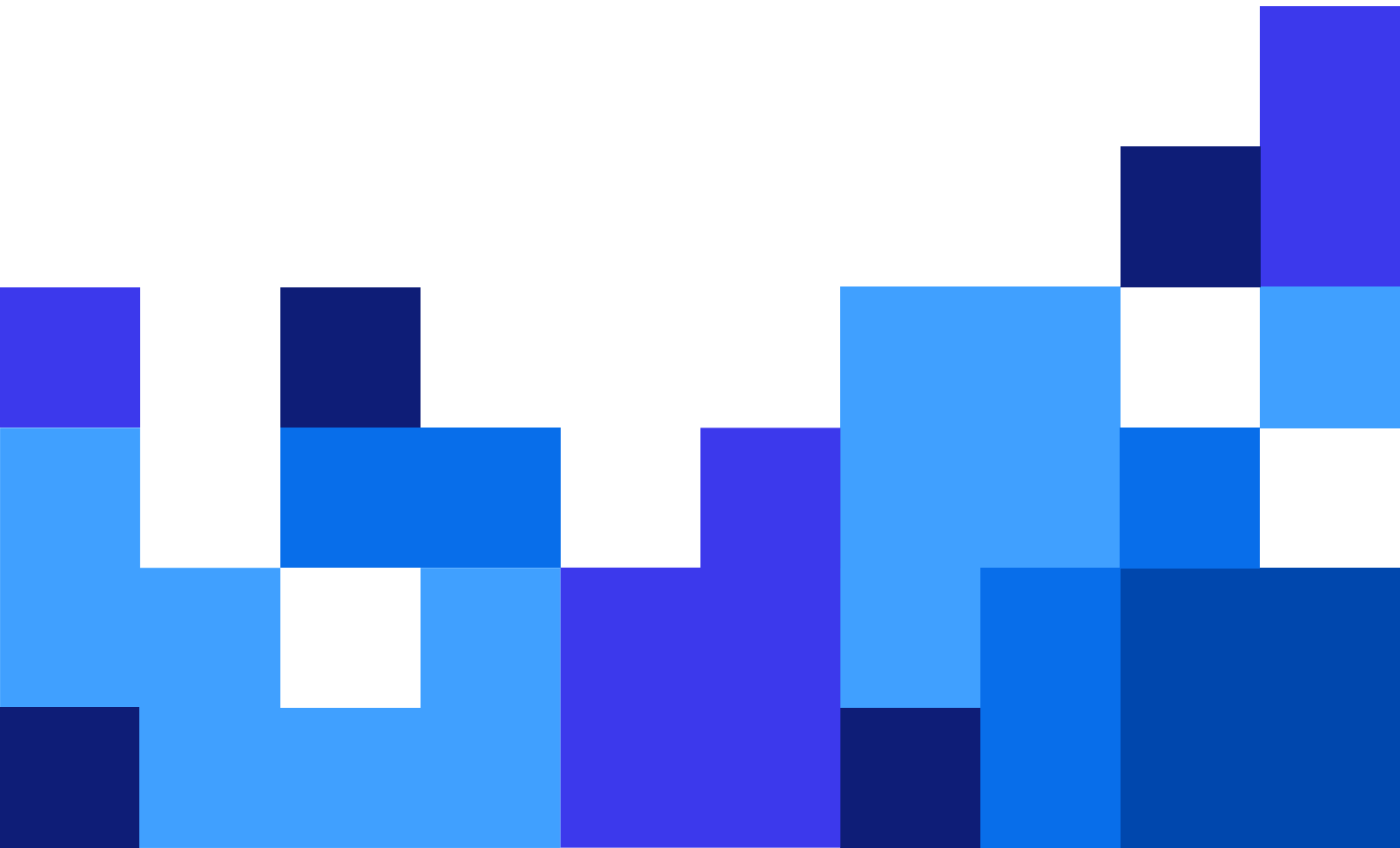
Loftware NiceLabel

2017.2 Release Notes



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Release Notes

NiceLabel 2017.2

1. New in Design & Print

1.1. Installation and Activation Improvements

1.1.1. Pre-configuring NiceLabel Installation in a Multi-user Environment

This release simplifies installation and activation processes in a multi-user environment in cases when you have to install NiceLabel on many computers, preferably using the same license key and the same configuration.

The new functionality saves administration time and makes the job easier.

To install NiceLabel software and use a single multi-user license, provide the license key in the installer's file name. You must prefix the license key with underscore character "_" which must also be the last parameter in the file name, such as:

NiceLabel2017_XXXX-XXXXX-XXXXX-XXXXX-XXXXX.exe

You can also automatically enforce certain configuration options for each new installation. The options are configured in a file named product.config, which you have to store in the same folder as the installer file. The options as defined within the file are applied during the installation.

The options you can alter include:

- User interface language
- Default directories, where NiceLabel searches for the requested files (labels, solutions, images, file-based databases)
- Usage tracing
- License key
- Location of global variables

You can even take this file from an already configured copy of NiceLabel. This will ensure that NiceLabel on all computers is using identical settings and the same multi-user license key.

For more information, see Knowledge Base article Pre-configuring NiceLabel installation with product.config.

When you start NiceLabel 2017 for the first time, the license key is already populated, but you will still have to activate it. However, if there is a NiceLabel 2017 node with the same license key already installed in the network, this requires a simple click on the **Activate** button as the activation details will be provided by that existing computer.

1.1.2. Improved Speed of Installation

The NiceLabel 2017 installation or upgrade processes now take a significantly shorter time to complete. The help system that installs with NiceLabel software is provided in a compressed HTML format (.CHM extension), which contains the entire help content in a single file. Previously, an uncompressed help installed each topic in an individual file requiring high disk usage during the installation.

1.1.3. Improved Upgrade Experience

The upgrade process has been made even simpler.

After you start an upgrade of an existing NiceLabel 2017 installation to a newer version, the process is completed in a single step. You no longer have to wait for the installer to remove the existing version only to confirm that the installation of the latest version should start.

1.1.4. Automatic Discovery of Multi-user Licenses in the Network

If you do not provide any license key during the installation, NiceLabel 2017 will install in trial mode and you will have to activate it within 30 days. When you decide to activate the software and open the **NiceLabel 2017 Activation** dialog box, NiceLabel 2017 will scan the local area network for any existing multi-user license keys.

If an existing license key is found, it will automatically populate the **License Key** field.

If multiple license keys are found, select the appropriate one from the list.

This feature saves you the time spent while re-typing the same multi-user license key on many computers. This release also provides support for automatic activation of multi-user NiceLabel license keys. See the topic **Pre-configuring NiceLabel Installation** on page 5.

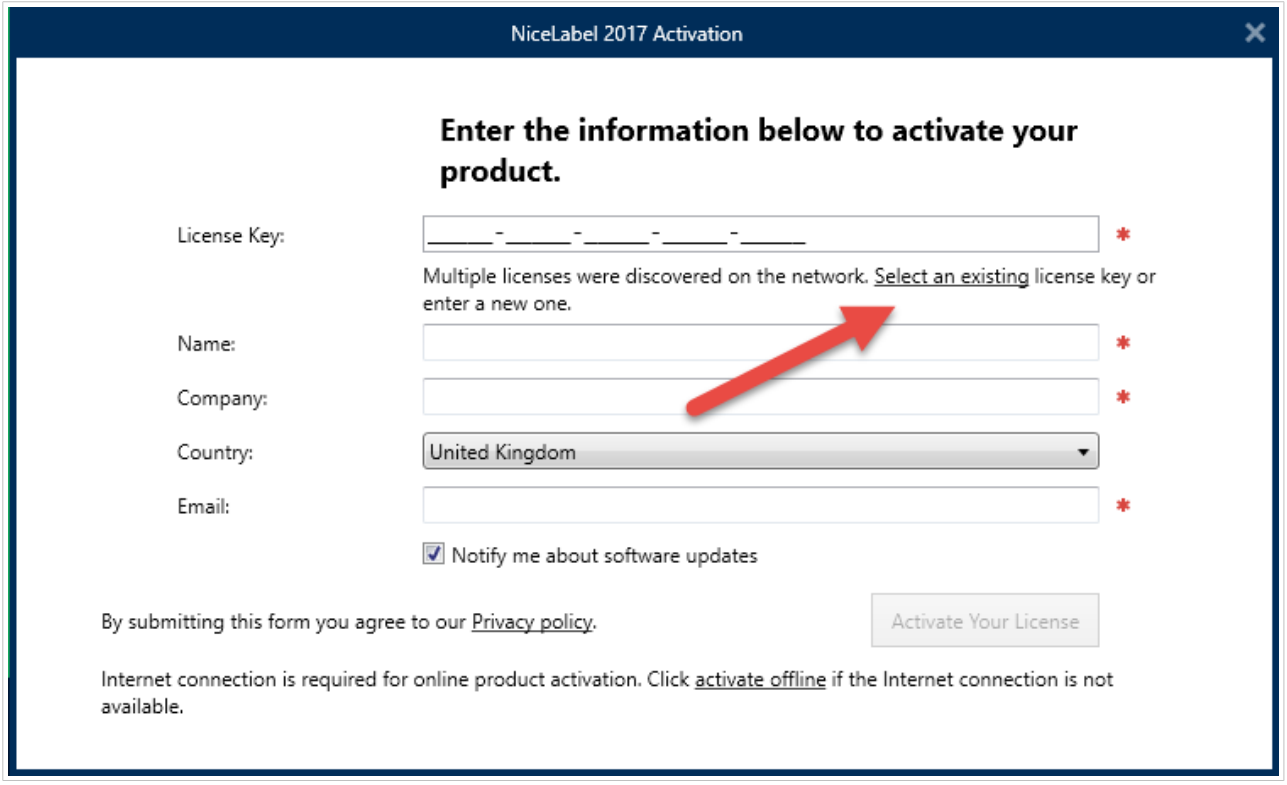

Figure 1: Multi-user NiceLabel 2017 licenses have been found in the LAN

1.1.5. Activation Data Retrieved while Entering the License Key

After you install NiceLabel on a new computer, you have to activate it. A NiceLabel multi-user license key must be activated only once and then all NiceLabel computers start to share it. For example, license keys provided with NiceLabel LMS products are multi-user license keys.

After you enter a multi-user license key, the activation server is contacted for activation details. NiceLabel checks if the license has already been activated.

- If yes, NiceLabel on the new computer is activated using the same license key.
- If not, the activation process starts.

NOTE

For more information about licensing, see document NiceLabel 2017 licensing.

1.1.6. Offline Activation Shows License Link with QR Code

The activation process requires access to the NiceLabel activation server. However, there are cases in which you have to install NiceLabel software on computers without Internet access. Offline activation either involves contacting NiceLabel Technical Support team via phone or as self-service activation. You could

save the necessary URL with data for activation to a file and open it on another computer that has Internet access. You would then enter the obtained Activation Code and complete the activation.

With this release, there is an even more straightforward option for offline activation.

The QR Code displays the containing URL with all necessary data for the activation server. You can scan the QR code with your mobile phone and use the phone to obtain the Activation Code. It is very likely that your phone has Internet connectivity through either Wi-Fi or mobile broadband (3G/4G).

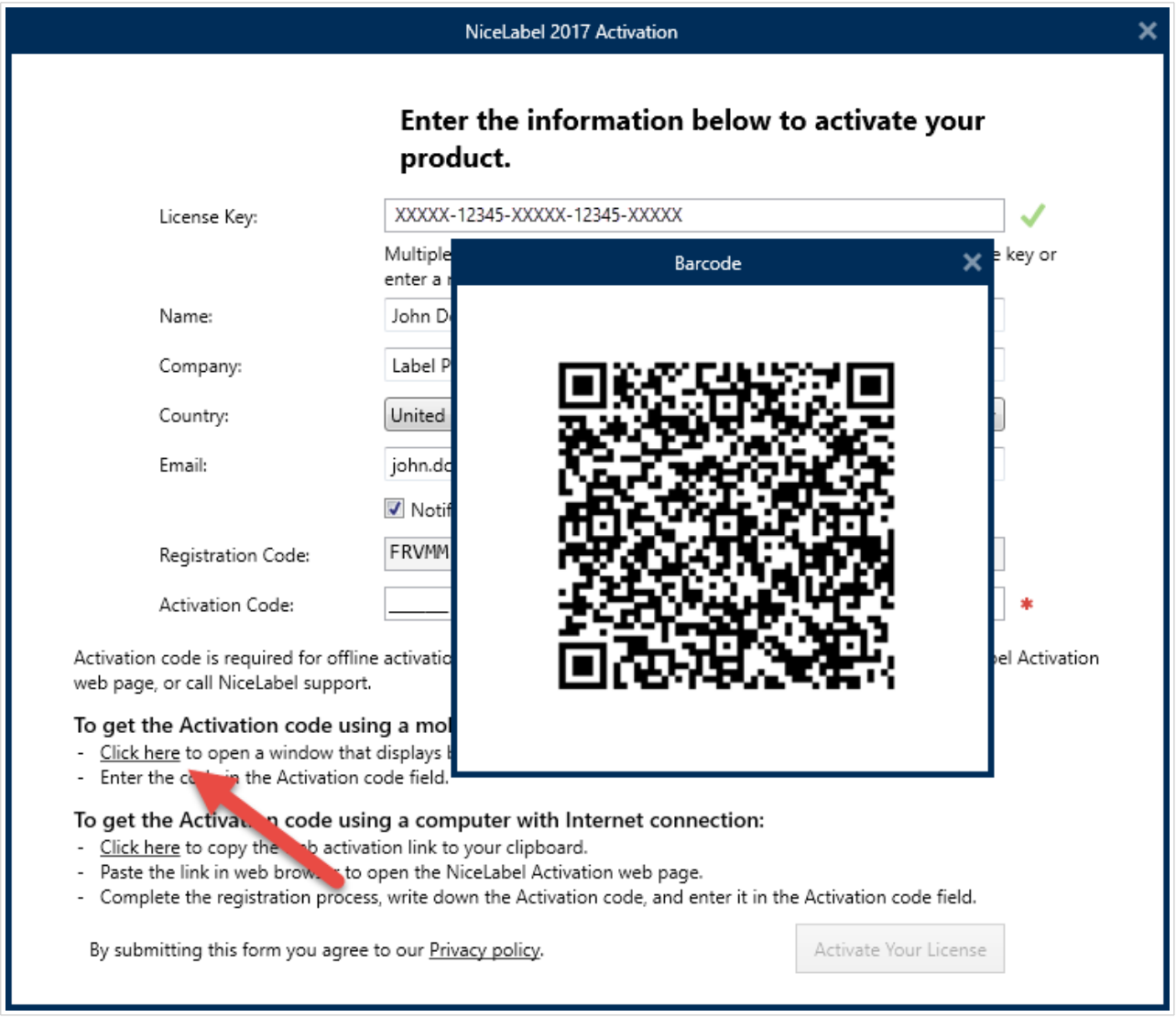

Figure 2: Scanning QR Code to obtain Activation Code necessary to complete the activation process

1.2. New and Improved Functionalities

1.2.1. Improved User Experience

- **ENTER key on new label wizard moves to next steps.** When using the New Label Wizard, pressing the ENTER key opens the next step of the wizard.
- **Design surface shortcuts for zooming in and out.** Users have the ability to zoom the documents on the design surface using keyboard shortcuts:
  Ctrl + "+": Zoom in
  Ctrl + "-": Zoom out
  Ctrl + "0": Zoom to label
- **Rectangle, Ellipse, and Line objects remember the last used settings.** If a user changes any style setting for a rectangle, ellipse or line object, all style settings are remembered and applied to the new objects.
- **Remembering the selected printer in new label wizard.** New label wizard remembers the printer that was selected for the last created label.
- **Improved document-loading time.** Complex solution files with many forms and labels will load noticeably faster.

1.2.2. Importing Data Sources from External Files

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

The data sources in NiceLabel document define values for objects with dynamic content and are defined as variables, functions, and connections to databases. Within a solution file (.NSLN extension), you can use the same data sources across multiple solution items (labels and forms).

NiceLabel 2017.2 release provides an easy method for designers to consolidate and re-use data sources from existing documents. A designer can now import data sources into a new label or solution and easily re-use them. This helps maintain consistency across a portfolio of label templates as well as saves time by allowing easier re-use of already configured functions and database connections.

The **Import Data Sources** button is available in the **Dynamic Data Manager** window.

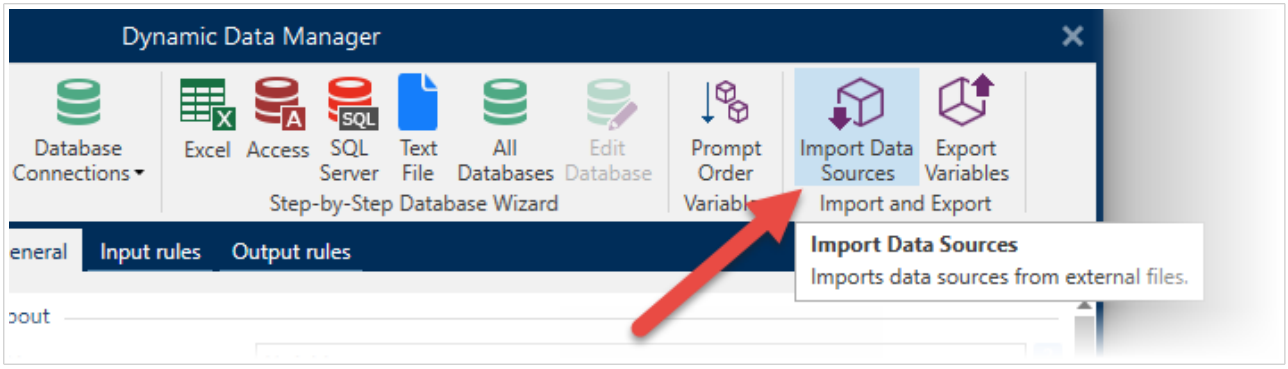

Figure 3: Importing data source from existing files

You can import data sources from the following types of NiceLabel files:

- Solution file (.NSLN)
- Label file (.NLBL)
- Label file V6 (.LBL)
- XFF form file V6 (.XFF)
- Variables export file (.NLVR)

During the import, the data source might be renamed if another data source of the same name already exists in the current document and is significantly different.

1.2.3. Exporting Variables to File

> **NOTE**
> Product level NiceLabel Designer Pro or above is required for this feature.

In many cases, label templates that you create for a specific project share the same data sources with values provided by existing business systems like ERP, MES, or WMS. The labels might use data for common fields, such as product id, product name, expiry date, date of production, perhaps some GS1's GTIN, or fields from some other data-encoding standard. However, the labels will use a diverse graphical design.

Once the first label template has been created, you can save the time spent on reconfiguring the variables for other label templates. With this release, you can export the variables from a label or solution to an external XML formatted file (.NLVR extension). You can use such file as a "data template" for creating other label templates by importing variables from it.

NOTE: You can export standalone variables that have no dependencies on other data sources. The "initial value" field in a variable definition must not be linked to any data source.

The feature is available in **Dynamic Data Manager** with the **Export Variables** button.

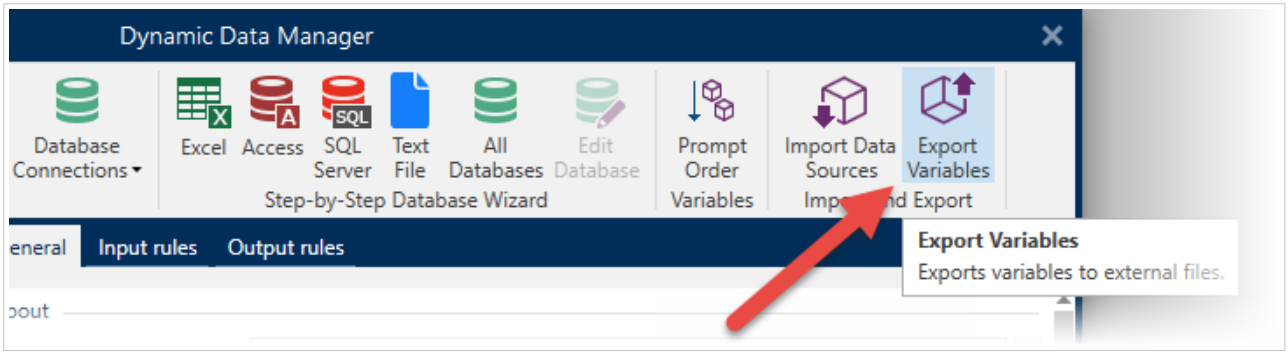

Figure 4: Exporting variables from the current label or solution

1.2.4. Updated Support for Data-encoding and Business Communication Standards

- **Updated support for GS1-128 specification (issue 17, January 2017).** GS1-128 support in NiceLabel 2017 is updated according to the last changes in GS1-128 General Specifications Issue 17. There are new application identifiers (AT 416, AI 7020-7023, AI 8112) and an updated application identifier (AI 425).
- **Updated support for Data Identifier and Application Identifier Standard ANSI MH10.8.2.** Support for ANSI MH10.8.2 data identifiers in this release includes all changes that were approved in 2016. The following data identifiers are new: 30B, 31B, 5R, 6R, 11N, 12N. The following data identifier has been updated: 13E.
- **HIBC version 2.6 support.** Due to UDI regulation requirement, HIBC syntax was changed and the quantity field should be the last field in the structure. NiceLabel Designer introduces the HIBC version selector. You can choose between HIBC 2.5 and HIBC 2.6. Data encoding works depending on the selected HIBC version.

1.2.5. Applying the Same “Text-fit” Formatting to Multiple Text Box objects

> **NOTE**
> Product level NiceLabel Designer Pro or above is required for this feature.

Text Box object has the ability to adapt its dimensions to the amount of text that must print on a label by applying different Text Fit options.

However, for labels containing multiple Text Box objects, a good design practice is to use the same font size in all of them. Even in cases if one of the Text Box objects has enough extra space to accommodate font in larger point size. Consistency in point sizes across objects results in professionally looking label layouts.

In this release, you can define groups of Text Box objects that share the same text fit options (either to fit content by adjusting font size or by scaling font).

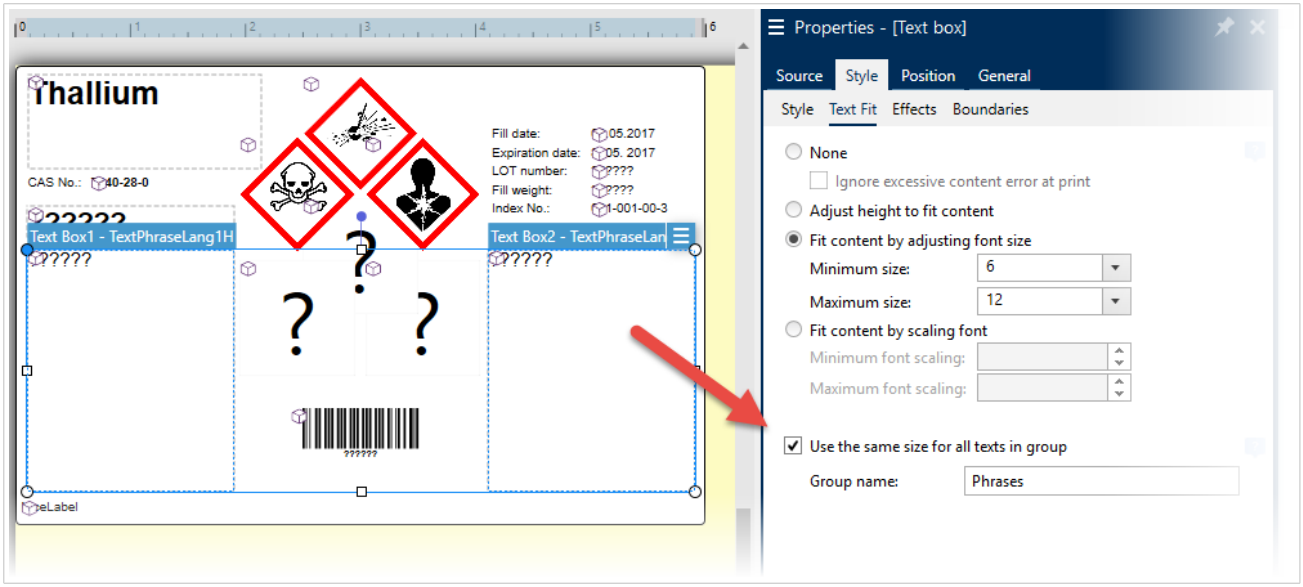

Figure 5: Both objects in this GHS label will use the same auto-determined font point size between 6 and 12 points

1.2.6. Printing Graphics to Multi-color Printers

Multi-color thermal label printers are equipped with two or more print heads. Each head accommodates a ribbon of a different color. NiceLabel printer driver delivers the information about a number of heads back to the software. In NiceLabel Designer, each print head is identified with a unique color. You can configure the print head per label object and therefore control in which color the object will be printed.

In this release, NiceLabel Designer can control the print head selection for the Picture object, completing the print head support throughout all available objects. The Picture object will be printed on the respective head.

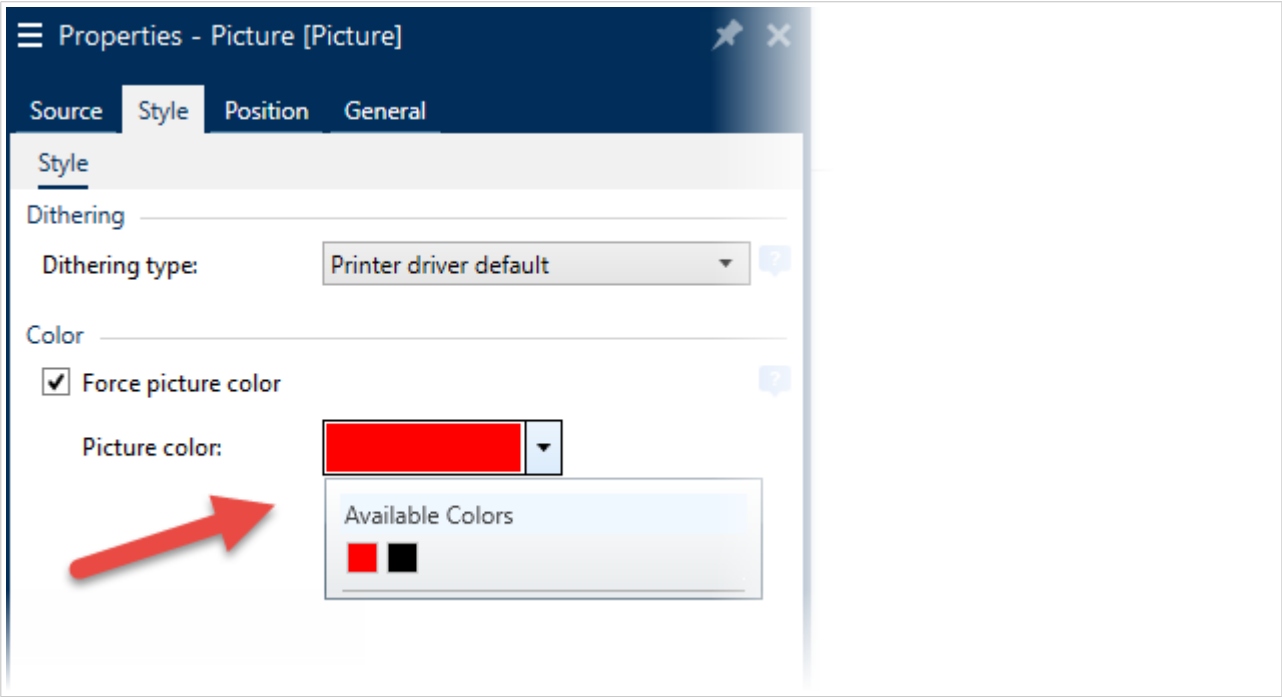

Figure 6: This label printer has two print heads making two colors available for selection

If you use non-thermal multi-color printers (such as inkjets), you can use this functionality to force single color to a Picture object. NiceLabel will downscale the color information to monochrome and use a specified dithering type to print it. You can select any color from the color palette and the object will print as previewed on screen.

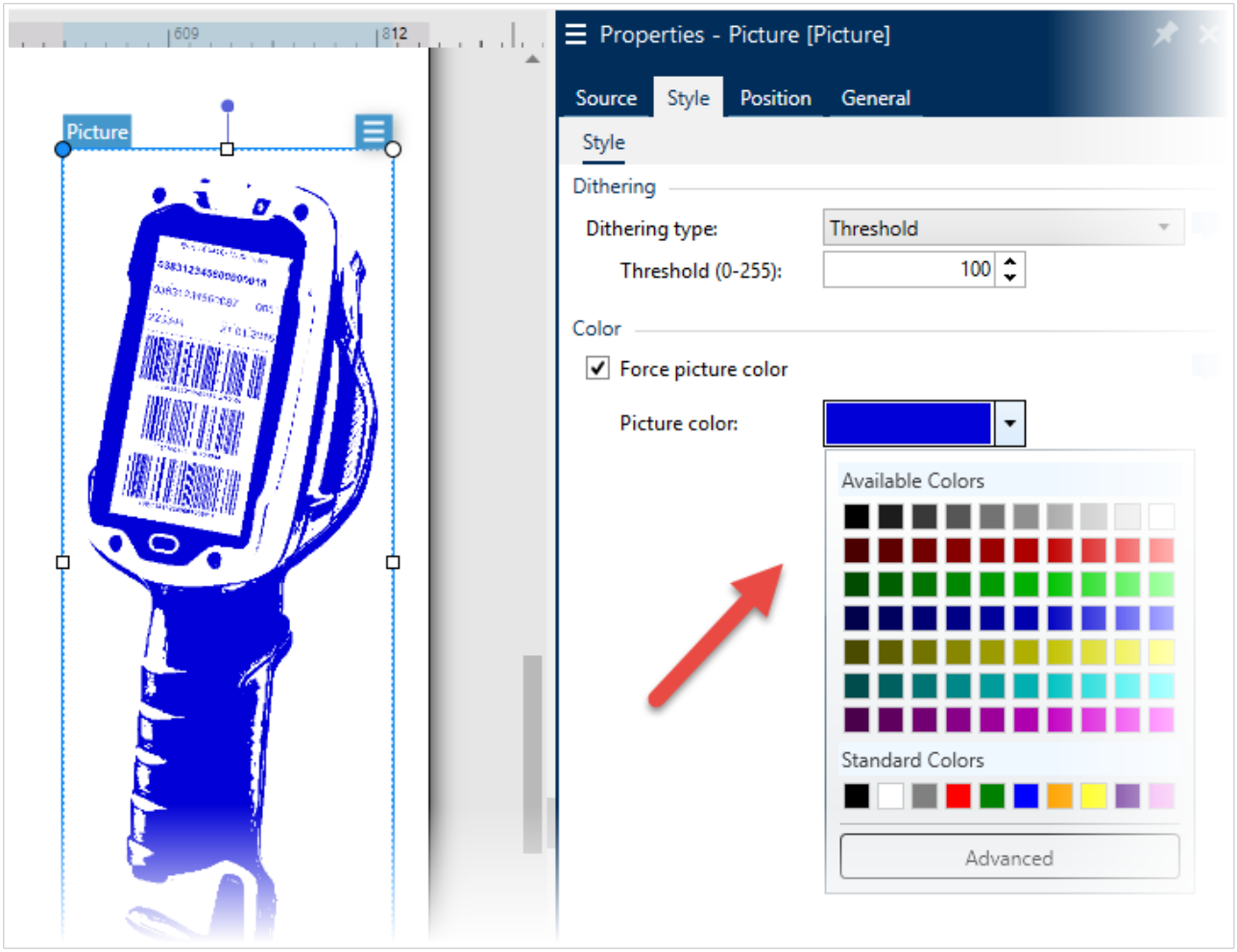

Figure 7: This is a multi-color inkjet printer and the image will print in selected color

1.2.7. SVG Vector Image Format Support

Scalable Vector Graphics (SVG) is an XML-based vector image format for two-dimensional graphics. NiceLabel 2017 expands its existing support for vector graphics (WMF, EMF, PDF) with a new vector image type.

The bitmap image is composed of a fixed set of pixels, while the vector image is composed of a fixed set of shapes. Scaling the bitmap reveals the pixels (the picture becomes “pixelated”) while scaling the vector image preserves the shapes.

If NiceLabel prints the label using an SVG image, the image will print in GDI (graphics) mode on most printers and will be rendered according to the printer’s resolution.

Some printers can process the SVG image internally. In this case, the printer driver communicates its internal SVG-processing capability to NiceLabel and NiceLabel sends out the SVG to the printer as-is.

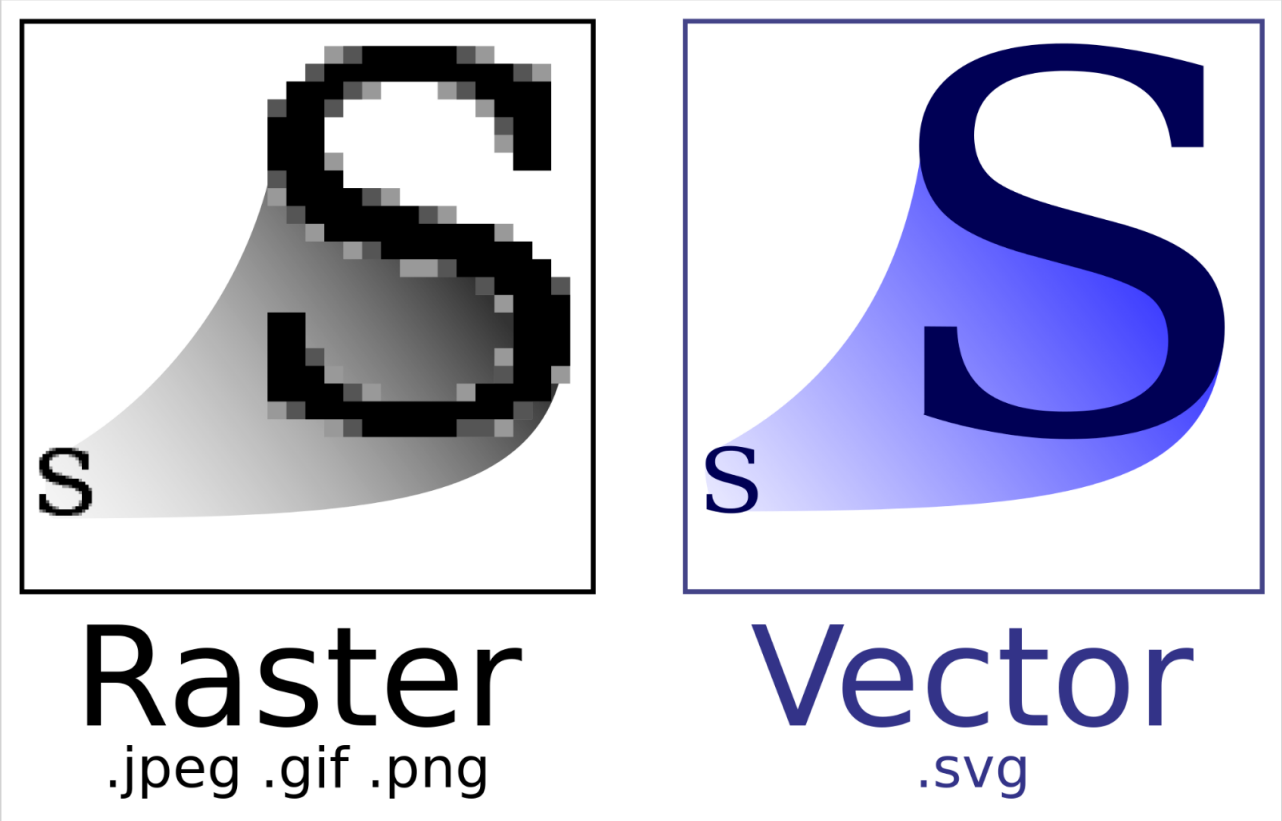

Figure 8: Quality comparison after resizing bitmap vs. vector image

Improved Support for Direct Marking Devices

- **Hiding the truetype fonts for Continuous InkJet (CIJ) printers.** Printer drivers for some CIJ printers can send information to NiceLabel that they do not support truetype fonts or that they do not support printing graphics. In this case, if such printer is selected for the label, NiceLabel does not display truetype fonts in font selection drop down box.
- **Custom grid is set for continuous inkjet (CIJ) printers.** Continuous inkjet printers have fixed label positions on which texts can be positioned. If a label is created for such printer, grid sizes for X and Y dimensions are provided by printer driver. Align to grid lines option is automatically enabled.
- **Variable length limiting for printers without support for unlimited variable lengths.** Some printers enforce maximum length of data fields on a label. Labels created for such printers have variables limited to the maximum length supported by the printer. Added validation prevents printing of variables with unlimited length.
- **Improved validation for label objects.** NiceLabel no longer displays an error on the design surface if certain elements (bitmap images, true-type fonts) cannot be printed to a currently selected device due to its limitations.
- A new property named **"Always use printer element"** is available for barcode, rectangle, line, and ellipse objects. If enabled, this option instructs NiceLabel to always print this object using internal printer objects or to show an error at a print time if this is not possible (instead of automatically converting it to a graphic element).

Stock Update

The database of stocks (predefined label formats) that ships with NiceLabel has been updated with new items. The Avery stocks include new label templates. New stock groups from manufacturers Texit and Integracolor (HMS) have been added.

2. New in Design & Controlled Print

2.1. Usability Improvements

2.1.1. Mouse Cursor Progress Indicator for OnClick Events

When executing form actions on OnClick events, the mouse cursor changes from “arrow” to “busy” indicator. This provides good visual feedback to the user that the form is busy executing some actions.

2.1.2. Selection of Multiple Actions

You can select several actions at once in the Action panel and perform a quick copy, paste or delete operations upon them. This feature introduces easy transfer of actions between various triggers and therefore significantly increases productivity while building the business logic rules using Automation and/or PowerForms.

NOTE: You can select multiple actions that are configured on the same hierarchy level (defined below the same parent action).

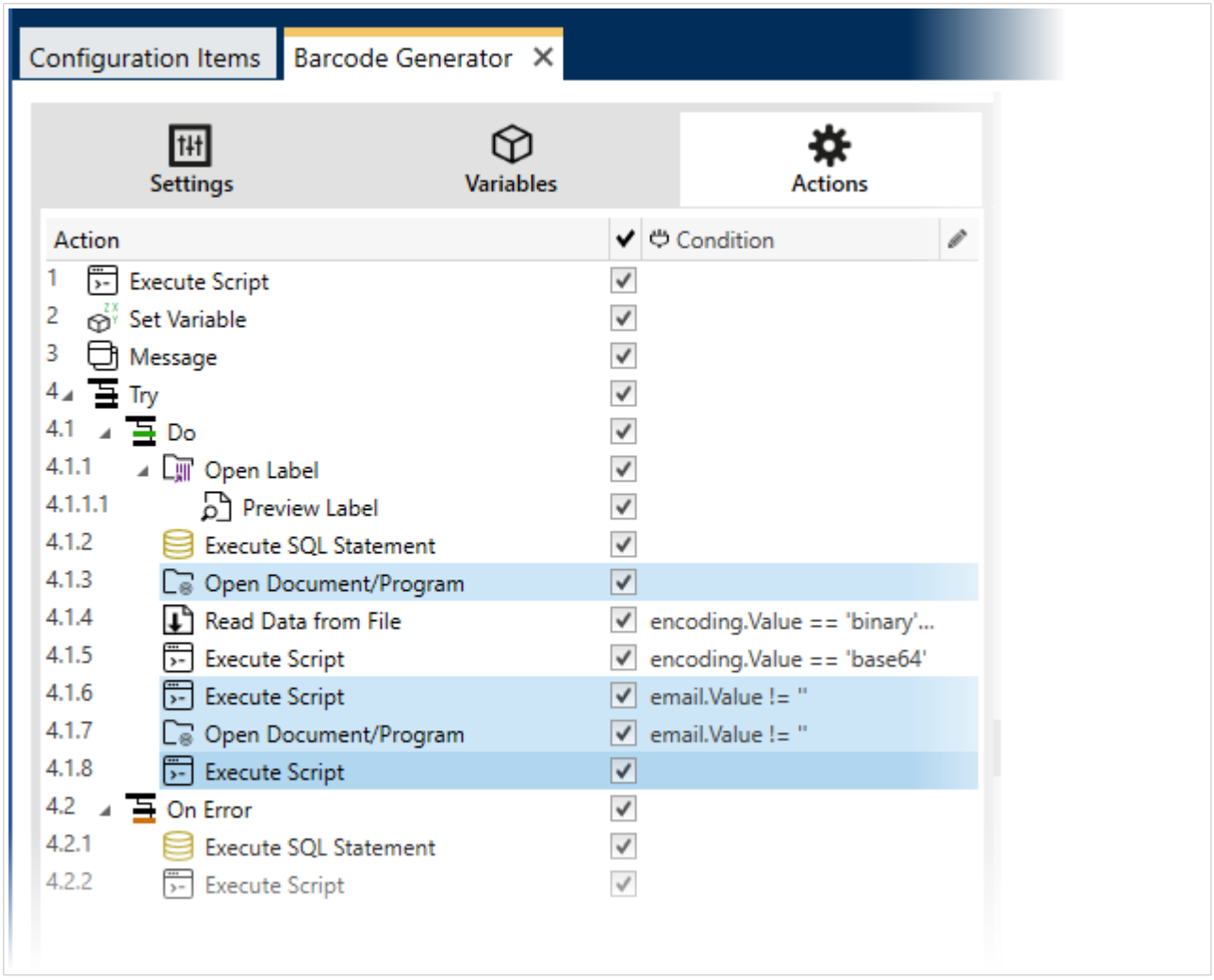

Figure 9: You can select multiple actions at once for easier managing

2.2. New and Improved Functionalities

2.2.1. Spellchecking Support

With this release, you can activate spellchecking in Edit Field and Memo Field PowerForms objects. When enabled, all incorrectly spelled words are clearly marked. Users can also right-click incorrectly spelled words to see the spelling suggestions. The new functionality helps prevent manual data entry errors.

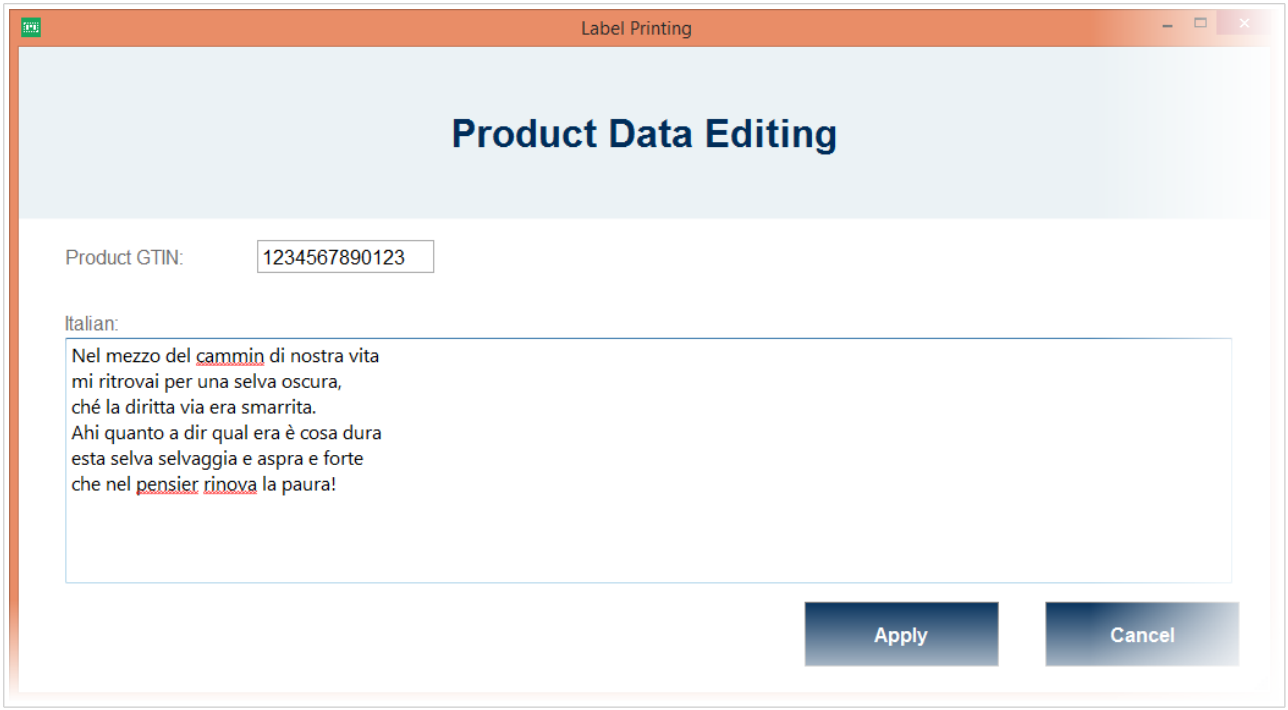

Figure 10: Spellchecker has been enabled for the Memo Field in this form

Spelling language is defined by the selected keyboard when the form is started. The selection of available languages depends on your operating system. Newer operating systems (such as Windows 10 and Windows Server 2016) support most spoken world languages.

2.2.2. Automatic Retrieval of Data from Serial Ports (Weight Scale Integration)

NiceLabel 2017 PowerForms applications can now automatically read data from devices attached to serial ports. As soon as the data arrives to the serial port, the form application receives it and saves it to an assigned variable. Such variable can be used directly as a label or form object data source or as a part of actions included in a solution. In form properties, you only have to select the listening port, set up connection parameters and you are set to go. Polling devices for data are also supported with this new feature.

This option is typically used for building applications that interface with weight scales but can be used for building other device-monitoring applications as well. The application can update statuses graphically on-screen and you can configure it to send out alerts if necessary for building other device-monitoring applications.

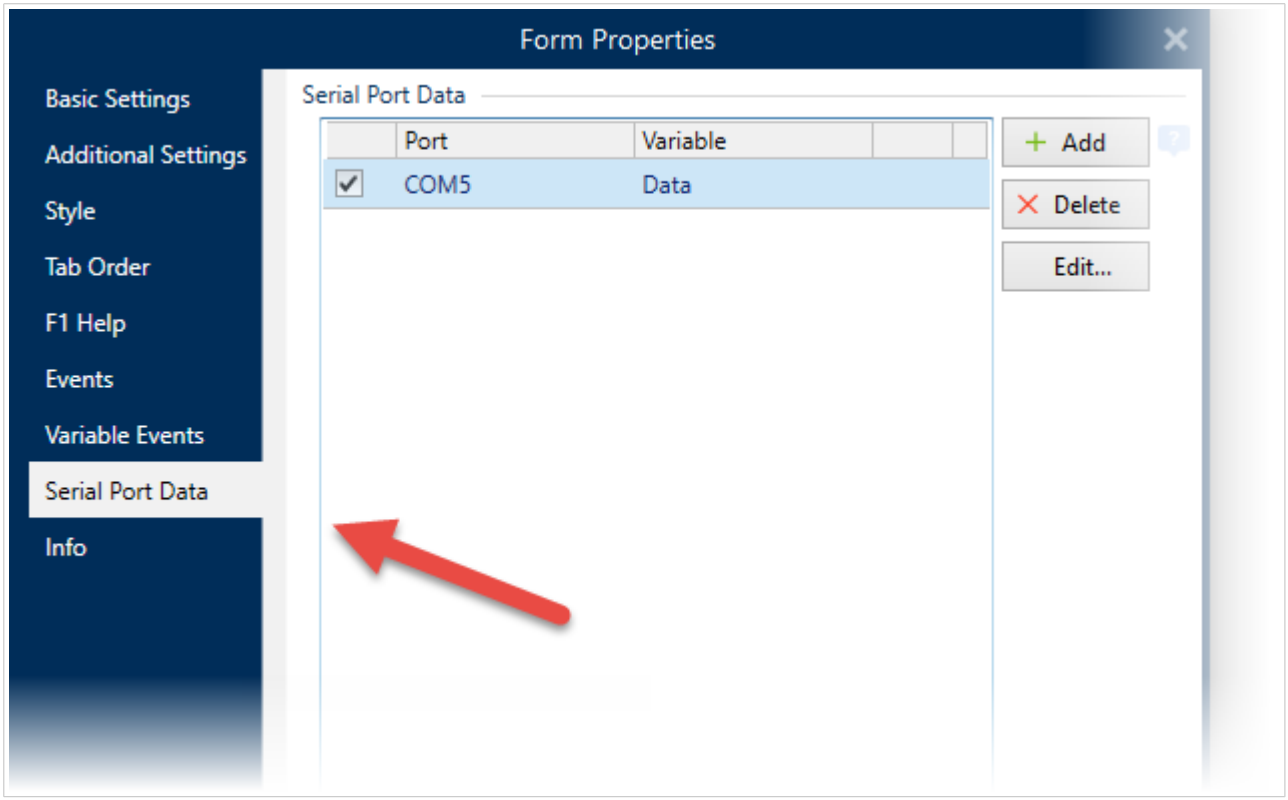

Figure 11: Enabling listening for inbound messages on serial port

2.2.3. New Event “On Form Inactivity”

A new event type is available in form applications. “On Form Inactivity” event runs its actions whenever the user has been away from a computer for a specified time interval.

In most cases, you would use this event to increase application security and to prevent unauthorized access.

Timeout is defined by the number of inactive minutes. If no mouse move or keypress is detected within this time interval, the application runs the associated actions. For example, the actions can lock the user out of the application, or the application can simply close.

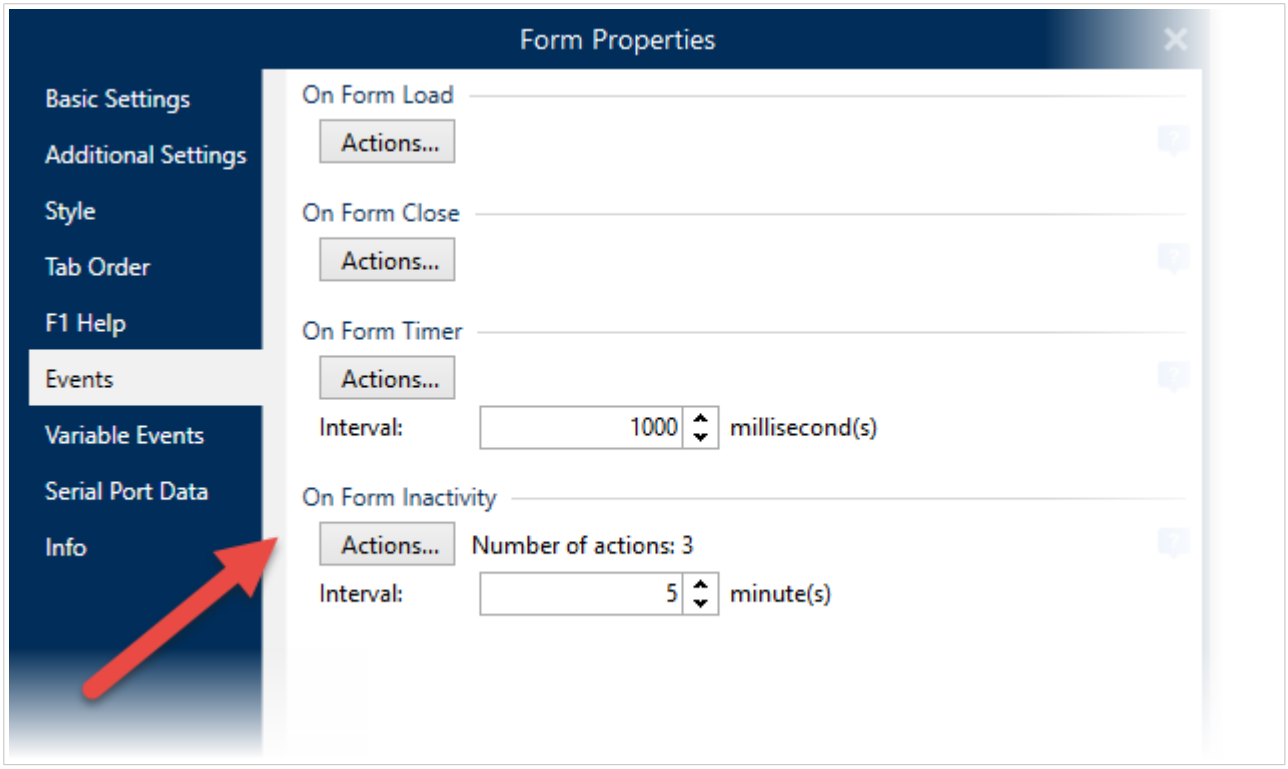

Figure 12: Actions can run automatically if the user has not been active in a while

2.2.4. New Event Type “On Selection Change” for Database Table Object

The Database Table form object introduces a new possibility to track user’s record selection. The new event type “On Selection Change” runs all associated actions each time the record selection changes.

This feature allows easy control over the selected record(s) and associated field data and therefore simplifies application design.

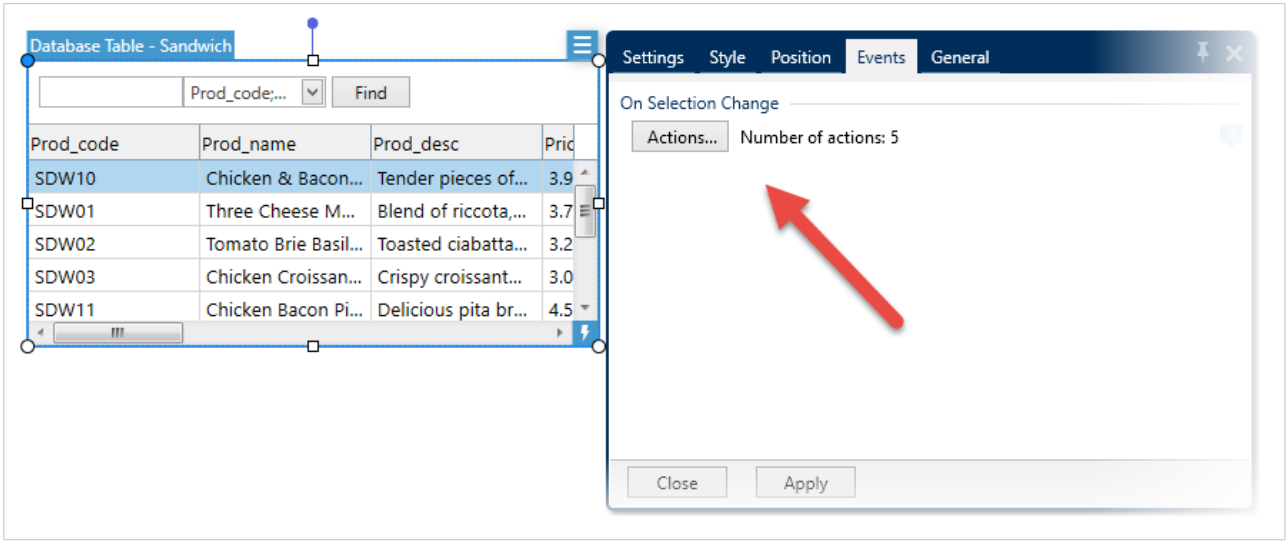

Figure 13: New event type “On Selection Change” available in Database Table properties

2.2.5. New Action “Get Selected Table Row”

This action enables you to retrieve values from selected rows in the Database Table form object. The values are stored in a variable and can be used in other actions or with other form objects. If multiple rows are selected, the stored values (row numbers or field values) are separated by commas.

You can retrieve:

1. Index numbers of highlighted rows (row number)
2. Selected field values of highlighted rows (field value)

“Get Selected Table Row” action works as a counterpart of the “Select Table Row” action. The action is useful if you want to restore the application state, after the user navigates away and back to the current form in multi-form application. You would remember the number of the selected record when the user leaves the form and restore it upon user’s return.

You can also use this action to extract the required data from the Database Table object and to save it to variable.

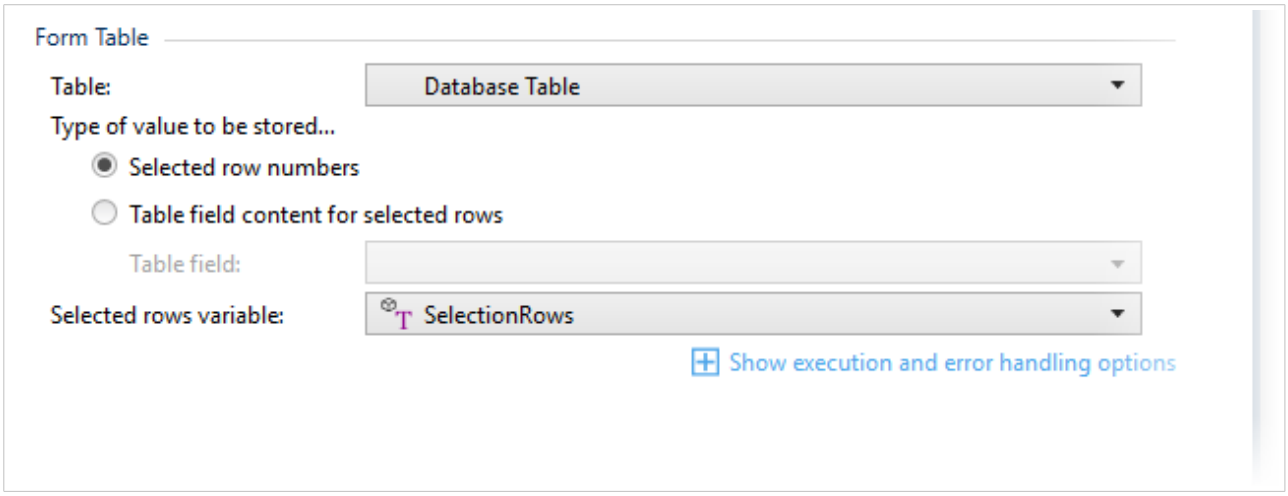

Figure 14: Remembering row numbers (index) for selected records

2.2.6. Updates in Action "Select Table Row”

This action allows you to define which row in a Database Table form object is selected.

In this release, the existing action “Select Table Row” has been extended with two new selection modes. The following has been added:

1. Select all rows
2. Deselect all rows

Additionally, the action supports multi-row selection. When you select “Row number” or “Field value” selection mode, all records matching the row number of field value are highlighted in the Database Table object.

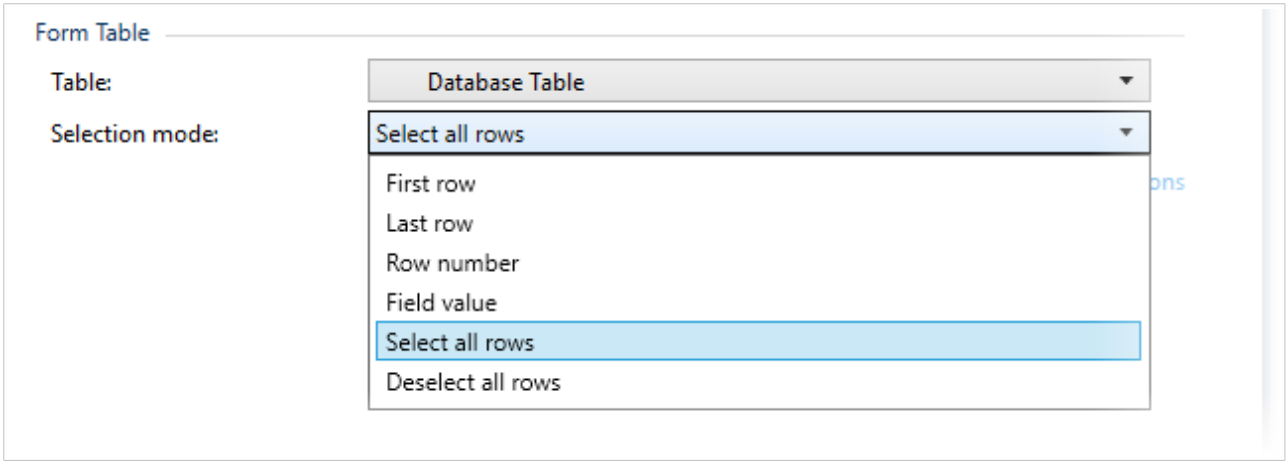

Figure 15: New selection modes are available

2.2.7. Updates in Action “Define Printer Settings”

The action **Define Printer Settings** applies various settings to the printer during label printing. This is a quick and efficient method to allow a print operator to adapt the printout to his environment. The label template can be the same for all printing stations, while printing parameters such as speed, darkness, and offsets can be adjusted at a print time based on the requirement of the current printer.

Until this release, this action displayed the printing preferences dialog box, so the user could modify them for their selected printer. After that, the action applied preferences to the current print job.

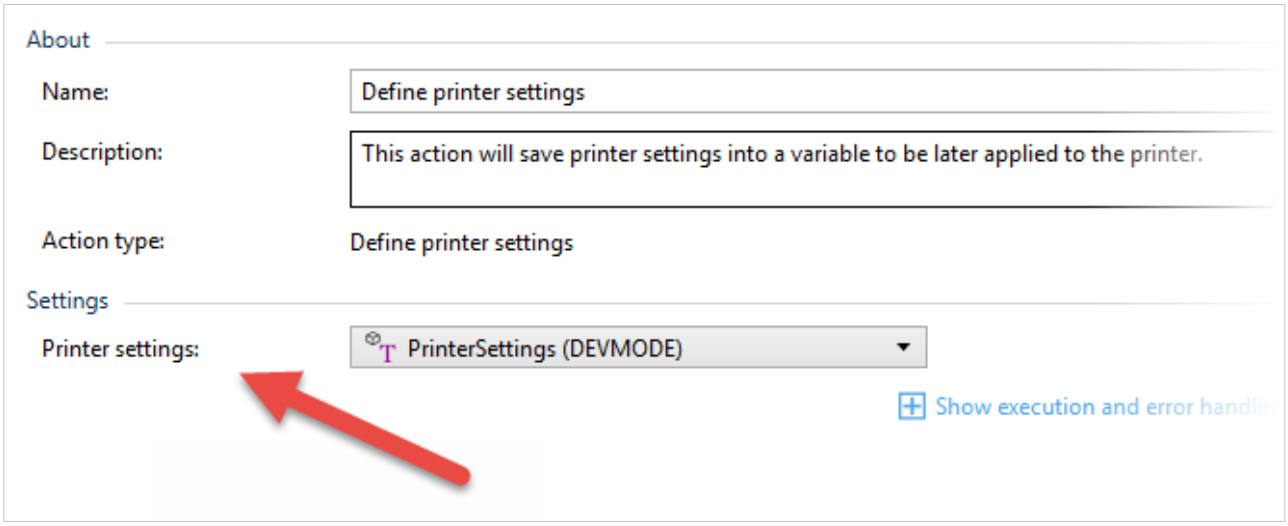

Figure 16: Saving all printer settings to a variable

With this release, the action still displays printing preferences. However, you can also save them to a variable and then further to a file or database for future use. With this approach, you can create and save sets of “printer settings” for the labels and choose to apply the appropriate one at print time.

To apply these settings to the printout, use the action **Set Print Parameter**.

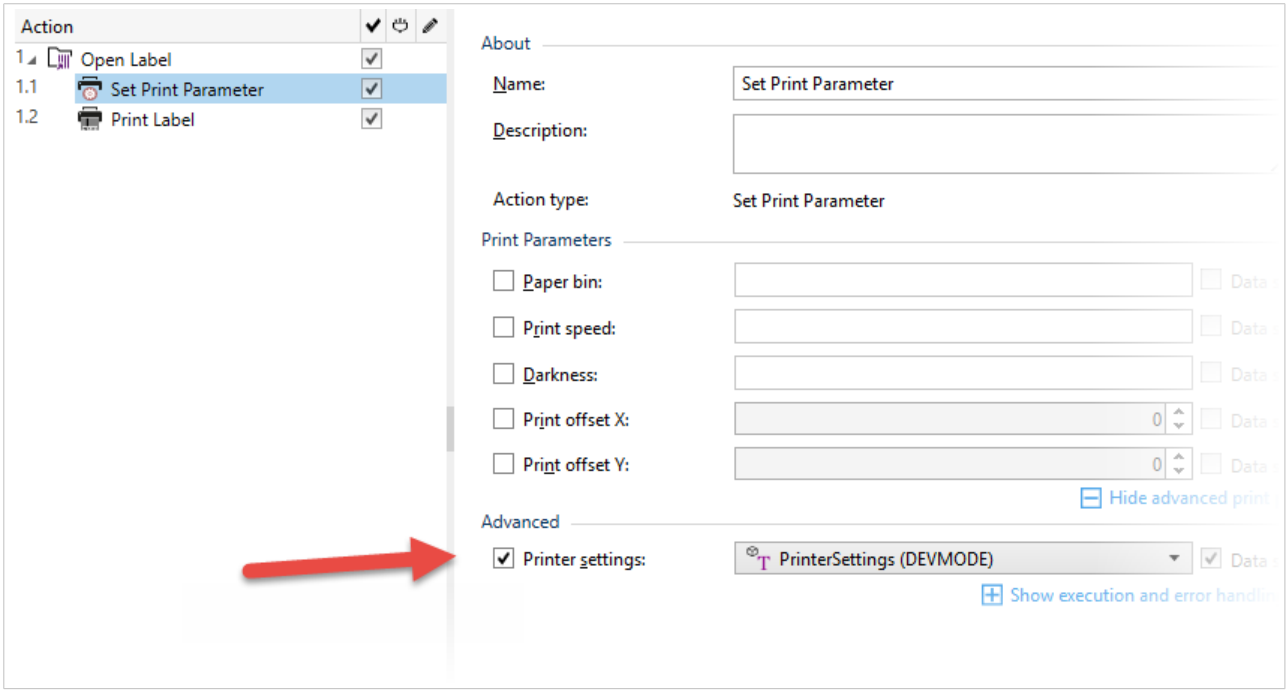

Figure 17: Applying saved printer settings to print jobs

2.2.8. Bi-directional Support in Action “Send Data to TCP/IP Port”

The action **Send Data to TCP/IP Port** has been enhanced to not only send data to a target network socket but also to collect the response from a device. This enables two-way communication with network devices over TCP/IP protocol.

The device that Automation of form application communicates with can be of various types, such as another computer (server), weight-scale or PLC. The data is usually exchanged in small packages of raw data without any complex structure. For example, you would use this action to query network devices for their states and live statuses.

Once the response has been retrieved, you can save it to a selected variable and process it within your application or configuration.

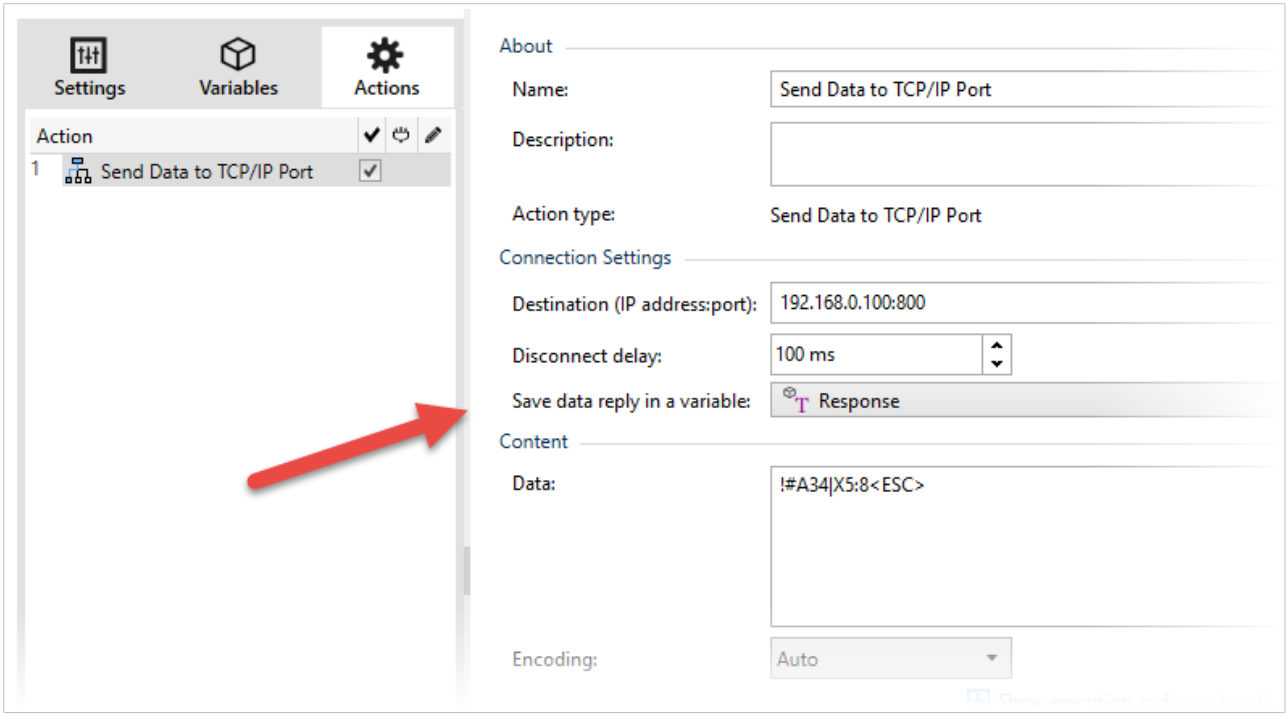

Figure 18: Collecting response from network device

2.2.9. On Form Timer Event Definable in Milliseconds

You can use **On Form Timer** event in each form to automate the execution of actions in defined time intervals. Previously, the minimum time interval was one second. With this release, you can define it in milliseconds.

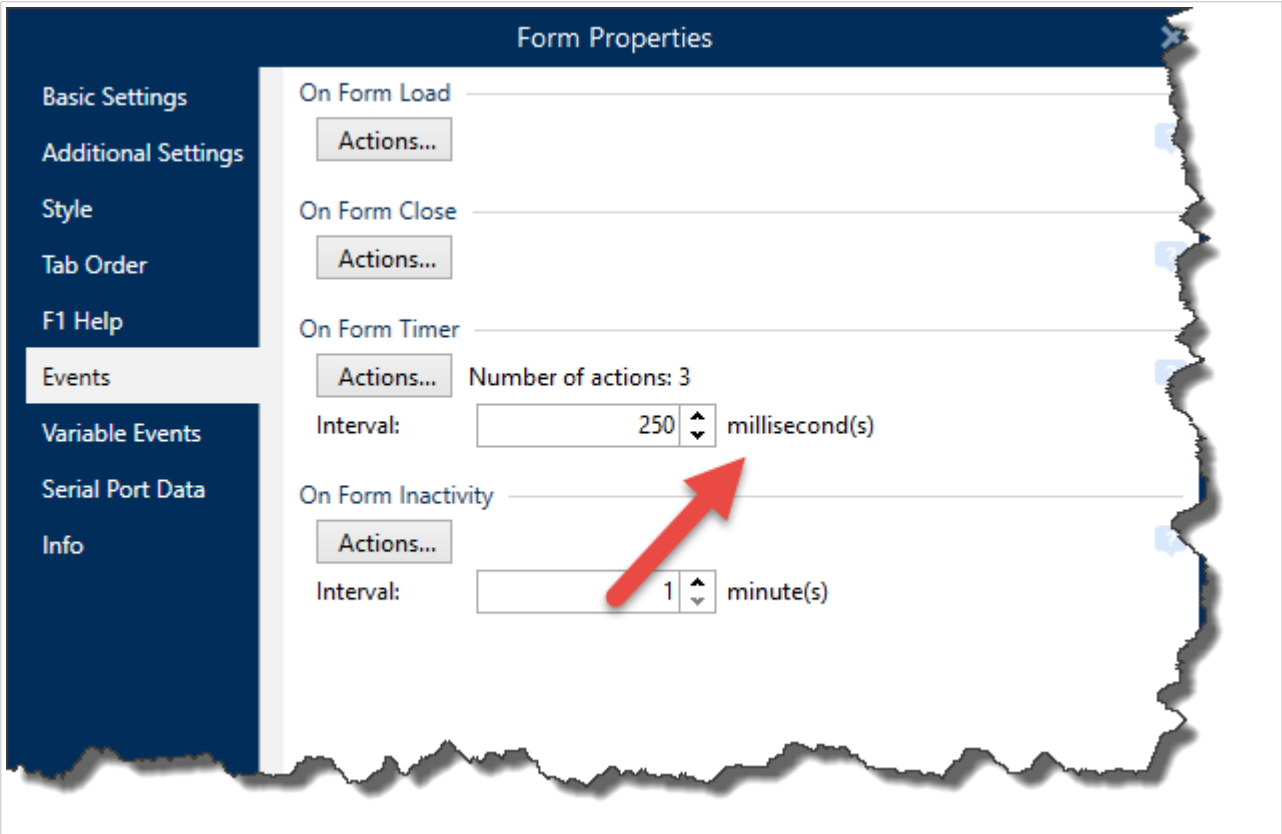

Figure 19: Events can be executed in millisecond time intervals

This is beneficial if you have to obtain data from network devices in real time. For example, you can continuously query PLC for some status and display it in the form application user interface.

2.2.10. Managing Column Visibility for Database Table Objects at Runtime

You can now change the visibility of table columns in a Database Table object while the form is already running. The action “Set object property” has a new parameter named “Visible columns” if used with the Database Table object. This property can be set with a comma-separated list of table field names that are supposed to be visible. The field names that are not included on the list are hidden.

The same form can display the Database Table object with different columns, depending on the selected criteria, such as which user runs the solution, state of the application, or values of data sources.

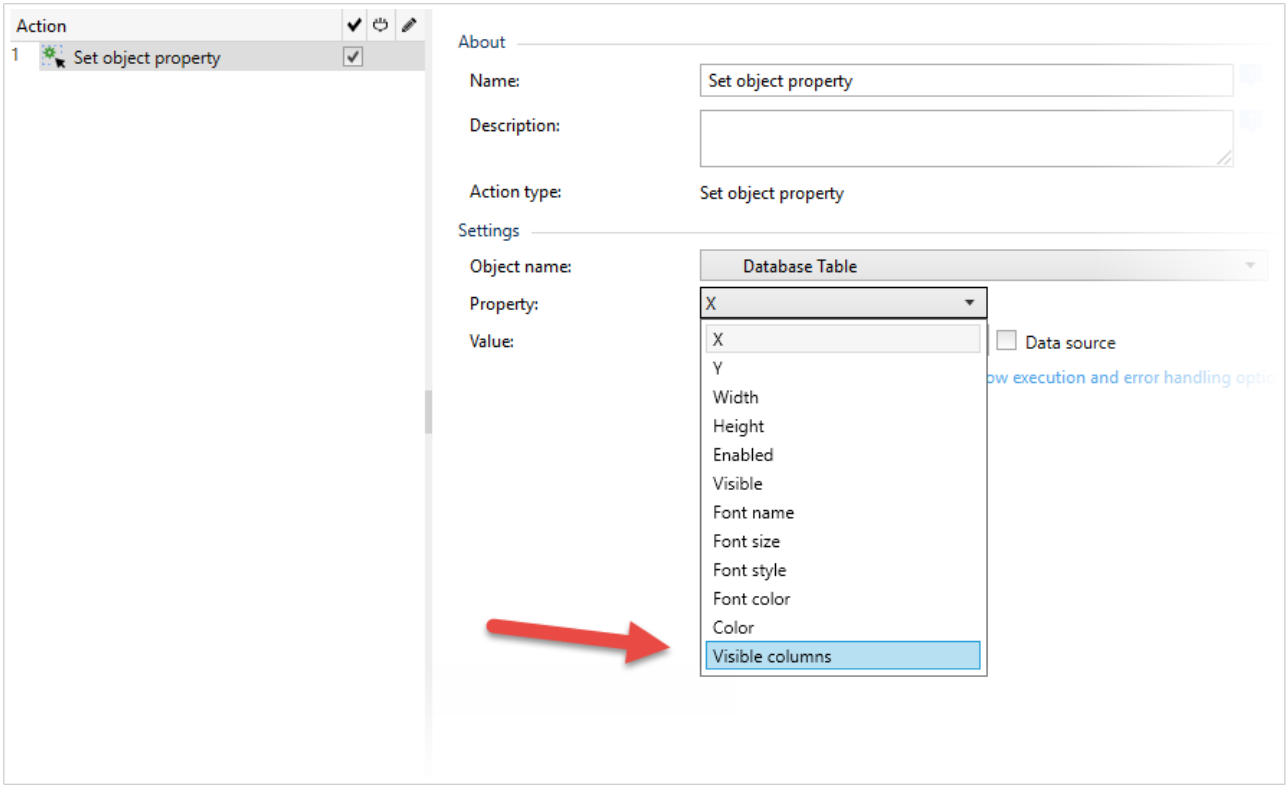

Figure 20: New property for setting table columns visibility

3. New in Managed Design & Controlled Print

3.1. Installation

This release significantly simplifies the installation of Control Center in both simple and complex IT environments by including additional functionality in the application installer.

3.1.1. Installing IIS Prerequisites

NiceLabel Control Center is a web-based application, which requires the Internet Information Services (IIS) features enabled on the server. Configuring the IIS and required features was a time consuming task that required familiarity with the Installation Guide.

With this release, the Control Center installer enables the IIS and enables all required features automatically. All you have to do is to click the button **Enable Missing IIS Features**. This is an optional step as user can still take care of prerequisites manually, if needed. The prerequisites are documented in the Control Center Installation Guide.[1]

[1] See reference to documentation in New and Updated Assets chapter on page 35.

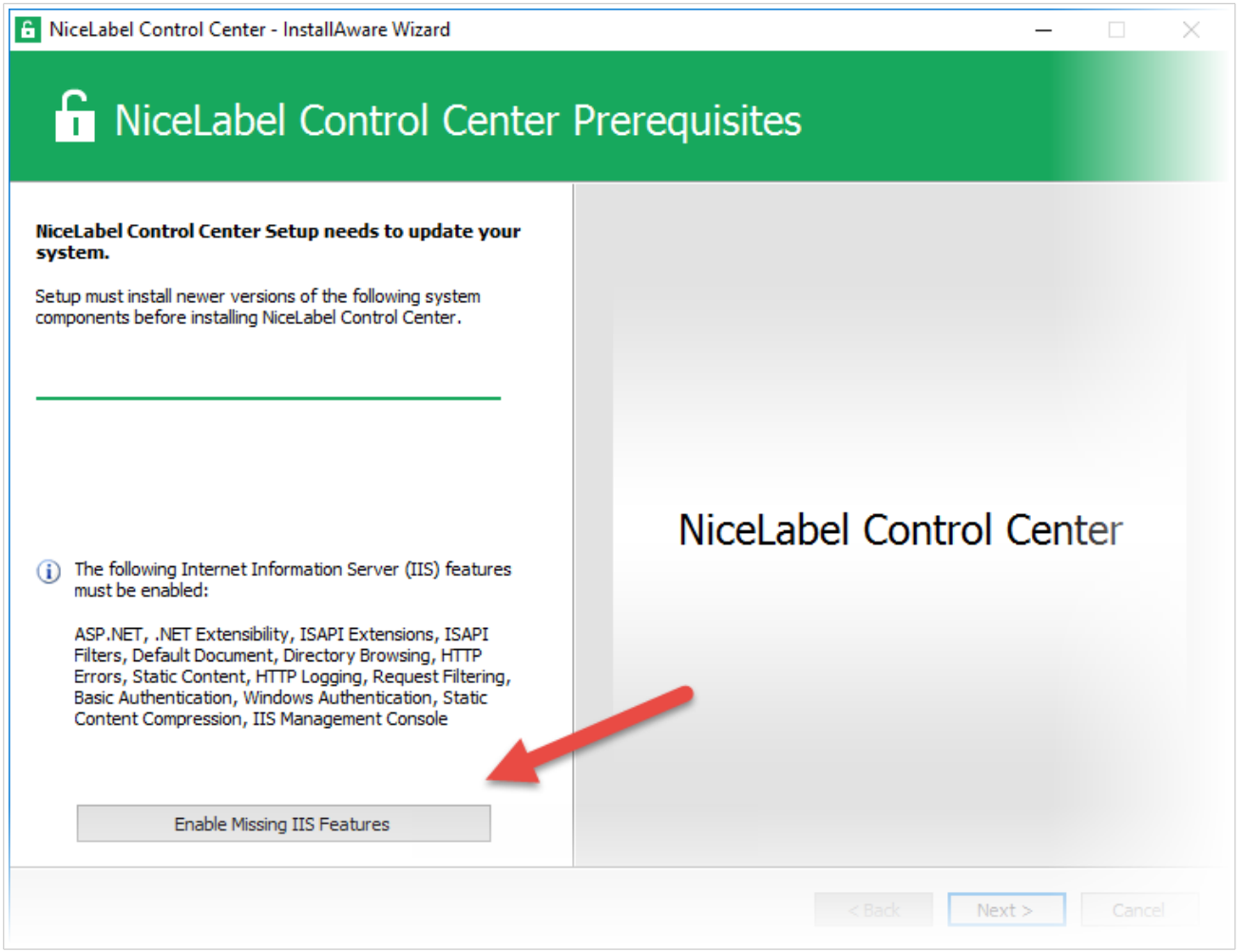

Figure 21: NiceLabel installer takes care of IIS prerequisites configuration automatically

3.1.2. Installing Microsoft SQL Server 2016 Express

NiceLabel Control Center requires Microsoft SQL Server database to store its data. If you do not have any Microsoft SQL Server available in your environment, you have to install one. The installation of SQL Server Express 2016 is available on NiceLabel DVD.

When you start Control Center installation from the NiceLabel DVD, you can install SQL Server right from within the NiceLabel installer. This is a useful shortcut for simple IT environments, when you follow a single-server deployment and install NiceLabel software and all prerequisites on the same computer.

NOTE: You must run Windows 8 or above to see the Install SQL Server Express button.

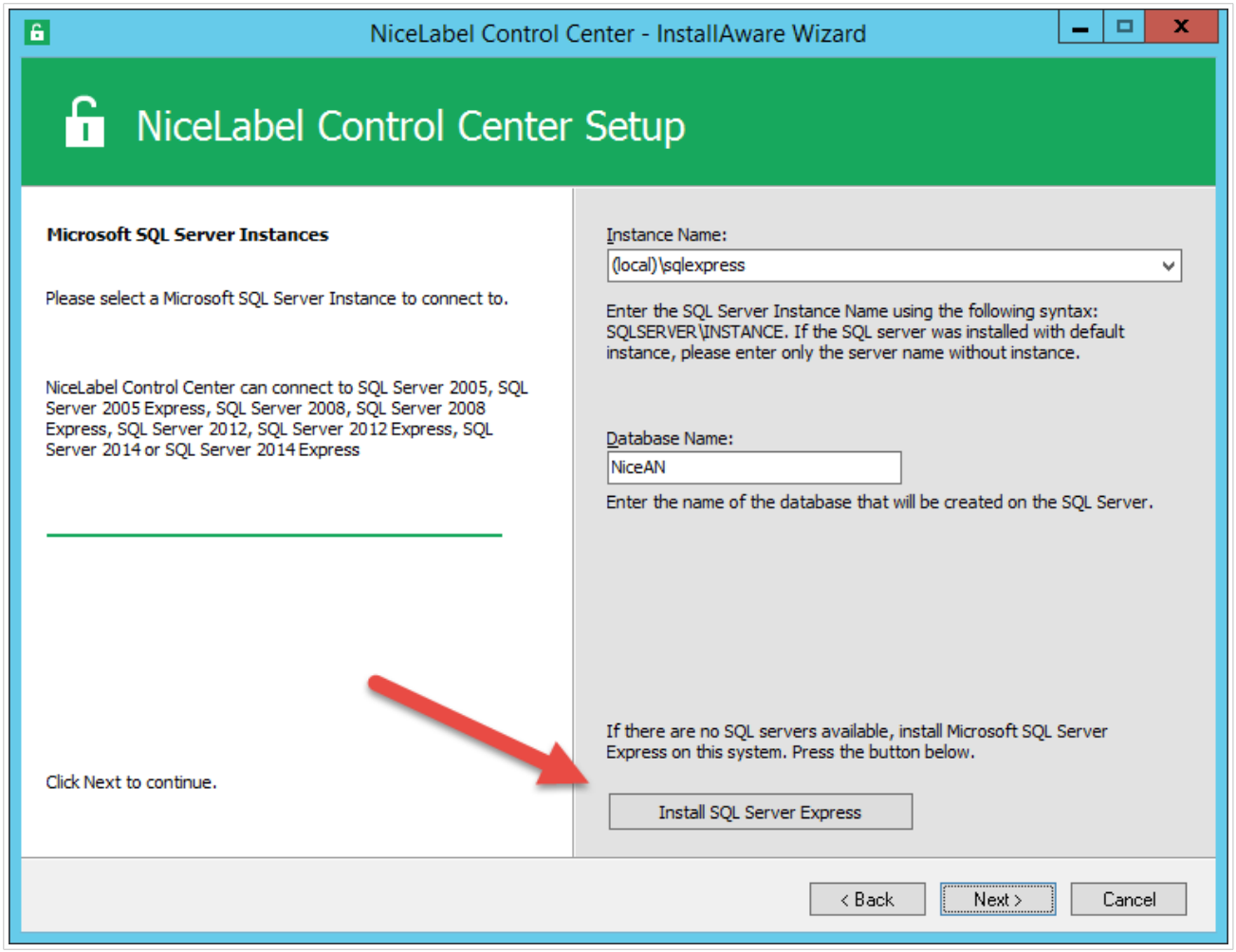

Figure 22: Starting Microsoft SQL Server 2016 Express setup from NiceLabel installer

3.1.3. Custom Name for Control Center Database

By default, NiceLabel Control Center installs the database named **NiceAN** on the selected SQL Server. In most cases, you can leave the database name as-is.

However, there are a few scenarios in which the database name must be changed to accommodate to the requirements of the existing environment, such as:

- The customer follows a specific naming convention for databases in their SQL servers and the default database name is not acceptable.
- The customer will use the same SQL Server to host databases for more Control Center installations. This is common if the customer has a multi-tier environment (for development, testing and production) and uses a common SQL Server to host databases for applications in different environments. Each Control Center instance in this case requires a unique database name (e.g. NiceAN-DEV, NiceAN-QA, NiceAN-PROD).

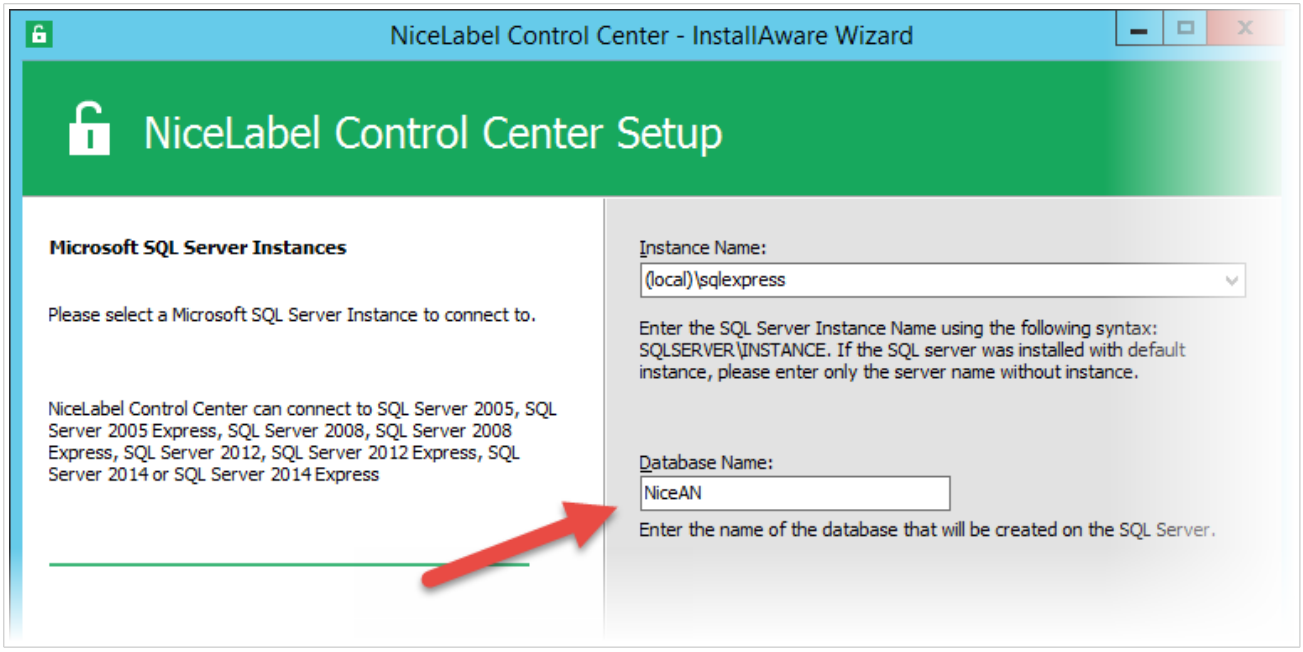

Figure 23: Defining custom database name

You can provide the custom database name in a dialog box during the interactive installation. You can also provide it in a command-line for unattended installation. For more information, see NiceLabel Control Center Installation Guide.[2]

3.1.4. HTTPS Support Activation during Installation

NiceLabel supports secure HTTP (HTTPS) communication between Control Center and other modules. However, in previous versions HTTPS had to be enabled manually in web.config files after the installation.

In 2017.2 release, the installers of NiceLabel Control Center and NiceLabel Web Printing modules allow enabling support for HTTPS encryption during the installation. If enabled, the applications are preconfigured to allow only secure HTTPS communication.

[2]See reference to documentation in New and Updated Assets chapter on page 35.

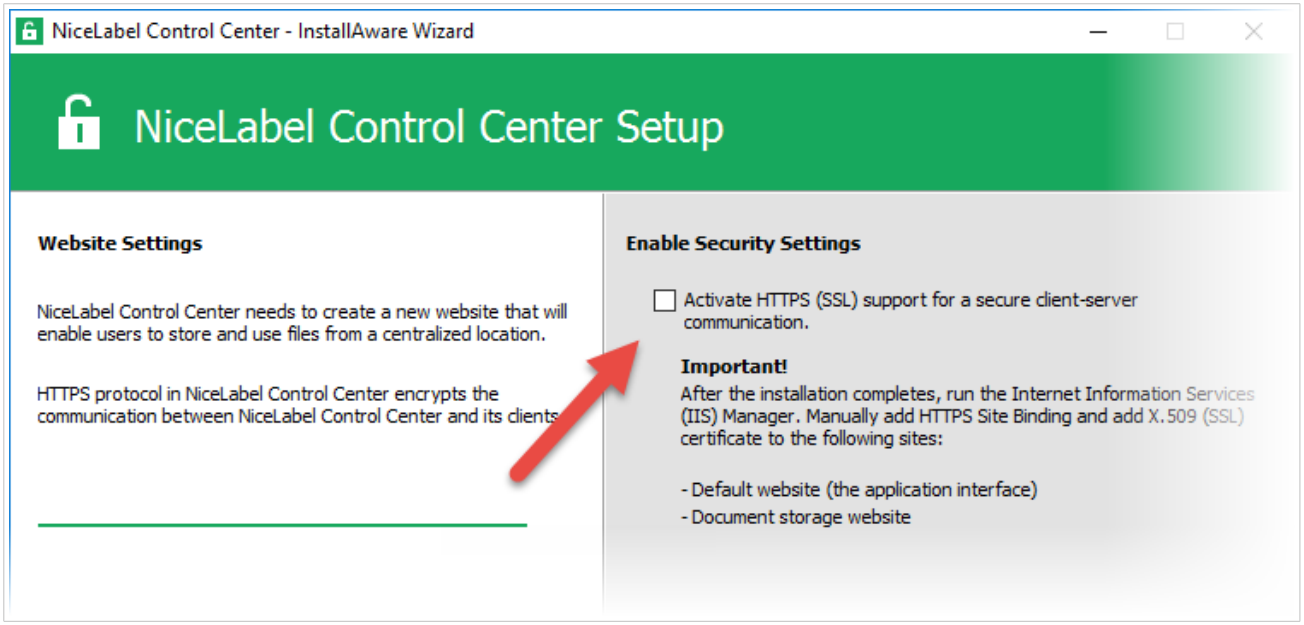

Figure 24: Enabling HTTPS support from within installer

Furthermore, the HTTPS setting is remembered during the upgrade to the next version. You no longer have to manually update web.config files after upgrading.

NOTE: This new option in the installer updates NiceLabel configuration files. You will still have to take care of your TLS certificates and web bindings in Internet Information Services (IIS) Manager.

3.1.5. Web Printing Installation can be started after Control Center Installation

After you install the complete NiceLabel LMS on a single server, additional improvement has been implemented in the installation procedure. In the last step of the Control Center installation wizard, you will be asked whether or not you want to install Web Printing module as well.

With the option “Install Web Printing” enabled, Web Printing installation starts as soon as you close Control Center installer.

NOTE: This shortcut is available if you start Control Center installation from NiceLabel DVD, or if you have both installers saved in the same folder.

3.1.6. Web Printing Installation Reuses Database Connection from Control Center Installation

During the NiceLabel Web Printing installation, you have to provide credentials for SQL user that can connect to Control Center database NiceAN. Web Printing requires access in order to obtain the label or solution file associated with the Web Printing user.

If you install NiceLabel Web Printing module on the same computer with NiceLabel Control Center, the installer will reuse the database connection to database NiceAN as was set during installation of the Control Center.

3.2. Content Management

3.2.1. Introduction

When companies decide to modernize their approach to labeling, they are typically striving to achieve the process illustrated in Figure 25 below. They are looking to:

- Manage all labeling assets (templates, graphics, and applications), people, and processes using the Document Management System (DMS).
- Provide secure and efficient printing to the print operators through configured on-demand or integrated printing solutions.
- Source data for the labels dynamically from the business systems or repositories of master data (single source of truth).

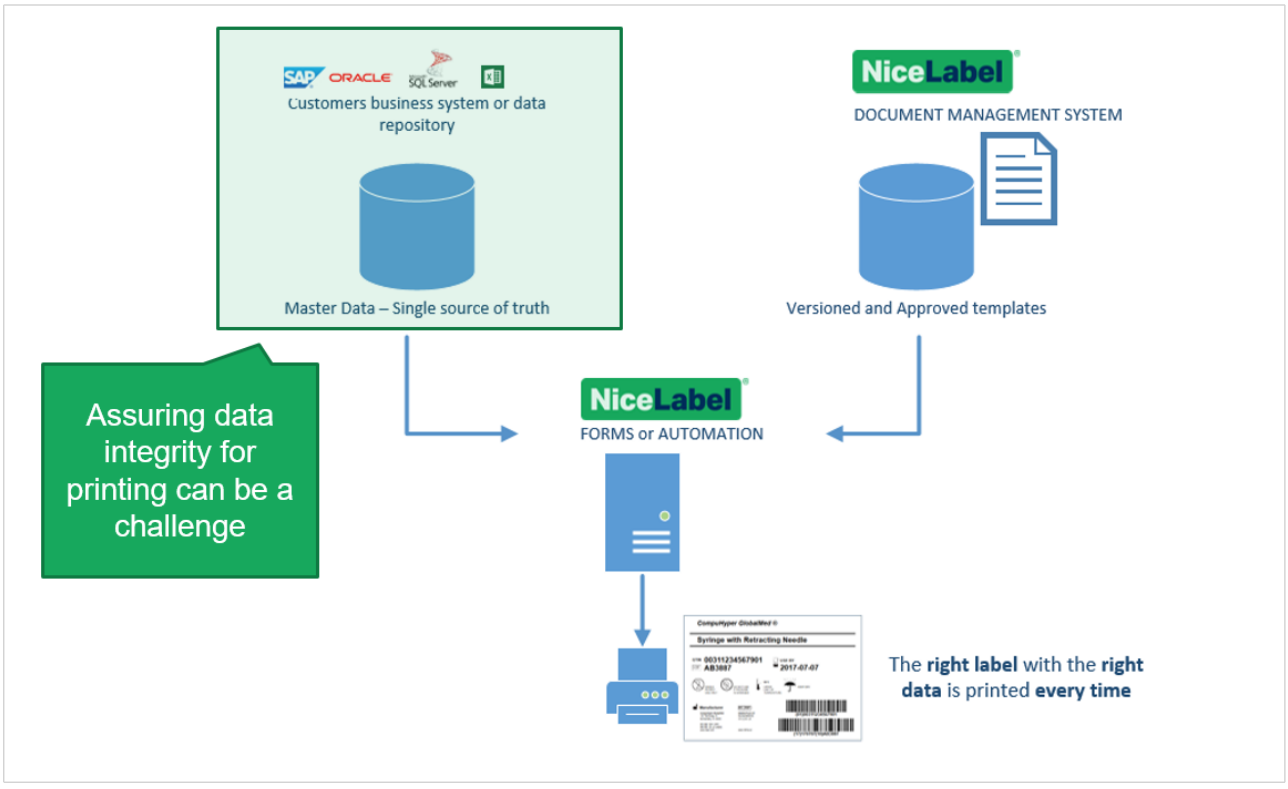

Figure 25: Best practice setup and common challenge

It turns out that assuring data integrity for printing can be challenging for many companies. The common issues are:

- Trustworthy master data repositories do not exist.
- Label data resides in multiple business systems and repositories with different levels of trustworthiness (ERP, MES, PLM, external databases for translations, GHS phrases, etc.).
- Live master data from business systems cannot be used for labeling.
  For example, to assure production runs complete with the same set of data, a snapshot of the data has to be used.
- Inflexible business systems with costly development or limited IT resources.

To help companies deal with these challenges, NiceLabel is introducing a simple but powerful functionality that helps companies manage also **the content** necessary for the accurate labeling process.

3.2.2. Introducing Label Variants

Label variant is a new type of label document that can be created from the NiceLabel label templates. The main difference from the normal label template is that most of the elements in the label variant have fixed values. The only data that can be changed at the print time of the label variant is production data like LOT/Batch fields, various dates, and serialized fields.

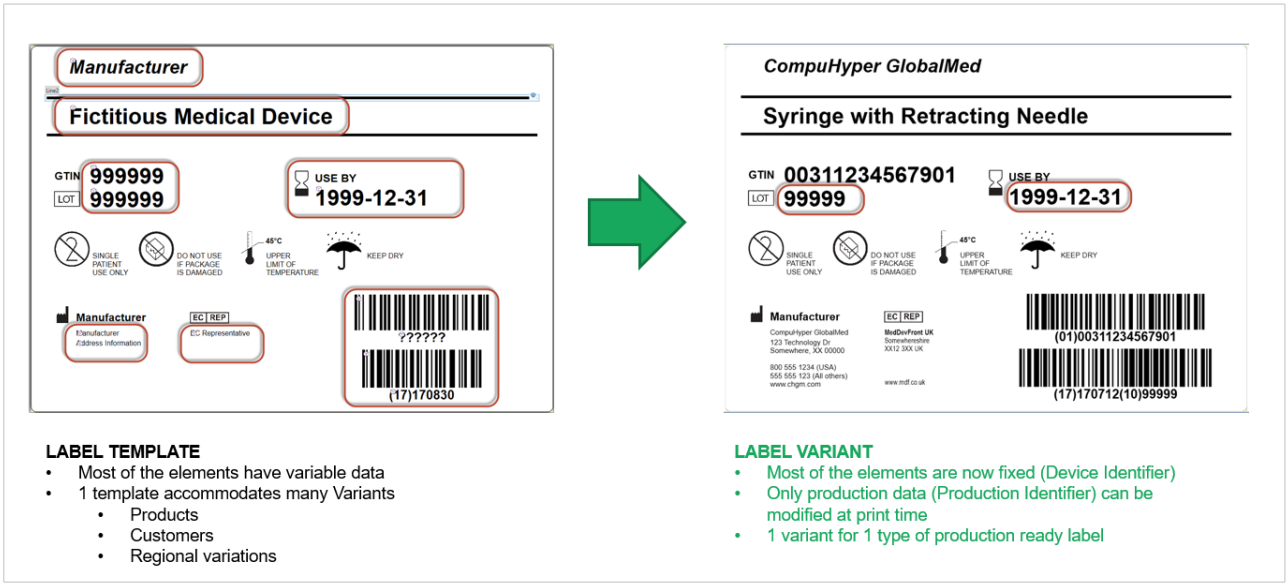

Figure 26: Label Template vs. Label Variant

In medical device (UDI) terminology, the label variant is a label template merged with device identifier (DI) data. Production identifier (PI) data is provided later at print (production) time.

3.2.3. New Action “Create Label Variant”

With this release, the creation of label variants is accommodated with a new action **Create Label Variant** which is available for both, Forms applications and Automation integrations. When executed the action creates a new *.nlbl document which:

- Includes the values for provided data sources and converts them to fixed values
- Embeds external pictures in the document

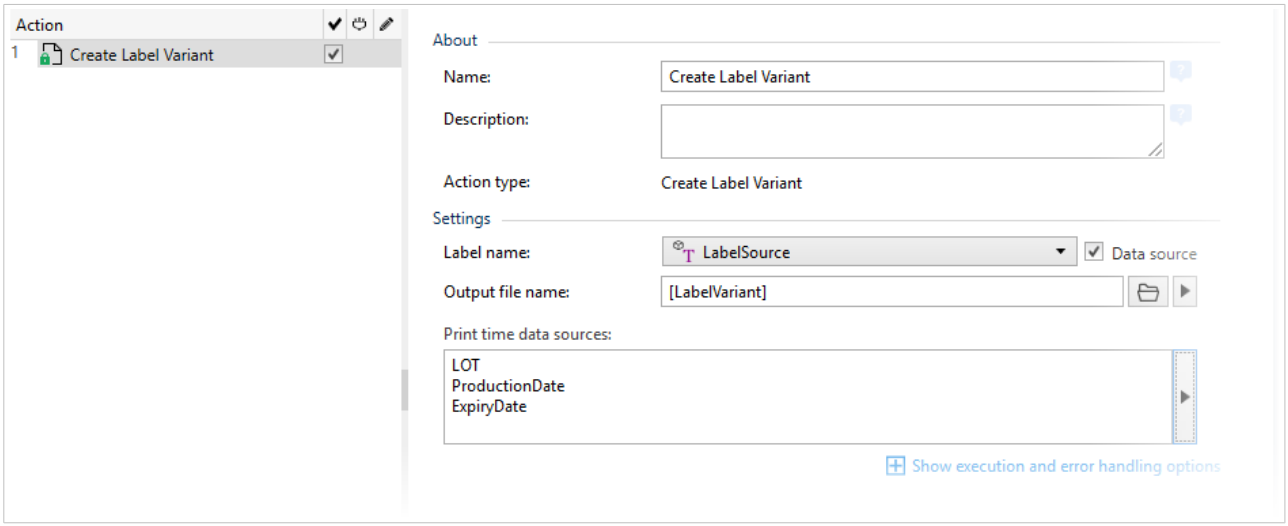

Figure 27: Creating a new label variant from a label template and provided data

Users can define the output file name and a list of “Print time data sources”. These are the data sources for production data which can be provided at print time. The created label variant documents cannot be opened for manual editing in NiceLabel Designer

Label variants should be normally stored and managed in NiceLabel Document Management System. The action takes care of automatically checking in the newly created variant into the DMS.

Using the DMS provides the following benefits for managing label variants:

- Full content indexing and search
- Automatic versioning and approval workflows
- Graphical comparison of variants and revisions
- Electronic label catalog of every label that can be printed

3.2.4. Conclusion

NiceLabel LMS infrastructure can now be leveraged to provide necessary content management functionality to assure accurate label production and help companies adhere to quality management systems and regulative requirements. While it is not meant to replace fully featured 3rd party content management platforms or ERPs with powerful capabilities it can provide the necessary functionality for companies without fit-for-purpose business systems or necessary IT skills. Forms applications can be configured for data management and business rules configuration and Document Management System can be used to efficiently manage production-ready labels.

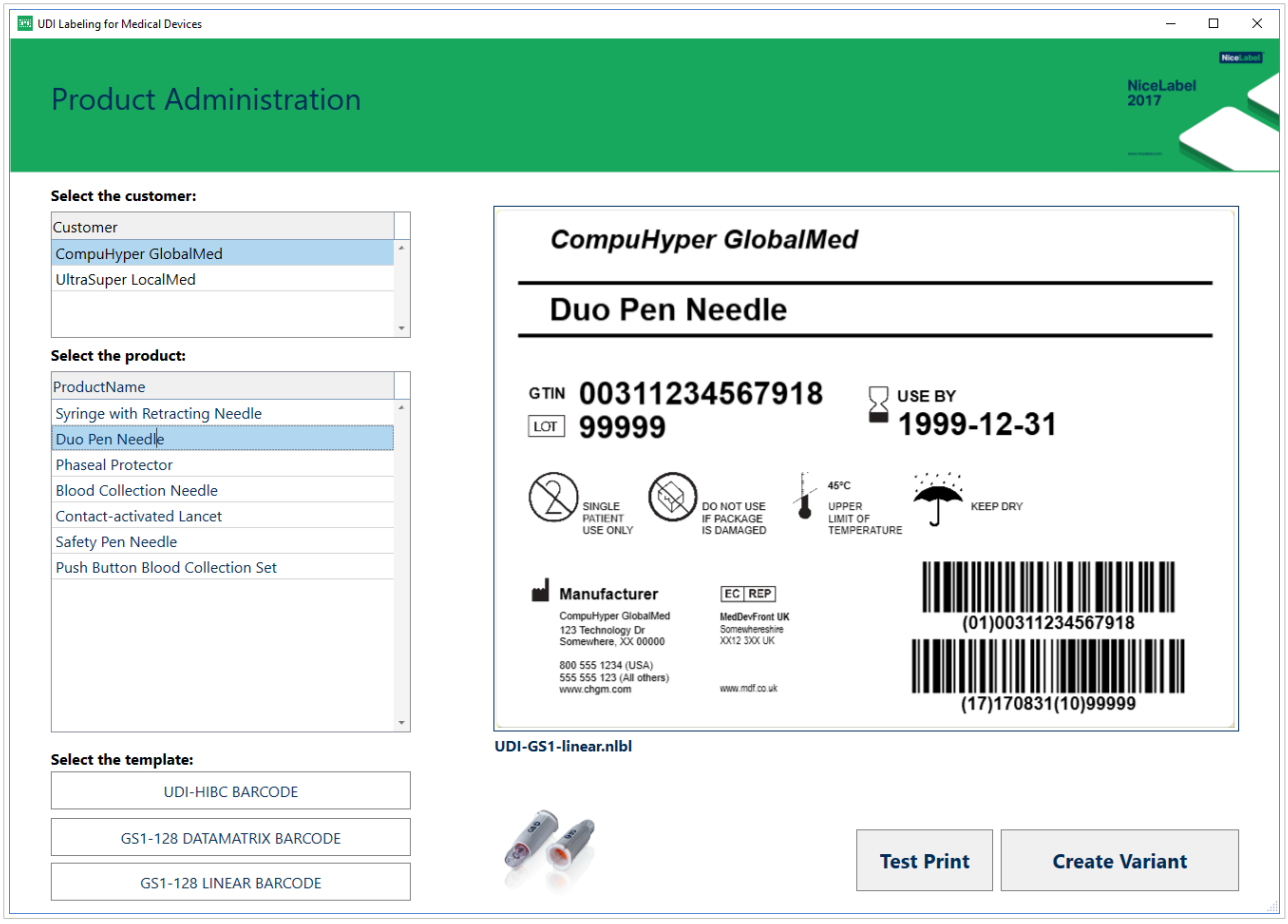

Figure 28: Sample forms application for product administration

By implementing this process, the customer gains:

- Absolute accuracy of printing as both templates and data get properly managed
- Natural approval process for production-ready labels by the business users through a web-based Document Management System
- Label template consolidation as a single template can facilitate many variants that are automatically created by the system
- Electronic catalog of every production label that can be printed by the LMS system

3.3. Print Management

Print management functionality in Control Center has been rebuilt from the ground up. The new page delivers a greatly improved user experience on top of a robust back-end that is able to provide real-time monitoring of printers and printing queues even in the largest LMS environments with several hundreds of printers.

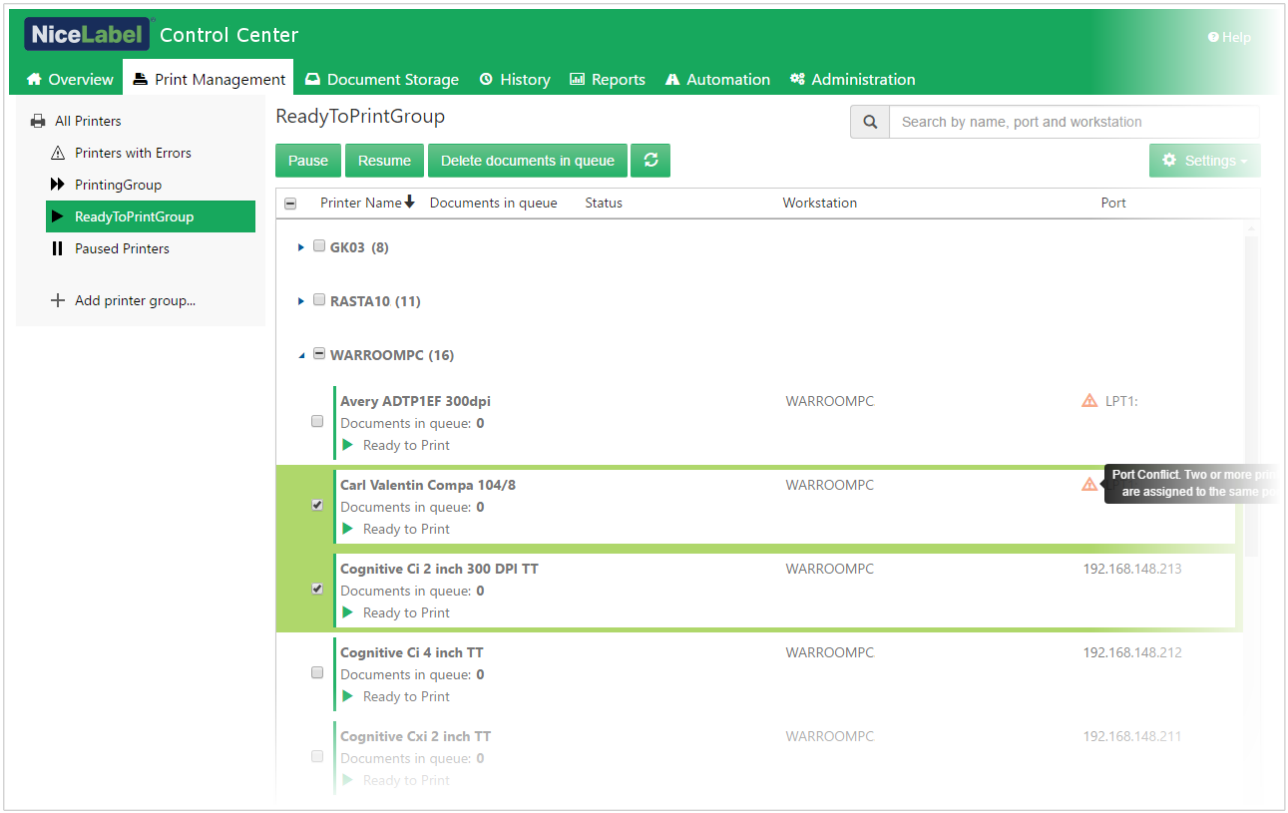

Figure 29: New Print Management user interface

Every installed printer used by any NiceLabel workstation or server in the LMS environment is centrally visible in Control Center's browser-based environment. Printer status and printing activity are displayed in real-time with color-coding for improved readability. You can also control remote printers by issuing pause/resume/delete documents in queue commands.

The interactive search allows filtering printers by name, workstation, and port. Printer groups can be used to build predefined views and further tailor the user experience.

3.4. Database Archiving

Depending on the frequency of printing, the size of Control Center database will grow in time. To maintain optimal performance and to restrict the size of the operating database it is recommended to archive historic data that is not necessary for daily use.

3.4.1. Improvement in Default Archivator Performance

The default Archivator component in Control Center takes care of the database "housekeeping" in the background. This process runs at the defined time intervals and removes historic printing data. These Archivator parameters are configurable and administrators can adjust them according to their needs.

In this release, the Archivator is updated to significantly increase the performance of the archival process. The database has been restructured for the purpose and as a result, the archival process only takes a fraction of the time that was required before.

3.4.2. Archiving with SQL Partitioning

NiceLabel Control Center database has been restructured to support SQL partitioning.

In advanced environments, archiving with SQL partitioning might be a preferable option to the default Archivator component. In this case, NiceLabel Archivator component is disabled and the database administrator can set up and leverage table partitioning instead.

There are many benefits to partitioning large tables, such as a table of printing events in Control Center database. You can speed up loading and archiving of the data, perform maintenance operations on individual partitions instead of the whole table, and you may be able to improve query performance.

You can automate the data partitioning, e.g. the new partition is created each week/month/year, depending on how old records for printing history should be available in Control Center. When the historical, partitioned data is needed for review, it can be quickly made available using SQL Server functionality.

For more information, see Knowledge Base article Archiving via Table Partitioning.

3.5. Web Printing

3.5.1. Files from Document Storage available in List Controls

The list controls are form objects that make a list of values available for the selection. These controls are Combo Box (drop-down list), List Box, and Radio Group. The values shown in these controls can be predefined or connected to a variable data source, such as a database table, or a list of files in a folder.

In this release, the list controls have been enhanced to support files from Document Storage. This is a huge benefit for Web printing solutions in which the label templates might be continuously changed but the printing application (form) remains the same. In this case, the best practice is to use external labels, as you can update the labels without changing the actual printing solutions.

3.5.2. NiceLabel Web Client Can Run as a Single Instance

When you log in to a Web Printing page, the locally installed NiceLabel Web Client starts up and loads the printing application. Upon each login, a new instance of Web Client starts. This is fine if you actually have to run various Web Printing applications at the same time.

However, in some cases, users just want to use one printing application, or just want to reload the existing application using the same Web Client instance.

In this release, the communication with NiceLabel Web Client has been expanded to include the following new modes of operation:

- Always open a new instance of the application.
- Reload the currently loaded application.
- Only apply new values of variables, but otherwise, keep the currently opened application running.

For more information, see the NiceLabel Web Printing installation guide.[3]

3.6. Audit Trails and Alerts

3.6.1. License Violation Event and Alerting

If you use more printers than the number purchased by your multi-seat license, the license violation event occurs. NiceLabel Designer, Control Center, and NiceLabel Automation software display the respective information in the application window.

With this release, a license violation event can be monitored in Control Center. If such an event occurs, the alert is raised to send SMS or email message to a responsible person. The problem resolution process can then start immediately. The event is raised once per day until the status is resolved.

The event is also logged in System History.

3.6.2. Support for “Log Event” Filtering in All Activities History

Log Event action can be run from form application or from Automation configuration to insert a custom entry into the log database.

The filter in All Activities has been expanded with two additional fields: Information and Details to enable searching for Log Event details.

[3]See reference to documentation in New and Updated Assets topic.

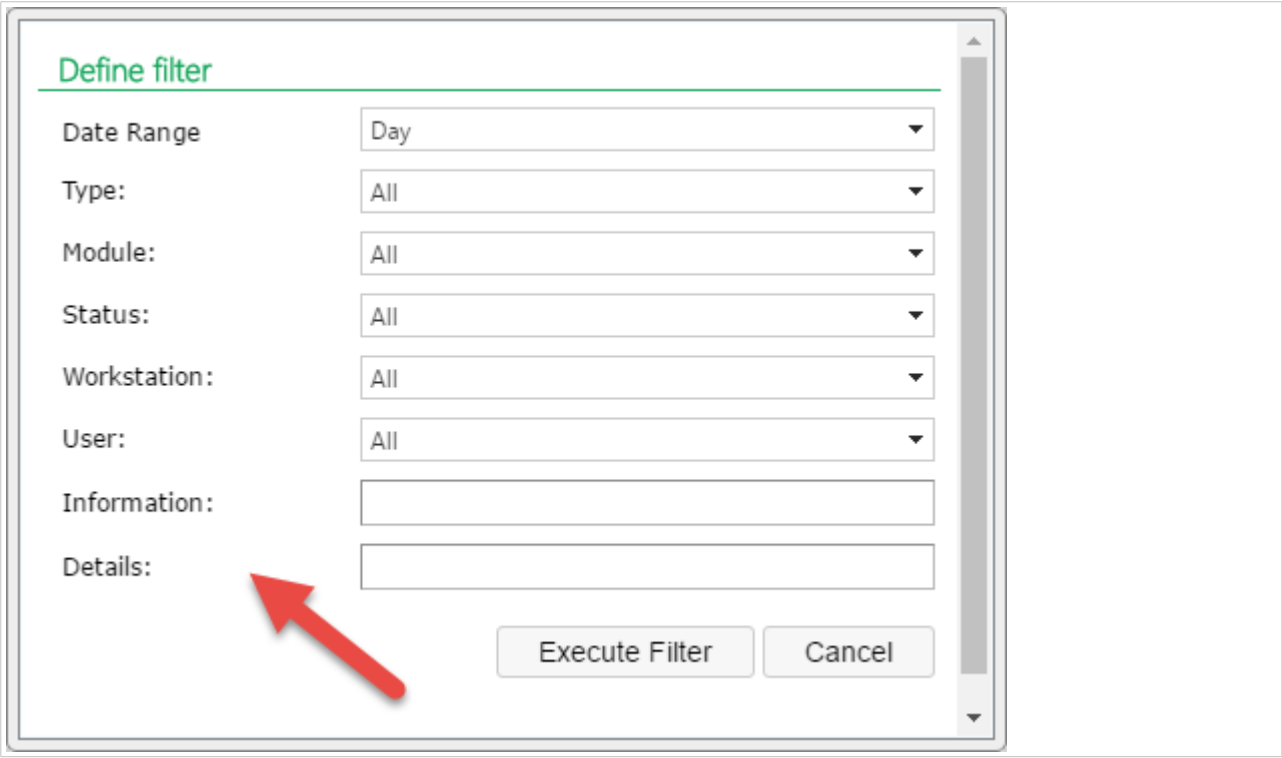

Figure 30: Search is available for Information and Details fields for custom logs from action Log Event

3.6.3. Support for Secured Email Server

NiceLabel Control Center can be set up to send notification emails and alerts for certain monitored events.

In this release, the support for a secure (encrypted) connection to the email server (SMTP) has been added.

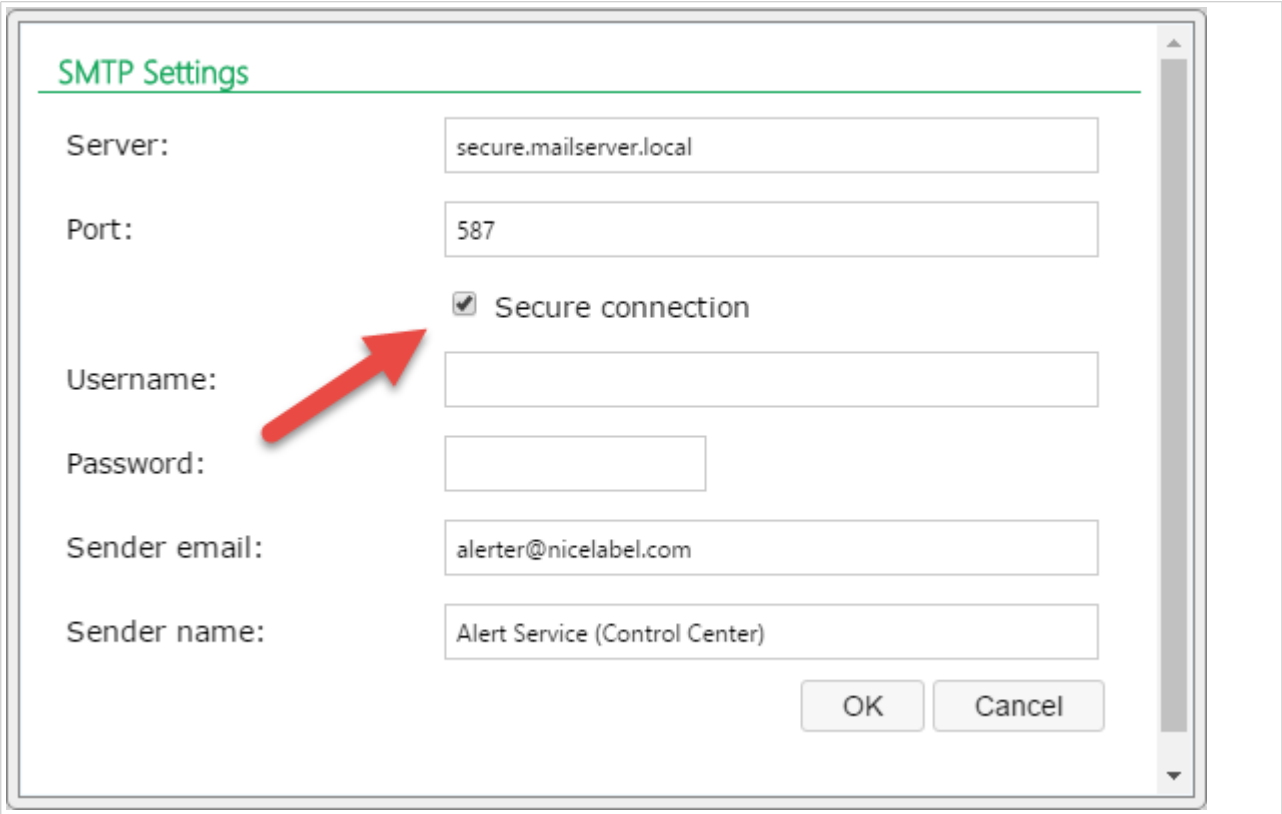

Figure 31: Enabled support for secured connection to email servers

3.7. Document Management

3.7.1. Changing Workflow Step of Several Files Simultaneously

NiceLabel Control Center now allows changing the workflow step for multiple selected documents at once as long as they are currently in the same workflow step.

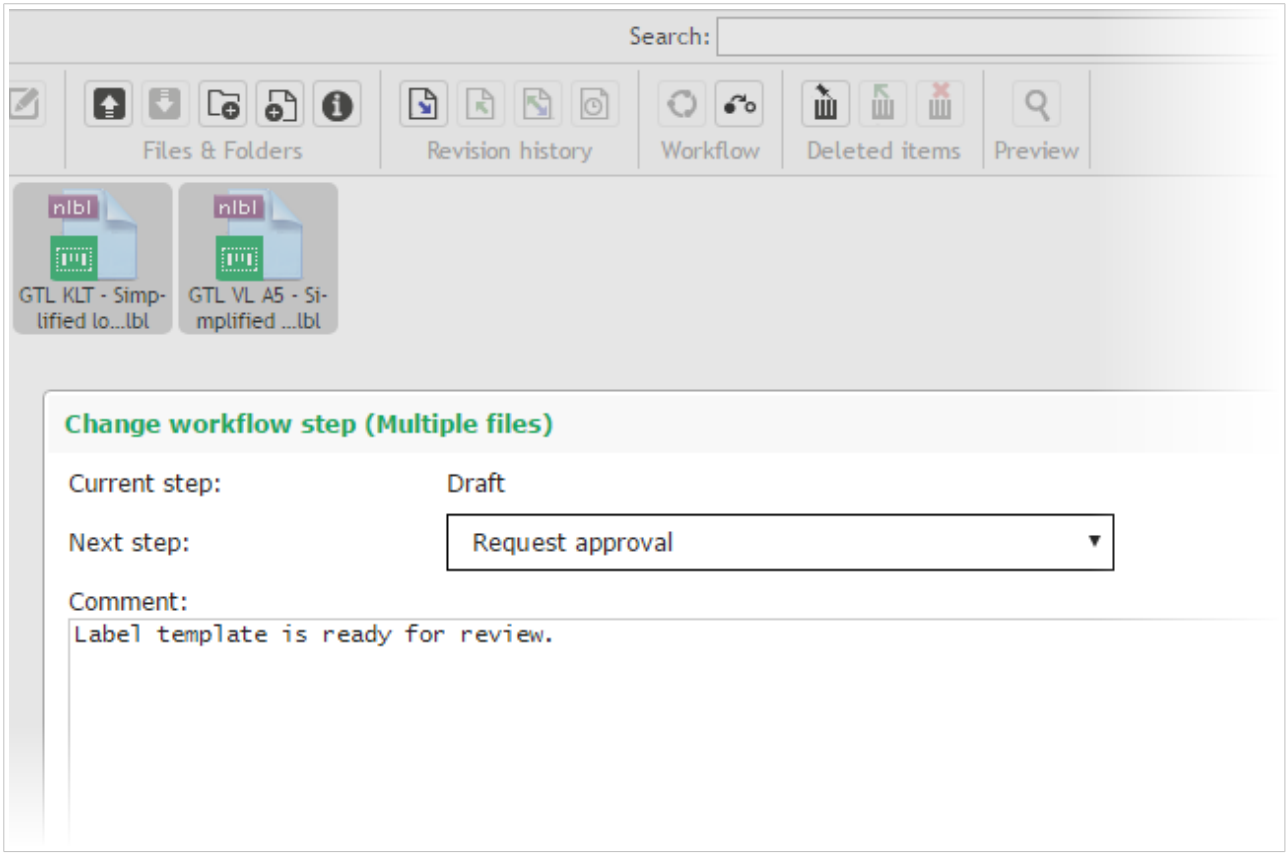

Figure 32: Changing workflow step for multiple selected files

3.8. Integration System (Automation)

Editing and Running Automation Configurations from Document Storage

NiceLabel integration module (Automation) can open configuration files directly from the Document Management System available in LMS products.

The support is added in:

- Automation Builder to open configurations for editing and testing
- Automation Manager to load and deploy the configuration for the production

3.8.1. Custom Response Header Fields for HTTP Trigger

NOTE: Product level NiceLabel LMS Enterprise or above is required for this feature.

HTTP trigger in Automation already supported custom content in the response message body. This functionality is essential for two-way communication, using which the application providing data expects to receive some kind of feedback from Automation.

You can configure Automation to provide all kinds of information including the status of data processing, information whether or not the printer has received a print job, live information about the printer status, previews of the approved label coupled with the master data, print streams, and more.

In this release, you can also add custom HTTP header fields into a response message. These are components of the header section in the response messages. They mostly provide additional meta-information in response. You might use them to allow Automation trigger to receive requests from another domain outside the domain from which the first resource was served (Cross-origin resource sharing or CORS) – a useful feature if you have a single Automation server servicing applications from multiple domains.

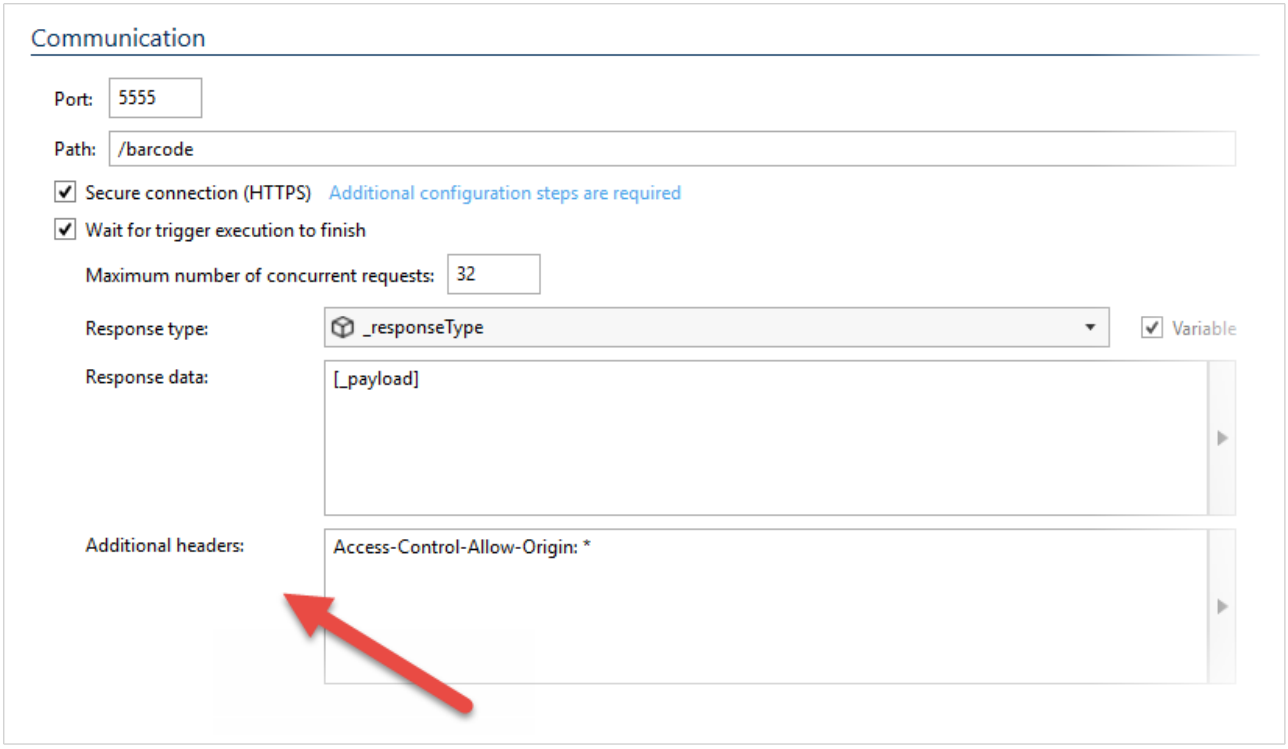

Figure 33: Custom header fields can be added to the response message

3.8.2. Updates in Action “Get Label Information”

> **NOTE**
> Product level NiceLabel LMS Enterprise or above is required for this feature.

The action **Get Label Information** returns label structure in an XML-formatted file. The file includes label design information, such as dimensions and associated label printer, but also a label structural information with a list of variables and their properties.

By default, the action uses production data to build the result. If the production data is not available at a time when you execute the action, the provisional values are used to retrieve the label information. The provisional value defines a custom placeholder variable value in an object while designing labels and is replaced by the real variable value at print time.

If the new option **Use provisional values** is enabled, the action will always apply the provisional value in the response, irrespective of production data.

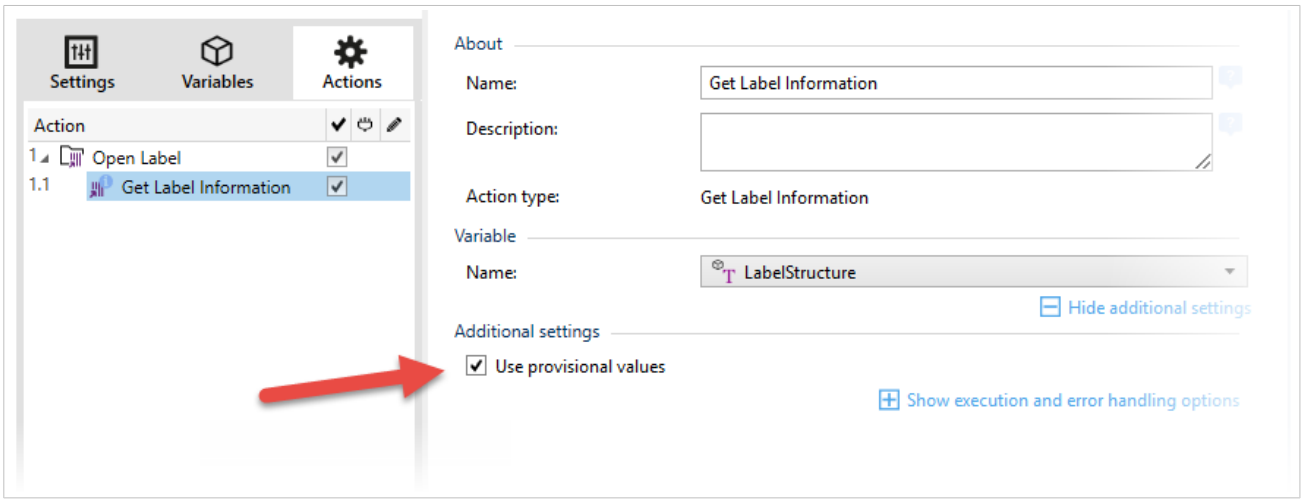

Figure 34: Using dummy design-time values from the variable definition

Additionally, the action exposes two new properties of variables:

- isPrompted: Boolean field specifying whether the user can set its value
- PromptText: Contains text that prompts the user for the value input. This text serves as an instruction on what kind of values should be entered before printing.

3.8.3. Updates in Action “Preview Label”

> **NOTE**
> Product level NiceLabel LMS Enterprise or above is required for this feature.

The action **Preview Label** returns label preview in a bitmap file.

By default, the action uses production data to build the result. If the production data is not available when you execute the action, the provisional values are used to retrieve the label information. Provisional value is a value that a user can enter for objects with variable content and is used while designing labels. The provisional value will automatically be replaced with production data at print time.

When the new option “Use provisional values” is enabled, the action will always apply the provisional value in preview, irrespective of production data.

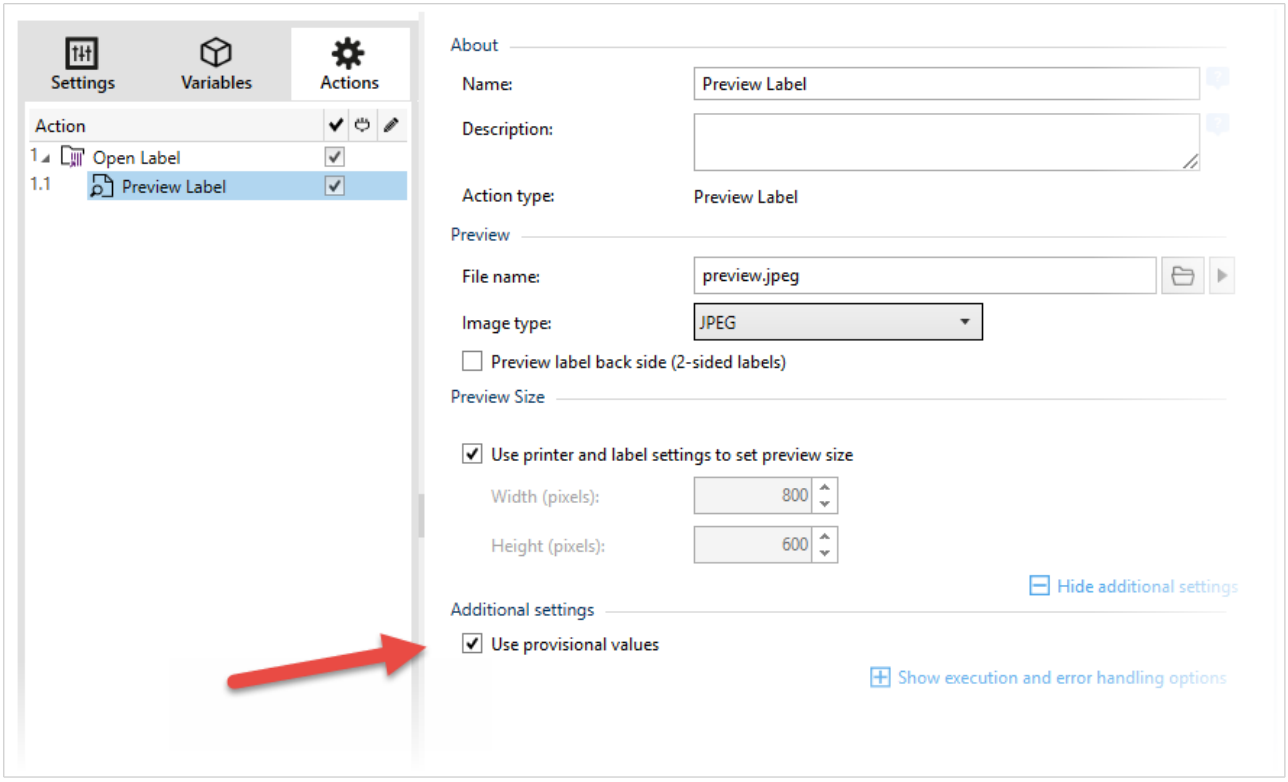

Figure 35: Using dummy design-time values from the variable definition

3.9. Programmable Integration (.NET API)

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

3.9.1. Support for Label Store Functionality

Label template can now be stored to the printer through the API. This is useful for printers that need to be initialized by NiceLabel but print in stand-alone mode (where printing might be triggered by PLC).

3.9.2. Support Generate Label Variant Functionality

The API can create a label variant out of a label template and the data from the business systems or repositories of master data. For more information, see the topic Content Management.

3.9.3. Support for Managed C++

.NET API now also supports managed C++ development environment.

3.9.4. Expanded IVariable Interface

The IVariable interface has been expanded with three properties:

- DefaultValue – read/write
- Length – read/write
- VariableType – read-only.

3.9.5. Printing to PDF is added to SDK.NET

.NET API now allows printing to PDF with an embedded PDF engine.

3.9.6. SaveAs Method Can Overwrite Existing File

The SaveAs method is extended to support overwriting existing files. A Boolean parameter specifies the mode of the SaveAs operation.

3.9.7. Ignoring Compatibility Errors When Loading Labels

.NET API can be set to ignore checking for compatibility errors when legacy label formats are loaded.

4. Adopting NiceLabel 2017

4.1. Localized NiceLabel 2017 Documents

NiceLabel 2017 document “NiceLabel LMS installation guide for single server deployment (Control Center and Web Printing)” is now available in multiple languages, including English, French, German, Italian, and Spanish.