subcategories inside the first group. It is possible to add more than two groupings for the print jobs display.

This report is primarily intended to be used as exported data, and it offers the choice between exporting the error data to Excel or in CSV format.

5.7 Automation

5.7.1 Automation Server

NiceLabel Automation products are installed and managed on separate machines using their dedicated interface named **Automation Manager**. You can also manage the Automation server from Control Center:

- Manage triggers that already loaded in the NiceLabel Automation server
- Monitor events coming from the NiceLabel Automation server

To manage NiceLabel Automation from the Control Center, go to **Automation** tab.

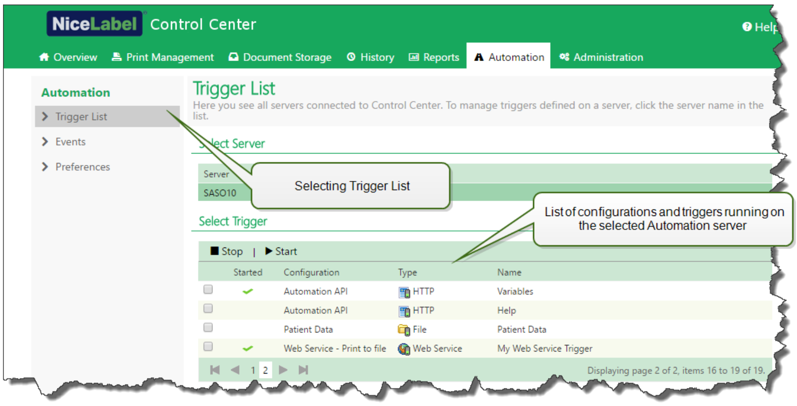
> NOTE: To be able to manage the Automation server, the Windows system where Automation is installed must allow the incoming connection into the NiceLabel Automation Service. The default port is 56416 TCP. If you have changed it in the configuration, use your custom port.

Trigger List

You will see a list of all NiceLabel Automation servers currently connected to Control Center. To manage triggers, events or preferences of a particular server, click the server name in the list. Each trigger is listed in a separate line, consisting of the following columns:

- **Started.** Specifies the current running status of the trigger.
- **Configuration.** displays the name of the configuration from which the trigger has been loaded.
- **Type.** Displays the type of the trigger.
- **Name.** Displays the name of the trigger.

Trigger is not active if it does not show a green check mark ✔ in the *Started* column. To stop or restart a trigger, select the trigger and click the **Stop** or **Start** button in the toolbar.

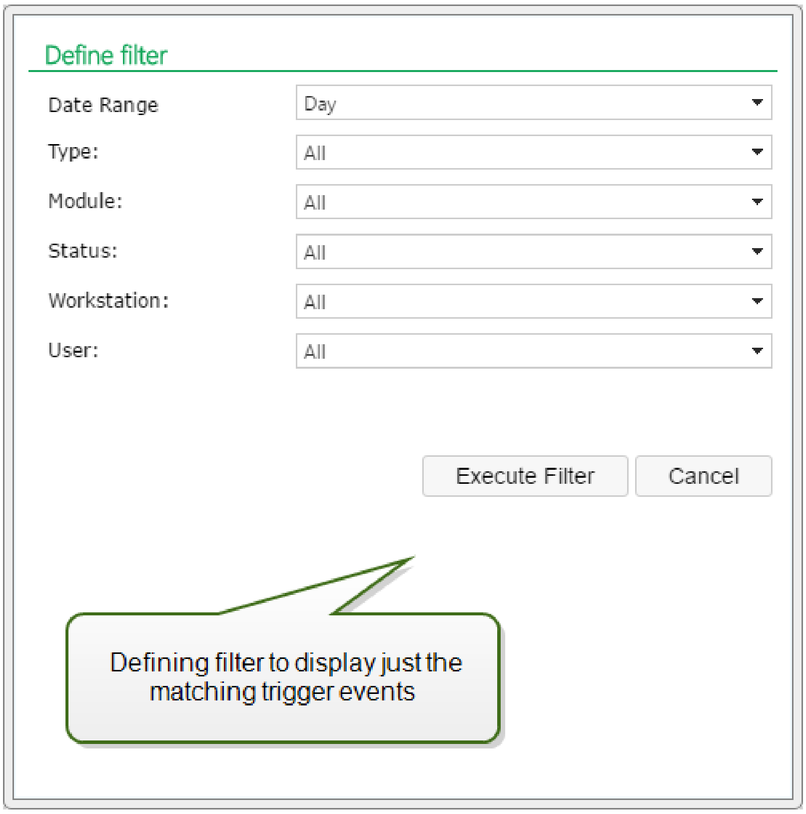


Monitor NiceLabel Automation Events

Click on the **Events** link on the left part of the Control Center screen to see the events from the connected NiceLabel Automation servers. These are the same events as you can drill-down for in the main events view (**History** tab). The only difference is the events here are filtered for the selected NiceLabel Automation.

To see details of a particular event, just click the underlined event type. A new page opens within History tab displayed in the event details. If there is any sub-event associated with the current trigger event, the History tab will allow you to drill-down to the label printing action, so you can see details, such as label name, printer name and value of each variable on the label. For more information, see topic History.

There might be a lot of events displayed in the list, dependent on the number of running Automation servers and the frequency of printing. To help you find the specific event, you can enable filtering. Click the **Define filter** option and fine-tune the search parameters.


Define filter
Date Range
Day
Type:
All
Module:
All
Status:
All
Workstation:
All
User:
All
Execute Filter
Cancel
Defining filter to display just the matching trigger events

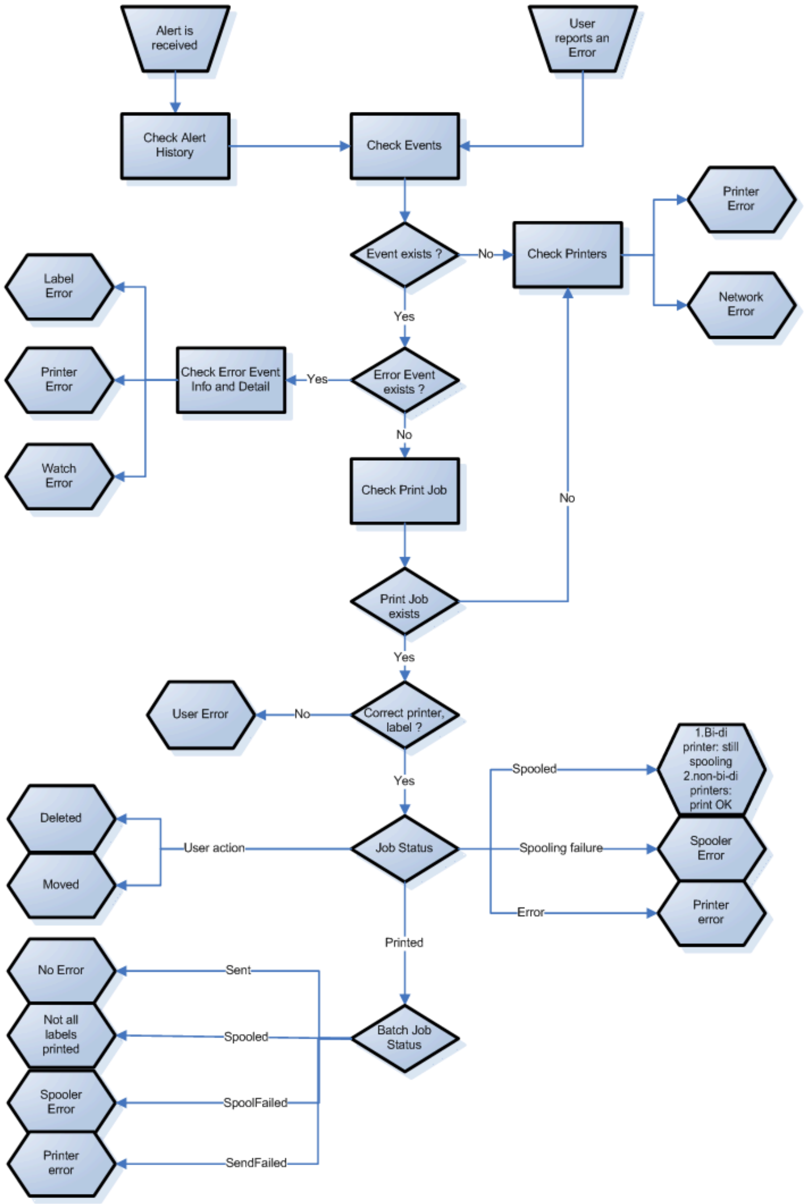
6 Technical Support

6.1 Problem Solving

Control Center provides an accurate status of your printing environment and proactive notification in case of imminent problems. When problem notification is received, either from a predefined alert or from a user, you can use the Control Centerinterface for finding and solving possible problems.

This topic presents typical errors that you might encounter in your environment. Recommended steps are given that you (or your printing administrator) could take to solve the errors.

To find out if your printing environment has an error and to pinpoint the reason, please follow the problem resolution flowchart from top to bottom:



Possible problems

1. Error during printing: printing has been executed from labeling application, but the label is not printed.
2. Error on printing device: out of labels, out of ribbon, head open, etc.
3. Printer status: paused, off-line, printer turned off, etc.
4. Network error: networking cable not connected, networking infrastructure error, etc.
5. User error: printing the wrong label or to the wrong printing device.
6. User action: user deletes the print job from the spooler or NicePrintQueue, etc.

Steps for problem resolution

1. In case a user has reported a problem and alerts are in use, the Control Center

administrator should first check the status of his alerts and alerts defined by other users (Alerts –> History).

2. If an alert has been received, the administrator should click the Error Event link. If no alert has been received, the administrator should search for an Event of type Error (Events –> Errors). *Error Event Log* will open. Useful help here can be filtering and sorting feature of Control Center.
3. In the *Error Event Log*, details about error, workstation, date and time are shown, together with a link to that particular Event. In the *Event Details* window the administrator gets information about the module from which the printing has been issued, label details and possible links to other error events. Also, here is the Job Details link.
4. If there is no Error Event, (just an ordinary Event), the Job Details should be inspected about the Print Job status and separate label statuses (if several labels have been printed inside printing batch (for example if counter has been used).
5. If there was no Error Event, the printing device status should be inspected (Printing -> Print Queues –> Workstation)

Steps 1. to 4. can be used to track down possible problems 1., 5. or 6.

Step 5. can be used to track down possible problems 2., 3. or 4.

6.2 Online Support

You can find the latest builds, updates, workarounds for problems and Frequently Asked Questions (FAQ) on the product web site at www.nicelabel.com.

For more information, please refer to:

- Knowledge base: http://www.nicelabel.com/support/knowledge-base
- NiceLabel Support: http://www.nicelabel.com/support/technical-support
- NiceLabel Tutorials: http://www.nicelabel.com/learning-center/tutorials
- NiceLabel Forums: http://forums.nicelabel.com/

NOTE: If you have a Service Maintenance Agreement (SMA), please contact the premium support as specified in the agreement.

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