

2019.0 Release Notes

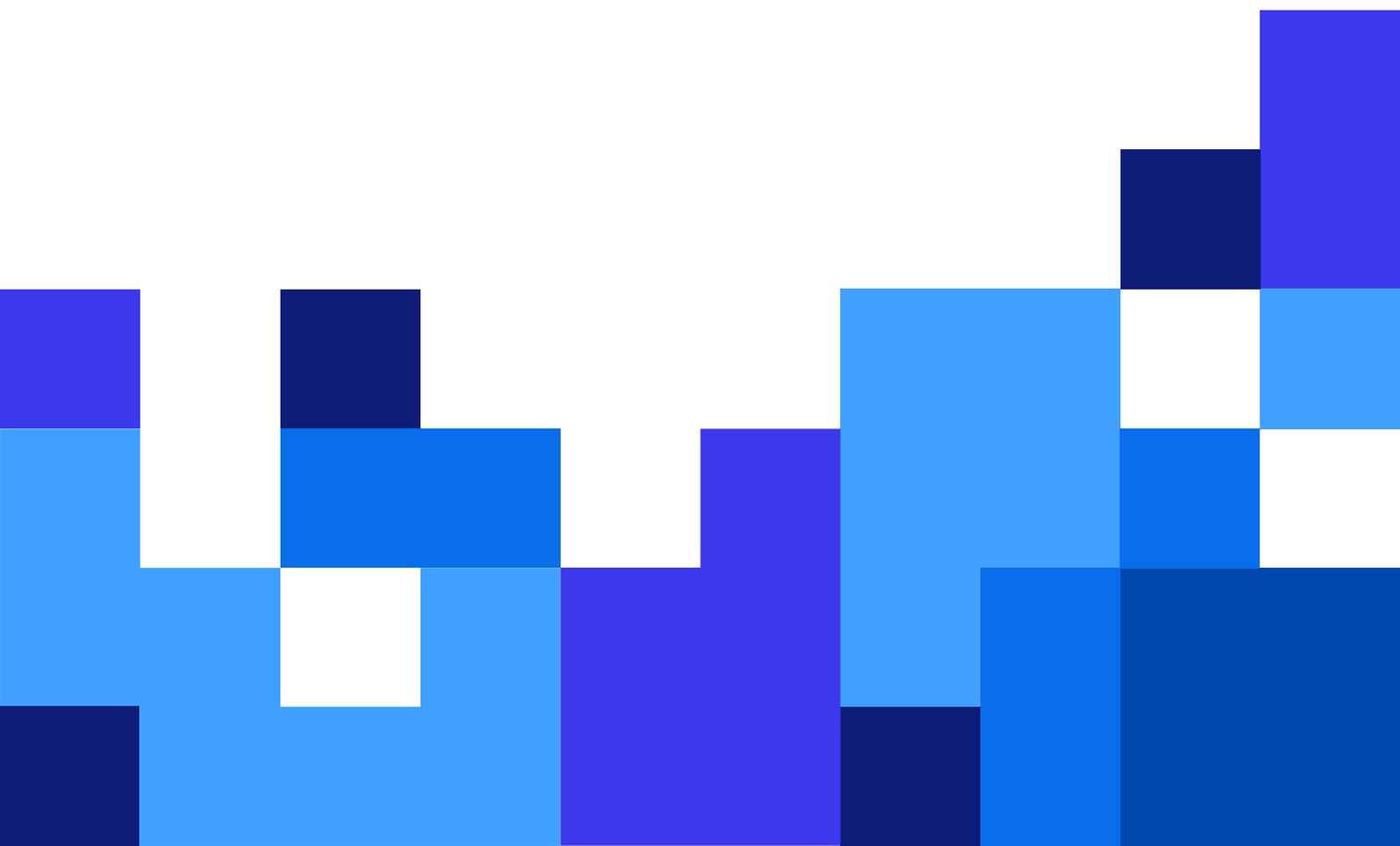


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Release Notes

NiceLabel 2019

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1. NiceLabel Label Cloud

1.1. Introduction

Label Cloud is a cloud-based version of the NiceLabel label management system. It enables you to reap all of the benefits of digitally transforming your labeling, including lower costs, improved quality assurance, and a faster time-to-market, without a significant upfront investment. With Label Cloud, you get an ROI in less than 6 months, and a quick, efficient way to scale standardized labeling to your entire organization and external business partners.

NiceLabel now brings its best practice label management system to businesses of all sizes with the introduction of Label Cloud. It includes everything businesses need to produce accurate, consistent labels:

- Built-in label designer
- Document management system for streamlined quality assurance
- Built-in support for manual and integrated label printing

Label Cloud introduces the “pay-as-you-go” service deployment model. Based on your requirements, you select the appropriate Label Cloud edition that defines the range of available features. You pay a subscription rate based on the number of printers you use. Label Cloud reduces your local IT infrastructure and labor costs because cloud completely automates provisioning and updating of your labeling system.

Customers access their Label Cloud at this simple-to-remember URL:

<https://<account>.onnicelabel.com/dashboard>

1.2. Architecture

The heart of NiceLabel Label Cloud solution is a Document Management System (DMS) running completely on Microsoft Azure cloud. This approach offloads the installation of DMS from the shoulders of IT teams to NiceLabel Label Cloud.

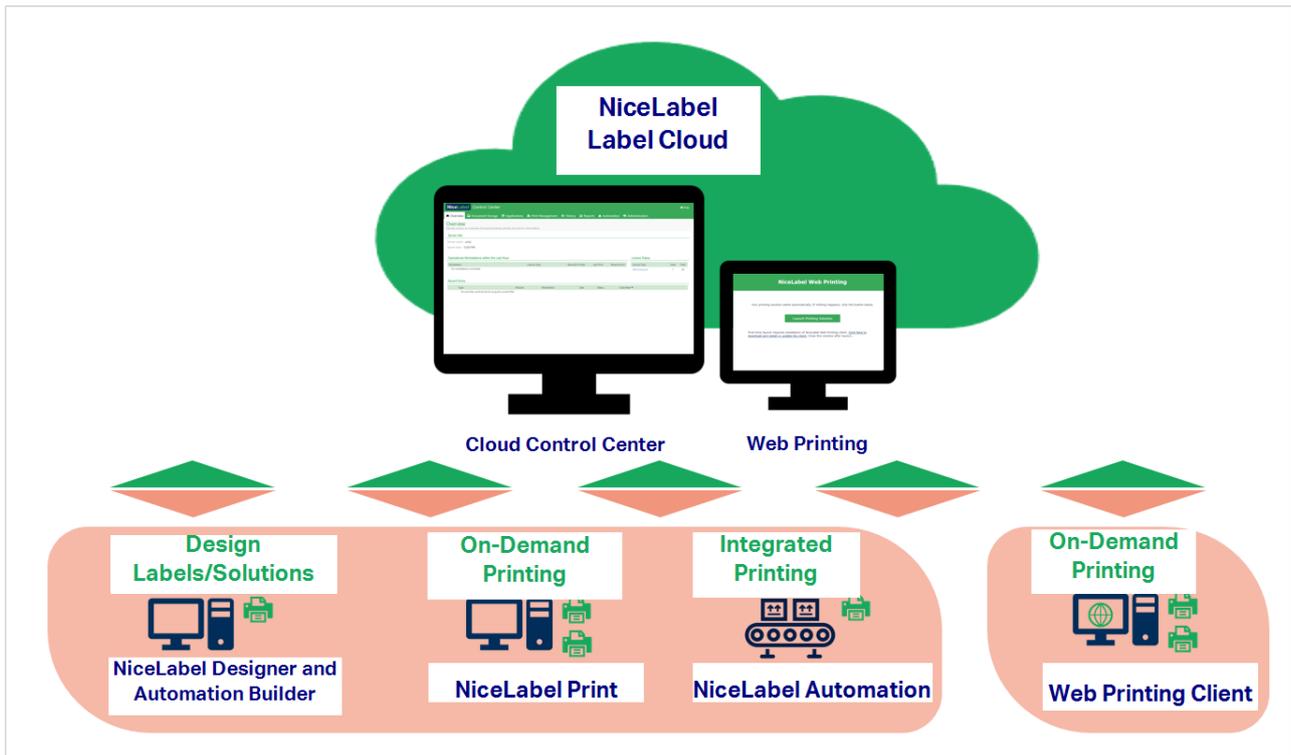


Figure 1: NiceLabel Label Cloud architecture

To access the DMS you can use several client applications:

- **Web browser.** Many document management functionalities are accessible with your browser. The DMS is an HTML5 application and runs on any OS and in any browser.
- **Label designer / application builders and print clients** run on customer computers but integrate seamlessly with your cloud DMS. The applications are automatically licensed, they automatically send printer statuses, report print history, and honor the role-based access as provisioned by the DMS. The clients also automatically retrieve labels, graphics and forms from the DMS.
- **Web client.** Thin client for shared Web Applications.
- **Integration system.** You install the integration system on the on-premise server within your company's network. Integration system has access to your printer infrastructure and allows you to print labels using your local processing power. On one hand, you configure the integration system to interact with DMS in the cloud, and with your business applications on the other hand. NiceLabel Label Cloud also introduces Cloud trigger that can link data from your cloud-based business system with local printers. Integration system can also be hosted in your cloud.¹

1.3. Editions

NiceLabel Label Cloud is available in three editions, each focusing on specific needs and requirements.

¹Integration system deployment depends on your Label Cloud edition and selected options.

- **Label Cloud Business**

This is a fully featured Label Management System for businesses of any size. It starts with 5 printers and scales to an unlimited number of printers. It includes a digital DMS, significant storage space for your labeling assets, and 1 year of print history. You can use your existing corporate user directory and enable the role-based access control.

Label Cloud Business supports manual on-demand Web printing. You can also deploy the integration system on-premise and run the newly introduced Cloud trigger. With 5 GB of cloud Microsoft SQL database, the storage covers the demands for synchronizing your business data with cloud.

You can access support using priority emails and phone calls during regional office hours (standard SMA is included).

- **Label Cloud Essentials**

This is the entry level Label Management System for smaller businesses with up to 20 printers.

Label Cloud Essentials includes digital DMS, enough storage space for your labeling assets, and 3 months of print history.

Label Cloud Essentials supports manual on-demand Web printing but does not include an integration system. It supports data from your Microsoft Excel and Microsoft Access files that you store in DMS (available in read-only mode). Microsoft SQL cloud database is not part of Label Cloud Essentials.

Support is available through partner network and emails.

- **Label Cloud Unlimited**

This is a highly customizable Label Management System for large enterprises with 100+ printers.

Label Cloud Unlimited expands the feature set as offered by Label Cloud Business: even more storage space for labeling assets, 5 years of print history, and 100 GB cloud Microsoft SQL database. Label Cloud Unlimited supports the change transport system for automated synchronization of multiplied printing environments (DEV/QA/PROD).

Support is included in Platinum SMA level with 24/7/365 and 1-hour response time.

Additionally, the infrastructure becomes more flexible in the Unlimited edition with the ability to define a custom Label Cloud upgrading schedule, and to run cloud-based integration system in hosted environments.

You can top any of the selected editions with add-on options, such as additional storage space, extended print history, updated support level, sandbox environment for multi-tier deployments, and more Microsoft SQL cloud data space.

1.4. Cloud trigger

NOTE: Cloud trigger requires product editions NiceLabel Label Cloud Business or above.

Cloud trigger allows you to integrate your Label Cloud with an existing business system that runs in a cloud, and to print labels with your local printers. Modern IoT printers can communicate directly with the cloud, but this is not something legacy printers can do. To print labels to legacy printers, you need a locally installed integration system.

If an existing business system (e.g. SAP S/4HANA or Oracle NetSuite) produces an output, you can send it to a NiceLabel cloud-hosted API which then relays the output for processing to the on-premises NiceLabel Automation integration system.

Cloud trigger enables a secure and transparent way to integrate your local label printing using applications that communicate over the open Internet. The on-premises integration system merges the label template from NiceLabel Label Cloud DMS with the data originating from the cloud business system.

The cloud trigger does not require opening any ports in your firewall to enable the HTTP requests. Your local integration system uses the industry-proven method² for accessing the cloud-based services, so you can deploy local printing in a secure and time efficient way.

1.5. Authentication and authorization

NiceLabel Label Cloud transfers user identification to external authentication providers who let the users log in using their existing login credentials. Once the users are identified, the Label Cloud's authorization process grants these users access to certain parts of the software as configured in the Access Roles.

There are two types of authentication available with NiceLabel Label Cloud products:

- **Microsoft account.** This is Microsoft cloud-based directory and identity management service. If you use Office 365, you are already using this service. If you have an on-premise Active Directory set up, there are chances you are already synchronizing your Active Directory to the cloud – Microsoft Azure Active Directory (AAD). Typically, you would use the Microsoft account and AAD for corporate users who are members of your organization. NiceLabel Label Cloud Business edition and above support integration with corporate user directories.

You can also use the personal Microsoft accounts with the Label Cloud if your company does not have the Office 365 / Azure Active Directory set up. The users are not integrated with the Label Cloud account out-of-the-box (as are when using Office 365 / Azure Active Directory), but you can invite them separately and assign them with a specific role in a system.

- **Google Sign-in.** This is Google's authentication system enabling users to log in with their Google accounts. Typically, you would use this authentication type for external users. These are users that are not members of your organization and are not subject to your company's access policy. Google authentication is useful if you use Web Applications to extend label printing to contract manufacturers, third-party logistic partners, and suppliers. These users can log in using the same credentials as they use for their Gmail accounts.

Google users can be also assigned with another role inside the Label Cloud's Document Management System and are not limited to the Web printing role only.



NOTE

On-premise NiceLabel Control Center also supports "Application Users" that you define inside Control Center.

²Microsoft Azure Service Bus.

2. New in Designers

2.1. Installation and activation improvements

2.1.1. Simplified installation

The number of questions asked during the installation has been minimized to make the installation process easier and more streamlined.

2.2. New and improved functionalities

2.2.1. Layers

When creating complex labels and forms, it's a challenge to keep track of all the items in the design window. Small objects get hidden under larger objects, and selecting an object becomes difficult. Layers provide a way to manage all the items that make up your label or form. Think of layers as transparent surfaces that allow you to place your objects on labels or forms in multiple levels. The vertical order of the objects (called stacking order or Z-order) contributes to the appearance of labels or forms.

Layers help you manage the positioning and visibility of added objects. Layers give you added flexibility when you organize and edit objects in complex designs. You can place objects on multiple layers, each layer containing a part of the overall design. You would organize layers so that each layer contains the objects that belong together.

For example, a label template might contain the following layers:

- Layer for preprinted data. You would scan the label as received from the manufacturer and place the image on a background layer and set it as non-printable.
- Layer for text objects. All dynamic text objects are placed on this layer.
- Layer for barcodes. All dynamic barcode objects are placed on this layer.

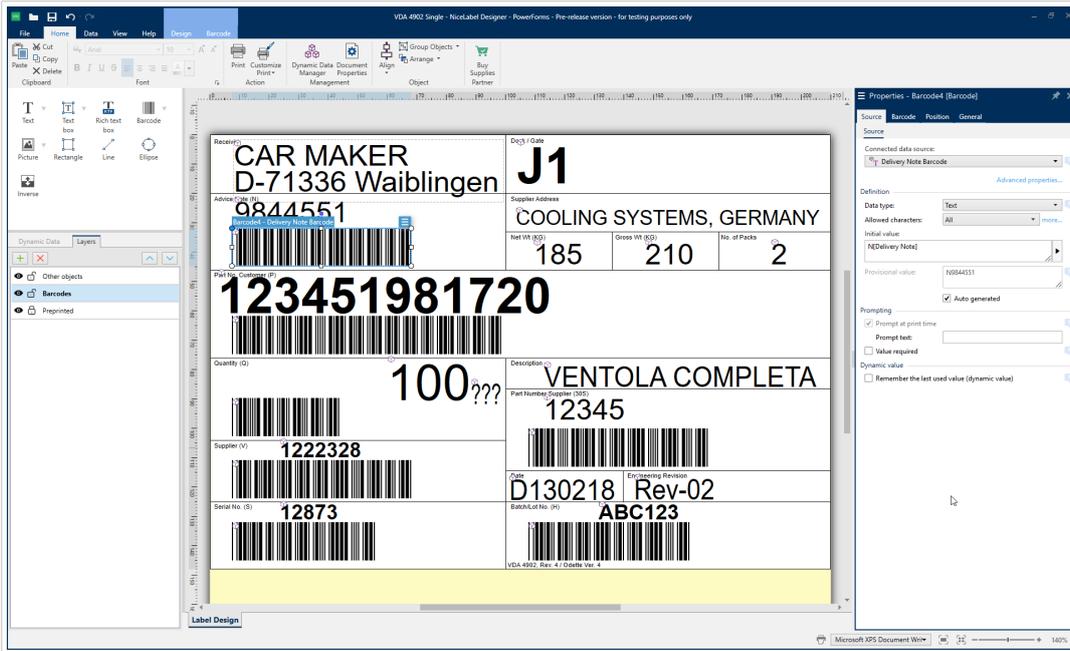


Figure 2: Using layers during label design

You can use layers for label and form designing. You can show or hide the layers while designing the solutions. You can also show or hide the layers on-demand as a result of the user's interaction with the solution. The layering functionality makes it easy to configure multi-tab forms that are running within the same form.

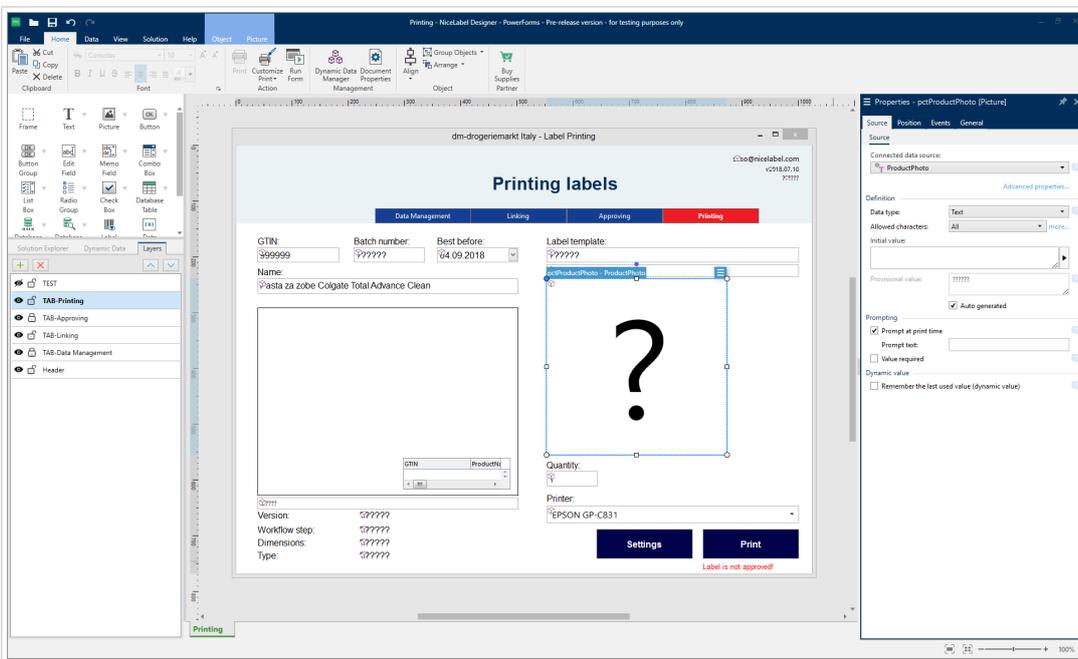


Figure 3: Using layers during form designing

When designing labels or forms with layers, you interact with the Layers panel. The panel helps you design adaptable label templates and create forms that align with your business logic. By default, every new label or form contains one layer. However, you can create as many new layers as you need and rearrange them.

2.2.2. RTF printing control

To print the formatted text objects in NiceLabel, you use the Rich text box object. This object uses RTF (rich text format) encoding to describe the content. NiceLabel Designer displays the true graphical representation of the RTF object while you are designing a label.

NiceLabel uses a specific system component to display the formatted data. In NiceLabel 2019, you can switch between the system components. You can keep the default one that works best in most cases. If you need to print formatted data in language that uses right-to-left encoding (such as Arabic), you should switch to the alternative component.

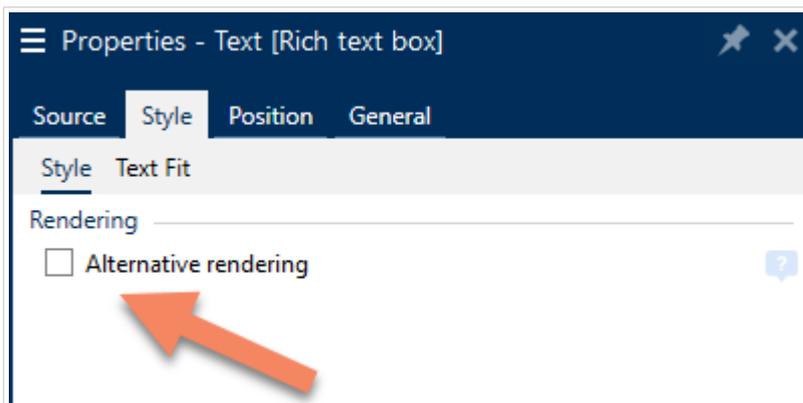


Figure 4: Selecting an alternative component to render RTF content accurately

The selection of the alternative provider could not be easier. In the Rich text box properties, select the **Alternative rendering** option. This option is set per the selected Rich text box and is saved with the label.

2.2.3. Updated grouping of objects

NiceLabel 2019 provides support for object groups on a whole new level.

In NiceLabel 2019, a group is treated as an independent object while designing labels or forms. A group is treated as a distinct object instead of a selection of individual objects. The group is a new object type. You can also copy and paste groups.

As a result, there are several advantages for the designer:

- Alignment commands align a group as a single object preserving the distances between group objects.
- You can lock group position.
- You can fine-tune group placement using X and Y coordinates.
- You can define group visibility.
- You can position groups relative to other label objects or borders. Stand-alone objects can be relatively positioned to the group and to the object within a group. An object within a group can be relatively positioned only to the objects within the same group.

Because the same group support is available in forms, you can use the existing **Set Object Property** action to edit group properties. Changing a group property propagates to all objects within the same group. Group object in the forms supports the following properties: X position, Y position, Enabled, and Visible.

2.2.4. Loading variable values in Data Initialization object

NiceLabel software is typically used for creating dynamic label templates. The label data is not stored inside the labels but is acquired from master data repositories and applied at print time. This technique minimizes the number of different label templates.

When printing or previewing labels with dynamic objects, the Label Preview object shows the correct layout only after you provide the data. Traditionally, you would either enter the data manually or select it from a database. If manually providing data (e.g. during the testing), it might take a while to manually provide the label data.

One solution for this challenge is to define provisional values for all your data sources in a label template. You can see the objects adapting to the values while you are designing your label. NiceLabel 2019 provides another method to see the label responding to various sets of data (test data or production-ready data). The Data Initialization object includes a new option to load sets of values from data files.

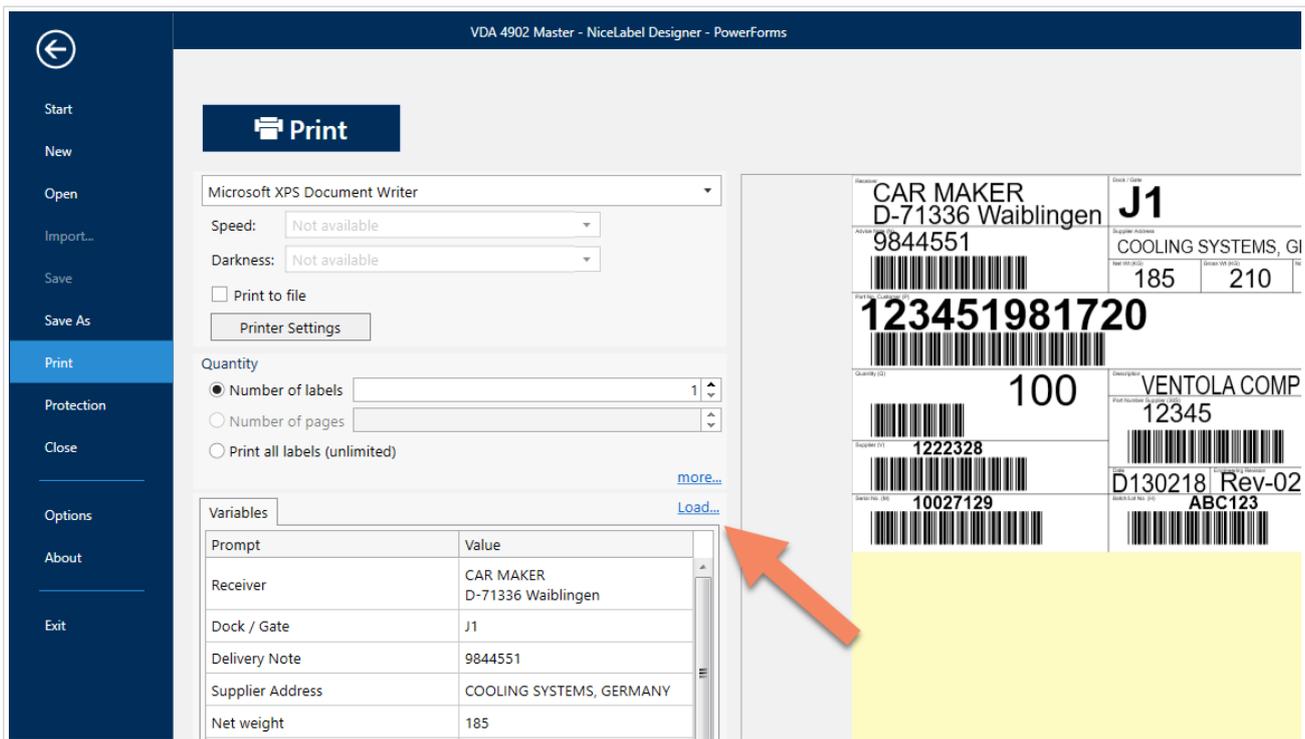


Figure 5: The new option to load sets of values from data files

NiceLabel supports data files with the following two structures of name-value pairs:

XML file

<variables>

<variable name="var1">variable1</variable>

```
<variable name="var2">variable2</variable>
```

```
</variables>
```

Text file

```
var1=variable1
```

```
var2=variable2
```

NiceLabel 2019 reads all name-value pairs and applies them to label variables. If a label defines a variable with a specific name, this variable gets a value. Automatic mapping is done based on the matching names of fields (from the data file) and variables (from the label or solution).

Visibility of the **Load...** function is configurable in the **Data Initialization** object properties.

The Data Initialization object can also generate the XML file with name-values pairs of the existing variables if you need to send the data to the integration system for processing.

2.2.5. New data source importing rules

NiceLabel 2019 uses an updated mechanism for data source importing. The mechanism now prevents generating of excessive data sources that carry similar names. In many cases, you would use the import functionality to convert labels or solutions created in NiceLabel version 6. In that version, labels and forms were detached entities saved in individual files. Each file defined its own data sources.

NiceLabel 2019 uses the concept of solution files, in which labels and forms are saved in the same file and share the same data model. For complex labels and forms, you might face a challenge to merge the dispersed data models at a location that serves as the single-source-of-truth. When a data source of the same name exists in many labels or forms, and its properties are different from the already existing data source, NiceLabel 2017 created a new variable and added a suffix `_1`, `_2`, etc. to it. This way, you could end up with many data sources and it might take quite some time to simplify the structure to use a single data source.

In NiceLabel 2019, the importing rules are more inclusive.

- Imported data sources override the existing data sources – instead of merging the parameters or creating new data sources with suffix `_1`.
- Data sources can only be replaced with data sources of the same type (e.g. variables with variables, functions with functions).
- When a variable with the same name from a different source file differs only in a default value, the merged variable's default value is removed instead of creating two variables with two different default values.
- When a variable with the same name from a different source file differs only in fixed length setting, the merged variable does not have a fixed length.

2.2.6. Preventing font replacement

NiceLabel 2019 provides firmer control over fonts used in a label during the printout.

All textual objects in a label store the name of a font used with the objects. This is how you make sure label printout is the same on any computer. Of course, the prerequisite in this case is the availability of used fonts on all printing computers.

By default, NiceLabel automatically finds a replacement font if the original font is not available. You can control the font replacement process using a functionality that is already available in NiceLabel. For example, use font replacement to create just one master label template and print it to various label printer brands/models without having duplicated labels optimized per printer.

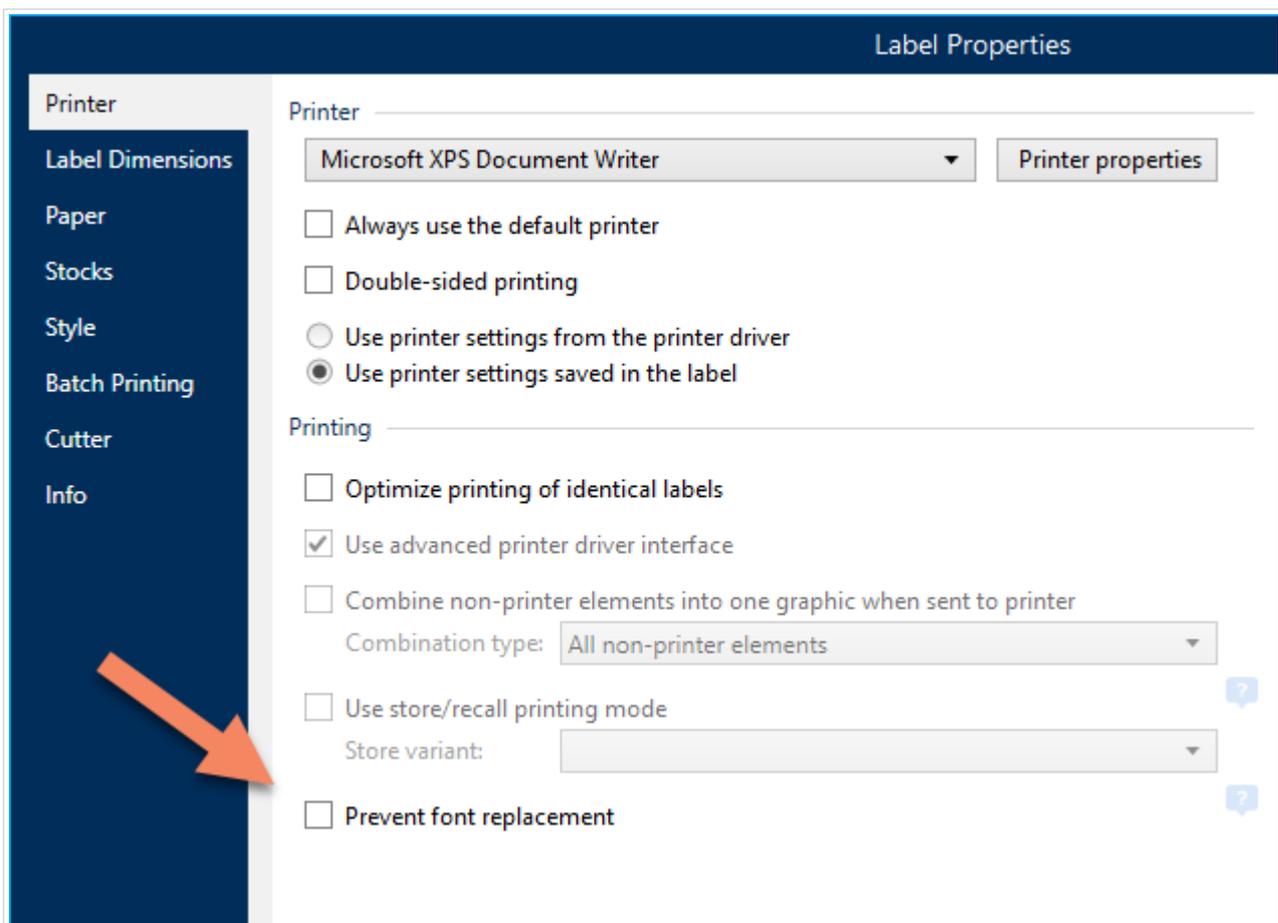


Figure 6: New option is available in label properties

Automatic font replacement can significantly change text layout and consequently the entire label design. Often you just want to print the label exactly as you have designed it. To prevent unwanted font replacement, the setting **Prevent font replacement** is added to label properties. When this setting is enabled, label printing stops if any of the fonts used in a label is not available.

There are two reasons for missing label fonts:

1. **The font is not installed in Windows.** This may happen if you design labels on one computer, and print labels on another computer that does not have these fonts installed.

2. **The font is not stored in printer memory.** This may happen if you design labels for one printer, and print the labels using another printer that does not store these fonts.

Prevent font replacement option stops printing if the labels are in “print mode”. This is when you are no longer editing labels in NiceLabel Designer, and you start printing them using print applications, such as NiceLabel Print, NiceLabel PowerForms, NiceLabel Automation, or NiceLabel Web Client.

2.2.7. Changing default printer settings

NiceLabel 2019 introduces a new default value for loading the printer settings.

There are two possibilities from where NiceLabel loads the printer settings (such as printing speed, darkness, and possible offsets):

1. **Saved in the label file.** In this case, the printer settings are stored for the label printer that you have selected in the label. This is fine if the label always prints to that printer, but you might have troubles when you want to print the same label using various printers.
2. **Recalled from the printer driver.** In this case, the printer settings are not saved in the label. When you print a label, the defaults are read from the printer driver and are applied to the label. This functionality ensures that the label prints optimally using any target printer.

When you create a new label in NiceLabel 2019, the default option for printer setting is **Use printer settings from the printer driver**. The new default does not affect the existing labels, which keep their current settings. This is the best-practice approach when you print the same label to multiple printers. The print operator cannot change the settings stored in the label but can fine-tune the driver settings on his computer.

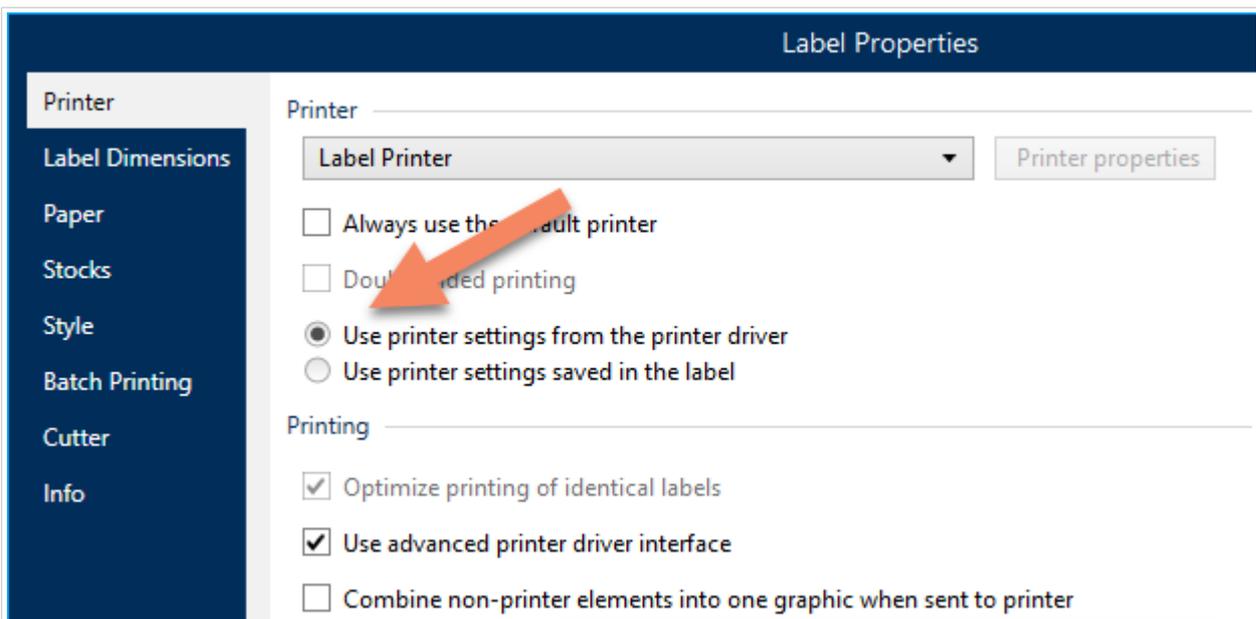


Figure 7: New default for the origin of printer settings

If you would like to keep the previous default, you can change it in NiceLabel Designer settings under **File > Options > Designer > Printer Settings Source**.

2.2.8. Ribbon optimization for alignment options

NiceLabel 2019 includes an optimized ribbon for easier label designing. Shortcuts to options that were previously hidden are now easily accessible.

The label designer's job is to make sure the label layout fits the requirements. Label objects must be positioned correctly and aligned. During this process, the frequently used alignment commands in NiceLabel Designer are "align to top/bottom", "align to left/right", or "align to center". NiceLabel 2019 has the alignment commands repositioned. They are displayed right in front of the designer – directly in the ribbon.

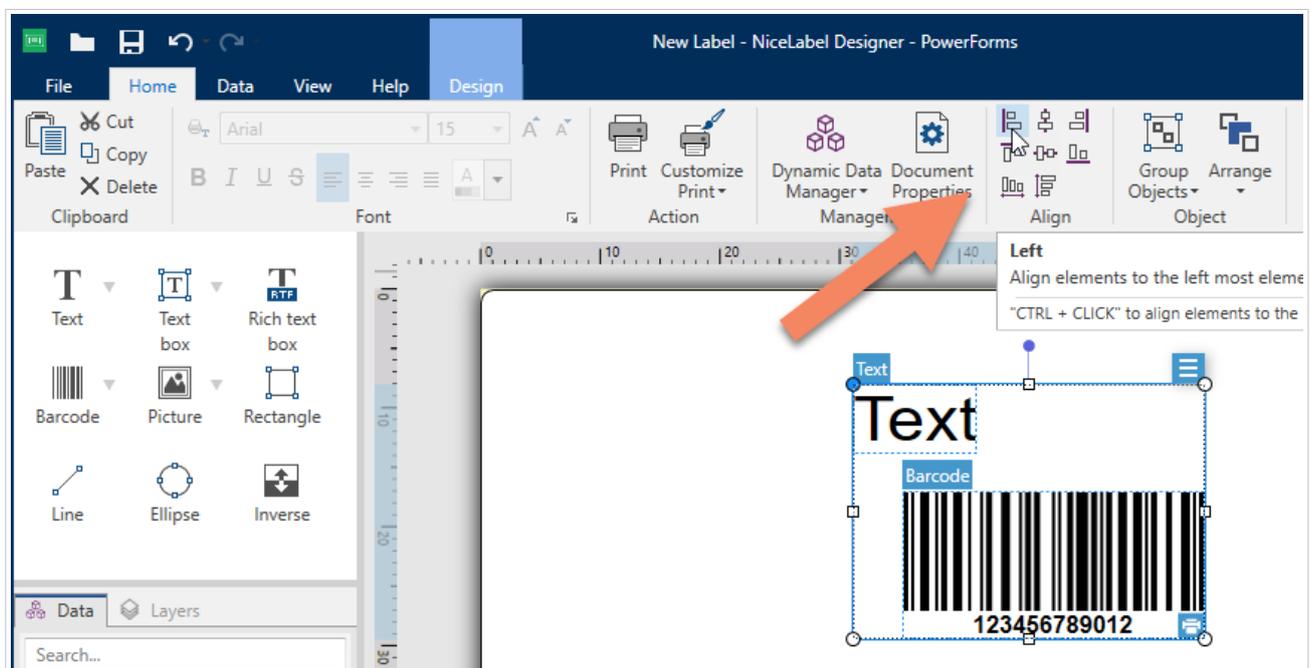


Figure 8: Alignment commands available directly in the ribbon

While the Dynamic Data Manager was already available to control your data sources, you had to open it to access some of the included commands. NiceLabel 2019 makes two frequently used commands available directly in the ribbon. You can select **Import Data Sources** and **Prompt Order** directly from the ribbon.

2.2.9. Rotated barcode printing improvement

NiceLabel 2019 improves the printing of all rotated linear and 2D barcodes.

The rotated barcodes no longer print as bitmaps with the white-colored rectangular background. They print using individual vector lines instead of a single bitmap. This reduces the required amount of data in print streams to describe rotated barcodes. Rotated 2D codes that cannot be described as vector images are printed as PNG files with see-through transparent background.

2.2.10. Support for new Avery label stocks

Avery Products Corporation has expanded the offering of labels for industrial uses, specifically in "Surface Safe Sign Labels", "Surface Safe ID Labels" and "UltraDuty GHS Labels" for letter paper size. NiceLabel supports these new labels using the internal database of label stocks.

3. New in desktop solutions

3.1. New and improved functionalities

3.1.1. Keyboard shortcut to run the Startup form (Ctrl + D)

When you are working on a specific form in your solution, and you want to test the solution, you select the **Run Form** command in the ribbon or use the **Ctrl + R** keyboard shortcut. In both cases, the currently selected form runs. However, that might not be good enough for complex solutions, where the sub-form expects to receive initial data from the previous form in the workflow (usually the main – startup form).

NiceLabel 2019 improves user experience by introducing a shortcut to run the startup form no matter which form is currently active in NiceLabel Designer. When you use the **Ctrl + D** keyboard shortcut, the form that is defined as “Startup” form starts.

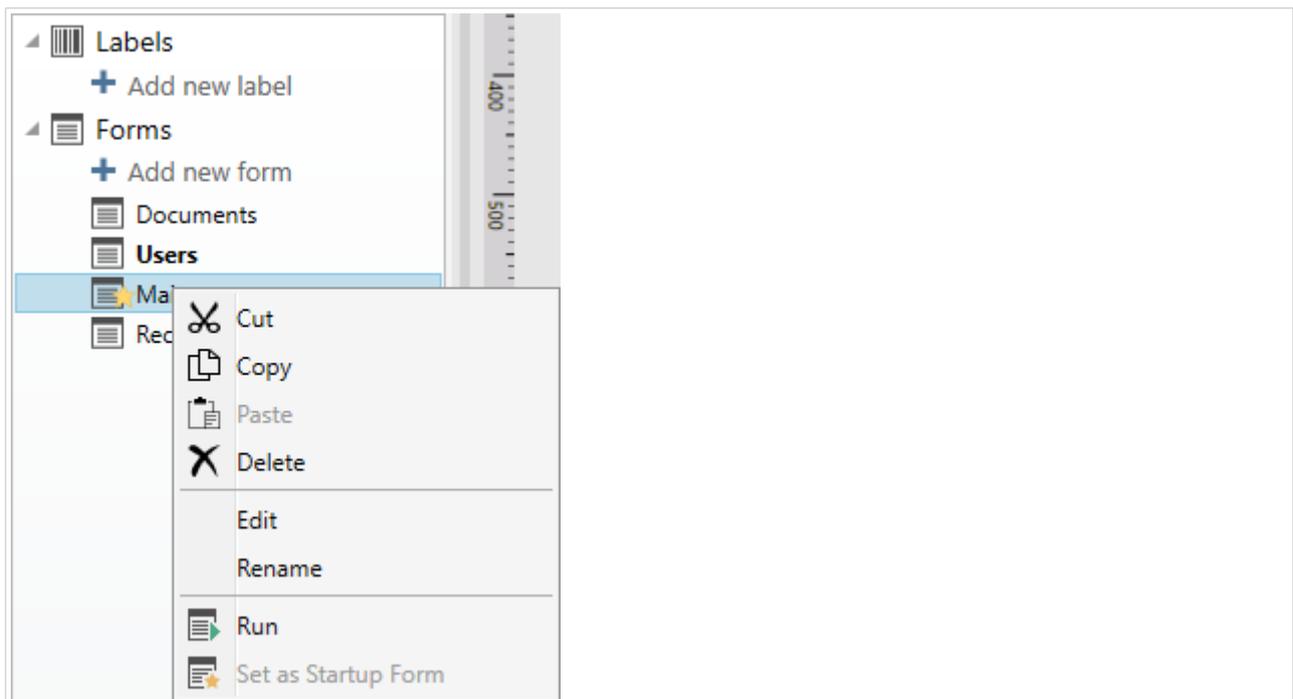


Figure 9: Only one form can be a "Startup" form

4. New in Label Management Systems

4.1. Installation and activation improvements

4.1.1. Integrated database setup tool for high-availability environments

NiceLabel 2019 provides an improved user experience while installing the NiceLabel Control Center product in high-availability environments. Many companies that install NiceLabel LMS Enterprise decide to deploy NiceLabel Control Center database on an existing Microsoft SQL Server running in a failover cluster to avoid any unplanned downtime.

For years, NiceLabel LMS Enterprise supported such installation scenario with an installation process that required the use of the external tool. The administrators had to understand the installation workflow and use external NiceLabel tools to install the database first, and then to install the Control Center.

NiceLabel 2019 streamlines the installation process by integrating the database setup tool into the main installation.

4.2. Document management

4.2.1. Streamlined user interface

NiceLabel 2019 provides the familiar Document Management System (DMS) features with a reorganized user interface. The main intention behind visual changes was to make the user interface simpler and more intuitive:

1. **Clear and concise naming in tabs.** The names are short and give more information about the functionality.
2. **Reordered tabs.** The order of main menu tabs follows the typical implementation workflow of a label printing system.
3. **Administration tab updates.** Similar pages are positioned together. The default sub-page is account/license information. The "Security Profiles" option is renamed to "Access Roles".
4. **Confirming exit from pages.** Users receive a warning message about any unsaved changes on the page before they can navigate away. This is implemented for important pages, such as Application and Workflow.

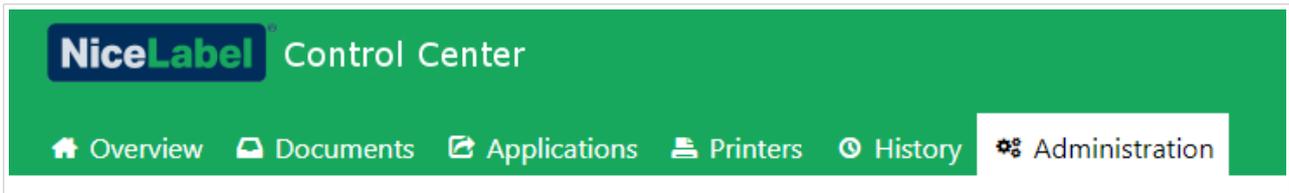


Figure 10: New layout in Control Center

The cloud and on-premises editions of LMS differ in a few details. The cloud LMS does not have features that are on-premises related (such as Automation, Archiving and Application Users). For more information, see the KB article [Differences in NiceLabel 2019 compared with NiceLabel 2017](#).

4.2.2. Workflow management

NiceLabel LMS ships with a few preinstalled workflows to help you manage the label lifecycle. The available workflows include a simple approval process, in which a single approval is required, a two-step approval process, in which two different users must approve documents, and a delayed publishing approval process, in which documents can be approved today are published automatically at a specified time in the future.

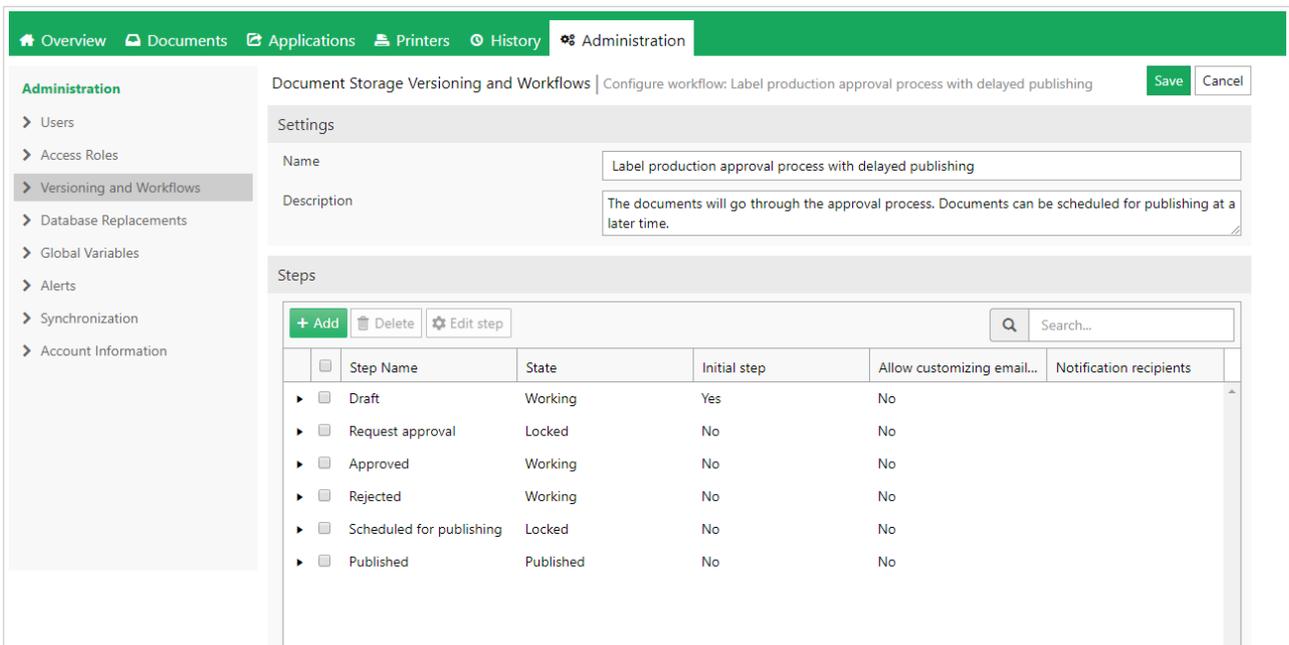


Figure 11: Defining rules for a custom approval workflow

If the built-in workflows do not provide enough flexibility for the company's environment and needs, NiceLabel 2019 provides an easy way to create custom workflows. Customers can create new workflows that perfectly fit their approval processes, which might vary for different types of documents. New workflows can also be used to allow different groups of people to approve different documents.

4.2.3. Selectable notification email recipients for workflow changes

Each time a step in the workflow process changes for a file, the system sends out notification emails to the next person(s) in the workflow process. These alerts minimize the chance of a delay while processing the files to their published state.

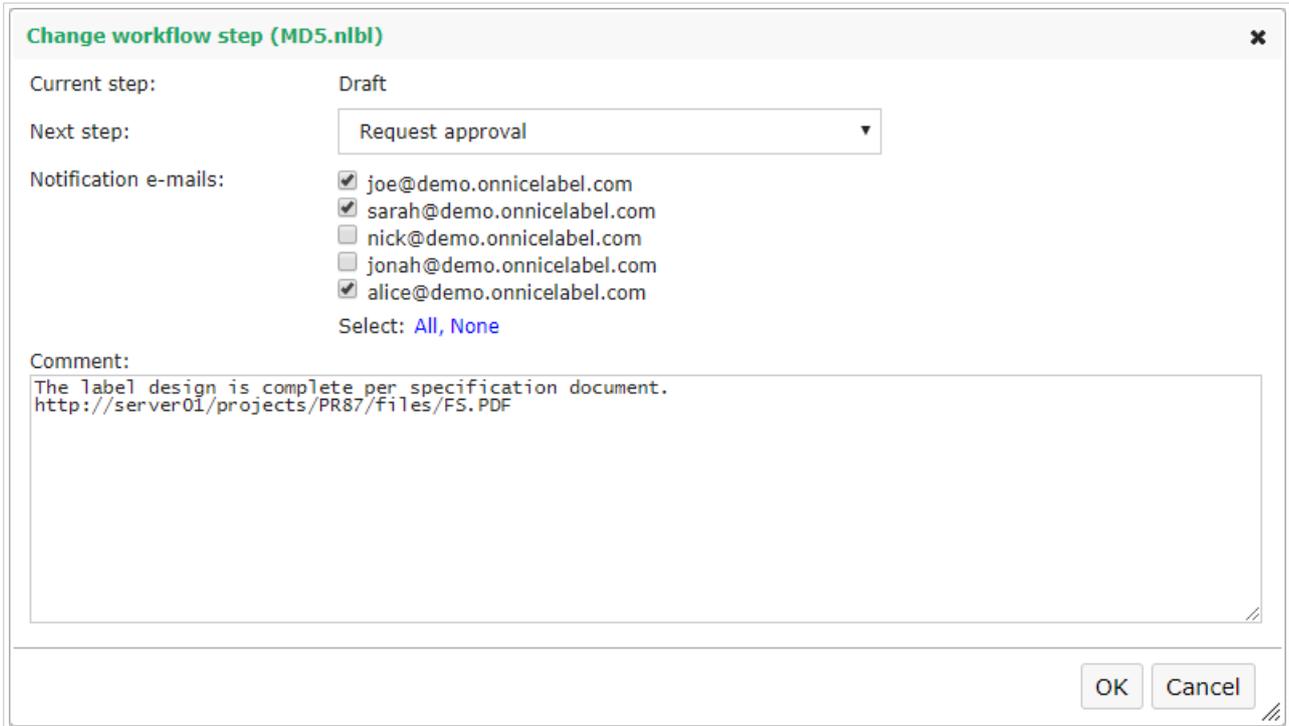


Figure 12: Selecting individual approvers who receive a notification email

When changing a workflow step, you can see a list of emails to which notifications are sent, if you configure the workflow that way. The list derives from the workflow definition. By default, all emails are selected. If you want to send notifications to a subset of recipients, select them using checkboxes.

At least one email address must remain selected.

4.2.4. Print management

The familiar Print management functionality in Control Center continues to provide real-time monitoring of printers and printing queues even in the largest LMS environments with several hundreds of printers.

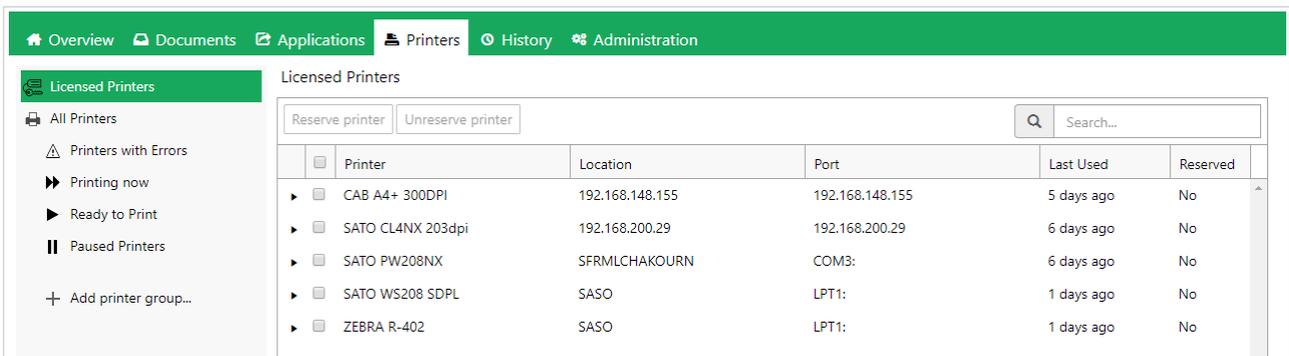


Figure 13: Updated view of all licensed printers

These are the Print management changes in NiceLabel 2019:

1. **Licensed printers.** The view of all currently occupied printer seats has been moved from the Administration tab to the Printer tab. The page displays an aggregated list of all printers that have been used in your print environment during the last 7 days. Here is where you can reserve printers to make sure they are always licensed for printing.
2. **Printer monitoring and management.** Printer status and printing activities are displayed in real-time with color-coding for improved readability. You can also control remote printers by issuing pause/resume/delete commands for print jobs in the queue. Control Center monitors and lists **only printers** that are licensed. These are printers that occupy a license either through a label print or via manual reservation.



NOTE

To be able to reserve printer seats, your user's access role must allow the function named "Manage printer reservation".

4.2.5. Restoring print history from the archive



NOTE

This option is available for on-premises LMS installations.

NiceLabel 2019 provides a new tool for restoring the print history that was archived in the past. The tool reads all records from the selected archive Microsoft Access file(s) and copies them back to the main Microsoft SQL database. The archive files remain unmodified. The restored records are accessible for analysis from the History tab together with the new records.

This feature makes it easy to prepare the system for audit inspections or simply to create views of consolidated data across several years.

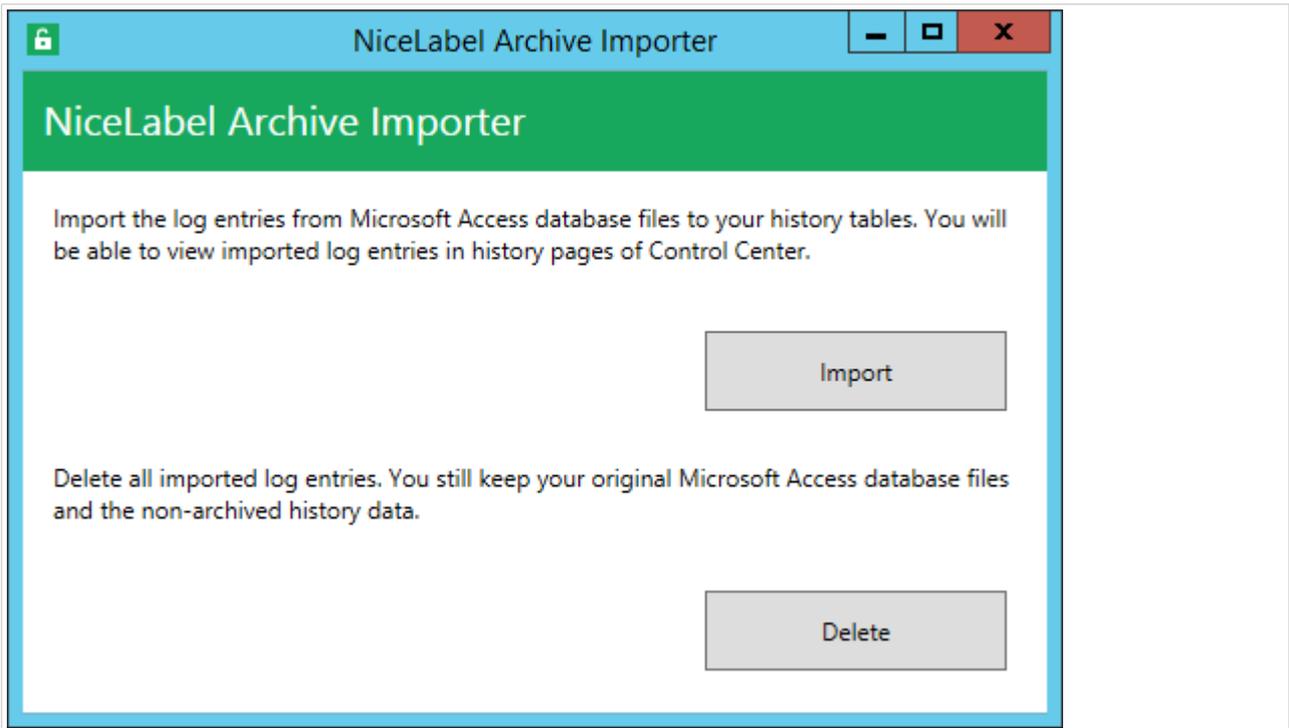


Figure 14: Tool for importing the archived records back to live database

The restored print history occupies your live database. When you no longer need to access the old records, the tool can also remove them from the live database. You can repeat the restore/delete operations as many times as you need to.

4.2.6. Database connection string replacements

NiceLabel 2019 provides a new centralized option in Control Center to manage the replacements for database connection strings. Connection strings contain parameters that inform NiceLabel about the database location and how the data can be retrieved.

The design of the labeling solution in NiceLabel is usually done in the development environment, in which you work with the development copy of your data. After the testing is done, the solution is transported into the production environment. This environment contains a live product database with the same structure as the development database, but with a different location. The live product database is located on a different server and possibly requires different user credentials.

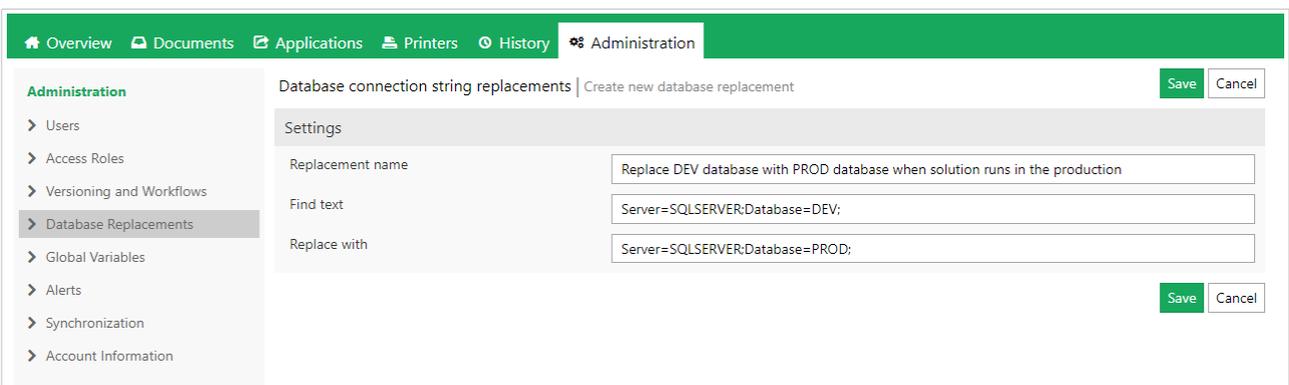


Figure 15: Defining connection string replacement

The new option in Control Center allows you to define the database connection string replacements centrally and to apply them over the entire production environment. The solution configured for the development environment connects to the live database in the production environment automatically. You do not need to create a copy of the solution to adapt connection strings to the production environment. Each replacement executes a simple search/replace command that is configured using “find text” / “replace with” parameters.

Database string replacement works with NiceLabel clients that connect to the same Control Center (NiceLabel Print, NiceLabel Automation, NiceLabel Web Client).



NOTE

When a NiceLabel uses a connection string replacement definition from Control Center, the local connection string replacement file is ignored.

4.2.7. Optimized search by content functionality

Document Management System already indexes each label that your store in the system. Having all metadata pre-indexed dramatically improves the search speed, particularly when your DMS stores many labels.

NiceLabel 2019 delivers performance optimization for “search by file content” operations. Now, the system executes search requests on the Microsoft SQL server, returning the results in real-time.

4.2.8. Preventing authentication lock-out

NiceLabel 2019 adds another security check to prevent the users from locking themselves out of the system. For Label Cloud, you cannot save access role configuration change unless you define at least one user with the Administration access role. For the on-premises installation, you cannot enable authentication until you assign at least one user with the Administration access role.

4.2.9. Remembering the last folder in a session

Control Center remembers the currently selected folder in the Document tab. After you navigate to some other tab within Control Center and return to the Documents tab, that same folder remains selected. The same folder is also selected by default when you are selecting a file to be used for Web Applications.

The folder is remembered within the same user session. This small change makes a big impact on the user experience in Control Center.

4.2.10. Changes in permissions to revert labels to the previous revision

An important change was made in the security permission for reverting labels to the previous revision. Reverting labels is useful if you want to scrap changes made on the current label version. If you revert, you make a duplicate of the previous revision and set it as the latest version.

In NiceLabel 2019, all users with read-write access to the labels can also revert labels to any previous version. Designers oversee the label design and are typically the ones that need to revert the label to previous versions. Previously, only members of the Administration access role held the permission to revert.

4.2.11. Archiving configured in Control Center



NOTE

This option is configurable for on-premises LMS installations.

With NiceLabel 2019, archiving is configured in the Administration tab. The old desktop configuration has been retired. All database configuration is done using the Control Center user interface.

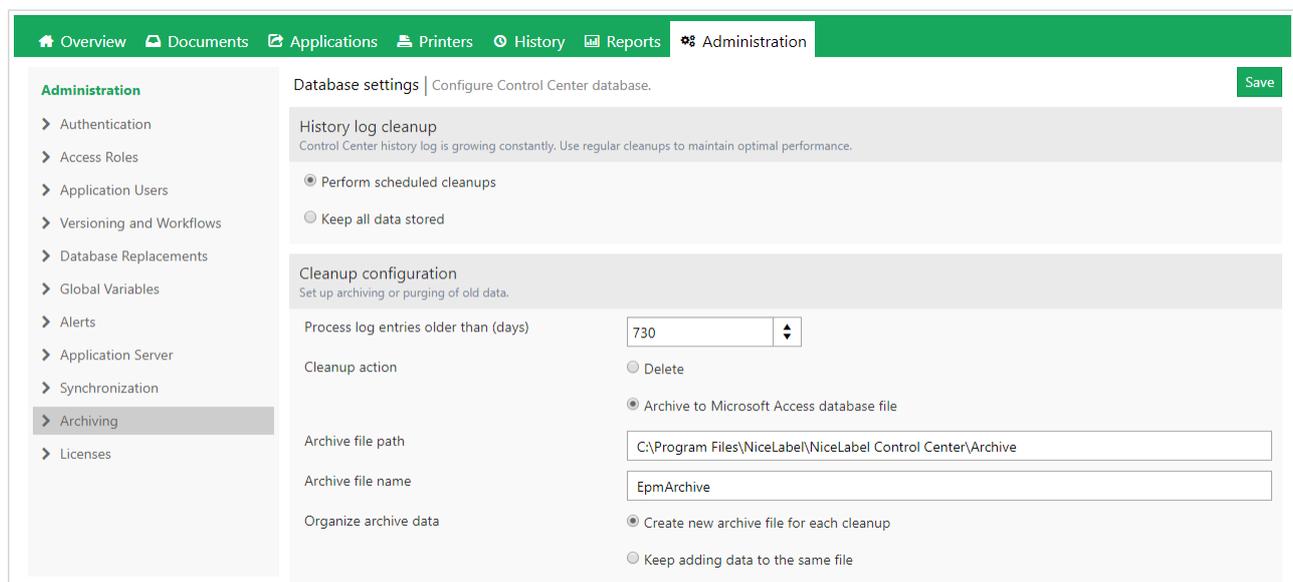


Figure 16: Setting up archiving in Control Center

The new Archiving option in the Administration tab gives you control over the archiving process. The history log of print details is growing along with printing activities. The more you print, the more space is required in the database.

In non-regulated industries, you might not need to keep the print history for long. You can configure the data retention details for the records you need in the database. One option is to simply delete the old records. The other option is to archive the old records in an Access database.

4.3. Web Printing

4.3.1. Web Applications

NiceLabel web printing system allows you to instantly deploy a standardized label printing process across departments, factories, locations, and even business partners. The core functionality for the design and execution is not changed, you still use Document Storage with version control and workflow processes.

NiceLabel 2019 introduces a new configuration approach, but the functionality retains the already familiar Web Printing. Provisioning for the labels and solutions has been improved significantly. We introduce the concept of Web Applications, which use labels or solutions from Document Storage. You can give access to the same Web Application to single or multiple users. When you add users, they automatically receive an invitation email with details on how to connect to the shared Web Application.

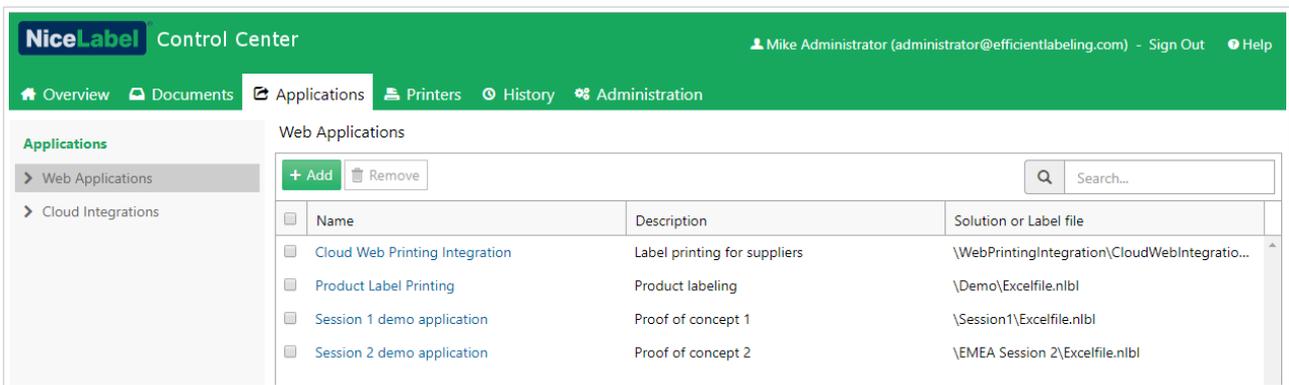


Figure 17: List of Web Applications

Web Applications extend label printing access from your co-workers to external users. The same user can access multiple Web Applications. After you open Web Client it runs your solution immediately. If you are assigned to two or more labels/solutions, the Web Client displays a list of available items for you to select.

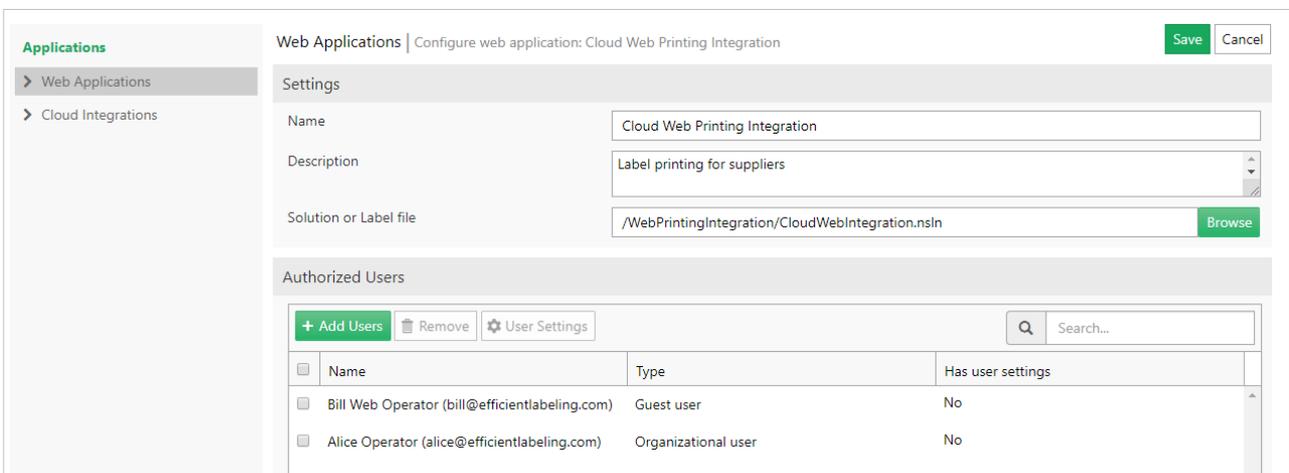


Figure 18: Properties of a Web Application

You can keep the Web Application's default settings for all users, but you can also configure settings per user, such as the available number of printers, initial values for data sources, and print logging.

Powerful search allows you to quickly find the Web Application by its name, description, and solution/label file.

4.3.2. Web Printing client authentication

Before starting Web Applications, NiceLabel authenticates the users and validates their access permissions. Authentication enables NiceLabel to know who you are, and which Web Applications you are authorized to use.

In NiceLabel Label Cloud, the users are identified using external authentication providers. For more information, see chapter **Authentication and authorization** on page 7.

The on-premises editions keep the existing support for Windows and Application authentication types.

4.4. Integration System (Automation)

4.4.1. Cloud Trigger



NOTE

Product editions NiceLabel Label Cloud Business or above are required for this feature. NiceLabel Automation must be signed-in to Label Cloud.

Cloud Trigger is a bridge between cloud-based data and on-premises printer infrastructure that eliminates the need to expose your LAN to the internet or to open any inbound communication in the firewall. Cloud Trigger runs in on-premises NiceLabel Automation and provides fast data processing on the local infrastructure and access to on-premises printers.

Label Cloud administrator gives the external integrator access to the NiceLabel API in the cloud that enables secure and encrypted communication between the cloud business system and Cloud Trigger.

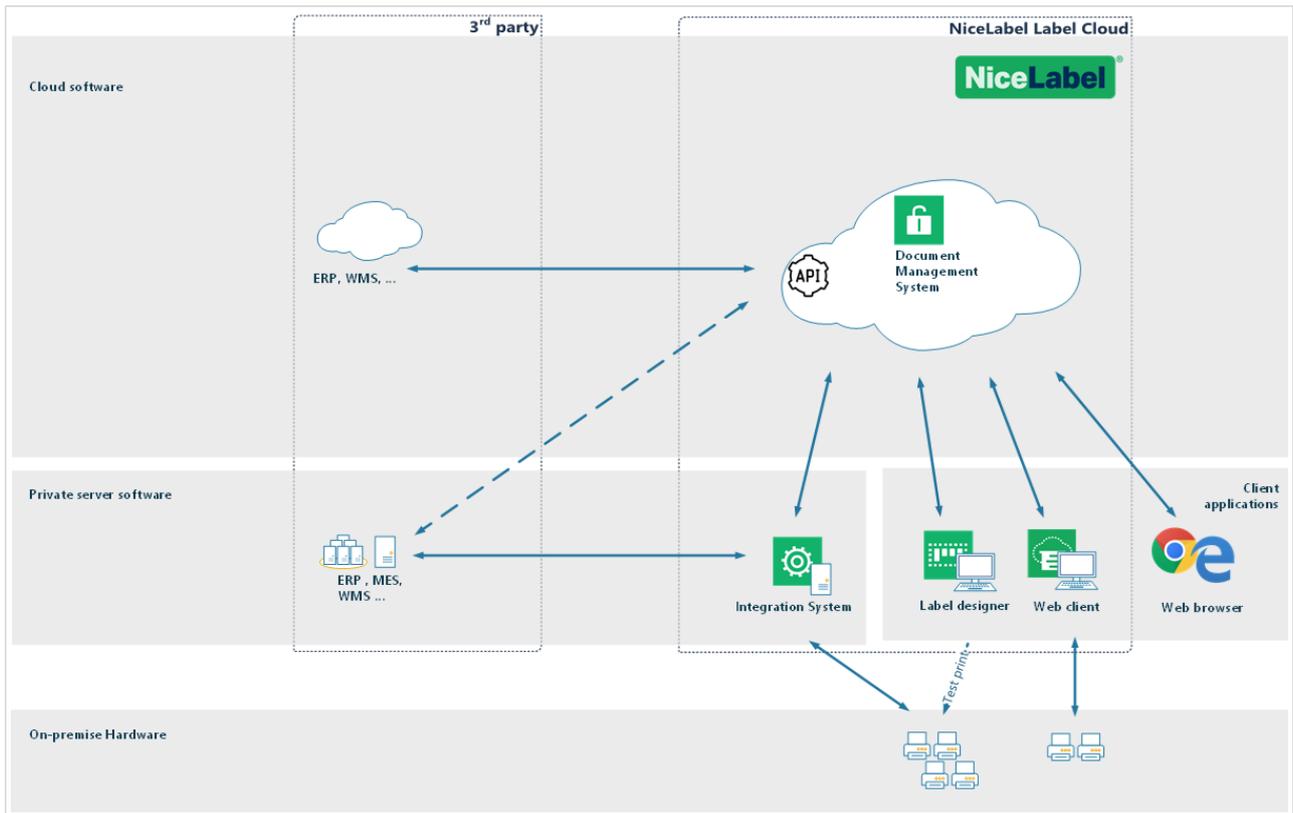


Figure 19: Architecture diagram for Cloud trigger integration

Cloud Trigger deployment building blocks are:

1. Cloud-based business system provides data to NiceLabel cloud API. The data is securely routed down to the on-premise NiceLabel Automation using the Microsoft Azure Service Bus.
2. NiceLabel Automation on-premises is registered using the Label Cloud account. NiceLabel Automation accepts the data from the customer's cloud-based business system. This executes without opening any ports in the corporate firewall.
3. NiceLabel Automation starts processing the actions defined for the Cloud trigger. NiceLabel Automation can access labels from cloud-based Label Cloud DMS and merge them with the data received from the business system.
4. NiceLabel Automation uses locally installed printer drivers to create printer command files and to deliver them to any local printer.

There is a load-balancing mechanism built into the Cloud Trigger. You can run Cloud Trigger with the same unique ID on multiple servers. All active triggers are registered in the Label Cloud account. The logic in NiceLabel cloud API determines which of the registered servers receives the data for processing.

4.4.2. Scheduler Trigger



NOTE

Product editions NiceLabel LMS Pro or above are required for this feature.

Scheduler trigger works as a timer that starts the execution of actions in your configuration after a time delay. You would use the scheduler trigger to set up repetitive automated execution of time-dependent actions.

The screenshot shows the configuration interface for the Scheduler trigger. The interface is divided into a left sidebar and a main configuration area. The sidebar has three main sections: Settings, Variables, and Actions. Under Settings, there are three sub-sections: General (selected), Other, and Security. The main configuration area is titled 'Scheduler' and is divided into two sections: General and Recurrences. In the General section, the Name is 'Scheduler' and the Description is 'This trigger will execute actions each working day at 10 in the evening.' In the Recurrences section, the 'Execute trigger:' dropdown is set to 'On specific days'. The 'Time (hh:mm):' is set to '22 : 0'. Below this, there are checkboxes for each day of the week: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and Sunday. The checkboxes for Monday through Friday are checked, while Saturday and Sunday are unchecked.

Figure 20: Configuration for the Scheduler trigger

Scheduler trigger is an active trigger. This means that it does not wait for an event change but starts executing the assigned actions as soon as the defined time interval ends. You can define the trigger to start in intervals (seconds, minutes, hours), daily at a specific time, and on specific days.