Instruction manual

idesign8+

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40094502

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NOTE!

Weber Marking Systems GmbH has made every effort to ensure the completeness, topicality and correctness of the information in this manual. Errors in the documentation can nevertheless not be excluded; **Weber Marking Systems GmbH** therefore excludes any warranty claims based on this information. Changes to the information contained in this documentation are reserved and may be made without notification at any time.

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1. General

Information on this operating manual

This manual enables safe and effective use of the software.
The manual is a component of the software.
The manual must be available to the staff at all times near the PC on which the software is installed.
The staff working with the software must have studied this manual and be familiar with the content.
Compliance with all safety notes and instructions given in this manual is a basic prerequisite for safe and efficient working.
Illustrations in this manual serve to provide a basic understanding and may differ at times.

Explanation of Danger Degrees

Safety regulations provide information in written and symbol form in order to warn you against dangers and to instruct you to avoid any damage to persons or to properties.
Safety regulations are started by signal words indicating the level of danger.
Safety regulations may be placed directly at the print system or in documents about this print system.

	This symbol indicates a hazardous situation which, if not avoided, will result in death or serious injury. All safety regulations have to be observed to avoid any damage to persons.
	This symbol indicates a hazardous situation which, if not avoided, could result in death or serious injury. All safety regulations have to be observed to avoid any damage to persons.
	This symbol indicates a hazardous situation which, if not avoided, may result in minor or moderate injury. All safety regulations have to be observed to avoid any damage to persons.
	This symbol indicates a hazardous situation which, if not avoided, may result in damage to properties. All safety regulations have to be observed to avoid any damage to properties.

Limitation of liability

All the information and instructions in this manual were compiled based on the current standards and regulations, state of the art technology and our many years of know-how and experience.
The manufacturer is not liable for damages resulting from:

- disregarding the manual
- improper use
- use of untrained staff
- changes to the software

The obligations agreed upon in the supply agreement, the general terms and conditions, the manufacturer's delivery terms and the statutory provisions applicable at the time of conclusion of the contract are applicable.
We reserve the right to make technical changes to improve the performance and in the course of on-going development.

Copyright

Guarantee terms

The guarantee terms are specified in the General terms and conditions of the manufacturer.

Customer service

Please refer to our customer service for technical information.
Refer to Page 3 for contact details.
Our staff is furthermore always interested in new information and experiences arising from the use of the product and which may be valuable information for product improvement.

Intended use

The software has been designed and implemented exclusively for the intended use described herein.
The software serves to develop and administrate print images which are transferred to a Weber Marking Systems printing system.
Intended use also includes adherence to all the specifications in this manual.
Any use beyond the intended use or any other use is regarded as misuse.
Any claims arising from damages due to misuse will be rejected.

2. Installation and set-up

System requirements

To install the idesign8+ software on a PC, the following minimum system requirements must be met:

- Processor minimum 1 GHz
- Windows 10, 8, 7
- 2 GB for 32 bit or 4 GB for 64 bit
- At least 30 GB hard disk space
- Direct X 9 or higher with WDDM 1.0 driver
- PC mouse or touch screen
- interface: either USB, RS 232 or Ethernet LAN/WLAN port

Install software

The following steps imply that you have an installation file on CD or USB-stick or that you download the software on the Weber Marking Partner Portal with the following link:

http://www.bluhmsysteme.com/download/software/iDesign/Setup_idesign8.exe

Under this link you'll find always the latest idesign8+ software.

You'll get further information from the Support.

You'll get the latest software update under the link, specified above or the info button. The latest software includes also the latest firmware versions.

Step	Procedure
1	Change to the index where you saved the actual idesign8+ version..
2	Double click the idesign8+.exe file.
3	Click on the Install button

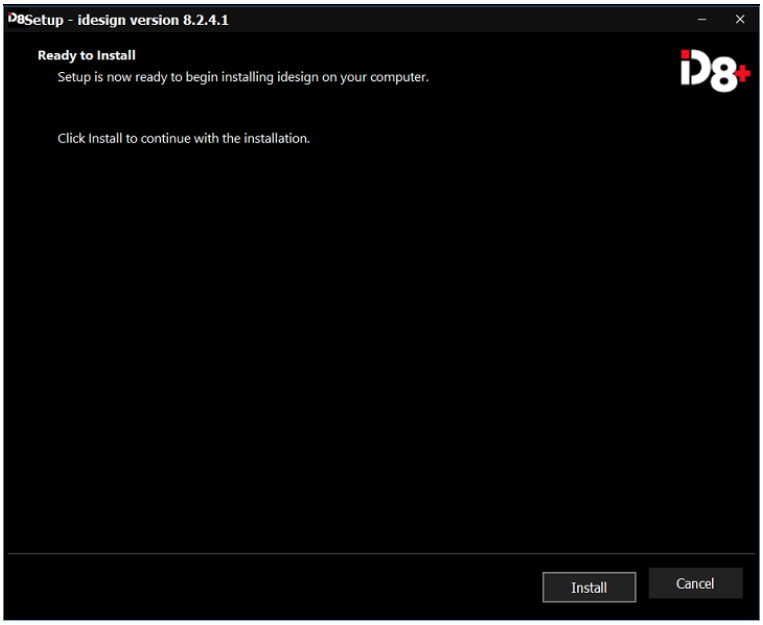


Fig. 1: idesign8+ Setup Assistant

Step	Procedure

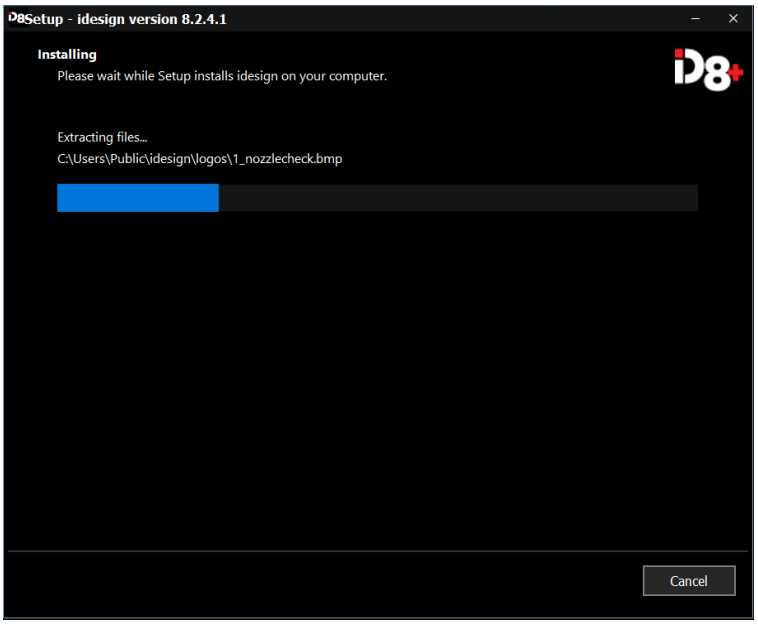


Fig. 2: Start installation

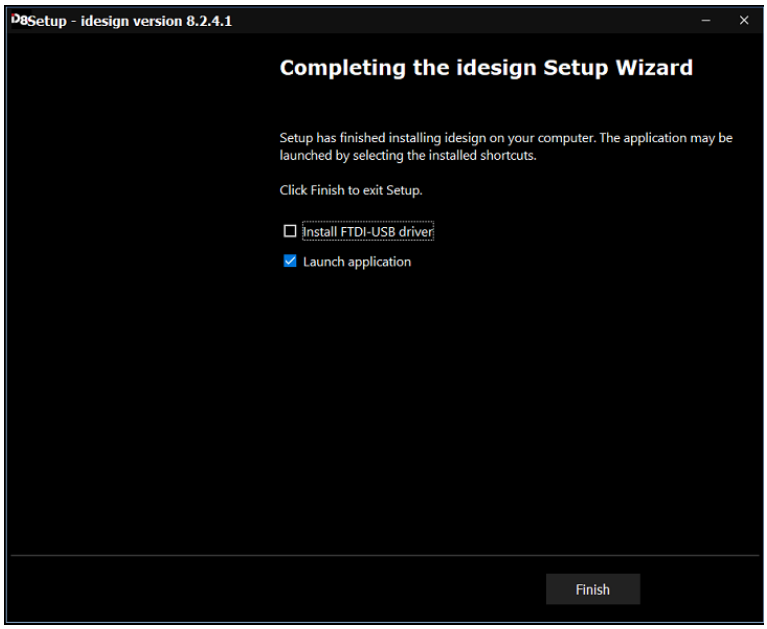


Fig. 3: Complete installation

Starting and ending software

Start idesign8+

NOTICE The print systems are shown only if they are registered previously.

Instruction

Please start idesign as follows:

Step	Procedure
1	To start idesign8+, Click on the  desktop button or: Click the idesign8+ button in the Start/Programs/idesign8+ Windows menu bar. ⇨ The Start window opens.

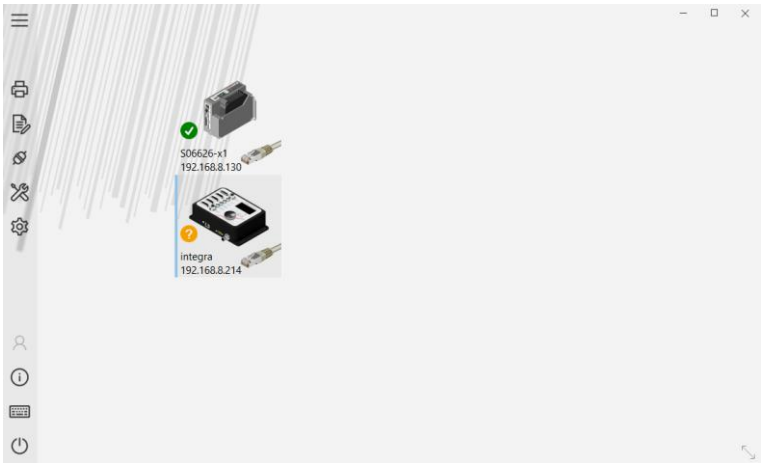


Fig. 4: Start window

End idesign8+

Instruction

Please end idesign8+ as follows:

Step	Procedure
1	To end idesign8+, Click the  or  button in the title bar. ⇨ The Start window closes

Step	Procedure

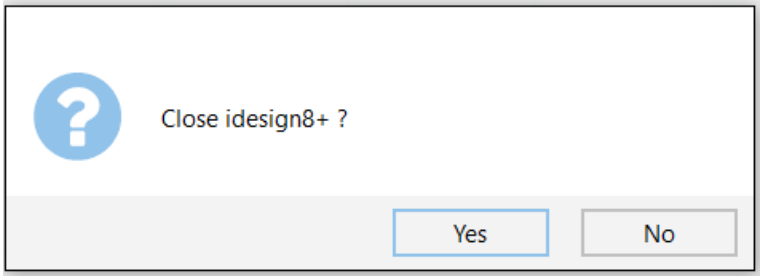


Fig. 5: End idesign8+

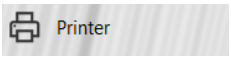
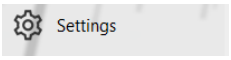
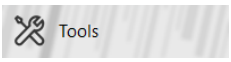
3. Software design

Home page

On the left side of the idesign8+ software is the navigation menu.

Navigation menu

The navigation menu opens up the functions of idesign8+.

Symbol	Function	Meaning
	Printer	Status messages are shown, print images and parameter are managed and can be sent to the desired system.
	Label Editor	Functions and settings for the print image. Print images can be created and managed with the editor and can send to one or more systems.
	Connections	The connections menu is used to configure connections to the print systems.
	Settings	The tools menu is used to make settings for the logging, user management, the language of the software and a system-independent terminal program. Data base connections can be configured and created automatically.
	Tools	Under Tools you will find tools such as a device-independent terminal program, firmware updates, Font Creator and more. Print images can load into the system via the USB stick backup function.

Information

Click the button 

top right to select the information dialogue. You can find the complete version number and additional notes for this idesign8+ version.

Fig. 6: Information dialog

Here you can also download the version for a software update.

System tool bar

The system tool bar contains information to the already configured print systems.

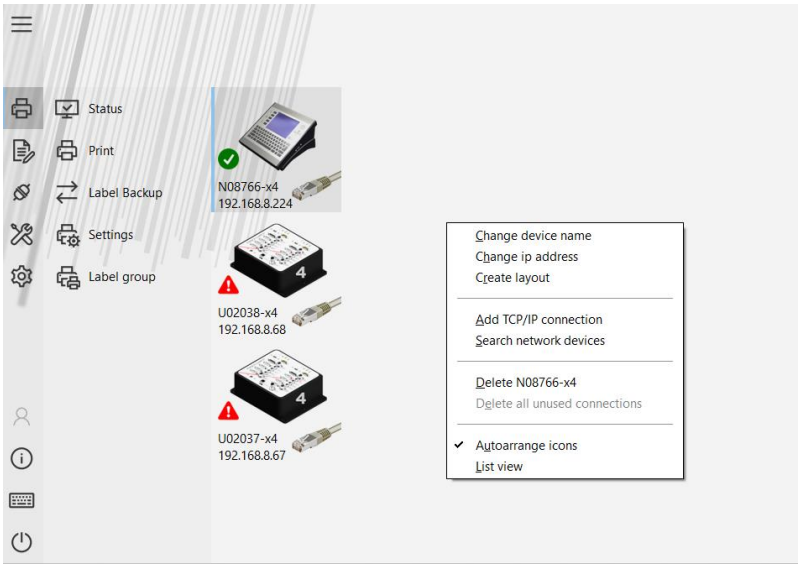


Fig. 7: System tool bar

Right-click on a printer icon to switch to the list view.

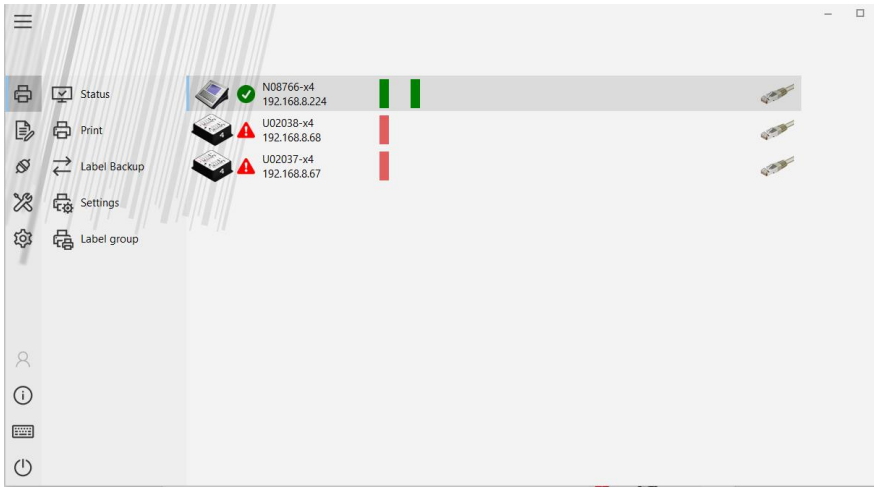


Fig. 8: System tool bar

Fig. 9: System symbol of the X4JET

NOTICE The system tool bar is visible in main menu items „Functions“ and „Connections“ only.

The illustration of the print systems in the tool bar is made with a picture of the connected system, the name, a status LED and connection information.

If more systems are registered as they can show, the systems can have scrolled with the bar at the lower side.

Systems, which are registered but aren’t available, are shown in grey.

Fig. 10: Not available system

The system can be activated for editing with a click on the icon.
The activated symbol is then highlighted in blue.

Status LED

The status LED visualizes information about the operating condition of the activated system.

NOTICE The status signals can have different meanings, depending on the system. For further information have a look to the operating manual..

Symbol	Meaning	Descriptiong
	OK	The system is ready for use. It exist no problems.
	Warning	This report is displayed if i.e. a cartridge is nearly empty and should be changed.
	Alarm	The system is in the „Alarm“ status and is not ready for print.
	No connection	No connection to the system.

NOTICE

System symbol blinks grey

If more than one PC access the print system (or more than two different PC's access the iJET or X4JET), the system flashes grey.

In this case is no configuration of the system over idesign8+ possible.

Connection information

Depending on the type of connection the status displays two information.

1. The name of the system, if a name has been assigned.
2. Different information, depending on the connection

Connection	Meaning
TCP/IP	Displays the IP-address of the system
USB cable	Displays the chip identification
EIA 232	Displays the used COM-Port
USB-stick	Displays the serial number

Popup – menu of the system symbol

If you click on a system symbol with the right mouse button, you get the possibility to change diverse settings of the selected system.

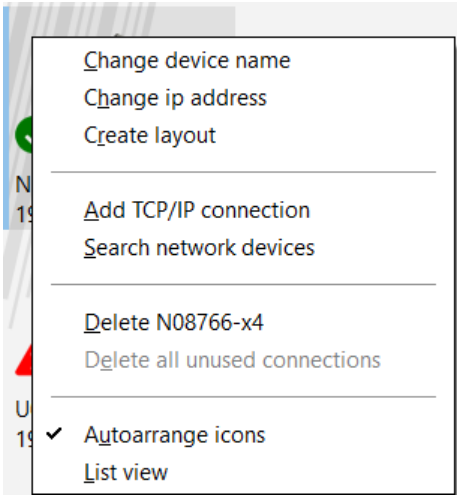


Fig. 11: Popup menu of a X4JET

The settings include:

Menu item	Available	Description	See also
Save	all systems	Specify an individual name for the system, e.g. production line 3	
Change IP address	all systems	Change the IP address of the connected system and in idesign8+.	Chapter: Change IP-address, page 59
Search system in network	Always	Check the actual network for connected systems	Chapter: Add System, page 89
Add TCP/IP connection	Always	Add a new system in idesign8+	Chapter: Configuration TCP/IP connection, page 127
Delete connection	Always	Deletes a system in idesign8+	Chapter: Delete connection, page 91
Auto arrange icons	Always	If the check mark is removed, the system icons can be placed anywhere on the screen.	

4. Printer

Description

The status of the connected systems can be shown.
The functions are used to manage print images and parameters and to transfer these to available printers.
The connected printers are shown as symbols on the user interface.

Status

The status menu shows information of the system and whose operating condition, which can call up. The window is divided in different fields, depending on the print system. These fields can be selected via the top tabs.

Status - Tab

The status – panel shows the status of the print system.

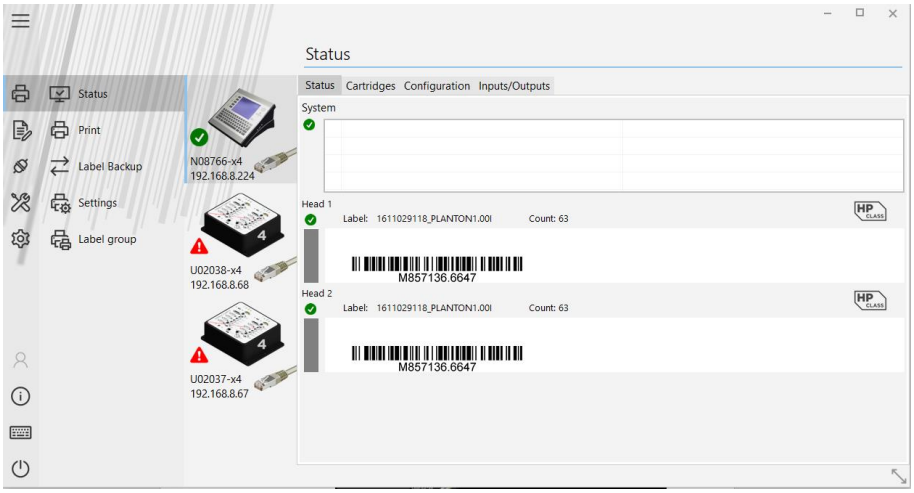


Fig. 12: Status screen

The status – panel is structured in different fields.

System status

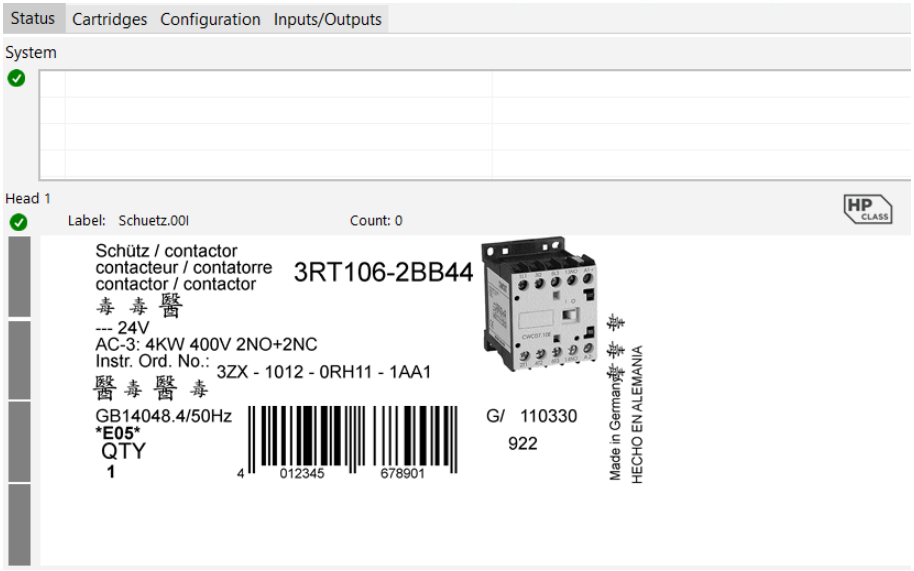


Fig. 13: System status

The system status summarizes all status information, it consists of a status LED, which shows the status of the system and a status list, which shows the alarm- and error status of the system.

The system has 3 different statuses generally.

- Error – The system isn't ready.
  The status LED is red.

- Warning – The system isn't print ready or there is a warning (ink nearly empty).
  The status LED is yellow.

- OK – The system is ready and can print.
  The status LED is green.

The status list shows the actual error in form of an own status LED, the print head, which concerns the error information and a textual information of the error.

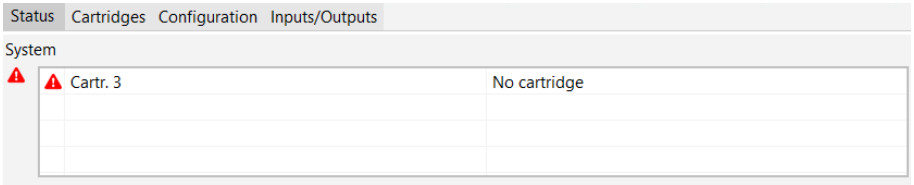


Fig. 14: Example of information in the system status

The information is periodically updated and displayed by the system.

Head status
The head status is displayed below the system status.
This summarizes the information for the print head.

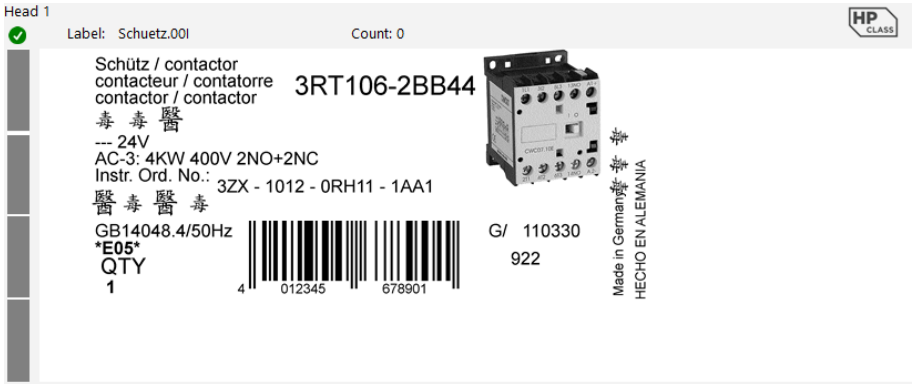


Fig. 15: Head status and preview

You can find:

- Name of the print head
- Status LED summarizes the head status
- Filling level of the cartridge in percent
  The cartridges and whose filling levels are displayed at the left edge top down. The colors of the elements show the status for the specific cartridges.
- Label name - Name of the actual print label.
  If no text is selected, „>> no print image <<“ is displayed. If the label name isn’t available, because the label is call up for printing in the controller, the text „>> System print image<<“ is displayed.
- Print counter - Number of the already printed label.
- Preview
  Real-time preview of the actual printed label. All fields, also variable fields, date fields and barcode fields will be displayed with the actual data.
- Head type – pictogram
  Shows the print technology with a pictogram.

Cartridges – Tab

The cartridges - panel summarizes information for the head and cartridges.
On the left side is a legend of the displayed information.

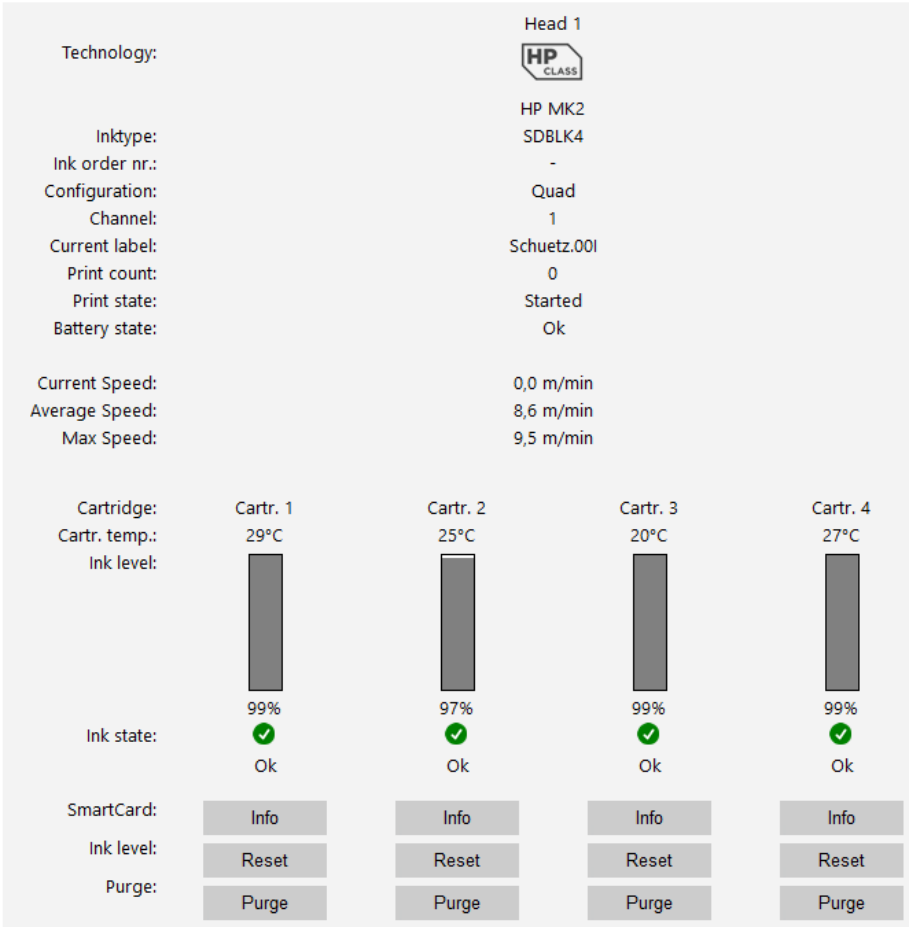


Fig. 16: Cartridge information

The upper part contains information of the head.

There can be seen:

- Name of the print head
- Print head technology - Displayed as pictogram and text
- Ink type - Part number of the selected ink
- Print head configuration - (Single, Twin, Triple, Quad)
- The used channel of the print head
- Name of the actual print image
- Counter - Number of the previously printed labels
- Print state - start, pause, stop
- Battery status

  Below this information are the cartridge information, for each cartridge separately side by side.

There can be seen:

- Cartridge name,
- Temperature of the cartridges

- Filling level of the cartridges in Graphic and text,
- Ink status in Graphic (LED) and text,
- Ink Level Reset – Button

  Visible by HP cartridges without SmartCard only. A pressing on the Reset button on the cartridge resets the ink level of the cartridge to 100%.

Smart Card – Info Button
Open a window, which displayed the information of the SmartCard.

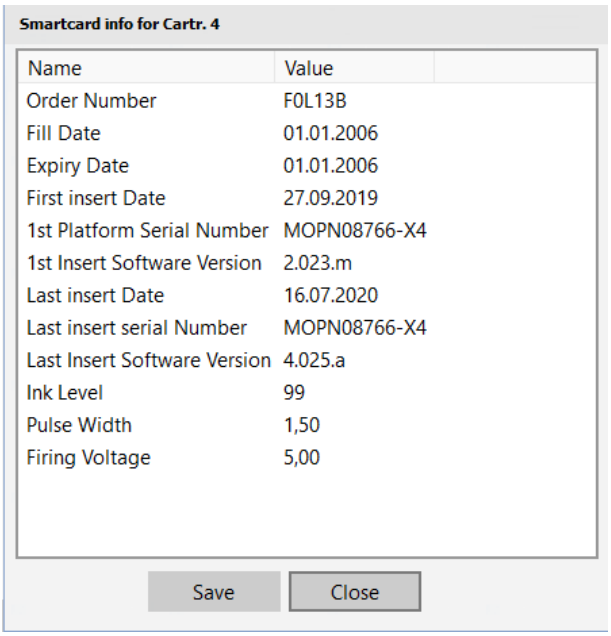


Fig. 17: Smart Cart info

This information can have saved by the Save symbol.

NOTICE

Not all information is shown for each cartridge-/ print head type.

If no cartridge is in the print head, the information will be shown grayed

Rinse - Button
Press the rinse button allows manual spitting of the head.

Configuration Tab

The configuration-panel summarizes tabular information of the print system.

Fig. 18: System configuration

You can add a comment to the configuration and save it as a file if necessary .

The configuration can have saved on a hard disk or can send with comments via mail.

There can be seen:

Name	Information	Change	Available for:
Name	System name	Yes, see **Change name**	All TCP/IP – connections
Type	System type	No	All systems
IP-address	Shows the actual IP-address of the system, also when it isn't connected via TCP/IP	Yes, see **Change IP-address**	iJET, X-have saved
Firmware	Shows the actual installed firmware version	Yes, see **Firmware update**	All systems
Number of heads	Shows the number of available heads	No	All systems
MAC address	Shows the actual MAC-address of the system, also when it isn't connected via TCP/IP	No	iJET, X-Series
Configuration	Shows the actual set system configuration (HP, Lexmark, Trident)	Yes, see **Change configuration**	X4, X4Plus,
System configuration	Shows the actual set system configuration (Basic, Advanced, Pro, Print)	Yes, see **Change configuration**	iJET, X-Series
Serial number	Shows the serial number of the system	No	All systems
Storage capacity	Shows the filled storage	No	CI2.5, Maxiline, Multiline
Max. Speed.	Shows the maximum print speed of the system	Yes, see **Change configuration**	iJET, X-Series
Date/Time	Shows if the system supports date fields	Yes, see **Change configuration**	iJET, X-Series
Variable fields	Shows if the system supports variable fields	Yes, see **Change configuration**	iJET, X-Series
Barcodes	Shows barcode types, which are supported by the system	Yes, see **Change configuration**	iJET, X-Series
Passwords	Shows if the system is password-saved	Yes, see **Change configuration**	iJET, X-Series
USB Support	Shows if the system supports the USB interface	Yes, see **Change configuration**	iJET, X-Series
Interface	Shows if the system supports the Ethernet interface	Yes, see **Change configuration**	iJET, X-Series
Bluetooth	Shows if the system supports the Bluetooth interface	Yes, see **Change configuration**	iJET, X-Series
Digital IO	Shows if the system supports the Digital-IO interface	Yes, see **Change configuration**	iJET, X-Series
Demo	Shows if the system is a demo system	Yes, see **Change configuration**	iJET, X-Series
Cartridge-coding	Shows if the head coding is active in the system	No, see **Change configuration**	iJET, X-Series
None LX Weber cartridge	Shows if None-Weber cartridges are activated	No, see **Change configuration**	iJET, X-Series
None HP SmartCard cartridge	Shows if cartridges without SmartCard are activated	No, see **Change configuration**	iJET, X-Series
Maximum print length	Shows the maximum print length which is supported by the system	Yes, see **Change configuration**	iJET, X-Series

Instruction

Please save the configuration as follows:

Step	Procedure
1	Click on „Save“
2	Select the folder to save the file.
3	Enter the file name if necessary
4	Click on „Save“
5	The configuration is saved and can view with every text editor.

Inputs/Outputs Tab

The inputs/outputs – panel shows information of the digital in- and outputs of the system. The field shows diverse graphical real-time signals. Furthermore, there is the possibility for a signal analysis.

NOTICE

The digital signals of the systems will update all 40 ms. Signals, which have a smaller period, will not be record and cannot be shown.

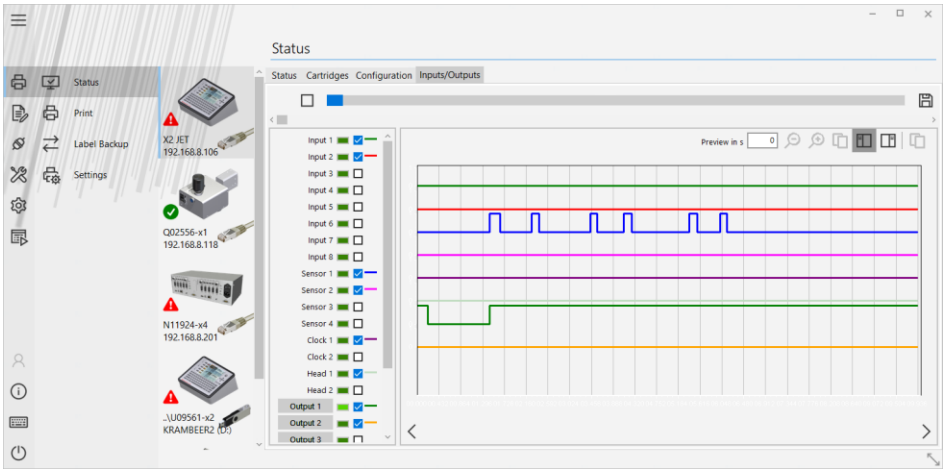


Fig. 19: Visualization of the input- and output signals

On the upper field there are control elements to control the display. These are from left to right:

Start/Stop of the signal preview
This allows a live preview of the signals, which can be frozen and clear in the upper picture.
Progress indicator
The signal record and the live preview of the signals takes place max. 5 minutes.
A green bar in the progress indicator shows how much time have passed from these 5 minutes.
Record signals
A file dialogue is shown after a click on this icon. Afterwards the signals will be written as text in a file.
Loupe 1:1
Renew the original size of the live preview.
Loupe +
Zoom in in the live preview.
Loupe –
Zoom out from the live preview again.
Copy to Clipboard
Copies the current display of the live preview to the Windows clipboard. This image can than paste into the image processing software.
Preview in s
The displayed value shows the maximum time interval, which is shown in the line preview.

Marker 1
Is only available if the signal preview paused. When Marker 1 is selected, you can set a marker (red) with the left mouse button.
Marker 2
Is only available if the signal preview paused. When Marker 2 is selected, you can set a marker (blue) with the left mouse button.
Marker difference
Shows the value of the time difference between the blue and the red marker in seconds.
Display indicated value
The indicated values can also have displayed as text.

All signals, which are provided from the system, are listed on the left side. These signals act as legend of the live preview. The display of the legend happens by:

Signal name
LED
If the signal is active (High), the LED will be light green. If the signal is inactive (Low), the LED will be dark green.
Selection-Checkbox
Via the checkbox can determine whether this signal should be displayed in the live preview. It's possible to display up to 10 different signals.
Signal color
The signal color for all signals, which are shown in the live preview, is assigned automatically.

Following signals are visualized:

Inputs
If the input is active (High), the LED will be light green. If the input is inactive (Low), the LED will be dark green
Sensor
If the sensor is active (High), the LED will be light green. If the sensor is inactive (Low), the LED will be dark green
Pulse
If the pulse exists (High), the LED will be light green. If the pulse doesn't exist (Low), the LED will be red.
Active print
The active print LED of the associated print head will be light green during a label print, dark green otherwise.
Outputs
The outputs can be set in this field explicitly. By pressing a respective button, the respective output is set to High for a second, after that too Low for a second and then back to the original value, which was present before the button was pressed.

Printing

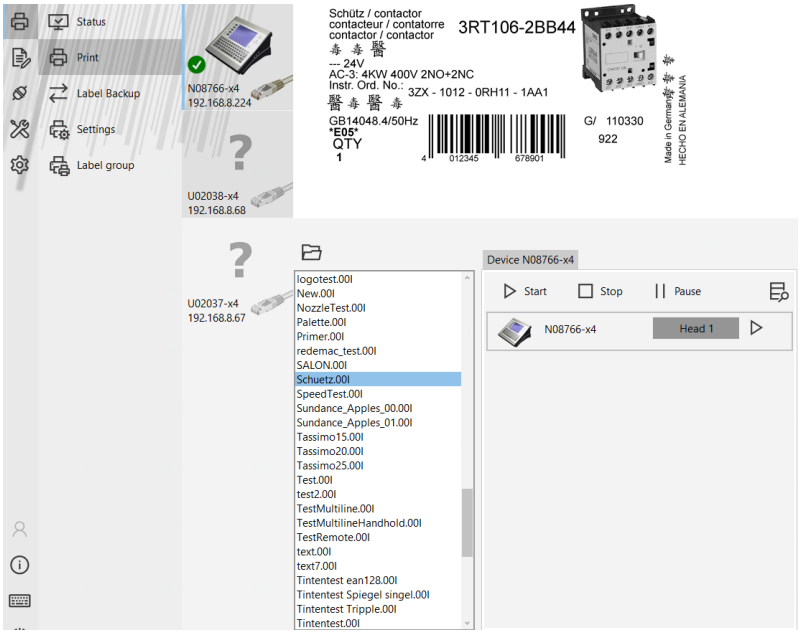


Fig. 20: Submenu Printing

Print start

To select a print image for print on a specific control system, first select a control system. Click the “Print” button in the “Functions” selection field. Select the print image from the list field, bottom right and select one or more print heads, which should receive the print image. The selected print heads are marked blue.

To start printing, click the “Start” button.

If there are variable fields in the print image, they will query now.

If a data base connection is used, a specified data set can be selected with the search function.

Print stop

Press the „Stop print “button to stop printing.

Pause

To pause printing, click on the "Pause" button.

Device group

To divide the selected print image between several connected printers, activate the tab "Device group". This function can be switched on and off in the idesign8+ settings. (Chapter Label groups, page 168.

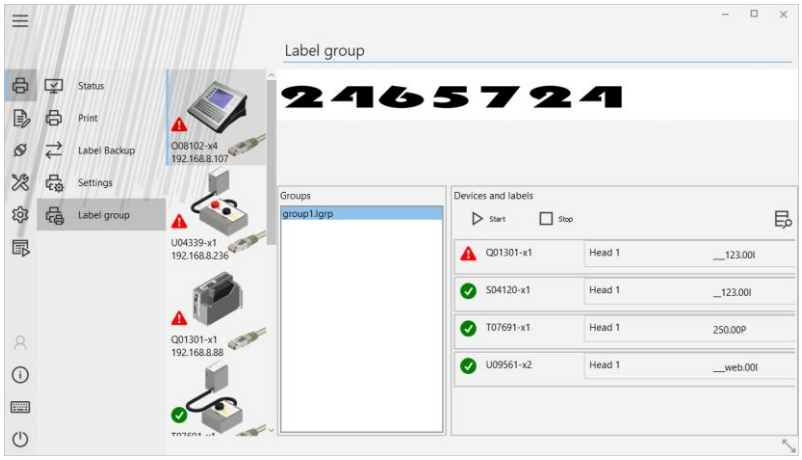


Fig. 21: Label groups

Start

Select the print heads on the shown print systems to start a print image on several printers and print heads. Realize the function with the button “Start”.

Stop

Stops the print job on all selected print systems and print heads.

Pause

To pause printing, click on the "Pause" button.

Label backup

idesign8+ sends the created print images from a PC directory via an interface to the memory of a connected printer.
This enables the printer to print these images even without a permanent connection to the PC.

Contrary, print images can be transferred from the memory of a connected printer to the PC, for backup.

idesign8+ also enables automatic generation and sending of print images from a database.

To send one or more print images from the PC to the print device, click on the "Save print image" button in the toolbar.

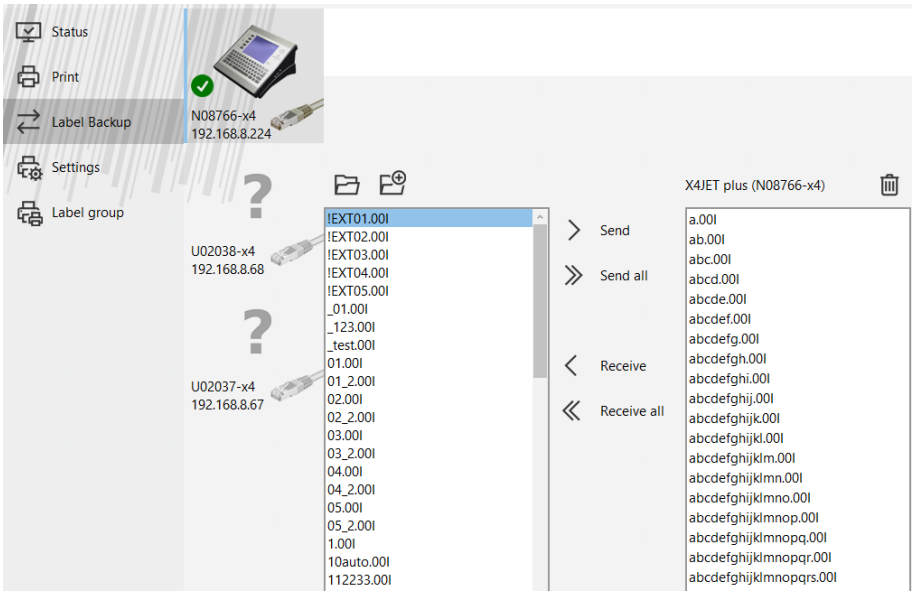


Fig. 22: Backup dialogue

Send print images

Instruction

Please send print images as follows:

Step	Procedure
1	Select a print image from the list displayed on the left. The “Change directory” button  also enables you to search for other print images on your hard disk.
2	Click the **Send >** button or (to send all print images) the **Send all >>** button.

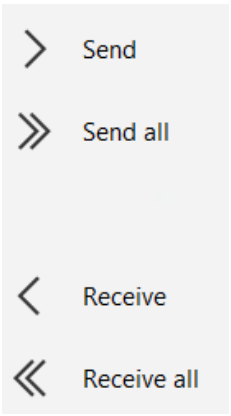


Fig. 23:Backup dialog

Receive print images

Instruction

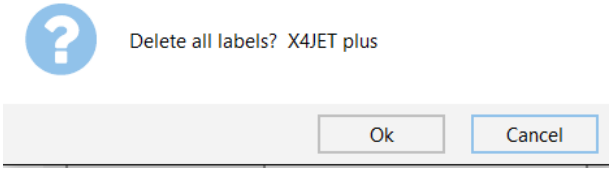
Please receive print images as follows:

Step	Procedure
1	To transfer print images from the printer to a directory, select the print images from the list displayed on the right.
2	Click the **Receive** button or (to transfer all print images) the **Receive all** button.

Delete print images

Instruction

Please delete print images as follows:

Step	Procedure
1	To delete print images in the printer's memory, select the print images in the right field.
2	Click on the button  for deletion.
	 Fig. 24: Delete print images
3	Click **Ok** to delete the selected print image in the printer's memory. **Or** Click **All** to delete the selected print image in the printer's memory

Settings

In the menu „System “are all system specific adjustments for changing available.

WARNING These settings should change from an expert only!
The function of the system can be disrupted by an incorrect setting.

NOTICE Every adjustment will be send immediately to the connected printer.

The elements of the parameter section can be different depending on the type of system which is connected.

Tab Head # Print Parameters

The print parameters depend on the connected type of printer.

NOTICE Consult the printer manual to set the print parameter.

Instruction

Please change the print parameter as follows:

Step	Procedure
1	To call up the print parameter, click in the register “Functions” the “Settings” button.
2	Select the “Print parameters” in the selected print head menu.

Step	Procedure

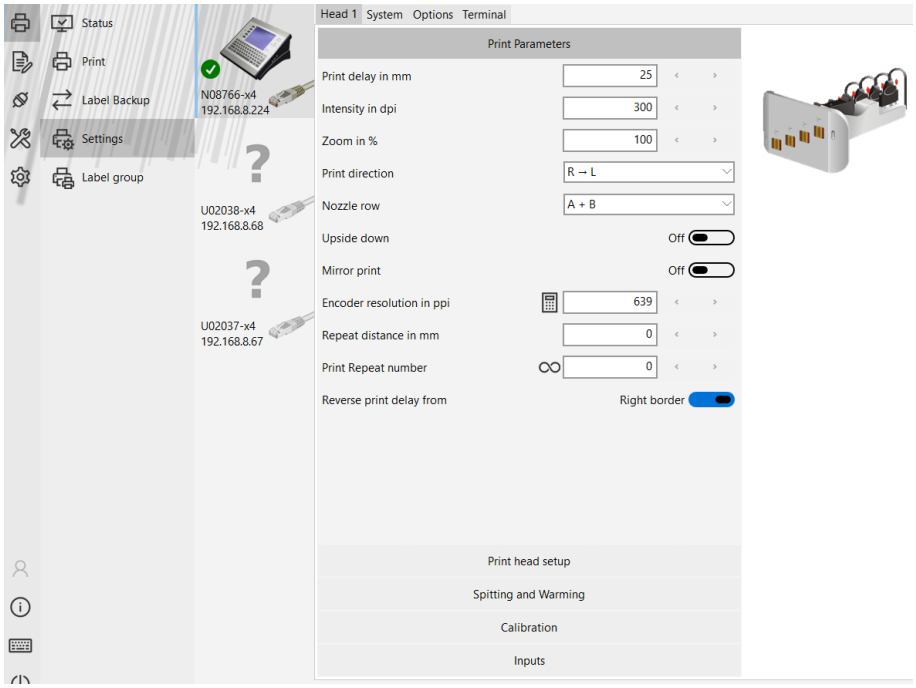


Fig. 25: Print parameter

3	Now change the print parameters to configure the selected system. Any changes are immediately sent to the system.

NOTICE

The minimal and maximum values of the parameter settings depends on the print system.

Print delay

The parameter **print delay** defines the path distance in mm between the light barrier trigger by the product and start of printing. By setting such a print delay, the position of the print image on the product can be changed. The print delay can be specified for each print head. Adjustable values: 0 to 999 mm.

NOTICE

The print start delay must not be greater than the distance between 2 products. If a print start is triggered before the last print is finished, it will be ignored.

If a print start is triggered before the last print was completed, it is ignored. Alternatively, the "Print start signal buffer" can be activated in the system under Special settings .

Instruction

Please set the print delay as follows:

Step	Procedure
1	Press tab **Head 1** or **Head 2** (depends on the number of the activated print heads) and select the desired print head. Click on the tab **Print parameter**.
2	Press arrow keys and set the required delay value. The value 0 means that printing can be triggered immediately after the light barrier trigger pulse. ⇨ The numbers shown in red at the beginning turn black after confirmation with the Enter key.

Speed

The print speed of the print heads must match the conveyor belt speed otherwise print images may be distorted. There are 2 ways to match the print speed to the conveyor belt speed:

1. Internal constant print speed.
2. External variable print speed via rotary encoder.

If no rotary encoder is connected to the controller, the conveyor belt speed must be measured or estimated and the determined value entered as a parameter. A test image (SpeedTest.00l) can then be used for fine-tuning the print speed. The set print speed is applicable for the selected print head group.

For single heads head 1 and 2 have the same setting and can’t set separately.
The following parameters must be entered:

Print speed

Print speed = Conveyor belt speed. The conveyor belt speed must remain constant!

Intensity

Print image contrast. If necessary, this parameter may have to be changed to optimize the print image to the product surface. Higher intensity means increased density and slower drying of the ink.

Instruction

Please set the intensity as follows:

Step	Procedure
1	Press tab **Print head 1** or **Print head 2** (depends on the number of the activated print heads) and select the desired print head.
2	Click on the tab **Print parameter**.
3	Press arrow keys and set the required delay value.

Zoom

This parameter enables an increase or decrease of the number of pixels. As long as "Zoom Optimization" is selected, the print image remains the same width. Otherwise, the print image will be wider or narrower.

Instruction

Please set the zoom as follows:

Step	Procedure
1	Press tab **Print head 1** or **Print head 2** (depends on the number of the activated print heads) and select the desired print head.
2	Click on the tab **Print parameter**.
3	Press arrow keys and set the required delay value.

NOTICE

When printing barcodes, ensure that widening or narrowing occurs only in the correct ratio. Note the optimal print intensity of 300 dpi. Observe the following table!

Barcode width	Permitted zoom factor (%)									
1				100	200					
2			50	100	150	200				
3			66	100	133	166	200			
4		50	75	100	125	150	175	200		
5		60	80	100	120	140	160	180	200	…
6	50	66	83	100	116	133	150	166	183	…

Print direction

The **Print direction** parameter specifies the direction in which the product moves on the conveyor belt as viewed from the print head side.

Instruction

Please set up the print direction as follows:

Step	Procedure
1	Press tab **Print head 1** or **Print head 2** (depends on the number of the activated print heads) and select the desired print head.
2	Click on the tab **Print parameter**.
3	Set the direction of the conveyor belt in the dropdown menu **print direction.**

Nozzle row

Each ink cartridge has two nozzle rows (A and B). One nozzle row has 150 nozzles.

The nozzles in row A print the uneven numbers 1, 3, 5, 7 …

The nozzles in nozzle row B print the even numbers 2, 4, 6, 8…

Per nozzle row A ~ B, 300dpi are printed vertical.

In this mode, the nozzles are uniformly stressed and the speed setting is not as critical as with A + B.

If, for instance, using A ~ B, every second print image is of poor quality, nozzle row A or nozzle row B can be activated.
Both nozzle rows print simultaneously with the setting A+B. The vertical resolution is 600 dpi. The print image is dark equal. The speed must be exactly right, because this will cause a shadow or blurred print when the nozzle rows are not print about each other correctly.
The nozzle rows can set as follows:

Nozzle row	Description
A ~ B	Printing with both nozzle rows, alternating. The first print image is printed with nozzle row A and the second text with nozzle row B. Vertical resolution: 300 dpi
A + B	Printing with both nozzle rows together. Vertical resolution: 600 dpi
A	Printing only with nozzle row A. Vertical resolution: 300 dpi
B	Printing only with nozzle row B. Vertical resolution: 300 dpi

NOTICE With setting A + B, the print speed must be accurately set, to produce a good print result. Otherwise the print image is blurred (shadow print).

NOTICE With HI Speed only A~B is possible.

Instruction

Please select a nozzle row as follows:

Step	Procedure
1	Press tab **Print head 1** or **Print head 2** (depends on the number of the activated print heads) and select the desired print head.
2	Click on the tab **Print parameter**.
3	Set the desired nozzle row setting in the dropdown menu.

Upside down

The setting **Upside Down** causes the print image to be printed upside down.

Instruction
Please set up the upside down print as follows:

Step	Procedure
1	Press tab **Print head 1** or **Print head 2** (depends on the number of the activated print heads) and select the desired print head.
2	Click on the tab **Print parameter**.
3	Activate upside down in the dropdown-menu.

Encoder resolution

The encoder resolution is a pilot tool to identify the correct encoder resolution in the print parameter menu.
The encoder resolution is called up with the additional button.

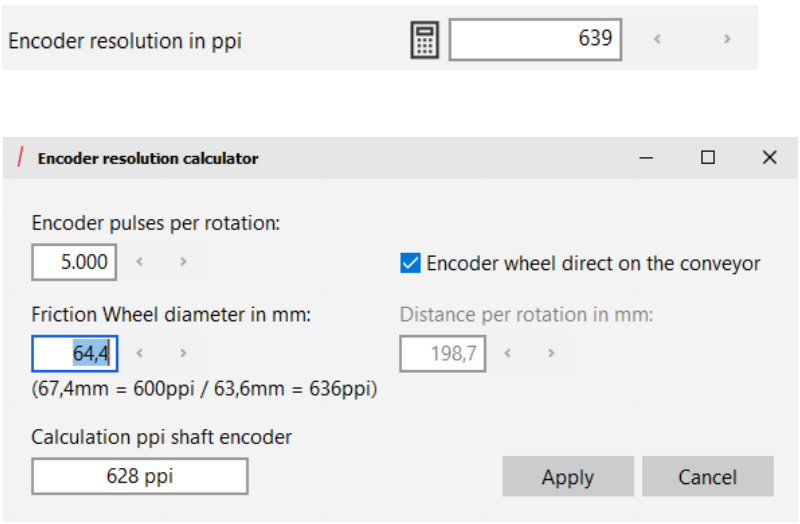


Fig. 26: DPI-calculator

Instruction
Please calculate the encoder resolution as follows:

Step	Procedure
1	First determine the number of pulses, generated by the encoder for a complete rotation and set the value in the field „Encoder pulses per rotation“.
2	If the encoder runs direct on the conveyor with a wheel, select the corresponding checkbox. Depending on your selection the other needed fields will be activated.
3	If the encoder wheel runs direct on the conveyor: Determine the diameter of the friction wheel and enter the value in the corresponding field.
4	If the encoder isn't installed on the conveyor directly: Determine the distance of the conveyor per rotation of the wheel and enter the value in the corresponding field.
5	If you have done all settings, you can see the value below “Calculation dpi Shaft Encoder“.
6	Click on „Apply“ to adopt the value in the print parameter menu as effective resolution and close the DPI-calculator. **A fine tuning of the DPI number is necessary for an optimal print result.**

Repeat distance / Print repeat number

To print several print images on one product, the number of print images and the distance between them must be specified.
The distance between print images is measured from print start to print start.
If you select „5“ the print image will be printed 6 times. 1 print plus 5 repeats.
998 prints 999 print images.
Endless printing can be activated with print repeat of „999“.

Parameter	Min.	Max.	Unit
Distance between print images	0	9999	mm
Number of print images	0	999	-

To enter the repeat distance and the print repeat number,
- Press arrow keys and set the required delay value.

Endless printing can be activated with a click on the button ∞ at the print repeat number. The value goes to 999 automatically.

Reverse print delay

Is the print direction backward, i.e. the product moves on the print head from left to right, the calculation point for the print start delay can set to right or left edge of the print image.

The setting „left border“ ensures a consistent left alignment.
It should be noted that the width of the print image needs to be part of the set value.

Instruction
Please set up the Reverse print delay as follows:

Step	Procedure
1	Press tab **Print head 1** or **Print head 2** (depends on the number of the activated print heads) and select the desired print head.
2	Click on the tab **Print parameter**.
3	Select “left border” or “right border” in the dropdown menu Reverse print delay. **The print start delay must be greater than the print length.**

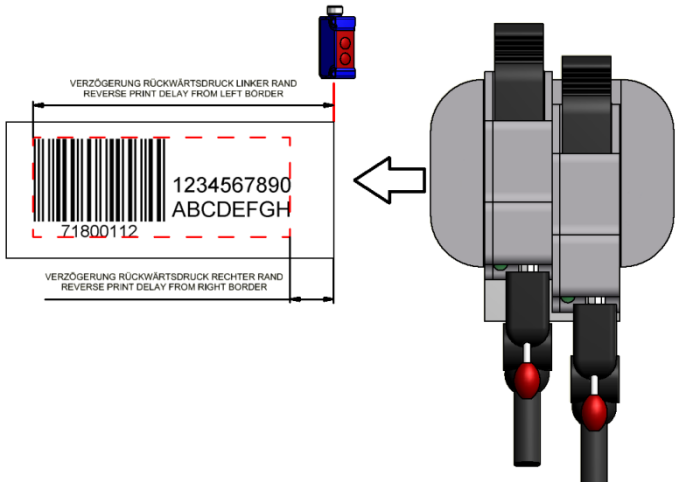


Fig. 27: Reverse Print Delay

Print start delay bi-directional

If the setting „print direction“ will be used at the input signal, the print start delay applies for the opposite print direction.
Therefore, the print is positioned exactly by using the print direction reversal.
The parameter „Reverse print delay“ should set to „left border“.

NOTICE These parameter is only visible if one input is set to „print direction“.

Instruction
Please select the print start delay bi-directional as follows:

Step	Procedure
1	Press tab **Head 1** or **Head 2** (depends on the number of the activated print heads) and select the desired print head.
2	Set one input signal to „print direction“ in the tab **Inputs**. ⇨ The parameter „print start delay bi-directional“ is shown in the tab **Print parameter**.
3	Press arrow keys and set the required value.

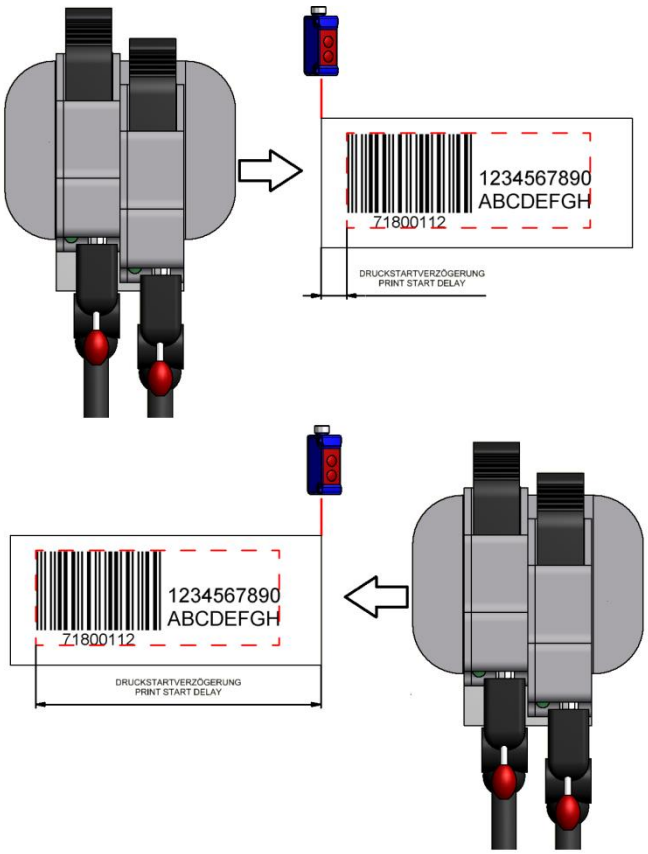


Fig. 28: Print Start Delay bi-directional

Tab Head # Print Parameters

The print head setup depends on the connected print technology and adopt automatically.

NOTICE

Please read the operator manual of the print system to set the print parameter.

Instruction
Please change the print head setup as follows:

Step	Procedure
1	Click on the **print head setup** tab to select them.

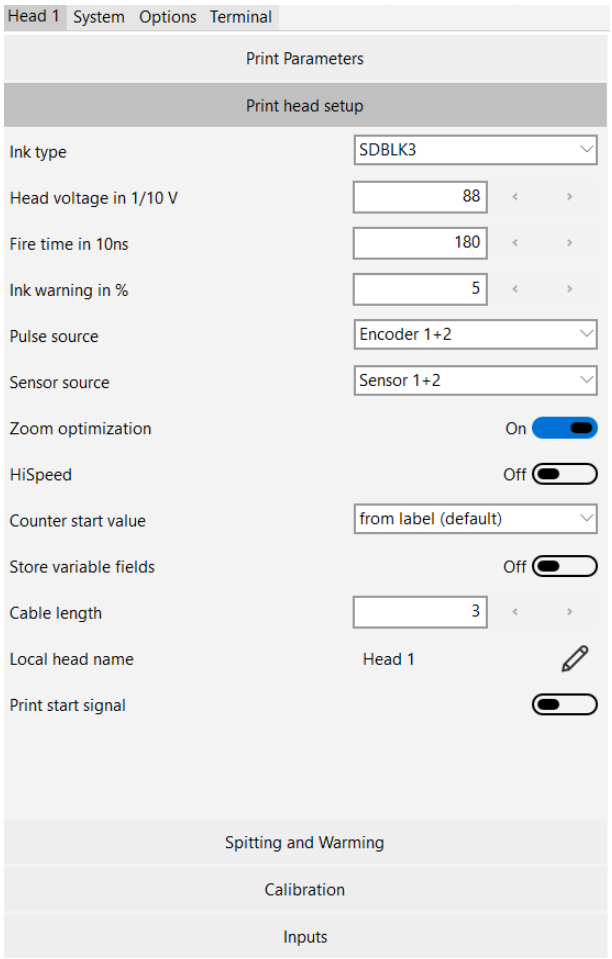


Fig. 29: Print head setup

2	Change the print head setups to configure the desired system. ⇨ All changes will be send to the system immediately.

NOTICE

The head voltage and fire time will be set automatically, depends on the ink type.

The values should be change carefully and after instruction, otherwise the cartridge can be damaged.

Store variable fields

This option specifies whether a queried variable field is saved with print request and will be displayed as default line with a new print request. This is useful to enter only the data that has actually changed. Data that hasn't changes can confirm by the Enter-button.

Instruction
Please save variable fields as follows:

Step	Procedure
1	Select in the submenu **Head #** the tab **Print head setup**.
2	Set the desired option in the dropdown menu "Store variable fields".

Tab Head # Spitting and Warming

The Spitting and Warming adjustments depending on the connected print technology. For Trident (MX) and Xaar(XR) is this parameter not available.

NOTICE Please read the operator manual of the print system to set the print parameter.

Instruction
Please change the spitting and warming setting as follows:

Step	Procedure
1	Click on the **Spitting and Warming** button in the **Head #** menu to select the spitting and warming settings.

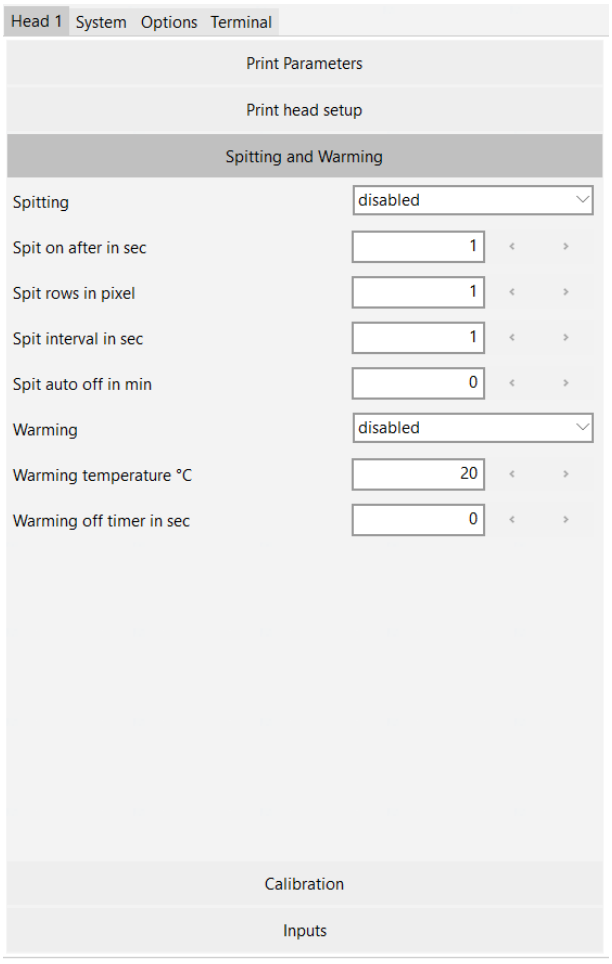


Fig. 30: Spitting and Warming

2	Now change the Spitting and Warming settings to configure the selected device. ⇨ Any changes are immediately sent to the system.

Tab Head # Calibration

If a twin print head or a print head with several modules (Triple, Quad, ...) is connected to the controller, the offset between the two print heads must be adjusted, if necessary. If single print heads are connected, a calibration isn't necessary.

NOTICE Before the print heads are calibrated, the print speed or the rotary encoder setting must be correct.

The offset between the two print heads is compensated for by the input of correction factors. A negative value means that the print image of this cartridge moves to the left side and reverse.

The print head must be installed horizontal. There must be neither an overlap nor a gap between the cartridges in the vertical. Test it with a print image over all heads.
The speed must be set optimum. The nozzles must be in one row by printing with A+B. This can be controlled with a loupe. There must be no shadow print be present.
The intensity must be set optimal by a printing with shaft encoder.

Instruction
Please enter the calibration value as follows:

Step	Procedure
1	Press arrow keys and set the required value.

Tab Head # Inputs

The inputs of the print system can have configured optional and customer-specific.

It can select between:
- Print direction
- Upside down
- Print pause
- Label selection
- Bulk System
- Shutter Print Head
- Reset ink level

Tab System # Device Setup

In the "Device Setup" menu, all adjustable device-specific setting options are displayed and can be changed.
The elements of the list can differ depending on the connected device.

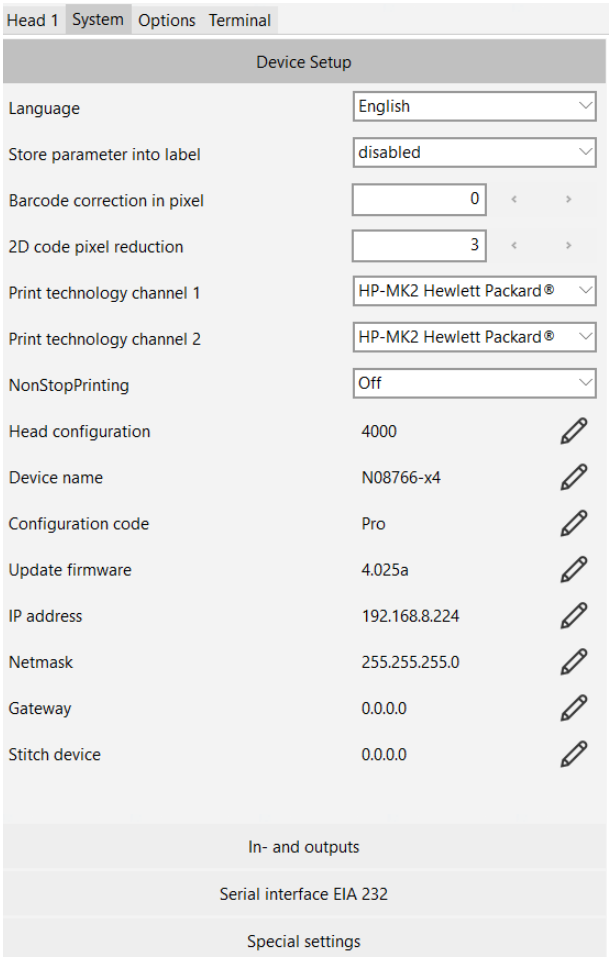


Fig. 31: System settings

CAUTION

These settings should only be changed by experienced users.

Incorrect settings may interfere with the function of the device.

NOTICE

All changes are immediately sent to the device and, if necessary, the menu is automatically updated, e.g. if the header configuration is changed.

Language

The **language** field lists all the installed user languages, in which the user interface of the print system can be displayed.

Instruction
Please set the language as follows:

Step	Procedure
1	Select the tab **System** in the submenu **Device Setup**.
2	Set the desired language in the dropdown menu **Language**

Store parameter into label

Following functions can select in the field **Store parameter into label**:

Disabled: The parameters, which are set in the system, are used, even if the print label parameter is saved.
Read only: The saved parameters of a print label are used.
Read and write: The changed parameters of the actual printed label can be saved.

NOTICE The X1JET can only read parameter, because parameter can't change and save with the X1JET.

Instruction
Please select Store parameter to label as follows:

Step	Procedure
1	Select the tab **System** in the submenu **Device Setup**.
2	Set the desired function in the dropdown menu **Store parameter into label**.

Barcode correction

This option provides the opportunity to improve the readability of a barcode element by widening or narrowing. If, for example, the runs heavily on a coarse fibrillate surface, the readability can be restored by a pixel-wise reduction of the line width.

Instruction
Please make a barcode correction as follows:

Step	Procedure
1	Select the **System** in the submenu **Device Setup**.
2	Press arrow keys and set the required **Barcode correction**.

Data matrix pixel reduction

This setting reduces the size of a 2D-code module pixel by pixel. The setting may be necessary when the ink blends strongly on the surface and the readability of the code is impaired. A reduction can optimize the readability.

Turn display

The display for TOP application can be turned through 180° by setting in the idesign8+ software.

NOTICE This function isn’t available in all print systems!

Print technology

The field **Print technology** listed all supported print technologies of the print system.

Instruction
Please select a print technology for each channel as follows:

Step	Procedure
1	Select the tab **System** in the submenu **Device setup.**
2	Set the desired technology in the dropdown menu **Print technology**.

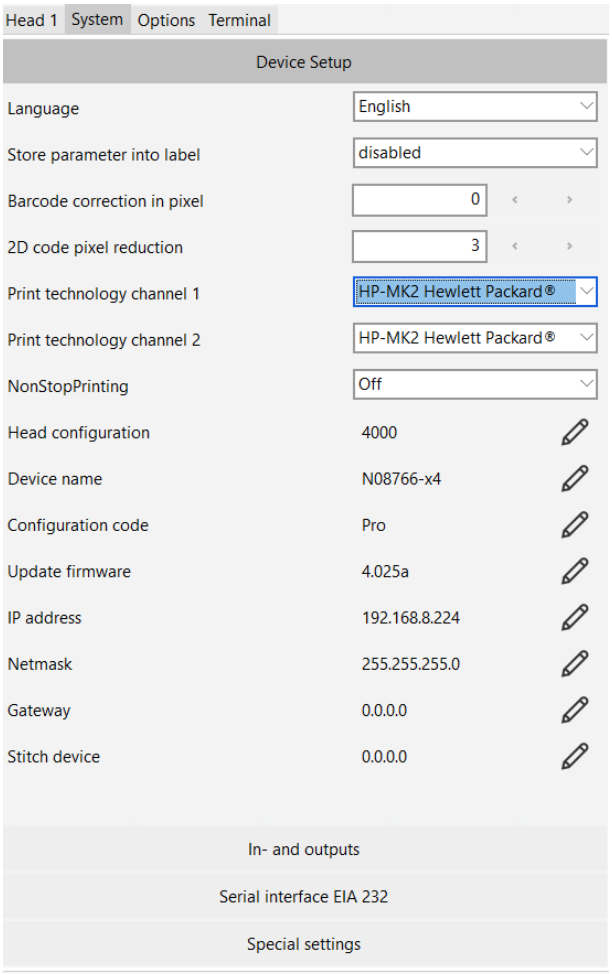


Fig. 32: Print Technology

It's mandatory to restart the system after changing the print head technology.

integra PP108 360/180 dpi und bicolor setting

Step	Procedure
1	Select the tab **System** in the submenu **Device setup** submenu.
2	Set the desired technology in the dropdown menu **Print technology**.

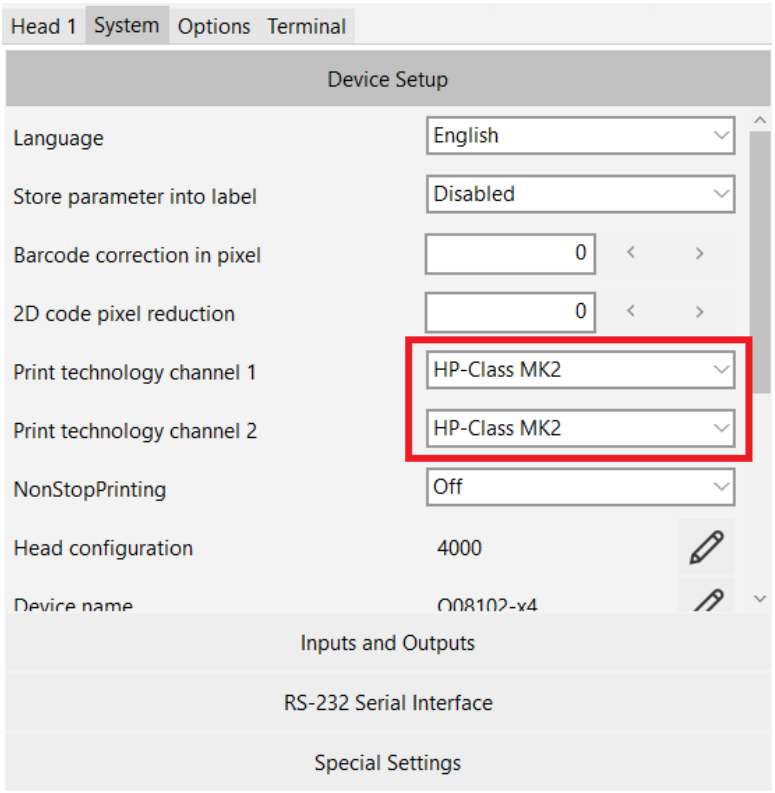


Fig. 33: Print head configuration

NonStopPrinting

In the field **NonStopPrinting** can be selected whether it should be print with a NonStopPrinting print head continuously without downtimes.

Instruction
Please select the NonStopPrinting function as follows:

Step	Procedure
1	Select the tab **System** in the submenu **Device Setup.**
2	Set the desired function in the dropdown menu **NonStopPrinting**.

NOTICE The function can be used for HP and LX print heads. A special print head is necessary.

HiSpeed

In the field HiSpeed can be selected whether the print system should print with HiSpeed or not.
HP print heads can reach a maximum speed of 180 m/min at 300x300 dpi, LX print heads reach a maximum speed of 240 m/min.

Instruction
Please select the HiSpeed function as follows:

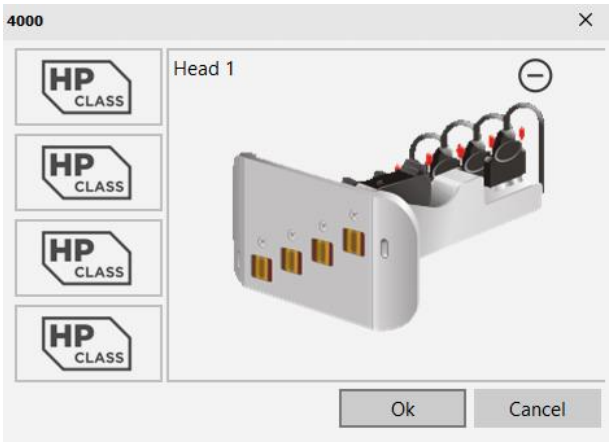
Step	Procedure
1	Select the tab **System** in the submenu **Device Setup.**
2	Set the desired function in the dropdown menu **HiSpeed**.

NOTICE The function can be used for HP and LX print heads. This function isn’t available in all print systems.

Head configuration

Instruction

Please change the Head configuration as follows:

Step	Procedure
1	Click on the icon in the column **Head configuration** to change this**.** ⇨ A dialog opens in which the new configuration can be set.
	The dialog is split in two columns:  Fig. 34: Head configuration Left column: Here are displayed all available print head connections with their print technologies for the system. *Right column:* The print head modules will be displayed graphically. The height of the print head modules covers the used print head connections in the left column.
2	Each print head module can adapt via the buttons ⊕ and ⊖. ⊕ add a new print head module to an unassigned print head connection. Or Enhanced an existing print head module by a print head connection. ⊖ deletes the last print head connection of the print head module. ***If the print head module has one print head connection only, the print head module will be deleted with a click on ⊖.*** ***The buttons ⊕ and ⊖ are available only when the system supports the underlying action.***
3	Confirm your selection with **OK**.

Device name

Instruction

Please change the Device name as follows:

Step	Procedure
1	Click on the icon in the column **Device Name:** to change the system name. ⇨ It opens a dialog where the new name will be asked.

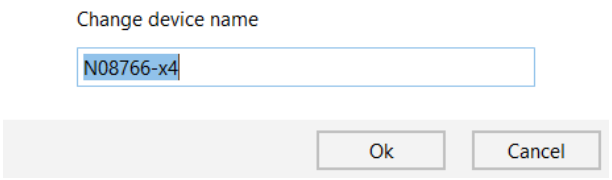


Fig. 35: Dialog to change the system name

2	Enter the new name in the text field and confirm your input with **OK**. ⇨ The system name will be changed in idesign8+.

NOTICE The possibility to change the name doesn't exist for virtual USB system.

Configuration code

Send new system configuration for

iJET, X-Series:

It's possible to change the system configuration for the iJET and X-Series, i.e. the setting if the controller is a Print, Basic, Advanced or Pro system.
This is possible via a configuration code. You'll get the configuration code from your local distributor with costs.

Instruction

Please change the system configuration as follows:

Step	Procedure
1	**Settings → System → Configuration code**
2	Click on the right icon in the line „configuration code“

Step	Procedure

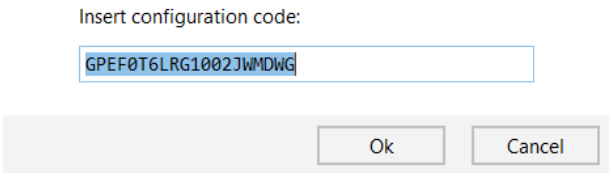


Fig. 36: Dialog: Activation code

3	Insert the activation code in the dialog.
4	Confirm the following dialog with **OK.** ⇨ The configuration is now send to the print system.
5	Remove the USB-stick with the X-Series data from the PC.
6	Connect the USB-stick to the X-Series and wait until the system restarts.

Firmware Update

WARNING

Data loss effected by update!

It can happen a data loss with an update of the system software.

Therefore:

– Perform a backup before every update (see: "Advanced settings").

Instruction

Please update a print system as follows:

Step	Procedure
1	To update a new print system, click on **System settings** in the menu Options.
2	Select the file card **System.**
3	Click in the line „firmware“ on the right icon to start the update process. ⇨ You will guided through the update process depending on the system.

iJET / X-Series USB Update (offline)

To make a USB offline update, please follow the manual below idesign8+ user management. Also refer to the operating instructions for the device

iJET / X-Series Online Update

NOTICE The online update for a print system is only possible with the latest firmware.

⚠CAUTION Don't disconnect the power supply voltage of the system and don't switch it off.

Instruction

Please select a new firmware as follows:

Step	Procedure
1	Select the desired firmware file in the file dialog. (file extension: *.IMG*) for the X4Jet and click on **Open.**

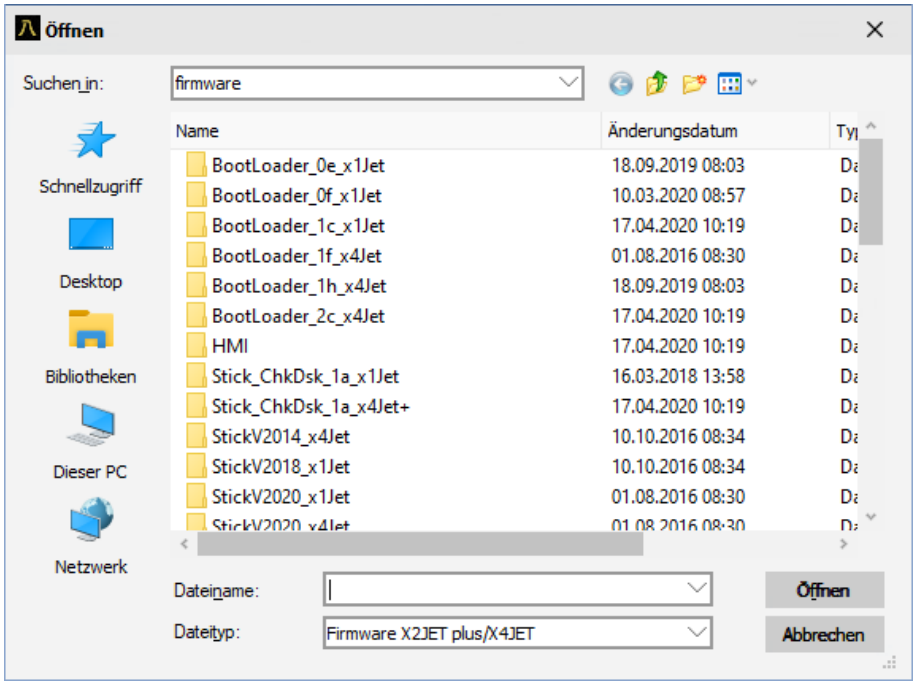


Fig. 37: Firmware selection

2	Use always the highest number when several firmware versions are available. ⇨ An information window opens which shows that the firmware will be sent to the system.

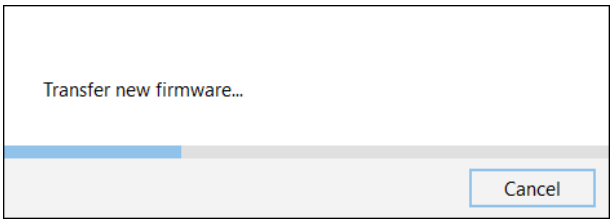


Fig. 38: Transfer Firmware update

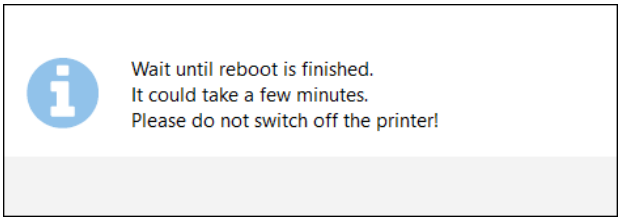


Fig. 39: Firmware update process

3	Concluding an information window opens and the system restarts.

Change IP-address

Instruction

Please change the IP address as follows:

Step	Procedure
1	Click on the  icon in the column **IP-address** to change the IP address**.** ⇨ It opens a dialog where the new IP-address can be entered.

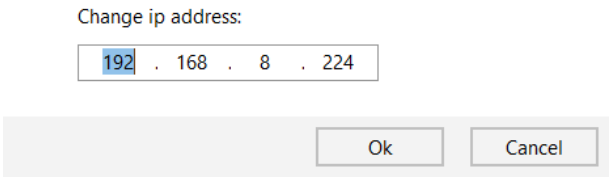


Fig. 40: Dialog for changing the IP address

2	Enter the new IP address in the entry mask and confirm the input with **OK**. ⇨ Following the IP address of the print system will be changed. If the system was already connected with idesign8+ by TCP/IP, the IP address will also be changed there, ⇨ If the system wasn't connected by TCP/IP, you will be asked if the system should be added by TCP/IP

Net mask / Gateway

Change the net mask / gateway address of the system with this function.

CAUTION Consult the system administrator for network settings. Network damages can be caused by incorrect settings..

Stitch device

With this function it is possible to connect several X1JET Stitches with each other.

NOTICE Only one PC can have access to the Stitch system. The systems can't address individually, because they exchange data among themselves.

NOTICE Please note that all systems are registered with different IP address.

Instruction
Please connect the system to one Stitch system as follows:

Step	Procedure
1	Click in the menu **Tools** on the submenu **General settings.**
2	Activate the **Stitch function.**

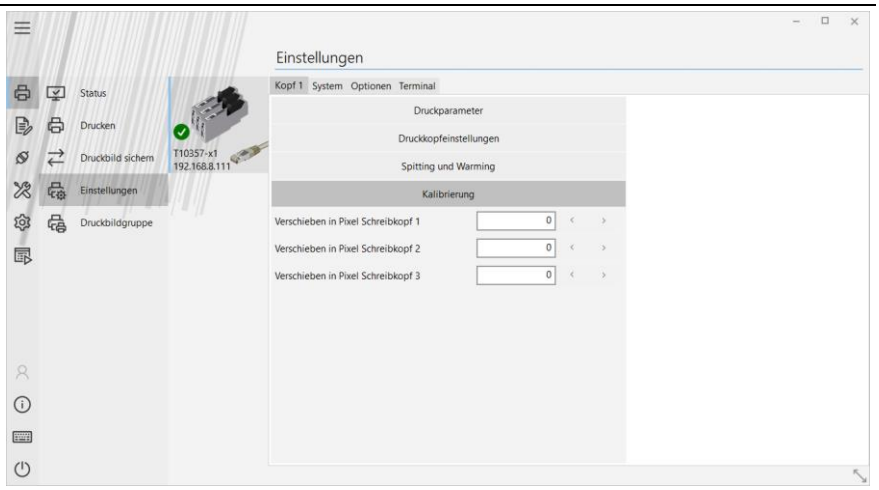


Fig. 41: Different IP addresses of stitch systems

3	To connect the first X1JET Stitch with the second select in the menu **Functions** → submenu **Settings** → tab **System** → **Device setup** → field **Stitch device** the IP address of the next system

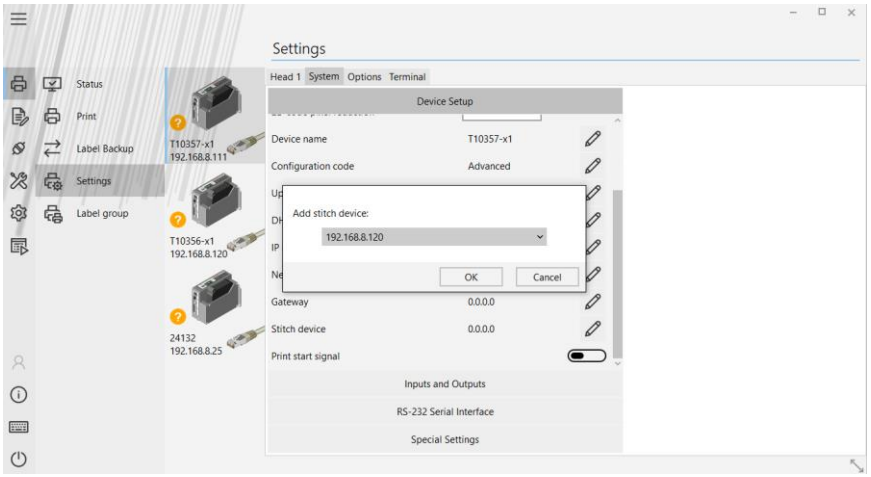
Step	Procedure
	

Fig. 42: Stitch configuration first module

4	Both heads restart and it will displayed the first head with the second in the system only

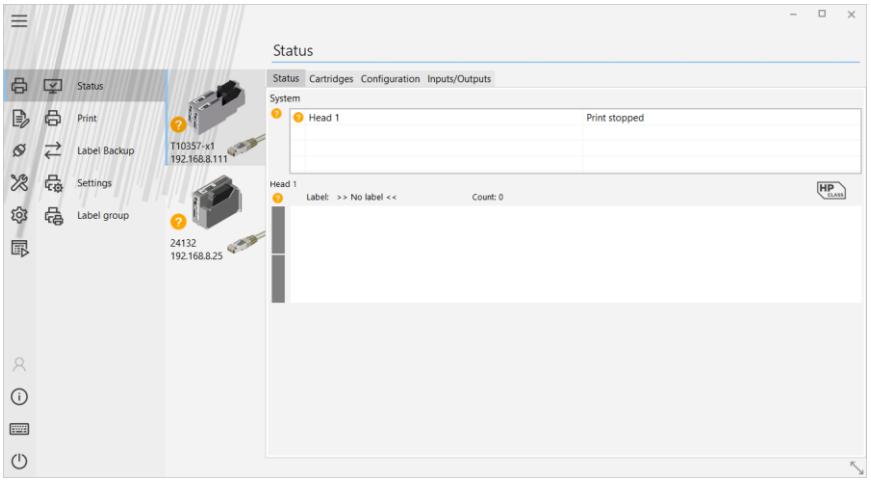


Fig. 43: Stitch configuration

5	Then connect another head to the second one. Repeat this procedure until the number of desired heads is reached. ⇨ The configuration of all connected heads is displayed in the tab **System.**

Step	Procedure

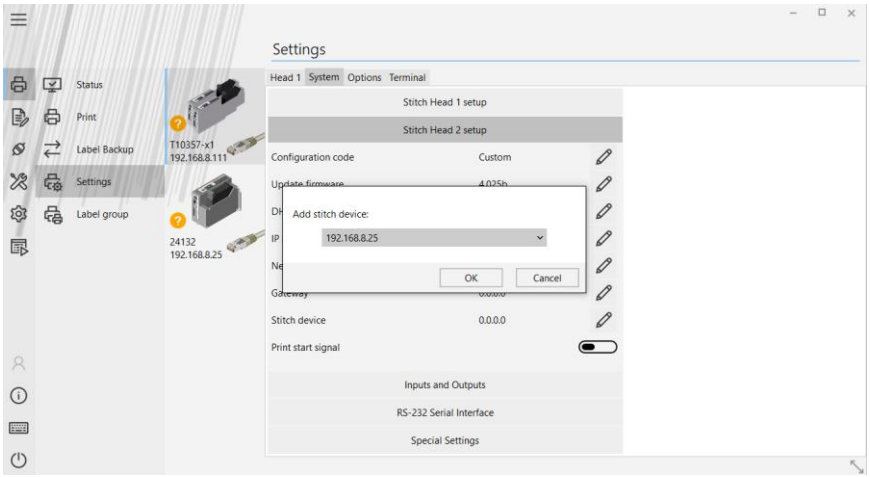


Fig. 44: Stitch configuration

6 Additional there is the possibility to calibrate the heads to get a vertical line. Click in the tab **Print Parameters** on **Calibration**.

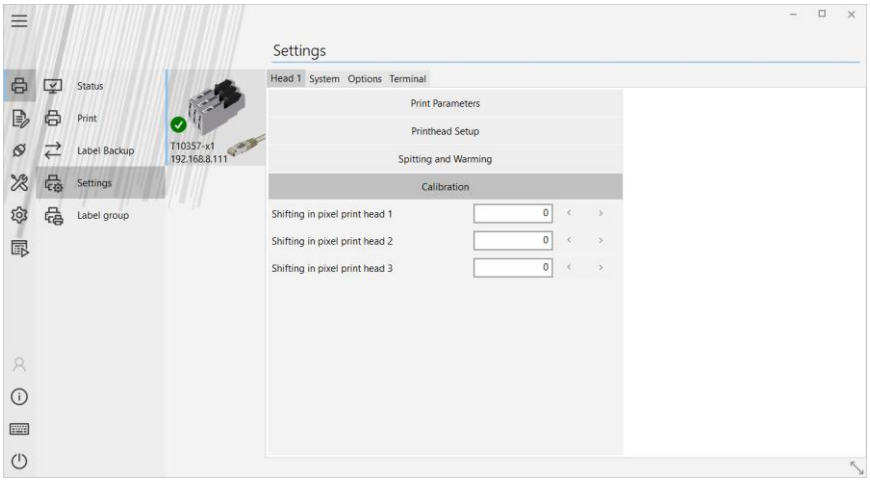


Fig. 45: Stitch system – cartridge calibration

7 The parameters of the Stitch system are displayed and can change for all heads at once in the tab **Print Parameters.**

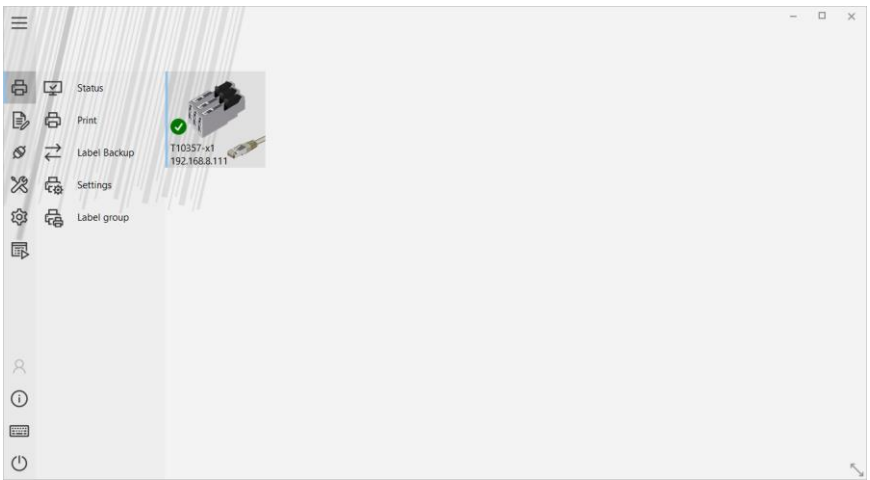


Fig. 46: Parameter of the Stitch system

Step	Procedure
8	To use the systems separately again, remove the Stitch connection. Therefore click on the  icon, a dialog window appears, and remove the connection. ⇨ The number of the Stitch device is 0.0.0.0 again.

NOTICE

First the system should be set up so that the pressure is 99% okay. Only then should the last millimeters be optimized with the calibration function.

Tab System # In- and Outputs

All connected in- and outputs of the system can be set with this function.

A variety of configurations are possible and so the connectors for output of status messages (OK, Warning, Error), cartridge level messages (5% low / empty), print ready and print pulse are possible to use. On the input side signals for heating, spitting, print direction, upside print, stop and text selection are possible.
The inputs are NPN inputs standard. You can switch to PNP with the idesign8 software, but this only applies to the X2 and X4 JET.

Instruction
Please set the in- and outputs as follows:

Step	Procedure
1	Click in the menu **Settings** on the submenu **System**. ⇨ The submenu **System** opens.
2	Click on the tab **In- and Outputs.**

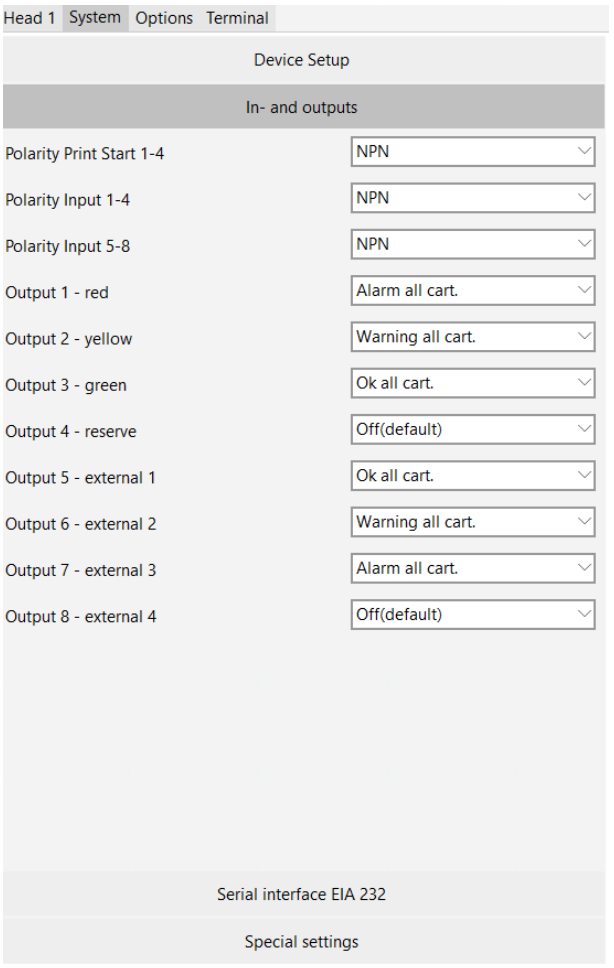


Fig. 47: *Input Output Configuration*

List of inputs

Off	Not used
Print direction	Reverse print direction (e.g. for moving unit)
Upside down	Turns the print image upside down 180°.
Print pause	Print pause as long as the input is active, with NSP: one pulse pauses the idle print head
Label Selection	External print image selection (!EXT01.00I to !EXT99.00I)
Bulk System(ZTV)	The status output of a ZTV can be connected in a defined way. ZTV only available for input 1 and 2 on head 1!
Shutter print head	Contact for opening the shutter print head
Reset ink level	Ink level reset – only for Non SmartCard Cartridges.
Purge X1 MX/XR	Only for X1 with Trident (MX) or Xaar (XR)
Counter reset Counter up Counter down	Contact for resetting the counter

List of Outputs

00 = Off	
01 = On	
02 = Warning + Alarm (all heads)	
03 = TZ Buffer Empty	In case of external control via TZ command and single print mode, the reception queue is empty.
04 = Shutter open	
10 = OK (all heads)	
11 = OK (Group 1)	Socket 1+2
12 = OK (Group 2)	Socket 3+4
13 = OK (head 1)	
14 = OK (head 2)	
15 = OK (head 3)	
16 = OK (head 4)	
20 = Warning (all heads)	
21 = Warning (Group 1)	
22 = Warning (Group 2)	
23 = Warning (head 1)	
24 = Warning (head 2)	
25 = Warning (head 3)	
26 = Warning (head 4)	
30 = Alarm (all heads)	
31 = Alarm (Group 1)	
32 = Alarm (Group 2)	
33 = Alarm (head 1)	
34 = Alarm (head 2)	
35 = Alarm (head 3)	
36 = Alarm (head 4)	
40 = Low ink (all heads)	
41 = Low ink (Group 1)	
42 = Low ink (Group 2)	
43 = Low ink (head 1)	
44 = Low ink (head 2)	

45 = Low ink (head 3)
46 = Low ink (head 4)
47 = Barcode exists (head 1)
48 = Barcode exists (head 2)
50 = Ink empty (all heads)
51 = Ink empty (Group 1)
52 = Ink empty (Group 2)
53 = Ink empty (head 1)
54 = Ink empty (head 2)
55 = Ink empty (head 3)
56 = Ink empty (head 4)
57 = Barcode exists (head 3)
58 = Barcode exists (head 4)
60 = Print ready (all heads) (so long as Busy is on)
61 = Print ready (Group 1)
62 = Print ready (Group 2)
63 = Print ready (head 1)
64 = Print ready (head 2)
65 = Print ready (head 3)
66 = Print ready (head 4)
70 = OK *2(all heads)
71 = OK *2(channel 1)
72 = OK *2(channel 2)
73 = OK *2(head 1)
74 = OK *2(head 2)
75 = OK *2(head3)
76 = OK *2(head4)
80 = OK *3(all heads)
81 = OK *3(channel 1)
82 = OK *3(channel 2)
83 = OK *3(head1)
84 = OK *3(head2)
85 = OK *3(head3)
86 = OK *3(head4)

OK *2: Ok if cartridge exists and recognized, no Alarm, label retrieved, ink level not under 0%.
OK *3: Ok if cartridge exists and recognized, no Alarm also if **not** label retrieved, ink level not under 0%.

BCD Selecting label for print

To configure a print image selection and assignment with input wiring of e.g. a PLC, proceed as follows.

NOTICE This function is available for the X-Series and integra One devices.

1. Define inputs - Depending on the number of print images to be selected, the corresponding number of inputs must be defined. Up to 99 different print images can be selected.

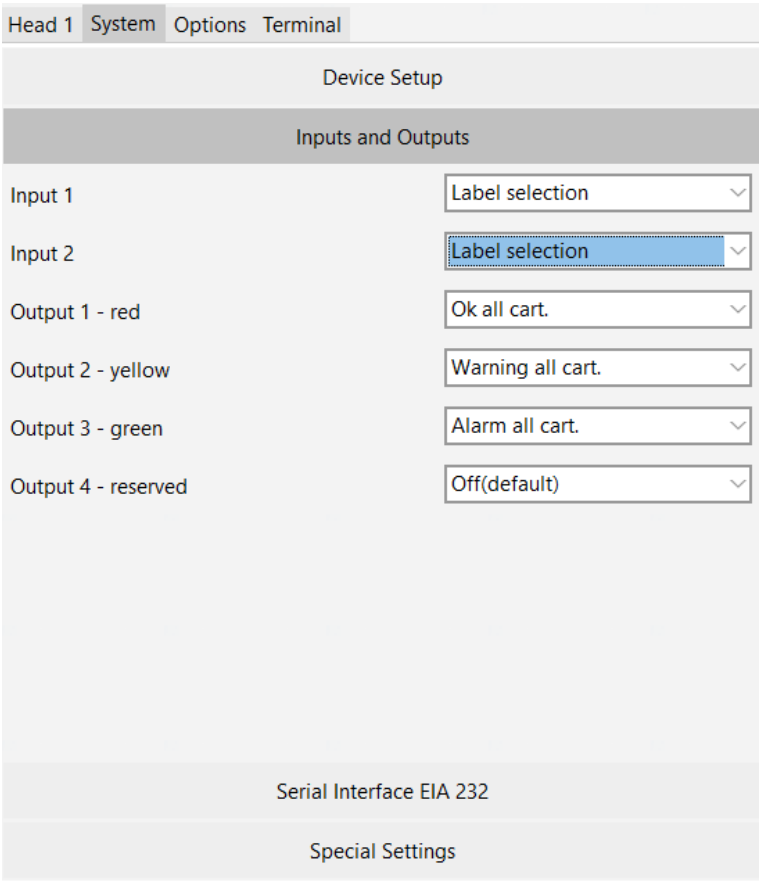


Fig. 48: Configure Inputs for label selection

2. In order to be able to select a print image via the input signals, these print images must have a special name format.

   e.g. !EXT01.00I
   !EXT → identifier
   01 → number of print image
   .00I → technology depending file extension (in this case HP/LX)

One print head of a printer module Series has 8 input signals. A user can configure those signals using the idesign software.
Up to 5 input signals can be used for label selection.
That makes a total of 32 different labels, which can be selected by input signals.
Each of the input signals can be understood like a binary numeric digit in a parallel bus. The table below provides an overview on how the signals should be set in order to select a given label.

Input signals					**Selected Text**
1	***2***	***3***	***4***	***5***	
0	0	0	0	0	!EXT00.00I
1	0	0	0	0	!EXT01.00I
0	1	0	0	0	!EXT02.00I
1	1	0	0	0	!EXT03.00I
0	0	1	0	0	!EXT04.00I

Tab System # Serial Interface EIA232

Instruction

Please configure the serial interface EIA232 as follows:

Step	Procedure
1	Click in the menu **Settings** on the submenu **System**. ⇨The submenu **System** opens.
2	Click on the tab **Serial Interface EIA232**.
3	Select baud rate, data bits, parity and number of stop bits**.**

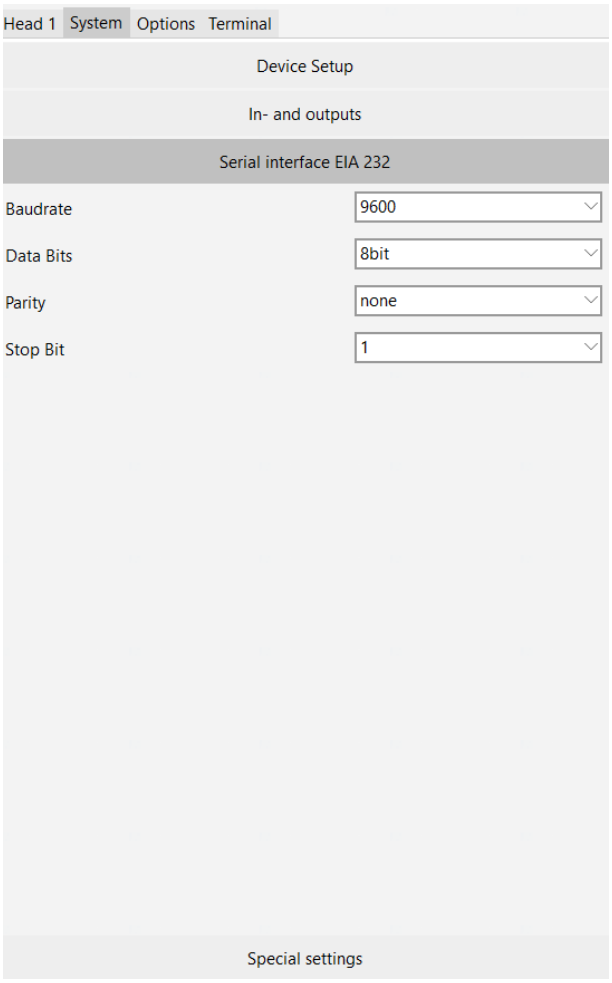


Fig. 49: Serial interface EIA232

Tab System # Special settings

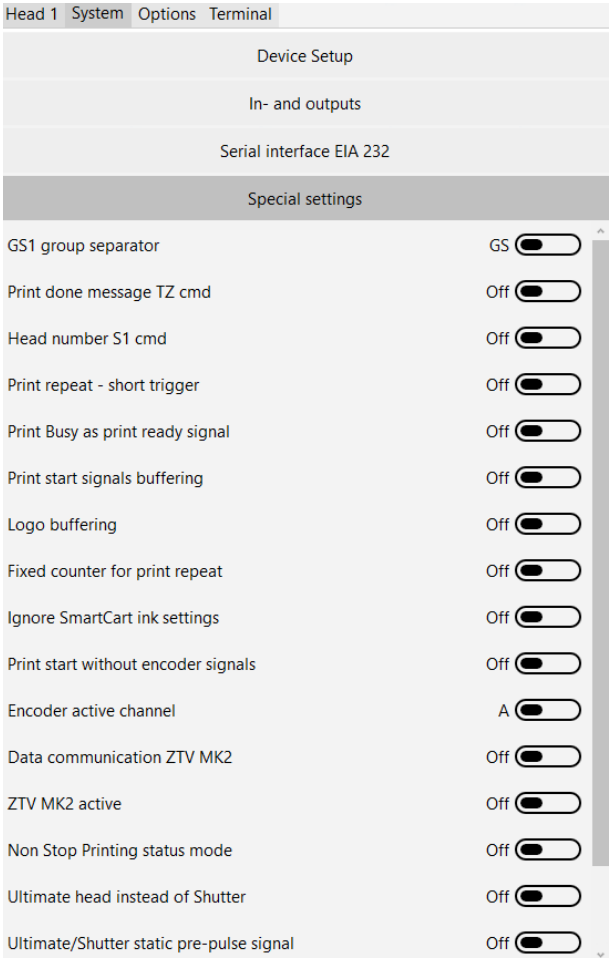


Fig. 50: Special settings

GS1 Group Separator

This option can be used for changing the group separator for a GS1 Data matrix and an EAN 128 code. The GS sign is set by default.

„Print done“ – message TZ command

By default, comes the confirmation of the TZ command in the single print mode during the print start. With this option the confirmation can be timed to the after print event. See also „TZ command“ in the Interface description.

Head number – Response after S1 command

This option generates a response of the preselected head number after sending the S1 command. e.g. K1 at the beginning of the S1 response.

Standby Function for X1 Jet

The Standby function for the X1JET can switch on when the On/Off button is pressed longer than 10 seconds. Standard the Standby function is switched off for new systems.

Print repeat short trigger

The default behavior is the print repetition cycle running as long as the trigger signal is present. If this option is “On”, a short impulse (20ms) is enough to start the complete print repetition cycle.

„Print busy“ signal as „Print ready“ signal

The „Print busy“ signal, which is present from print start to print end, can switched to a short impulse at the print end.

Print Start signals buffering

This feature allows to cache the print start signal is cached and executed a further print, even when the print start signal is activated during printing.

Logo Buffering (during the system start)

Enable for loading all Logos on starting up into the RAM buffer for fast switching logos very fast for the print buffer. Maximum size is 128kb per logo file. Max. size is 5MB.

Fixed counter for print repeat

The counter field in a print message will count only once within a complete repletion cycle. E.g. 111,222,333

Ignore SmartCard settings

Set to “On” in order to disable the reading of the ink parameters from the cartridge (MK2). The internal ink table will be used.

Print start X1 mobile

Special mode for accepting a print start signal also if no encoder signals are available yet.

X1JET HMI

It has to set to “On” if the external control box with user interface (HMI) should be connected.

Handhold multi-line

For multi-line printing in the X1 handhold, this option must be enabled. Multi-line means in this context that several printed images (max. 8) are printed one after the other to print more than 12mm high with several printing cycles.

NOTICE

Please check if the latest firmware version is loaded in the device (component Download idesign8+). This is the only way to ensure that all the special functions described are available. If a setting is only available for a specific version or printer type, it may be hidden

Tab Options - Function buttons

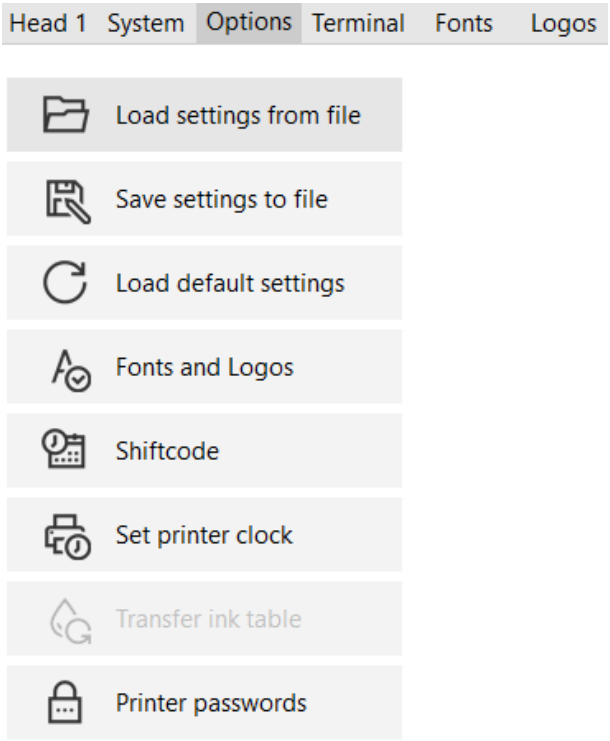


Fig. 51: Function buttons

Load settings from file

Instruction

Please load settings from file as follows:

Step	Procedure
1	Click the Open button to load an existing configuration.
2	Select the desired configuration file in the file dialog and confirm with Open.
3	Finally, click the Send button to transfer the loaded configuration to the printer.

NOTICE

The saved settings can also be linked to a print image. See Editor "Description of functions" page 91 “Link to an existing parameter set.”

Save settings to file

The print head and system settings can be saved on the PC. These can be used for a later system restore or linked to a print image to change system settings depending on the print image.

Instruction
Please save settings to file as follows:

Step	Procedure
1	Click the Save button to save the settings.
2	Enter a file name in the subsequent dialog.
3	Finally click on Save. ⇨ The settings are saved under the file name you have chosen

Load default settings

To reset all settings to factory defaults, press Default values - Header configuration, ink type and interface values are not changed

Fonts and logos

To enable the printer to correctly interpret and display the texts and graphics used in the print images, the respective fonts and logos must be transferred to the printer's memory.
Standard the required fonts and logos for printing will be sent to the system automatically when a print image with fonts and logos will be create in the idesign8+ editor.
There is the possibility to send the files manually.

NOTICE Selection of the fonts and logos depends on the connected printer.

Send fonts

Instruction

Please send / delete fonts as follows:

Step	Procedure
1	Select the "System settings" button in the "Functions" register.

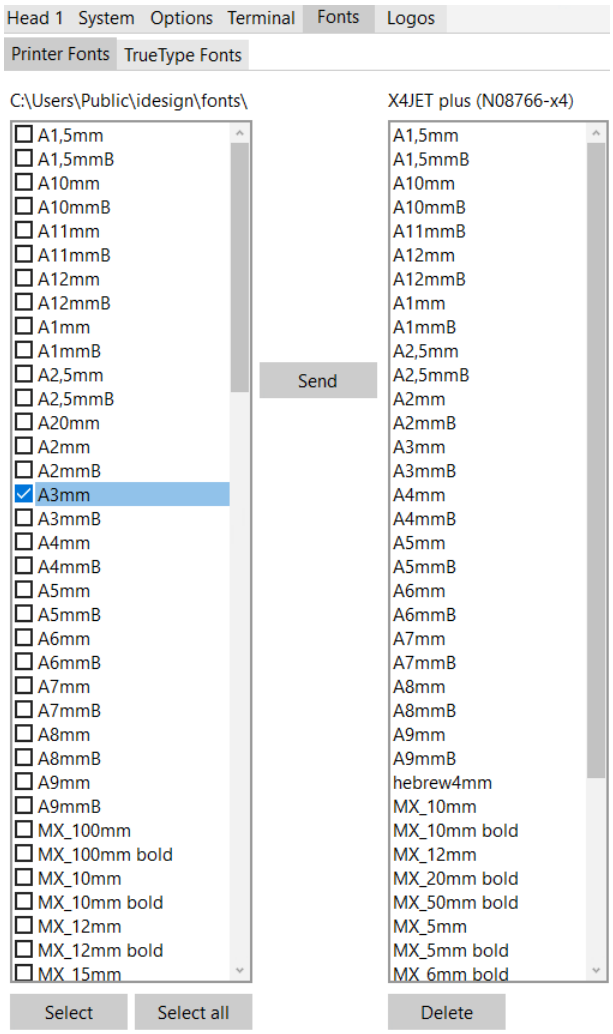


Fig. 52:Send fonts

Step	Procedure
2	Select the “Font type” tab.
3	In the list displayed on the left, tick (simply click on) all the fonts to be sent OR: Click the **Select all** button to select all fonts that are not in the print system.
4	Click the **Send** button. ⇨ The selected fonts are sent to the printer and are shown in the field
5	To delete a font in the printer’s memory, select the font in the field and click the “Delete” button.

Send logos

Select in the Function menu the System settings tab to send a logo to the selected system manually.

Instruction

Please send / delete logos as follows:

Step	Procedure
1	Click on the Logos tab.
2	To select the logos, click (tick) the boxes in the list displayed on the left. Or: Click the Select all button.

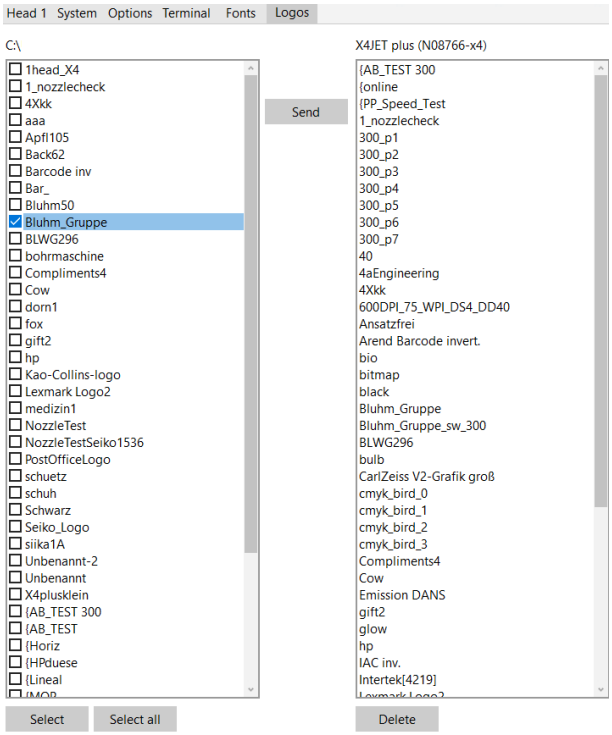


Fig. 53: Send logos

3	Click the Send button. ⇨ The selected logos are sent to the printer and are shown in the list on the right. ⇨ A bar graph shows the sending progress.
4	To delete a logo in the printer's memory, select the logo in the field.
5	Click the Delete button or (to delete all logos) the Delete all button

Shift code

Shift codes are short strings (1-4 signs), which are active, dependent on the actually time of day, and can integrate in print layouts.
The shift code can be print as date field with the placeholder „t“ per sign in the layout.

Instruction

Please activate shift codes as follows:

Step	Procedure
1	Activate the corresponding shift code line by clicking the checkbox to the left.

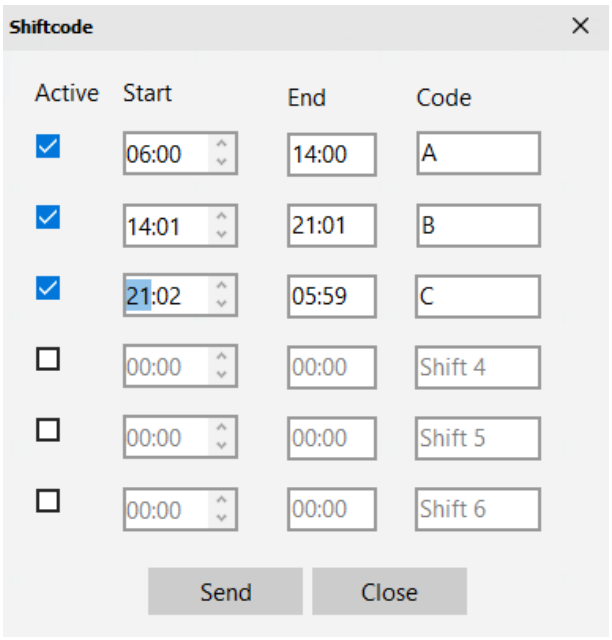


Fig. 54: Shift code settings

2	Following set the start time of the shift. (The end time is set by the software automatically)
3	Now type below code the desired marking.
4	Closing click **send**. ⇨ The configured shift codes will be send to the print system

NOTICE The shift code settings are only possible with the X-Series and integra One.

Set date/clock of the system

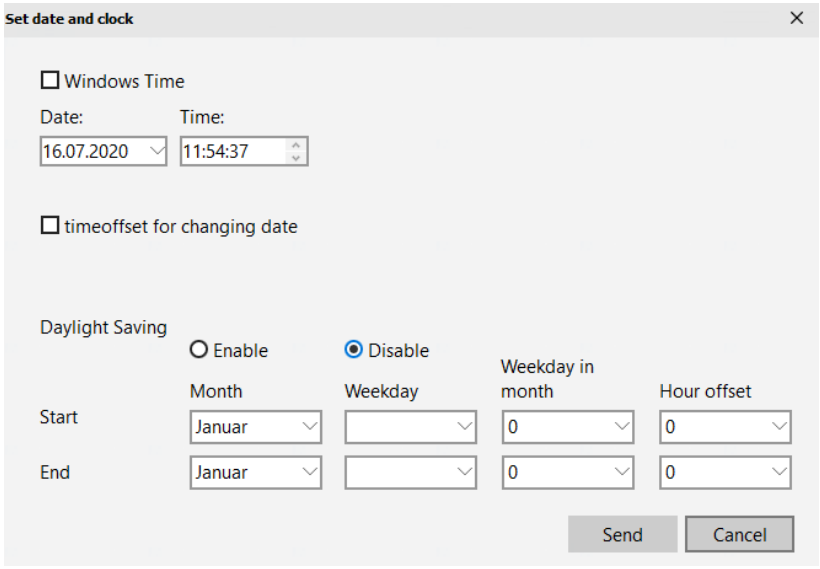


Fig. 55: Date/time dialog

Instruction

Please activate date / time as follows:
You have following setting options:

Synchronization with Windows time (standard)

Step	Procedure
1	Activate the checkbox **„Windows time“** to synchronize the date and time of the control system with the date and time of the PC.
2	Click on **Send** to send the actual time to the control system and close the dialog.

Manual time setting

Step	Procedure
1	Deactivate the checkbox „Windows time“ to set the date and clock manually. ⇨ The fields to set date and time will be activated.
2	Set the desired date and the desired clock in the corresponding fields.
3	Click on Send and the values will be send to the print system and the dialog closed.

Date offset

The date changes at midnight (00:00 o'clock) exactly. It's possible to set the printed date +/- 24h in the label with idesign8+. I.e. if the date should change in the print image with the change of shift at 2 o'clock.

Step	Procedure
1	Activate the checkbox „Time offset for changing date". The fields to set date and time will be activated.
2	Set the desired deviation.
3	Click on send to send the values to the print system and to close the dialog.

NOTICE The MANUALLY time adjustment and date offset is only possible with the X-Series and integra One.

Summertime

Activate / Deactivate — Switching on and off

Start-/ end time — Month/ set weekday
Day of the week in the month
Time Offset

i.e.	Month	: April
	Weekday	: Wednesday
	Day of the week in the month	: 2
	Time Offset	: 6

The switchover takes place in April on the second Wednesday at 6 a.m. The switch-off time is defined in the same way.

Printer Passwords - User management on the systems

The printing systems have an integrated user management, if a user interface is available

The Markoprint systems have, like idesign8+, an integrated user management. idesign8+ offers therefore the possibility to manage the user on the systems. The user management on the systems offers two characteristics.

- To create, change and delete user.
- To change access levels on separate system menus.

Features
The user management for systems has some features that differ from the user management in idesign8+.

1. Max. 12 additional users can be created in the system.
2. Unblocking or blocking of separate menus in the system works only if the system is controlled via TCP/IP. This function isn't available if the system is connected via USB or serial.
3. Standard is one user on each system: User „Free“ has access level 9. To use the user management wise, the user „Free“ (standard user) must have an access level less than

NOTICE User management is only available on printers with at least upgrade level "Pro". Otherwise the button is deactivated .

Setting up the user management of a printer with user interface

Select the device on which you want to change users or access levels and click on Settings. In the "Options" tab you will find the button "Printer Passwords".

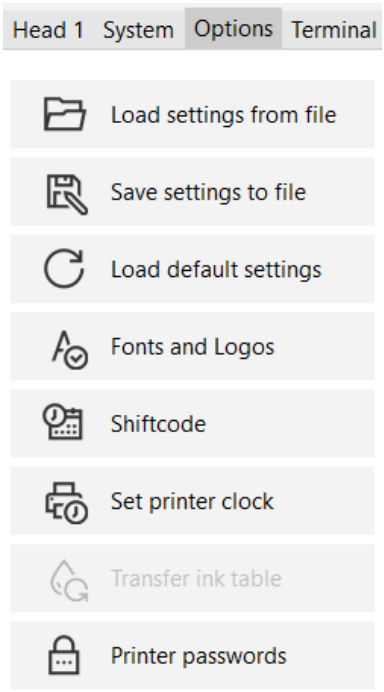


Fig. 56: Printer passwords

The "Passwords" tab then appears.

Block standard (Free) user

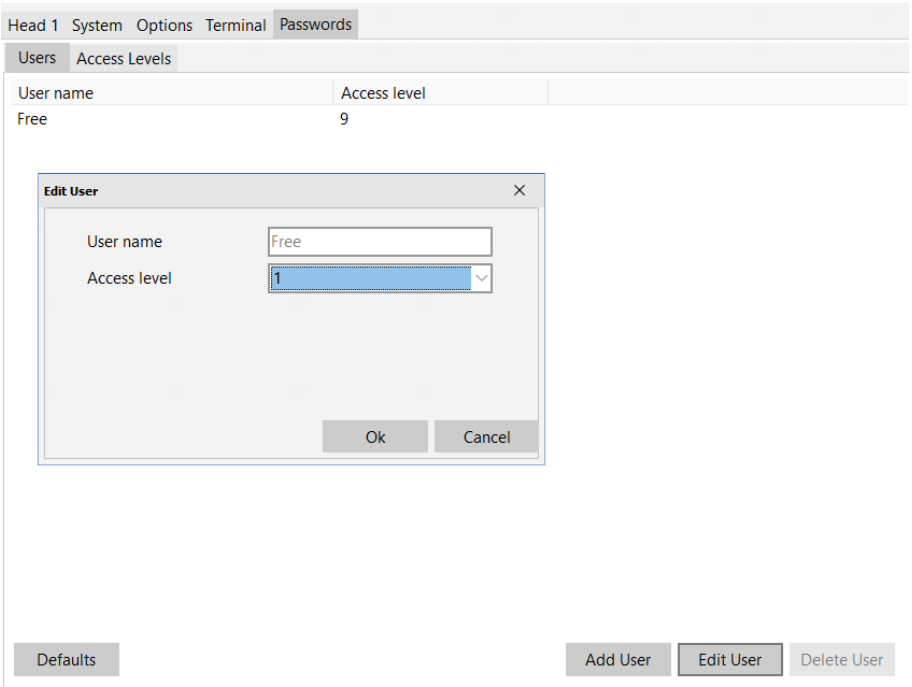


Fig. 57: Edit user

To reach that users can register on a system, the rights of the standard user „Free“ must change. Select the user “Free” and click on the button **Edit User**. Select another authority than 9 and click on OK.
With Level 1 all menus are blocked.

Add user

Instruction
Please add user as follows:

Step	Procedure
1	Click the button **Add User**.
2	Enter a user name, the access level and password in the sub-window.

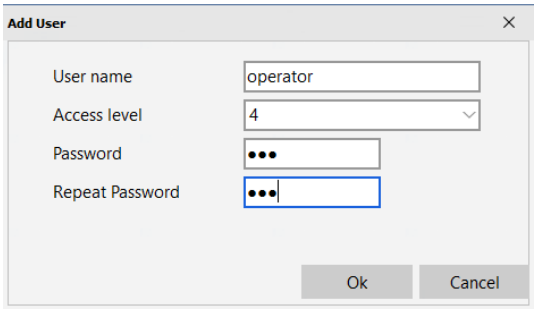


Fig. 58:Add user

3	Confirm with **OK.**

Changing a user's access level

Instruction
Please change access level of a user as follows:

Step	Procedure
1	Select the user from the list.
2	Click on **Edit User**.
3	Select the new access level of the user in the dialog.
4	Confirm with **OK.**

Delete user

Instruction
Please delete user as follows:

Step	Procedure
1	Select the user from the list.
2	Click on **Delete User**.
3	Confirm with **OK.**

Access levels for menus

Instruction
Please select access levels for menus as follows:

Step	Procedure
1	Start idesign8+ and register as administrator to change the access authorization for a menu of the system.
2	Select the system whose authorization you want to change.

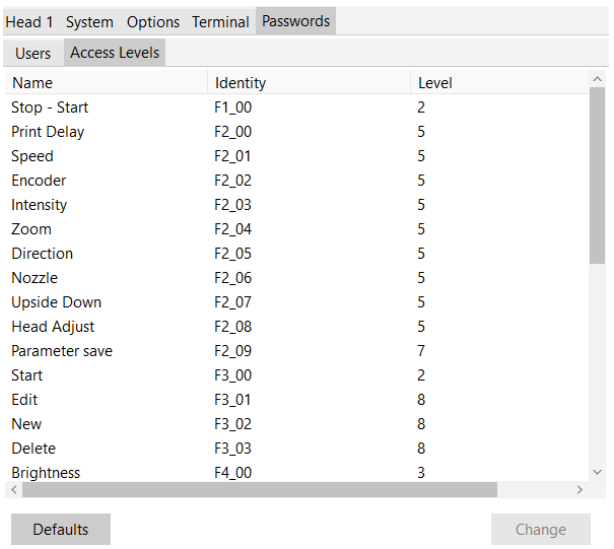


Fig. 59: Access levels for menus

Step	Procedure
3	Click on **Settings** in the main menu and select the tab **Device Users**. Now select the tab **Access Levels.**

Change the access level for a menu

Instruction
Please change access levels for a menu as follows:

Step	Procedure
1	Select the menu you want to change.
2	Click on **Change**.
3	Select the new access level for this menu in the dialog**.**

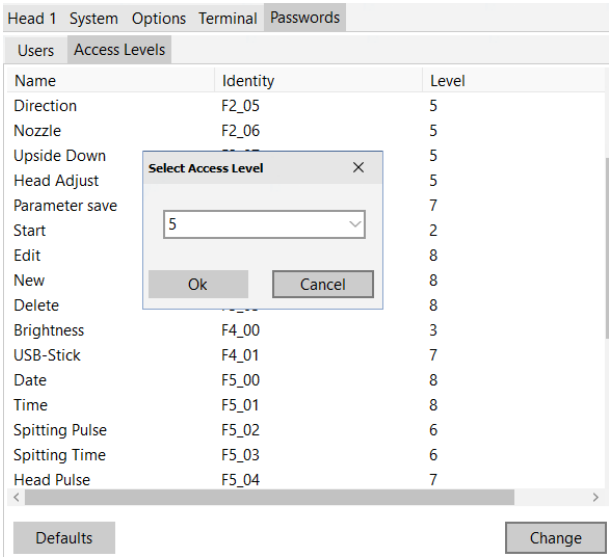


Fig. 60: Change access levels

4	Confirm with **OK.**
5	Restart the system after loading the new access levels on the system. The changes are effective now. ⇨ Therefore, idesign8+ shows a small dialog. You can also resign an immediate restart if you click on Cancel.

Operation iJET / X4JET

A password was assigned, i.e. a password is required for the parameter to enter the menu: „password level 4“.
Now a password of a user must be entered, who has the rights for level 4 or higher.
If an incorrect password is entered or there is no permission, the menu doesn’t open.
After 5 minutes without using it is logged out automatically.
If you want to logout before, press the iLogik button in the status for 3 seconds. It appears “Locked!” on the display.

Operation X2JET plus / X4JET plus

A password was assigned, i.e. a password is required for the parameter to enter the menu: „password level 4“.
Now a password of a user must be entered, who has the rights for level 4 or higher.
If an incorrect password is entered or there is no permission, the menu doesn’t open.
After 5 minutes without using it is logged out automatically.
If you want to logout before, press on the info button in the main screen shortly.

Tab Terminal

A direct communication with the coding systems can be done by the terminal. The commands are sent to the system by an existing connection. The answer of the system is shown in the lower window.

⚠CAUTION	An incorrect use of the terminal can result data loss or faults of the system.

⚠CAUTION	There is no checking of the correct notation of the command by idesign8+.

Syntax

The terminal is so designed that the used control characters will be translate in their byte code before it will be send to the print system.

The control characters will be convert in following syntax for a better write and read ability:
i.e. <ESC>*<CR> consists of 3 bytes: decimal. 27, 42, 13

Individual lines can be disabled by setting a // prefixed
// <ESC>*<CR>

Following signs are interpreting

1	<SOH>
2	<STX>
3	<ETX>
4	<EOT>
6	<ACK>
9	<TAB>
13	<CR>
10	<LF>
14	<SO>
21	<NAK>
27	<ESC>
127	<DEL>

Input of Hex codes
It can also use hexodes in following syntax:
i.e.: <0x1B>*<0x0D>

Sent and received control characters are highlighted in red in the communication window.

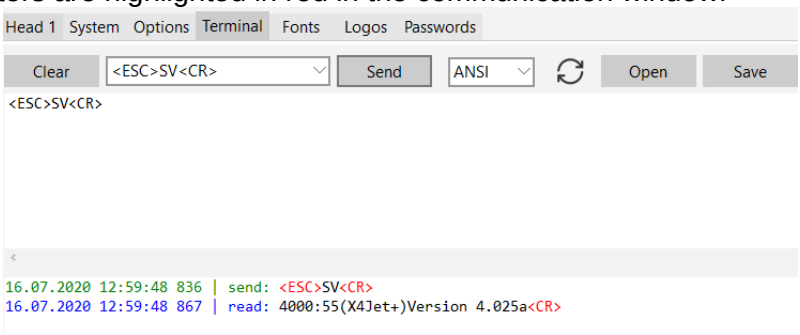


Fig. 61: Terminal window

Send interval

If one or more commands should send continuously, it can start with the icon . The interval length can have specified in ms.

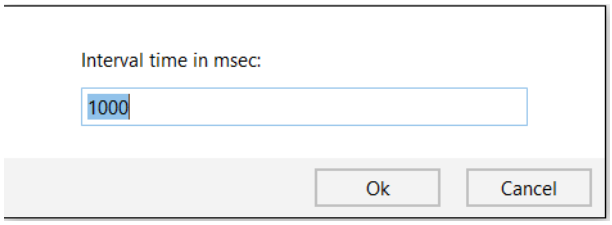


Fig. 62: Send interval

Send command

Instruction

Please send command as follows:

Step	Procedure
1	Type the desired command in the command window.
2	Click on **Send**.

NOTICE The terminal allows the sending of separate asci signs. This must be specified in form **<0x01>** *(for* <SOH>) in hexadecimal spelling.

NOTICE The commands will be send to the coding systems. The answer of the system is shown in the lower window .

Use command templates

Instruction

Please use command templates as follows:

Step	Procedure
1	Select the desired template in the upper **drop-down** menu. ⇨ The included command is added in the upper terminal window. **Lines, which begins with „//“ are comments and are not send.**
2	Click on **Send**. ⇨ The commands will be send to the coding systems. The answer of the system is shown in the lower window.

NOTICE With sleep 500 the sending between the lines can be delayed. The specification 500 can be changed and specifies the milliseconds.

NOTICE The commands are transmitted to the printing device. The printer's response appears in the lower window.

Load commands

Instruction

Please load commands as follows:

Step	Procedure
1	To load already saved commands click on **Open.**
2	Browse by the file dialog to the desired file. **The file extension for template files is .ast.**
3	**Open** loads the data content of the file in the upper terminal window
4	Click on **Send** to send the commands to the coding system. ⇨ The file „Interface Commands.ast“ is in the list. Here are prepared all commands of the iJET / X4JET with a short description.

Save commands

Instruction

Please save commands as follows:

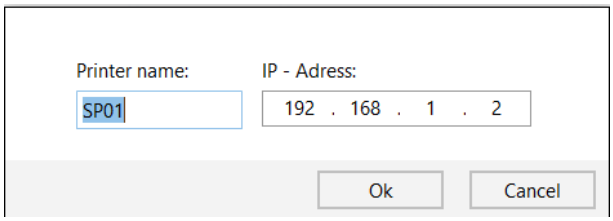
Step	Procedure
1	Click on **Save** to save the currently shown commands in the upper terminal window**.**
2	Select the file dialog, a name and a storage location and confirm with Save.

5. Connections

Add System

Instruction

Please add a system as follows:

Step	Procedure
1	Click on the Add system button in the Connections register.
	 Fig. 63: Add system
2	Now enter a unique name and IP address of the new device.

NOTICE

Manual addition of connections is only required for Ethernet connections. USB connections are detected and shown automatically. Serial connections must be searched for manually using **Search at Com Ports**.

Search in network

Search for Markoprint print systems in all available networks and display of these in idesign8+ automatically.

NOTICE

All connections will be saved automatic. They can give a name or can be deleted again.

Search at com ports

idesign8+ interrogate the known serial COM-Ports one after another to build up a serial communication to a coding system. If the software finds a coding system, this one will be linked to idesign8+ and can used afterwards.

Instruction
Please add a system to a serial port as follows:

Step	Procedure
1	Select **Search at Com Ports**. ⇨ A status window opens where the search for system is shown. ⇨ If a system will be found, it is added to the software and is shown as system symbol.

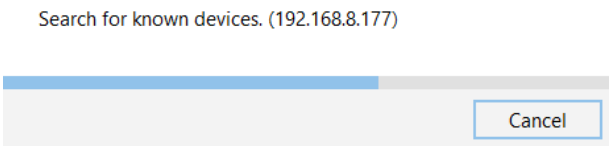


Fig. 64: Search of printers at COM-Ports

NOTICE

The connection persists until the finish of idesign8+. The connection is rejecting by closing idesign8+. If you want to retain the connection please use the **Save connection** function.

Save USB connection

Instruction
Please save a USB connection as follows:

Step	Procedure
1	Select a device in the system tool bar.
2	Click the **Save** button in the **Connection** tab.
3	Enter a name for the device and confirm it with **OK.** ⇨ The selected connection is saved and is now also available when the USB stick is plugged in again.

NOTICE

Saving is only available for USB stick connections to explicitly name them. All other connection types are automatically saved under their serial number.

Delete connection

Instruction
Please delete connection as follows:

Step	Procedure
1	Select a system in the system tool bar.
2	Select in the **Connection** tab the **Delete connection** button**.**

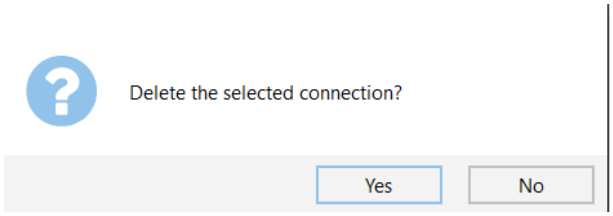


Fig. 65: Delete connection dialog

3	Confirm the shown dialog with **OK** ⇨ The connection to the system will be deleted. The system symbol in the system tool bar is removed.

System server

The idesign8+ system server organizes the connection and communication to the systems in the background.
The server is started by default with idesign8+, but can be deactivated and reactivated for maintenance and diagnostic purposes.

Stop Server

Instruction
Please stop the server as follows:

Step	Procedure
1	Click in the **Connection** tab the **Stop Server** button. ⇨ After shutting down the idesign8+ server, all printer icons are removed.

NOTICE

The Stop Server button can only be selected when the server is running, i.e. when the gears in the status bar are rotating.

Start Server

Instruction
Please start the server as follows:

Step	Procedure
1	Click in the **Connection** tab the **Start Server** button. ⇨ After a successful start of the idesign8+ server, all stored connections are displayed again with their current status.

NOTICE

The Start Server button can only be selected if the server is not running, i.e. the gears in the status bar do not rotate.

Interface logging

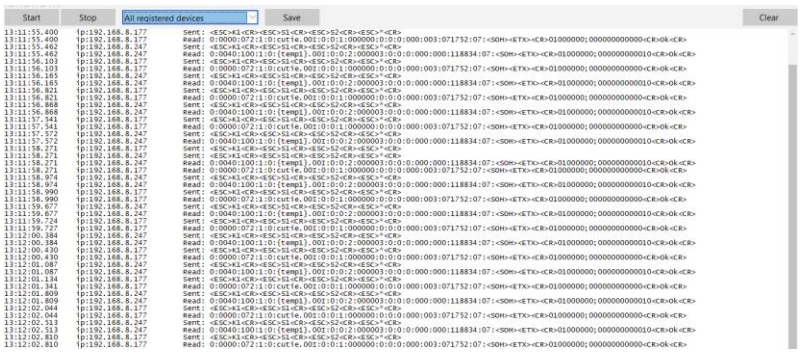


Fig. 66: Interface Logging

The messages, which are generated from idesign8+ and the commands, which are send from idesign8+ to the system will be shown in real time and saved in the Log files menu.

Start

To start the real time logging,
– click on the **Start logging** button.
⇨ The generated system messages of idesign8+ are shown in the upper window.

Stop

To deactivate the logging,
– click on the **Stop logging** button.

Delete screen

To delete the logo screen,
– click on the **Delete** button.

Save

To save the system messages of idesign8+ in a file automatically,
– click on the **Start logging** button.

Select a folder and a file name for the log file and confirm with **Save**.

NOTICE

The log file is saved in the folder „idesign8+/Log/“ standard.

The standard extension for log files is „.txt“

Select one system or all systems

Select the respective system with the help of the IP address or the name or all systems will be logged.

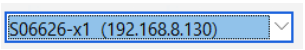


Fig. 67: System selection

Virtual systems on a USB-Stick

idesign8+ offers the possibility to connect virtual systems via a USB-stick. That means, all characteristics and data at the interface are deposit in a special subdirectory. The required directory structure can be created by connecting a USB-stick to a system.
If no system is available, idesign8+ provide virtual systems in the folder C:\User\Public\idesign8+\markoprint. Therefore, the complete folder markoprint will be copied in the main directory of a USB-stick. The folder markoprint includes images of all current system types. Not used systems can be deleted by removing the subdirectories. The virtual systems will be inserted in idesign8+ and will be available for all system-dependent functions by disconnecting and connecting the USB-stick.
This function is especially useful when no data connection is available. All operations, like print start, label backup or also parameter settings can be done on a virtual system to realize the operations by connect the USB-stick on a system.

Fig. 68: *virtual USB – Stick print system*

NOTICE

All system-depending functions, also without a connection to the system, can be realized with the assistance of the virtual system function.

6. Layout

Description of functions

The Editor is used to create and administrate labels for transfer to one or more printers.
Print images are a combination of text, graphics, barcodes and functional elements (e.g. counters and variables).
The print images can also be created from elements in a database.

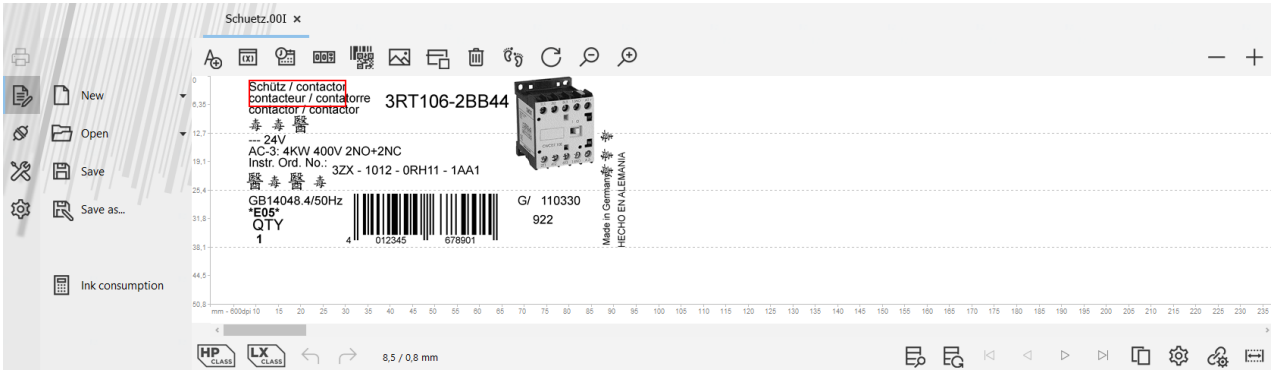
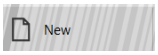
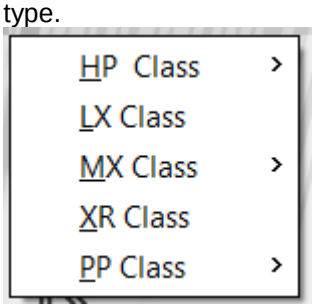
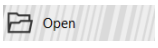
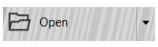
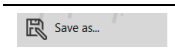


Fig. 69: Structure of the user interface

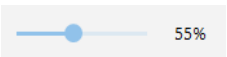
File symbol bar

Symbol	Meaning	Description
	Create new print image	Opens a new label of the last type which was opened.
	Create new print image	Opens a new label after the selection of the label type. 
	Open existing print image	Opens an existing print image. A preview is displayed.
	Open existing print image	Show the last opened print images for re-opening faster.
	Save print image	Saves the current print image. Requests a name if none exists.
	Save print image below…	Saves the actual print image below the specified name.

Design menu bar

Symbol	Meaning	Description
	Text field	Creates a text field to add static text to the print image.
	Variables field	Creates a variables field to add a variable to the print image
	Date field	Creates a date field to add a date to the print image.
	Counter field	Creates a counter field to add a counter to the print image.
	Barcode field	Creates a barcode field to add a barcode to the print image.
	Logo field	For inserting a graphic in the print image.(bmp, jpeg, png)
	Shape field	For inserting a shape like a square in to the print image.
	Incremental	The selected field can be moved pixel by pixel.
	Rotate	The selected field can be rotated in 90° steps.
	Delete	Deletes a field from the label.
	Ink consumption calculator	Determines the number of prints of the desired label, which can be print with a full cartridge.
	Link to an existing parameter set	Links a label with a saved set of parameters. The set of parameter is send at print start from idesign8+. Doesn't work for print start on the system.
	Zoom out	
	Zoom in	

Print image menu bar

Symbol	Meaning	Description
	Show the print technology	The layout format is valid for one or more print technologies
	Clipboard	Copy a print image as a complete graphic in the Windows-clipboard.
	Number of modules	Define the head modules of a print head.
	Undo / Redo	For undo and redo changes during the label creation.
	Database navigation	Shows separate data sets of a database to customize the print image creation
	Embedded parameters	Specific parameters can save in the print image. The parameters change in the system when the print image will start on the system and the function „Read only“ is selected in the field „Store parameter into label“.
	Print image width	Fixing of the print width in mm – a limitation of the print width isn’t active at a setting of 0. A red line shows the end of the print image. All fields or parts of fields, that are positioned and displayed right of this line, are not be printed.
	Search dataset	
	Create print images from a database table	All table entries will be used for create a stack of different labels from a master label.
	Zoom in and out of the display	The editor area can be resized in 5% steps for optimal editing of the print image.

Positioning of fields

A field can position by click on and drag with the mouse or by the arrow keys. The positioning takes place in a specific raster. If a precise positioning pixel by pixel is necessary, the raster can switched off with the button  .
A multiple selection of fields takes place by drag with the mouse over several fields.

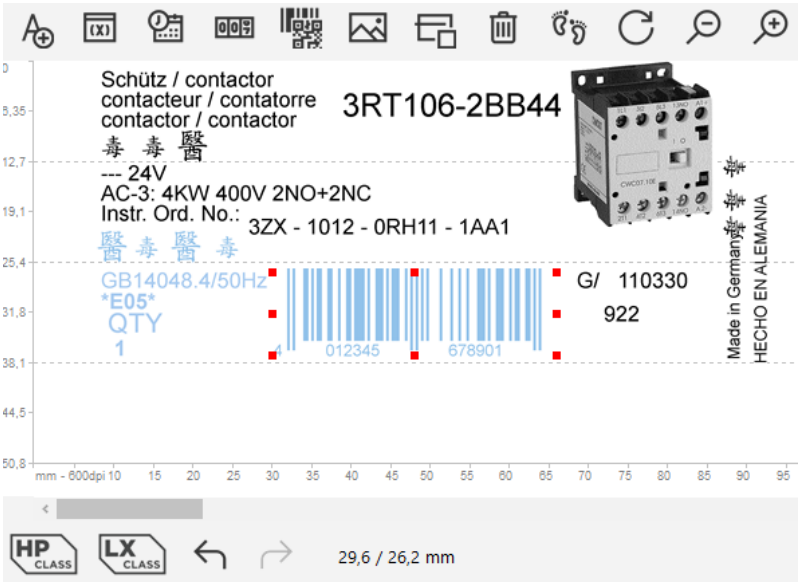


Fig. 70: Positioning of fields

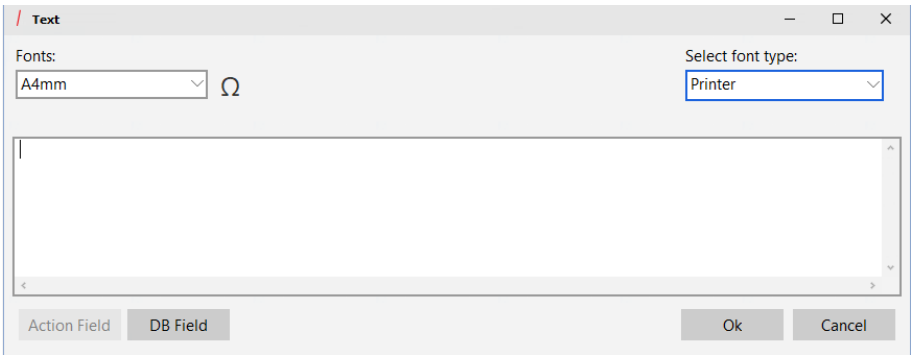
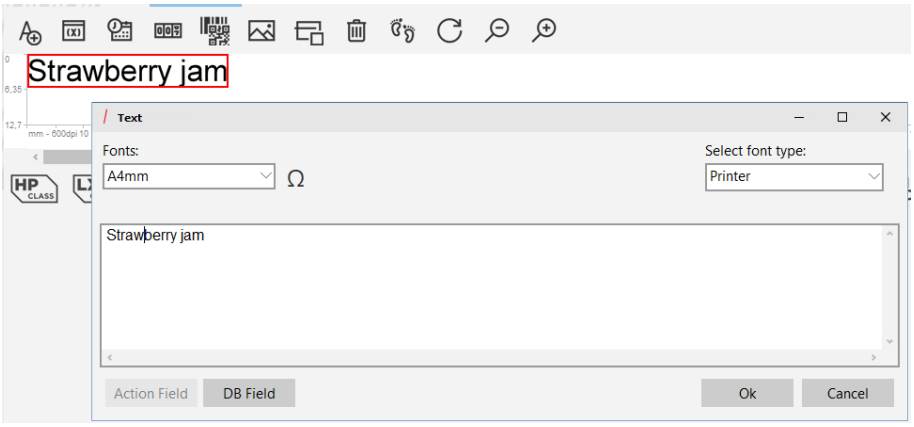
Keyboard function

- Arrow keys → positioning
- Ctrl + C → copy to clipboard
- Ctrl + V → paste from clipboard
- Tab or Page Up/Page Down → selection of a field
- Enter → Edit
- Del → delete a field

Insert a text field

Static text is inserted as text fields in the print image.
Depending on the selected print head type, the editing area varies in size.
Depending on the print head type, various text field dialogs are available for the print image.

Instruction
Please insert a text field as follows:

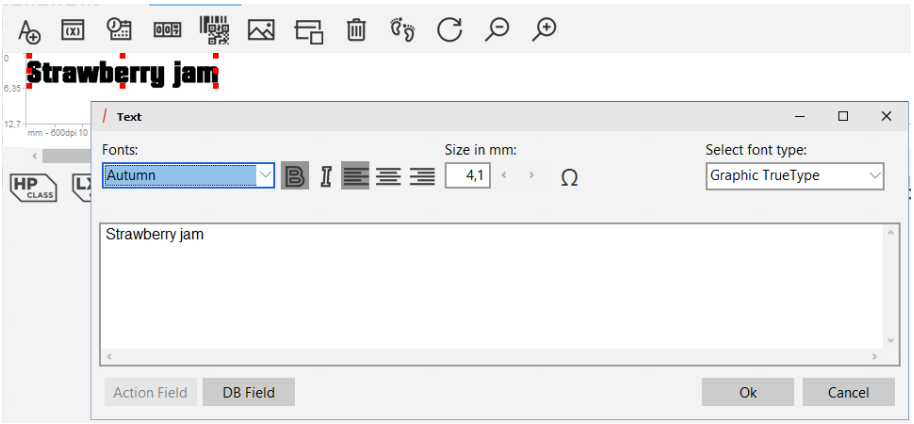
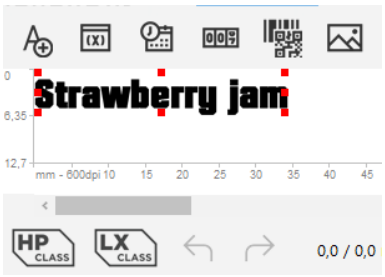
Step	Procedure
1	Click on the  button in the Edit bar. ⇨ The text dialog opens
2	Enter text.
	 Fig. 71: Text dialog
3	Enter text in the input area - Select the font type at the right side (TrueType or printer fonts).
4	Following select and set up the font type
5	To position the text field in the print image, click on the text field and move to required position by pressing and holding the left mouse button
	 Fig. 72: Text field inserted in a print image

The printer fonts are used here. These are standard for filling external data. Printer fonts can be created with Font Creator. Printer fonts are limited to the ANSI character set.

Graphic text field

Instruction

Please insert a graphic text field as follows:

Step	Procedure
1	Click on the button True Type. ⇨ All fonts types of Windows available now.
	 Fig. 73: Graphic text field
2	Height and width are adjustable with the red handle. ⇨ In a text field with graphic TrueType, the fields are transferred as graphics
	 Fig. 74: Change size of the graphic text field

Advantages:

- Unicode and special fonts can be used easily without configuring the printer and the field is freely scalable

Disadvantages:

- These fields cannot be filled with variable data from outside. Printer TrueType fonts must be used for this purpose

Printer True Type

Instruction

Please use Printer True Type fonts as follows:

Step	Procedure
1	Select Printer TrueType. ⇨ Now all fonts from the Windows operating system are available. ⇨ However, only fonts that have been previously stored on the print system can be used

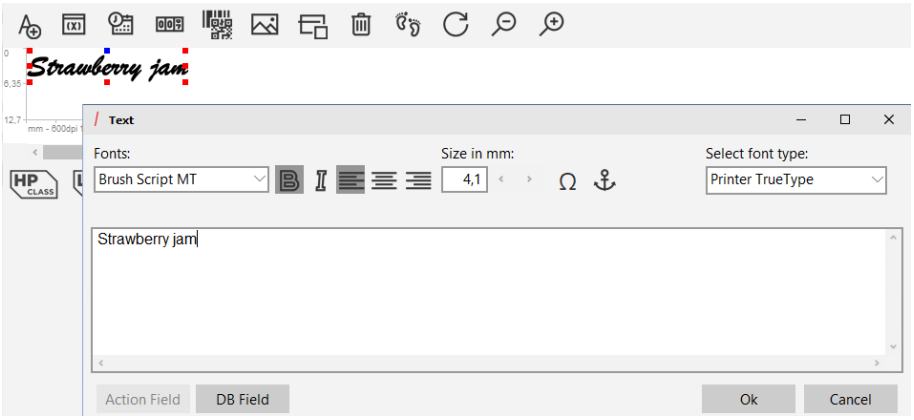


Fig. 75: Printer True Type

2	In addition, an anchor can be defined. The anchor describes a fixed point of the field. ⇨ I.e. if the content is changed later, by a variable field – filling, the anchor point remains at the same position.

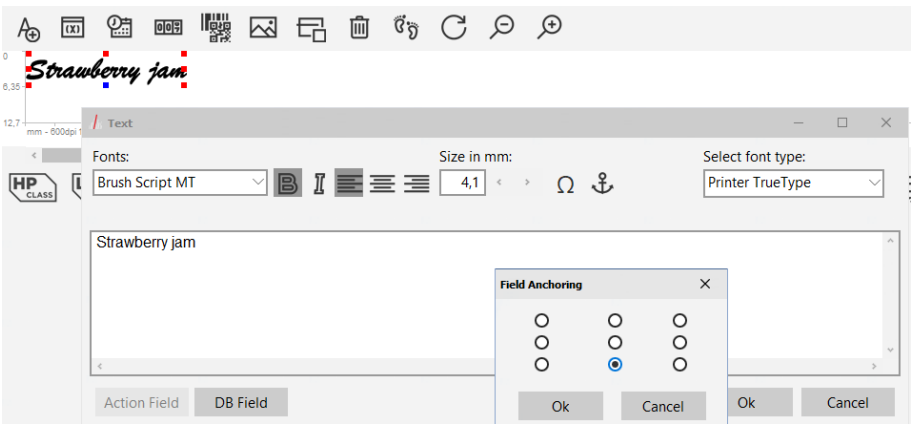


Fig. 76: Printer True Type anchor point

Advantages:

Fill variable fields with Unicode (for example, Asian character sets).
Anchor points for a defined alignment for later external filling.

Variable text field with multi-byte character set for external control

Instruction

Please create a variable text field with multi-byte character set as follows:

Step	Procedure
1	Create and save the print image with a text field. ⇨ If x is defined as an action field, always make sure to set 2 for a character that it is a multi-byte string. Or you take a y

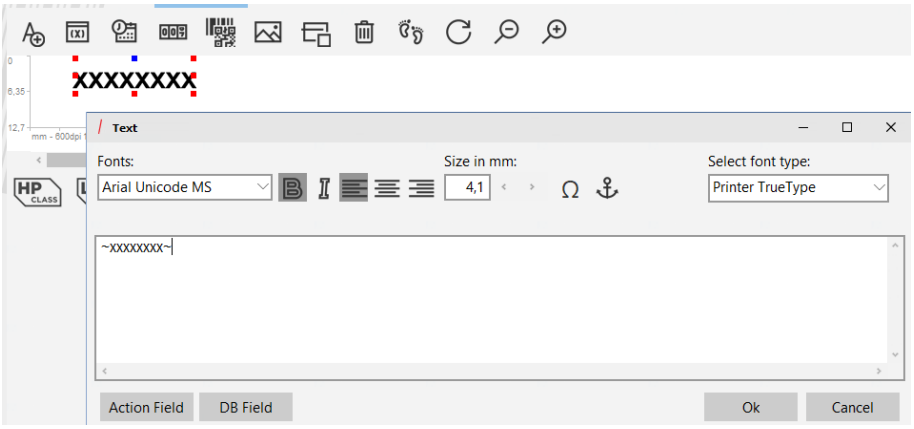


Fig. 77: Text field Windows True Type

2	Transfer the print image to the print system.

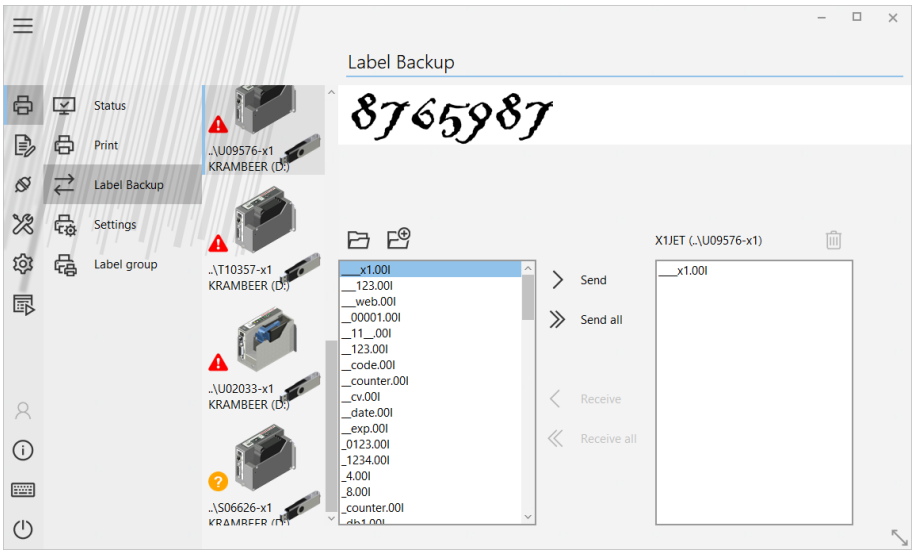


Fig. 78: Transfer image to printer

3	Test print with external control. Test command for the terminal: <STX>TZJapanese.00I;11<CR>今日の技術<CR><ETX>

Step	Procedure

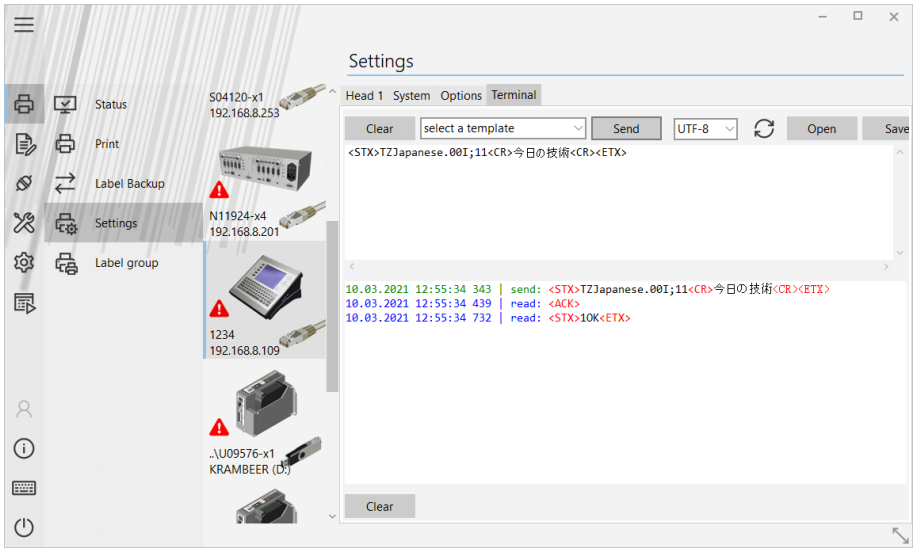


Fig. 79: Testing the external control

4 Check print storage.

Fig. 80: Test print

Insert a date field

Date and time are embedded in the print image as a date field.

NOTICE The function date field is not available for each system configurations.

Depending on the selected print head type, the editing area varies in size.
Date fields are not static, but dynamic fields; their display format is defined by variables.
The current date and time are retrieved from the PC clock.

By printing the current date and the current time will be obtained from the system clock. It makes sense to synchronize the system clock with the PC clock.
Any combination of variables can be used to configure the display format. Punctuation marks (e.g. full stop, colon, hyphen, space etc.) can be inserted between the individual coding's.

ab.cd.gh is a preset.

Preset variable selection:

Variable	Meaning	Display
ab-cd-gh	Date	22-05-95
efgh	Year	1995
ij:kl:mn	Time	11:20:35
ooo	Month as string	Jan
ppp	Day of the year	135
q	Weekday	4
rr	Calendar week	28
s	Hour as string	k

Acceptation of the specific variable letters:

Variable	Meaning
a	Day, tens
b	Day, units
c	Month, tens
d	Month, ones
e	Year, thousands
f	Year, hundreds
g	Year, tens
h	Year, ones
i	Hour, tens
j	Hour, ones
k	Minute, tens
l	Minute, ones
m	Second, tens
n	Second, ones
ooo	Month, as string
ppp	Day of the year
q	Weekday
rr	Calendar week
s*	Hour as character (0=A, 1=B, …, 23=Z)
t*	Shift code (max. 4 digits)
u*	Day of the year, hundreds
v*	Day of the year, tens
w*	Day of the year, ones

* not available in all printer types

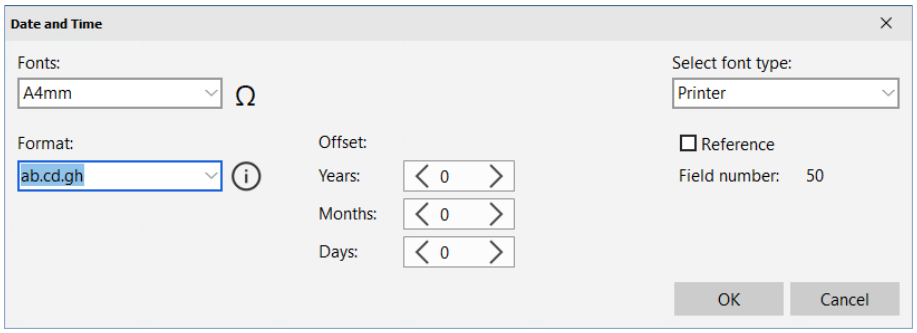
Further

Variable	Meaning
A	Day, ones (zero suppression)
B	Day as character (1-9=A, 10-19=B, 20-29=C, ...)
C	Month, tens (zero suppression)
D	Month as character (1=A, 2=B, …, 12=M)
G	Year, tens (zero suppression)
H	Year, units as character (0=C, 1=M, 2=E, 3=A, 4=D, 5=J, 6=O, 7=H, 8=N, 9=S)
I	Hour, tens (zero suppression)
K	Minute, tens (zero suppression)
L	Minutes, tens as character (0=A, 1=B, …, 5=F)
M	Second, tens (zero suppression)
Q	Weekday as character (1=A, 2=B, …, 7=G)

* not available in all printer types

Forward dating, for instance to print a best before date (BBD), can be defined by the offset parameters year, month and day.

Instruction
Please create a date field as follows:

Step	Procedure
1	Click on the  button in the Edit bar. ⇨ The date dialog opens.
2	Enter date / time format.
	 Fig. 81: Enter date/time format
3	Enter date/time format (see Table) or take over default setting. ⇨ You'll get an info list of the specific letters with the info button.
4	Click **OK** button. ⇨ The date field is inserted in the print image
5	Select the format from the drop down menu.
6	Set a best before date (BBD), if required. – Use the arrow keys to select the year. – Use the arrow keys to select the month. – Use the arrow keys to select the day.
7	Select the font from the drop down menu. **Different fonts are available, depending on the selected printer type.** **Only printer, no TrueType fonts.**
8	Select the date field and, by holding down the left mouse button, position as required inside the print image

Insert a counter field

The counters are inserted in the print image through counter fields.

NOTICE The function is not available for each system configurations.

Counter fields are inserted to print consecutive numbers on labels.
When starting to print, the counter starting value appears in the first print. When reaching the end count, the counter re-starts at the starting value. If the end value is smaller than the starting value, counting is downward.

Example 1:
Starting value: 01, end value: 10, step size: 2, repeats: 3
Print: 01, 01, 01, 03, 03, 03, 05, 05, 05....

NOTICE All zeroes in front of a number are also printed.
The leading zeroes can be deselect by the checkbox.

Example 2:
Starting value: 10, end value: 1, step size 1, repeats: 0
Print: 10, 9, 8, 7....1, 10, 9, 8, 7....

Instruction
Please insert a counter field as follows:

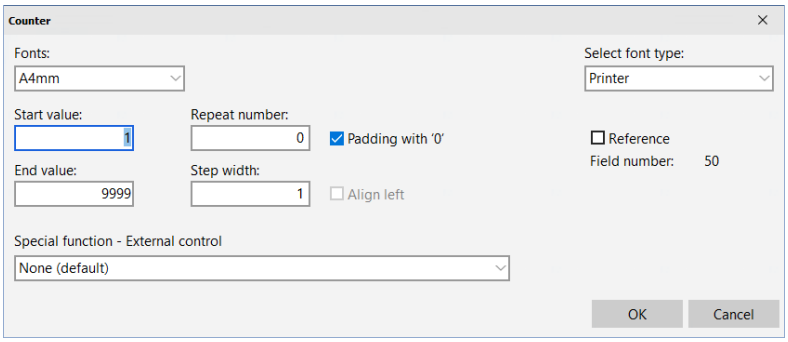
Step	Procedure
1	Click on the  button in the Edit bar. ⇨ The counter field is inserted in the print image ⇨ Further input fields open below the edit bar.
	
2	Enter the start value (max. 12 digits)..
3	Enter the end value (max. 12 digits).
4	Enter the step width (max. 3 digits)..
5	Enter the repeat number (max. 3 digits).

Fig. 82: Counter field inserted in the print image

Step	Procedure
6	Select the font from the drop down menu. **Different fonts are available, depending on the selected printer type.**
7	Click the counter field and position by holding down the left mouse button.

External counter field

You can configure the counter field for control with the external contacts.

Two options are available:

1. The counter value counts up or down with the pressure start (standard), but can be set back to the start value via an external contact.
2. The counter value is counted up or down with an external contact and can be reset to the start value with a second contact.

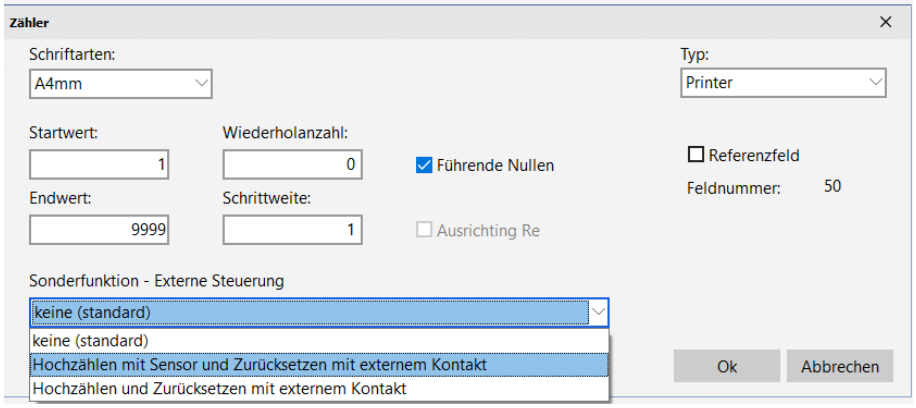


Fig. 83: Insert external counter field in print image

The counter field can also be configured as a reference field to distribute the counter value in the print image to other fields.

To configure the inputs accordingly, an assignment must be made in the printer settings menu.

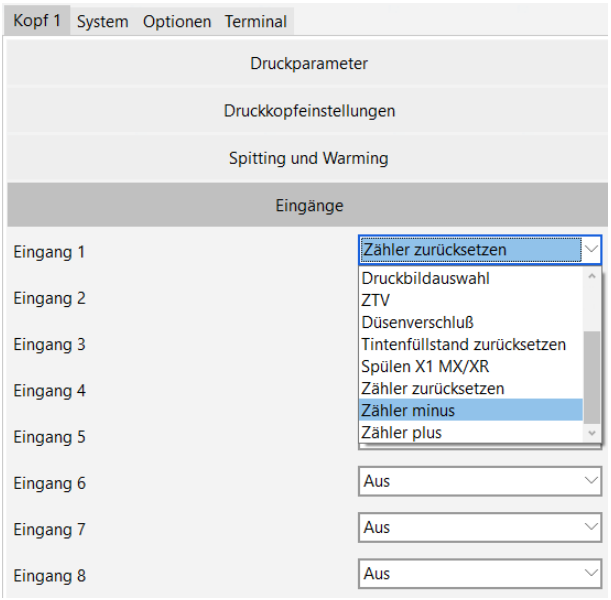


Fig. 84: External counter field

Insert a barcode/ 2D Code

NOTICE The barcode function is not available for all system configurations.

A barcode is machine-readable writing comprising of parallel lines and gaps of various widths. The data in the barcode can also be displayed in plain text, legible to humans, in a line of plain text directly below the barcode, If the barcode cannot be read, the data can be evaluated manually.
idesign8+ offers a range of barcode and 2D Code types, depending on the selected printer:

Barcode type	Description	Digits
EAN 8	Numerical commercial barcode; used worldwide.	8
EAN 13	Numerical commercial barcode; used worldwide.	13
EAN 128	Numerical commercial logistics code. Variable fields for date, counter and scale as options.	max. 70
Code 128	Full ASCII barcode; medical-pharmaceutical technology.	max. 70-
Code 128 A	Like Code 128 only for character set A (numbers, capital letters, special characters and ASCII control characters.)	max. 70
Code 2 of 5	Numerical industrial (materials-handling) barcode, always with even number of digits. Also designated 2/5 interleaved, ITF 2/5)	min. 2 max.40
Code 2of 5 check	Like Code 2of 5 only with checksum at the end	min. 2 max.40
DUN 14 / ITF 14 *	Numerical industrial barcode (materials-handling)	14
DUN 14 / ITF14 1:3	Like DUN 14 / ITF14 in ration 1:3	14

UPC A UPC E	**Same as EAN 13,** but special 1st digit code. Is normally set to 0 followed by 11 digit code. The 13th digit is an automatically generated test digit. Used in USA/Canada.	13
Code 39	Alphanumeric barcode for industry, electronics, pharmaceutical.	max.40
UCC	**Same as Code 2 of 5.** For trading in the USA.	14
Data Matrix	A 2D code for the electronics industry and pharmaceutical sector.	max.256
EAN Data Matrix	A 2D code for the electronics industry and pharmaceutical sector.	max.256
QR Code	A 2D-code for Japan and Marketing purposes specially	max.256
GS1 QR Code	Merchandise management, pharmaceutical industry, logistics	max.256
PPN-Code	Pharmacode	max.256
GS1 Databar	Omnidirectional	num. 14
GS1 Databar	Omnidirectional Stacked	num. 14
GS1 Databar	Expanded	num. 74 alph.41
GS1 Databar	Expanded Stacked	max. 74 alph. 41

The following options are available:

- Different barcode types
- Barcode width can be changed
- Barcode height can be changed
- GS-1 Builder

Instruction
Please create a barcode as follows:

Step	Procedure
1	Click on the  button in the Edit bar. ⇨ The barcode dialog opens.

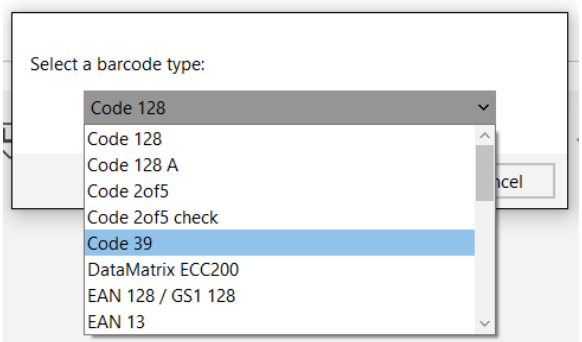


Fig. 85: Barcode selection

Step	Procedure
2	Enter the content and parameter by the barcode dialog.

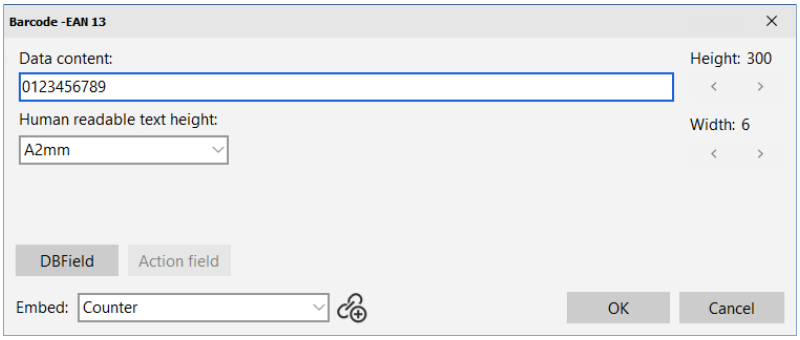


Fig. 86: Barcode Dialog

3	Enter the plain text line in the input field.
4	Select the size of the plain text line from the drop down menu. Select **[none]** if the plain text line should not be shown.
5	Use the arrow keys to select the height of the barcode.
6	Use the arrow keys to select the width of the barcode
7	Click the **OK** button. ⇨ The barcode is inserted in the print image.

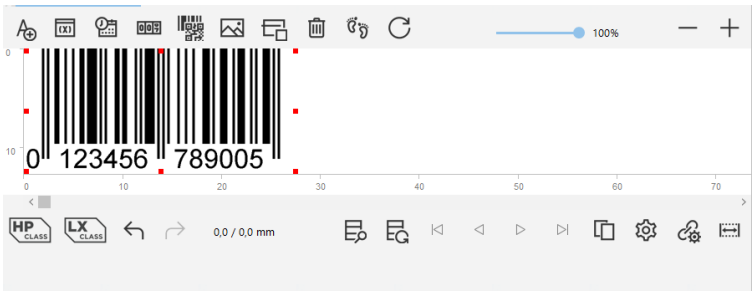


Fig. 87: Barcode inserted in the print image

8	Click on the barcode and position it in the print image whilst holding down the left mouse button.
9	To edit, double-click the barcode.
10	The height and width can set with the red handle.

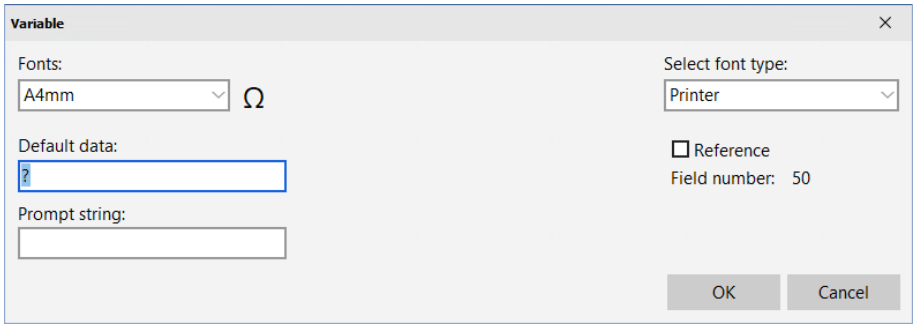
Insert a variable field

Variables are inserted in the print image by means of variable fields.

NOTICE The function is not available for all system configurations.

Variable fields are used if a print image contains data (e.g. batch numbers) that change frequently. This can be automated, shortly before the print image is released for printing.
The variable field is queried each time before a print image is called. A dialog window appears, requesting the variable value to be entered. A new text may then be entered, or the old text retained. It is possible to enter several variable fields in a text.
Info text is available as an additional function. This info text (e.g. batch numbers) is displayed during subsequent print call-up requests, to prevent incorrect entries or, in the case of several variable fields in a print image, confusion.

Instruction
Please create a variable field as follows:

Step	Procedure
1	Click on the  button in the Edit bar. ⇨ The Variables dialog opens.
	 Fig. 88: Enter the variable text
2	Enter the Variable text in the input field.
3	Enter the info text in the input field.
4	Select the font from the drop down menu. **Different fonts are available, depending on the selected printer type.** **Only printer fonts, no TrueType fonts.**
5	Use the arrow keys to select the font width.
6	Click the **OK** button. ⇨ The variable field is inserted in the print image
7	Click on the Variable field and position whilst holding down the left mouse button

Insert a logo

Graphics (logos) in the form of BMP, PNG and JPEG files can be inserted into a print image.

NOTICE

If the Ghostscript interpreter (https://www.ghostscript.com/) is installed, PDF files can also be imported. The file gsdll32.dll, which is part of Ghostscript, has to be copied into the program folder of idesign.

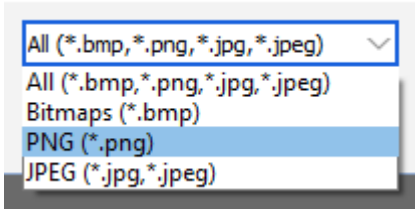
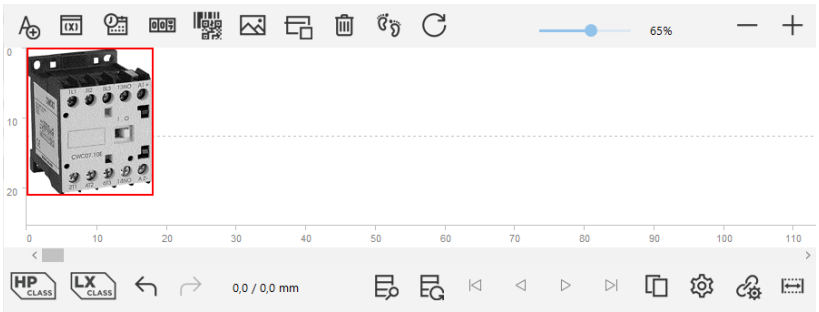
The table below shows the file type and available pixel height for the different types of print equipment.
The number of pixels refers to the full print height of a head.
e.g.: 256 for MX100 at 100mm height. A logo with 64 pixels would be 25mm high.

Printer type	Max. pixel height
MX 100	256
MX 50	128
Funai / HP	300 per cartridge
Xaar 71	500
Seiko PP108	1536

Two different types of logo field are possible:

1. Fixed – means the print image has a fixed size and is only connected to the print image.
2. Embedded graphic field – means the graphic data will be included and the size is changeable

Instruction
Please create a logo as follows:

Step	Procedure
1	Click on the  button in the Edit bar. ⇨ The file dialog opens.
	 Fig. 89: Select graphic file format
2	Select a directory from the drop down menu.
3	Select the logo in the field. ⇨ A preview of the logo is displayed in the field. ⇨ The bitmap file is shown in the field.
4	To open a logo, double-click the bitmap file. ⇨ The logo is inserted in the print image.
	 Fig. 90: Logo inserted in the print image
5	Click on the logo and position in the print image whilst holding down the left mouse button.
6	Double-click the logo to edit it. ⇨ The edit program opens.
7	Click on Edit to edit the logo in MS Paint.

Step	Procedure

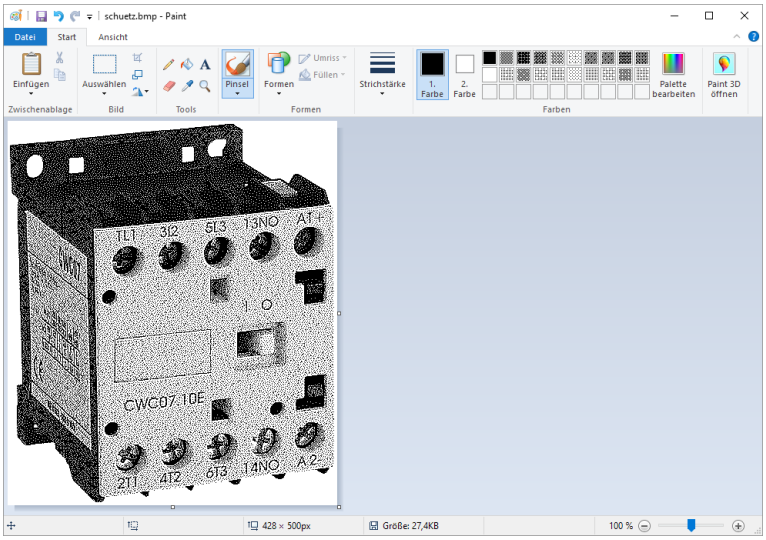


Fig. 91: Edit logo with MS Paint

It can specify whether the logo has a fixed size or whether it should make adjustable. Therefore, a height in mm can be entered (aspect ratio remains) or the height can set with the red handle.

NOTICE

The graphic data with adjustable logo size will be saved with the right format in the print image file. The logo files of a print image with a fixed logo size will be transfer to the system.

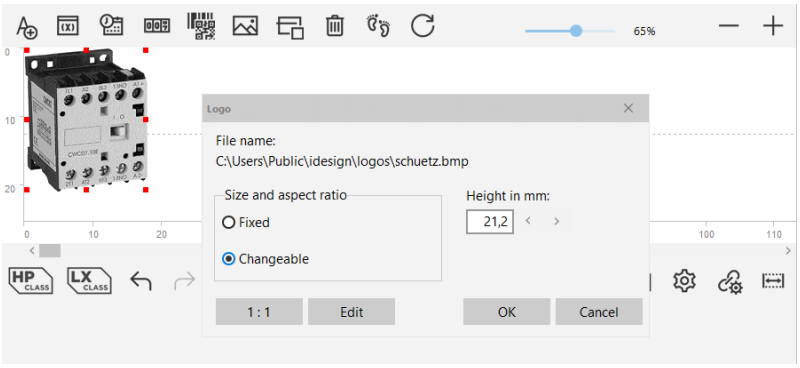


Fig. 92: Setting the size

The original size can be restored with 1:1 button.

NOTICE

The file name is restricted to **48 characters maximum**, excluding special characters.

Logo from database table

If a database table connected (see chapter Database page 164) follow dialog appear.

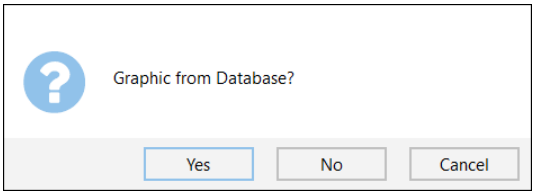


Fig. 93: Database graphic field

Select a field Name

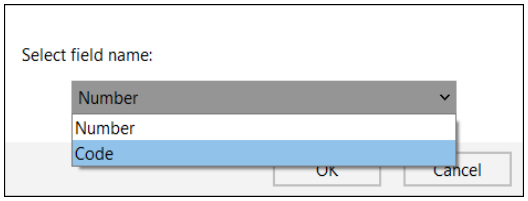


Fig. 94: Field selection for graphic field

The defined database field must contain the name of the graphic file. Without a path the local logo path will be taken. If a file does not exist or the field is empty, no graphic will be printed.

Insert an action field

Action fields are fields containing variable data. Data is written to these fields externally (manually at the printer or by PC) with each print call.

NOTICE The function action field is not available for all system configurations.

The ID number is incremented from 1 by the program automatically, but can be changed.

NOTICE The ID number must always be bigger than 0.

Action fields are implemented in text fields and barcodes.
To convert a static text field to an action field, the placeholder, e.g. “x” must be enclosed by the tilde character “~“ for each variable character (example: Batch: ~xxx~).

NOTICE Action fields are only available for the printer types MaxiLine, CompactLine2.5, iJET, X-Series.

The letter variables are pre-allocated. The functions of the variables are shown in the table below.

Variable	Function
a ... w; A ... Q	like clock time function
x	data transfer from interface
z	counter
Z*	Counter as character

* not in all print system types available

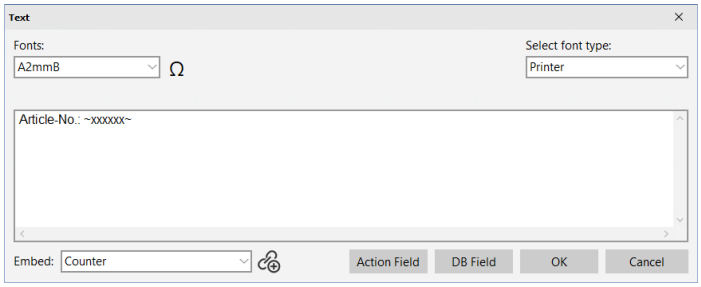
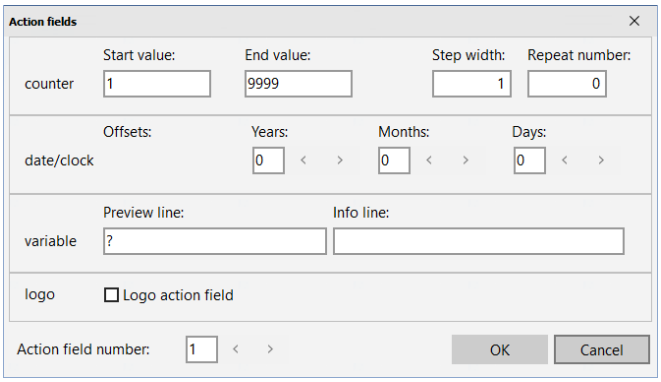
Action fields can be interlinked. The use of action fields is explained by some examples below.

Example 1:

A print image contains a text field and a barcode. Both fields receive the same ID number, if a 1 is entered in brackets in front of the xxx... when specifying the second action field, e.g. ~(1)xxxxxxxx~, the same data is obtained when calling the print function.

Instruction

Please create a text field with action field as follows

Step	Procedure
1	Click on the  button in the Edit bar. ⇨ The text dialog window opens.
	
	Fig. 95: Enter text
2	Enter the static text **Article no.:** in the text field.
3	Enter the variable text **~xxxx~** in the text field.
4	Click on the **Action field** button.
	
	Fig. 96: Action field
5	Use the arrow keys to select ID number **1**..
6	Click the **OK** button and close the text field with **OK**.
7	Click on the  button in the Edit bar to create a barcode. ⇨ The barcode dialog opens.

Step	Procedure

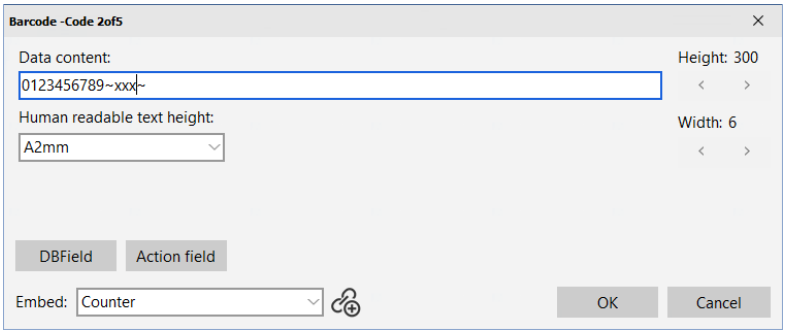


Fig. 97: Enter the barcode

8	Enter the barcode text **~xxx~** in the input field
9	Click on the **Action field** button

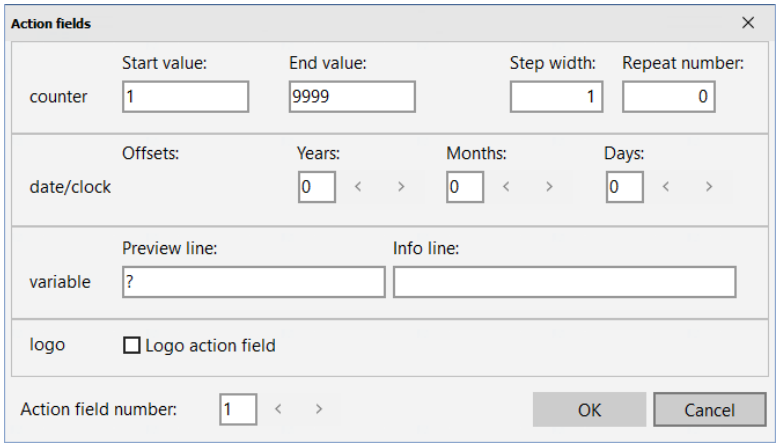


Fig. 98: Action field

10	Use the arrow keys to select ID number **2.**
11	Press **OK** to close the action field and barcode window.

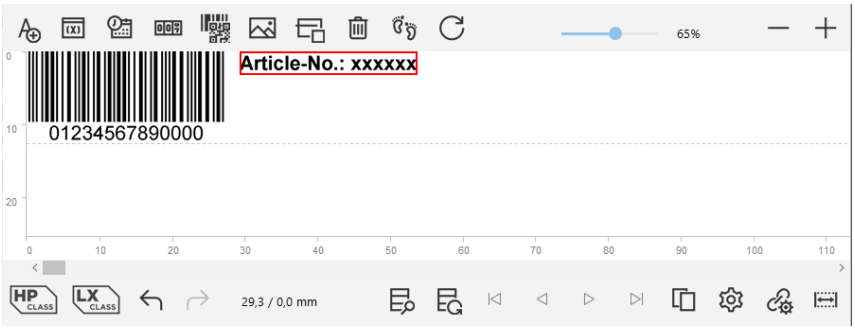


Fig. 99: Action fields in the print image

The text field and the barcode are now two action fields. The data in the text field are also written to the plain text line of the barcode. The Article no. and the barcode receive the same data.

Example 2:
Linking of action fields

A print image contains of three text fields and a GS1 Datamatrix code.
The entered contents of the text fields should be filled into the Datamatrix at print call.

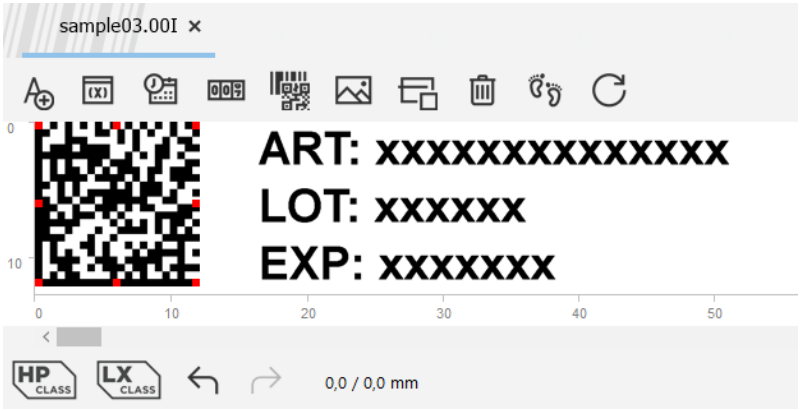


Fig. 100: Linking of action fields

text field ID**1**:	ART: ~xxxxxxxxxxxxxx~	default line:	3400933698522
text field ID**2**:	LOT: ~xxxxxx~	default line:	012345
text field ID**3**:	EXP: ~xxxxxxx~	default line:	02/2028

Datamatrix code: (01)0~**(1)**xxxxxxxxxxxxxx~(10)~**(2)**xxxxxx~(17)~**(3)6**xx**1**xx~00

In the text field, the date is to be printed in 7-digit format TT.MM.JJ
In the barcode, the date is to be printed in 4-digit format in YYMMDD format. (GS1 standard)

(1) (2) (3) Indexed to the field with ID1

6, 1 Specifies the position within the source field information. The number of digits to be copied.

With the help of the GS 1 generator you can check or complete the input.

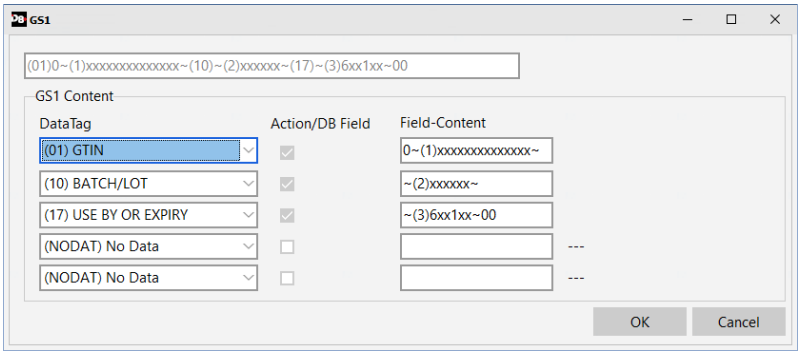


Fig. 101: GS1 Generator

Reference fields

Variable fields, date fields and counter fields can be so designed that they are available in the label layout, but will not print.
It makes sense if you want to revert to information, like a date in a barcode, but this date would not print.

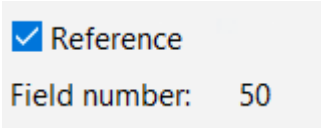


Fig. 102: Reference field selection

Create reference field

Activate the check in the corresponding dialogs in front of the reference.
The corresponding field will be marked grey in the layout and will not print.
Below the reference field is stated a field number. The field can link with this number. The field number will be count from 50 up automatically. The field will be inserted in an action field link with this number.
i.e.: ~(50)xxxxxx~

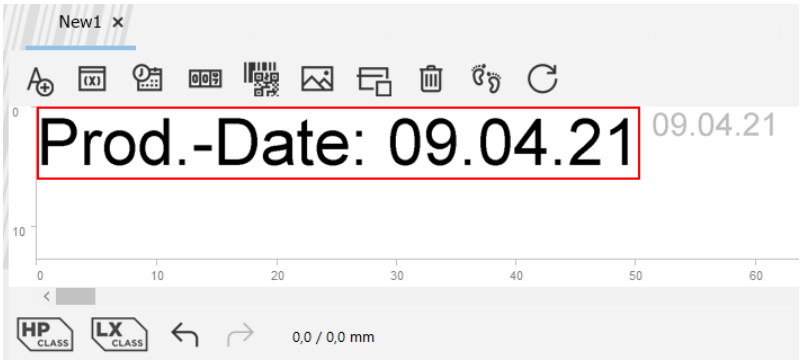


Fig. 103: Reference field preview

Store parameter into label – Embedded parameters

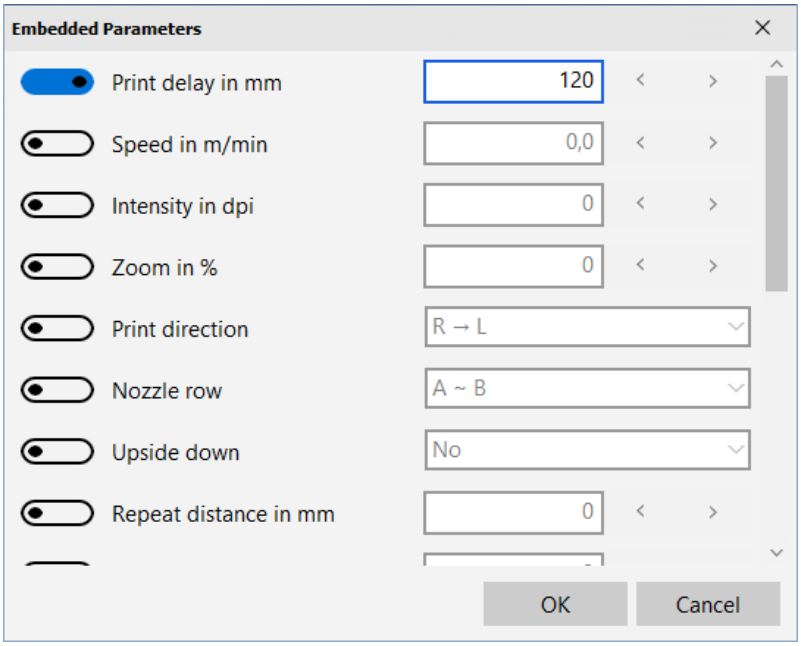


Fig. 104: Embedded parameters

Click on the button „Embedded parameters“  to assign specific parameter to a print image. First you must set in the menu Function → Submenu Settings → System → Tab System settings the function “Store Parameter into label” to “Read only”. See also Store parameter into label, page 50.
The parameters, which are activate and entered, are saved in the print image and change the settings in the system when the print image will start again.

Save print image

Depending on the connected printer type, idesign8+ saves the print images in different file formats.
The table below shows which file formats are available to the specific printer types when opening and closing print images.

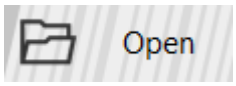
Printer type	File format
HP/LX MX Trident PP108 Seiko	*.00I *.00J *.00P
XR-Xaar	*.00R
Compactline 2.5	*.00H
Maxiline (Trident)	*.00M

Instruction
Please save a print image as follows:

Step	Procedure
1	Click on the  or  button in the Symbol bar.

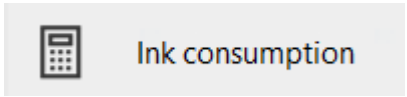
Open print image

Instruction
Please open a print image as follows:

Step	Procedure
1	Click on the  button in the Symbol bar. ⇨ The file dialog opens.
2	Select a directory from the drop down menu.
3	Select and mark the print image in the field.

Ink consumption calculator

Instruction
Please determine the number of prints per ink cartridge as follows:

Step	Procedure
1	Click on the  button in the Symbol bar. ⇨ The ink consumption calculator opens.

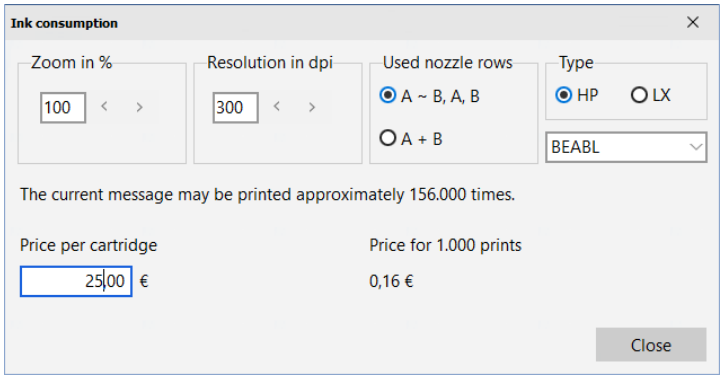


Fig. 105: Ink consumption calculator

2	Set the desired parameters (zoom, resolution, nozzle row etc.) in the ink consumption calculator.

Step	Procedure
3	The text below (Fig. 104) shows how many labels can be print with one or more full cartridges.

NOTICE

The number of prints per cartridge is an approximate value. The exact value can be seen after an optimal print image selection.

Label from database

With idesign8+ it's possible to create a label from a database automatically. Thereby the database will be complete systematically and every data set will be filled in a label and saved separately. The created labels can be send to a print system.
To use this function:
Open a database and configure it that you can use it in idesign8+. See also page 164 "Database")

Instruction

Please create or open a label with the database field as follows:

Step	Procedure
1	Create or open a printed image with one or more database fields. These can be text, logo or barcode fields.
2	Click on **Label from database**  .

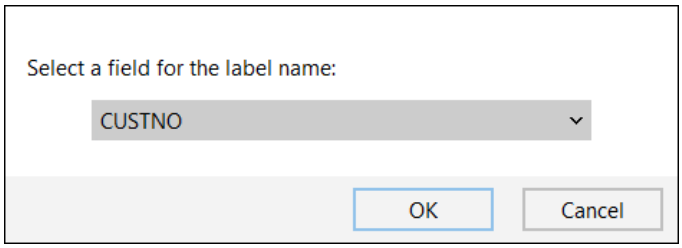


Fig. 106: Choice dialog for label names

3	Select a database field for the label name in the following dialog and confirm your choice with **OK.** ⇨ A subdirectory with the name of the source print image is automatically created in the current print image directory. The automatically generated print images are stored in this directory

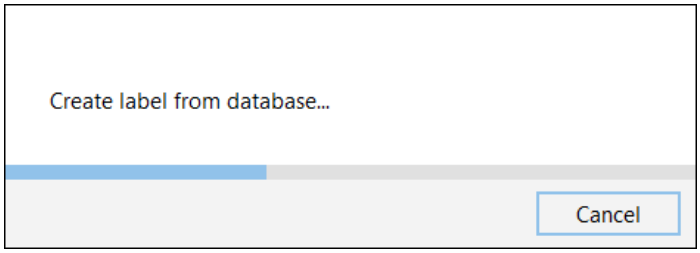


Fig. 107: Progress window for the label creation

4	Wait until the label is created and the progress window close automatically.

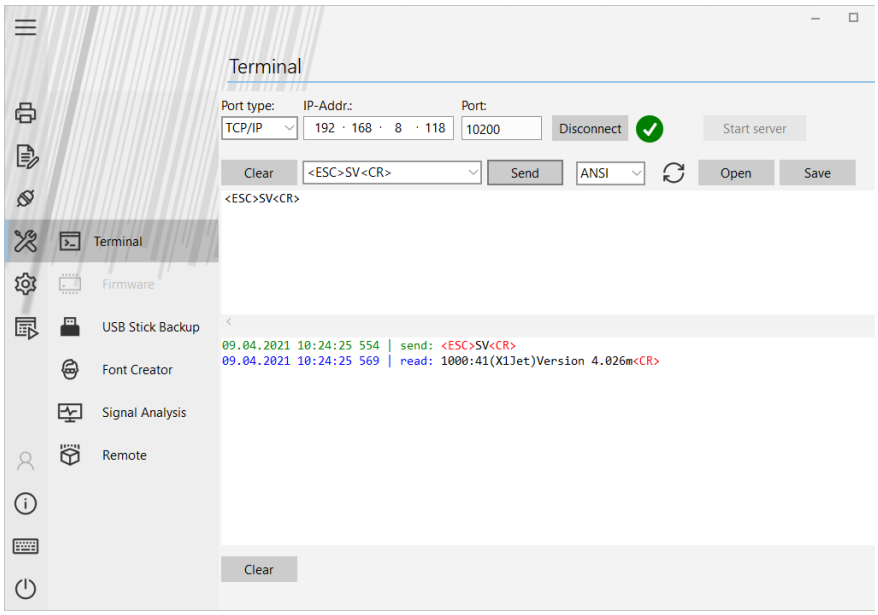
NOTICE

The labels will be saved in a subfolder in the standard idesign8+ label index.

The name of the subfolder is identic with the name of the origin label.

7. Tools

Terminal



The terminal in the menu **Tools** can contact any other system (scanner, camera…) and test the communication.
For this a connection is necessary. The connection can be Ethernet (TCP/IP), USB, or EIA232.

Configuration TCP/IP connection

Instruction
Please configure a TCP/IP connection as follows:

Step	Procedure
1	Select below port type TCP/IP.
2	Enter the IP address by which you want to connect
3	Enter the port with which you want to connect.
4	Click on **Connect**.

Configuration a USB connection

Instruction
Please configure a USB connection as follows:

Step	Procedure
1	Select **USB** below port type.
2	Select the desired system below USB.
	If the desired system isn‘t in the list, click on  or refresh the list.
3	Click on **Connect**.

Configuration a RS232 connection

Instruction
Please configure a RS232 connection as follows:

Step	Procedure
1	Select the port type **RS232**.
2	Select the desired serial port below COM.
	If the desired system isn‘t in the list, click on  or refresh the list.
3	Select the baud rate, data bits, parity and the number of stop bits.
4	Click on **Connect.**

Connection status

Besides the **Connect** button is a LED, which displays the status of the connection with 3 colors.

Color	Meaning
Grey	**No connection**
Yellow	**Link connection**
Green	**Establish connection**

Server start

For an analysis of control commands from external host systems such as customer PLCs, a TCP server can be started locally by specifying the target address (local PC) and the target port. Depending on the LAN port to which the host is connected, an address must be selected here. When the server is started, the following information is displayed. The host system must send to one of these addresses in order to display the control in the Terminal Receive window. In the send window, a response can also be simulated.

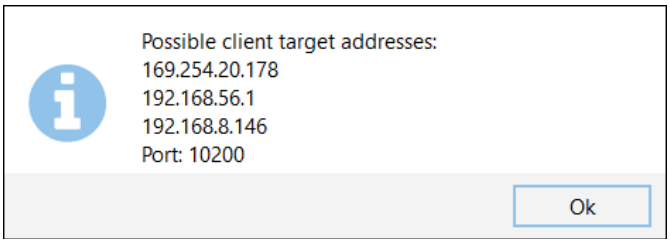


Fig. 108: Select target address

Firmware

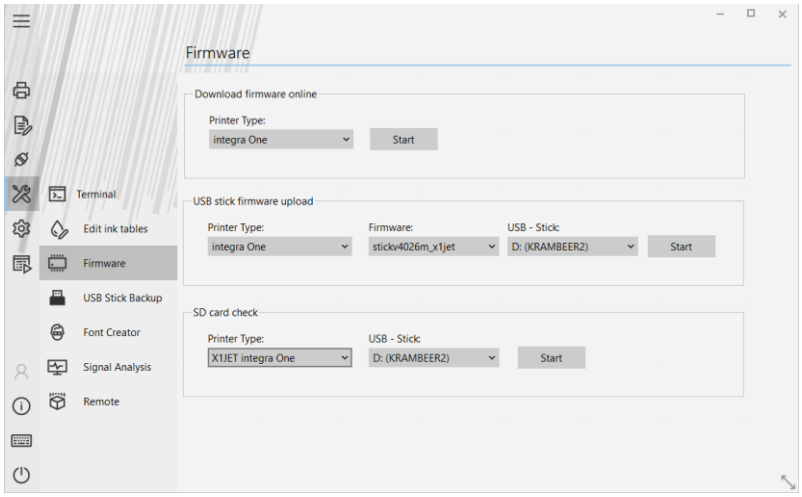


Fig. 109: Firmware

NOTICE To activate the "Firmware" menu, the service password 421635 must be entered.

Enter service password

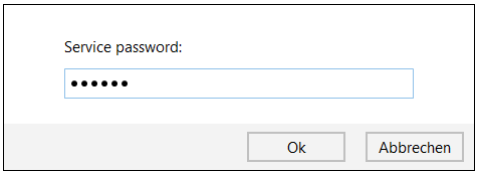
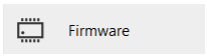
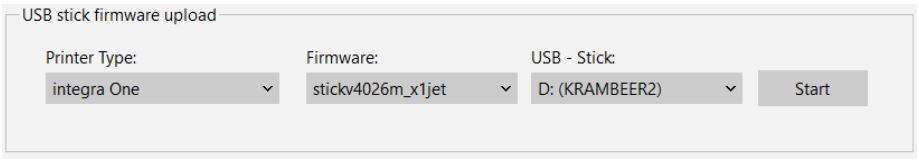
Step	Procedure
1	Press the key combinationn Strg + Alt + S
	
2	Service Password = 421635
3	After that the menu item  is activated.

Fig. 110: Enter service password

Create a USB – Update firmware Stick

Instruction

Please proceed a software update with USB-stick as follows:

Step	Procedure
1	Select the desired printer type.
	
	Fig. 111: USB Stick firmware update
2	Then select the desired version of the firmware to be installed under Firmware.
3	Insert a USB stick into a free port of the computer.
4	The drive of the USB stick is automatically added to the corresponding selection box
5	The USB stick selection box shows all removable media available in the system, select your USB stick here.
6	Click on **Start** to start the programming operation
7	It appears a window that informed about the programming level
8	The window closed after a successfully copy process

USB Firmware Update Procedure

iJET / X4JET

Instruction

Please update the firmware for iJET / X4JET as follows:

Step	Procedure
1	Switch the system on and hold the iLOGIK pressed if the start logo appears.
2	On the display is shown: Prg: 0 PV1.0xx → actual program version GA.: 0GV0.032 → actual Gate Array version Stick?.
3	Insert the USB-stick with the new version.
4	On the display is shown: Prg: 0 PV1.0xx → new program version GA.: 0GV0.032 → new Gate Array version Copy to SD?
5	With a short press on the iLOGIK button, the new version is copied to the internal SD-card and the system restarts.

XB4JET / XB8JET USB stick Update

Instruction
Please update the firmware for XB4JET / XB8JET as follows:

Step	Procedure
1	Switch the system on and hold the start button  beside the power switch pressed.
2	Wait until the status LED  flashes red/green.
3	Insert the USB-stick with the new version.
4	The sensor LED flashes yellow/red if the program is load
5	With a short press on the OK button the system restarts.
6	The status and sensor LED flashes red after ca. 15 sec. At the same time, you can hear the relays clicking. Now press the start button again.
7	After ca. 15 seconds the restart is finished (again clicking of the relays) and the USB-stick can be removed.

X2JET / X4JET Plus USB stick Update

Instruction
Please update the firmware for X2JET / X4JET plus as follows:

Step	Procedure
1	Switch the system on and hold the  button pressed if the start logo appears. (Paper clip or similar is required)
2	On the display is shown: Prg: 0 PV1.0xx → actual program version GA.: 0GV0.032 → actual Gate Array version Stick?.
3	Insert the USB-stick with the new version.
4	On the display is shown: Prg: 0 PV1.0xx → new program version GA.: 0GV0.032 → new Gate Array version Copy to SD?
5	With a short press on the OK button, the new version is copied to the internal SD-card and the system restarts.
6	On the display is shown: Copy HMI Data from Stick?.
7	Press the OK-button to confirm this. The data for the user interface will be updated. Concluding the system restarts.

X1JET USB stick Update

Instruction
Please update the firmware for X1JET as follows:

Step	Procedure
1	Connect the X1JET to the power supply, press the [Ink]-BUTTON and hold them pressed until the sensor LED flashes green/red.
2	Insert the USB-stick into the USB socket on the top side of the system.
3	The sensor LED flashes yellow/red if the program is load.
4	Confirm it by pressing the start-button and wait until the system restarts.
5	Now remove the USB-stick.

USB Stick Backup

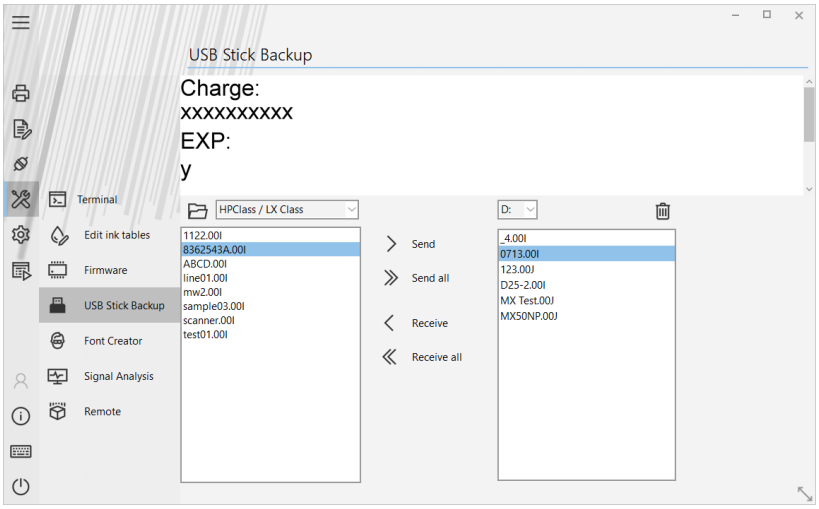


Fig. 112: USB Stick Backup window

It's possible to save the created labels on a USB stick in the submenu **USB Stick Backup** and to provide print systems with these data.
In the saved data include:

- Label for the controller
- The fonts of the labels
- The pictures of the labels

Instruction
Please use the USB stick backup as follows:

Step	Procedure
1	Open idesign8+ →Tools → USB Stick Backup.
2	Click on folder and browse to your local label index.
3	The list of the selected index is shown in the left window.

Step	Procedure
4	Select the letter of the drive at the right side, which belongs to your USB stick
5	If there are label on the stick in the right folder structure already, these will be shown in the right window.

Instruction
Please save data on a USB stick as follows:

Step	Procedure
1	Select the desired labels in the left window, which should be saved.
2	Click on **Send** to save the desired label on the USB stick ***or*** Click on **Send all** to save the desired label on the USB stick.

Instruction
Please save data from a USB stick on a control system as follows:

Step	Procedure
1	Select the desired labels in the left window, which should be saved.
2	Click on **Receive** to save the selected label in the local index, ***or*** Click on **Receive all** to save all labels in the local index.

Font Creator

The font creator is used to generate Markoprint print fonts from Windows TrueType fonts. The delivered standard character set of the print system can add with new sizes and fonts, like i.e. Cyrillic.

Instruction

Please use the font creator as follows:

Step	Procedure
1	To start the font creator, click in the menu Tools on the submenu Font Creator.

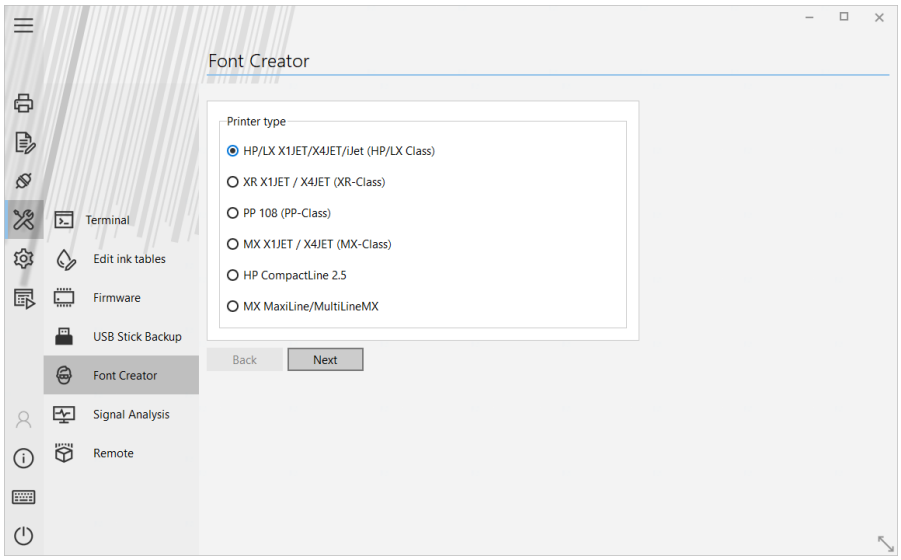


Fig. 113: Font Creator

2	Select the required printer type. Important is the used print technology, i.e. Trident – MX.
3	Click on the button Next.
4	Select the font name and height in mm. It can also select an international character set.

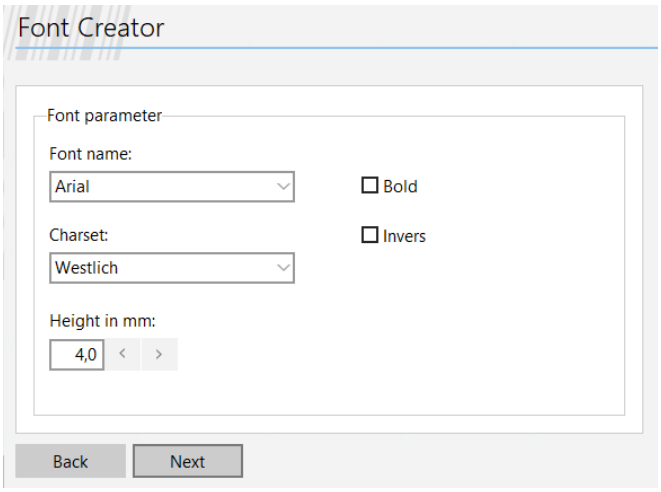


Fig. 114: Font parameter

5	Click on the button **Next.**

Step	Procedure
6	Now you have the possibility to select, whether a single font or a font package with all sizes should create for the selected printer type.

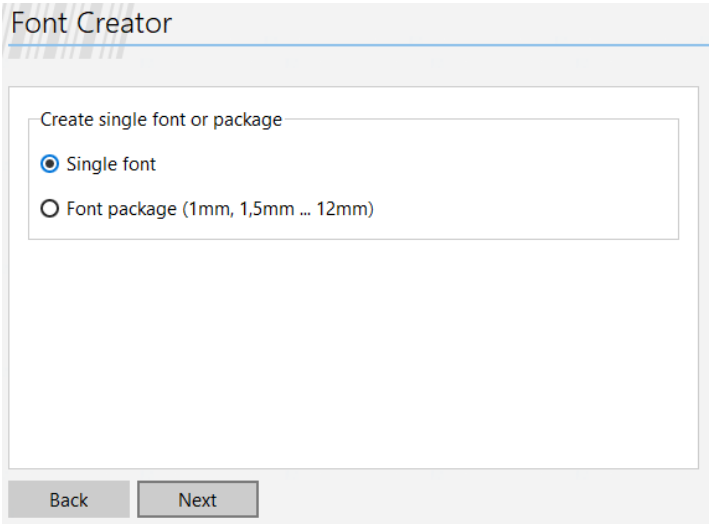


Fig. 115: Font Creator package

7	Click on the button **Next.**

Single font
With the option single font, you have the possibility to edit the character set with Paint.

Instruction
Please use the single font as follows:

Step	Procedure
1	To use the single font, click the button **Edit**.

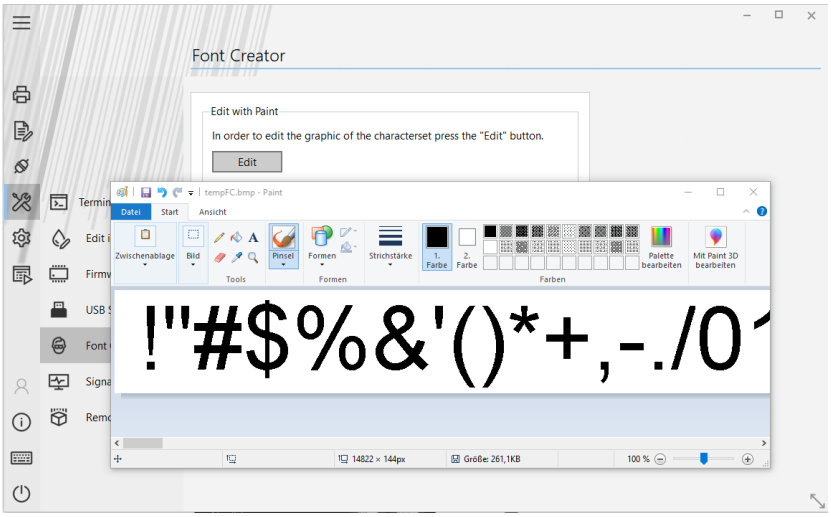


Fig. 116: Edit with Paint

2	Click on the button **Next** to save the character set.

Step	Procedure

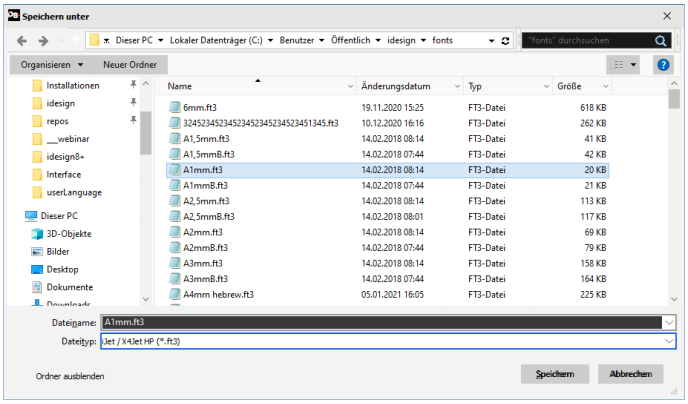


Fig. 117: Save single font

NOTICE

Use a name to arise from the font height to guarantee an assignment for the print image creation.

Font package

Specify a name for a new font package by enter a name code for the first segment. A letter is therefore enough. The second segment is providing with the height information automatically by the creation. Following there is the possibility for an addition like, i.e. B for bold.

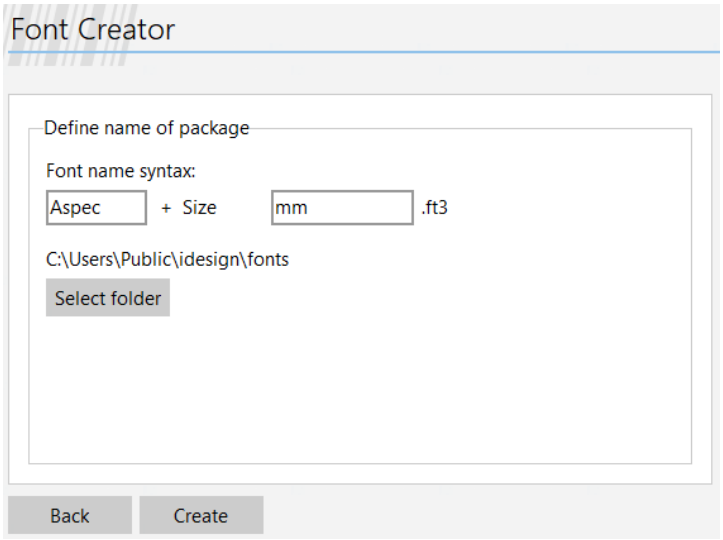


Fig. 118: Define a name for a font package

The standard font folder is offered as target directory.

NOTICE

The fonts can also save in other folder, but are available for the print image creation.

Create and save

Specify a name for the new font package by enter a name code for the first segment. A letter is therefore enough. The second segment is providing with the height information automatically by the creation. Following there is the possibility for an addition like, i.e. B for bold.

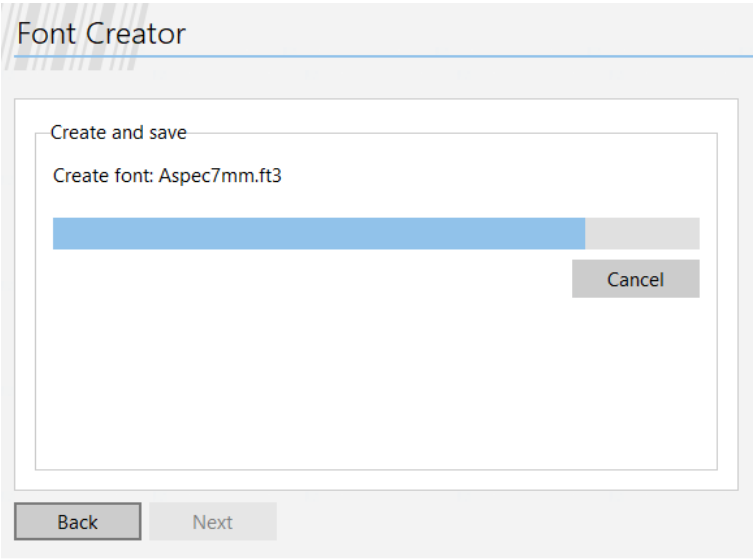


Fig. 119: Create and save

NOTICE The new created fonts can used for the print image creation now.

NOTICE It isn't necessary to copy the new fonts in the print system manually. The new fonts will send automatically with the print start of idesign8+ or by sending the print image in the print system.

Signal Analysis

This function is used to open and view configurations and signal analyses that have been visualized in the "Inputs and Outputs" submenu and to add comments or save them. More information regarding the signals is to find at site 34 and follows.

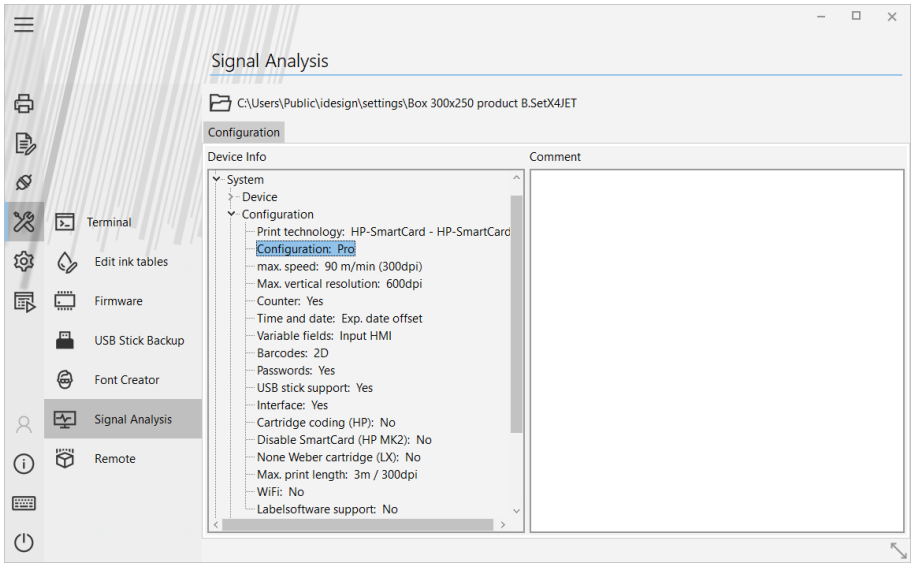


Fig. 120: Signal Analysis – Show configuration and parameters

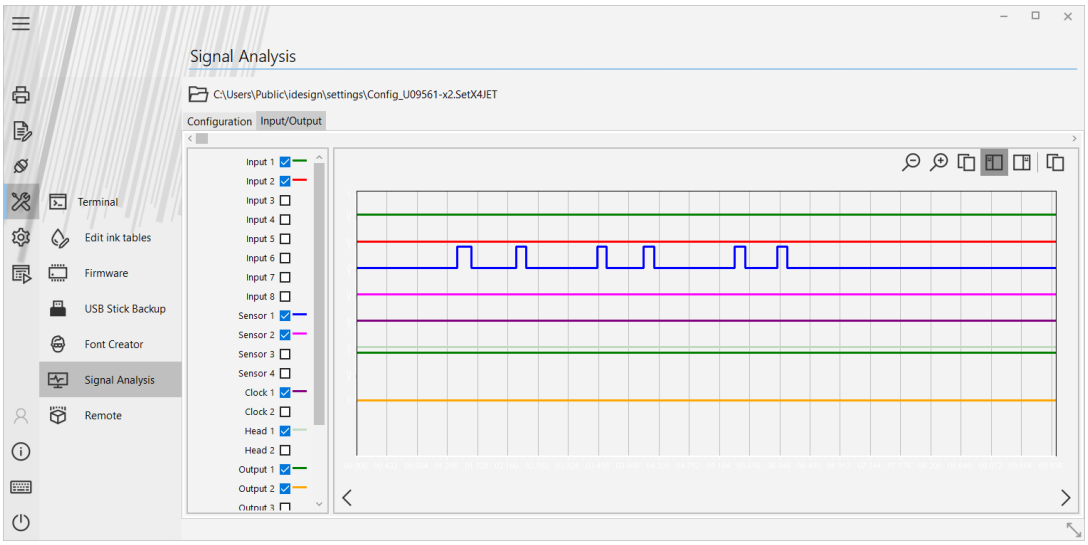


Fig. 121: Signal Analysis – Show and analyze stored signal flow

idesign8+ Remote

This function serves exclusively as extended data transfer of ERP or Middleware technology, i.e. SAP, Magix IPX or other. Actions, like print starts on specified systems or label updates on internal print storages can be done with the function.

Performance features

idesign8+ Remote is implemented as a Windows service. This ensures that control processes can send print start commands at any time, also if the idesign8+ software is not activated.

idesign8+ Remote offers the possibility to send print jobs (print starts) to any systems. Requirements are that the relevant systems are registered in idesign8+ (see also chapter „Include systems “).

idesign8+ Remote offers multiple configurable interfaces to receive print jobs.

- Filedrop (List monitoring): idesign8+ Remote monitored a specific folder. If a file is created or copied in this folder, idesign8+ Remote will import the file and realize the deposited print jobs. The file will be copied in a filing folder after processing.

- HTTP Rest interface: Print jobs can transfer via a http GET request. An answer data set can send as HTML or XML and indicates whether the print job was performed successfully.

- TCP / IP interface: Print jobs can transfer via a TCP interface. The interface is conducted as TCP Client. So a destination address and an access port must set. If the service is not accessible at the system, idesign8+ Remote try to connect once per second until the service is again available. A connection is maintained as long as either the interface is turned off, idesign8+ Remote is stopped or the service on the PC is stopped. A data set, which is send via the TCP / IP interface, must end with a simple word-wrap. This is the unprintable ASCII sign dez.13 <CR>.

Activate idesign8+ Remote

Instruction

Please activate idesign8+ Remote as follows:

Step	Procedure
1	Start idesign8+.
2	Click in the menu **Tools** on the submenu **idesign8+ Remote**.
3	Click the button **Start** in the tab **General** to start the service.

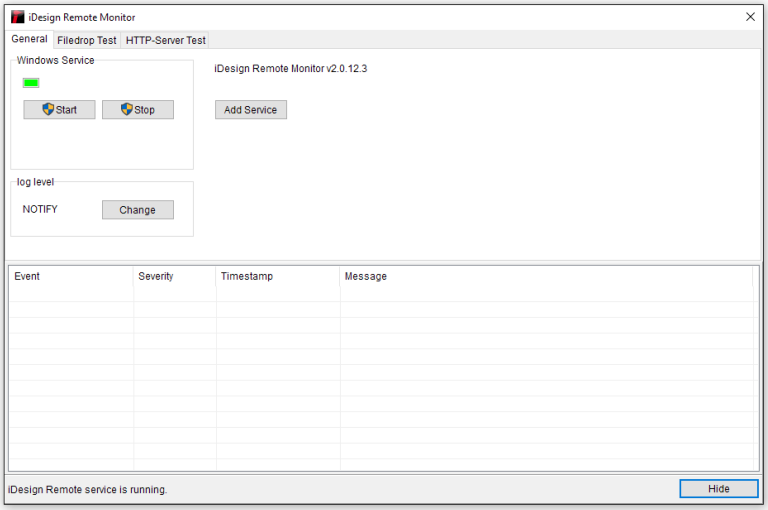


Fig. 122: idesign8+ Remote screen

4	The idesign8+ Remote Monitor appear as a Try Icon application and will be available until it is not terminated by the Popup menu.

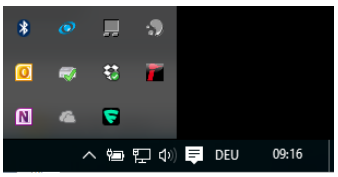


Fig. 123: idesign8+ try icon

Input format Filedrop (File monitoring)

The Filedrop system monitors a transfer directory. Once there appears a transfer file with valid data, a print start with the data is realized. The processed data of the transfer file are copied to a backup directory.
Transfer directory and backup directory can specify in the setting menu. It can also specify network directories.

Create a Filedrop service

Click on the “New Service” button and proceed as follows:

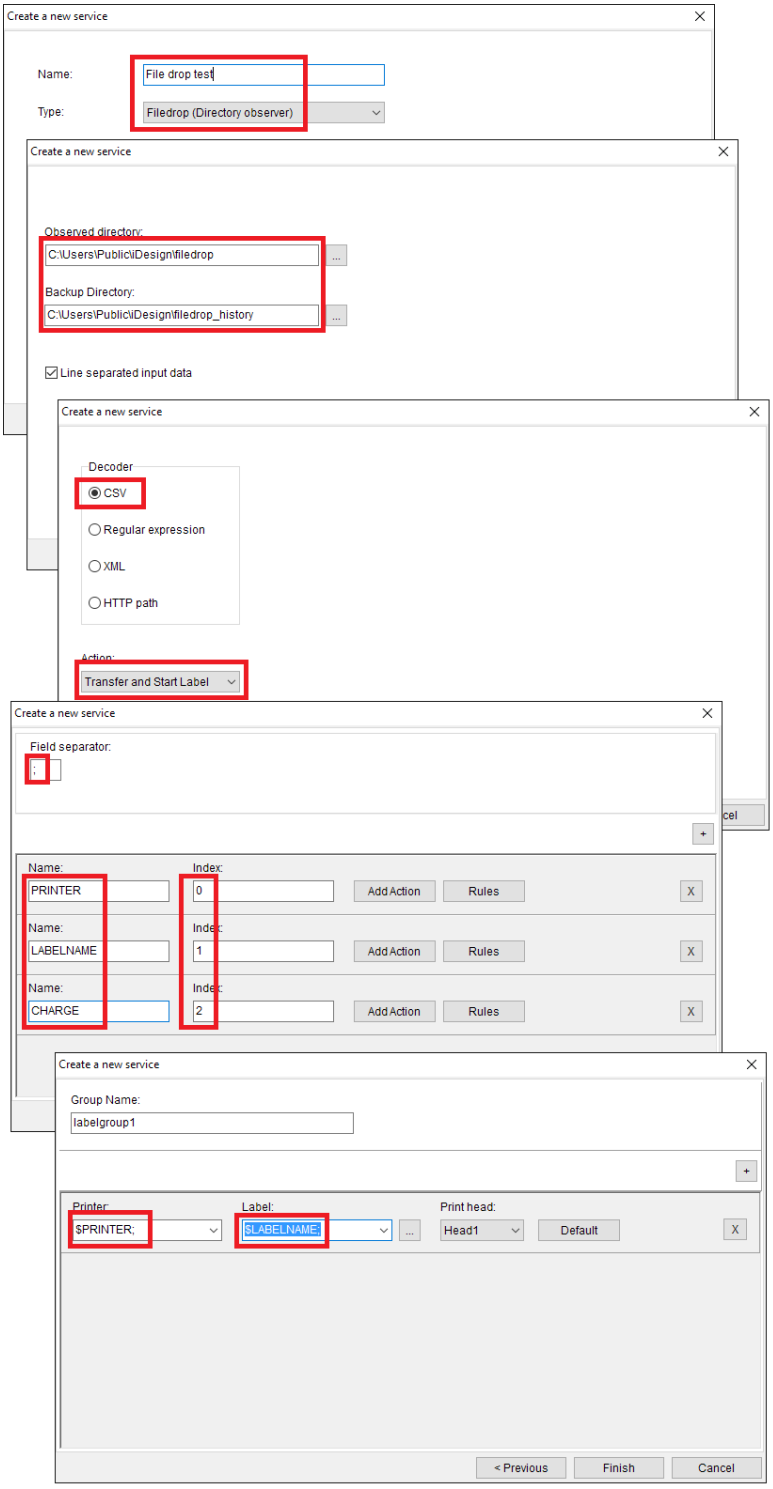


Fig. 124: Create a Filedrop sample

Test Filedrop

Instruction

Please activate the Filedrop service as follows:

Step	Procedure
1	After the service is finished, it must be activated manually. Simply check the box shown in the figure below.

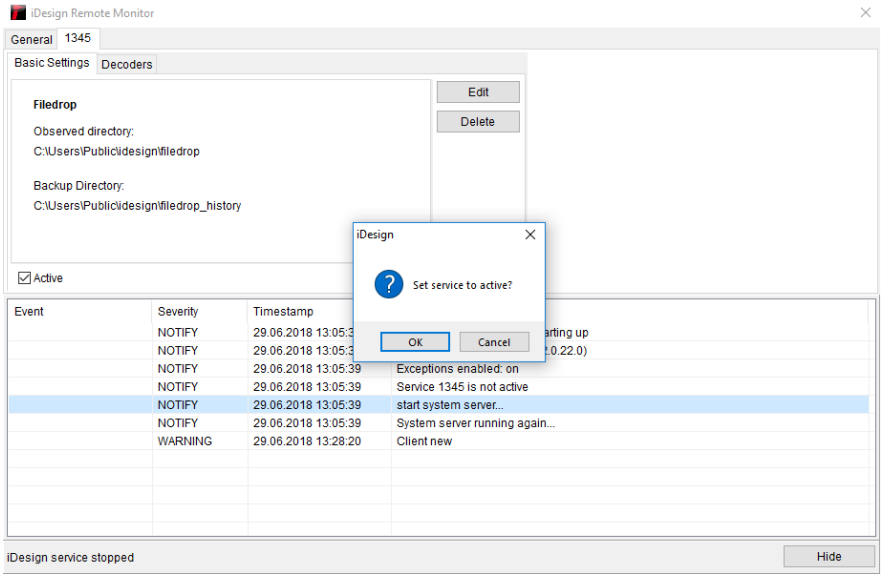


Fig. 125: Activate service

Create print image

Instruction

Please create a print image in the Filedrop system as follows:

Step	Procedure
1	To test the file drop system, a print image must be created in which there is an action field with a specific placeholder.
2	The name of the field is defined in the file drop settings menu and entered here. ⇨ The print image is saved under the name FiledropTest, for example.

Step	Procedure

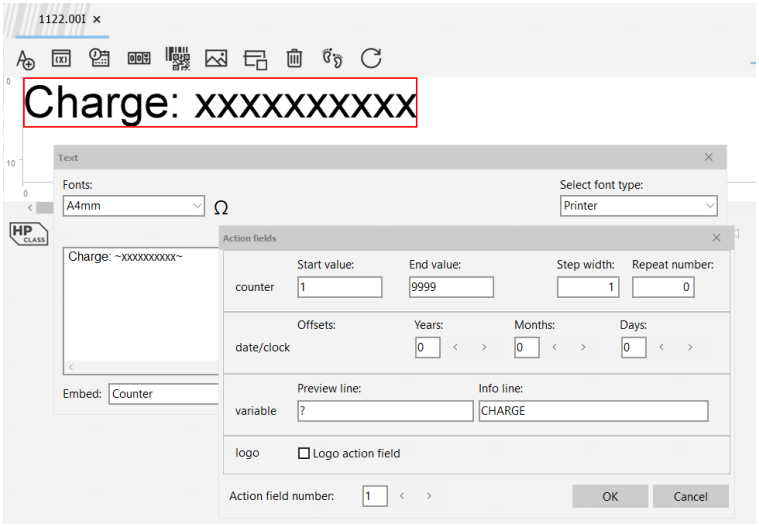


Fig. 126: Defining placeholders in the print image

Create transfer file
The transfer file is a simple text file and can have any name.
The contents of this file are as follows:

X1 LX Line1;FiledropTest.00I;ABC123

X1 LX Line1 → Printer name
FiledropTest.00I → Print image name
ABC123 → Handover value (batch number)

The individual fields are separated by semicolons.
The transfer file can also contain several lines with commands for several printers and header combinations. Alternative formats, e.g. XML or strings, which are to be processed with regular expressions are described separately. Please contact our technical support.

Characteristics for field 2 (Print image name): The print image names must insert with the associated file extension (i.e. .00I). If no complete Windows path (starting with C: i.e. C:\Users\Public\idesign8+\Label\testlabel.00I) is entered, idesign8+ Remote will search in the set standard print image path for the specified print image

Filedrop testing

Now copy the transfer file into the transfer directory.
This should disappear as soon as it appears, as it is processed immediately and moved to the backup folder.

The following entry appears in the log table:

SUCCESS	NOTIFY	26.05.2016 15:24:54	iDesign System server running again...
DEVICE_FOUND	NOTIFY	26.05.2016 15:24:54	X1 LX Line1
PRINTSTART	NOTIFY	26.05.2016 15:26:22	Print start successfull. label FiledropTest.00I to device X1 LX Line1 on head 1

The result can be checked directly using the idesign8+ status window.

Example input format Filedrop

N08766-x4,testlabel.00I,1,354235345.10.04.2017 – This is a print start command for the system named N08766-x4. A file test.00I for print head 1 is started in: C:\Users\Public\idesign8+\Label (Standard print image path).

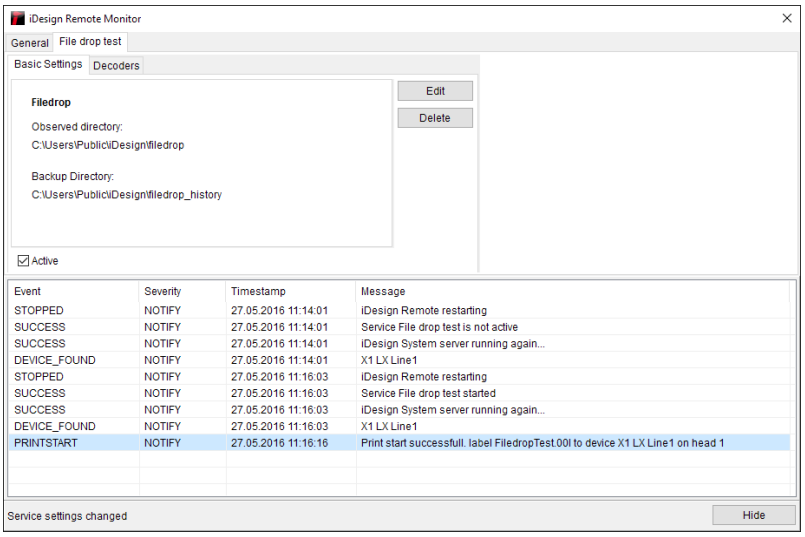


Fig. 127: Filedrop system

It is possible to place several start commands in a CSV file. For example:
Band1,flogo1.00I,Strawberryjam,20.06.2017
Band2,flogo1.00I,Currantjelly,20.06.2017
Packaging,ean128_aufdruck.00I,1,Jam,062017,03837372
Packaging,ean128_aufdruck.00I,2,Jam,062017,03837372

Here, several prints are print with different print heads, print images and variable data. A normal word-wrap separates the individual data sets.

Input format http

This is exactly the same as the example for the file drop service. The print image has the same content and is stored in our example under HTTP_Sample.00I.

Create a simple http service

Click on the "New Service" button and proceed as follows:

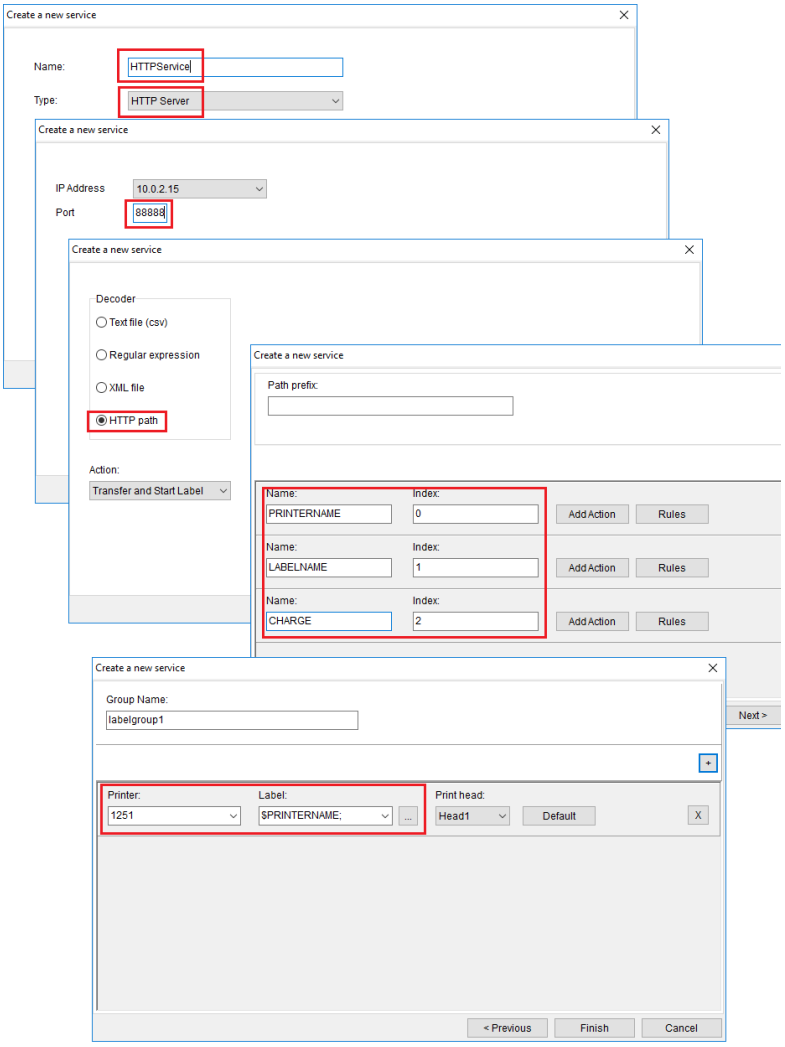


Fig. 128: Create HTTP-Server service

Test HTTP interface

Please note that special signs, i.e. German umlauts, must be specially coded in a valid internet query (URL). From the German word Erdbeerkonfitüre is here the cryptic Erdbeerkonfit%C3%BCre. The info line of the action fields in the print image must fill accordingly to transfer variable data via a HTTP query to a print image. Please note that you cannot enter long file paths (paths starting with C: \...) using HTTP query. That means that only print images from the standard print image index can be start.
The print start using a HTTP query has an advantage: You'll get a reliable feedback whether the print start has been realized successfully or whether an error has occurred (printer not available, print image doesn't exist). A print can also be started by copying a query line in the address bar of each web browser. It is a precondition that there is an existing idesign8+ Remote installation under the relevant address and the specified printer and specified print image exist.

command line:
http://127.0.0.1:8888/X1%20LX%20Line1/HTTP_Sample/?CHARGE=4711

http://127.0.0.1:8888/	→ IP address and port
X1%20LX%20Line1/	→ Printer name
HTTP_Sample/	→ Print image name
?CHARGE=4711	→ Variable field content

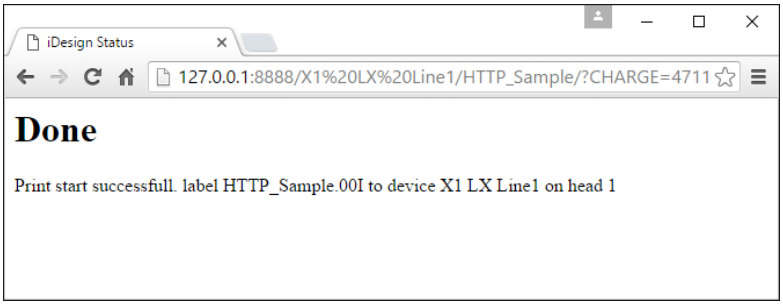


Fig. 129: Test with Web Browser

Setting up a TCP / IP service

To integrate a system that provides a permanent network connection, use a TCP / IP service. Note that a TCP / IP service can be set up as client or server.

The system you need to integrate is a TCP / Client

In this case, idesign Remote must be configured as TCP server.

The system is a TCP server

Thus idesign Remote must be configured as TCP client.

The system you need to connect cannot provide TCP connections. It is either a device with a USB port or an RS232 connector.

In this case you need an additional device. It is an RS232 / TCP adapter. Such devices are available in free trade, for example from the company MOXA. These systems can be configured as either TCP Server or TCP Client. All you have to do is configure idesign Remote in the exact opposite direction to the MOXA adapter. So if the TCP adapter is configured as a client, then idesign Remote must be a server and vice versa. For details on configuring your adapter, consult the manufacturer's documentation. In the idesign Remote Monitor, click the **New Service** button. Select a **name (1)** and select either **TCP Server** or **TCP Client (2)**, according to the requirements discussed above. **Click Next (3)**. Depending on what you have selected, the process will now continue in a slightly different way.

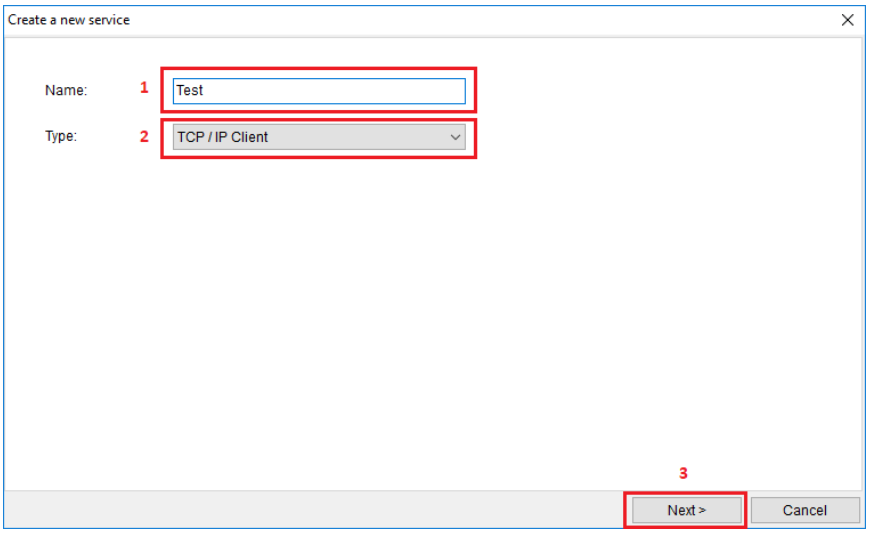


Fig. 130: Setting up a TCP / IP service

You have selected TCP Client

In the next step you have to enter the **IP address (1)** and the **TCP port (2)** of the system you want to integrate. You will most likely get the IP address from your IT administrator if you have not set it up yourself. You can either find the TCP port number in the system documentation or you can configure it in the system.

You have selected TCP Server

Now you have to select on which of your computer's network cards, idesign Remote should wait for incoming connections. Do not select the default 127.0.0.1 unless you want to test idesign Remote or you know exactly what you are doing. Also set a port that the device to be connected uses to connect to its remote station.

Set up a defined message start

Usually, but not always, the data transmissions of scanners start with a defined start signal. This is always a single character, usually a non-printable character. In the documentation of your device you will find which sign it is. To configure a non-printable character, first type a double cross in the **Port field (2)**, followed by the ASCII number of the character. For example, for an STX (Start of Text) you would type #3.

Your device does not send a defined message start

Some systems send a defined end of messages only. A defined start is not absolutely necessary, but creates more security during transmission. In this case, type the zero "#0" into the **Start Delimiter (3)** field.

Set up a defined end of message

A data transmission always has a defined end, a so-called end delimiter. This is also a single ASCII character. If it is a non-printable character, enter another double cross and the ASCII code number in the **End Delimiter field (4)**.

Click **Next (5)**.

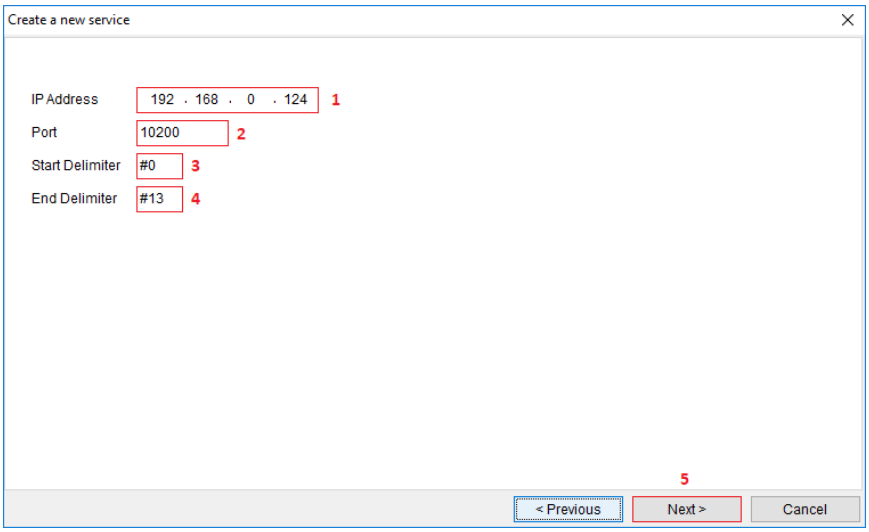


Fig. 131: Enter IP address and port

Splitting data into printable fields

idesign Remote can now establish a network connection with your system and receive individual messages. However, it does not yet know how to decrypt the received message. In the selection field **Decoder (1)** you have the choice between several decoding methods. In the selection field **Action (2)** you define exactly what the decoder does with the data it has received from your system. The question now is, when you need which decoder.

The received data fields are separated by a fixed character

For example, you receive a line like this
Gerhard Langer;49;Steinfelder Chausse 22;Lüdersdorf;368872
If your data looks like this, you should use the decoder text file (csv) user.

The data is sent in XML format.

Although not common over persistent network connections, data may be transferred in this format. Then select the appropriate decoder.

The message consists of several data fields, which do not exist in a simple pattern

Select here the Regular Expression Decoder.

The message consists of only one data field and is to be printed or reused as a whole.

Also use Regular Expression Decoder. In the next step, add only one data field and use the pattern ^(.+)$.
Note: The http Path Decoder is only needed for http services. Its use is illustrated in the manual for http services.

Configure what idesign Remote should do with your data

Use the Action (2) check box to specify what idesign Remote should do with your data when it receives it. Below we describe the use cases that idesign Remote supports.

The data is to be inserted into a print template. The resulting image should be printed immediately on the target printer.

To do this, select Transfer and Start Label from the Action selection box.

The data is to be inserted into a print template. This print template is to be sent to the target printer under a specific name and stored there. The actual print start is carried out later by another process or an operator.

In this case, select Transfer Label from the Action selection box.

The data is to be sent to the printer and integrated into a print image template. This print template is already on the printer. Mostly it was transferred with the help of idesign with the print image backup function.

In this case, select Start Label on Printer.

The current print is to be stopped immediately on an existing system.

Select Stop.
Click **Next (3).**

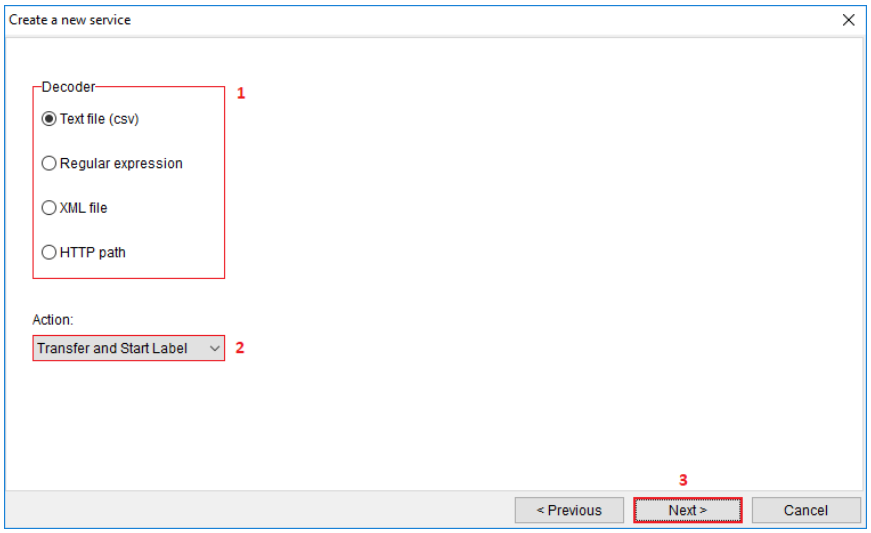


Fig. 132: Decrypt messages

Assign data fields to placeholders in the print image

In the next step, you assign the individual data fields that make up the message of the connected device to the variable fields in their print screen.

Creating and naming data fields

The window you see now looks slightly different, depending on which decoder you selected in the previous step. We will go into these differences in detail, but first we will concentrate on the control element, which is the same for all decoders. In the lower area of the window, you see a list that is now empty. We will add exactly one entry in this list for each variable field in your print image. We do this by pressing the **plus button (1)** on the right above the list. When you have done this, you will see a **Name (2)** field in each entry on the left that displays the field name. Names such as Field0 are preset. Give the fields meaningful names that reflect their meaning in the finished print image. For example, you specify a field that is to display a shelf life expiration date in the print screen as SLED.

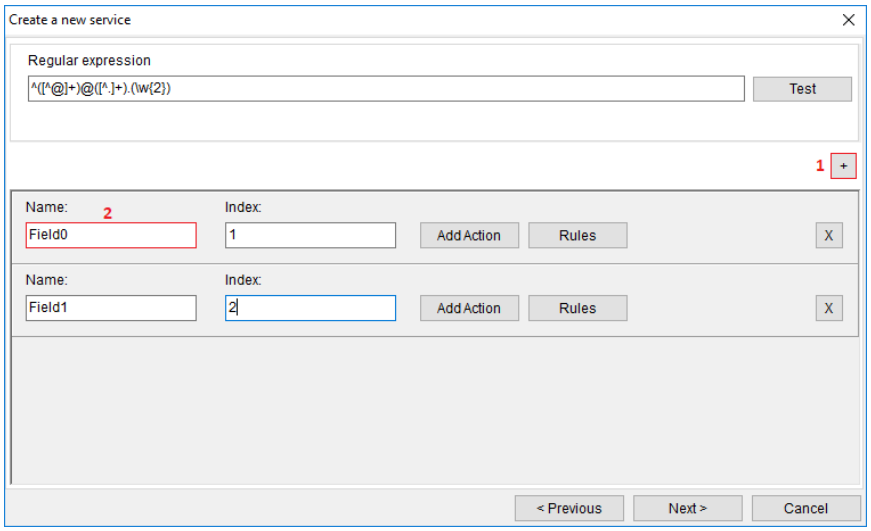


Fig. 133: Assign data fields

Inserting the data fields into the print image

To ensure that the data fields actually appear in the printed image, you must first open the printed image in idesign. Then use the same identifiers in the print image that you used when naming the data fields. You have two options for this.

Inserting a data field without length limitation
Open the corresponding action field or variable by double-clicking on it. In the field now write the name of the data field separated by two dashes. These superscripts are sometimes also called pipes. On a German keyboard you reach the output by pressing the Alt-Gr key together with the arrow key left under the A. Attention: On non-German keyboards it can be different. An example: You must enter the identifier for the shelf life expiration date SLED here |SLED|. Upper and lower case are important. There must not be any spaces between the identifiers and the superscript.
Example wrong: | SLED |
Example wrong: |sled|
Example correct: |SLED|

Inserting a data field with length limitation
Longer text sequences can affect the design of the print image if they are inserted without length limitation. Not always, but sometimes it may be appropriate to sacrifice the right margin of a block of text so as not to destroy the overall picture. This is especially true if there is critical data to the right of the text field in question, such as a 2D code, which must under no circumstances become unreadable.
To insert a data field with length limitation, open the action field or variable by double-clicking on it. Then type a tilde in the field. The tilde can be found on the German keyboard with Alt Gr and the + sign. After the tilde, type the letter small x. You write as many x here as you want to allow for letters in the output. You close the field with a second tilde at the end.
It is important that you do not use a large X. There should be no spaces between the tildes and the x placeholders.
Example correct: At least durable: ~xxxxxxxx~
Example wrong: At least durable: ~ xxxXX ~
Then click on **Action field** and type the exact identifier previously used in the idesign Remote configuration into the Default line input field. In this case, SLED. Attention: Upper and lower case are important

Splitting the read message into individual data fields

Finally, we need to tell idesign Remote how to split the input string into data fields in a meaningful way. This is a little different for each of the decoders. We will address each of the existing decoders separately.

CSV / Text Decoder

You use this decoder when the input message is separated into data fields by a single, recurring character. Type this character in the Field separator input field. Often it is a comma or a semicolon.

Regular Expression Decoder

You must enter a valid regular expression in the field **Regular Expression (1)**. This regular expression must meet the following criteria.
It is a regular expression according to Perl standard. POSIX and other standards are not supported.
To fill several data fields, the regular expression must define hit groups with parentheses.
As an example a simple printout that fits most email addresses **^([^@]+)@([^.]+)\.(\w{2,3})$**
Here the email address support@bluhmsysteme.de would be divided into three data fields.
The data fields are filled, as in the other decoders, via the **index property (2)** of the field. However, the special feature of filling with regular expressions is that the index 0, with which indexing normally starts, stands for the entire hit. The first hit group found then has the index 1. This must be taken into account.

Testing options

You have the possibility to test the regular expression in the input mask. If you click on **Test (3)**, an input field appears into which you can copy an input in the planned format.

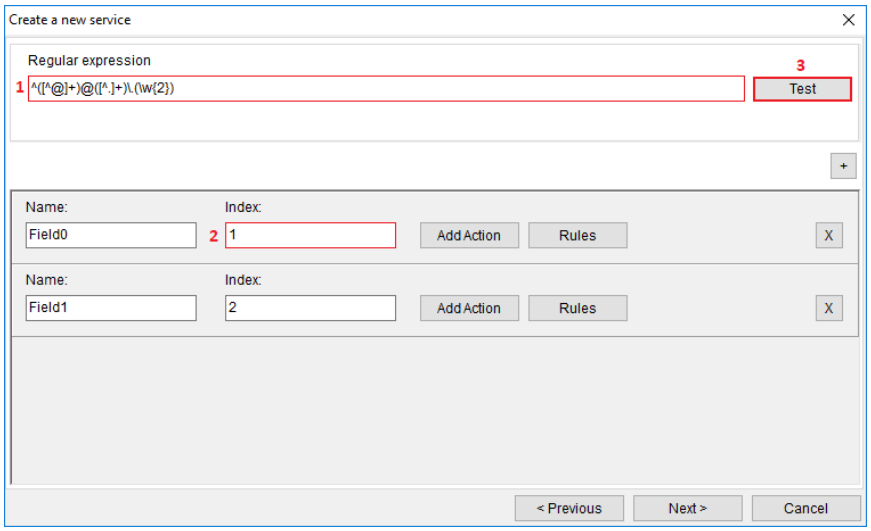


Fig. 134: Inserting the data fields into the print image

General information

For more information on the use of regular expressions, the following online resources are available:

General introduction	https://perldoc.perl.org/perlre.html
Online test environment	https://regexr.com/

A database query is to be executed on the basis of the data

A frequently recurring scenario is the following: An individual data key is transmitted via a barcode scanner or a controller (PLC), e.g. an order number. On the basis of this order number, a database query should now be executed. The print image is then to be filled with the result values from the database query.

If this description applies to your requirement profile, you can proceed as follows:

In the field entry containing the query key, click **New Action (1)** and then select Run **Database Query (2)** in the new window. Then **continue (3)**.

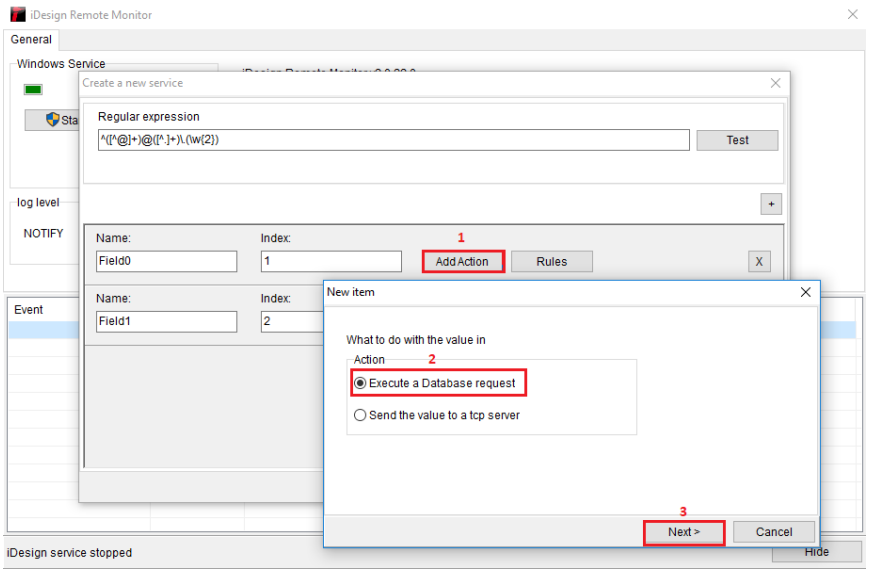


Fig. 135: Database query

In the following dialog enter an **ODBC connection string (1)** and an **SQL statement (2)**. If none of this tells you anything, then contact your company's IT department or the relevant specialist department.
The following applies to the ODBC connection:
The connection must already contain authentication data. Login and password data cannot be stored in idesign Remote. The user stored in the connection must have read authorizations for all tables and columns included in the SQL query.
The following applies to the SQL query:
All table columns must be named. The use of the star placeholder (SELECT * FROM) is not supported.
Results of SQL functions must be labeled with an alias AS. Example: RTRIM(product info) AS PINFO.
The query must return exactly one record.
The query must contain a WHERE condition that contains the key column and the value |KEY| on the right side of the comparison condition (see (2).
Example: SELECT Name, EAN FROM artikel FROM aid=|KEY|
The result of the query is directly available in the print image, just like the data sent by the system. You can display the result value of the EAN column in the print image by entering the value in your print image template with |EAN|. The extended syntax with length limitation is also possible.
Click **Next (3)**.

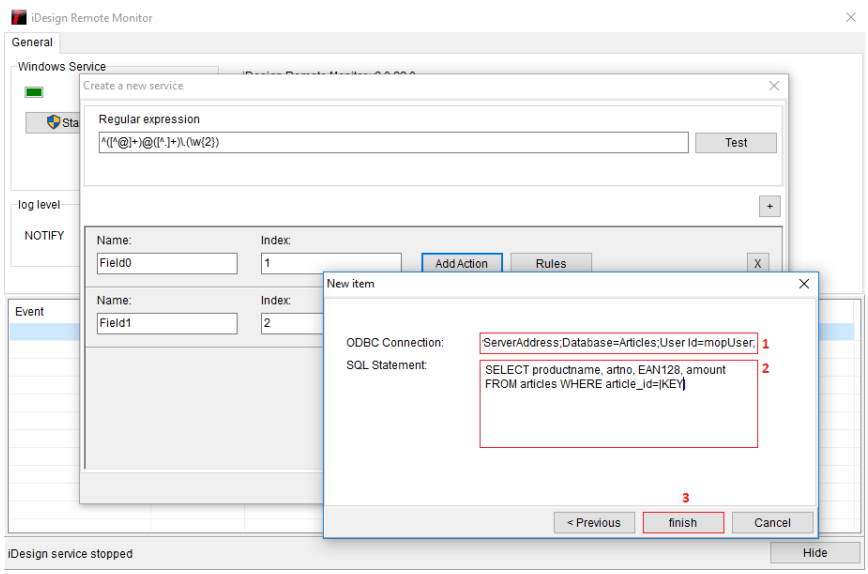


Fig. 136: ODBC connection

Selection of printer, print image and print head

All we have to do now is tell idesign Remote on which printer and with which print image we want to print our data. It is also possible to use multiple printers.

Preparation: Registering printers in idesign

However, all this requires that the printers are known in idesign. If not already done, start idesign and include the printers you need for your project there.

Preparation: Have all artwork been created?

If you haven't created all the artwork you need, now is a good time to do so.

Creating the print job

You will create a print image group in this view. You can leave the default name like this. You can also perform the action on multiple devices or print heads. Simply add additional entries with the **+ button (1)**.

How many entries do you need?

If you have selected either Print start, Stop or Transfer and Start as the action type:

For each print head you need to start or stop, you need an entry.

If you have selected Transfer label as the action type.

For each printer to which you send a print image template, you need an entry.

Once you have created the required entries, you can start by specifying the **printer (2)**, **print head (4)** and **print image (3)** to be used for each entry

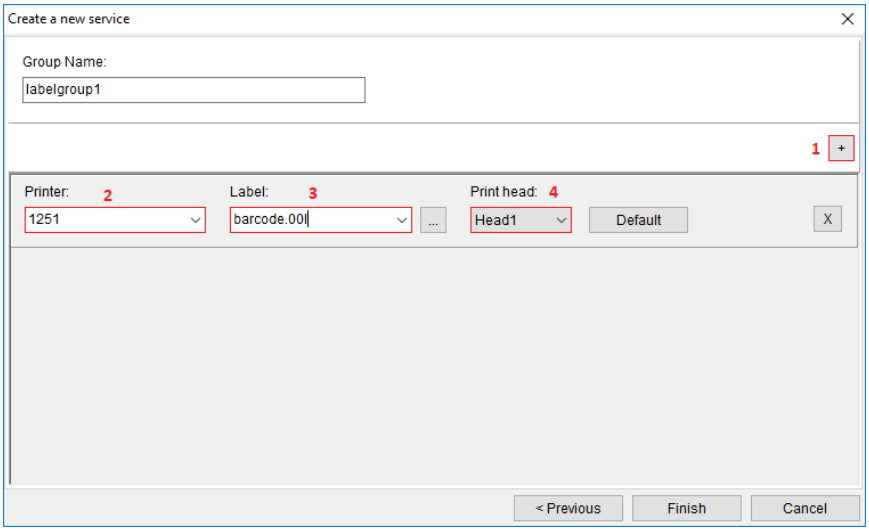


Fig. 137: Selection of printer, print image and print head

Defining the print image template only when printing

If you do not know which artwork is being used because the name of the artwork is in the message coming from the machine

In this case, go back to the decoder configuration (with the Back button). Enter a meaningful name such as LABEL in the field in which the print image name appears. Go back to the current page. You can now select the field LABEL from the selection field Print image. However, you will notice that there is not LABEL but $LABEL;. That's right.

Specify printer or print head only when printing

You do not yet know which device or print head to use. Because that, too, is stated in the transferred data.
No problem. Proceed in the same way as for the printed image.

Adding the print image name

In the message from the device, only the print image name but not the full path to the file, or the file extension is missing.
Simply write the file extension after the identifier for the print image name. For example, if you use the identifier PRINT PICTURE, your print job now contains $DRUCKBILD; Click in the box and add to $DRUCKBILD;.00I. If your print image is not in the default path, simply set the path in front of it. C:\PrintPictures\$PRINTPICTURE;.00I.

If a print image name is not always sent

Sometimes a standard print image can be used for the vast majority of products, but some products require a special layout. In this case, the article databases only contain print image names for those articles that require a special print image. n all other articles this column is empty. idesign Remote can map this logic directly.
To do this, click the **Standard button (1)**. In the new window, you can now enter a default print image in the Print Image field (2), which idesign Remote will use whenever the field that normally contains the template name is empty.
If the field comes from a database query, a string with length zero must be contained or the special value NULL. If the value is read in via a CSV decoder, then it is a character string of length zero, i.e. two commas in direct succession, if you use commas as field separators. An XML decoder is also an empty field, or attribute. With a decoder for regular expressions no empty values can be read in, because a regular expression only fits and reacts if a value was read for all its partial patterns. Here you cannot define a default printer.

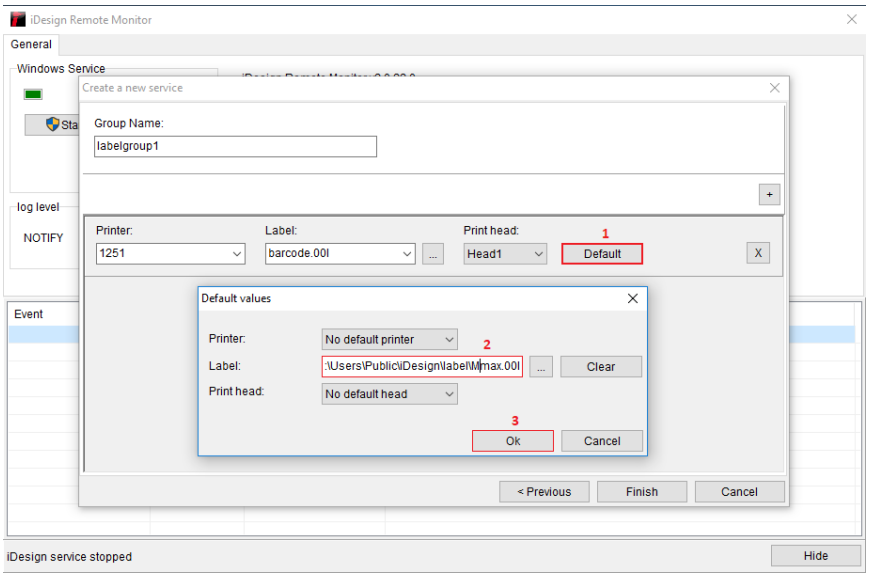


Fig. 138: Using standard print image

Screen Keyboard

Fig. 139: Screen Keyboard

8. Options

General

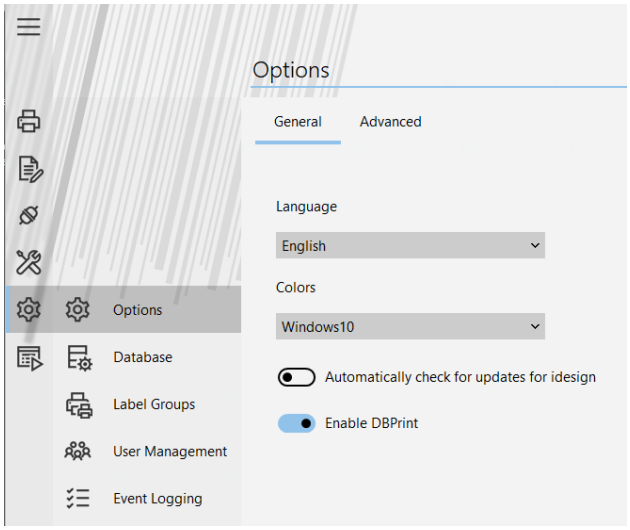


Fig. 140: General settings

Set up language

Instruction

Please set the user language as follows:

Step	Procedure
1	Click on **General settings** in the selection register **Tools**.
2	Select the desired language by mouse click in the list field „user languages“.

NOTICE

You need a further language?
Contact Weber Marking Systems.
We can help you.

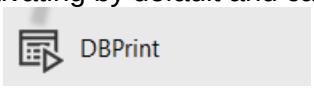
NOTICE

The changes will be assumed after the idesign8+ restart.

Design

You can choose between 4 different designs.

Activate DB Print

The DB Print function is used for a serial print from databases, i.e. of serial numbers or address print. The function is deactivating by default and can activate here if required. In the main menu is displayed this button 

DB Print.

NOTICE DB-Print can be used with PRO or ULTIMATE systems only.

Distributor features

This function is only available for official Weber distributors and must be considered separately.

Automatically check for updates for idesign8+

If activated, idesign automatically searches for a newer version at program start. If one was found, the changes are displayed in a list. By confirmation the download and the installation can be made directly.

Stitch Function

If this function is deactivated, the stitch function in the system settings menu is hidden for safety reasons.

Display print start menu "Print image group“

If the function "Print image group" is can be activated here.

Store variable fields

This option specifies whether a queried variable field is saved with print request and will be displayed as default line with a new print request. This is useful to enter only the data that has actually changed. Data that hasn’t changes can confirm by the Enter-button.

Check variable length

With this option it can be defined whether a queried variable field is to be checked for length at print call. The length is defined by the number of letters x.

Counter start value

The start value of a counter must be confirmed with print start or rather the desired start value can be entered by using a counter field in a print image with an active function. The last counter value will be saved by a print stop and continued with a new print start.
Which counter start should be written, can be adapted.

Data type	Description
From Label	The defined start value in a label will be used as counter value automatically (standard).
User input	The counter start value will be queried without standard value.
Last value	The current counter value will be saved in the label and used with a new print start.
Query last value	The counter start value will be queried from the user. The counter start value is requested by the user. The current counter value is displayed as default line.

Menu Shortcuts

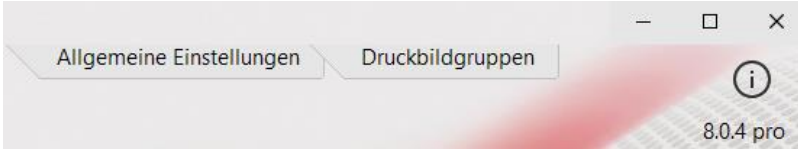


Fig. 141: Menu Shortcuts

In the upper menu bar, the last five selected menu items are always displayed for quick access.

Settings and resources location

With the installation of idesign8+ a directory will be generate in C:\users\public\. This directory includes all variable data of idesign8+, that means label, logo, font types and program settings will be saved.
To put the settings and resources to another storage location, the directory can i.e. be moved to a network drive. This is useful to have access to a label trunk with multiple instances of idesign8+. Either the complete idesign8+ directory can be copied or there is the possibility to use a file path of an existing idesign8+ directory. Furthermore, there is the possibility to move the print images and logo directory individually. Click on the button Change to do the settings by a Wizard. Also already made settings can be cancel here.

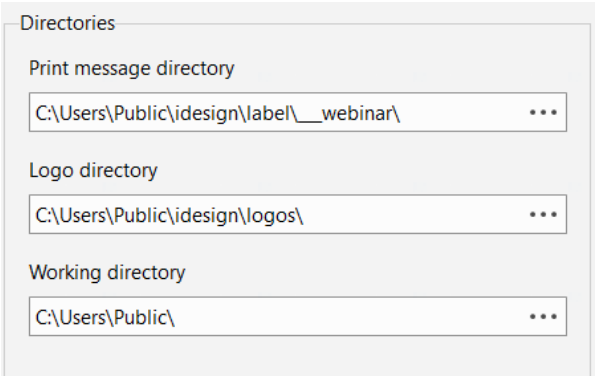


Fig. 142: Settings and resources location

Database connection

The following settings are applied in the **Database** submenu:

- Database selection
- Settings

NOTICE

Download 32-bit ODBC Treiber for Excel und ACCESS 2010 and higher:
https://www.microsoft.com/en-US/download/details.aspx?id=13255

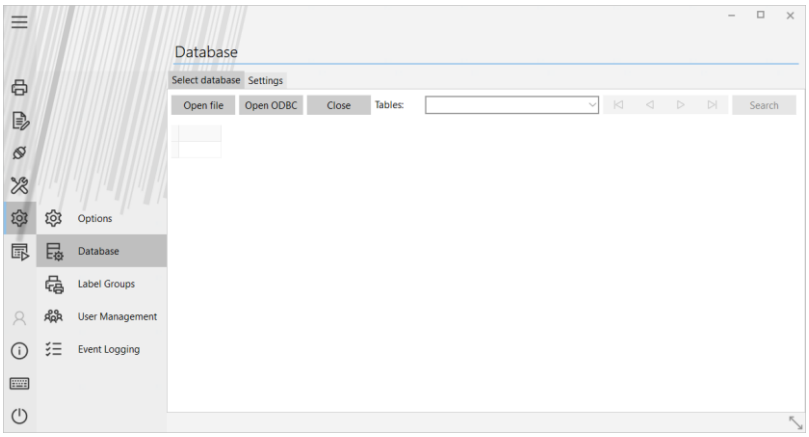


Fig. 143: Database menu

Open file

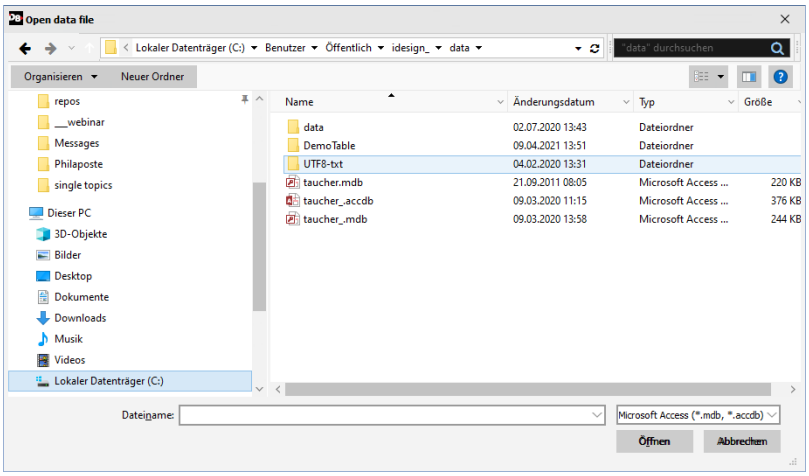


Fig. 144: Open file

Open ODBC

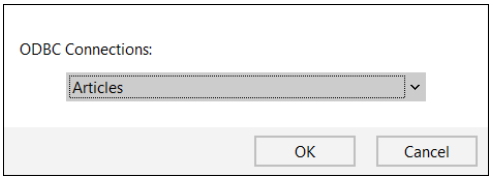


Fig. 145: Open ODBC link

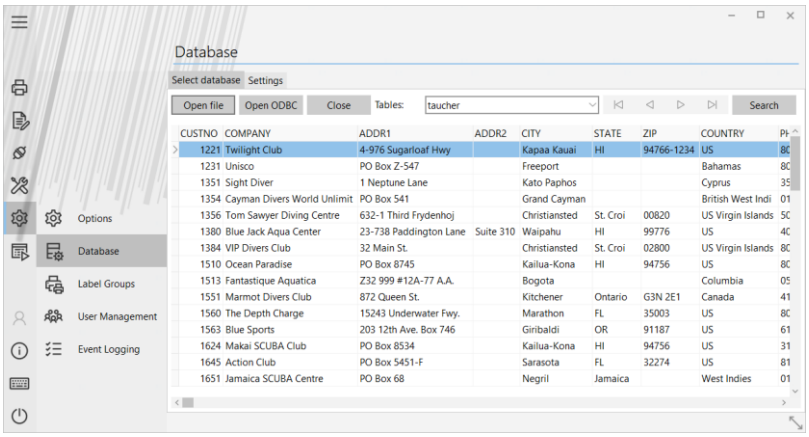
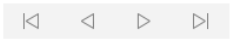


Fig. 146: Open database

Use the “Search” button to find a specific line in the database. The search always references the line entered in “Settings”.

The  buttons are used to navigate in the table. The buttons at each end jump to the beginning (left) and end (right). The two buttons in the center move the cursor up (left) or down (right) by one position.

The **Settings** tab takes you to the menu item for database settings.

Settings

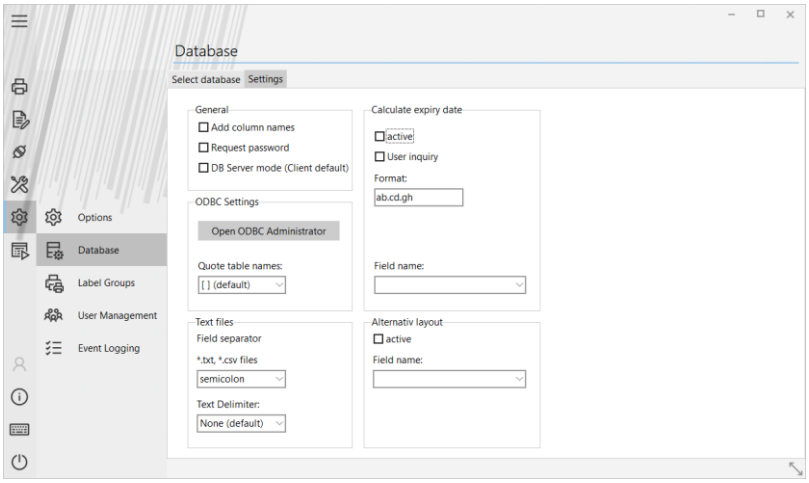


Fig. 147: Database settings

General

The **General** field determines the column used for the search function.

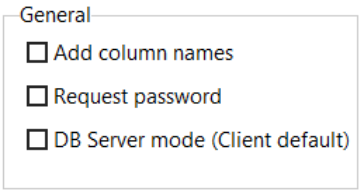


Fig. 148: General field

Add column names is useful if the table has no field names. It will give each field a standard name F1…Fn. (like e.g. in Microsoft® Excel)

Text files

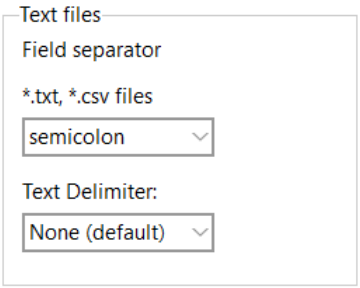


Fig. 149: Text Files

Global definition of a field separator and a text delimiter.

Calculate expiry date

In the expiry date field, an offset can be assigned to the BBD, determined from the database values. This means that the current date is increased by the number shown in “Field name”. The number in the field corresponds to the days added.
By ticking next to “User query”, the generated date can be re-checked or changed by the user/operator.

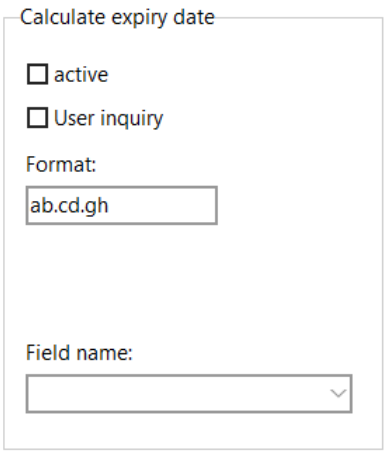


Fig. 150: Calculate the expiry date field

Alternative layout

The “Alternative Layout” field enables download of an alternative layout from the table. The field name for this can be defined here. This function is switched on by ticking “active”. The name of the alternative layout must be stored in the table. If the field is empty, the Standard Layout remains in use.

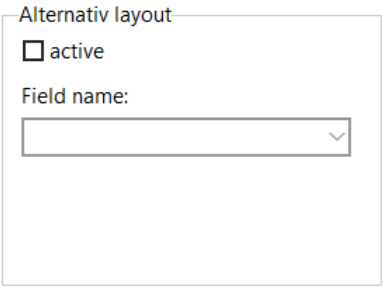


Fig. 151: Alternative layout field

Label groups

Function

Label groups can be defined in order to assign to every print head of all connected printer an individual label. The label group can be also created with mixed print technologies. The target is to fill up a group of print heads with individual labels with only one button press.

Create a label group

Select the menu Label groups of the sub menu Layout. Already existing label groups will be displayed for editing, checking and deleting.

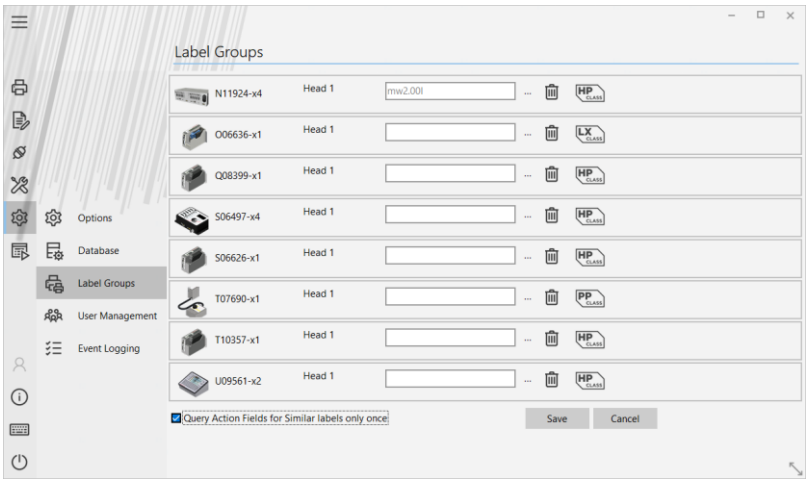


Fig. 152: Creation of a new label group

In order to create a label group, press the button „New“. All defined printers will be displayed. Now you can select a label for each individual print head. For every label group can be defined if variable fields queried only once for all or for every label separately.

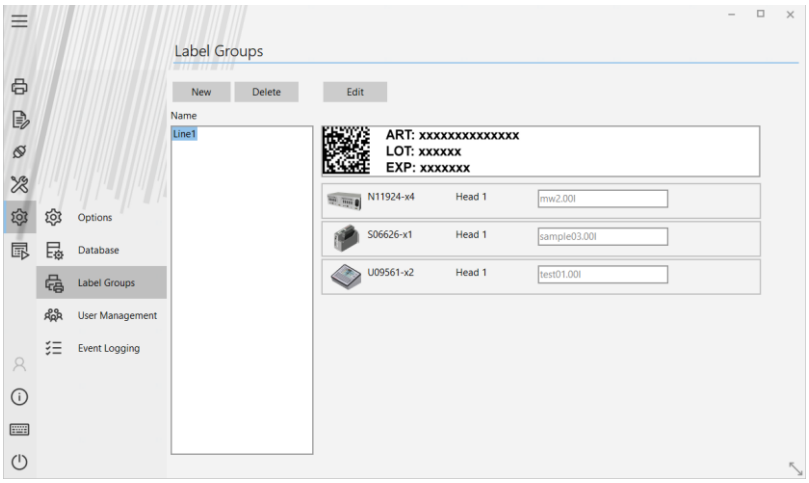


Fig. 153: Creation of a new label group

If one or more label groups defined a “Label group” button will be displayed. Press this to show the print start label group menu.

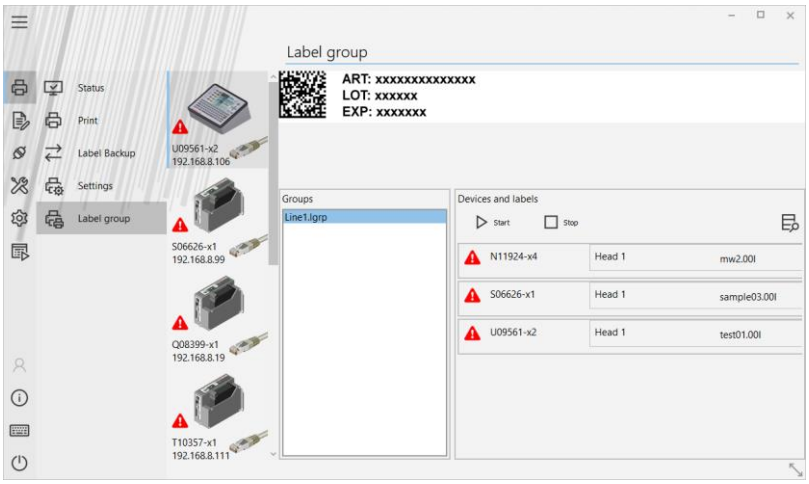
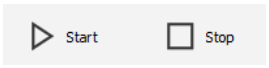


Fig. 154: Start label group

With the buttons 

you can run a print start or print stop of the selected label group.

User Management

Overview

The idesign8+ user management facilities allows for access to dedicated features of idesign8+ based on user name and password identifiers. In this regard, it follows the standard approach, which most users are familiar with, from i.e. the Windows operating system and many more.
However, because there are many different requirements on how to manage user credentials in the field of industrial applications, idesign8+ comes with three different flavors of user management. The list below provides a short overview of those:

Type	Characteristics
Simple user Management	Three fixed access levels. Passwords are to be chosen at first configuration and can be changed later on. Credentials for each level can be changed as well.
Advanced User Management	Unlimited number of users and user groups. One can assign any number of credentials to a user group which can, in turn, can contain any number of users.
GAMP Advanced User Management	Like above with an enhanced and more restrictive security model.

Each of the user management systems covers some requirements that motivate the use of user based access to idesign8+ features. In the following section we would like help you, to find out which approach will fit your needs. Additionally, we will provide a more in depth explanation of the features provided.

Simple User Management

This type of user management provides three fixed access levels. The passwords, needed to access one of the levels, can be adjusted during activation of the user management. The passwords, as well as credential details, can be changed later on but note that this can only be done by the level “Administrator”.
Each of the access levels can be configured, except the admin level which is fixed to have all available credentials. This is mainly to prevent the admin level from lock itself out from the system.
If your primary reason for the use of a user management is just to keep control of the current settings of your connected devices, thus keep shift workers away of the more sophisticated settings of the devices, then you are probably best off, using the simple user management. Please, refer to the section Setting up the simple user management, to learn how to configure it.

Guest credentials

If User Management is activated in idesign8+, one has to type in a password in order to do even the most basic tasks. Sometimes, this behavior is too restrictive. You want, for example, a line worker to be able to observe the status of some printers or want them to be able to start and stop print jobs without the need to log in each time. This can be achieved by setting up the standard user as a guest account. If this option is enabled, the standard user is automatically in logged in state after idesign8+ is started and it has no password assigned. However, you can still restrict some of the more sensible features of idesign8+ using the admin and super user access levels.

Advanced User Management

The need to use this mode of the user management arises if the access levels, provided by the simple user management don’t fit to the kind of personnel that works in your factory, i.e you need to have more than three types users that will use idesign8+. In this case, you will need to define your own access levels. Furthermore, you may want to provide each user with a unique log in / password for his own use, instead to have just one “common” password to use for all employees that should log in using a distinctive access level.

Once, the advanced user management is activated, the dedicated “admin” user can create an unlimited number of users. Each user will have a unique login-name and a password. Users are always member of a user group. A user group in turn will have several credentials attached. The admin user can add or remove credential from each user group as required. Find an exhaustive list of all available credentials in the appendix A.

Guest Account

In the same manner as in the Simple User Management, it's possible to create a guest user, that will become active when no other user is logged in and which is logged in immediately after start of idesign8+.

Please, refer to the section Setting up the Advanced User Management to learn more.

GAMP Advanced User Management

If you need enhanced security features and a close monitoring of user activities, then the GAMP User Management is the correct choice for you. The GAMP Management is similar to the Advanced User Management, in terms of user and user groups but provides some features that are not needed by all customers, therefore we decided to provide those features as an extra option.
In particular, those features are:

- Users that are created by the admin user will be asked to change their password after the first successful logon.
- If a user tries three times to dial in without success, this user will be locked. That means, this user cannot log in anymore. Only the user “admin” is able to unlock this user again, by providing her / him a new password (that she or he will need to change after first login, again).
- After 5 Minutes of inactivity a user will be automatically logged out.
- Use actions will be captured in a log file.

Please, refer to the chapter activate GAMP User Management and Configuration of the GAMP User Management for further details.

Simple user management

Instruction
Please setup the simple user management as follows:

Step	Procedure
1	Start idesign8+.
2	Select menu “Tools”.
3	Press “User Management” button
4	A new window will appear. Select the choice “simple user management”.

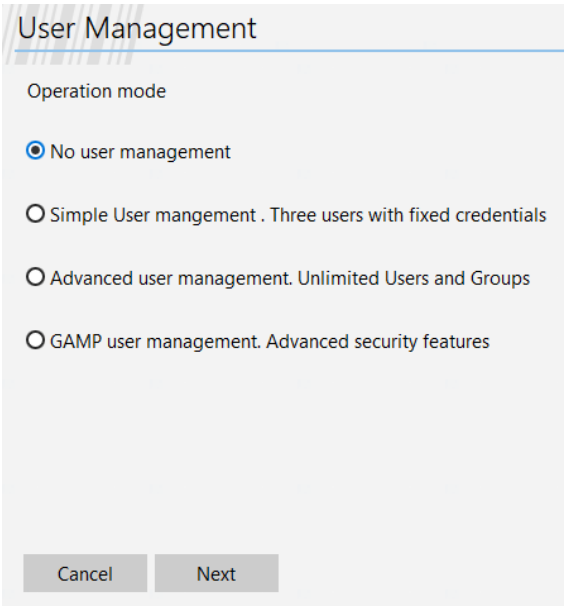


Fig. 155: Simple User management

5	Press “Next”.

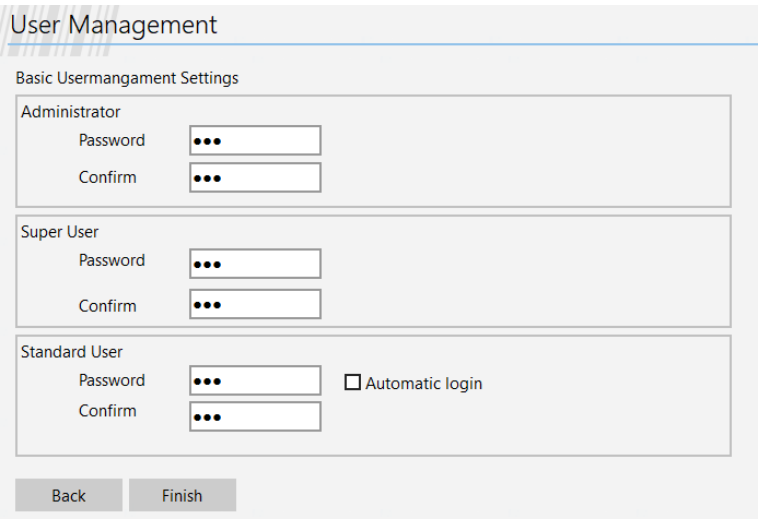


Fig. 156: Setup Simple User management

6	Now, you need to insert three passwords. You will need to enter each password twice. If you typed all the passwords correct, the “next” button is enabled.

Step	Procedure
7	If everything went well, press “next”. idesign8+ will shut down and restart.

Simple user management with guest user

Instruction
Please setup the simple user management with guest user as follows:

Step	Procedure
1	Select the menu “tools”.
2	Press button “user management”.
3	A new window will appear. Select the choice “simple user management”.
4	Press “Next”.
5	Now, type in the passwords for the admin user and super user. You can leave the entries for the standard user blank. You will note, that you need to type each of the passwords twice.

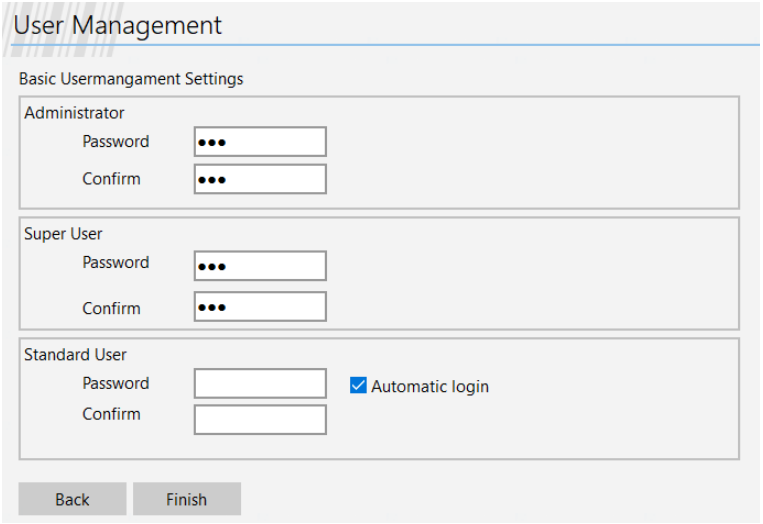


Fig. 157: Setup User management

6	Tip the automatic login checkbox inside the standard user group box.
7	Click the finish button. idesign8+ will restart.

Using idesign8+ with Simple User Management enabled
Login after start

Instruction
Please use idesign8+ with enabled simple user management as follows:

Step	Procedure
1	Start idesign8+. ⇨ You will notice that most buttons and controls are in gray color and that they don't react on mouse clicks.
2	To log in, click on the buttons at the top right of the main window as shown in the graphic below.

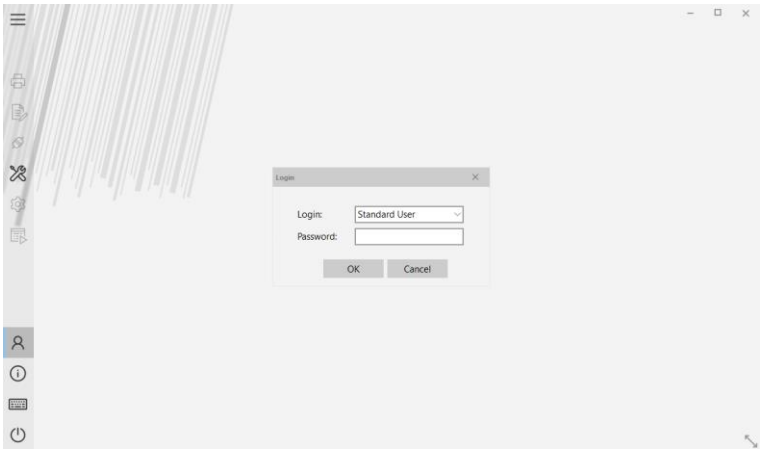


Fig. 158: Login

3	In the dialog window that will appear now, select first the kind of access level that you want to enter.
4	After that type the password in the input field below.
5	Press ok to log in.

Change the current access level

See log in after start.

Log out

Instruction
Please log out as follows:

Step	Procedure
1	Press the  button on the bottom bar.
2	On the menu that will appear then, select logout.
3	You will be asked if you really want to log out. Confirm by pressing the Ok button.

Further Configuration of the Simple User Management

Make sure that the Simple User Management is activated. See Setup of the Simple User Management for details. If the Simple User Management is activated, then start idesign8+ and log in to idesign8+ with the access level admin. See chapter Login after start for details. Then proceed as follows:

From the main menu select the strip “tools”

Select “user management”. idesign8+ should look like the image below now. If this is not the case than you have probably not the Simple User Management activated.

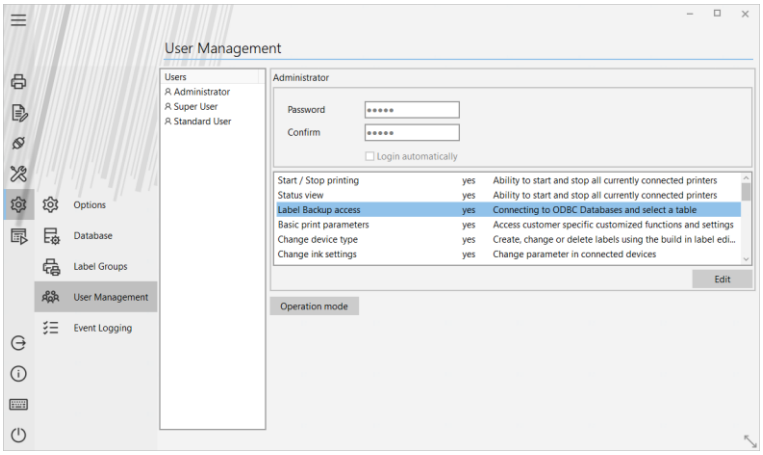


Fig. 159: Configuration User management

Change a Password

Instruction

Please change password as follows:

Step	Procedure
1	Select an access level (admin, super user or standard user) from the list at left.
2	Click the edit button below the list of credentials.
3	Type the new password to the input fields. Note, that you need to type the new password twice.

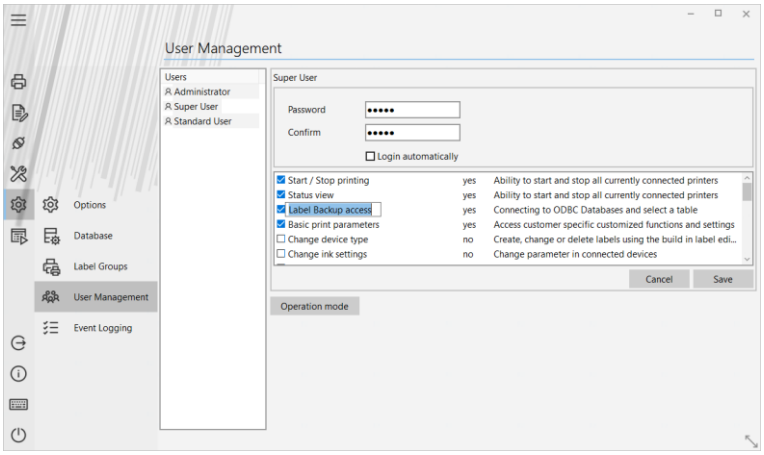


Fig. 160: User management settings

4	Confirm your settings by pressing the Save button.

Change the credentials

Instruction
Please change the credentials as follows:

Step	Procedure
1	Select an access level (admin, super user or standard user) from the list at left.
2	Click the edit button below the list of credentials.
3	To add a new credential to the selected access level, click on the check box near the description of the credential. To remove already assigned credentials remove the tick in the box by a mouse click.
4	Confirm your changes by pressing the Save button.

NOTICE It is not possible to add or to remove any credentials from the admin access level.

Select an access level as guest level

Instruction
Please select an access level as gust level as follows:

Step	Procedure
1	Select an access level.
2	Click the edit button.
3	Tick the login automatically check box.
4	Confirm your changes by pressing the Ok button.

Advanced User Management Setup

Instruction
Please setup the Advanced User Management as follows:

Step	Procedure
1	Select the menu “tools”.
2	Press button “user management”.
3	A new window will appear. Choose “Advanced user management”.

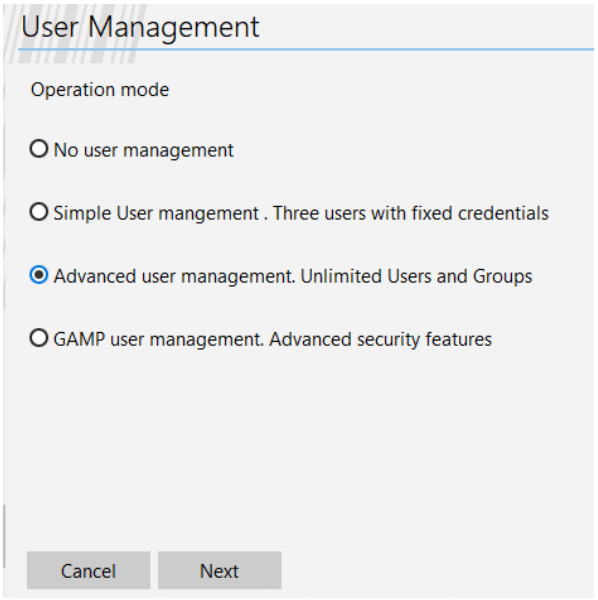


Fig. 161: Advanced user management

4	Press “Next”.
5	Enter the administrator password. Note that you must repeat the password for security reasons. Note as well that you must log in to idesign8+ using this password to do any further settings. If these passwords get lost, you are probably locked out from idesign8+ at all.

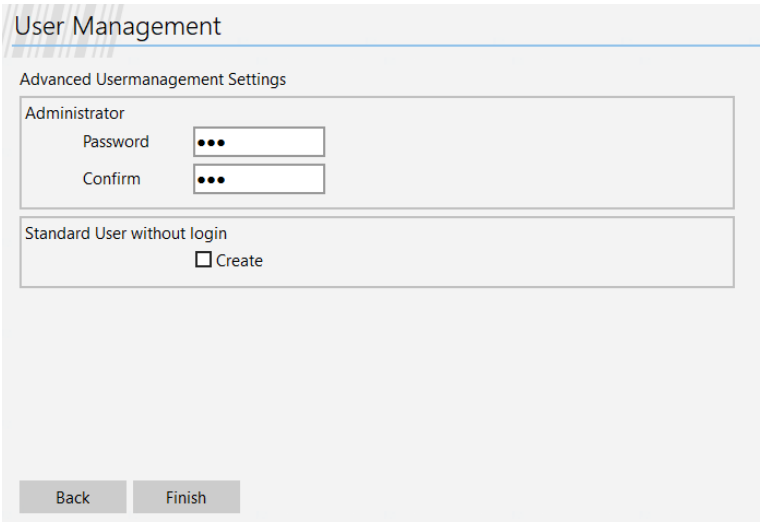


Fig. 162: Enter Password

Step	Procedure
6	Press “finish”. Idesign8+ will restart. ⇨ The Advanced user management is active now.

Advanced User Management setup with guest user

Instruction
Please setup the Advanced user management with guest user as follows:

Step	Procedure
1	Select the menu “tools”.
2	Press button “user management”.
3	A new window will appear. Select the choice “Advanced user management”.
4	Press “Next”.
5	Now, type in the passwords for the admin user and super user. You can leave the entries for the standard user blank. You will note, that you need to type each of the passwords twice.

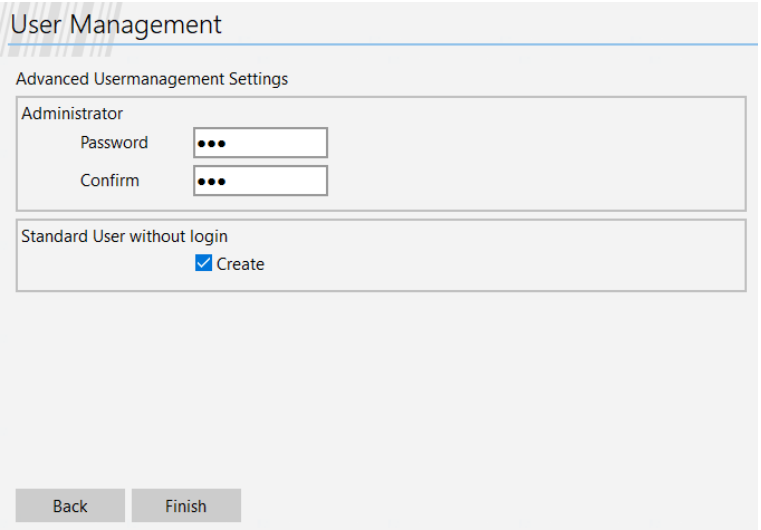


Fig. 163: Setup guest user

6	Now click the check box “create” which his to be found in the group box “standard user without login”.
7	Click the finish button. idesign8+ will restart.

Using idesign8+ with advanced user management enabled
Log in after start

Instruction
Please use idesign8+ with enabled Advanced user management as follows:

Step	Procedure
1	Start idesign8+. ⇨ You will notice that most buttons and controls are in gray color and that they don't react on mouse clicks.
2	To log in press the button “user management”

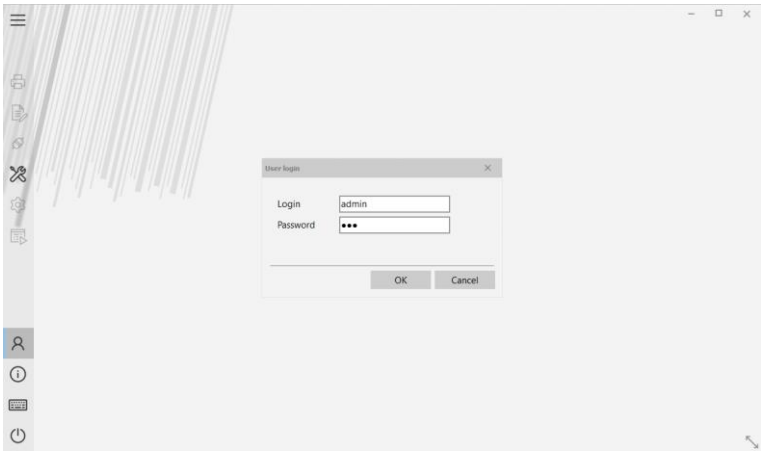


Fig. 164: Login

3	In the dialog window that will appear now, select first the kind of access level that you want to enter.
4	After that type the password in the input field below.
5	Press ok to log in.

Further setup of the advanced user management
Make sure that the Advanced User Management is activated. Advanced user management setup for details. If the advanced user management is activated, then start idesign8+ and log in to idesign8+ using the admin user. See chapter Login after start for details.

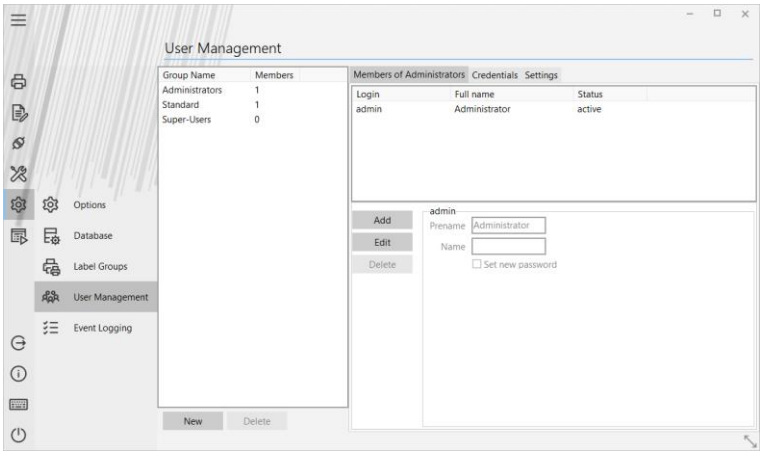


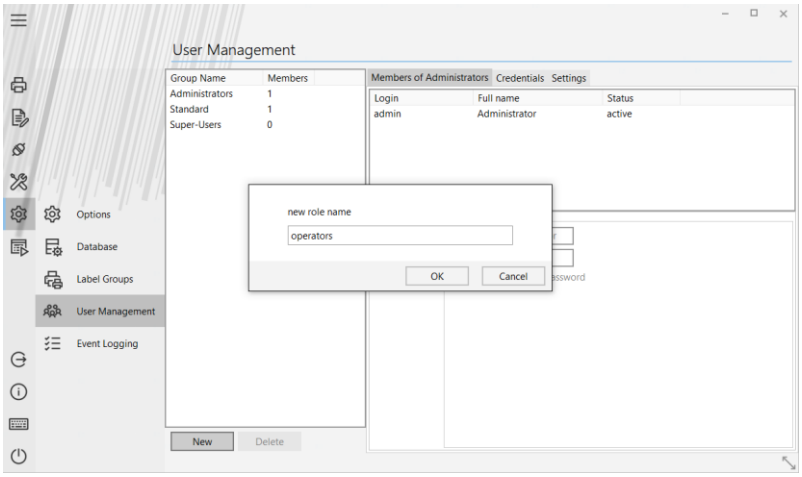
Fig. 165: Setup user management

Proceed as follows:

From the main menu select the strip “tools”
Select “user management”. idesign8+ should look like the image below now. If this is not the case the advanced user management is not active.

Create a new user group

Instruction
Please create a new user group as follows:

Step	Procedure
1	Click on the button “new group”.
2	Type the name of the new user group in the input field of the new dialog. **Note that it's not permitted to create 2 groups with the same name.**
	 Fig. 166: Setup user group
3	Press “ok” to save the group.

Delete a user group

Instruction
Please delete a user group as follows:

Step	Procedure
1	In the list of group entries to the left, select the group that you want to delete.
2	Click the “delete group” button. **Note that it's not permitted to delete a group with assigned users. In this case, the “delete user” button will appear in gray and will not react to user input. You will need to delete all the users in the group one by one before the group can be deleted.**
3	After pressing the delete button, idesign8+ will ask you confirm your decision by pressing an “Ok” button.

Assigning or removing credentials

Instruction
Please assigning or removing credentials as follows:

Step	Procedure
1	Select a group from the list.
2	Click on the tab “credentials”.
3	To set a credential, click on the check box in a list entry. Credentials which are already assigned to a user group will appear with a tick in the box. To remove the credential, you can remove the tick.

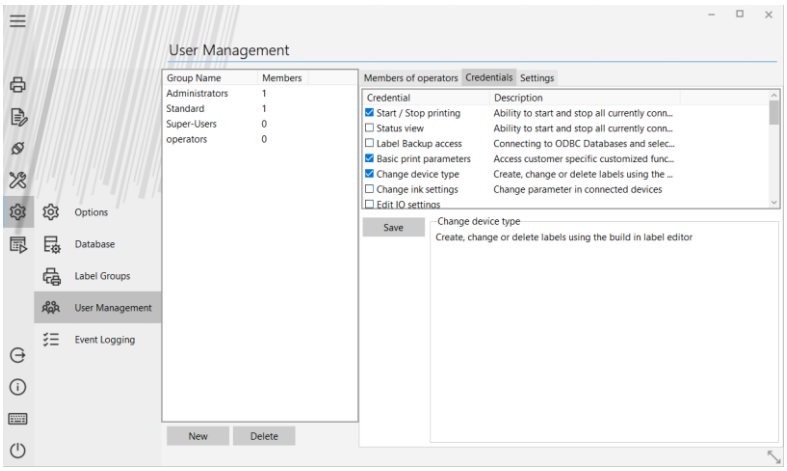


Fig. 167: Setup user management

4	Don't forget to confirm your changes by pressing the “save” button below.

Create a new user

Instruction
Please create new user as follows:

Step	Procedure
1	Select the group to which you want to assign the new user.
2	Click on the tab header tiled “users of” followed by the name of the selected group.
3	Press the button “add user”.
4	In the dialog window that will appear now, please fill in all the input fields. You will need to insert the password twice. As soon as all entries are correct, the “ok” button will become enabled

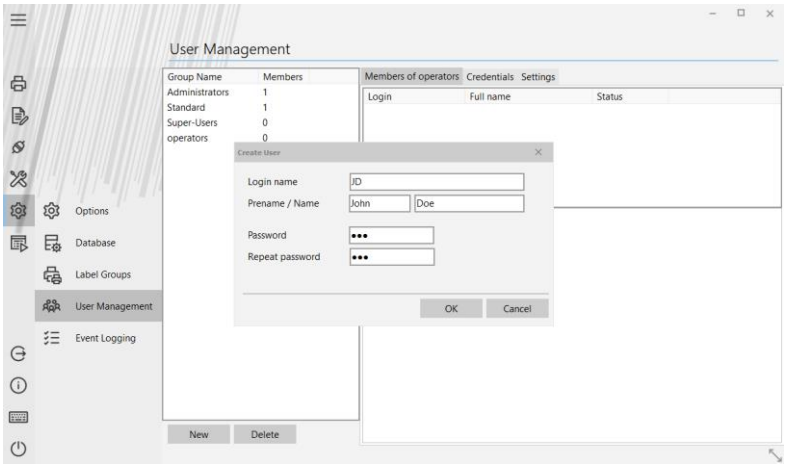
Step	Procedure
	

Fig. 168: New user

4	Press “Ok” to save the new user.

Edit user details

Instruction

Please edit user details as follows:

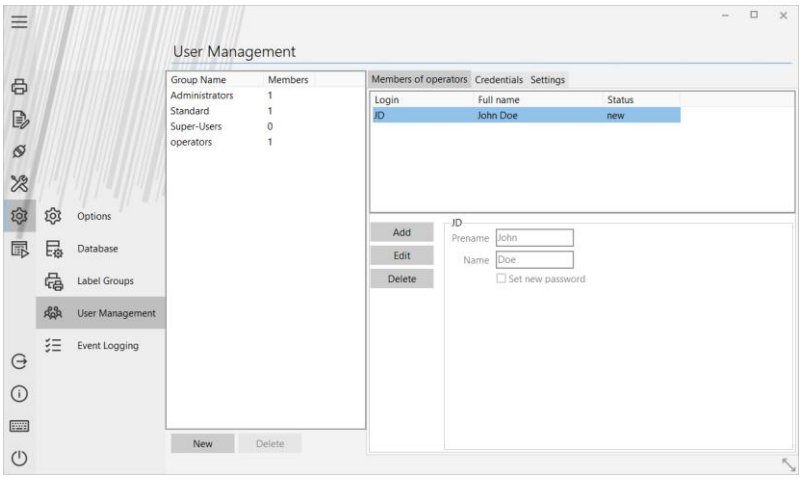
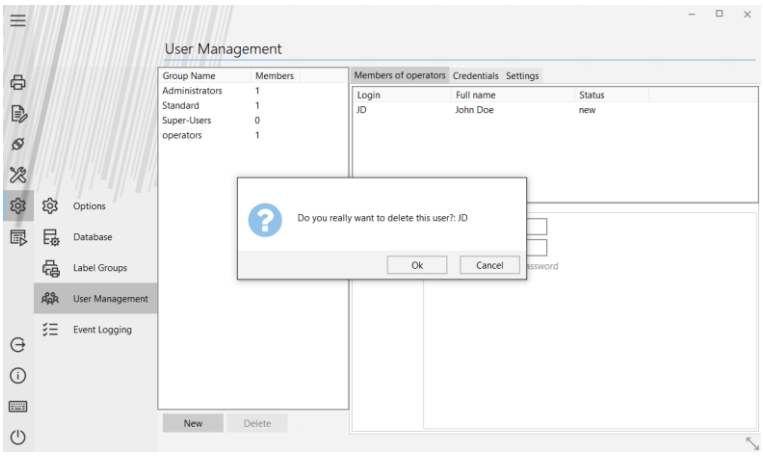
Step	Procedure
1	Select a user from the list in page center.
2	Click the “edit” button.
3	Change the name and surname entries as required. Note, that it's not possible to change the log in identifier of an user.
	

Fig. 169: Setup user management

4	If you need to change the password of an user, tick the check box “set new password”.
5	You need to type the password twice, for safety.
6	Confirm your changes by pressing the “save” button.

Delete users

Instruction
Please delete users as follows:

Step	Procedure
1	Select the user that you want to delete
2	Press the “delete user” button. **Note that it's not permitted to delete the user Administrator.**
	 Fig. 170: Delete user
3	Confirm by pressing ok on the dialog.

GAMP User Management Setup

Instruction

Please setup the GAMP User Management as follows:

Step	Procedure
1	Select the menu “tools”.
2	Press button “user management”.
3	A new window will appear. Choose “GAMP user management”.

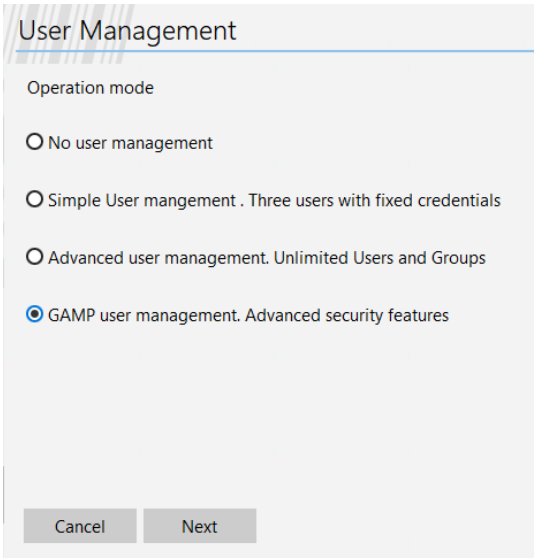


Fig. 171: GAMP user management

4	Press “Next”.
5	Type the password for the admin user. You will need this password later on so make sure that you typed it exactly as you intended. A typing error in your password will lock you out permanently from the system..

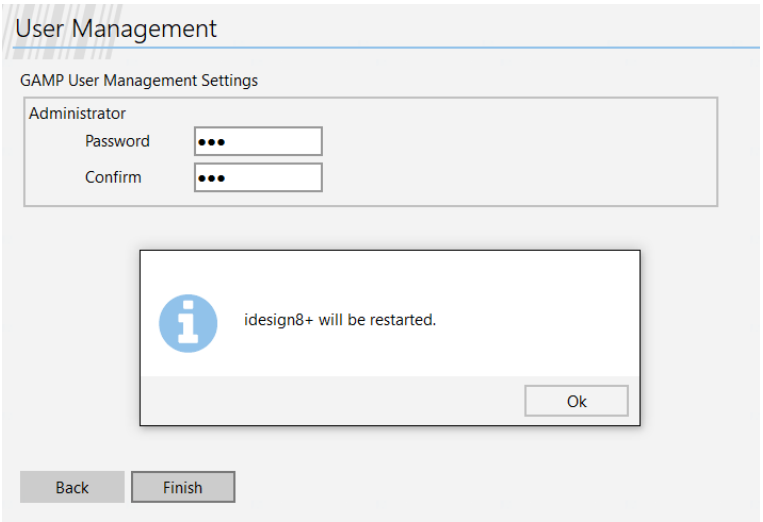


Fig. 172: Enter Password

6	Press “finish”. idesign8+ will restart. ⇨ The GAMP user management is active now.

Detailed setup und configuration of the GAMP user management is similar to the Advanced user management. Please, refer to the chapter further setup of the advanced user management for details.

Specifics of the GAMP user management

The GAMP user management resembles all features of the advanced user management. However, there are some additional security enhancements.

- A user that logs in the first time to idesign8+ will need to change her or his password in order to proceed to the main screen. This will happen only once, for the sake of increased security.
- If a user will type three times consecutively a wrong password, he or she will be locked out from the system permanently. The user in question will need to approach the admin user and ask him or her to apply a new password. After that, the lock is removed.
- idesign8+ will log off a user automatically if it receives no input by mouse or keyboard for more than five minutes. After this period, the user must log in again.

Troubleshooting

What if the admin password got lost?

If you locked yourself out of the system or the admin password is lost, please, contact the Bluhm Weber Support Team.

Appendix
List of available credentials

Credentials	Description
Print Start / Stop	Access to the “Print” button of the “functions” menu
Status view	Access to the “Status” button of the “functions” menu
Label backup	Access to the “Label Backup” button of the “functions” menu.
Basic Device Settings	Access to the “Print Parameters” settings strip in the “settings” form of the “functions” menu.
Change Device Type	Access to the “Device Setup” slider in the “settings” form of the “functions” menu.
Change Ink Settings	Access to the “Spitting and Warming” slider in the “settings” form of the “functions” menu.
Change Head Setup	Access to the “Head Setup” slider in the “settings” forms of the “functions” menu.
Change IO Settings	Access to the “IO Output” slider in the “settings” forms of the “functions” menu.
Database Settings	Access to the “Database Connection” button in the “Layout” menu.
Edit Labels	Access to the “Editor” button in the “Layout” menu.
USB Backup	Access to the “USB Backup” button in “Layout” menu.
Labels from DB	Access to the “Create labels from DB” button in the “Layout” menu.
Add Devices	Access the buttons “Add Ethernet connection”, “search network”, “search com ports”, “Save” and “Delete” on the “Connections” menu.
Start / Stop server	Access the buttons “Start server” and “Stop server” on the “Connections” menu.
Update Firmware	Access the button “Update Firmware (Legacy)” on the “Connections” menu.
General Settings	Access the button “General Settings” in the “Tools” menu.
Log files	Access the button “Interface logging” on the “Tools” menu.
Terminal	Access the button “Terminal” on the “Tools” menu.
USB Firmware	Access the button “USB Stick Firmware” on the “Tools” menu.
Event log	Access the button “Event logging” on the “Tools” menu.
User management	Access the button “User Management” on the tools menu
DB Print	Access the button “DB Print” on the “functions” menu.

Event Logging

If the user management is active, all user inputs are listed in the Logging event.

9. DB Print

General description

NOTICE

DB Print is only for printers of the X series or Integra series in upgrade level Pro or Ultimate.

DB Print works only with Ethernet connection.

No coupled (stitch) controllers are allowed (X1JET Stitch/XB8JET/integra Quadro²)

With the DB Print function, one or more labels with data from a database table can be printed serially. Also, several devices are connected together. It is effective only for the following devices:

- Text files, Excel tables and Access tables are permitted as data sources
- An ODBC interface is also available to access SQL databases, for example
- Typical areas of application are the printing of serial numbers, winning codes or the addressing.

Tab Production

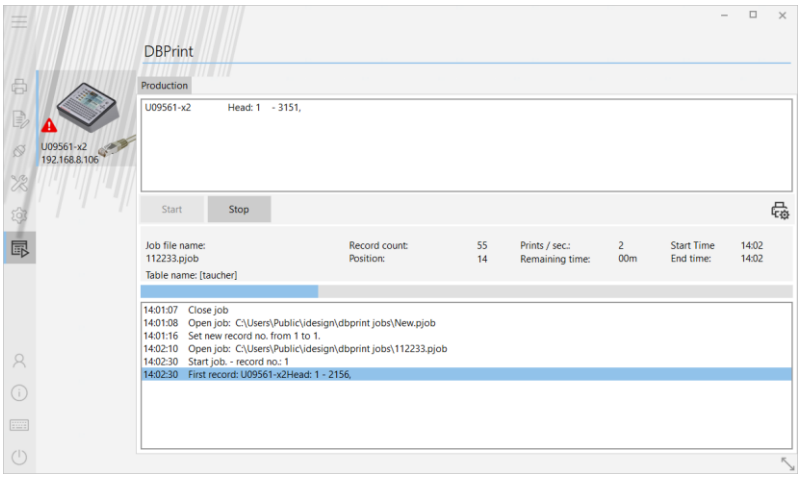


Fig. 173: User interface

Creating a print job

First, open a database file. It will be Excel, Access, TXT and CSV files are supported.

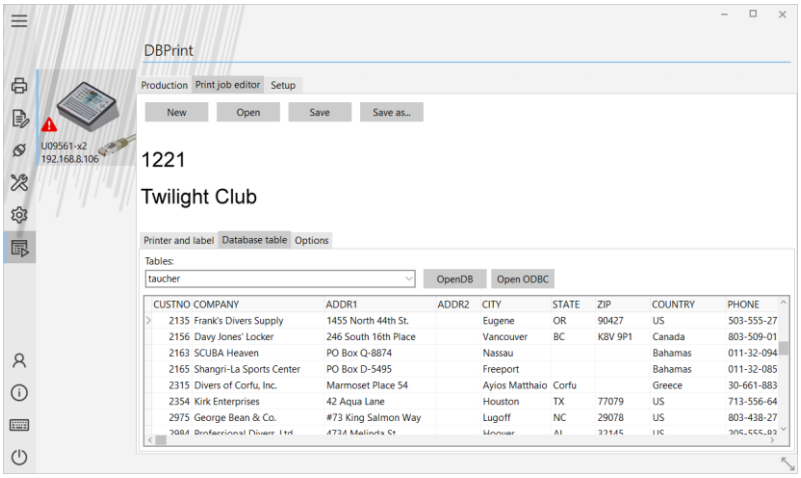


Fig. 174: Job editor

Instruction

Please open a text file (*.csv, *.txt) as follows:

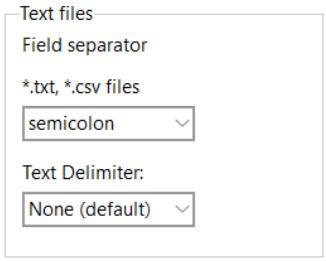
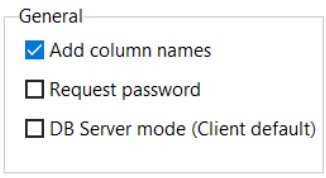
Step	Procedure
1	Go to the following submenu: Main Menu → Settings → Database → Settings → Text Files.
	
2	Check whether the appropriate field separator is selected and, if necessary, set it.
	
3	If there are no field names in the first line of the data text file, they can be generated automatically here. Depending on the number of F1..Fn These unique identifiers are a prerequisite for field assignment in print layouts.

Fig. 175: Setting for text files

Fig. 176: Setting for text files

ODBC-connections are also supported

.

Label creation

After the database is open, call the editor for the label design. In the menu of the text field the database button is now available. Add one or more database fields in the layout and save it. Per text or barcode field one database field is allowed.

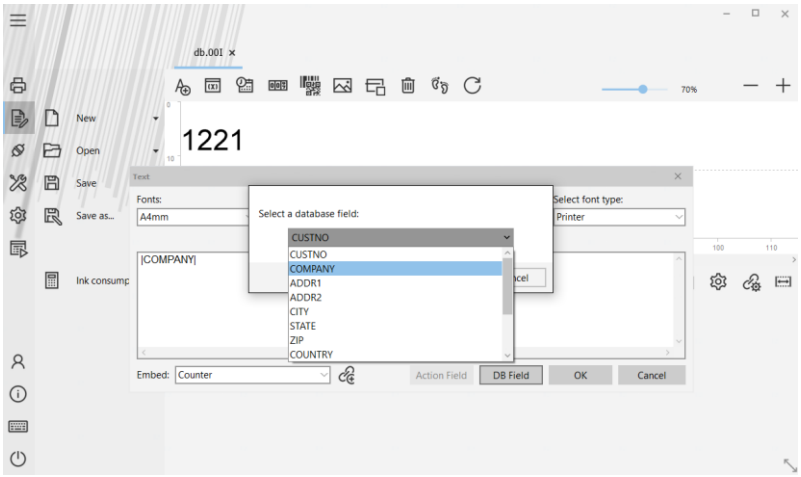


Fig. 177: Insert database fields into a label

Allocation of Label

The assignment is done by opening the file. Click on the line and a preview will be shown.

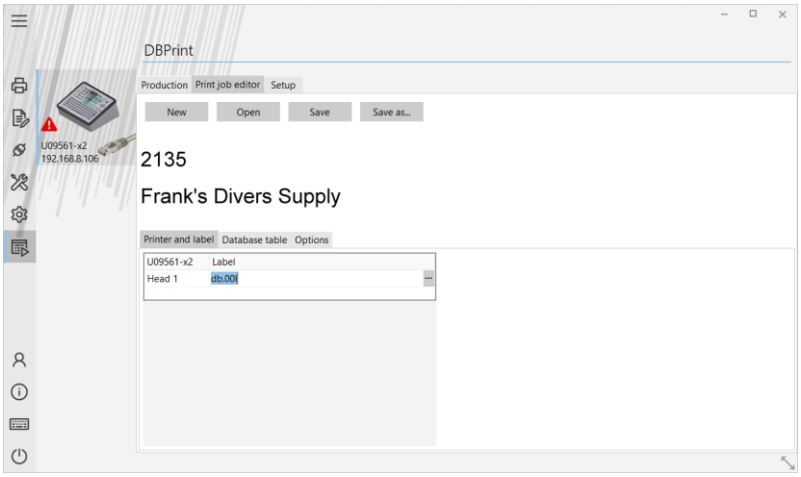


Fig. 178: Allocation of label

Individual print heads or devices may be omitted. Thus, these print heads are ignored.

Tab - Setup

There are two modes available:

Serialization

All connected print heads will be filled in series with data. i.e. After each reading in the table moves the record pointer one position. If a print image is printed, immediately read the next record. This mode is suitable for serial numbers or winning codes.

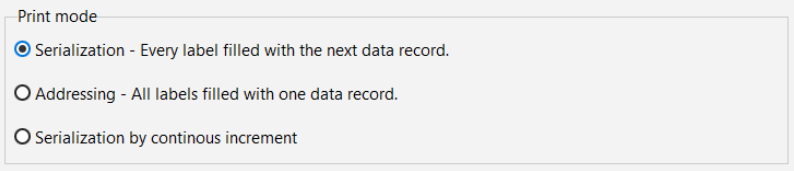


Fig. 179: Setup DB Print

Addressing

The printing process is performed synchronized. It filled all the database fields for all the print heads from one record.

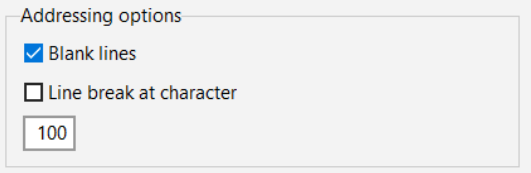


Fig. 180: *Addressing options*

The print start signal must all write heads are switched simultaneously.

General Settings

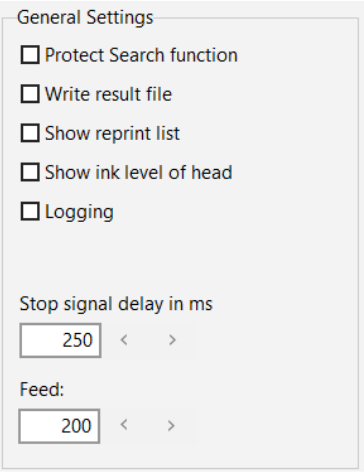


Fig. 181: DB Print General Settings

Protect Search function
- Hide the search button on the Production screen

Write result file
- All print results will be logged into a Result file – appear behind the job file.

Check synchronization
- Check the synchronized trigger for Addressing mode, if more than one head is used

Show reprint list
- Gives the possibility to add single data records into a separate list for reprinting

Show ink level of head
- In the status frame for each head the ink level in % will be shown.

Logging
- Interface logging for diagnostics

Stop signal delay in ms
- Delay in ms in order to use the “Warning” contact to stop the machine

Feed
- Size of data queue for each print head (25-50)

Error codes:

1 = Photocell trigger without data
2 = Unknown error
3 = Missing label name
4 = Head not exists
5 = Timeout stitch device
6 = System not ready
7 = Checksum error
8 = Block number double
9 = Not the follow block number
10 = not used
11 = Data transmission disturbed
12 = Synchronization errors

Start - Stop print job

After opening the print job is the database pointers positioned so that we can start with the last record again.
Use the Start and Stop key.
To put the position explicitly new search feature is available.

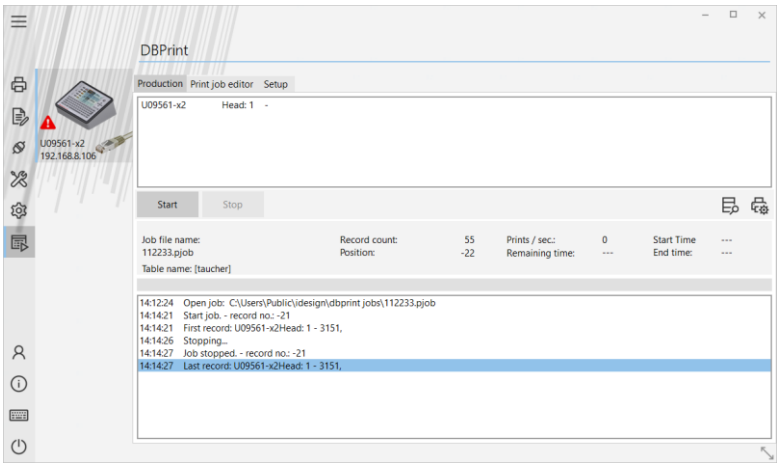


Fig. 182: Start the print job

During operation, the data content displayed per print head in the top status window.
The main menu and the device status display is turned off during operation.

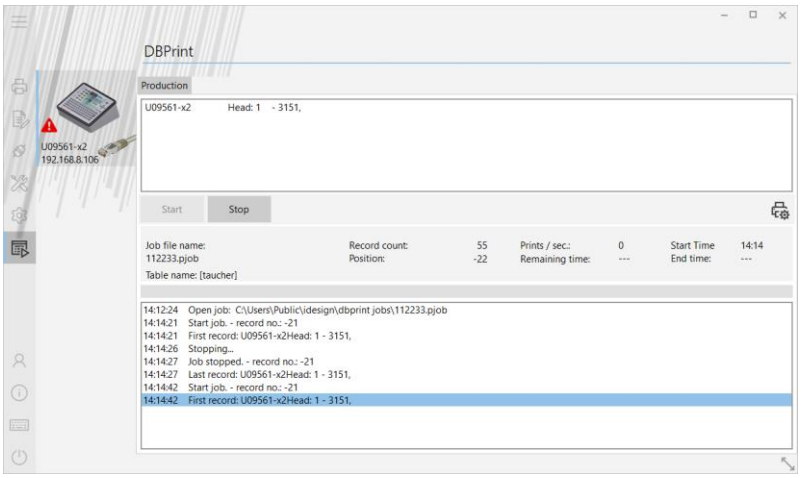


Fig. 183: Stop the print job

If the end of print job is reached the process will stop automatically a message comes up.

10. Appendix

Directory structure

The idesign8+ software has the following directory and sub-directories:

[data]	Example database
[firmware]	Includes firmware files for the coding systems
[fonts]	Include fonts
[label]	Print images
[userlanguage]	Include language files.
[logos]	Include the logos for the labels.
[settings]	Include temporary configuration files.
[terminal]	Include saved terminal notes.
[log]	Include saved log files.

User management credentials for user groups

Credentials
Start / Stop printing
Status view
Label Backup access
Basic print parameters
Change device type
Change ink settings
Edit IO settings
Setup head configuration
Edit database settings
Edit Labels
Backup on USB
Create labels from DB
Add devices
Start / Stop server
Change device firmware
Check log files
General settings
Terminal connection
USB Firmware
View user action log
Edit users and groups
DB Print access
Device User Management

Own notes

SKETCH: