

2019.2 Release Notes

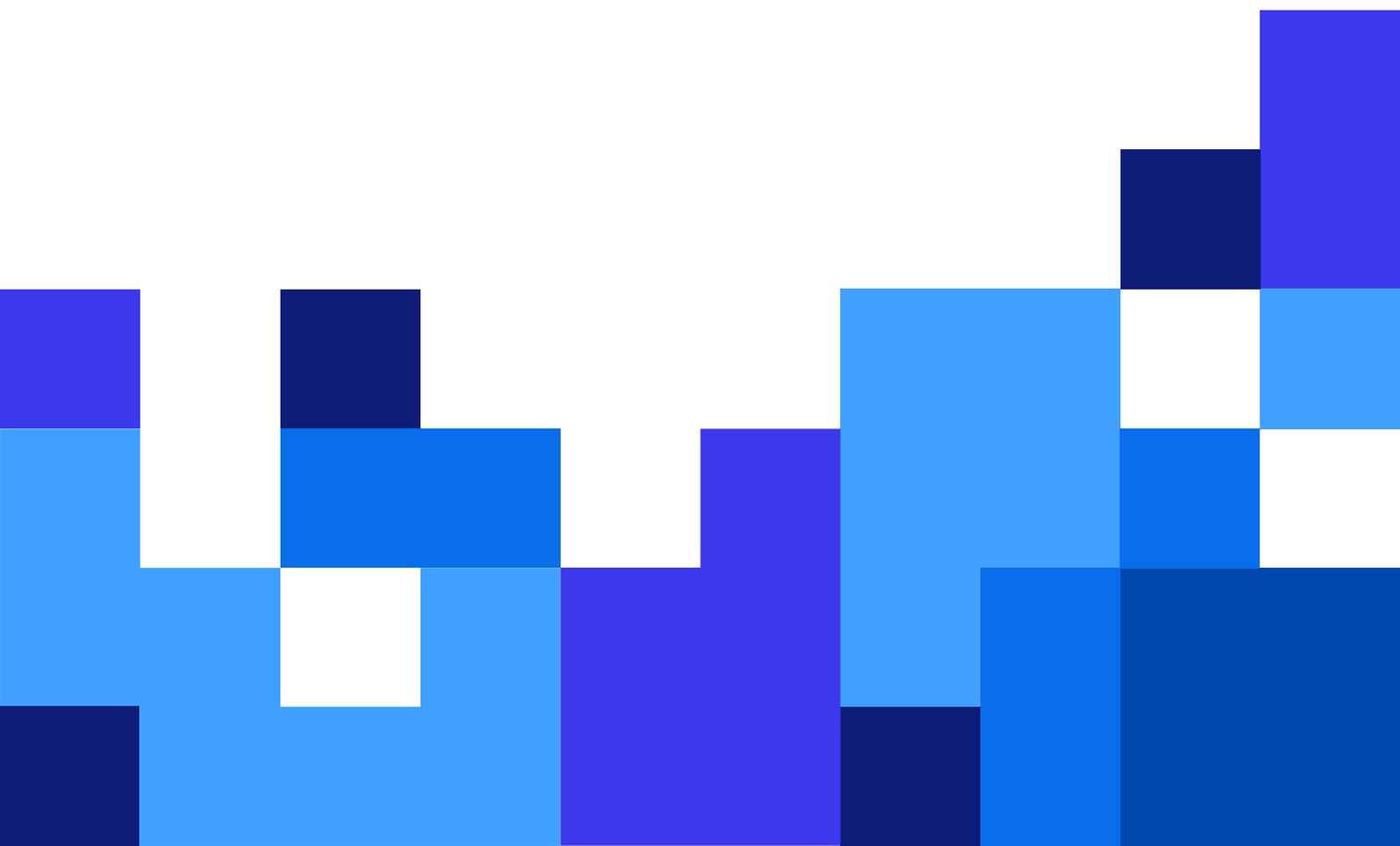


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Release Notes

NiceLabel 2019.2

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1. NiceLabel Label Cloud

1.1. New and improved functionalities

1.1.1. Support for cloud printers

The term “cloud printers” identifies smart label printers that can connect to cloud print service providers, and receive print jobs from them. Cloud printing enables users to print from any device in the network to cloud-connected printers regardless of printer hardware and location. Cloud printing also eliminates the need for printer drivers. The cloud print service creates print jobs for the target printers and delivers them to the printers via the cloud.

Beginning with this release, NiceLabel Label Cloud is a cloud print service provider. All label templates from your Document Management System (DMS) are available for printing to cloud-enabled printers that are registered with your Label Cloud account. If you own legacy printers that cannot connect to the cloud print service, use the NiceLabel integration system as an interface that lets your local legacy printers connect to the cloud.



NOTE

Currently, the following printers are supported: all Zebra printers with Link-OS, all SATO AEP-enabled printers (CLNX printers with firmware version greater or equal to 1.10.0).

The diagram below explains the architecture of cloud printing. The printer is connected to the Label Cloud print service. When the user submits a print request, the cloud service merges the label template from DMS with the received data, creates a matching print job (e.g., ZPL for Zebra printers, SBPL for SATO printers, etc.), and delivers the print job to the requested printer. The communication from the print service to the printer is handled entirely over the cloud. Therefore, there is no need to involve IT teams to open firewalls.

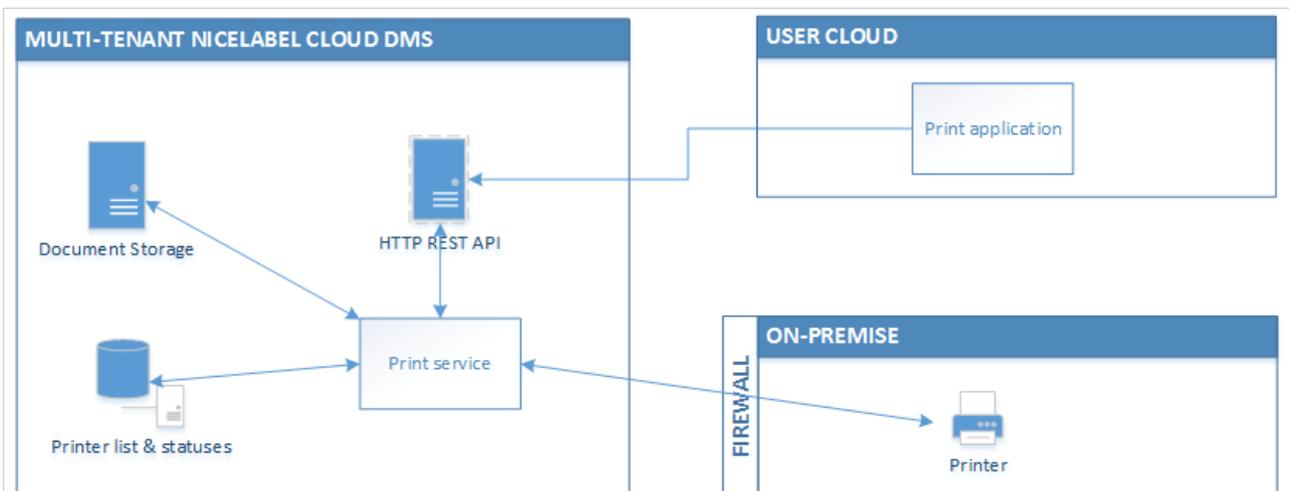


Figure 1: Architecture overview

Each cloud print request is logged in the centralized print history the same way as any other print request in the NiceLabel software. Powerful analytics features allow you to have an overview of all print operations, no matter the print origin. There is also a live insight of printer availability as you can see the online statuses of all managed printers. Cloud printing uses the same licensing policy as other printing types in NiceLabel. Each unique printer takes its own printer seat.

Cloud printing offers a convenient and simple solution for everyone. Users no longer have to worry about software, drivers, or cables, and help desk support has fewer incidents to handle. The cloud ensures that software updates happen automatically. This allows the users to always work with the latest version.

1.1.2. NiceLabel Label Cloud subscription available from new regions

NiceLabel Label Cloud provides document management functionality as a service. The Label Cloud deployment that you use for login into your cloud Control Center should be as close to your location as possible to ensure optimal user experience and to minimize network latency.

NiceLabel Label Cloud is additionally available from the following Microsoft Azure data centers:

- West Europe
- Southeast Asia

1.1.3. Electronic signature added for Label Cloud products

Electronic signature is an additional security measure that prevents unauthorized users from making changes in the document lifecycle. After you enable the electronic signature, all users must re-authenticate themselves when performing a certain action, such as changing a workflow step.

With this release, the electronic signature is available for Label Cloud products, after you use the Microsoft authentication to sign into your Label Cloud.

NOTE: The electronics signature is not supported for users signing in via the Google authentication system.

1.1.4. Unique identifier for Cloud trigger can be dynamically assigned

Cloud trigger transports your label data from cloud-based sources (e.g., cloud-based ERP system) to the on-premise NiceLabel Automation for printing. The trigger uses a secure Microsoft Azure Service Bus to connect to NiceLabel Automation, so the IT teams do not have to open any firewall ports.

When you run identical NiceLabel Automation Cloud trigger configurations on multiple servers, NiceLabel automatically enables round-robin load-balancing and fully utilizes all available nodes to achieve maximum throughput. This is okay when all Automation nodes can print to the same printers, and you need redundancy.

The challenge occurs when you want to run the same Automation configuration on multiple locations that are not interconnected. NiceLabel Automation on location A can see the printers installed on location A, but not printers on other locations.

With this release, the Cloud trigger has been updated to support dynamically assigned unique identifiers. What this means is that you can configure the Cloud trigger just once, and deploy the identical configuration (.MISX file) on multiple locations. The unique identifier is no longer a fixed string but can be dynamically generated from the Automation internal variables ComputerName and SystemUserName.

1.1.5. Simplified access to Cloud trigger registration for developers

Before you start using the cloud trigger, you have to register the trigger in the API Developer Portal. You must only complete this self-serviceable task once.

To simplify the registration process, the Cloud Integration page in your Control Center displays the API developer portal link and a link to the relevant online documentation.

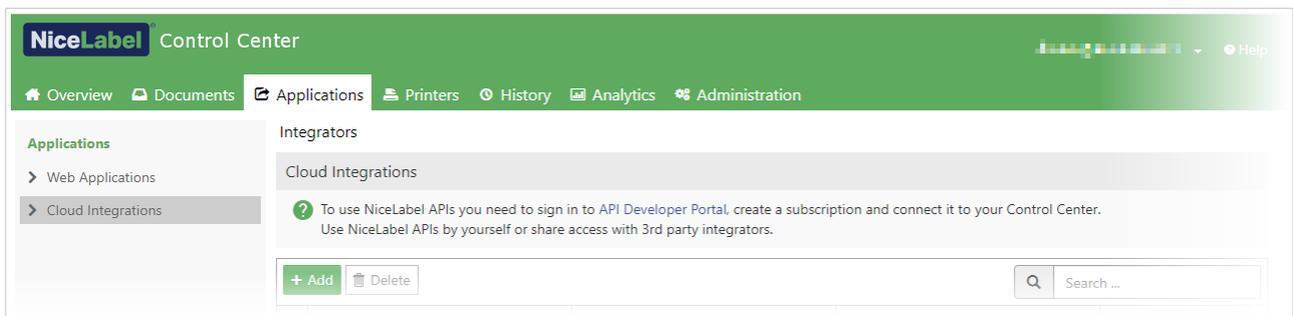


Figure 2: Details provided for accessing the API Developer Portal

2. New in Designers

2.1. Installation and activation improvements

2.1.1. Automating NiceLabel activation

NiceLabel installer supports new parameters for automating the activation process. These options are useful when you face the task of deploying the NiceLabel software on many workstations. Previously, the NiceLabel installer already supported silent and unattended installations. The new functionality adds the possibility of unattended activation.



NOTE

The new possibility works best with multi-user NiceLabel products (such as NiceLabel LMS Enterprise), in which all clients use the same license key for activation.

You can automate the activation using command-line switches, or by modifying the product.config file.

For more information, see the following Knowledge Base articles:

- [Pre-configuring NiceLabel installation with product.config](#)
- [NiceLabel install command-line switches](#)

2.2. New and improved functionalities

2.2.1. Label converter for BarTender and CODESOFT templates

Digital transformation of the entire labeling process with NiceLabel starts with the label designer. The customers who plan to modernize their labeling using NiceLabel software, expect a time-efficient and straightforward migration.

The usual hurdle that the customers switching to the NiceLabel platform face is the conversion of existing label templates to the NiceLabel format. Significant time and effort might have been spent creating the existing label templates. New tools and services are available for the new customers to help them bring their existing labeling assets to the NiceLabel platform quicker and with less investment.

Label converter transforms Seagull Scientific BarTender and Teklynx CODESOFT label templates to the NiceLabel format.

Label converter does not produce a 100 % conversion and does not produce the complete one-to-one mapping between the existing labels and the newly created NiceLabel labels. The technology background of the label designers is too diverse for such results. Also, the one-to-one mapping rarely makes sense. If the users were not using best-practice label design techniques before, and ended up with hundredths or thousands of label templates, migrating to the NiceLabel platform is a good opportunity to consolidate and optimize their label templates.

To use the converter, a licensed copy of the existing labeling software is necessary.

You can download Label converter from the [NiceLabel website](#).

NiceLabel team offers the label conversion service if you do not want to deal with the label conversion yourself. Contact NiceLabel Sales for a quote.

2.2.2. Right-click context menu available on data sources

When you right-click one of the data sources, a context menu displays a list of available shortcuts. You can copy and paste the data sources, you can also edit its name and open its properties. Most users will probably benefit from a shortcut to delete the unnecessary data source without opening the Dynamic Data Manager.

This new shortcut works in the Dynamic data explorer of the design area, and in the Dynamic Data Manager.

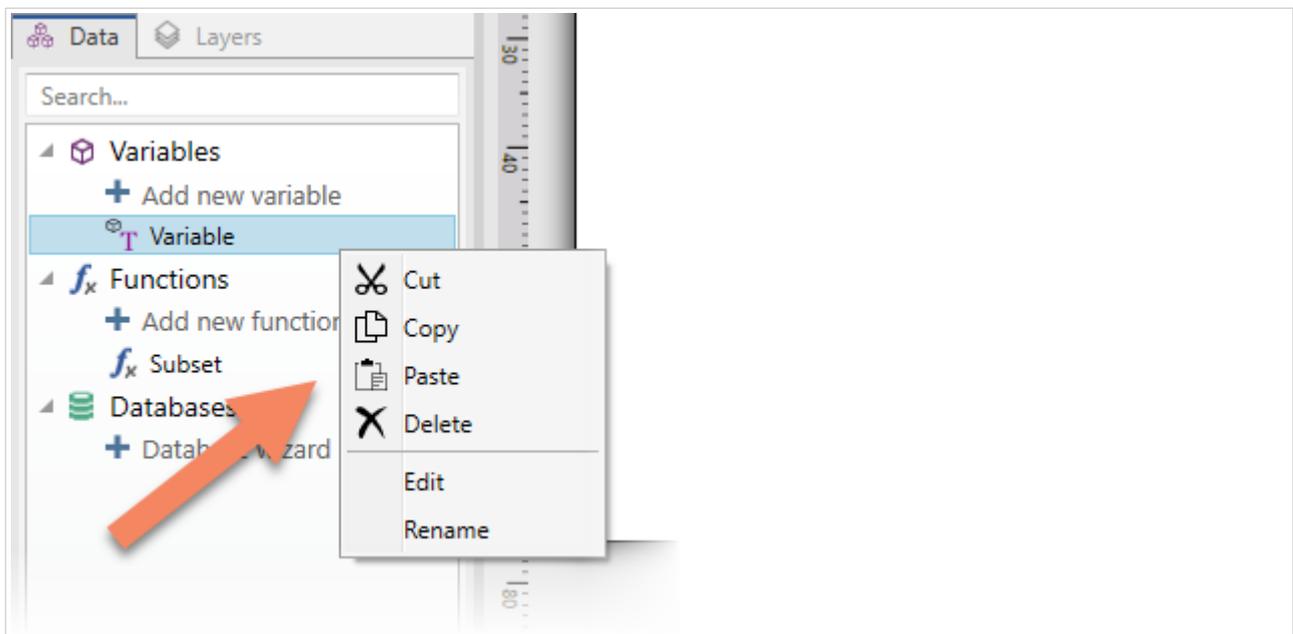


Figure 3: Right-click context menu with shortcuts

2.2.3. Support for Code-32 (Italian Pharmacode)

Code-32 is mainly used to encode pharmaceutical products in Italy. The basis for Code-32 is barcode Code-39 with some structural changes. The alternative names for the barcode symbology are “IMH”, “Italian Pharmacode”, “Radix 32 barcode”, “Codice 32 Pharmacode” and “Codice Farmaceutico Italiano”.

The barcode was supported in NiceLabel v6. When you convert your label template from v6 (.LBL files) to the new file format (.NLBL), the Code-32 barcode objects transfer to the new label template.



Figure 4: Code-32 barcode symbol for value "12345678"

2.2.4. Optimization of curved text printing

With this release, NiceLabel optimizes the printing of labels with curved text objects. The print job is smaller in size, transports to the printer faster, and results in a much faster printout.

2.2.5. Updated support for GS1-128 specification (issue 19.1, July 2019)

GS1 support in the software has been updated according to the update of GS1 Specification (Release 19.1 from July 2019). There are new Application Identifiers: AI(235), AI(417), AI(7040), and AI(7240).

2.2.6. Product documentation available in the Russian language

All NiceLabel product documentation and online help files are available in the Russian language. This includes installation guides, user guides, and help system.

2.2.7. RFID updates

Visual indicator for RFID-enabled printers and labels. The status bar in NiceLabel Designer displays useful information, including the name of the printer driver connected to the label, and quick access to the printer driver settings.

When you choose an RFID-capable printer for the current label, NiceLabel additionally displays the RFID icon to the left of the printer driver's name. The indicator serves three purposes:

1. The current printer is RFID-capable.
2. Visual indicator whether RFID options in the label template are enabled or not.
3. Clicking the indicator opens the “RFID Tag” dialog box for configuring the RFID settings.

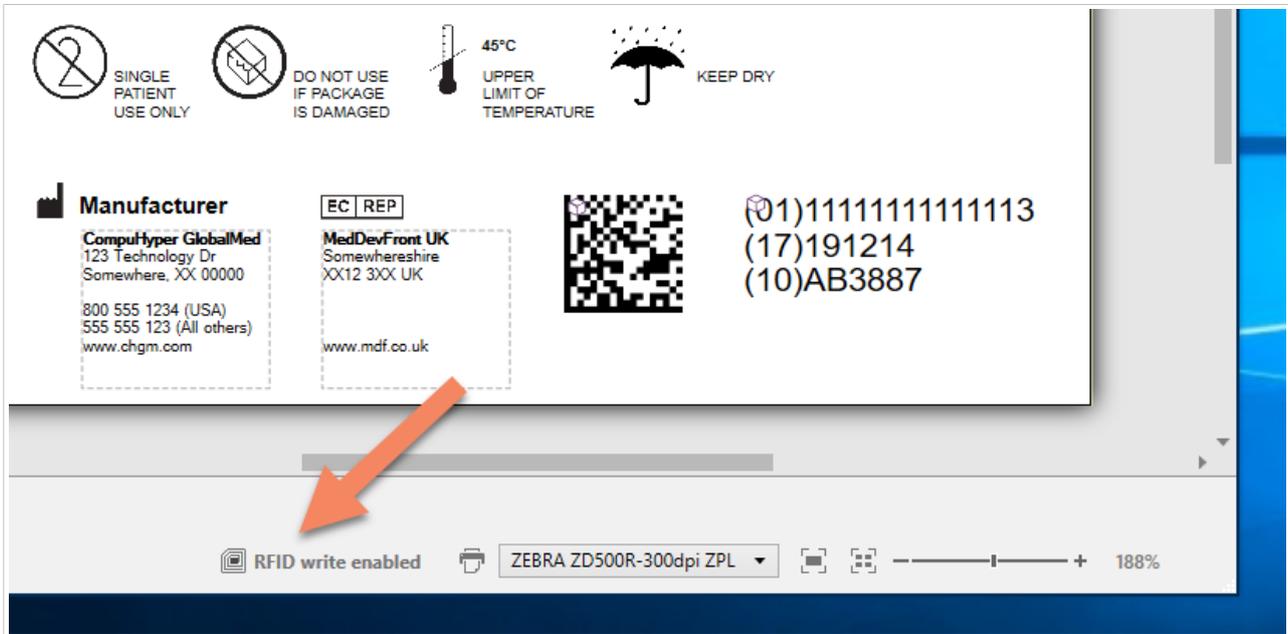


Figure 5: Visual identifier for RFID functionality

Support for RFID Chip-based serialization. Most new RFID chips contain a feature called “Chip-based serialization”. Prior to encoding an RFID tag, you can read the TID (Tag ID or Unique Identifier) from the current chip, and use the TID as the “serial number” part to encode as part of the SGTIN data.

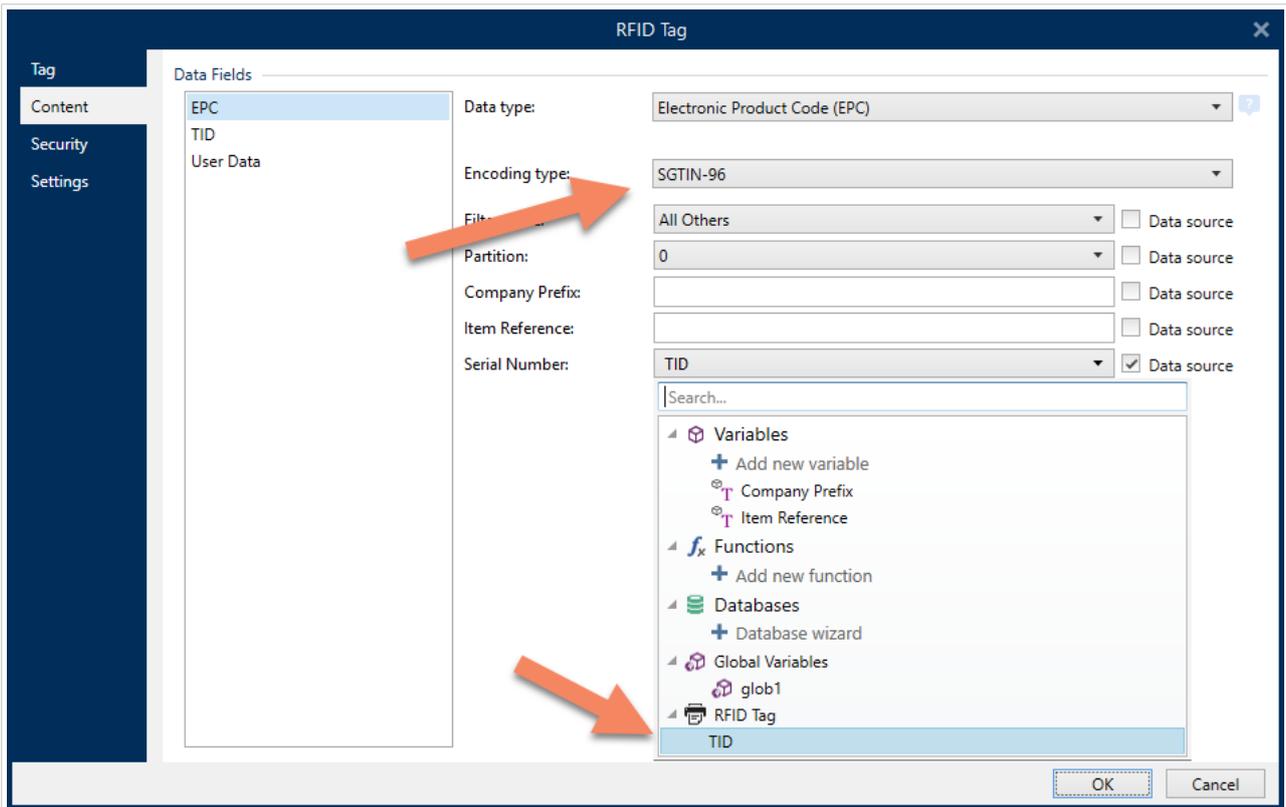


Figure 6: RFID's TID is used as a serial number within SGTIN data



NOTE

If the EPC has been preprogrammed (typically by the manufacturer) with the chip-based RFID serialization scheme, the serialized data does not have to be written back to the EPC memory. This helps you save time.

2.2.8. PDF files generated by NiceLabel contain clickable links

When you use NiceLabel to create PDF documents, the web or email links inside the Text and Text Box objects are clickable and open in the associated application. For example, web links open in your default browser, and email links open in your default email reader.

The web links are identified by the following prefixes: "www.", "http." and "https:".

The email links are identified by the prefix "mailto:".

2.2.9. Updated samples

NiceLabel includes new label samples for:

- Automotive industry (VDA 4994, VDA 4994 RFID smart labels, VDA 4992)

- Electronic industry (ECIA 2D barcode)

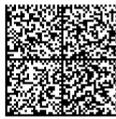
SHIP FROM LIEFERANT AG WERK BERLIN BERLIN DE-10177 ID: 887766554 COUNTRY OF ORIGIN: DE		SHIP TO MODERN CAR INC. LONDON PLANT UK SW1P 2BN LONDON		S		PACKAGING TYPE KLT4738	SHIP / EXPIRY / PROD. DATE P 2019-09-26
DELIVERY NOTE NUMBER 12345678		PLANT / UNLOADING POINT / STOCK LOCATION 013 / RAMP 15 / WH4				BATCH NUMBER CH1234	PART- / HARDW- / SOFTW- REVISION 2015-11-01
SUPPLIER NUMBER 987654321		CUSTOMER SPECIFIC ROUTING INFORMATION ROUTE 66 B3P234		ETA 2016-01-15/13:30	QUANTITY(PCS) 1000	GROSS KG 850	NET KG 780
CUSTOMER PART NUMBER LEFT MOUNT ALUMINIUM		GFS-123-554-765		 CUSTOMER DATA LINE 1 CUSTOMER DATA LINE 2 CUSTOMER DATA LINE 3 CUSTOMER DATA LINE 4 CUSTOMER DATA LINE 5			
PACKAGE-ID (1J) UN 987654321 000123457							
				SUPPLIER DATA LINE 1 SUPPLIER DATA LINE 2 SUPPLIER DATA LINE 3			

Figure 7: Sample VDA 4994 Single KLT label

NiceLabel includes new sample Automation configurations for:

- JSON data

3. New in Label Management System

3.1. Installation and activation improvements

3.1.1. New license mode is available for NiceLabel LMS products

The clients in NiceLabel LMS products (Designer, Print, and Automation) support a new licensing mode.

You no longer need to have the product license key available during the client activation. During the installation, you can select the activation option “NiceLabel Control Center connection”, and enter the address of your already active Control Center. The client automatically takes the license key from your Control Center and activates.

The printer usage from the connected client is counted against the overall quota of printer seats associated with the license key in Control Center.

NOTE: The new licensing mode is much like the activation via NiceLabel Label Cloud subscription.

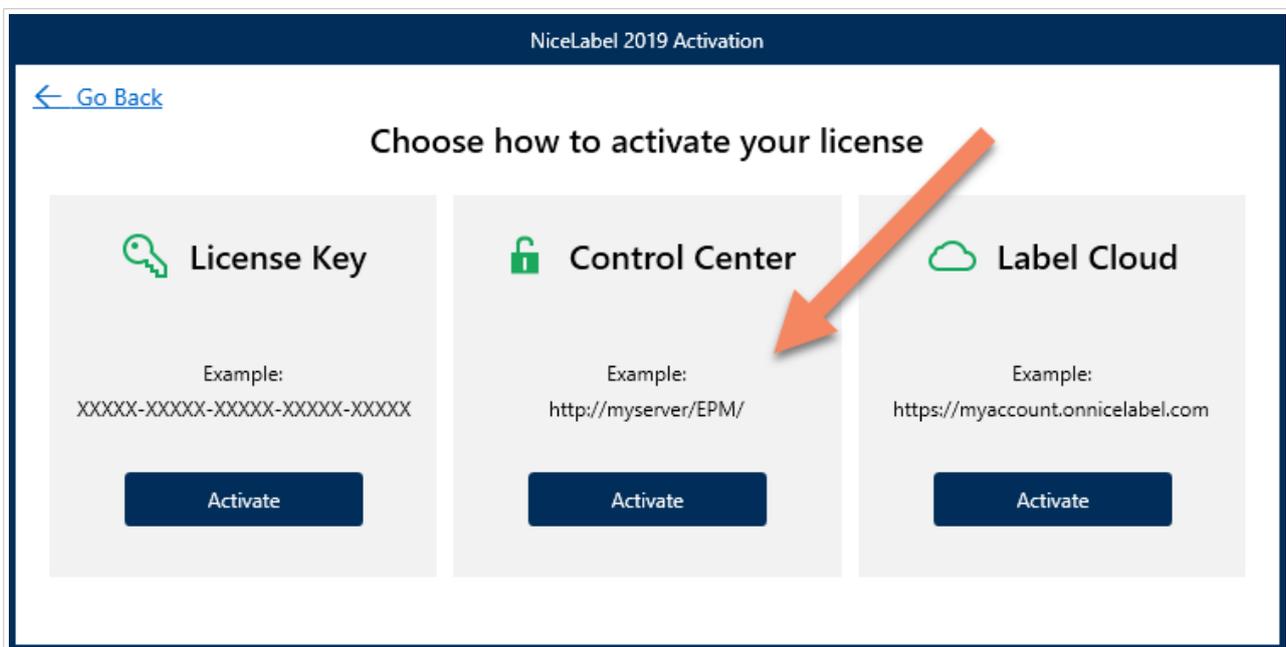


Figure 8: New available activation option

The new licensing mode provides the following benefits:

- No need to enter any license key. You must only know the address of your Control Center.
- No need to open any specific ports in the Windows firewall for client-to-client communication. The licensing data is exchanged just between the client and Control Center.

- Not bound to the domain/workstation membership or network settings. As long as you can see the Control Center web page, you can use it to activate your client.

3.1.2. Diagnostic guide troubleshooting access to the Control Center

NiceLabel clients now include a diagnostics guide to troubleshooting connection issues with Control Center. NiceLabel Control Center is a web-based document management system, which requires a certain configuration on the clients.

For example, the computer with the NiceLabel client must have installed support for WebDAV (Web Distributed Authoring and Versioning). This protocol allows the client to access files in a document management system. The computer must also have uninterrupted access to ports 80/443 and 8080 on the Control Center server.

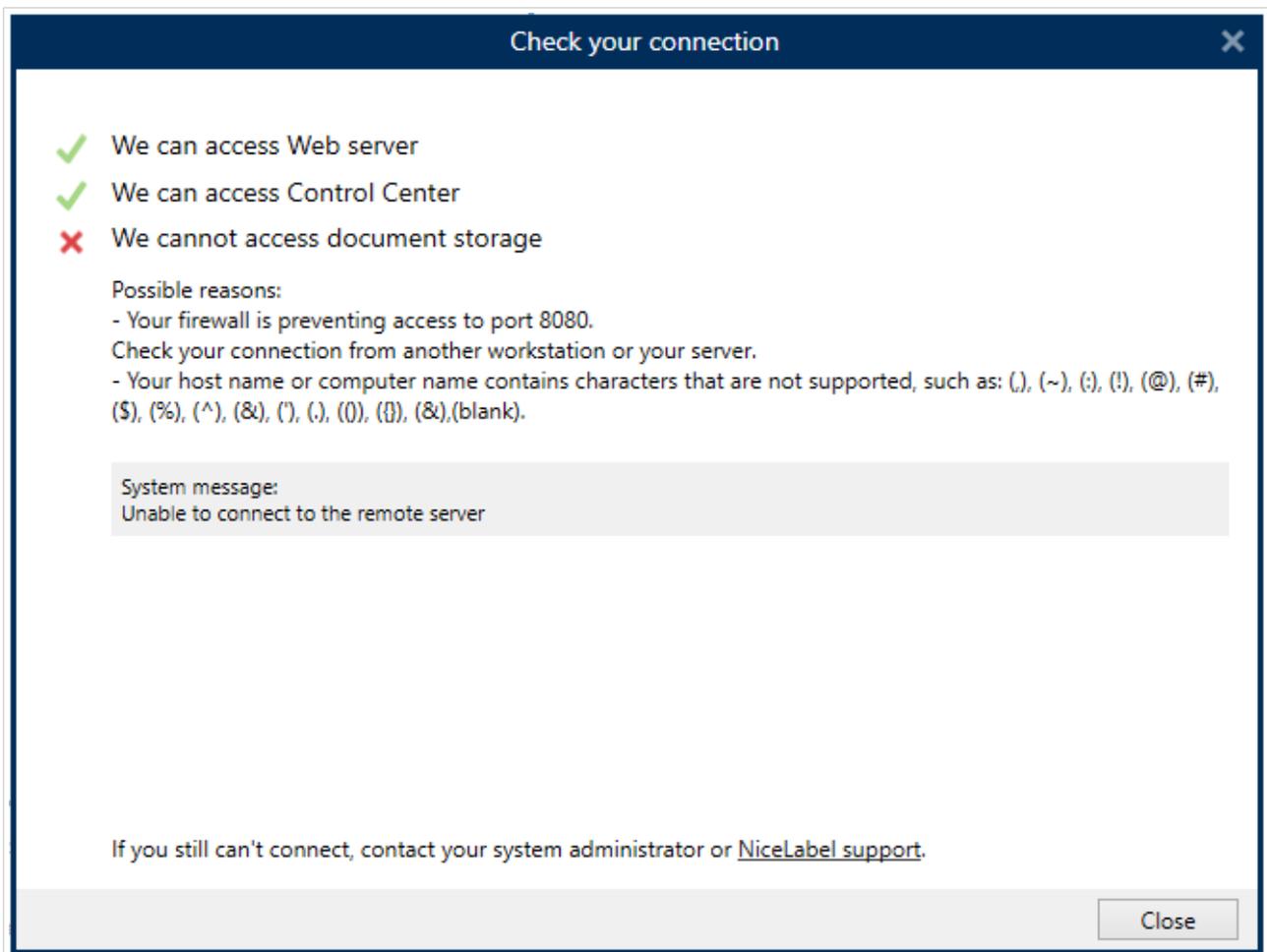


Figure 9: Running diagnostic guide to troubleshooting problems

The diagnostic guide verifies all connection requirements and provides a clear indication of issues and possible solutions.

You can run the diagnostic guide from the activation screens, or later from **File > Options > Control Center**.

3.1.3. Updated database support

The following database-related improvements are available:

- **Support for Microsoft SQL Server 2019.** On-premise NiceLabel Control Center and NiceLabel Web printing support installation on Microsoft SQL Server 2019.
- **Support for installation to a cloud database.** This release adds support for the Microsoft SQL Server that is running in cloud computing platforms and is available as a service. Often you would use the Azure SQL Database Managed Instance or Amazon Relational Database Service (RDS) with Microsoft SQL Server database engine. You no longer have to use the on-premise variant of Microsoft SQL Server to install the NiceLabel LMS products. Instead, you can choose a cloud variant, if that fits your company's IT policies better.
- **Database installation tool can update passwords.** The database installation tool (DB Tool) is a stand-alone utility for installing and updating the Control Center database outside the main installer. The DB Tool has been updated to allow changing names and passwords of users that are configured to access the system data, and can also change the database instance name of the already deployed NiceLabel installation.

3.1.4. Improved activation of NiceLabel LMS 2019 upgrades

With previous versions, you might have stumbled upon an issue while activating your NiceLabel LMS 2019 upgrade without previously installed NiceLabel LMS 2017 products. In such case, you could either install the NiceLabel 2017 products and complete the upgrade, or install and activate the NiceLabel 2019 clients first, and install the NiceLabel Control Center when done.

With this release, NiceLabel Control Center correctly recognizes the entered upgrade license key and prompts you to enter the original NiceLabel 2017 license that you wish to upgrade.

3.1.5. Updates for the Internet Information Services (IIS) web server

The communication between NiceLabel clients and servers is compressed to save bandwidth.

The communication stream is compressed between:

- Desktop clients and NiceLabel Control Center
- Web Client and NiceLabel Web Printing server

NiceLabel installer automatically enables the prerequisites in your IIS:

- Web Sockets

The following IIS prerequisites are no longer required and are not enabled in your IIS:

- CGI

- IIS Management Console
- Basic Authentication

3.2. Document management

3.2.1. Support for major and minor versions of documents

When versioning is enabled in Document Management System, you enable transparency of your labeling assets. You can track changes to files, restore items to previous versions, and compare versions of the same file to visually determine the differences.

In this release, NiceLabel Control Center adds support for major and minor versioning. Major versions are identified by whole numbers, such as 2.0, while minor versions are identified by decimal numbers, such as 2.1. Typically, you would use minor versions during the development, and major versions when certain milestones are reached or when files are ready for review and testing. The new numbering system prevents having too many non-approved major versions, which might raise suspicion during the eventual audit inspection.

File revision history (label.nbl)										
Revision		Date	User	Size	Workflow	Workflow step	Comment	Label Report	Preview	Download
1.1		9/26/2019 9:40:49 AM	www@nicelabel.com	2 KB	Label production approval process	Draft	Change request #ab123.			
1.0	Revert	9/26/2019 9:38:50 AM	www@nicelabel.com	2 KB	Label production approval process	Approved	Label designed per specification.			
0.2	Revert	9/26/2019 9:38:17 AM	www@nicelabel.com	2 KB	Label production approval process	Draft	All barcode objects added.			
0.1	Revert	9/26/2019 9:37:51 AM	www@nicelabel.com	2 KB	Label production approval process	Draft	Initial label design.			

Figure 10: Using major and minor versions

If you also enable the approval workflows in Control Center, the minor (draft) versions are visible only to the owner and the users who have permissions to approve files. It is at the discretion of the owner to check in the file as a minor or as a major version. When the file is approved, it can be automatically converted into a major version (but this is a subject of approval workflow configuration).

If your organization does not need to track major and minor versions of files, you can keep using the simple versioning scheme (such as 1, 2, 3).

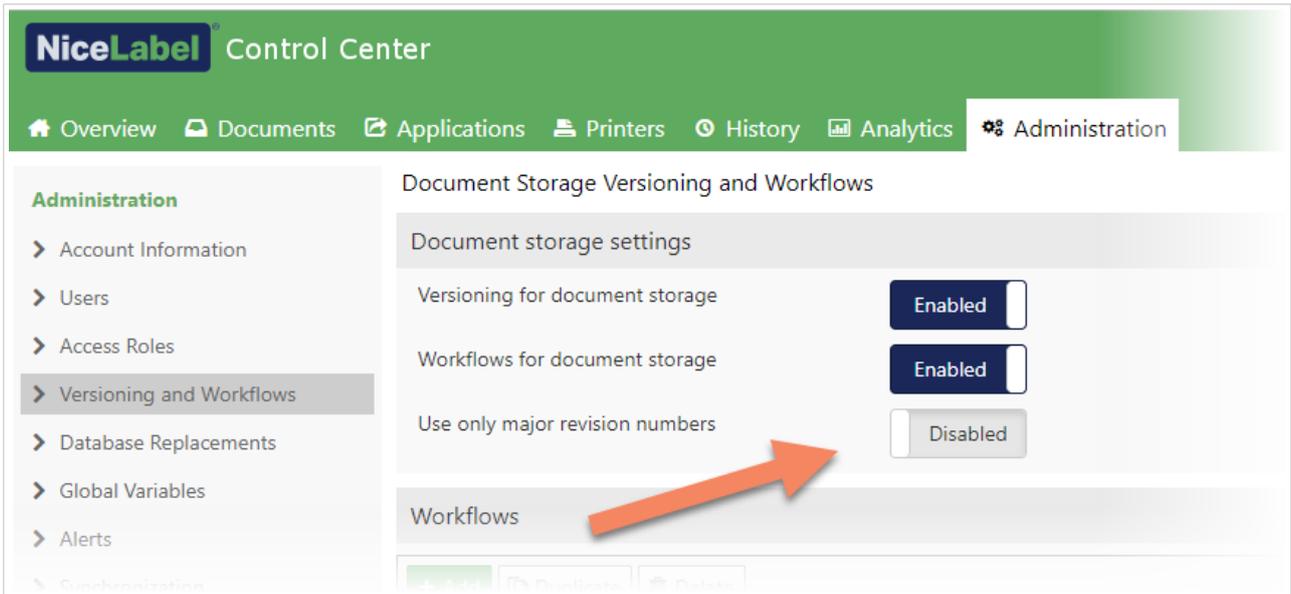


Figure 11: Configuring the versioning type



NOTE

Major and minor version scheme is on by default for new installations. Upgrades from previous versions keep the existing simple versioning scheme, but you can later enable the major and minor versioning scheme.

3.2.2. Redesign of role-based access control (RBAC) permissions

Role-based access control refers to the idea of assigning permissions to the users based on their role within an organization. You grant permissions to roles not to users individually.

NiceLabel Control Center introduces a brand new permission granting system. While you could define permissions on a much coarser level in previous versions, this release supports a fine-grained control of permission granting. Access to each part of Control Center is controlled by the permissions displayed in an understandable and organized way. For example, you can configure a role to have access to the history of print events, but to be prevented from having the ability to reprint labels or to see analytics data.

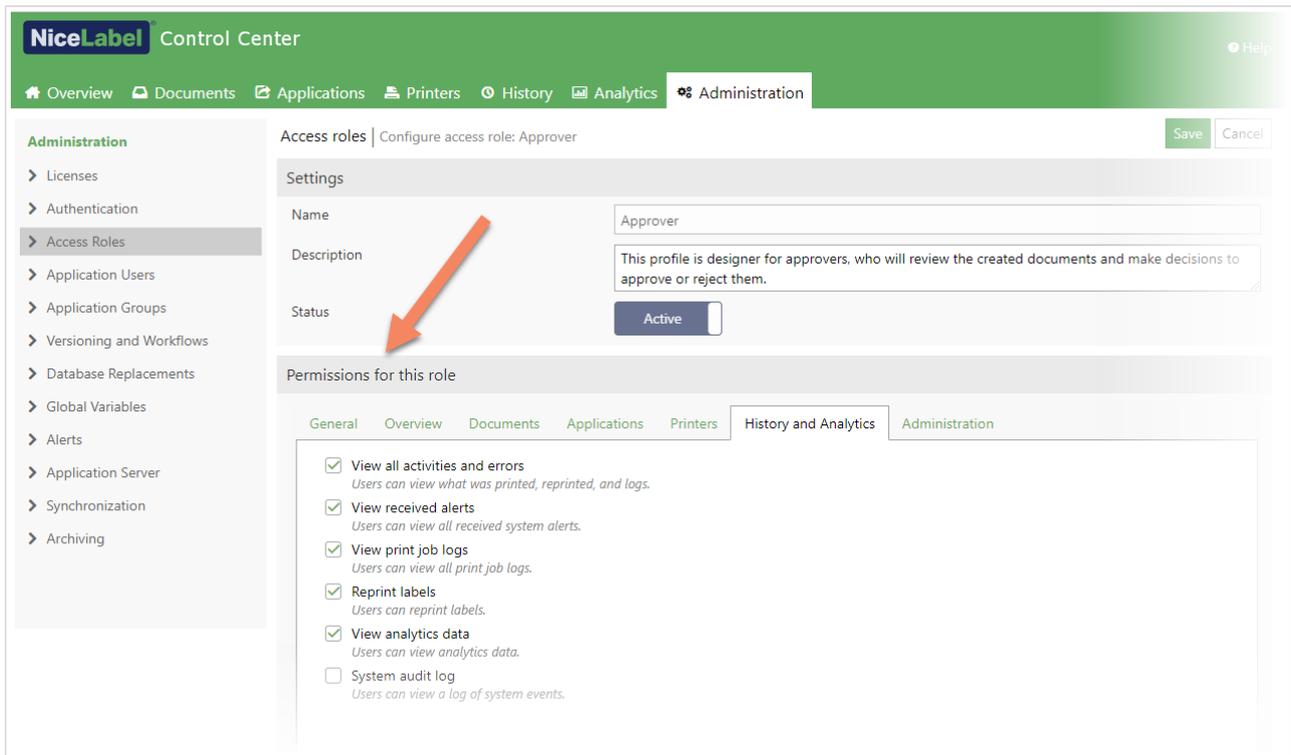


Figure 12: Fine-grained configuration of permissions in NiceLabel software

Many of the features that were previously locked to the Administration access role can now be removed and/or assigned to other roles. None of the permissions are hardcoded anymore. For example, you can create an administrator role to manage the Control Center, but to have no access to the files.

Another redesign was done in regards to accessing the content in Document Storage. Permissions are no longer managed from within the Documents tab but have been moved into the Administration area where you manage all other aspects of role-based-access-control.

The previously available basic level of file access permission has been enhanced with many detailed control options. What was hardcoded to the Administration role before is now freely configurable to better suit your quality assurance and security requirements. For example, the QA user can approve files, but cannot change or delete them.

You can define general file access permissions once, and apply them to the entire content within the Documents. You can also fine-tune the permissions separately per each folder if needed. For example, you want members of a specific role to see just the folders they own, and not all folders within the Documents.

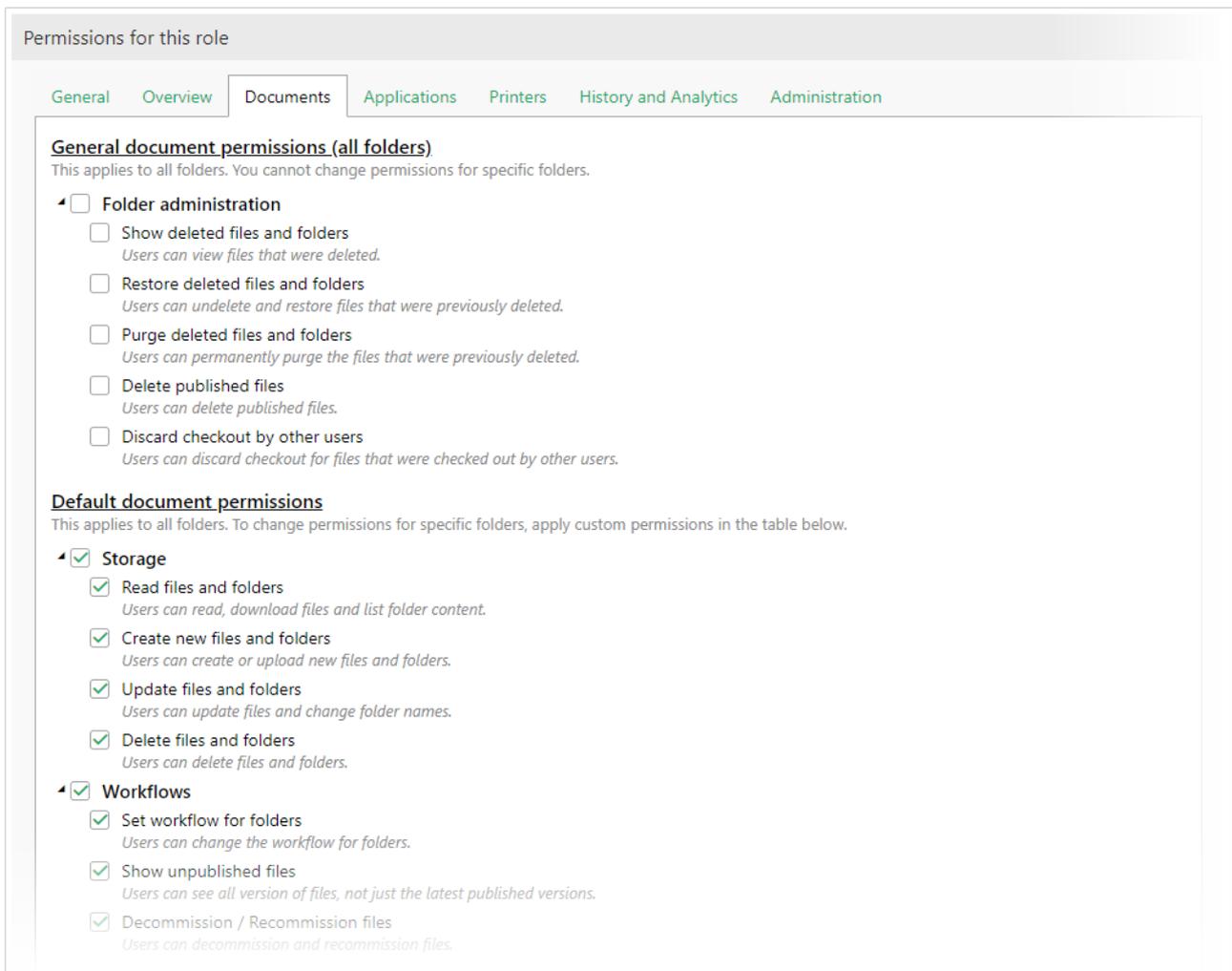


Figure 13: Configuration of file access permissions

3.2.3. Improved audit trails

More detailed logging of user activities is available in Control Center.

- **Logging of remove and restore file operations.** The file and folder events that remove and restore files in Document Storage are logged. The “System” category contains new audit logs for the following file operations:
 - Delete
 - Cut/paste
 - Purge
 - Restore
 - Change folder permissions
 - Commission, decommission

- Set workflow on the folder

These event types cannot be bound to the file's change history, as the file log is no longer accessible after you delete a file.

- **Mandatory comment for commissioning.** User comment is mandatory when commissioning and decommissioning a file.
- **Mandatory comment for electronic signature.** User comment is mandatory for each operation involving electronic signature.
- **Failed electronic signature.** The audit trail is added for the incorrect username and password when the electronic signature fails.
- **Login & logout log in Control Center.** The audit trail is added for all login and logout events in the Control Center. This functionality is available for on-premise LMS products when you use "application authentication" mode.

3.2.4. Drag & drop support for uploading multiple files and folders

The process of uploading files into the Documents tab has been simplified to a straightforward drag & drop operation. You can drag & drop the files into the "Upload files" window to upload them all at once.

If you use a supported browser, you can also drag & drop the folder. All uploaded files in the folder and all subfolders keep the existing folder structure. If using older browsers, you can only drag & drop files.

NOTE: Folder upload is available in Chrome, Firefox, and Edge, while Internet Explorer only supports file upload.

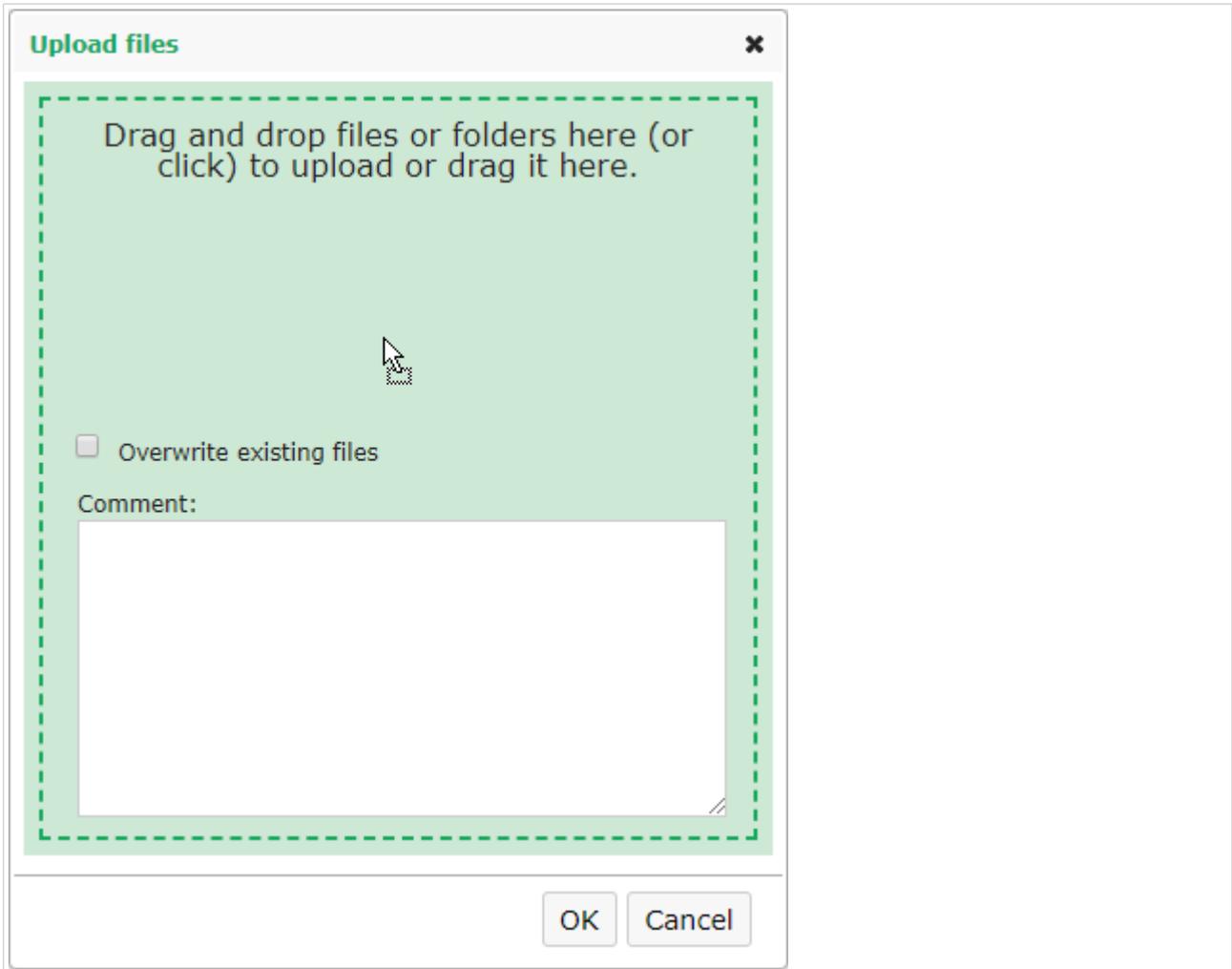


Figure 14: Dragging & dropping files and entire folder structures in Document Storage

3.2.5. Downloading previous file revisions

You can download any previous file revision from the “File revision history” dialog box.

File revision history (label.nbl)									
Revision	Date	User	Size	Workflow	Workflow step	Comment	Label Report	Preview	Download
1.1	9/26/2019 9:40:49 AM	www@nicelabel.com	2 KB	Label production approval process	Draft	Change request #ab123.			
1.0	Revert 9/26/2019 9:38:50 AM	www@nicelabel.com	2 KB	Label production approval process	Approved	Label designed per specification.			
0.2	Revert 9/26/2019 9:38:17 AM	www@nicelabel.com	2 KB	Label production approval process	Draft	All barcode objects added.			
0.1	Revert 9/26/2019 9:37:51 AM	www@nicelabel.com	2 KB	Label production approval process	Draft	Initial label design.			

Figure 15: Easy access to any previous file revision

3.2.6. Accessing Document Storage files for users signed in with “application authentication”



NOTE

This functionality is available for on-premise NiceLabel LMS Enterprise.

NiceLabel LMS products store all labeling-related files in the Document Storage. Previously, access to the Document Storage used was available just for the users who signed in with Windows authentication, because files from Document Storage are exposed to NiceLabel clients over WebDAV protocol, which by default only supports Windows authentication.

In this release, NiceLabel clients that use the application authentication mode can also work directly with files in the Document Storage. This enables seamless integration of DMS in the NiceLabel clients and simplifies file operations. For example, you can check out/check in your label templates directly from NiceLabel Designer.

3.3. Application Users



NOTE

This functionality is available for on-premise NiceLabel LMS Enterprise.

3.3.1. Redesigned management interface for application users

The management of application users and groups in Control Center has been completely redesigned. The user interface is modern and follows the styling found elsewhere in Control Center. You can easily create the users, add users to groups, access roles or web applications, and search for them.

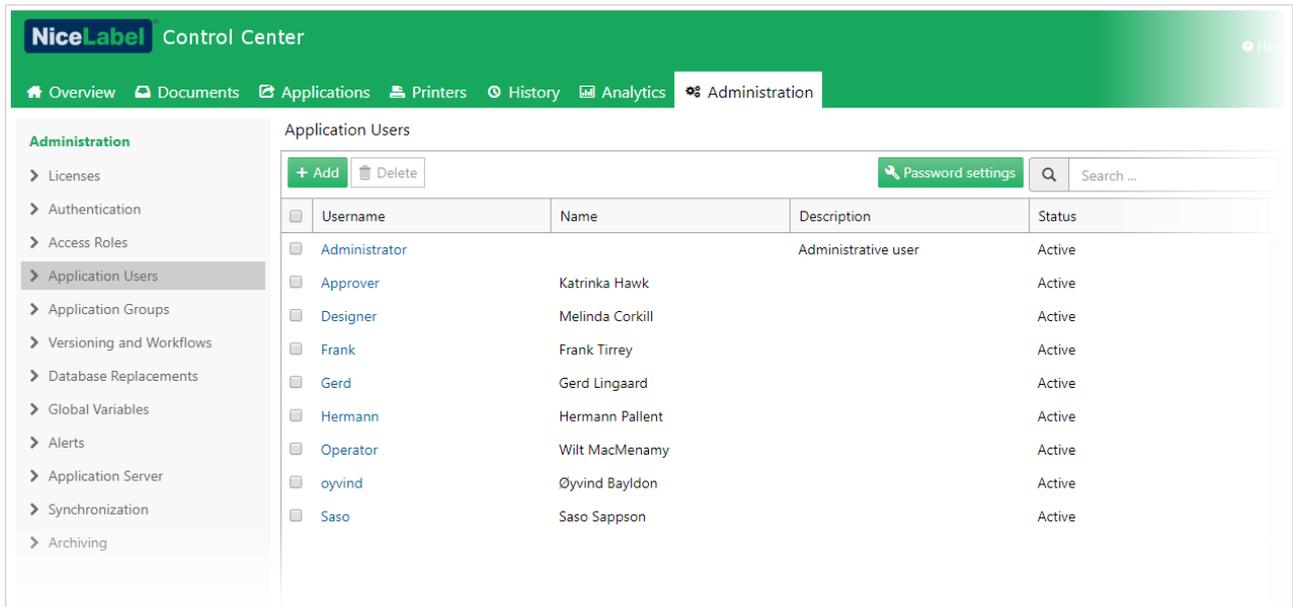


Figure 16: New user management interface for application user management

3.3.2. Advanced password and user account settings

If your company operates in regulated industries, you must adhere to the requirements and guidelines established by agencies that control the authorization and licensing of the production and sales of products. The rules that govern each industry may differ, but they have one rule in common – user management.

In this release, NiceLabel provides greatly enhanced procedures and practices for managing the application users. These are the users that you define inside the NiceLabel software as opposed to the users that are managed by some other authentication provider, such as Microsoft Active Directory.

There is a number of improvements in the Control Center:

- **Password complexity.** The administrator can define password complexity rules combining the following:
 - Password length
 - Required use of uppercase and lowercase letters
 - Required use of special characters
 - Username cannot be part of the password

- **Password validity.** Passwords are valid for a specified number of days. When a user logs in after that period, they are notified that the password is invalid and are prompted to change it.
- **Password history.** The entered password must be different than the X number of previous passwords.
- **User account suspension when an incorrect password is entered too many times.** A user account is suspended after X number of failed login attempts. The event is logged to the system audit log.
- **A user account is suspended after a period of inactivity.** A user account is suspended after X days of inactivity. The event is logged to the system audit log.

Password settings
✕

Password character settings

Minimal number of characters

Uppercase, lowercase, letters and numbers

Special characters

Username cannot be part of the password

Password validity
Number of days before passwords become invalid (users will be prompted to enter a new password)

Disable password validity

days

Password history
Number of previous passwords not allowed to be used as a new password

Disable password history

previous passwords

Figure 17: Detailed password management

3.3.3. Improved user authorization to run Web applications

Adding users to Web applications has been optimized. Now, shared web applications run much faster in organizations with many users, or where users are aggregated from multi-domain environments.

The new user interface displays users from specific user groups, and introduces search in a list of all users, might they be defined as application users or available in the Active Directory. The improvement also addresses the behavior of displaying more than 1000 users and listing the AD users from trusted domains, which was not available in previous releases.

If you prefer, you can also manually type in the user list or paste it from some external source.

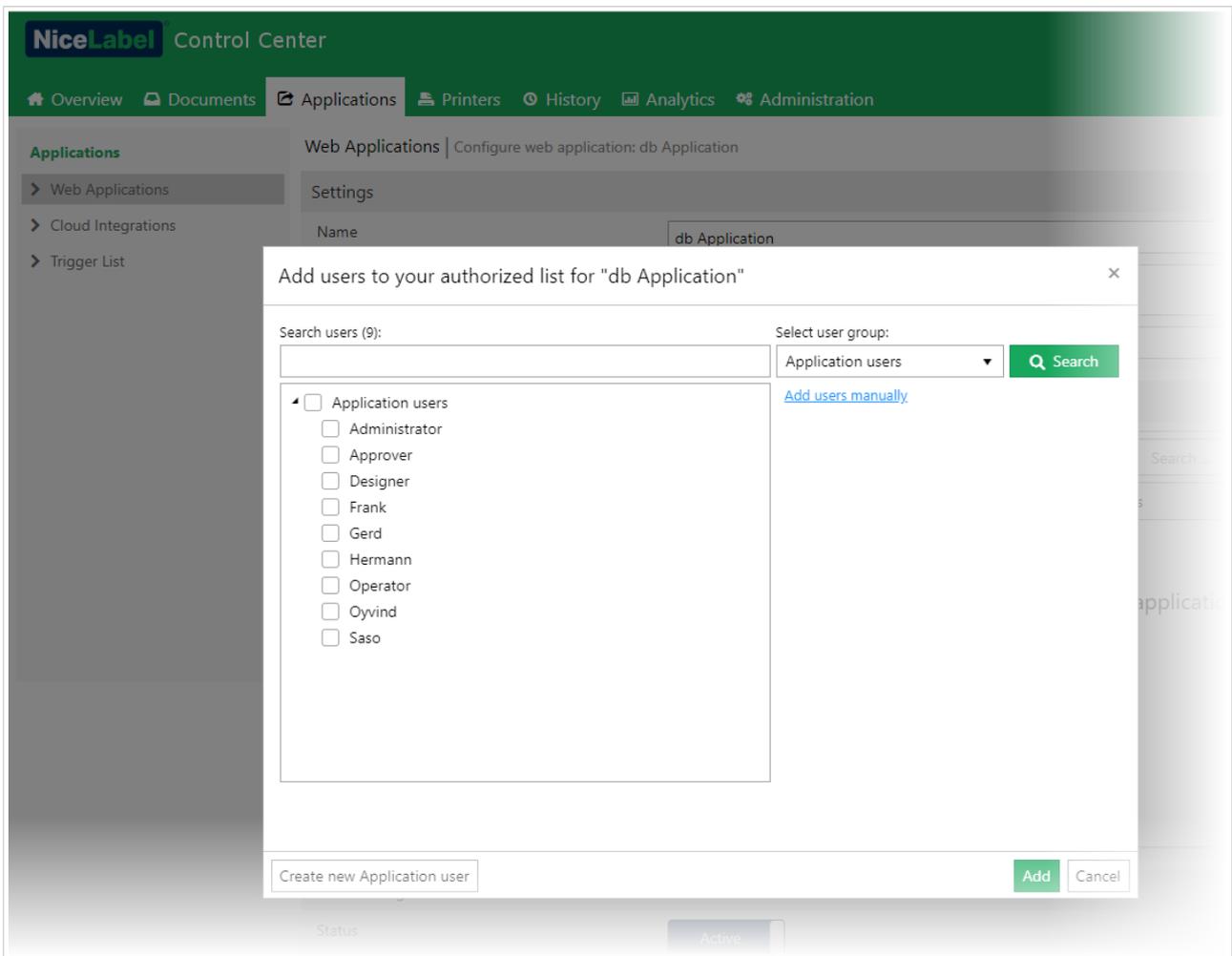
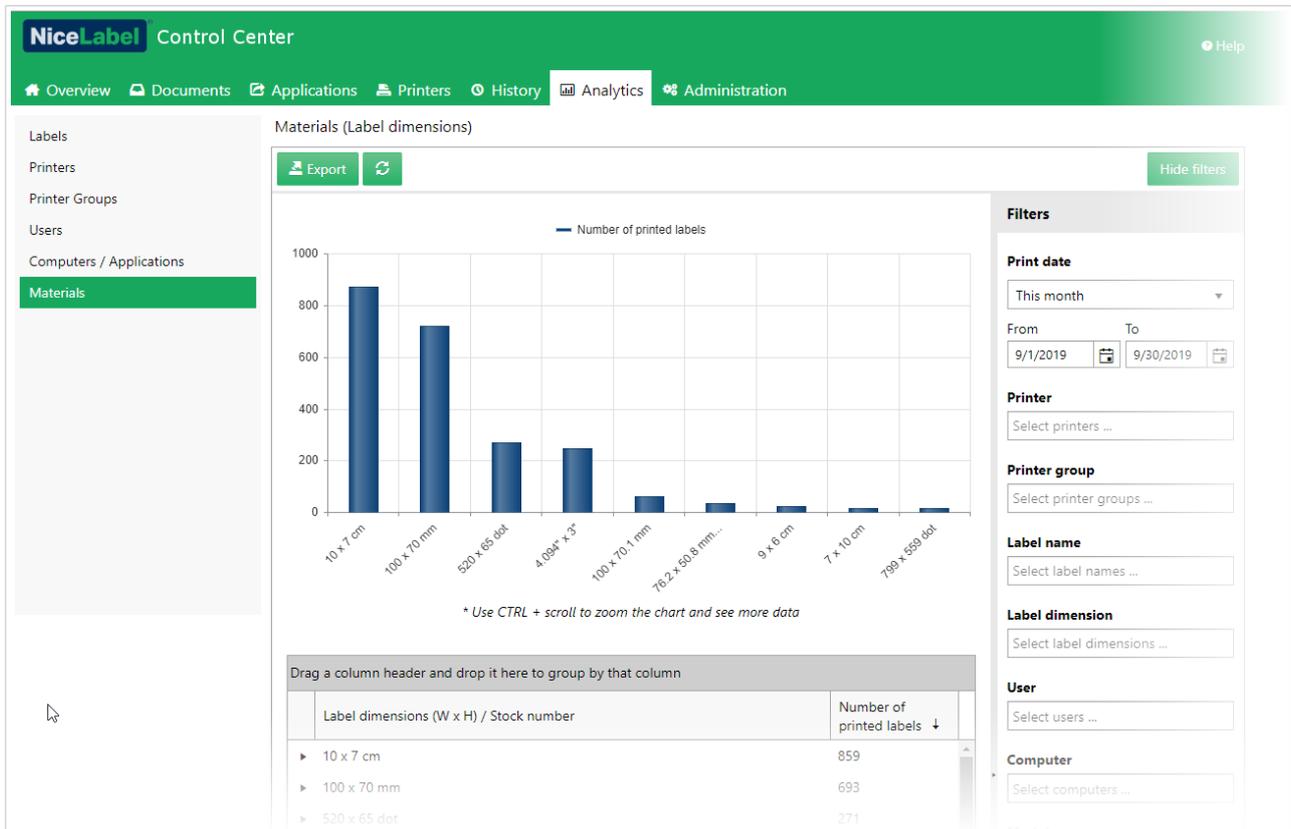


Figure 18: New user interface to authorize the users for running the Web applications

3.4. Analytics

3.4.1. Analytics view upon sizes of material used

New analytics view “Materials” shows different label sizes on the first level, and used printers on the second level. The production manager can see which materials have been used the most, so they can plan their label stock.



3.4.2. Filtering analytics views by metadata

You can filter all views in analytics by the field “metadata”. This is an optional field available with each print event that is filled in by the print process. Typically, you would use metadata to link data from the print event with some other piece of information.

You can also fill the metadata with values from the label that you want to filter the view by, such as “lot number”.

3.5. Web Printing

3.5.1. Improved Web Client upgrade experience

NiceLabel Web Client no longer notifies users about the available upgrades when you start it. Upgrade information is shown in the user drop-down menu in the Web Client. You can start with the upgrade on your own initiative.

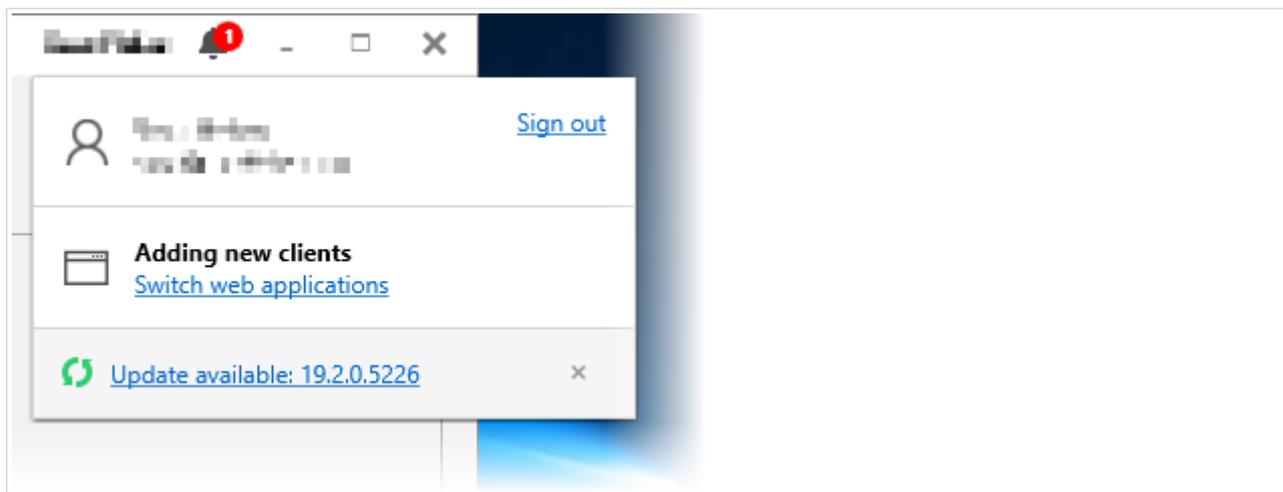


Figure 19: The notification in the caption informs the user about the available software updates

When the upgrade is mandatory, the installer automatically downloads and starts the upgrade.

If your IT team deployed the Web Client to you using the push-installation type, the Web Client does not show any upgrade information. In this case, you do not have permissions to install the software by yourself. Your IT team must make sure you are running the latest version.

3.6. Integration System (Automation)

3.6.1. Cloud trigger is available for on-premise Control Center

With the previous release, Cloud trigger was introduced with NiceLabel Label Cloud products. The trigger introduced printing of data from cloud-based software on printers installed on-premise without requiring you to open any ports in your firewall. You can use the Cloud trigger to send HTTP requests for printing to the Cloud API, which in turn forwards the requests to the respective running NiceLabel Automation configuration.

In this release, the same communication style is available for the on-premise NiceLabel LMS Enterprise. You do not have to know where each Automation server is located, and how to access the server. You only communicate with the Control Center.

Each Automation server registers its Cloud triggers with the Control Center. The clients then consume the API in Control Center, which forwards the request to the respective running NiceLabel Automation configuration for processing.

For example, the Cloud trigger with the unique identifier "MyCloudTrigger" is deployed in NiceLabel Automation. To execute it, you would send the data in HTTP POST/GET request to the address:

`http://server/epm/api/trigger/MyCloudTrigger`

Where »server« is the name of your Control Center server and »MyCloudTrigger« is the trigger unique name as configured in Automation Builder.



Figure 20: Automation Manager shows real-time Cloud trigger status information

The HTTP request must include a custom header named "Integrator-Key". This header includes the integration key, which authorizes the call. Generate the integrator key in Control Center.

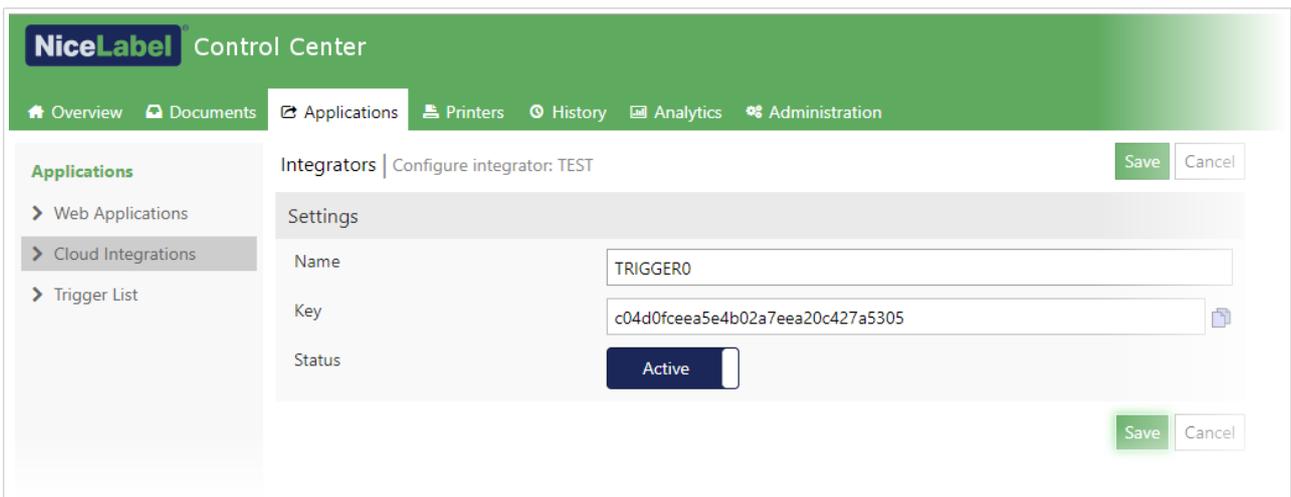


Figure 21: Generating the integrator key in Control Center

3.6.2. JSON data filter

JSON data filter enables NiceLabel Automation to process JSON data. JSON uses human-readable text to transmit the data object consisting of name-value (or key-value) pairs and array data types. You configure the filter to parse the JSON data, and provide the list of output fields and their values as a result. You can then print the values on the label.

This is a simple JSON structure:

```
{  
  "label_name": "label1.nlbl",
```

```

"label_count": 1,
"printer_name": "MyPrinter",
"product_code": "00265012",
"product_name": "SAC.PESTO 250G",
"ean13": "383860026501",
"weight": "1,1 kg",
"composition": "1;2;3",
"variance": "2"
}

```

JSON filter can extract the “key” (such as “label_name” and “product_name” above) and the respective “value” (such as “label1.nlbl” and “SAC.PESTO 250G” above), and send both to the label.

JSON filter also supports more complex JSON structures and repeatable areas. Each repeatable area provides data for a separate label. In the following example, “LABEL_DATA” array contains data for three labels.

```

{
"TIMESTAMP": "20130221100527.788134",
"USER": "PGRI",
"LABEL_DATA": [
{
"MAKTX": "MASS ONE",
"MATNR": "28345",
"EXIDV": "012345678901234560"
},
{
"MAKTX": "MASS TWO",
"MATNR": "28346",
"EXIDV": "012345678901234577"
},
{
"MAKTX": "MASS THREE",

```

```
"MATNR": "27844",  
"EXIDV": "012345678901234584"  
}  
]  
}
```

3.6.3. TCP/IP Client trigger



NOTE

This functionality is available in the products Label Cloud Business, NiceLabel LMS Enterprise, and NiceLabel LMS Pro.

TCP/IP Client trigger is in its core similar to the TCP/IP Server trigger, but with one important difference. As the name suggests, the trigger acts as a client and initiates the outbound connection to the remote TCP/IP server. The trigger executes actions when receiving data from a remote server. The TCP/IP Client trigger keeps a persistent connection with the server, including automatic reconnection if necessary.

Imagine a networked packaging line consisting of Automation server, label printer, and PLC that controls the process. You must print the serialized labels and perform vision inspection of each label. You cannot send a batch of many labels to the printer, printing must be done in-sync with the packaging process. The next label can print on-demand when the previous one has been handled.

NiceLabel Automation connects with the controller and waits for the signal to print the next label. When the running Automation configuration receives the signal, it sends a single label with the next serial number to the label printer. Then, the printing takes place, next, the label is visually inspected, and finally it is applied to the product. If the process is successful, the signal is sent to Automation for the next label, and then the loop repeats.

Automation can also communicate with the controller and provide answers to the questions. You can define a two-way communication process with the controller, if necessary, or strictly use the listen-only mode.

3.6.4. Automation Manager displaying an error message for unfound configurations without discarding them

Automation Manager displays an error after the previously added configuration file (.MISX) cannot be found or loaded. Such configuration is no longer automatically removed from the list.

The warning icon is shown in the configuration list next to the configuration that cannot be loaded. When you select the affected configuration, the error details become visible. Click **Try again** after resolving the issue to reload the configuration.

The screenshot displays a software interface with a dark blue header containing 'Triggers', 'Log', and 'About' tabs. On the right side of the header are icons for a close button and a help button. Below the header, the 'By status' section shows a table of trigger counts:

Status	Count
All triggers	5
Errors	0
Running	5
Idle	0
Stopped	0

The 'Configurations' section features a '+ Add' button and a list of configurations. The 'CloudPrinters' configuration is highlighted in blue and has a red error icon to its left. Below it is 'onPremiseCloudTrigger'. To the right of the 'CloudPrinters' configuration is a 'Try again' button.

Configuration file cannot be loaded.

Configuration file "http://TRAINER:8080/Demo/Cloud Printers/CloudPrinters.mix" cannot be loaded.

Most common reasons why configuration file cannot be loaded are:

- Configuration file was removed, renamed or moved to another location.
- Configuration file is on a network location which cannot be accessed due to network connection problem.
- NiceLabel Automation Service 2019 does not have permission to access the configuration file. Check permissions for user account used by NiceLabel Automation Service 2019. [Read more ...](#)

Figure 22: Notification displayed for configuration files that cannot load