

QRlogix Software

By QRlogix

USER MANUAL

V1.6.9B

The screenshot displays the QRlogix Software interface. On the left is a sidebar with the QRlogix logo and a menu under 'On-Demand' containing 'File Drop', 'Templates', and a list of templates: 'Template 1' (selected), 'Template 2', 'Template B1', 'Template H1', 'Template M1', 'Template P1', and 'Template R B 1'. At the bottom of the sidebar are 'Import Template', 'Administrator', and 'Setup and Preferences'. The main area is titled 'Template 1' and includes icons for save, close, and lock, along with an 'Options' dropdown. It features five input fields labeled 'Field 1' through 'Field 5', and a 'Slide' section with '1' in a box followed by 'To' and another box with '1'. A large blue 'PRINT' button is at the bottom, with a circular icon to its right. On the far right, a panel shows a large number '1' and a 'Print History' section with a 'Show All' button.

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CUSTOMER SUPPORT

Immediate customer support is available by phone and email. If we are unavailable at the moment, we will get back to you at our first available opportunity.

Phone support: 800-650-0632

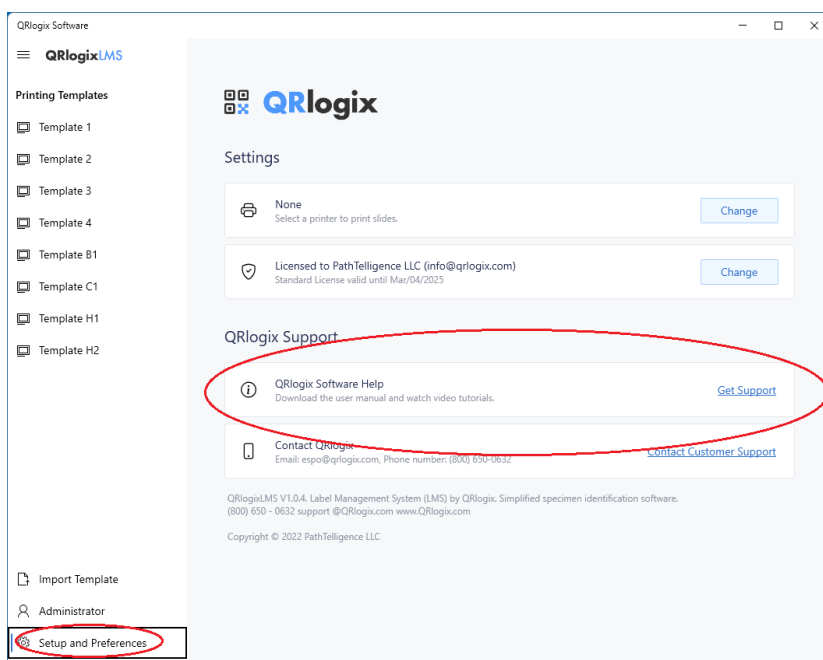
Email support: SUPPORT@QRlogix.com

User manuals, support documents and video tutorials can be found at:
<https://qrlogix.com/pages/qrlogix-software-support>



Scan for Support

Support resources are also available by clicking links inside the software:

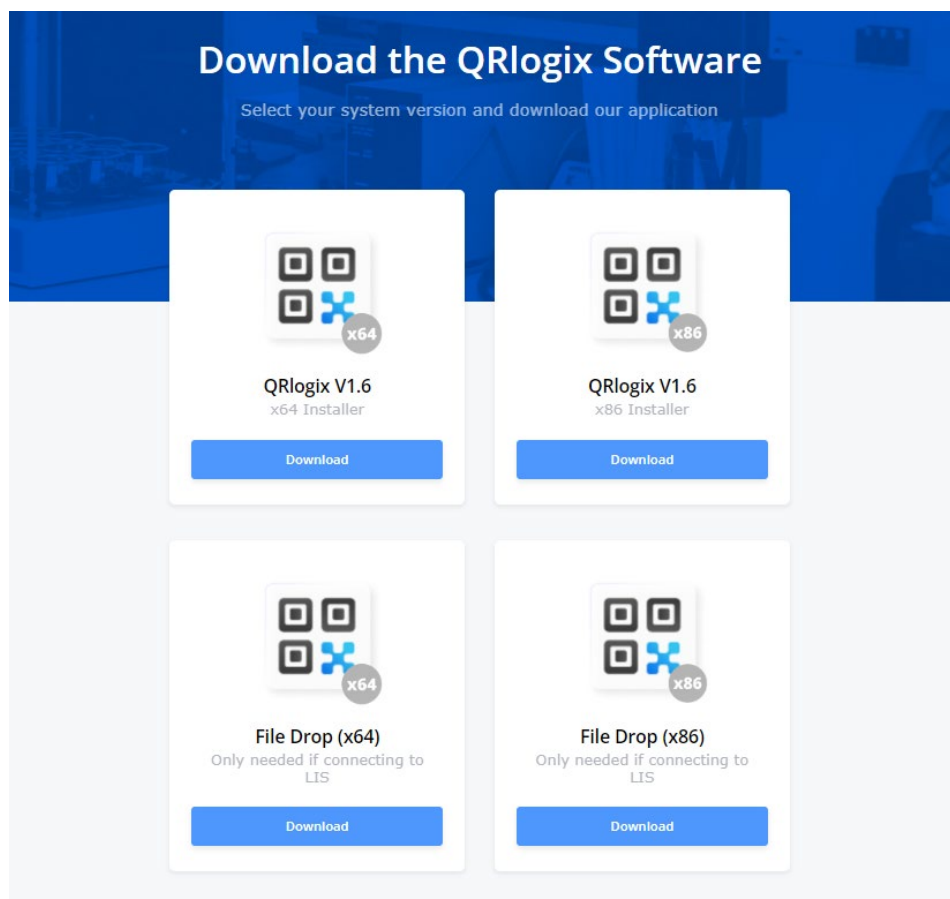


INSTALLATION

IMPORTANT: Administrative rights are required to install software and drivers.

Follow the link in your welcome email to download QRlogix Software.

Chose the correct version for your operating system.

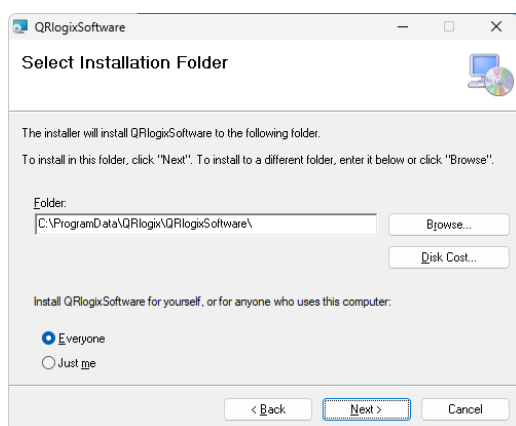
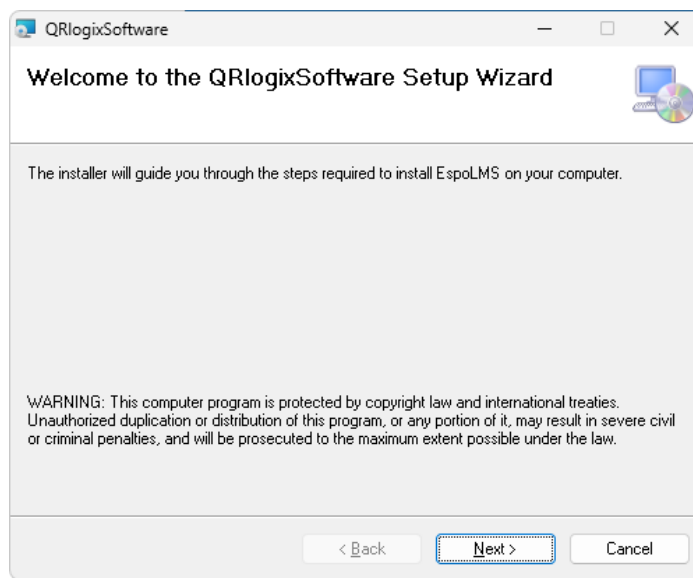


To determine which version to download, go your Windows Control Panel, and then select System Information -> About, and reference System Type.

The File Drop download is **ONLY NEEDED** if you are printing from TXT or CSV files through a shared folder. For example - printing from LIS. Otherwise, you should not download and install the File Drop application.

Once the application has been successfully downloaded, double-click the file to begin the installation.

The installer window will appear. Click Next to begin the installation.



Confirm the file installation path.

Next, determine if anyone else who logs into the workstation will need access to the software. If so, select Everyone.

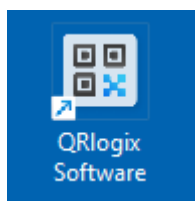
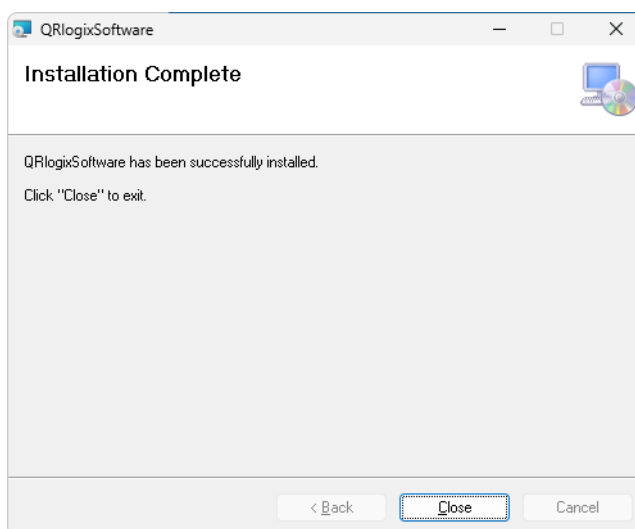
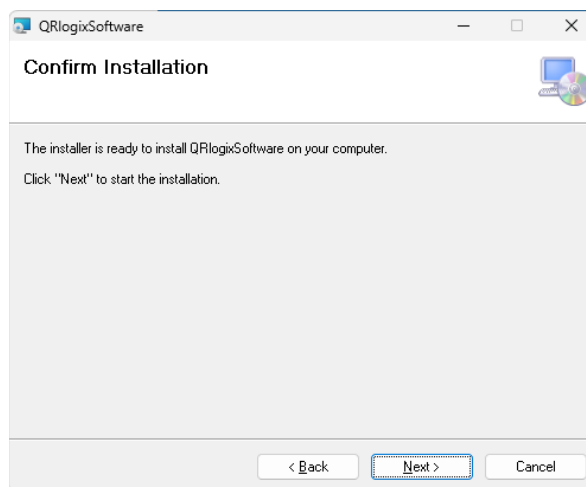
Choose Next to continue.

CONFIRM INSTALLATION

Click Next to confirm the installation.

Installation will begin.

Allow for a few minutes for the QRlogix Software installation to complete.



Once installation completes, an icon for QRlogix Software will appear on the computer's desktop.

Click the icon to launch the software.

LICENSE ACTIVATION

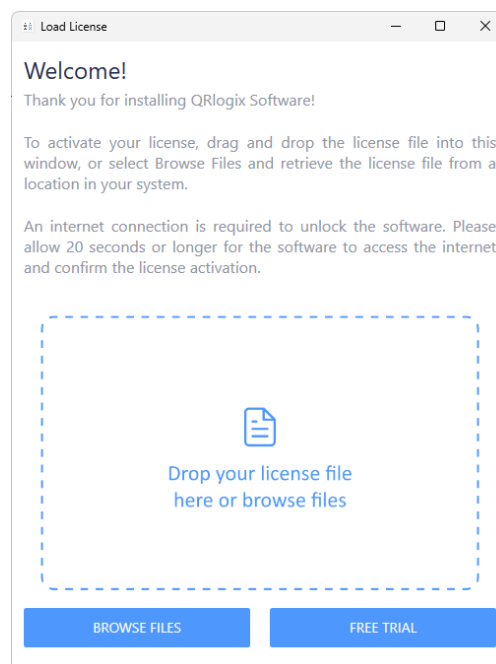
There are two options for license activation:

1. Drag and drop license file into license activator window

PLEASE ALLOW 20+ SECONDS TO PROCESS
**** REQUIRES INTERNET CONNECTION ****

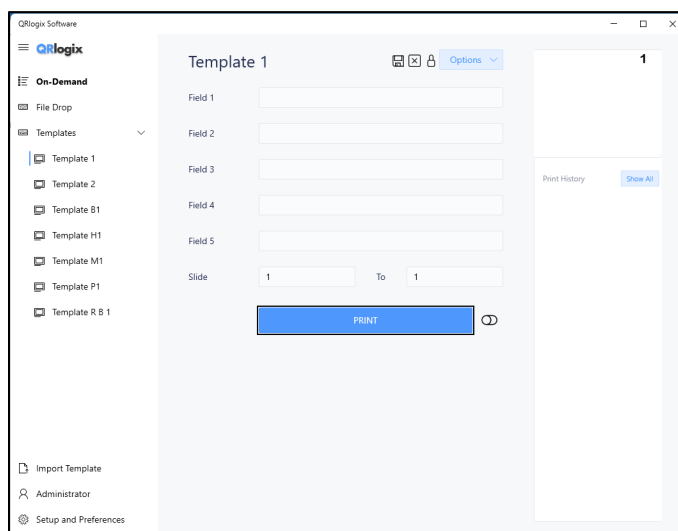
2. Click BROWSE FILES, and then navigate to the folder and select the license file for activation

PLEASE ALLOW 20+ SECONDS TO PROCESS
**** REQUIRES INTERNET CONNECTION ****

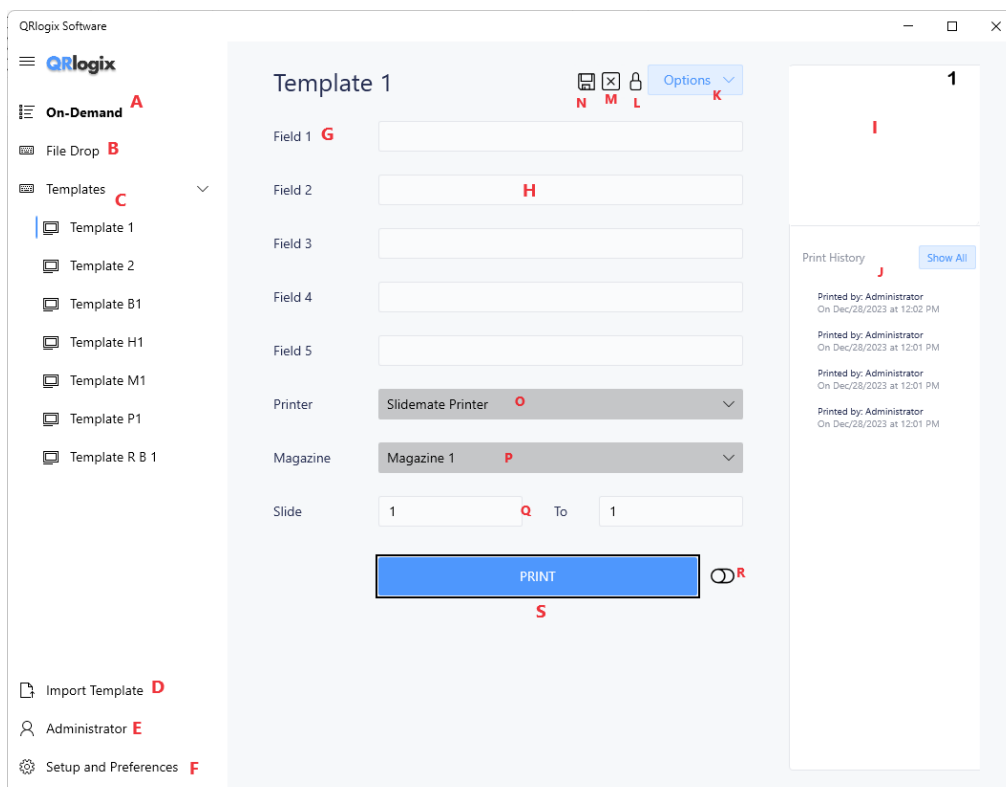


NOTE: The FREE-TRIAL option does not allow printing to printers. Users can build and test templates using the Print to Images feature.

Once the license is confirmed, the application will open on your screen:



INTERFACE OVERVIEW



- A = On-Demand: Templates for printing from keyboard or barcodes
- B = File Drop: Connects with LIS to receive TXT/CSV print jobs through a shared folder
- C = List of different templates that are setup to print to your printer.
- D = Import a new template from the library located at Documents\QRlogix\Templates
- E = Add new users. Switch current user
- F = Switch from printer to print to images. License information. Software support links
- G = Editable name of the form field
- H = Form field user input data
- I = Label print preview
- J = Print history
- K = Options Dropdown: Customize Template (Form/Label Builder), Export Template, Delete Template
- L = LOCK / UNLOCK form fields
- M = Clear field data / Reset counters
- N = Save field data so it repeats after printing
- O = Printer Selection
- P = Magazine selection
- Q = Counter (slide numbering)
- R = Auto-Print - Initiates immediate print upon cursor arriving at Print button
- S = Print button

ON-DEMAND PRINTING

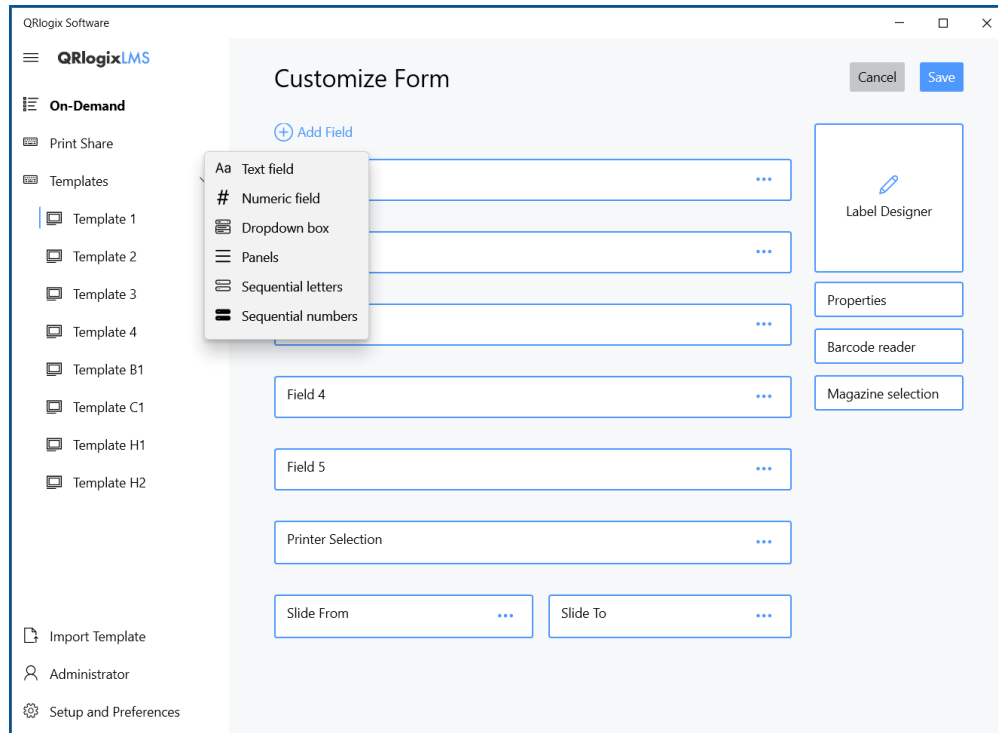
On-demand printing allows data to be input into template forms from keyboard entry, barcode scanning, or a combination of both.

You can edit form field properties by clicking the Options dropdown, and selecting Customize Template.

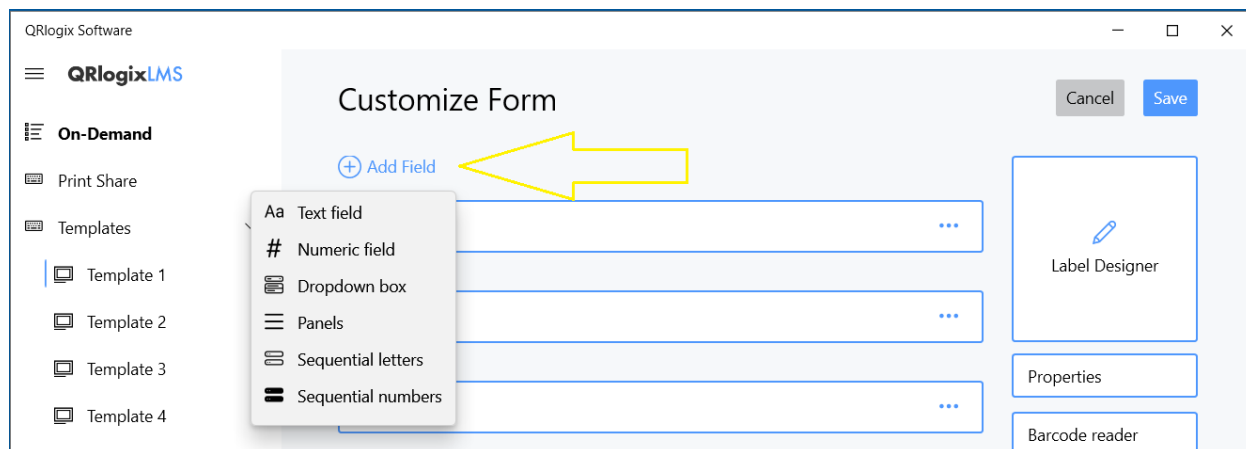
Form Builder allows users to select different form items and edit their individual properties. You can also add/remove and move form objects such as dropdown boxes, text fields and numeric fields.



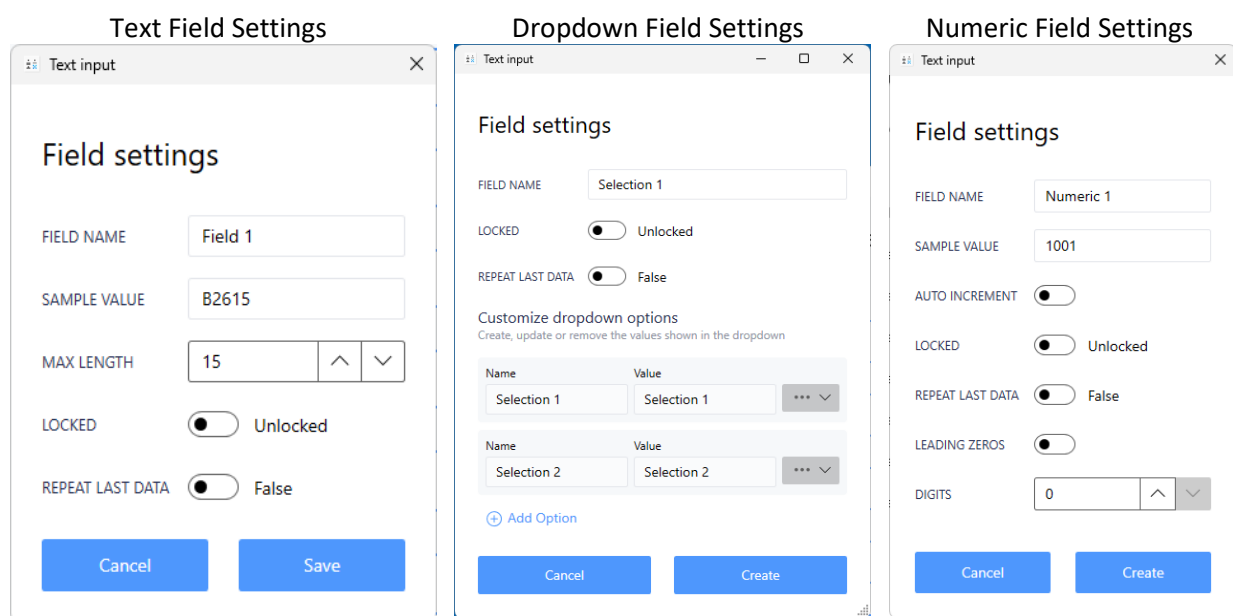
Form Builder allows you to select different form items and edit their individual properties. You can also add/remove template features such as Text fields, Numeric fields, Dropdown boxes, Panels, and Sequential letters and numbers.



To add fields or dropdown boxes to a form, select the Add Field option at the top of the window.



Select the type of form field you want to add, and proceed to edit the field settings accordingly.



Panels

Panels Settings

STATUS
☒ Active

Customize panels options
Create, update or remove the values shown in the dropdown

Panel 1 name

Name
Value 1

Name
Value 2

Add Option

Remove Panel

Panel 2 name

Name
Value

Add Option

Remove Panel

Add new Panel

Cancel

Save

Sequential letters

Text input

Field settings

FIELD NAME
Letters

SAMPLE VALUE
A

MAX LENGTH
5

LOCKED
☒ Unlocked

REVERSE ORDER
☒ False

REPEAT LAST DATA
☒ False

Cancel

Create

Sequential numbers

Text input

Field settings

FIELD NAME
Numbers

SAMPLE VALUE
1001

LOCKED
☒ Unlocked

REVERSE ORDER
☒ False

REPEAT LAST DATA
☒ False

LEADING ZEROS
☒

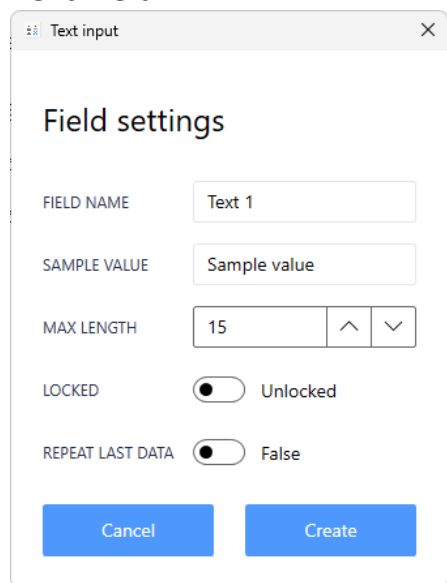
DIGITS
0

Cancel

Create

EDIT FORM FIELDS

Text Field



A dialog box titled "Text input" with a close button (X) in the top right corner. The main heading is "Field settings". Below this, there are several configuration options:

- FIELD NAME:** A text input field containing "Text 1".
- SAMPLE VALUE:** A text input field containing "Sample value".
- MAX LENGTH:** A numeric input field containing "15", with up and down arrow buttons to its right.
- LOCKED:** A toggle switch that is currently turned off, with the label "Unlocked" next to it.
- REPEAT LAST DATA:** A toggle switch that is currently turned off, with the label "False" next to it.

At the bottom of the dialog are two blue buttons: "Cancel" on the left and "Create" on the right.

FIELD NAME: Name/Rename field

SAMPLE VALUE: Values displayed in Label Builder preview. It's important to use data similar to what will acutally be used.

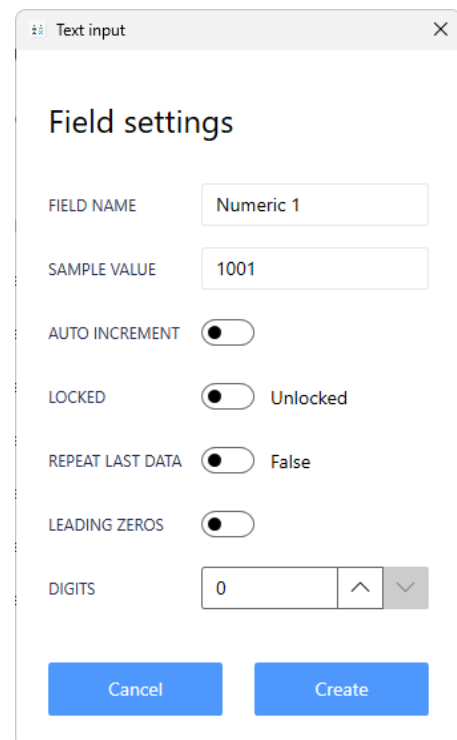
MAX LENGTH: Set max character length to print on label. Data that exceeds max length will be truncated.

LOCKED: Locks form field so data remains and cursor skips field

REPEAT LAST DATA: Field data automatically repopulates after printing.

Create or Cancel selections

Numeric Field



A dialog box titled "Text input" with a close button (X) in the top right corner. The main heading is "Field settings". Below this, there are several configuration options:

- FIELD NAME:** A text input field containing "Numeric 1".
- SAMPLE VALUE:** A text input field containing "1001".
- AUTO INCREMENT:** A toggle switch that is currently turned off.
- LOCKED:** A toggle switch that is currently turned off, with the label "Unlocked" next to it.
- REPEAT LAST DATA:** A toggle switch that is currently turned off, with the label "False" next to it.
- LEADING ZEROS:** A toggle switch that is currently turned off.
- DIGITS:** A numeric input field containing "0", with up and down arrow buttons to its right.

At the bottom of the dialog are two blue buttons: "Cancel" on the left and "Create" on the right.

Numeric data input box

FIELD NAME: Name/Rename field

SAMPLE VALUE: Values displayed in Label Builder preview. It's important to use data similar to what will acutally be used.

AUTO-INCREMENT: Set number to automatically increment after each print job

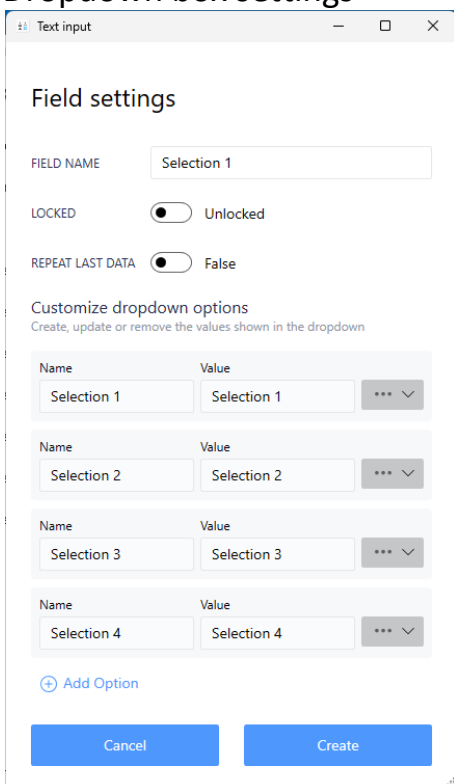
LOCKED: Locks form field so data remains and cursor skips field

REPEAT LAST DATA: Field data automatically repopulates after printing.

LEADING ZEROS: Prints leading zeros based on user defined numbed of digits

Save or Cancel selections

Dropdown box settings



Field settings

FIELD NAME:

LOCKED: ☐ Unlocked

REPEAT LAST DATA: ☐ False

Customize dropdown options
Create, update or remove the values shown in the dropdown

Name	Value	
<input type="text" value="Selection 1"/>	<input type="text" value="Selection 1"/>	*** ▼
<input type="text" value="Selection 2"/>	<input type="text" value="Selection 2"/>	*** ▼
<input type="text" value="Selection 3"/>	<input type="text" value="Selection 3"/>	*** ▼
<input type="text" value="Selection 4"/>	<input type="text" value="Selection 4"/>	*** ▼

[+ Add Option](#)

Input selection list

FIELD NAME: Name or Rename field

LOCKED: Locks form field so data remains and cursor skips field

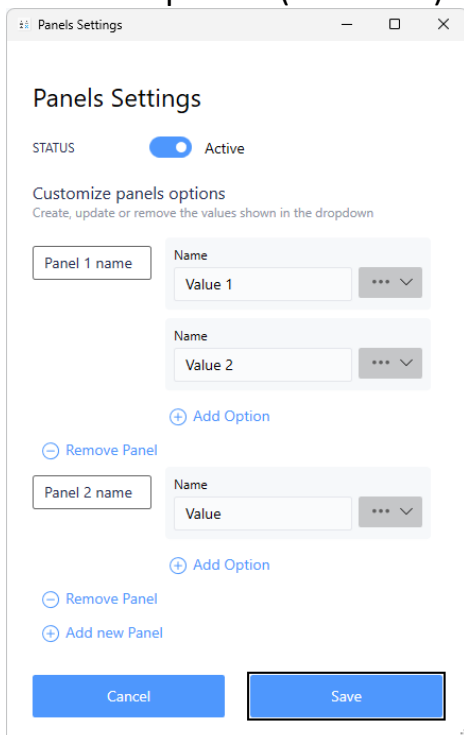
REPEAT LAST DATA: Field data automatically repopulates after printing.

Customize dropdown field options:

- Name
- Printed value
- Move up/down
- Remove selection
- Add new selection

Save or Cancel selections

Panels Dropdown (Protocols)



Panels Settings

STATUS: ☒ Active

Customize panels options
Create, update or remove the values shown in the dropdown

Panel 1 name:

Name	Value	
<input type="text" value="Value 1"/>	<input type="text" value="Value 1"/>	*** ▼
<input type="text" value="Value 2"/>	<input type="text" value="Value 2"/>	*** ▼

[+ Add Option](#)

[- Remove Panel](#)

Panel 2 name:

Name	Value	
<input type="text" value="Value"/>	<input type="text" value="Value"/>	*** ▼

[+ Add Option](#)

[- Remove Panel](#)

[+ Add new Panel](#)

List of stains to print for each record

PANEL: Group of selections to print, individually

PANEL SELECTIONS: Individual values for the panel group. Each selection is printed on one label. If there are 3 selections, 3 labels will print, one with each of the selection values.

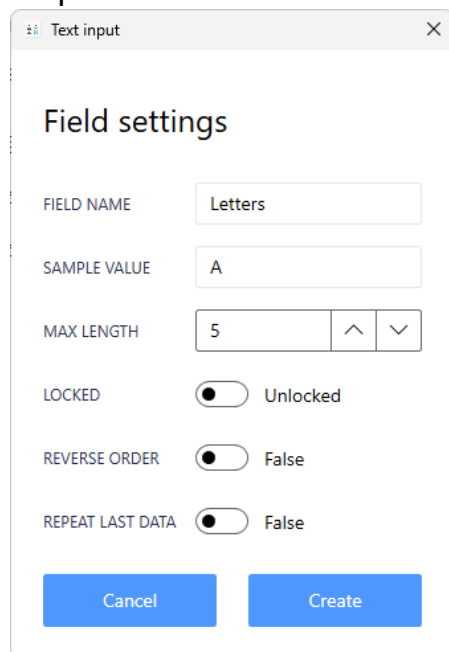
ADD NEW PANEL: Allows user to create a new panel group.

ADD OPTION: Allows user to add new individual selections to print with the panel group.

Save or Cancel selections

Printing sequentially lettered/numbered labels:

Sequential letters



The 'Text input' dialog box shows the following settings for 'Field settings':

- FIELD NAME:** Letters
- SAMPLE VALUE:** A
- MAX LENGTH:** 5
- LOCKED:** Unlocked
- REVERSE ORDER:** False
- REPEAT LAST DATA:** False

Buttons: Cancel, Create

FIELD NAME: Rename field

SAMPLE VALUE: SAMPLE VALUE: Values displayed in Label Builder preview. It's important to use data similar to what will acutally be used.

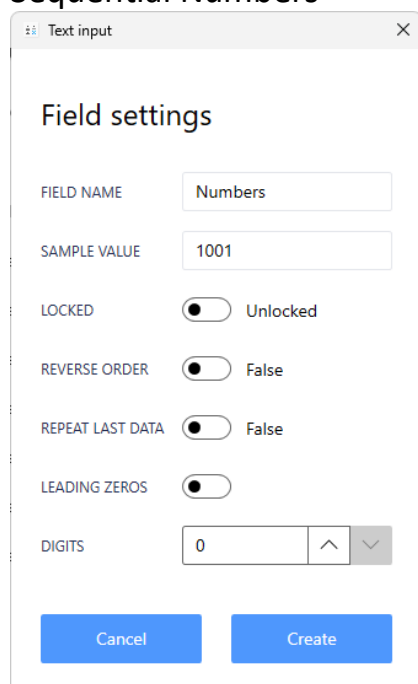
MAX LENGTH: Displayed/Printed data not to exceed this many characters

LOCKED: Locks form field so data remains. Cursor skips field

REVERSE ORDER: Print output order is reversed

REPEAT LAST DATA: Field data automatically repopulates after printing

Sequential Numbers



The 'Text input' dialog box shows the following settings for 'Field settings':

- FIELD NAME:** Numbers
- SAMPLE VALUE:** 1001
- LOCKED:** Unlocked
- REVERSE ORDER:** False
- REPEAT LAST DATA:** False
- LEADING ZEROS:** (toggle is off)
- DIGITS:** 0

Buttons: Cancel, Create

FIELD NAME: Rename field

SAMPLE VALUE: Values displayed in Label Builder preview. It's important to use data similar to what will acutally be used.

LOCKED: Locks form field so data remains and cursor skips field

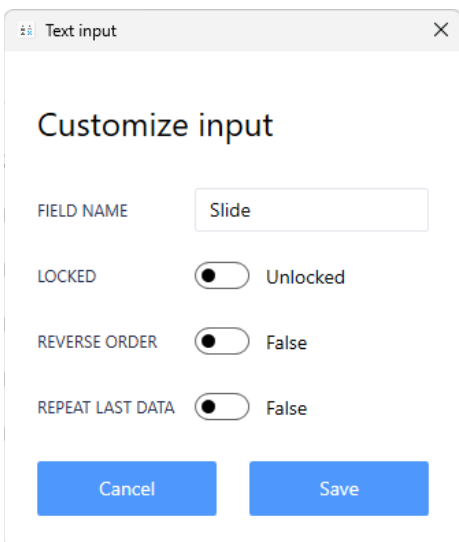
REVERSE ORDER: Prints in opposite order

REPEAT LAST DATA: Field data automatically repopulates after printing

LEADING ZEROS: Prints leading zeros based on user defined number of digits

Reverse the printing order of the labels

Reverse Print Order



The 'Text input' dialog box has a title bar with a close button. The main content area is titled 'Customize input'. It contains four settings:

- FIELD NAME:** A text input field containing the word 'Slide'.
- LOCKED:** A toggle switch currently set to 'Unlocked'.
- REVERSE ORDER:** A toggle switch currently set to 'False'.
- REPEAT LAST DATA:** A toggle switch currently set to 'False'.

At the bottom are two blue buttons: 'Cancel' and 'Save'.

FIELD NAME: Name or Rename field

LOCKED: Locks form field so data remains and cursor skips field

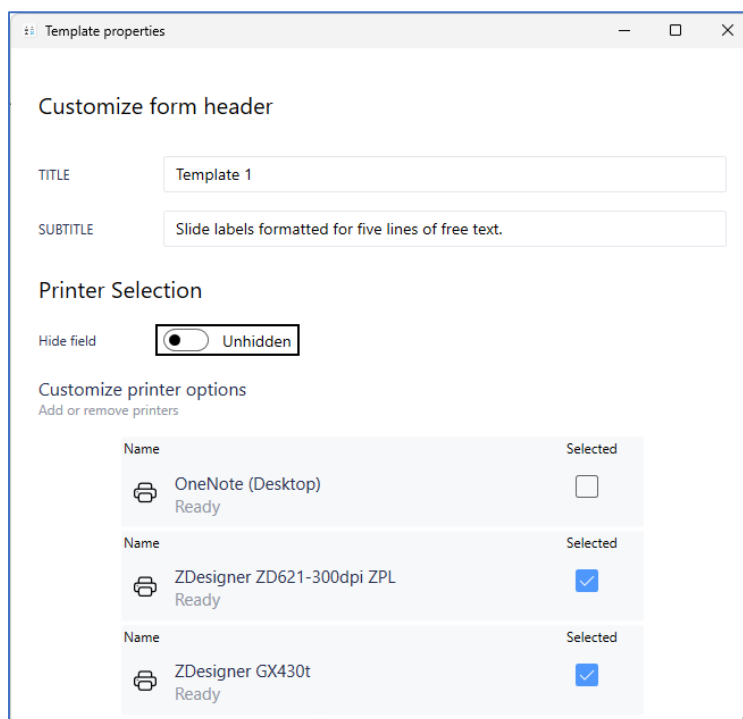
REVERSE ORDER: Prints in opposite order

REPEAT LAST DATA: Field data automatically repopulates after printing

Save or cancel selection




PROPERTIES

To edit template properties, select the Properties button on the Customize Template screen below Label Builder.



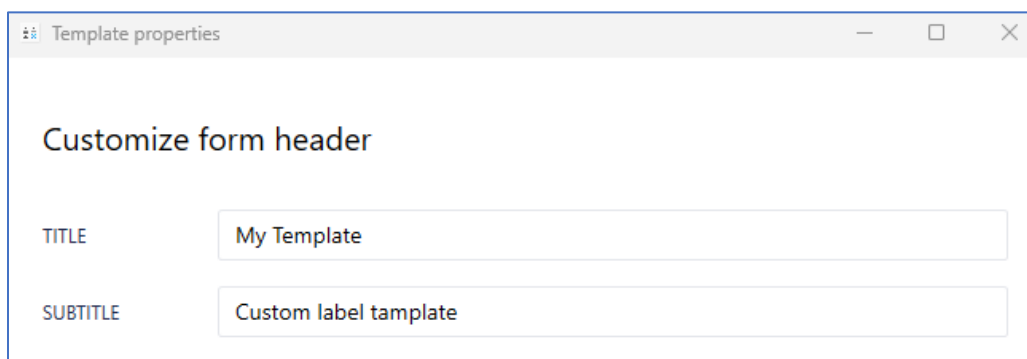
The 'Template properties' dialog box has a title bar with standard window controls. The main content area is titled 'Customize form header' and contains the following sections:

- TITLE:** A text input field containing 'Template 1'.
- SUBTITLE:** A text input field containing 'Slide labels formatted for five lines of free text.'
- Printer Selection:** A section with a 'Hide field' toggle switch set to 'Unhidden'.
- Customize printer options:** A section with the subtext 'Add or remove printers'. It contains a table of available printers:

Name	Selected
 OneNote (Desktop) Ready	<input type="checkbox"/>
 ZDesigner ZD621-300dpi ZPL Ready	<input checked="" type="checkbox"/>
 ZDesigner GX430t Ready	<input checked="" type="checkbox"/>

EDIT NAME

To name or rename a template, edit the Title line. Then, when you export the template, it will default to the title as the file name.



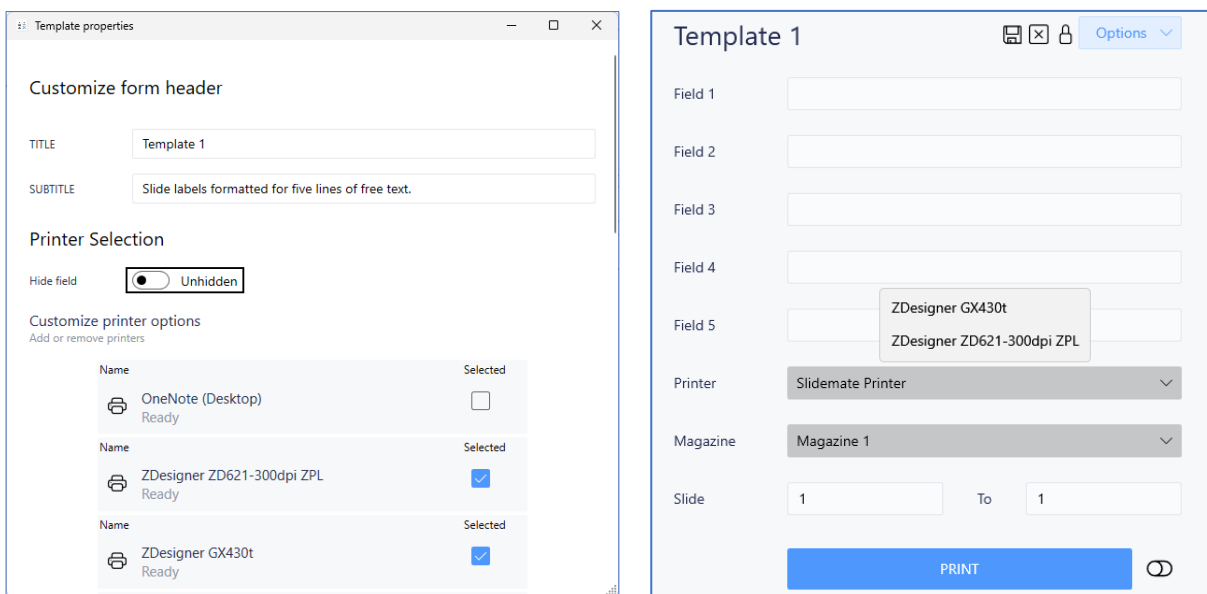
Template properties

Customize form header

TITLE My Template

SUBTITLE Custom label template

PRINTER SELECTION



Template properties

Customize form header

TITLE Template 1

SUBTITLE Slide labels formatted for five lines of free text.

Printer Selection

Hide field ☒ Unhidden

Customize printer options
Add or remove printers

Name	Selected
OneNote (Desktop) Ready	<input type="checkbox"/>
ZDesigner ZD621-300dpi ZPL Ready	<input checked="" type="checkbox"/>
ZDesigner GX430t Ready	<input checked="" type="checkbox"/>

Template 1

Field 1

Field 2

Field 3

Field 4

Field 5

Printer Slidemate Printer

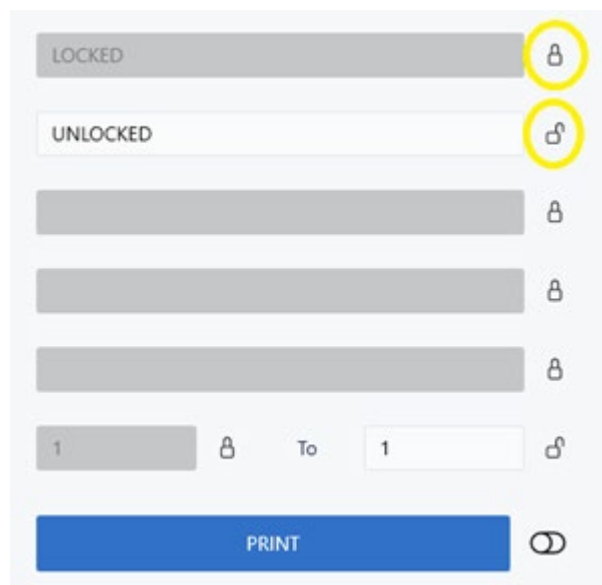
Magazine Magazine 1

Slide 1 To 1

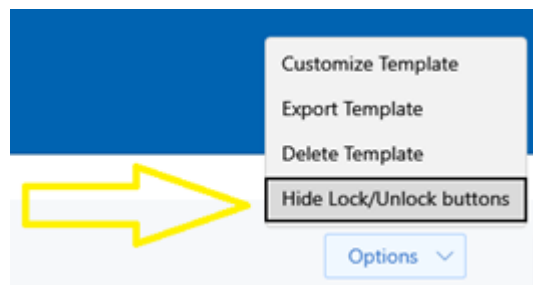
PRINT

After unhidden the field and selecting the printers, those selections will appear in the new dropdown menu on the form page, as shown above-right.

LOCK / UNLOCK FORM FIELDS



A screenshot of a form interface. The top section has a grey bar labeled 'LOCKED' and a white bar labeled 'UNLOCKED', each with a corresponding lock icon (a padlock) to its right. Below these are several grey input fields, each with a lock icon to its right. At the bottom, there is a range selector with '1' in a grey box, a lock icon, the text 'To', '1' in a white box, and an unlock icon. A blue 'PRINT' button is at the bottom left, and a toggle switch is at the bottom right.



Options dropdown

Lock fields with data that is repetitive and does not change with each print job.

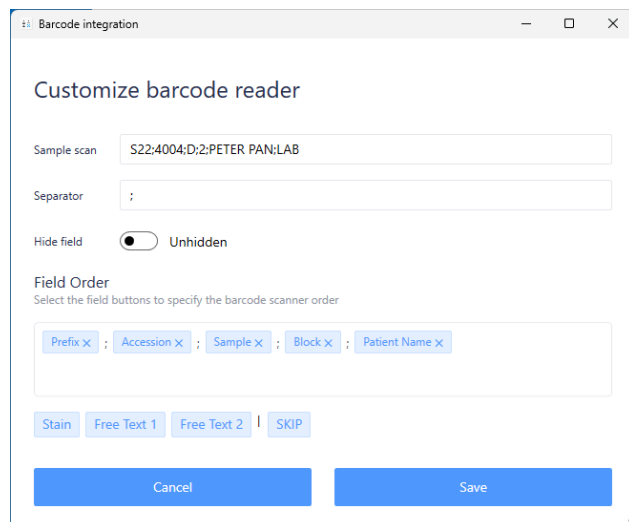
Locking a field retains the information for each print job. It also allows the user to skip over the field when tabbing through the form.

Clicking the Lock icon allows users to lock in data that needs to be printed on most slides.

Taking advantage of the lock/unlock functionality can really increase workflow efficiently with your templates.

BARCODE READER SETUP

From the Customize Template screen, select the barcode reader field.



Barcode integration

Customize barcode reader

Sample scan: S22;4004;D;2:PETER PAN;LAB

Separator: ;

Hide field: ☐ Unhidden

Field Order
Select the field buttons to specify the barcode scanner order

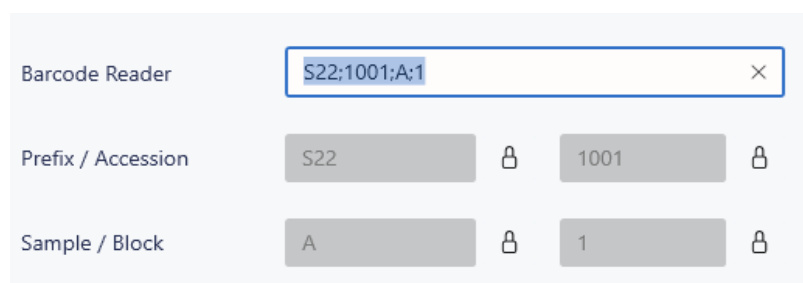
Prefix x : Accession x : Sample x : Block x : Patient Name x

Stain Free Text 1 Free Text 2 SKIP

Cancel Save

1. Provide a sample scan for reference.
2. Define the separator used in your barcode
3. Unhide the barcode scanner field, so it shows on the template form
4. Select the order in which the data is placed in the form fields, from left to right on the barcode. Use the SKIP option for data that will not be used.
5. Save or cancel the selections

Next, lock and edit the form fields for each of the fields selected:



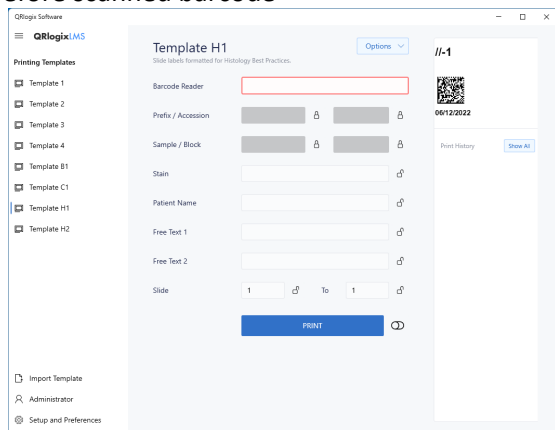
Barcode Reader: S22;1001;A;1

Prefix / Accession: S22 1001

Sample / Block: A 1

The barcode scanner field will appear on the form, and the corresponding fields will be locked

Before scanned barcode



QRlogix Software

Printing Templates

- Template 1
- Template 2
- Template 3
- Template 4
- Template B1
- Template C1
- Template H1
- Template H2

Template H1

Barcode Reader: [Empty]

Prefix / Accession: S22 1001

Sample / Block: A 1

Stain: [Empty]

Patient Name: [Empty]

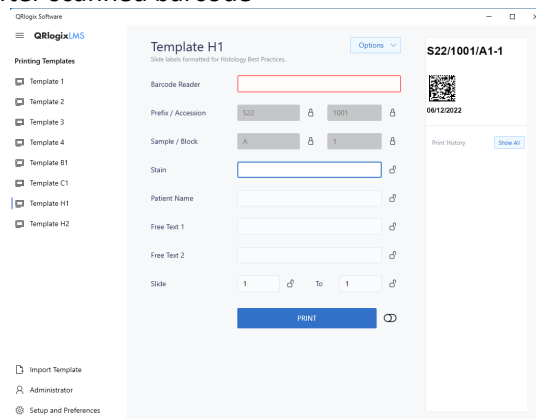
Free Text 1: [Empty]

Free Text 2: [Empty]

Slide: 1 To 1

PRINT

After scanned barcode



QRlogix Software

Printing Templates

- Template 1
- Template 2
- Template 3
- Template 4
- Template B1
- Template C1
- Template H1
- Template H2

Template H1

Barcode Reader: S22/1001/A1-1

Prefix / Accession: S22 1001

Sample / Block: A 1

Stain: [Empty]

Patient Name: [Empty]

Free Text 1: [Empty]

Free Text 2: [Empty]

Slide: 1 To 1

PRINT

FILE DROP

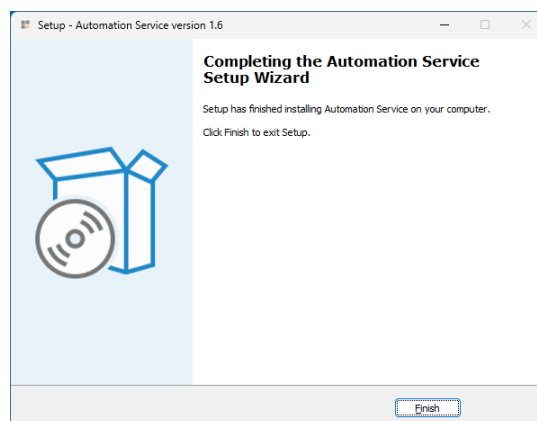
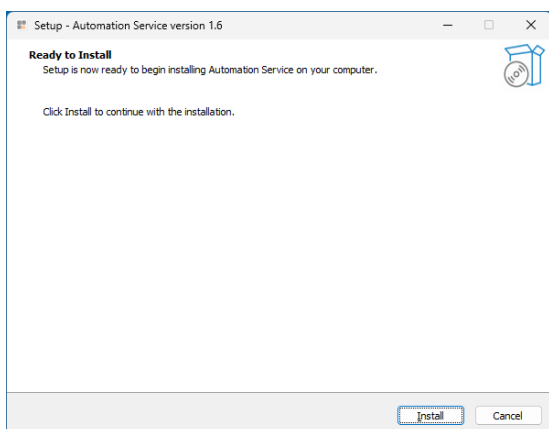
Receive print job from .TXT or .CSV (UTF-8) files through a shared folder.

Using this solution requires that the QRlogix File Drop Service is installed and running in the system background. It is recommended that you ONLY install and run the File Drop application if you are printing from .txt or .csv files from a shared folder (file drop).

IMPORTANT: Administrative rights are required to install and launch the File Drop application.

Begin by downloading the File Drop service application from the link provided. Once downloaded, double click the AutomationService.exe file to begin the installation process.

Click through the selections in the installer.



After finishing, the service application will automatically launch and activate itself. You will be prompted to click any key to continue. This will finalize the File Drop service application's installation.

```

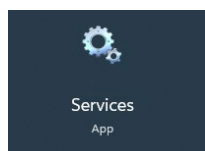
C:\WINDOWS\system32\cmd.exe
Installing service...
[SC] CreateService FAILED 1073:

The specified service already exists.

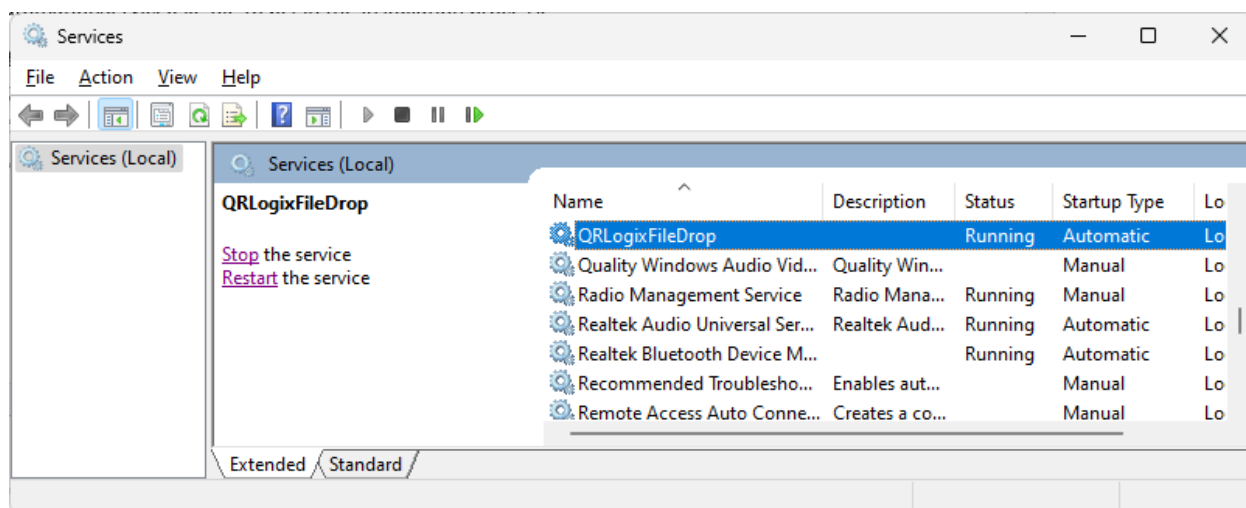
SERVICE_NAME: QRLogixAutomation
        TYPE               : 10  WIN32_OWN_PROCESS
        STATE                : 2   START_PENDING
                           (NOT_STOPPABLE, NOT_PAUSABLE, IGNORES_SHUTDOWN)
        WIN32_EXIT_CODE      : 0   (0x0)
        SERVICE_EXIT_CODE   : 0   (0x0)
        CHECKPOINT           : 0x0
        WAIT_HINT            : 0x7d0
        PID                 : 36532
        FLAGS                 :
Installing service complete
Press any key to continue . . .

```

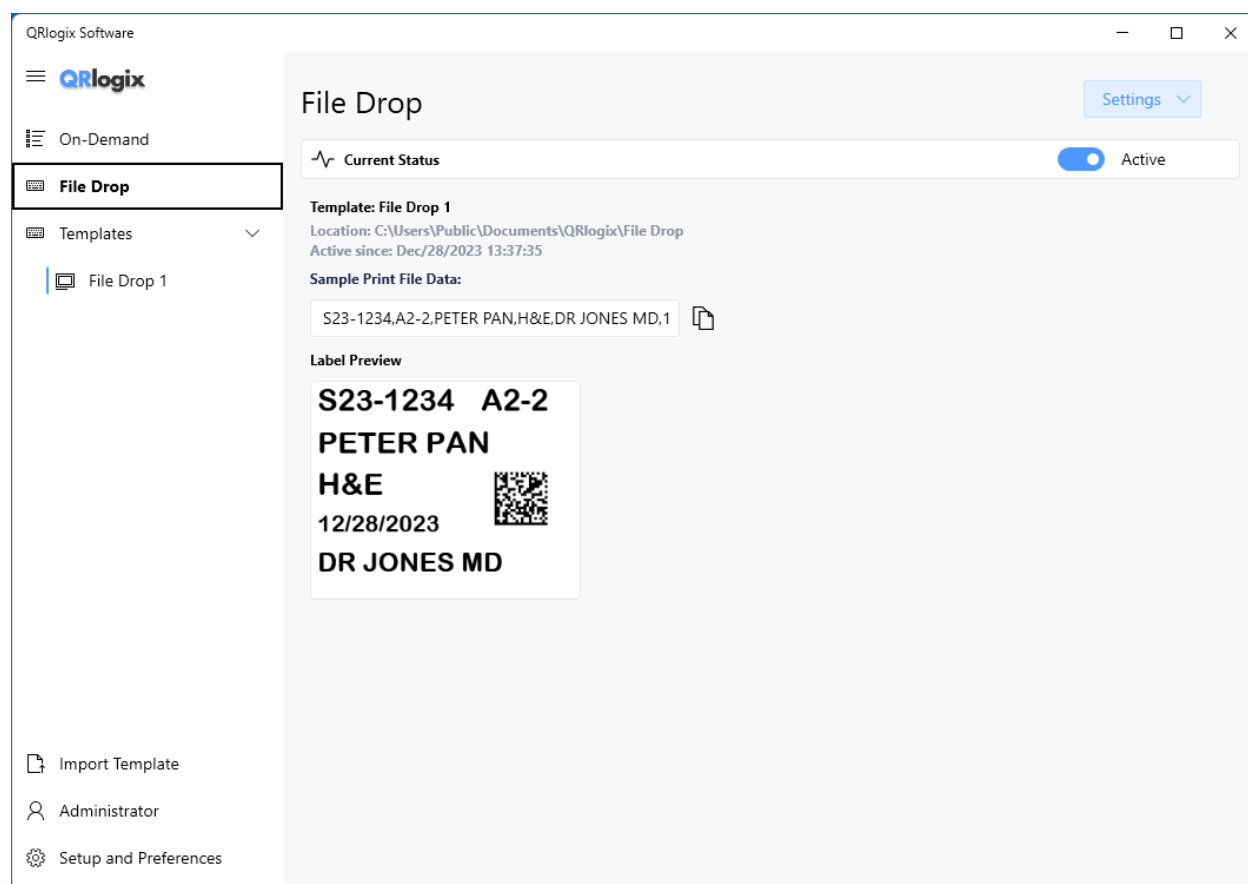
To confirm that the File Drop service installed correctly, type “Services” in the Windows search bar, then click on the Services App.



Next, find the QRlogix File Drop service in the list, and confirm the status is running. If not, click Start the Service.



FILE DROP – Interface Overview



Templates = List of File Drop templates

Current status – Indicates if template is actively running in the service application

Template = Name of active template

Location = Shared folder that service application is watching for shared print jobs

Active since = Date and time current solution was activated

Sample Print File Data = Example of print job formatting with sample data used from Data Settings

Label Preview = Applies the Sample Print File Data against the label settings for the current template

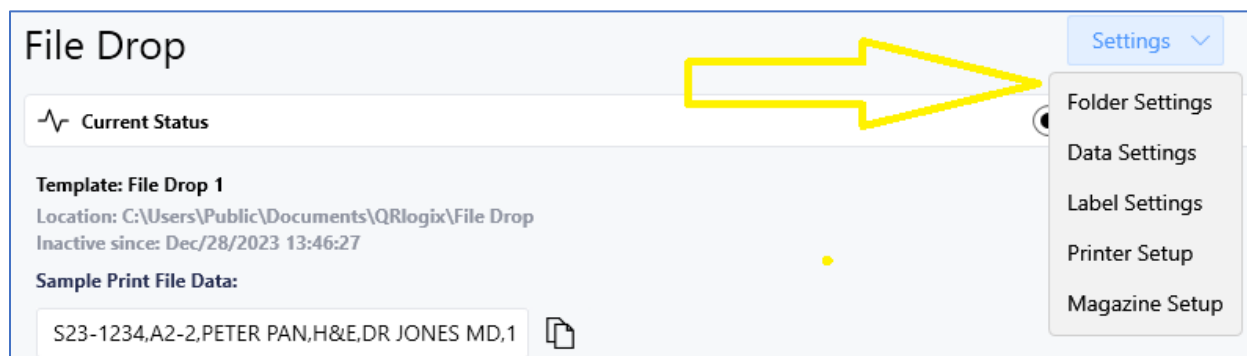
Settings = Adjust the shared folder settings, data settings (mapping) and label settings (design format)

Active – Turn on/off the current template. Only 1 template can be active at a time

The Sample Print File Data string will be created using the sample data and order that is used in Data Settings. Once setup, the sample data string will appear on the homepage.

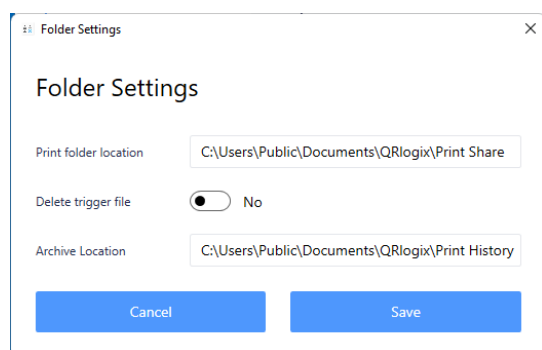
This sample value string shown on the homepage feeds the Label Settings. Assuming everything is correct, the Label Preview will look correct.

File Drop Settings



To configure a new File Drop template, first click on Folder Settings from the Options dropdown menu.

FOLDER SETTINGS



Next, select the shared folder to watch for new print jobs.

Determine if the text files should be deleted after printing or if they should be archived.

If archiving the print job files, select the folder to archive them in.

DATA SETTINGS

To configure what data is mapped from the text file to the label, click on Data Settings in the Options dropdown menu.

Define the fields from the text file by giving them descriptive names. The name will be used as a reference in Label Builder.

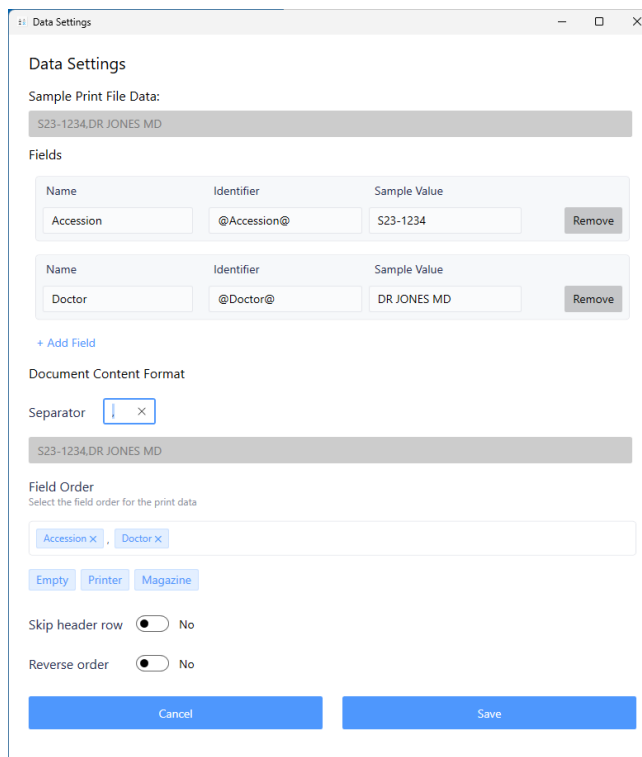
Make sure you have 1 field for each data container being used.

Define the separator. I.E. = “,”

Select the field order so it matches the sequence of data in the text files that get sent to the shared folder.

If you are printing from CSV and there is header row, select Skip Header Row.

REVERSE ORDER: Flips output sequence so it prints backwards.



The screenshot shows the 'Data Settings' dialog box. It has a title bar with a close button. The main content area is titled 'Data Settings' and contains several sections:

- Sample Print File Data:** A text box showing 'S23-1234.DR JONES MD'.
- Fields:** A table with three columns: 'Name', 'Identifier', and 'Sample Value'. There are two rows of fields:

Name	Identifier	Sample Value	
Accession	@Accession@	S23-1234	Remove
Doctor	@Doctor@	DR JONES MD	Remove

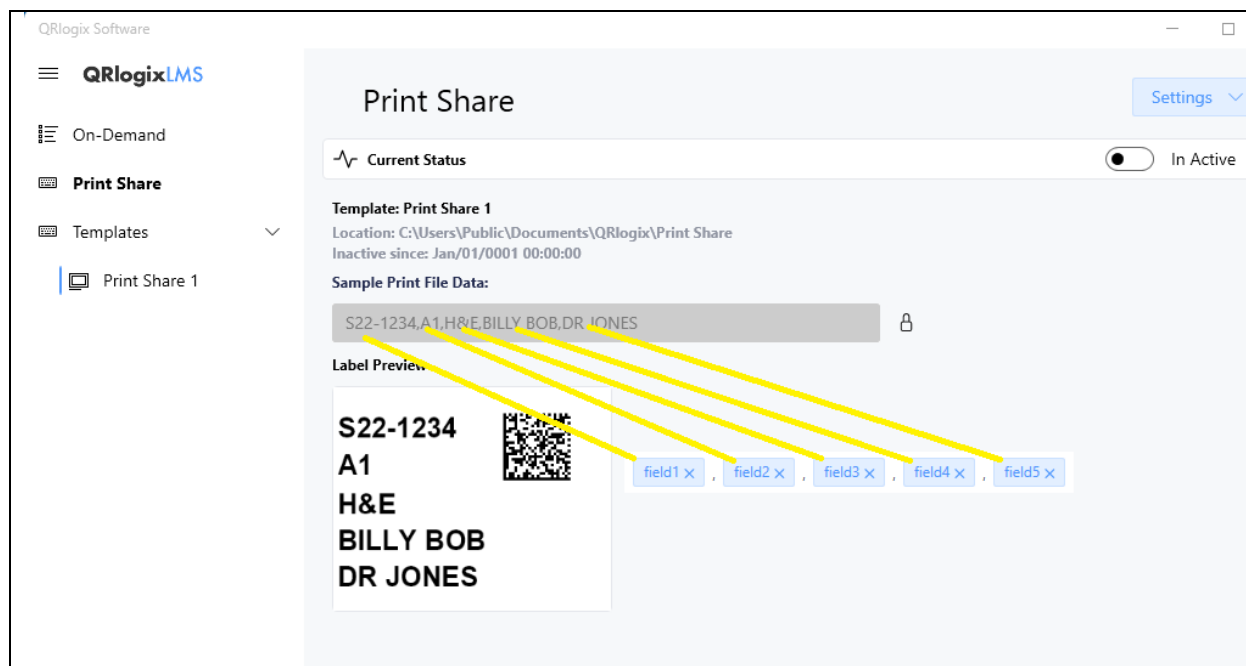
 Below the table is a '+ Add Field' button.
- Document Content Format:** A section with a 'Separator' dropdown menu showing a comma (,) and a 'Field Order' section. The 'Field Order' section has a text box containing 'Accession x' and 'Doctor x' separated by a comma, and three buttons: 'Empty', 'Printer', and 'Magazine'.
- Skip header row:** A toggle switch set to 'No'.
- Reverse order:** A toggle switch set to 'No'.
- Buttons:** 'Cancel' and 'Save' buttons at the bottom.

Field Order

IMPORTANT: Make sure the Field Order **matches the order** in which the data containers are in the sample text file:

Text file data: S22-1234,A1,H&E,BILLY BOB,DR JONES

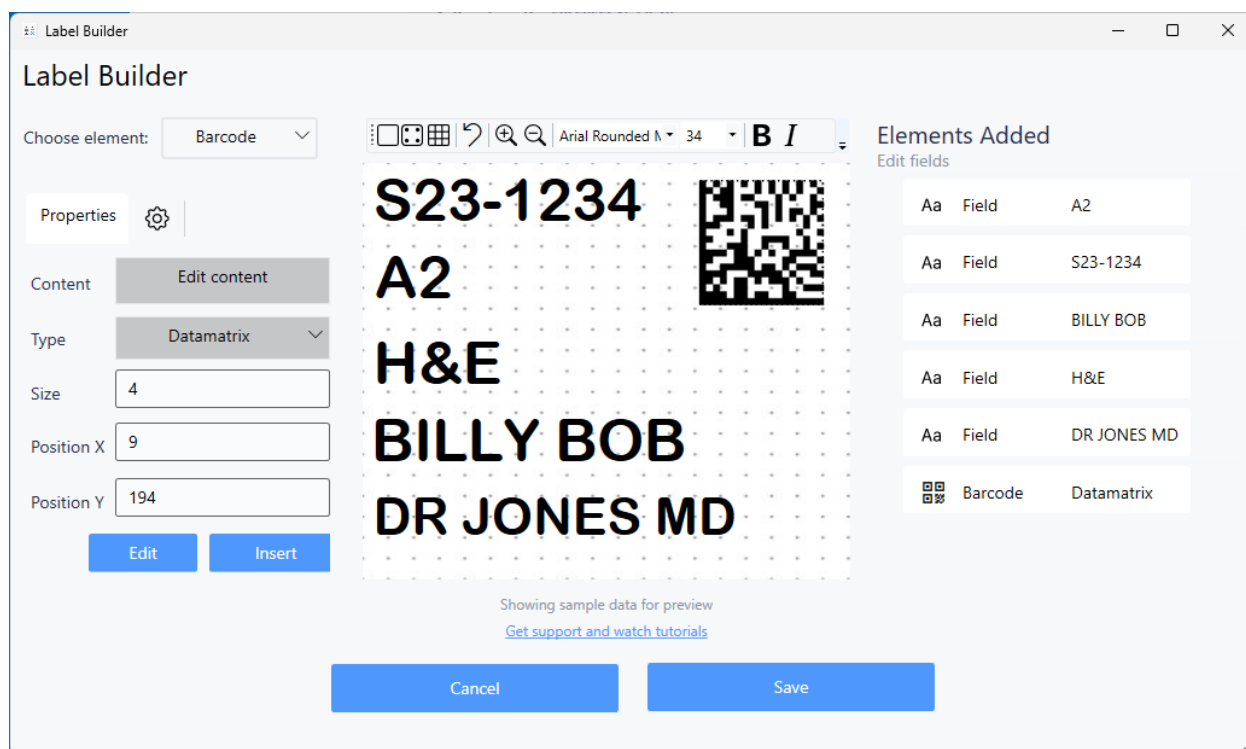
S22-1234	A1	H&E	BILLY BOB	DR JONES
Field 1	Field 2	Field 3	Field 4	Field 5



Once the field order is confirmed to match the order of the data containers in the text files (print jobs), save the settings and proceed to Label Settings.

LABEL SETTINGS

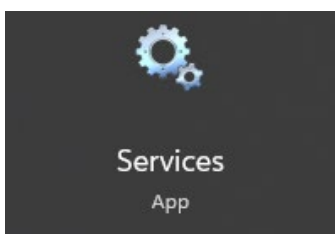
Using the Available Fields just created in Data Settings, follow the instructions in the Label Builder section below to create and format your label.



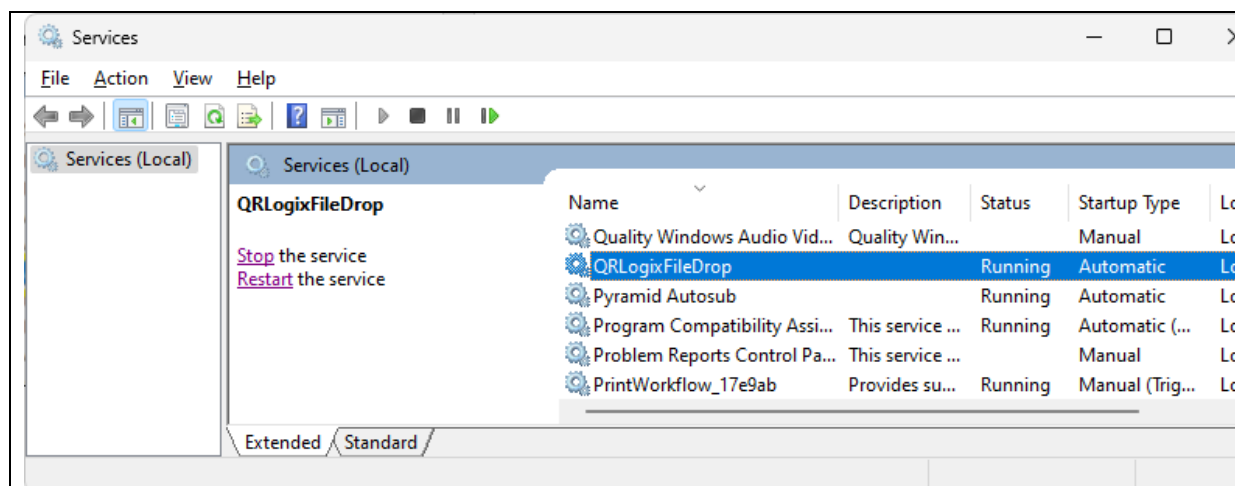
For a more detailed overview of label design, please proceed to the Label Builder section of the user manual.

LAUNCH FILE DROP

To launch a File Drop template, confirm that File Drop is currently running as a background service by going to your Windows search bar and typing in “Services”. Next, click the Services App to open it up.



In the Services App, Scroll to QRlogixFileDrop and confirm that Status is “Running”.

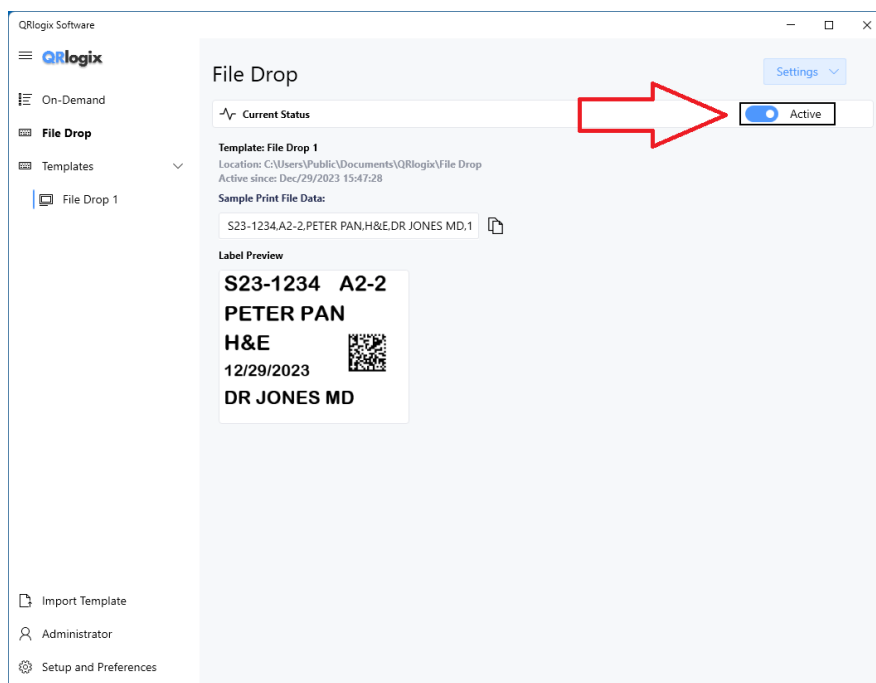


If the service is not running, click the Start button to launch it.

If you do not see the QRlogixFileDrop service listed, please make sure the file was downloaded and installed correctly.

Contact QRlogix for assistance.

Once the File Drop service is confirmed to be running, you will need to activate the File Drop template on the main screen:



Once activated, the system is ready to receive print jobs from TXT or CSV files saved to the shared folder.

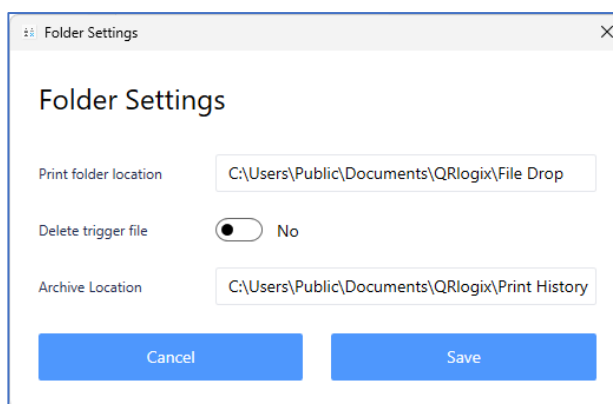
TEST PRINT

You can test print using File Drop 1 Template. Locate the SAMPLE PRINT.txt (text) file located in the following folder:

C:\Users\Public\Documents\QRlogix\Print History

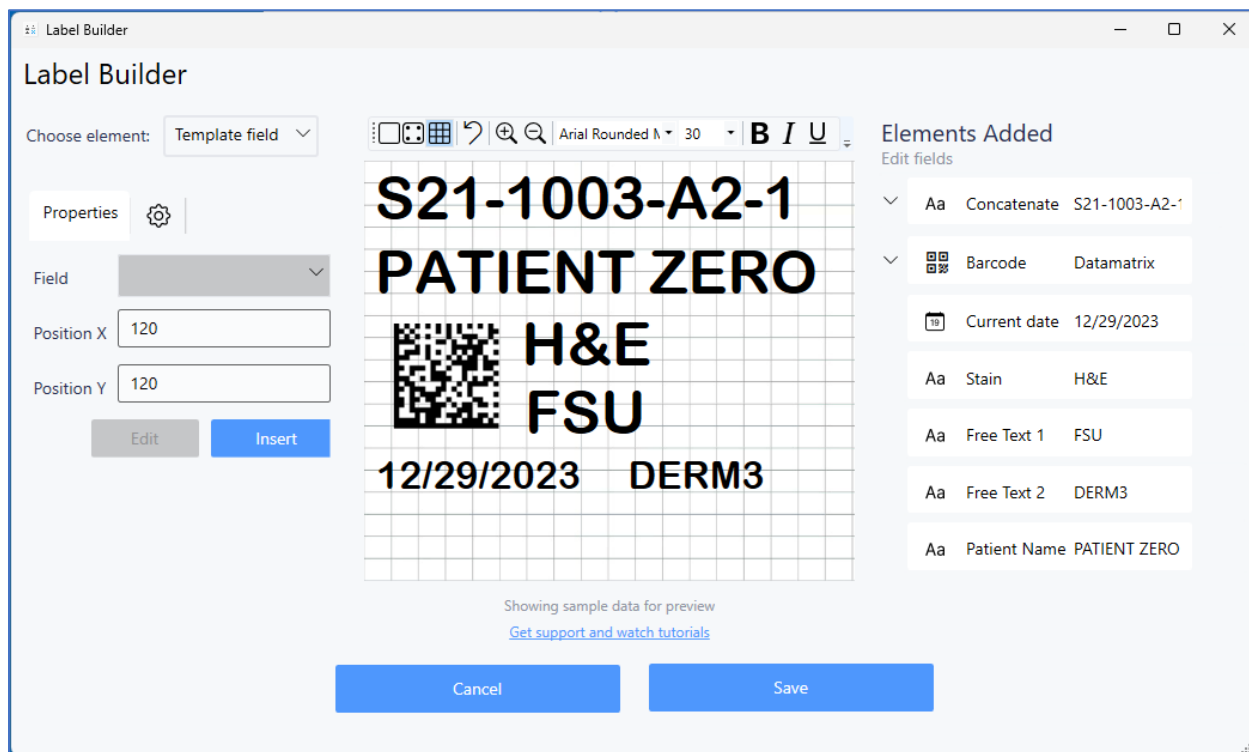
Drop the SAMPLE PRINT.TXT file into the following shared folder with the system active:

C:\Users\Public\Documents\QRlogix\File Drop



QRlogix Software

Label Builder



The QRlogix Software label builder allows users to design and quickly edit template labels. Users can easily add form field data, concatenate strings, barcodes, static text, and even images to templates.

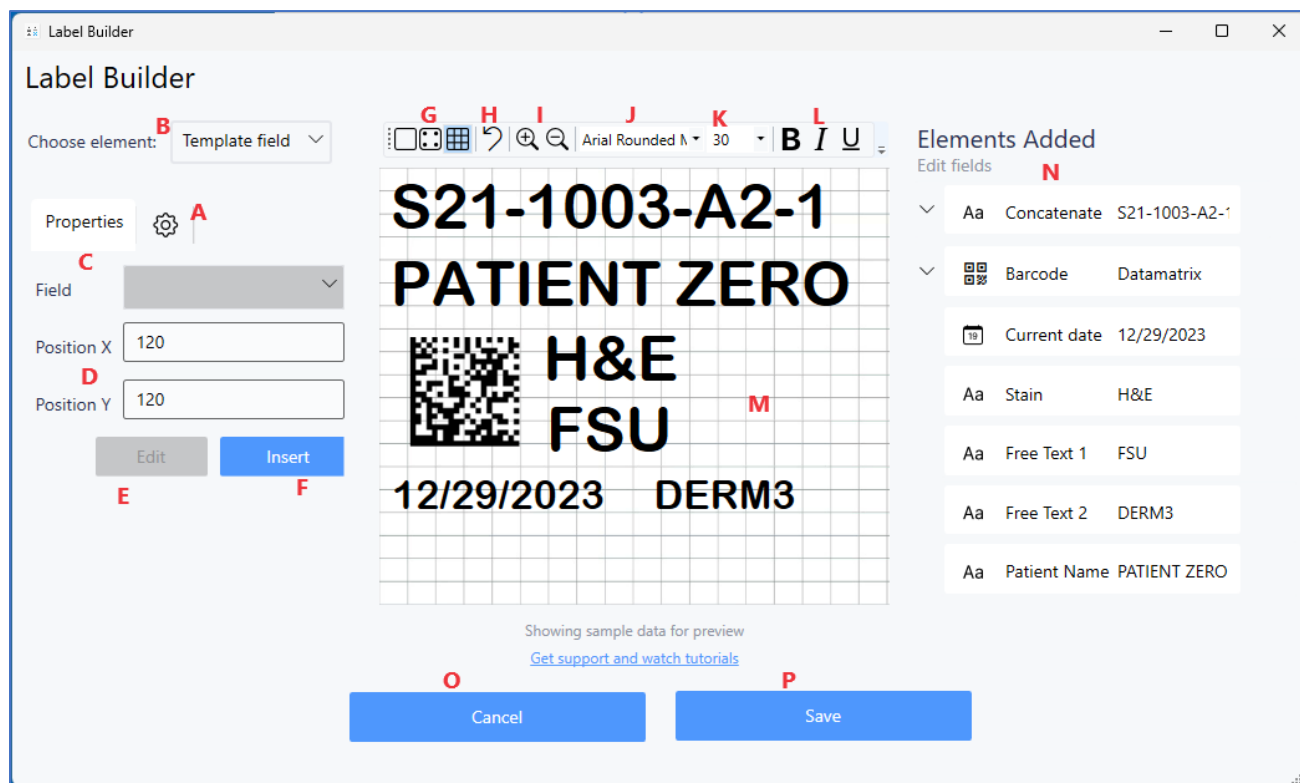
Video Tutorial

Getting Started with QRlogix Label Builder scan the following QR code or click the link:



<https://qrlogix.com/pages/qrlogix-software-support>

Label Builder Interface



A = Default settings. Adjust these before building your label.

B = Select label elements to add

C = Label element properties

D = X/Y Axis placement on label

E = Apply edits to selected element

F = Insert new element onto label

G = Canvas background options – Clear, dots or grid lines

H = Undo last edit

I = Zoom in/Zoom out

J = Font type

K = Font size

L = Font form – Bold, italic, underline

M = Label canvas

N = Form element and sample data settings

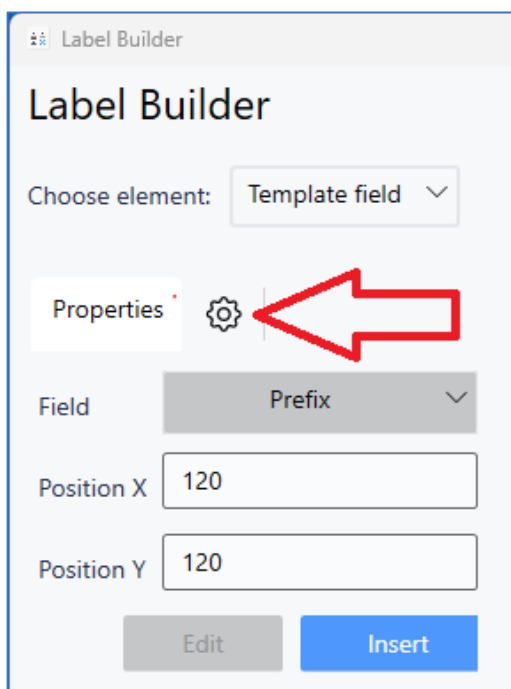
O = Cancel all edits without saving

P = Save edits

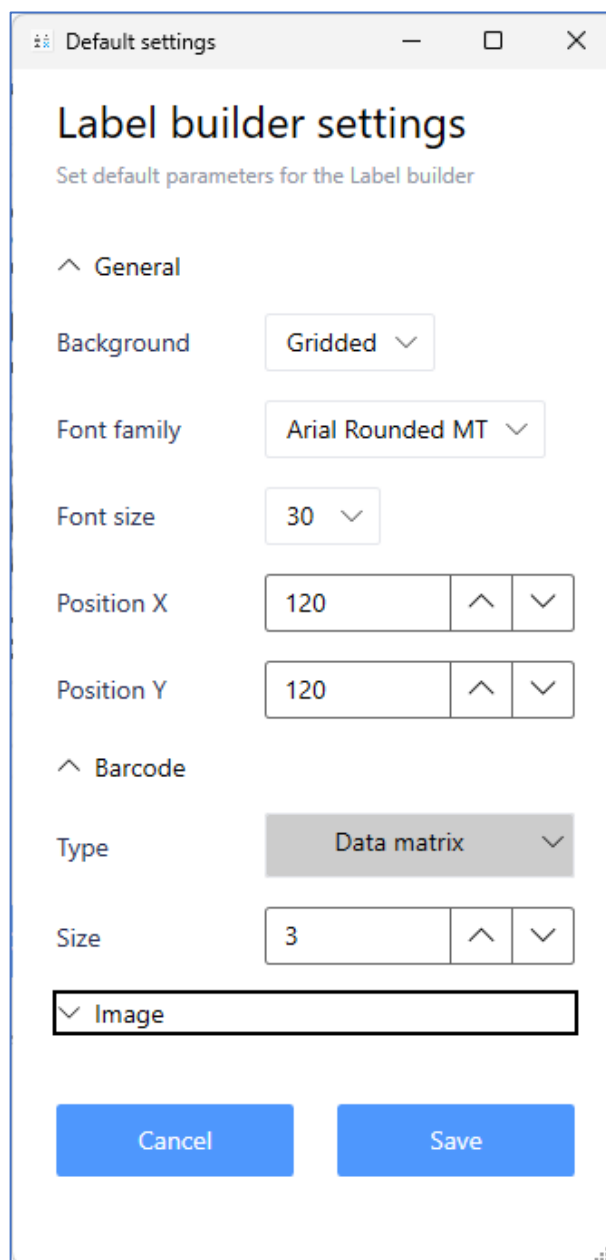
Creating a new label

Label Defaults

To begin, click the Settings wheel on the left, next to the element Properties. Then, choose the settings according to your preferences.



The Label Builder interface shows a 'Choose element:' dropdown set to 'Template field'. Below it, the 'Properties' tab is selected, and a red arrow points to a settings wheel icon. Other visible fields include 'Field' (Prefix), 'Position X' (120), and 'Position Y' (120). 'Edit' and 'Insert' buttons are at the bottom.



The 'Default settings' dialog for the Label Builder shows the following settings:

- General**
 - Background: Gridded
 - Font family: Arial Rounded MT
 - Font size: 30
 - Position X: 120
 - Position Y: 120
- Barcode**
 - Type: Data matrix
 - Size: 3
- Image** (expanded section)

'Cancel' and 'Save' buttons are at the bottom.

Background: Choose a canvas background that is blank, dotted or gridded with lines.

Font family: Select your preferred font.

Font size: Select a font that makes sense based on the data and canvas size and formatting.

Position X: The X axis moves the label element to the left or right, beginning at the far-left side of the label with a 1. Each numerical increase moves the element 1 dot further to the right based on 300 dpi (dots per inch). The far-left side of the label would be 1, and the far-right side of the label would be roughly 275. The middle of the canvas would begin around 138 dots.

Position Y: The Y axis moves the label up or down, beginning at the very top of the label with a 1. Each numerical increase moves the element 1 dot further down based on 300 dpi (dots per inch). The very top of the label would be 1, and the bottom of the label would be roughly 235 dots. The middle of the canvas would begin around 120 dots.

NOTE: With X/Y axis placement values, the label element placement is from the far-left side and top of the element. Positioning something in the middle of the label results in the element being left/top justified from that position (It won't appear in the middle, it will be offset to the right and down).

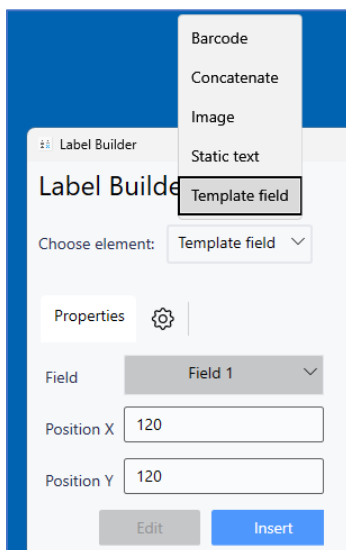
If you Insert a new label element and see it listed on the right under Elements added, but you don't see it appear on the canvas, it likely was positioned off the canvas. In this case you can delete the element, then re-add it with X/Y axis coordinates that will position it on the viewable/printable canvas.

Barcode: Select the barcode type you prefer and size. For most anatomic pathology applications, Data matrix barcodes tend to be most popular because they can handle damage from extreme conditions and still retain high scan rates.

Image: Select a static image (logo, symbol, etc) to print on each label. Low-definition .gif or similar emblems tend to print better than high-definition pictures. Print quality is a function of the printer's capabilities. Adjust the height and width to determine the appropriate image size.

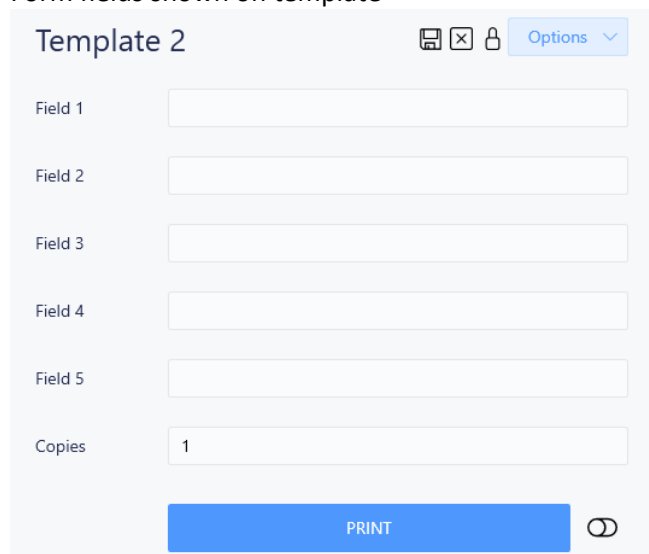
Choose Label Elements

The Choose element feature at the top left side of the screen allows users to select elements to add to the label.



Template Field: The default element selection is Template field. If the Field dropdown is selected, a list of form field elements will appear. The form field elements can be added to the label individually by clicking Insert, or they can be connected to other elements in a clean string, called a concatenate function (explained in more detail later).

Form fields shown on template



Template 2

Field 1

Field 2

Field 3

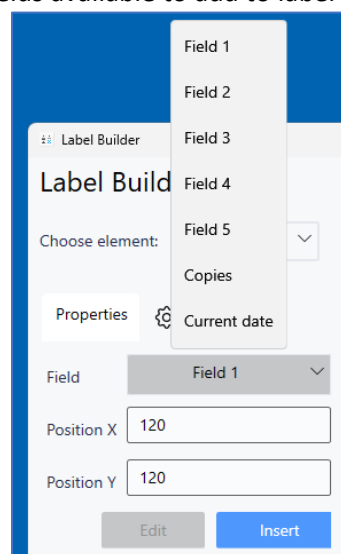
Field 4

Field 5

Copies: 1

PRINT

Form fields available to add to label



Label Builder

Choose element: Field 1

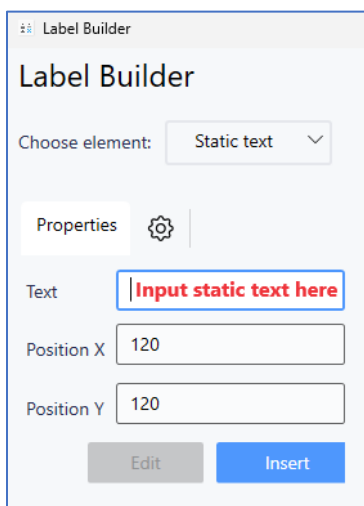
Field

Position X: 120

Position Y: 120

Insert

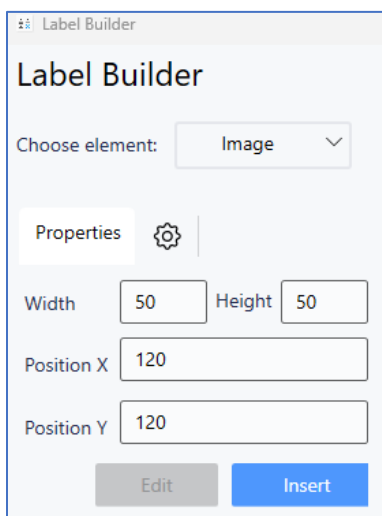
Static Text: Add text that appears on every label printed.



The screenshot shows the 'Label Builder' window. At the top, there's a title bar with a small icon and the text 'Label Builder'. Below the title, the main heading 'Label Builder' is displayed. Underneath, there's a 'Choose element:' dropdown menu with 'Static text' selected. Below this, there's a 'Properties' tab with a gear icon. The 'Text' field is highlighted with a red border and contains the text 'Input static text here'. Below the text field, there are two input fields: 'Position X' with the value '120' and 'Position Y' with the value '120'. At the bottom, there are two buttons: 'Edit' (disabled) and 'Insert' (active).

To add repeating static text to each label, select Static text in the Choose element list. Next, input the data in the Text field that you want to repeat. Click Insert, and the static text will appear on the label. Drag it to the appropriate position on the label.

Image: Allows user to add a low-definition image to the label. The image is static and will be printed on each label.



The screenshot shows the 'Label Builder' window. At the top, there's a title bar with a small icon and the text 'Label Builder'. Below the title, the main heading 'Label Builder' is displayed. Underneath, there's a 'Choose element:' dropdown menu with 'Image' selected. Below this, there's a 'Properties' tab with a gear icon. The 'Width' field is set to '50' and the 'Height' field is set to '50'. Below these, there are two input fields: 'Position X' with the value '120' and 'Position Y' with the value '120'. At the bottom, there are two buttons: 'Edit' (disabled) and 'Insert' (active).

To add an image to each label, select Image in the Choose element dropdown. Next, click Insert to launch Windows file explorer and navigate to the folder containing your image file. Select the file and select Open. The image is placed on the label based on the X/Y axis values. Drag and drop the image for correct placement. Use the Width/Height values to Edit the size of the image as needed.

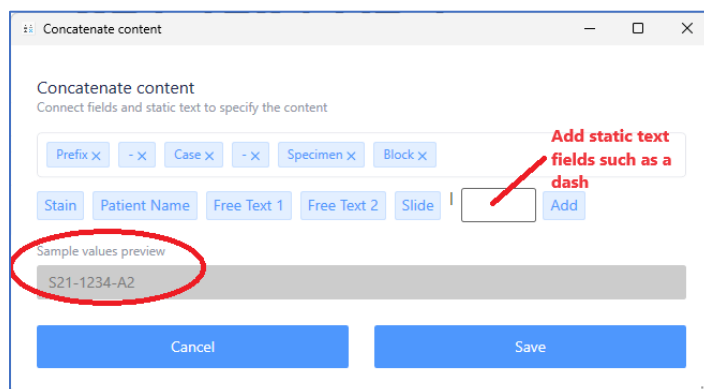
Concatenate: The concatenate function is an important feature that allows users to connect a string of template field data with static text to form nice, clean formatting.

The example below contains the template form values of prefix, case number, specimen letter and block ID connected with dashes:

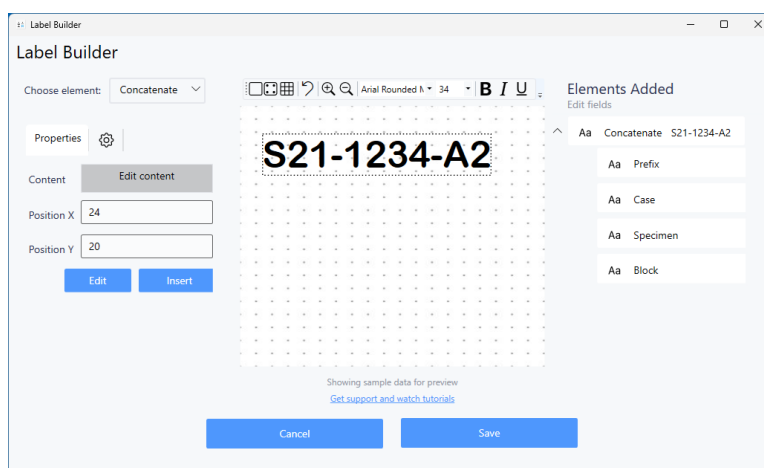
Form field data	Concatenate string
Prefix = S23 Case = 1234 Specimen = A Block ID = 2	S23-1234-A2

To build a concatenate string, select Concatenate from the Choose element dropdown. Next, click Edit content.

In the concatenate editor, build the string by selecting the form fields and separating them by adding static text (such as a dash) or blank spaces. Reference the Sample value preview to ensure accuracy.



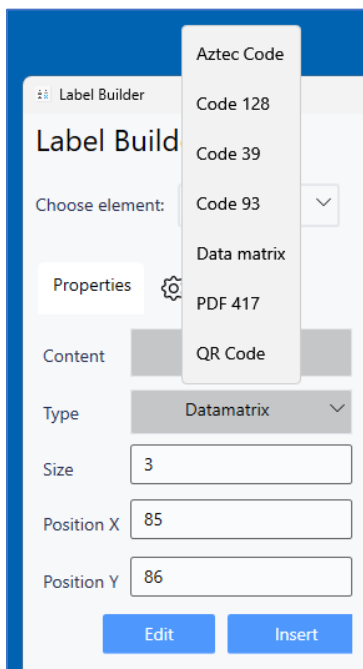
When done editing, Save the settings and then select Insert to add the concatenate string to the label.



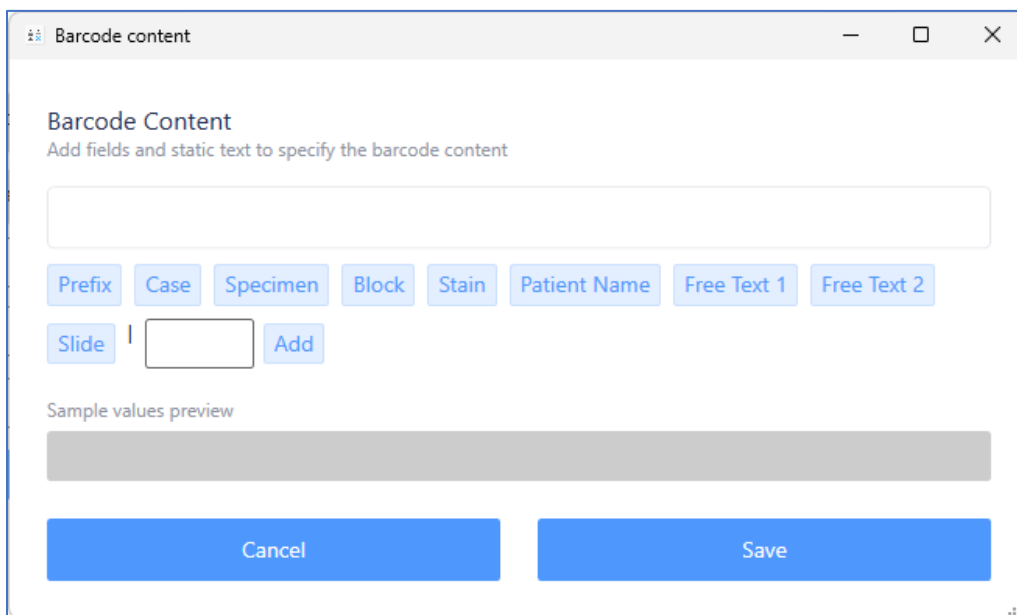
Barcode: Choose a barcode type, then click on Contents to format the barcode and separator

To add a barcode to a label, select Barcode from the Choose element dropdown.

If you did not previously choose that barcode type in User Defaults settings, then select the Type of barcode from the Type dropdown.



Next, click Edit content to launch the barcode builder tool.



Build the barcode by choosing the first barcode element from the list of selection buttons. Next, type the barcode separator in the input field, and click Add. Repeat that process for the next barcode element.

The screenshot shows the 'Barcode content' dialog box. At the top, it says 'Barcode Content' and 'Add fields and static text to specify the barcode content'. Below this is a large empty text input field. Underneath the input field is a row of selection buttons: 'Prefix', 'Case', 'Specimen', 'Block', 'Stain', 'Patient Name', 'Free Text 1', and 'Free Text 2'. Below these buttons is a 'Slide' button, an empty input field for a separator, and an 'Add' button. A red arrow points from the text 'Barcode content options' to the row of selection buttons. Another red arrow points from the text 'Input field for separator, free text, or blank spaces' to the empty input field. At the bottom, there is a 'Sample values preview' section with a grey bar, and two large blue buttons: 'Cancel' and 'Save'.

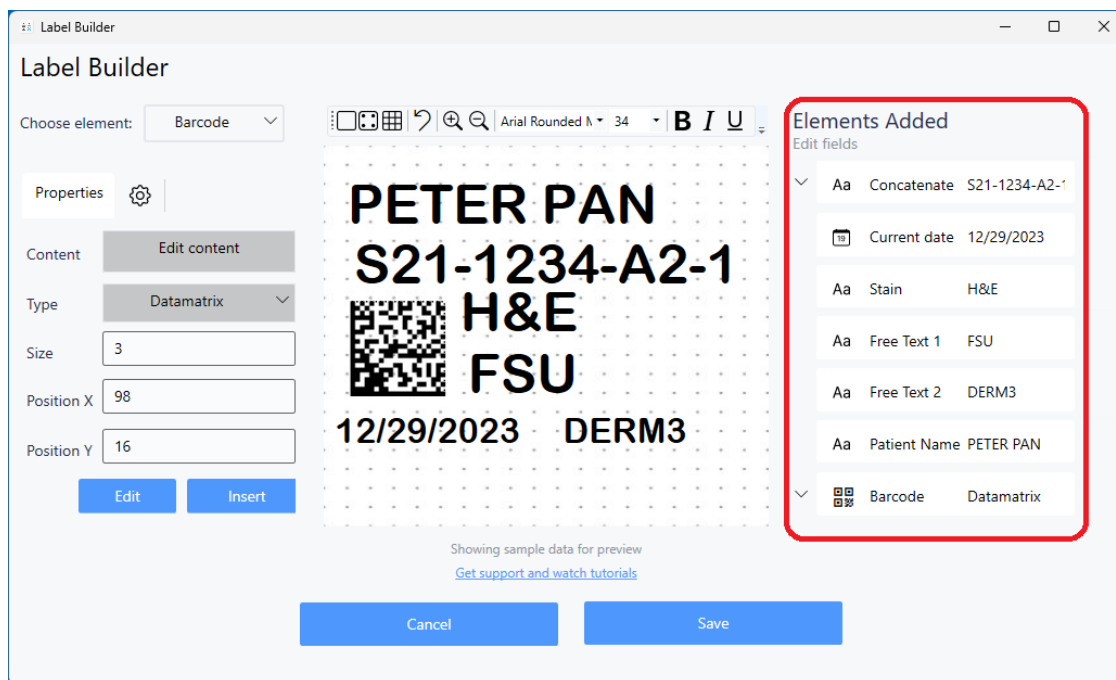
Verify the Sample value preview matches the exact formatting and output you expect from a scan of the barcode.

This screenshot shows the 'Barcode content' dialog box after several selections. The 'Prefix', 'Case', 'Specimen', and 'Block' buttons are now greyed out and have an 'x' icon. The 'Patient Name' button is also greyed out. The 'Stain', 'Free Text 1', 'Free Text 2', and 'Slide' buttons are still active. The separator input field now contains a semicolon ';'. A red arrow points from the text 'User selected contents and separator' to the 'Patient Name' button and the separator input field. The 'Sample values preview' section now shows a grey bar with the text 'S21;1234;A;2;PETER PAN'. A red circle highlights this preview, and a red arrow points from the text 'Barcode scan example based on sample data' to it. The 'Cancel' and 'Save' buttons are at the bottom.

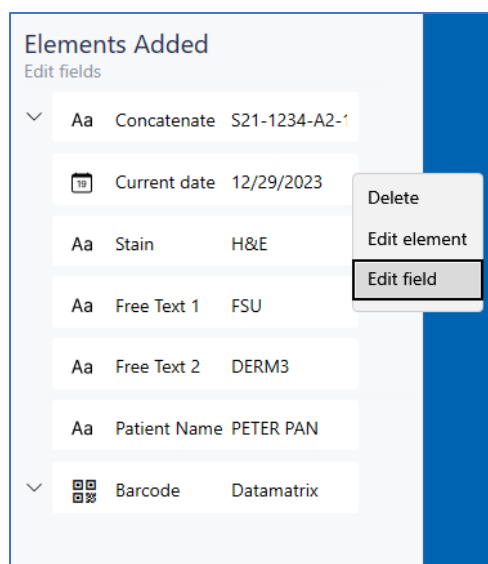
Once correct, Save the barcode settings and select Insert to embed it onto the label.

Edit element field settings and sample data.

Form field settings and sample data can be edited from the list of fields shown on the right side of label builder.



To edit a specific element, right-click over the element and select Edit field. You can also select Edit element to adjust label placement and formatting, or you can remove the element from the label by clicking Delete.

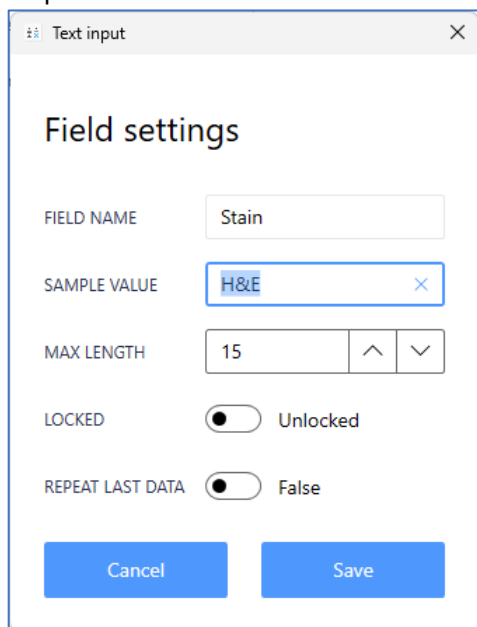


Edit Sample Data Values

To edit the Sample data value that you see on the label in designer, find the element on the right side of the screen and click directly on it.

The field element properties box will pop open. Change the Sample value accordingly and save it. The new sample value data will appear on the label in label builder.

Old sample value data



Text input

Field settings

FIELD NAME: Stain

SAMPLE VALUE: H&E

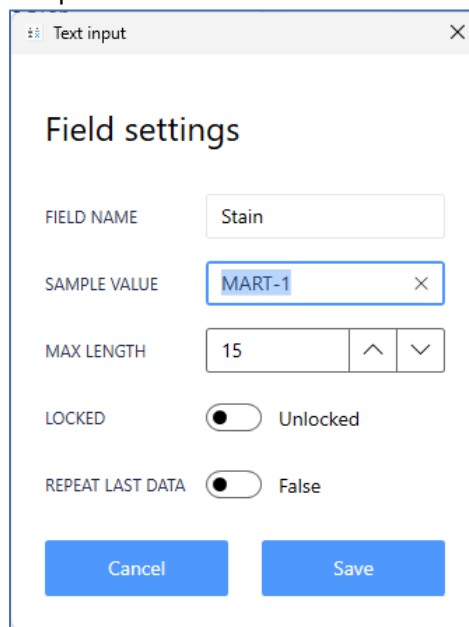
MAX LENGTH: 15

LOCKED: ☐ Unlocked

REPEAT LAST DATA: ☐ False

Cancel Save

New sample value data



Text input

Field settings

FIELD NAME: Stain

SAMPLE VALUE: MART-1

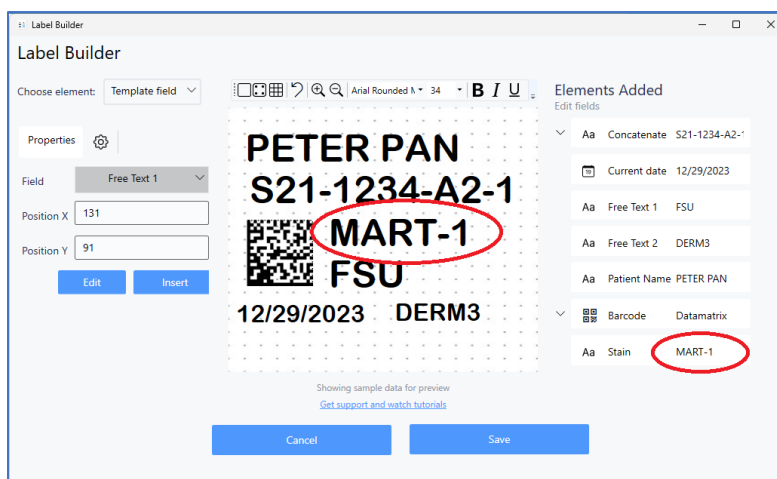
MAX LENGTH: 15

LOCKED: ☐ Unlocked

REPEAT LAST DATA: ☐ False

Cancel Save

New sample value data appears in label builder.



Label Builder

Choose element: Template field

Properties

Field: Free Text 1

Position X: 131

Position Y: 91

Edit Insert

Showing sample data for preview
[Get support and watch tutorials](#)

Cancel Save

Elements Added

Concatenate S21-1234-A2-1

Current date 12/29/2023

Free Text 1 FSU

Free Text 2 DERM3

Patient Name PETER PAN

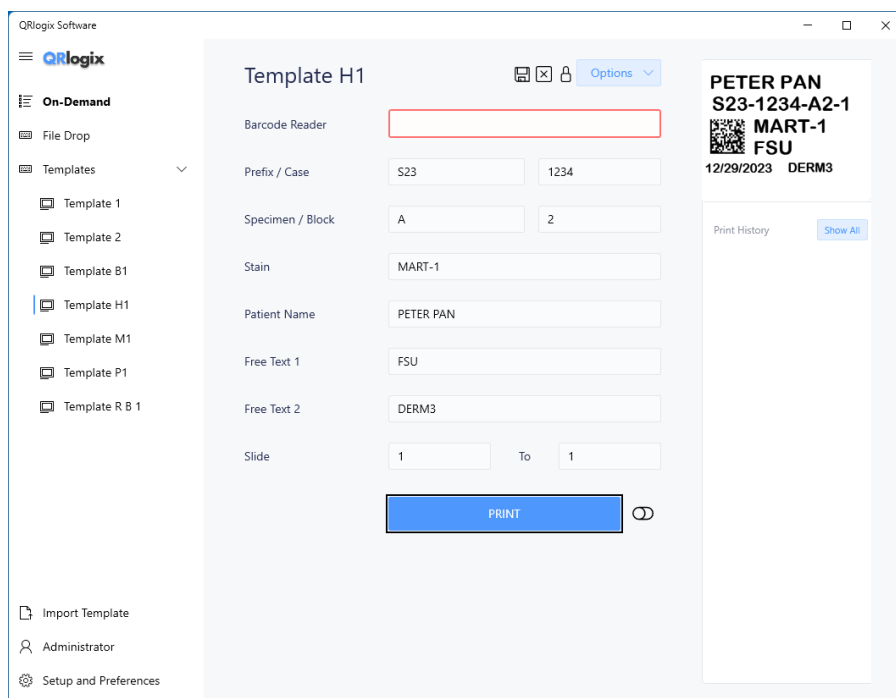
Barcode Datamatrix

Stain MART-1

Save the label edits.

Once you have completed the label design and confirmed accuracy of barcode and concatenate contents, click Save.

On the template page, input the data and review the label preview in the top right corner to ensure everything looks correct. If so, runs some test prints and integrate into your workflow when ready.



QRlogix Software

On-Demand

File Drop

Templates

Template 1

Template 2

Template B1

Template H1

Template M1

Template P1

Template R B 1

Import Template

Administrator

Setup and Preferences

Template H1

Barcode Reader

Prefix / Case

Specimen / Block

Stain

Patient Name

Free Text 1

Free Text 2

Slide

PRINT

PETER PAN
S23-1234-A2-1
MART-1
FSU
12/29/2023 DERM3

Print History

Show All

For more label builder resources and training videos visit the QRlogix Software support website:



<https://qrlogix.com/pages/qrlogix-software-support>

ADDENDUM A

ZPL Label Designer for printing to Zebra® printers

Understanding QRlogix Design Code

To accommodate Zebra® printers, QRlogix software has an alternative label designer that uses Zebra® ZPL programming code to design and create labels. The code-based designer allows users to efficiently edit font size and position objects on the label. Using the ZPL based editor, users can add barcodes and static text to the labels.

Don't worry! You don't need to know anything about programming to quickly learn how to design and edit labels. You only need to understand how to change the font size, and how to position label elements.

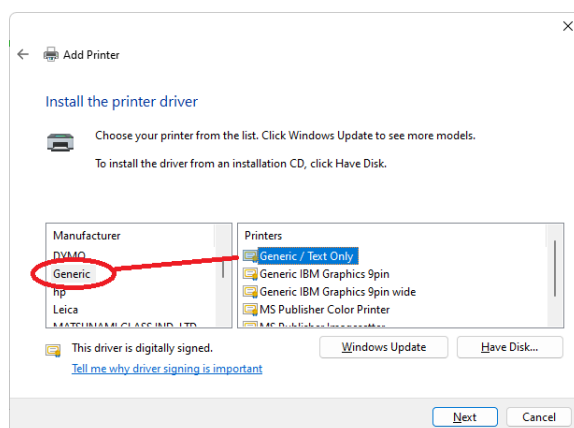
We strongly recommend, first watching the ZPL Label designer Video Tutorials at the following webpage:

<https://QRlogix.com/pages/lms-label-designer>

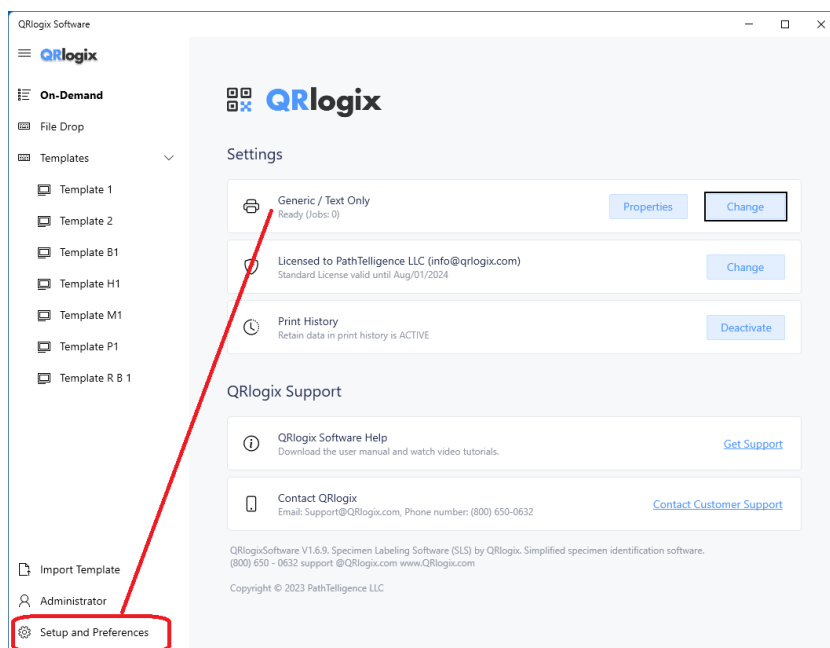
How to switch from the default label builder to the ZPL label designer

QRlogix Software uses ZPL as an alternative way to print to Zebra® printers. In most situations, users will use the other traditional label builder (WYSIWYG) to create labels. Those print jobs are sent as image files to the printer's Windows driver. Using the alternative ZPL method, users install the Generic / Text driver in Windows control panel and link it to the port that the Zebra® ZPL compatible printer is installed on.

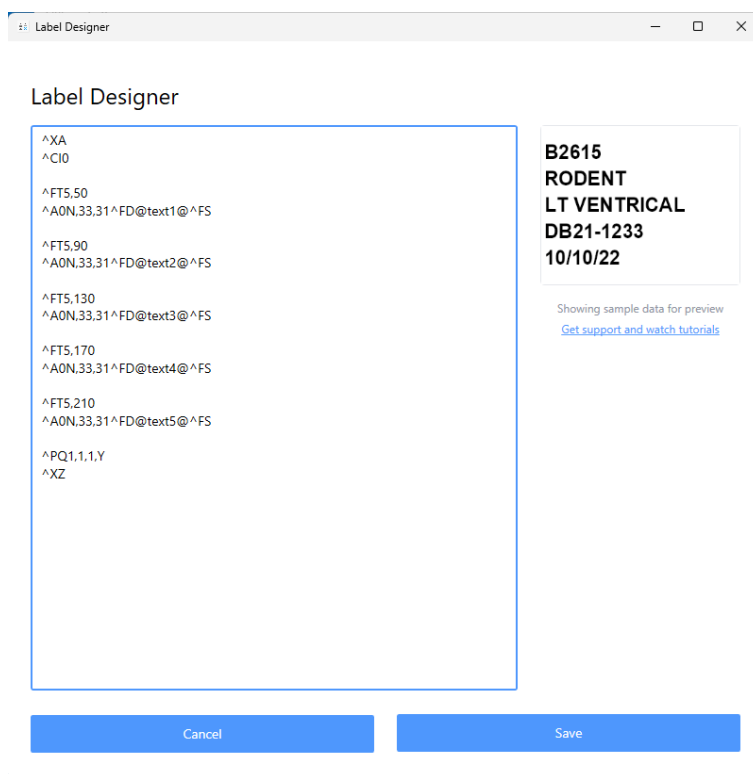
QRlogix Software can be switched to use the ZPL method by installing the Generic / Text driver in Windows Control Panel.



After installing the Generic / Text driver and setting its port to match the printer location, navigate to the Setup and Preferences page in the QRlogix Software. Change the top option (Printer selection) to Generic / Text.



Once Generic / Text is set as the default printer in Setup and Preferences the ZPL label designer will be active for template design.



Template examples using ZPL code to design the label:

Template 1

Slide labels formatted for five lines of free text.

Options ▾

Field 1

Field 2

Field 3

Field 4

Field 5

Slide

1

To

1

PRINT

Label Designer

^XA
^CIO
^FTS,50
^A0N,33.31^FD@text1@^FS
^FTS,90
^A0N,33.31^FD@text2@^FS
^FTS,130
^A0N,33.31^FD@text3@^FS
^FTS,170
^A0N,33.31^FD@text4@^FS
^FTS,210
^A0N,33.31^FD@text5@^FS
^PQ1,1,1,Y
^XZ

B2615
RODENT
LT VENTRICAL
DB21-1233
10/10/22

Showing sample data for preview
[Get support and watch tutorials](#)

Cancel Save

File Drop template using ZPL label designer

Print Share


Current Status

Template: Print Share 1
Location: C:\Users\Public\Documents\QRlogix\Print Share
Active since: Aug/31/2022 09:10:56
Sample Print File Data:
S22-1234,A1,H&E,BILLY BOB,DR JONES MD

Label Preview


S22-1234
A1
BILLY BOB
H&E
DR JONES MD



Label Settings

Label Designer

^XA
^CIO
^FTS,54
^A0N,33.31^FD@accession@^FS
^FTS,94
^A0N,33.31^FD@sample@^FS
^FTS,136
^A0N,33.31^FD@name@^FS
^FTS,175
^A0N,33.31^FD@stain@^FS
^FTS,214
^A0N,33.31^FD@doctor@^FS
^FO190,36
^BXN,3,200^FD@accession@:@sample@:@name@^FS
^PQ1,1,1,Y
^XZ

@accession
@sample@
@name@
@stain@
@doctor@


Keyword Preview
Available Fields
accession sample
stain name
doctor

Cancel Save

Label Builder allows users to move label objects (content containers) to different positions on the label. We can also increase or decrease the font size (height and width) and even add static content that is not part of the template form.

The following example of label design code shows color coded commands we use to move and resize the label objects. The items highlighted in green move the objects from left to right on the label canvas. The items highlighted in blue move the objects up and down on the label. The items highlighted in red increase or decrease the font size and can be separated to individually control font height and font width.

GREEN = Left/right positioning based on X axis (horizontal)

BLUE = Up/down positioning based on Y axis (vertical)

RED = Font Size (font height, font width)

```
^XA
^CI0
^FT5,50
^AON,33,31^FD@text1@^FS
^FT5,90
^AON,33,31^FD@text2@^FS
^FT5,130
^AON,33,31^FD@text3@^FS
^FT5,170
^AON,33,31^FD@text4@^FS
^FT5,210
^AON,33,31^FD@text5@^FS
^PQ1,1,1,Y
^XZ
```

^FT (or ^FO) define where the object is placed on the label and ^AON defines the font, as detailed below.

LABEL DESIGN CODE

It is a requirement that all label code begin with ^XA, and end with ^XZ. Generally, ^CI0 (defines font) will follow ^XA at the top in this format:

```
^XA
^CI0
```

X-Y AXIS LOGIC

The QRlogix Label Builder uses X-Y axis logic, where X is horizontal, and Y is vertical. With a 1" x 1" label canvas and a 300-dpi printer, the label area would contain 300 dots down and 300 dots from left to right. An X-Y value of 0,0 is the very top left corner of the 1" label canvas. An X-Y value of 150/150 would be the center of the 1" x 1" label canvas.

OBJECT PLACEMENT ON LABEL

Using ^FT or ^FO

Field Typeset command = ^FT Object positioned down from that point on canvas

Field Origin command = ^FO Object positioned up from that point on canvas

^FT5,50

^FO5,50

The ^FT (field typeset) command sets the data's placement on the label using X-Y axis logic. In the example below, ^FT5,50 places the data 5 dots to the right of the label edge, and 50 dots down from the top. Because it us ^FT (and not ^FO) the object extends DOWN from that point. Whereas, if it was ^FO5,50, the object would extend UP from that point on the canvas.

The example below shows the NAME object placed on the label using ^FO and ^FT using the exact same values. ^FT extends down, and ^FO extends up:



The data that is being placed inside the Field Typeset needs to be defined. First, the ^AON commands define the font and orientation as normal.

^A0N,33,31

The first value (33) is FONT HEIGHT, and the second value (31) is FONT WIDTH. An increase in the number equates to an increase in the font height or width.

If both values are the same, they can be replaced with just 1 value as shown below:

```
^A0N,31
```

For the example above, both the font height and the font width equal 31.

The ^FS command denotes the end of the field definition. It is required at the end of each label object.

```
^FT5,50
```

```
^A0N,33,31^FD@text1@@^FS
```

The above string contains all the information needed to place the contents of Text 1 from the form in the correct position on the label.

Below, is a breakdown of how form field Text 2 looks using the code format we just reviewed:

```
^FT5,90
```

```
^A0N,33,31^FD@text2@^FS
```

For Text 2 above, notice the X axis is 5, just like Text 1. That's because they both start with the same placement from the side of the label. Whereas the value for Y axis is 90 (compared to 50 with Text 1). That's because the data for Field 2 needs to be far enough below the data for field one, that it doesn't overlap.

```
^FT5,50
```

```
^A0N,33,31^FD@text1@^FS
```

```
^FT5,90
```

```
^A0N,33,31^FD@text2@^FS
```

Notice the trend below. The Y values increase by 40 for each line on the slide, giving the data equal distance apart from each other.

```
^FT5,50
```

```
^A0N,33,31^FD@text1@^FS
```

```
^FT5,90
```

```
^A0N,33,31^FD@text2@^FS
```

```
^FT5,130
```

```
^A0N,33,31^FD@text3@^FS
```

```
^FT5,170
```

```
^A0N,33,31^FD@text4@^FS
```

```
^FT5,210
```

```
^A0N,33,31^FD@text5@^FS
```

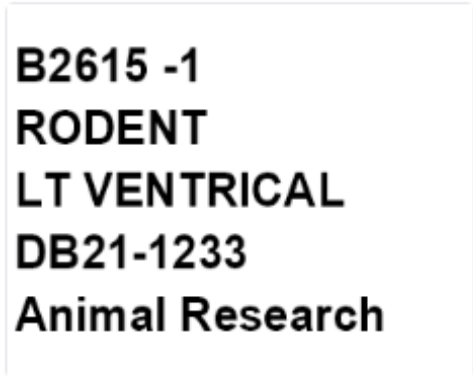
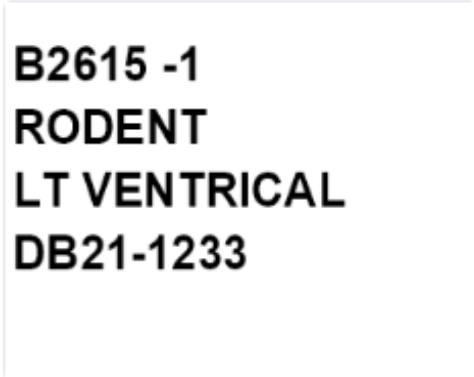
You can move the above fields as needed to design the best label for your needs.

ADDING PERMANENT TEXT TO A SLIDE

The below example shows how permanent text of “Animal Research” is added to every slide that gets printed from this template.

To add permanent static text to a label, “Animal Research”, use the following code:

`^FDAnimal Research^FS`

With permanent text added	Without permanent text
	
<pre> ^XA ^CI0 ^FT5,50 ^A0N,33,31^FD@text1@ -@slide2@^FS ^FT5,90 ^A0N,33,31^FD@text2@^FS ^FT5,130 ^A0N,33,31^FD@text3@^FS ^FT5,170 ^A0N,33,31^FD@text4@^FS ^FT5,210 ^A0N,33,31^FDAnimal Research^FS ^PQ1,1,1,Y ^XZ </pre>	<pre> ^XA ^CI0 ^FT5,50 ^A0N,33,31^FD@text1@ -@slide2@^FS ^FT5,90 ^A0N,33,31^FD@text2@^FS ^FT5,130 ^A0N,33,31^FD@text3@^FS ^FT5,170 ^A0N,33,31^FD@text4@^FS ^PQ1,1,1,Y ^XZ </pre>

ADDING A BARCODE TO THE LABEL

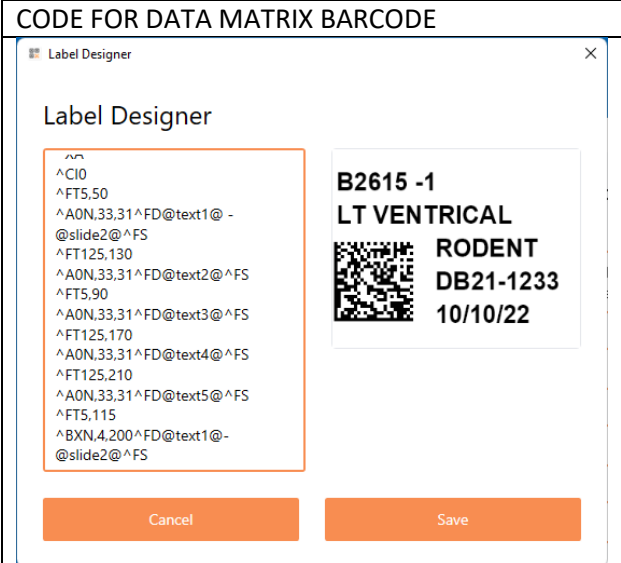

To add a barcode, you will need to arrange a place on the label canvas where it can fit, and then embed the correct code.

Code for Data Matrix Barcode:

```
^FT5,185
^BXN,4,200^FD@text1@;@slide2@^FS
```

Code for a QR Code Barcode:

```
^FT5,185
^BQN,2,3,H,5^FD@text1@;@slide2@^FS
```

CODE FOR DATA MATRIX BARCODE	CODE FOR QR CODE BARCODE
	
<pre>^XA ^CI0 ^FT5,50 ^A0N,33,31^FD@text1@ -@slide2@^FS ^FT125,130 ^A0N,33,31^FD@text2@^FS ^FT5,90 ^A0N,33,31^FD@text3@^FS ^FT125,170 ^A0N,33,31^FD@text4@^FS ^FT125,210 ^A0N,33,31^FD@text5@^FS ^FT5,115 ^BXN,4,200^FD@text1@;@slide2@^FS ^PQ1,1,1,Y ^XZ</pre>	<pre>^XA ^CI0 ^FT5,50 ^A0N,33,31^FD@text1@ -@slide2@^FS ^FT125,130 ^A0N,33,31^FD@text2@^FS ^FT5,90 ^A0N,33,31^FD@text3@^FS ^FT125,170 ^A0N,33,31^FD@text4@^FS ^FT125,210 ^A0N,33,31^FD@text5@^FS ^FT5,115 ^BQN,2,3,H,4^FDQA,@text1@;@slide2@^FS ^PQ1,1,1,Y ^XZ</pre>

The contents of the barcode are defined as show below in green:

```
^BQN,2,3,H,5^FD@text1@;@slide2@^FS
```

If you want to add data to the barcode, using the example above, position the desired data keywords in the barcode as shown below in grey:

```
^BQN,2,3,H,5^FD@text1@;@text2@;@text3@;@text4@;@slide2@^FS
```

For the examples above, scanning the barcode would generate the following:

```
B2615;LT VENTRICAL;RODENT;DB21-1233;1
```

ADDING CURRENT DATE @date1@

Current date can be added to a slide label by embedding a command in the label design code.

First, determine where you want to place the date, and what size text you want to use. Then use the command and logic shown below to add the feature.

```
^FT5,200
```

```
^A0N,20^FD@date1@^FS
```

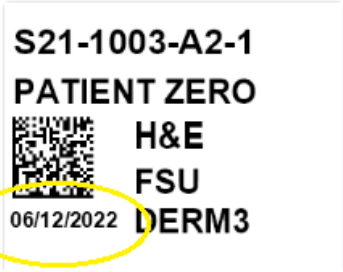
Label Designer

```

XA
^C10
^FT8,46
^A0N,33,33^FD@prefix@-@accession@-@sample@-@block@-@slide1@^FS
^FO15,110
^BXN,3,200^FD@prefix@;@accession@;@name@^FS

^FT5,200
^A0N,20^FD@date1@^FS

^FT8,90
^A0N,33,31^FD@name@^FS
^FT115,130
^A0N,35,31^FD@stain@^FS
^FT115,170
^A0N,33,31^FD@text1@^FS
^FT115,205
^A0N,33,31^FD@text2@^FS
^PQ1,1,1,Y
^XZ
        
```



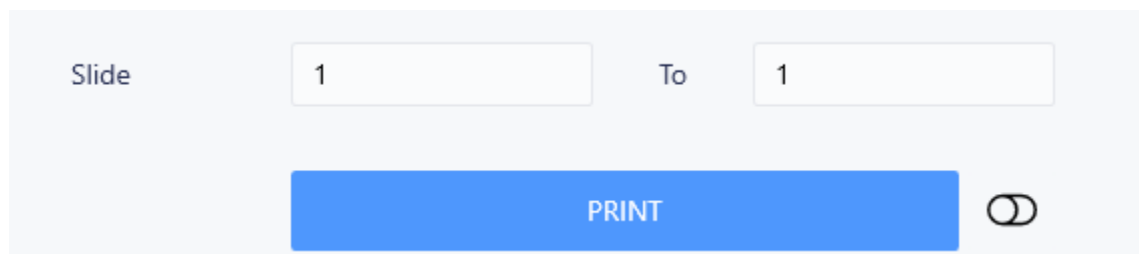
Showing sample data for preview
[Get support and watch tutorials](#)

Label Design Features available for On-demand Printing

SEQUENTIAL PRINTING and DUPLICATE PRINTING

Sequentially printed microscope slides

Most templates are setup to offer sequential printing of microscope slides, where a range of slide prints is selected. For example, if you need to print 3 slides for a histology case, you setup the slide selection as shown below:



We include sequential number printing by adding the following to the code, `-@slide2@^`, as seen below:

`^FD@text1@^FS` = No sequential numbering

Example = S21-1234

`^FD@text1@-@slide2@^FS` = With Sequential Numbering

Example = S22-1000-A1-1, S21-1000-A1-2, S21-1000-A1-3

The “-” shown before the @ is static text.

If each microscope slide is to be labeled sequentially, the Label Builder code must include the `@slide2@` command.

`^A0N,33,31^FD@text1@-@slide2@^FS`

It's important to note that if you want fixed text to separate data fields, it would be placed in the code as highlighted below. The fixed data is placed between the “@” symbols:

`^A0N,33,31^FD@text1@-@slide2@^FS`

The result is the -1, -2, -3 at the end of the top lines below:

S22-1000-A1-1 PATIENT NAME  H&E DRJ 1/5/22	S22-1000-A1-2 PATIENT NAME  H&E DRJ 1/5/22	S22-1000-A1-3 PATIENT NAME  H&E DRJ 1/5/22
--	--	--



DUPLICATE PRINTS

If you do not want slide numbers (for sequentially printed slides) on your slide labels the @slide2@ parameter needs to be excluded from code:

B2615 RODENT LT VENTRICAL DB21-1233 10/10/22	B2615 RODENT LT VENTRICAL DB21-1233 10/10/22	B2615 RODENT LT VENTRICAL DB21-1233 10/10/22
DUPLICATE PRINTS = Identical label printed multiple times		

Label WITH sequential numbering: ^A0N,33,31^FD@text1@-@slide2@^FS

Label WITHOUT sequential numbering: ^A0N,33,31^FD@text1@FS

Label WITH sequential numbering	Label WITHOUT sequential numbering
S22-1000-A1-3 PATIENT NAME  H&E DRJ 1/5/22	S22-1000-A1 PATIENT NAME  H&E DRJ 1/5/22
Not used for DUPLICATE printing	Used for DUPLICATE printing

Contact QRlogix for help or assistance with your label design.