2017.3 Release Notes

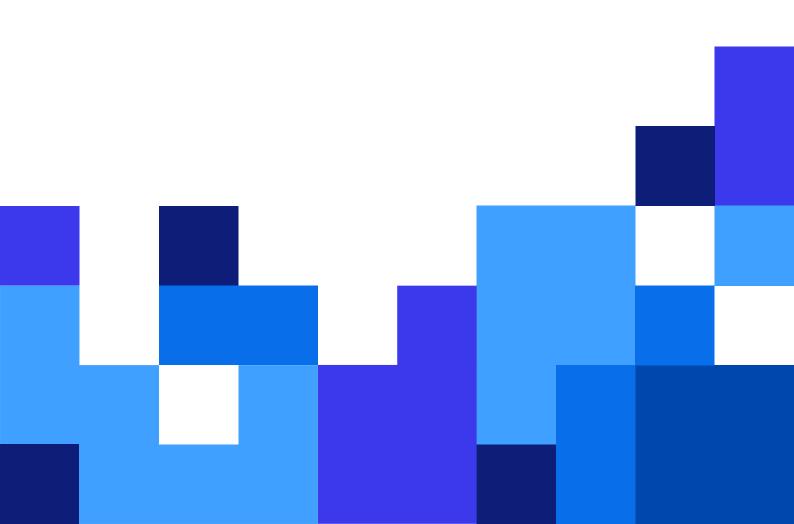


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1. New in Designers

1.1. Installation and Activation Improvements

1.1.1. Checking for Updates

NiceLabel periodically checks if a newer version is available online. The availability of a newer version is announced on the Landing page (the first page you see after starting the Designer) and on the About page. The link takes you to the download page of NiceLabel website.

NOTE: Check for updates is not supported in NiceLabel LMS products yet.

1.1.2. Product Selection not Shown for Known Product Level

If the installation filename contains identification of the product edition to be installed, you no longer see product selection dialog during the installation. Product edition can be configured in the installation file name if the file name contains "_Pro", "_Express", or similar identifiers.

1.2. New and Improved Functionalities

1.2.1. New Landing Page and Backstage Start Tab

Each time you start NiceLabel 2017.3, a new landing page is displayed providing shortcuts to useful information sources, frequently used commands and NiceLabel news.

- You can quickly create a new label or a solution, or continue your work on existing files. You can
 access local files and files stored in the Document Management System.
- You can quickly access learning material, such as video tutorials, user guides and samples.
- There is a NiceLabel driver download link for your printer.
- You can see information about your NiceLabel installation, including version info, license level, vendor information, and notification about possible new version available online.
- If your software is not activated yet, activate it from here.

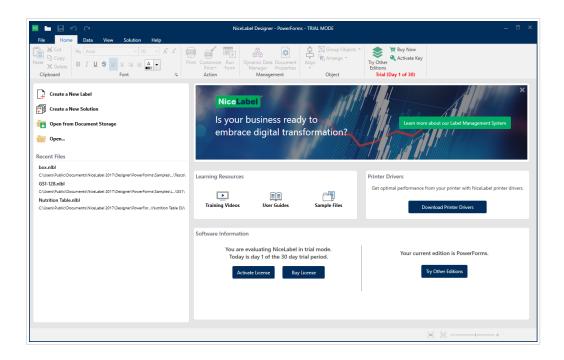


Figure 1: Useful shortcuts and information sources are available on the landing page

The same set of information is also accessible once the Designer is already running. Open it using "Start" panel on the File (Backstage) tab.

1.2.2. Allowing Only Reserved Printers to be used

A new setting is available on the "Printer usage" page to configure NiceLabel applications on the workstation to use exclusively reserved printers. Reserved printers have a seat license bound to them and are guaranteed to be always available.

This setting is valuable on the locked-down production floor, where printing can be done on approved printers only.

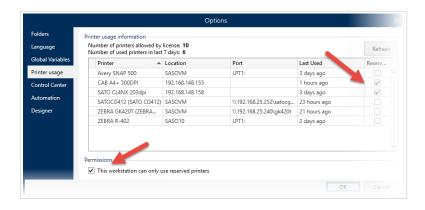


Figure 2: Allowing NiceLabel applications to only use reserved printers

You can enable the option "This workstation can only use reserved printers" on multiple workstations and they will all be able to print to the same reserved printers. Additionally, you can pre-configure a custom list

of reserved printers for the entire printing environment. All workstations in such environment use printer seats from the same pool of licenses.

NOTE: For more information on pre-configuration of reserved printers, see help or user guides.

1.2.3. Updated Support for Data-encoding and Business Communication Standards (2017.3.1)

- **Updated support for GS1-128 specification (issue 17.1, July 2017).** Support for GS1-128 in NiceLabel 2017 is updated according to the last changes in GS1-128 General Specifications Issue 17.1. There are new (Al22) and updated (Al 91-99, 20, 8006) application identifiers.
- Updated support for GS1-128 specification (issue 18.0, January 2018) (2017.3.1). Support for GS1-128 in NiceLabel 2017 is updated according to the last changes in GS1-128 General Specifications Issue 18.0. There are the following new application identifiers: (AI 714, AI 8013).
- **IronPython library update to latest version 2.7.7.** This version provides more stability and various bug fixes for Python support.

1.2.4. Support for Datamatrix Rectangular Extension (DMRE)

Datamatrix 2D code is a cornerstone of efficient AutoID solutions that became widely used in applications of various industries, healthcare and distribution segments. Datamatrix usually consists of a square-shaped 2D code, although six rectangular extensions were available already, but only with minor data capacity (6 to 72 alphanumeric characters).

The new Datamatrix Rectangular Extension adds twelve new rectangular high-capacity shapes. These shapes solve identification issues caused by insufficient available space for Datamatrix symbol in the following areas:

- Pharmaceutical
- Medical devices
- · Parts and components in electronics industry

NiceLabel 2017.3 fully supports all DMRE codes.



Figure 3: Extended rectangular DataMatrix code with a module size 8×64 (image source: www.dmre.info)

1.2.5. Improved User Experience

- Display each document in its own window. A new setting under NiceLabel Options allows you to
 decide if you want to create a new or existing document in the current instance of NiceLabel
 Designer, or if you want to open it in a new instance.
- Function definition is editable immediately after creating a new function. As soon as you add a new function, the function properties dialog opens for editing. You no longer have to double click the function to edit it.
- **PDF library update**. The updated library supports transparent and semi-transparent (such as images with gradients) images.
- Font names in the printer driver support Unicode. Some printer drivers can report their list of internal fonts in UTF-8 encoding. NiceLabel 2017.3 displays the full Unicode name of such fonts.

1.2.6. New Condition for Label Object Visibility

NOTE: Product editions NiceLabel Designer Pro or above are required for this feature.

In NiceLabel Designer, you can easily control label object's visibility. For example, under some circumstance, the object must print and, in other cases, it must not print.

Each object has a property "Visible" that determines whether it should be printed.

In previous versions, object visibility was triggered by a variable being EQUAL (=) to some control value in the condition. In NiceLabel 2017.3, the variable can also be NOT EQUAL (\neq) to the control value.

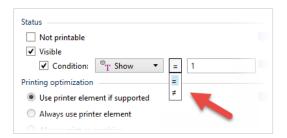


Figure 4: You can control object visibility with EQUAL and NOT EQUAL relations

1.2.7. Importing Variables from Oracle WMS File

NOTE: Product editions NiceLabel Designer Pro or above are required for this feature.

Data sources in a NiceLabel document define values for objects with dynamic content. NiceLabel 2017.2 release provided an easy method for label designers to consolidate and re-use data sources from existing documents. A label designer could import data sources into a new label or solution and easily re-use them. This helps maintain consistency across portfolio of label templates as well as saves time by allowing easier re-use of already configured functions and database connections.

NiceLabel 2017.3 can additionally import variables from the Oracle WMS file that enables label printing directly from within the Oracle Warehouse Management environment. NiceLabel 2017.3 imports variables and their provisional values from this specific type of XML file. Provisional values help you preview sample data values during the label design process.

Users of Oracle WMS system benefit significantly by direct importing. The result is much faster label design process as the import of all necessary variables from Oracle application into a label becomes available.

```
The Import Data Sources button is available in Dynamic Data Manager.

<!xml version="1.0" encoding="UTF-8" standalone="no"?>

!DOCTYPE labels SYSTEM "label.dtd">

!abels _FORMAT ="material.nlbl" _QUANTITY="1" _PRINTERNAME="" _JOBNAME="Material">

!abel>

variable name= "item">O Ring</variable>

variable name= "quantity">2</variable>

variable name= "lot">123</variable>

<variable name= "lot">5123</variable>

<variable name= "organization">A1</variable>
```

Figure 5: Example of Oracle WMS XML-formatted set of data for label printing

1.2.8. New Custom Command "SESSIONEND"

</labels>

NOTE: Product editions NiceLabel PowerForms or above are required for this feature.

The default printing mode in NiceLabel 2017 is "session print". In this case, all labels belonging to the same print batch are sent to printer in a continuous print stream. This ensures smooth printout without printer "hiccups" and the fastest possible throughput. NiceLabel strives to enable session print automatically whenever possible. Some events, such as label change or printer change, stop the session print.

With NiceLabel 2017.3, you can manually enforce the ongoing session printing to stop. You can use "Send Custom Commands" action with the SESSIONEND command. The next label that must be printed will be sent separately in a new print job.

1.2.9. Error Message for NiceLabel Proxy Service 2017 not Running

NiceLabel 2017 applications, such as Designer, Print or Automation, rely on the NiceLabel Proxy 2017 Service. This is a service that runs in the background and enables communication between various NiceLabel components.

If NiceLabel Proxy Service 2017 is not running, NiceLabel software cannot function anymore. NiceLabel 2017.3 displays a warning message notifying the users about the erroneous situation and suggests a possible solution.



Figure 6: New warning message informing that a vital NiceLabel component does not run

1.2.10. Relative Object Positioning Supports Objects From Both Sides of the Label (2017.3.1)

Relative positioning support in NiceLabel allows the objects to dynamically change their position based on the position and/or size of other label objects.

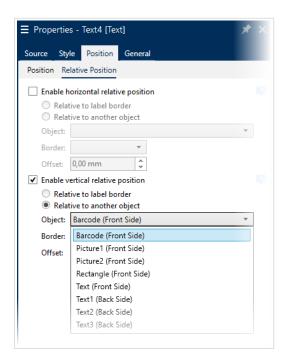


Figure 7: The object can be linked to the position of object from the other label side

With this release, object can change its position based on the object that is located on the opposite label side. A list of available objects to which the current object can be link with now contains objects from both label sides. Each object contains additional label side identifier for easy identification.

1.2.11. Updated Stock Database (2017.3.1)

The database of stocks (predefined label formats) that ships with NiceLabel now includes new stocks for SATO Horticultural labels. These tags, labels and signs are designed for the horticulture industry to withstand their use in harsh environments, and to be used for several years under most conditions. Stocks for metric and imperial units of measure are part of standard NiceLabel stock collection.

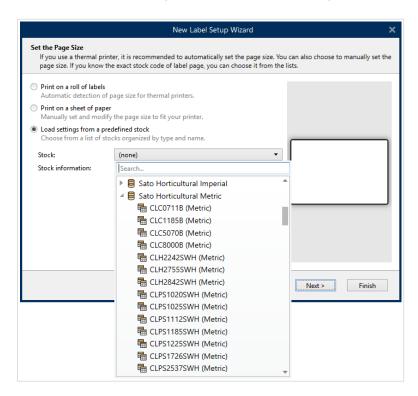


Figure 8: New stocks available for SATO Horticultural labels

2. New in Desktop Solutions

2.1. New Object: Button Group

The object Button Group allows the user to define a selection control consisting of multiple buttons. It creates buttons from the list of values defined in the object definition. Each value in the list is rendered on the form as a separate button within the Button Group object.

Once the user clicks a particular button, a variable that is connected to the Button Group gets the value displayed on the button. Knowing which button was clicked, the actions execute accordingly.

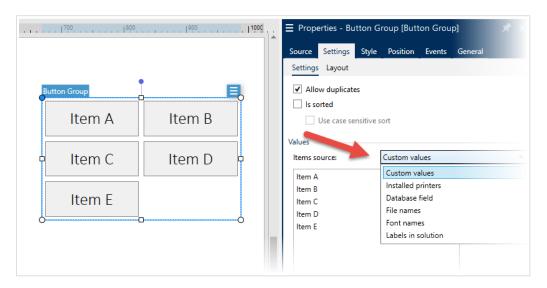


Figure 9: Dynamically created buttons display values from various data sources

You can also dynamically generate the list of values. For example, Button Group can get values from a database table, can display a list of files in particular folder or locally installed printers, and much more.

NOTE: The screenshot above shows hard-coded list of values (from "Item A" to "Item E").

2.2. Word-wrap for Button Group Tags (2017.3.1)

Word wrap support is added for buttons in the Button Group object. When enabled, the button tag that does not fit inside a single line is automatically broken into multiple lines.

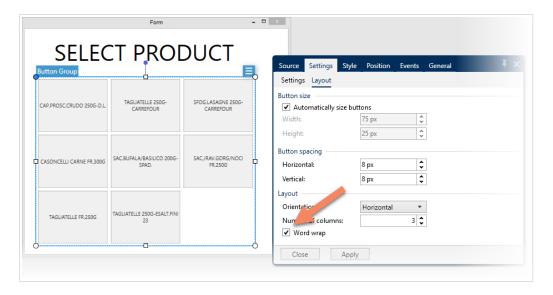


Figure 10: Word wrap can be enabled for buttons inside Button Group object

2.3. New Condition for Form Object "Visible" and "Enabled" States

In NiceLabel Designer, you can easily control the visibility of a form object. For example, under some circumstances, the object must be visible and/or enabled and in other cases, it must not be visible, or must be visible, but not enabled.

Each object has a property "Visible" that determines whether the object is displayed on the form and a property "Enabled" that determines if the user can interact with object and use it.

Previously, the visibility was triggered by a variable being EQUAL (=) to some control value in the condition. Now, the variable can also be NOT EQUAL (\neq) to the control value.

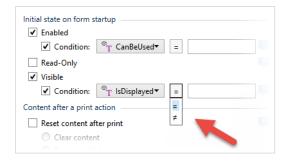


Figure 11: You can control object's state for "enabled" and "visible" with EQUAL and NOT EQUAL relations

2.4. New Actions Available in PowerForms Applications

NOTE: Product editions NiceLabel PowerForms or above are required for this feature.

The following actions are now available in NiceLabel Designer for building PowerForms applications.

- Preview Label. This action creates a label preview as a graphic image (e.g. PNG, JPG) on the disk.
- **Get Label Information.** This action generates an XML file with information about variables defined in the label file, label dimensions, and the printer configured for the label.

These actions are available in "Other" group in Action Editor.



Figure 12: New actions available for PowerForms Applications

2.5. Collecting User Response in the "Message" Action

You would use the Message action to display custom messages and let the user know about certain event that happened in the application, or to provide feedback.

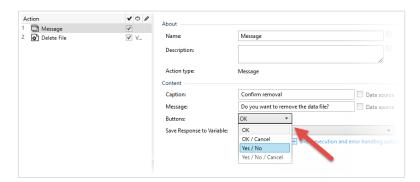


Figure 13: The solution is capturing user response

In NiceLabel 2017.3, the Message action can also collect user response. You can configure the action to display a set of common buttons (e.g. OK/Cancel, Yes/No and others) in the dialog box.

When a user clicks on any of the available buttons, Message action saves the response. You can use this information to run appropriate action(s) in the workflow.

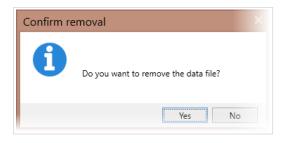


Figure 14: Various actions are run based on user response

2.6. "Browse File/Folder" Action Allows Selection of Nonexisting File

"Browse File/Folder" action selects a file or folder to be used in further actions down the workflow. The action offers a new option named "Allow non-existing file". This option allows you to use the action in case you want the user to specify destination for a file that will be created by the application.

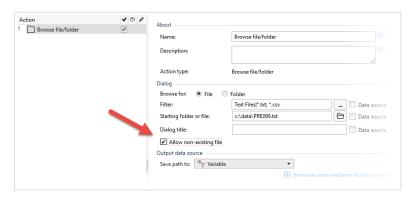


Figure 15: Enabling the operator to define the destination file

2.7. Defining Minimum Size of Forms (2017.3.1)

When you resize a form, there are two possible scenarios.

- 1. The form object might either resize and/or change its position to remain visible on the resized form.
- 2. Form objects are no longer visible after the form size is reduced past the point of their visibility.

Starting with this release, another scenario is available.

You can define the minimum size of a form. Once you cross the minimum boundary in the horizontal and / or vertical direction, the form resizing stops, and scroll bars become available. To display a particular part of the form content, you can drag the scroll bars to adjust the viewing area.

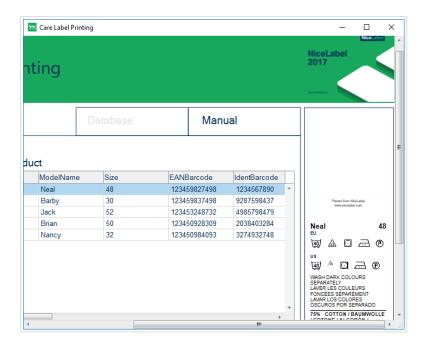


Figure 16: The form was designed to run on 1680×1050 screen. It starts to show scrollbars when resized to 1280×800 or below.

The functionality is useful in cases when you design the form for a big screen, but you are also using or testing it on screens with lower resolution. The form is still perfectly usable on a smaller screen. You can scroll the form up / down, and left /right to display any part of it.

2.8. Configurable List of Variables to Prompt for Values at Print Time (2017.3.1)

By default, the Data Initialization object on the running print form displays all variable data sources from the current label that require input from the user. When you enter the data, the label preview illustrates how the data fits into a label.

In certain cases, such as with highly customized forms, you do not want the user to see all available variable data sources at once. The availability of data sources might depend on multiple factors. It could be the currently logged-in user, data sources storing particular values, etc.

Starting with this release, the form designer has full control over visibility of variable data sources within the Data Initialization object.

The list of available data sources can either be hard-coded using object properties, or provided as a comma-separated list of data source names.

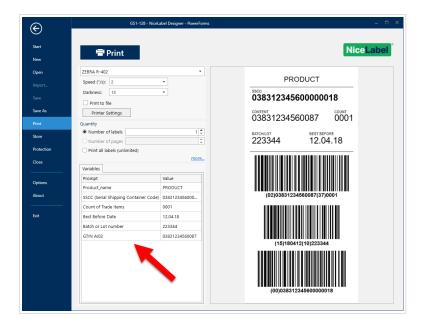


Figure 17: The list of variable data sources is configurable.

2.9. Support for Right-to-left (RTL) Languages in PowerForm Objects (2017.3.1)

In right-to-left (RTL) scripts, writing starts from the right of the page and continues to the left. The most widespread RTL writing systems are Arabic, Hebrew and Persian. For such languages, NiceLabel PowerForms applications now supports entering data from right to left.

The following form objects support right-to-left text flow direction:

- · Edit Field
- · Memo Field
- Text

3. New in Label Management Systems

3.1. Document Management

3.1.1. Streamlined Integration of Automation Builder with Document Management System

NOTE: Product edition NiceLabel LMS Enterprise is required for this feature.

Revision control system in Control Center is designed for multi-user environments and supports concurrent operations on files that are located in the Document Storage. While a certain file revision is in use in the production environment, the changes can already be applied to the next revision.

To prevent any changes on a file that are done by more than a single user at the same time, the file locking system is in place. If users need to update the existing Automation configuration, they have to reserve the file for themselves. The file is checked out. During this time, the currently approved file revision can still be used uninterruptedly in the production. When users are done with the updates, they submit the new file version back to Document Storage. The file is checked-in.

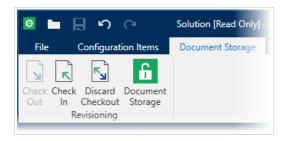


Figure 18: Document management controls in Automation Builder

With release 2017.3, the check-in and check-out operations can be accomplished directly from Automation Builder. The application is equipped with a new ribbon tab named "Document Storage". It allows you to quickly manage check-in and check-out operations and to access this particular configuration in the Document Storage.

A new shortcut to the Document Storage is also available when selecting File > Open command.

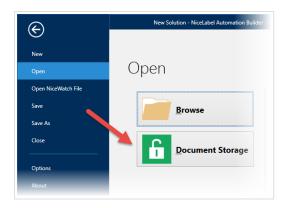


Figure 19: Quick Document Storage access from Automation Builder

When opening a file from Document Storage without checking it out, the file remains in the locked read-only state. Its modification is not possible.

3.1.2. Decommissioning of Files

NOTE: Product edition NiceLabel LMS Enterprise is required for this feature.

If a file in a Document Management System should not be used at any point during its life cycle, users now have the ability to decommission such files. Decommissioned files cannot be used in production but they are kept in the system for future use or audit purposes. The decommissioned file is still visible to users with read/write access to the folder. You can continue updating the labels and other documents and advance them through approval process. Decommissioning a label prevents access to it from print operators in production but does not delete the actual document.

Decommissioning can be a permanent or temporary action. Should you need the decommissioned file again later, you can recommission it. The file is then again accessible by the production users.

By default, Administrator and Approver profiles are allowed to decommission a file. To allow other user profiles to perform this action, you can configure it in Administration.

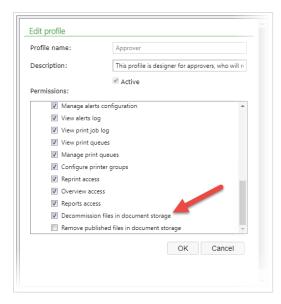


Figure 20: Permission to decommission the document is configurable in Administration

After you have decommissioned the file, an image appears next to the file icon in the Document Storage indicating that the file has been decommissioned. At this point, production users will not see the file any more.

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

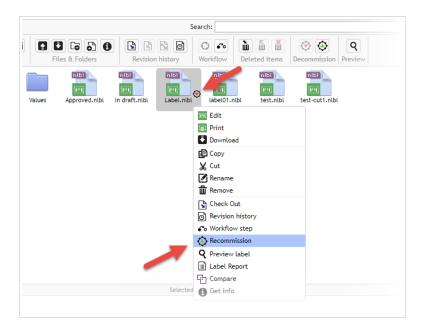


Figure 21: The decommissioned file can be recommissioned

NOTE: Decommissioning requires authentication to be enabled on Control Center.

3.1.3. New Security Profile Permission to Delete Published Files

NOTE: Product edition NiceLabel LMS Enterprise is required for this feature.

By default, only Administrators can remove a published file from the Document Storage. In NiceLabel 2017.3, the Administrator can allow any other security profile to remove the published files as well.

To grant the selected profile the right to remove published files from the Document Storage, you can configure the permission in Administration tab.

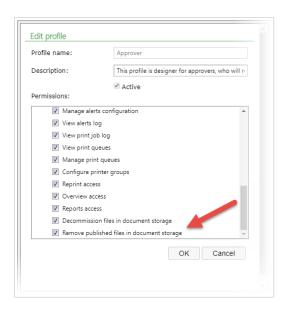


Figure 22: Permission to remove published document is configurable in Administration

Once you delete a document, it is not actually removed from the Document Management System. The document is safely stored in the internal "Recycle Bin". Only Administrators have permissions to restore the deleted files or permanently purge them from the system.

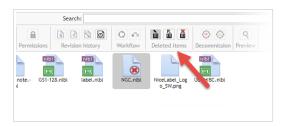


Figure 23: Using "Recycle Bin" options in Document Storage System to restore or purge the deleted files

3.1.4. Updated Two-step Approval Workflow

NOTE: Product edition NiceLabel LMS Enterprise is required for this feature.

Document Management System already includes a workflow process that requires two independent approvers to review and approve the document before it is published and sent to production.

NiceLabel 2017.3 upgrades the process with the ability to define the order of approval steps. You can define separate groups of people for first and final document approval.

To reach the approved status, a unique member of both approval groups must approve the document.

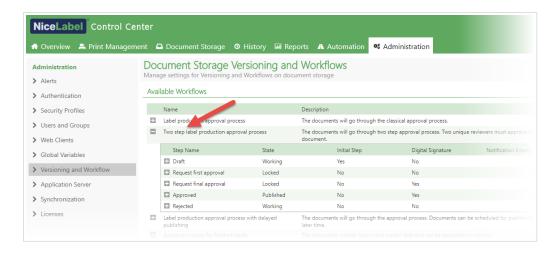


Figure 24: Configuration of two-step label production approval process

3.2. Web Printing

3.2.1. Path to File-based Data Sources no Longer Requires Hard-coding

If using file-based data sources such as Microsoft Excel and Microsoft Access files for Web Printing labels or solutions, you no longer have to use full path to the data file. Instead, you can use relative path to the data file, with path origin starting in the folder where label or solution file is stored.

For example, if you have a solution stored in a folder Project\Solution and have your Microsoft Access database in folder Project\Database, the relative path to the database is ..\Database.

NOTE: NiceLabel recommends using Microsoft SQL or other server databases to be used with Web printing solutions.

3.3. Integration System (Automation)

3.3.1. Iteration through Returned Rows in "Execute SQL Statement" Action

The "Execute SQL Statement" action executes the provided SQL statement on the database and returns a result. If you execute SELECT statement, the result is a dataset of records formatted as a CSV structure.

With NiceLabel 2017.3, Automation can parse the returned dataset for you. If you enable the "Iterate for Every Record" option, the "For every record" node appears under the action. Inside the node, automatic mapping takes place between the fields returned with the dataset, and variables defined in the label. You no longer have to manually configure any "Structured Text" filter to parse the data.

NOTE: This action is available in NiceLabel PowerForms edition as well.

For easier understanding, see the screenshot below. When running the statement "SELECT * FROM Products", the fields "Key", "GTIN", "Id" and "Name" are returned in the dataset. Automation extracts the fields from the dataset and assigns their values to the label variables that have the same names as fields in the dataset. There is no need to configure any filter or to configure any manual mapping between fields and variables. All actions within the "For every record" action are executed once for each record in the dataset.

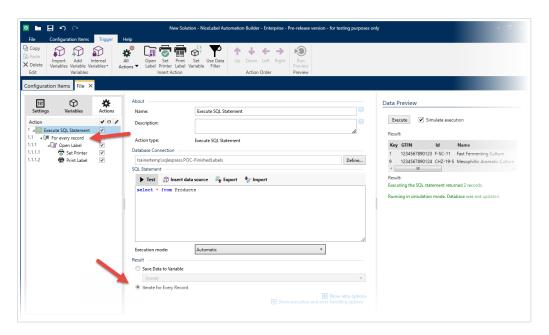


Figure 25: Iteration for every record automatically assigns field values to label variables without custom filter

Of course, the prerequisite here is that field names in the dataset and variable names in the label match. You can adjust your SELECT statement to return aliases of field names that match the names of variables, e.g.:

SELECT column_name AS alias_name

FROM table_name

3.3.2. Application Group Based Authentication for HTTP Triggers

You can enable authentication for an HTTP trigger and thus only allow access to applications that authenticate themselves using a correct user name and password. In previous versions, NiceLabel Automation already supported a single general user name and password that all connecting clients had to use.

In NiceLabel 2017.3, you can grant access to the HTTP trigger to multiple users that are members of a specific Application Group. This simplifies user management in complex environments, where security practice advocates are using personalized user names and passwords, and not a shared one.

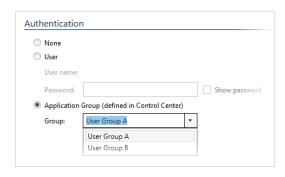


Figure 26: Users from Application Group "User Group A" can connect to HTTP trigger

Each connecting client is assigned with a unique user name and password. You can add the user as Application User using Control Center Administration.

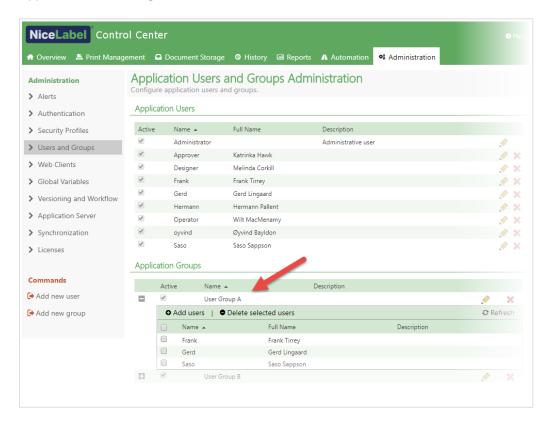


Figure 27: Users "Frank", "Gerd" and "Saso" can all connect to HTTP trigger using their credentials

3.4. Programmable Integration (.NET API)

NOTE: For details, see the API reference guide that ships as compiled HTML help (.CHM extension) with .NET API.

4. Adopting NiceLabel 2017

4.1. Useful Assets

- · Technical specifications
- Installation Guides¹
- User Guides¹
- · NiceLabel 2017 Licensing document
- · Training videos and tutorials
- Release Notes
- NiceLabel 2017 Compatibility knowledge base article lists the changes with previous generation of NiceLabel products
- NiceLabel 2017 Feature Comparison



4.2. User Interface Available in Korean Language (2017.3.1)

All NiceLabel 2017 applications can display the user interface in Korean language.

¹Localized versions of document are available online. See Product and User Guides page.

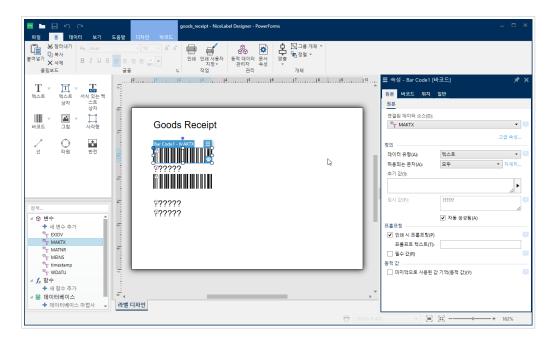


Figure 28: NiceLabel 2017 user interface in Korean language