



# InkZone Loop

## Installation and Configuration Manual

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Identifier	Instructions manual - EN
Target group	Administrator
Product	InkzoneLoop
Version	7.2
Date	March 2020
Article code	IZP Loop HB50-006 EN

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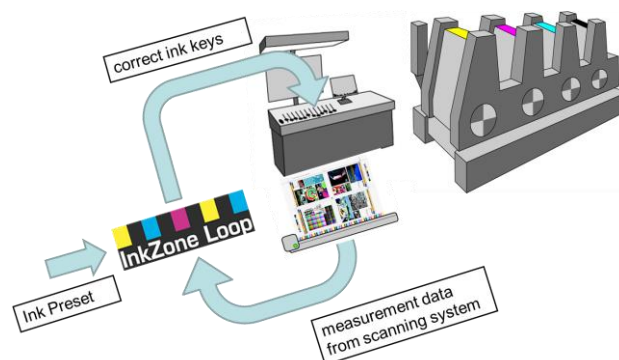
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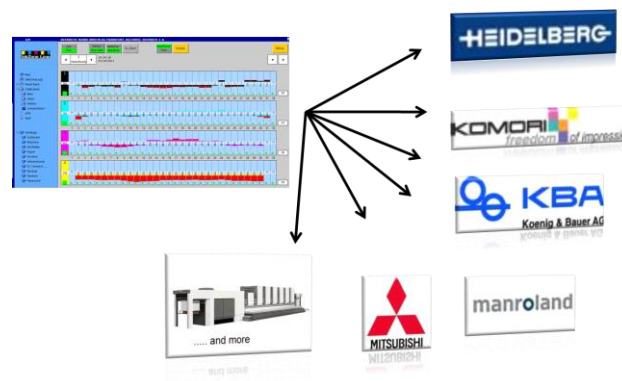
# 1 Basic

## 1.1 What it does

The InkzoneLoop system connects to various types of offset presses as a „closed loop system“ to regulate ink keys with the measurements data from the color control bar or the image from the printed sheet. The colorbar or the image is scanned with an automated color scanning system. The scanner delivers spectral and density data.



Through so called “HW press connection kits”, InkzoneLoop connects to all major offset press vendors.

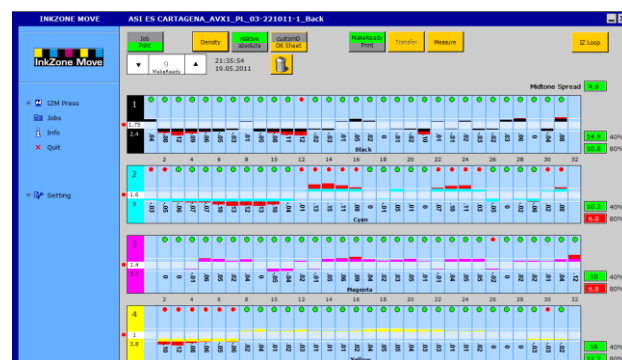


## 1.2 Connect to InkzoneMove 4

Combine InkzoneLoop and InkzoneMove to gain the best integration between a scanning and closedloop software.

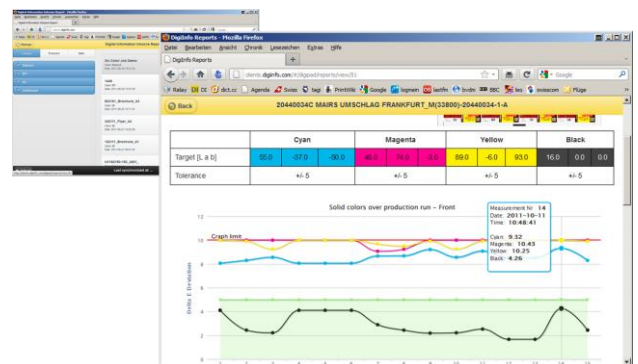
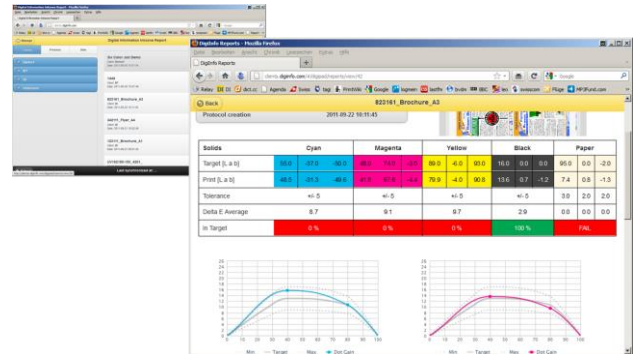
InkzoneMove connects directly to the scanning instruments from X-Rite and Techkon.

Within InkzoneMove the colorbar, the print standard targets are set.



## 1.3 Connect to Inkzone Report

Use Inkzone Report to create a report of a single sheet or a report on a production run according to ISO 12647.



## 1.4 Connect to 3rd Party Software

InkzoneLoop can be directly connected to the software products such as Espresso, PressSign, PressView and X-Rite.

These products export a scan data value which is then processed by InkzoneLoop to regulate ink units during the production run.



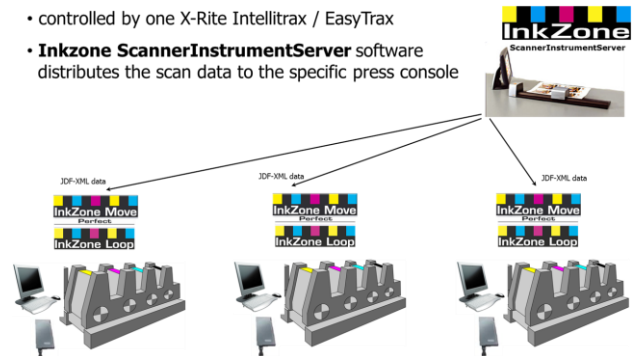


## 1.5 Connect to Instrument Server

InkzoneQuatro acts as a server to share one scanning instrument to several presses.

### InkzoneLoop configuration example

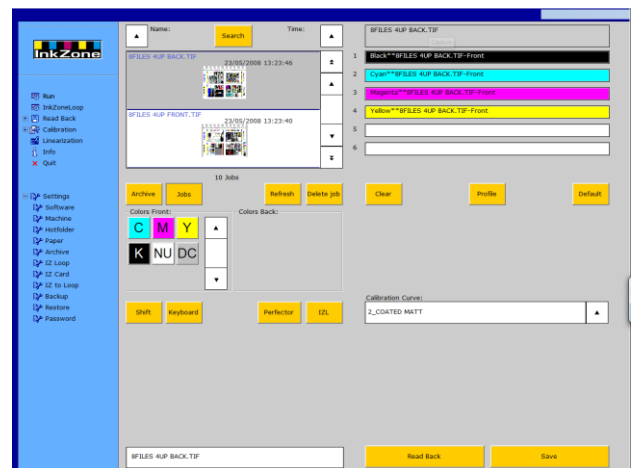
- up to 4 press consoles
- controlled by one X-Rite IntelliTrax / EasyTrax
- **Inkzone ScannerInstrumentServer** software distributes the scan data to the specific press console



## 1.6 User Interface

### 1.6.1 Ink Preset

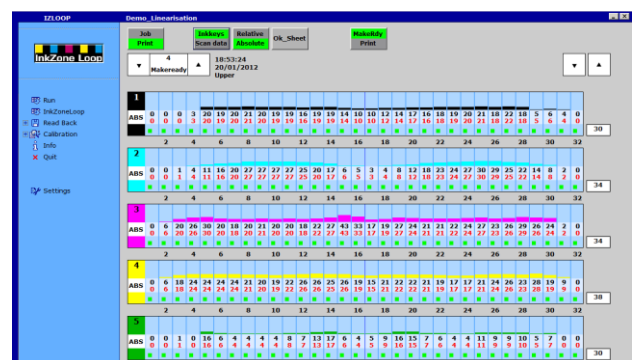
The ink preset GUI offers a job list in the center of the page. Drag and drop from here a job to the virtual press on the right. Change the color sequence as requested for the job. Below the virtual press, select the calibration curve and continue with the SAVE action to transfer the job to the InkzoneLoop section.



### 1.6.2 Ink Key View

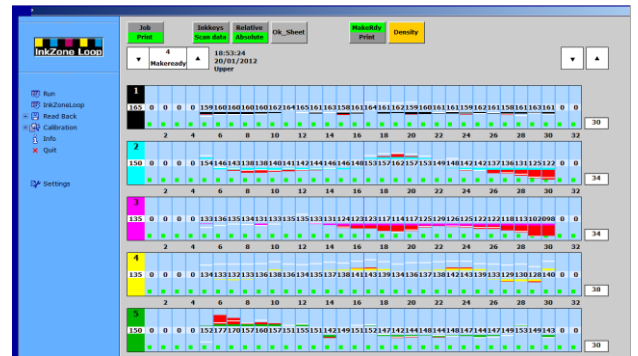
In the InkzoneLoop window, the current ink key position and the scan data is shown.

After receiving the measurement data from the scan system, the corrected ink key values are shown. Transfer the new key settings to the press.



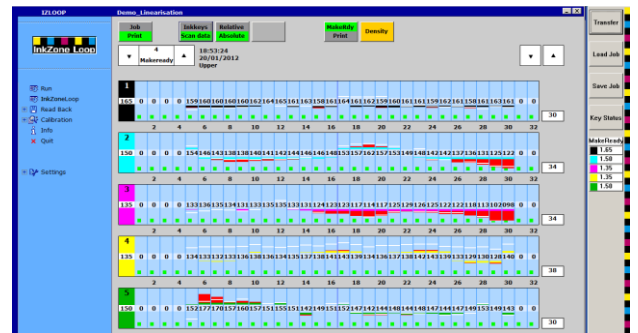
### 1.6.3 Scan Data View

In the scan view, the measurement data is shown.



### 1.6.4 IZCockpit

When using 3<sup>rd</sup> party software, the IZCockpit is launched. From here, job operation such as Save, Load, disable keys from regulation etc. are launched. With IZCockpit, you have a direct link to InkzoneLoop even when it's covered by the 3<sup>rd</sup> party software.





## 2 Installation

### 2.1 Installation Guide InkzoneLoop/Perfect

Every installation step is described in the manual "InkzonePerfect Admin". The PDF instruction manual is included on the DI Product CD.

Installation instructions:

- 1) Insert CD and select the product  
InkzoneLoop/InkzonePerfect
- 2) Start the installation
- 3) Copy the LCC file from the License CD into the  
program folder of InkzoneLoop.  
The program folder is found in the windows  
program folder  
"C:\progam files\DI\InkzonePerfect"
- 4) Configure the "HW or SW press connection kit"  
such as InkzoneCard, InkzoneWire etc.
- 5) Configure the program parameters





## 3 InkzoneLoop Configuration

### 3.1 PC with 2 Monitors

The Inkzone computer can be equipped with two monitors to show measurement data on one and InkZoneLoop on the other screen.

To start-up InkzoneLoop and InkzoneCockpit on a second monitor (Windows monitor nr2), look into the configuration files and change as described.



#### 3.1.1 Configuration for InkzoneLoop/Perfect

Open the folder InkonePefect and edit the file config.cfg. Set the entry "display\_monitor" like

DISPLAY\_MONITOR=2\$;

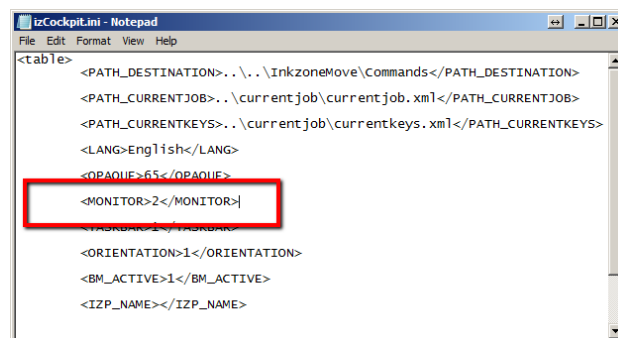
```
config.cfg - Notepad
File Edit Format View Help

DISPLAY_MONITOR=2$;
IPC_PATH=C:\Program Files (x86)\Izi\InkzonePerfect
\Data\Inkfontainn$;
DELTA_DENSITY_POST_REGULATION=1.00$;
THRESHOLD_FACTOR_LOW=0.30$;
THRESHOLD_FACTOR_HIGH=3.50$;
LEARNING_NO_SCAN=2$;
ACTIVATE_LEARNING=OFF$;
BM_DELTA_TOLERANCE=5.0$;
ACTIVATE_DTONE=OFF$;
FINE_TUNE_DELTA_A=0.00$;
FINE_TUNE_DELTA_B=0.00$;
FINE_TUNE_DELTA_L=0.00$;
FINE_TUNE_DENSITY_FACTOR_CYAN=1.00$;
FINE_TUNE_DENSITY_FACTOR_MAGENTA=1.00$;
FINE_TUNE_DENSITY_FACTOR_YELLOW=1.00$;
GRAY_BALANCE_REGULATION_CONTROL=0$;
ACTIVATE_LEARNING_UNITS=0:0;1:0;2:0;3:0;4:0;5:0;6:0;7:0;8:0;9:0;10:0;11:0;$;
LEFTPOSITION=0$;#
```

### 3.1.2 Configuration for IZCockpit

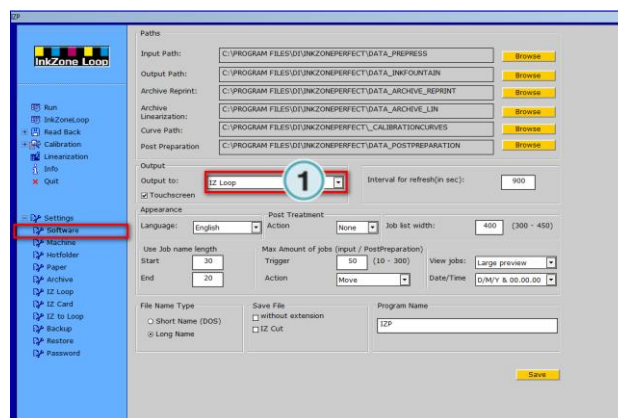
Open the folder IZCockpit and edit the file config.cfg. Set the entry “monitor” like

MONITOR=2\$;



## 3.2 Basic Configuration

Open the software configuration menu, like shown on the right. Select from the output list box the output type “IZ Loop” (1).





### 3.2.1 Path Setup

The software installs itself with a default directory structure (1). Basically there is no need to change these paths parameters except when the installation requires it.

#### Input Path

XML and PNG files with the ink coverage data, generated by DI-Plot

#### Output Path

Not used for InkzoneLoop.

#### Archive Reprint

It contains the archive structure and the archived jobs.

#### Archive Linearization

Folder with jobs which are prepared for optimizing the ink key calibration curves with the linearization wizard.

#### Curves

Folder with the calibration curves and the InkzoneLoop regulation setups.

#### Post Preparation

The folder with jobs which have been sent to the press.

The screenshot shows the 'Paths' configuration section of the InkzoneLoop software. It includes fields for Input Path, Output Path, Archive Reprint, Archive Linearization, Curve Path, and Post Preparation, each with a 'Browse' button. A red rectangle highlights these six fields. A blue circle with the number '1' is positioned next to the 'Archive Reprint' field. Below the paths section, there are settings for Output (IZ Loop), Interval for refresh (900), Appearance (Language: English), Post Treatment (Action: None), Job list width (400), and various other options like 'Use Job name length', 'Max Amount of jobs', 'Trigger', 'View jobs', and 'Date/Time'. At the bottom, there are checkboxes for 'File Name Type' (Short Name (DOS) or Long Name) and 'Save File' (without extension or IZ Cut), along with a 'Program Name' field (IZP) and a 'Save' button.



Activate in the list box “Post Preparation” the action “Move”.

When sending a new job to the press (= job gets printed), the job is automatically removed from the Input folder list and moved to the post preparation folder. The so called “Printed Jobs” are accessible through the “Post Prep” button.

The screenshot shows the 'Demo - Linearization' window in the InkzoneLoop software. It features a list of jobs with columns for Name, Time, and Front. The 'Post Prep' button is highlighted in the '7 Jobs' list. Below the list, there are buttons for 'Post Prep', 'Jobs', 'Refresh', 'Prints job', 'Clear', 'Profile', and 'Default'. At the bottom, there is a 'Calibration Curve' dropdown menu set to 'L\_COATED GLOSS' and buttons for 'Read Back', 'Options', and 'Save'.



The Input path (1) folder in InkzonePerfect, needs to be the same as the “Inkzone Destination Path” (2) in DI-Plot in the “Press template” setup.

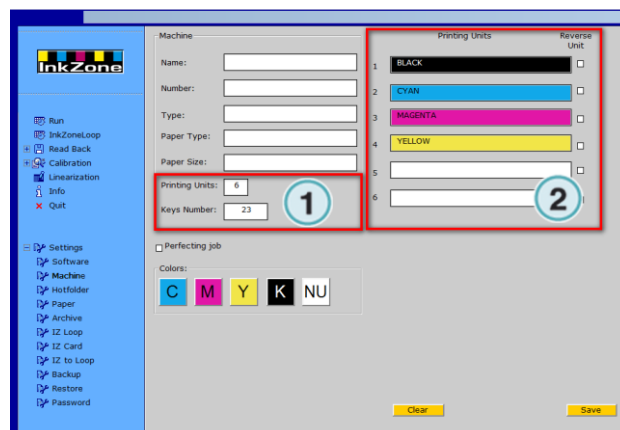
## 3.3 Machine Setup

### 3.3.1 Number of Units and Ink Keys

In the machine settings, set the press configuration. Define at position (1) the number of units and the number of keys.

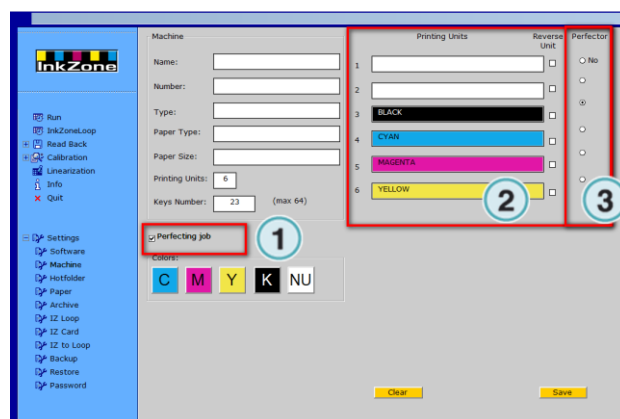
### 3.3.2 Standard Color Sequence / Perfector OFF

Set in the press unit area (2) the standard color sequence for jobs, when the perfector is OFF



### 3.3.3 Standard Color Sequence / Perfector ON

Activate the checkbox at position (1) to set the perfector position (3). Set the standard color sequence (2) for perfecting jobs.

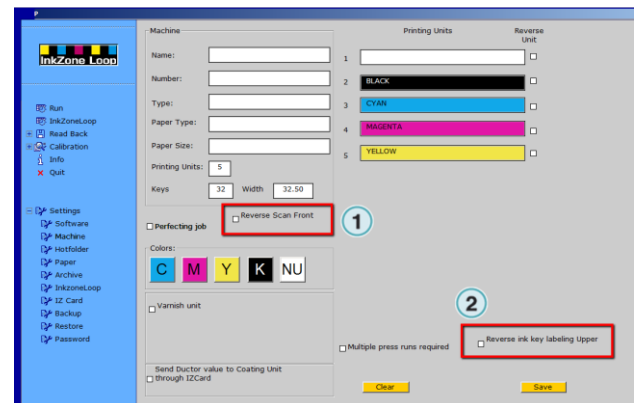


The checkbox Reverse Unit will swap the ink keys. Key nr 1 swaps to the highest key number. Key nr 2 swaps to the second highest key number etc.

### 3.3.4 Reverse Scan Data and Ink key Label

Activate the checkbox at position (1) to reverse the received scan data. Scan data from key nr 1 goes to the highest key. Scan data from key nr 2 goes to the second highest key.

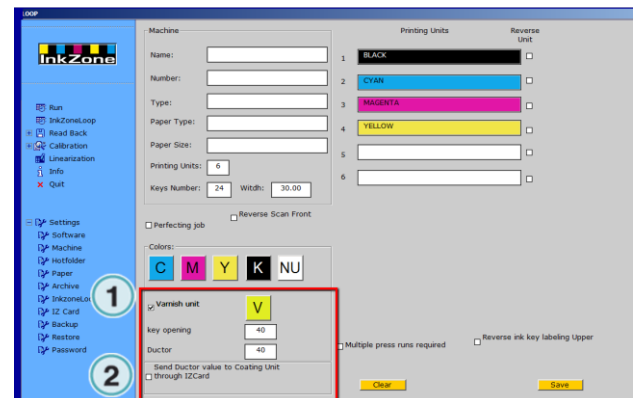
With the checkbox at (2) the ink key labelling is reversed. Mostly used in web press environment where the upper/lower console has a reversed ink key setup.



### 3.3.5 Varnish Setup

Use the checkbox at position (1) to activate the varnish option. It allows configuring a unit as a varnish unit with a fixed ductor and fixed key values.

For more details see the chapter "Varnish" towards the end of the manual.



The varnish option at position (2) is only for Heidelberg's with CPC 1.0x consoles where an additional varnish unit is installed.

Such a press console saves the varnish ductor value (no keys are available!) automatically to the InkzoneCard as an additional unit.

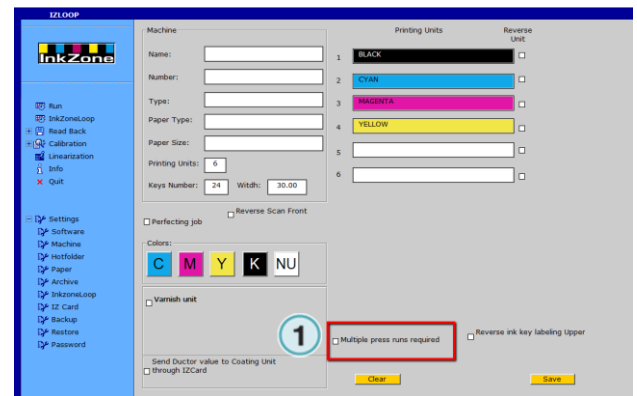
When setting up Inkzone for such a 6 color press results in receiving the varnish ductor value on the InkzoneCard in an "added" unit by the CPC console (theoretically unit 7).

### 3.3.6 Multiple Press Runs

Use the Multiple Press Run concept in combination with InkzoneMove.

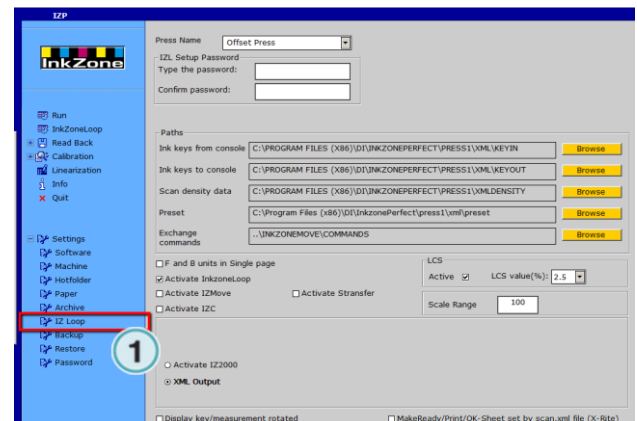
A multiple colour job (more colours to print then the press is equipped with print units) is printed in two or more runs.

For each press run, ink preset the press with Inkzone accordingly.



### 3.4 Menu IZLoop Setup

Open the submenu (1) from the navigation section like shown on the right. Configure here the relevant press connection parameters.

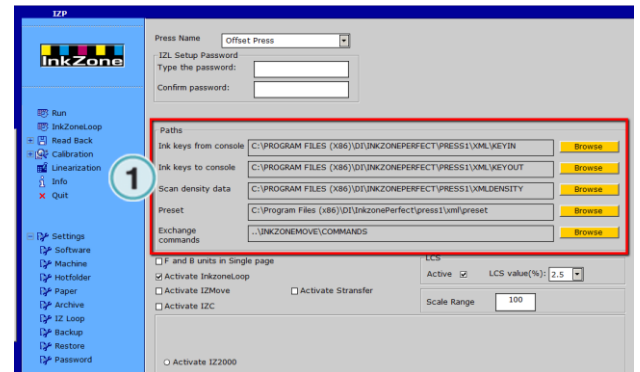


### 3.4.1 Path Setup

The software installs a certain default directory structure (1). The default setup works fine and there is no need to change those paths except when the installation requires it.

#### Ink keys from console

When ink key data is sent from the press console to the Inkzone connection module, such as IZLoopMAN, IZLoopConnect etc, the data file newinkkeys.xml is created here. IZLoop reads the file and displays the ink key values.



#### Ink keys to console

New ink key data, generated by Inkzone after pressing the TRANSFER button, is placed into this folder.

#### Scan density data

The software reads the SCAN.XML file, which holds the density information, from this folder.

#### Exchange Commands

InkzoneMove, IZLoop and the Inkzone Hardware connection modules are communicating through an xml command structure through this folder.

### 3.4.2 Configuration Checkboxes

On a perfecting press, you may activate the checkbox (1) to see the print units for front and back side in separated pages.

One page shows the units before the Perfector, the other shows the units after the Perfector.

Enable ink preset to IZCard  
IP Address: 192 168 1 100  
Port: 1000  
No of tryings: 20 seconds  
Receiving Timeout (command card): 5 (0 - 100) [Set]

Paths  
Ink keys from console C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\KEYIN [Browse]  
Ink keys to console C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\KEYOUT [Browse]  
Scan density data C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\KEYDENSITY [Browse]  
Preset C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\PRESET [Browse]  
Exchange commands ..\INKZONEMOVE\COMMANDS [Browse]  
Synchronize Commands: C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\KEYDENSITY\TMP [Browse]

☒ F and B units in Single page (1)  
☐ Activate InkzoneLoop  
☐ Activate IZMove  
☐ Activate IZ2000

LCS  
Active ☒ LCS value(%): 2.0  
Scale Range 100

To run the InkZoneLoop with InkZoneMove, activate the checkbox (1).

Enable ink preset to IZCard  
IP Address: 192 168 1 100  
Port: 1000  
No of tryings: 20 seconds  
Receiving Timeout (command card): 5 (0 - 100) [Set]

Paths  
Ink keys from console C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\KEYIN [Browse]  
Ink keys to console C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\KEYOUT [Browse]  
Scan density data C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\KEYDENSITY [Browse]  
Preset C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\PRESET [Browse]  
Exchange commands ..\INKZONEMOVE\COMMANDS [Browse]  
Synchronize Commands: C:\PROGRAM FILES\DI\INKZONEPERFECT\PRESS1\XML\KEYDENSITY\TMP [Browse]

☐ F and B units in Single page  
☐ Activate InkzoneLoop  
☒ Activate IZMove (1)  
☐ Activate IZ2000

LCS  
Active ☒ LCS value(%): 2.0  
Scale Range 100



InkzoneMove operates as a front end for InkZoneLoop.

After scanning a sheet, the ink key change is initiated from InkzoneMove with the Transfer button.

To run the InkZoneLoop with 3<sup>rd</sup> party software such as Espresso, PressSign, PressView or the X-Rite software, activate the checkboxes at (1) and (2).

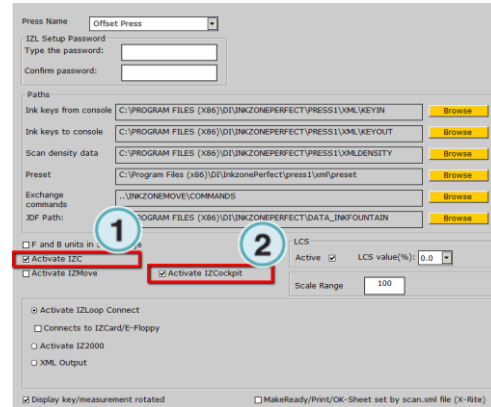
#### (1) IZConvert

The utility converts the export format from X-Rite and other software to the Inkzone internal scan.xml format. See chapter IZConvert.

#### (2) IZCockpit

IZCockpit lets you “remote control” InkzoneLoop. For example initiate an ink key correction “Transfer” to the press after scanning a press sheet.

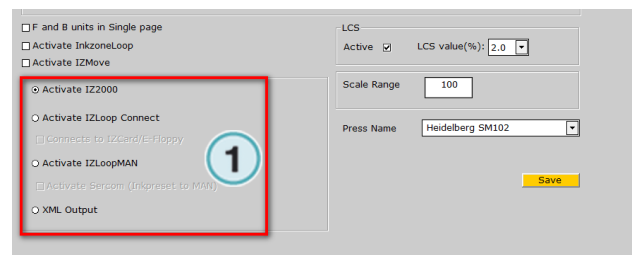
For detailed information see the chapter IZCockpit.



### 3.4.3 Configure the Output Type

InkzoneLoop connects to the press connection modules, such as IZ2000, IZLoopMAN or IZLoopConnect etc.

Select from the press connection module / mode from the radio buttons (1).



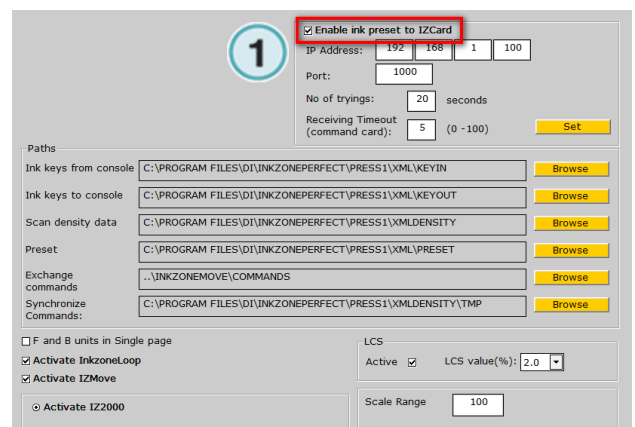
For detailed information see the chapter Press Connection.



Depending on your license the available output options may look different as shown. The license file (\*.LCC file) enables the available output options.

When using IZ2000 for connecting to the CP2000 Heidelberg press console, activate the checkbox shown at (1). The inkpreset data is sent to the InkzoneCard Heidelberg (Flashcard Emulator).

Set here the IP address of the Comergon adapter which connects to the InkzoneCard.





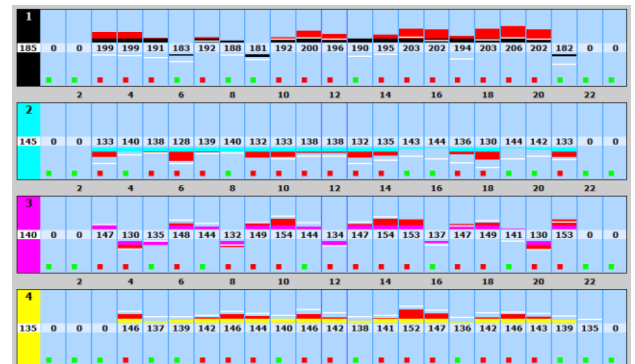
### 3.4.4 Minimum Key Opening

Activate the checkbox (1) to get a minimum ink key opening for keys with low ink coverage during the ink-preset stage. Select through the list offers box the minimum ink key opening value.

### 3.4.5 Trend

Activate the checkbox to show the trend on the measured data.

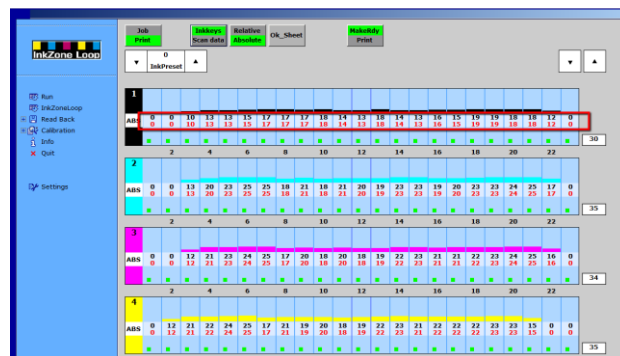
The white line indicates the scan value from the previous scan.



### 3.4.6 Console / Ink Key Scale

Set here (1) the ink key scale from the console here. The standard value is 0 to 100 where zero is the smallest key value, 100 is the highest key opening.

The scale is used in the ink key window of InkzoneLoop.



For MAN Roland press console, set the range value to 250.

### 3.4.7 Set the Regulation Constant Limits

With the selection from the list box (1), the predefined regulation constant limits are used from the file



## 4 Connect to 3<sup>rd</sup> Party SW

### 4.1 Basic

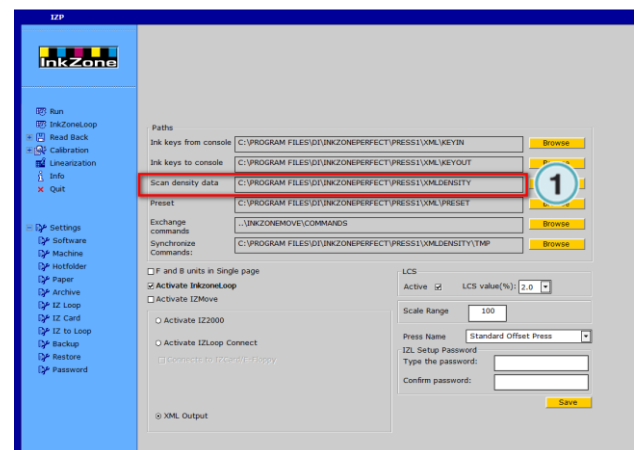
InkzoneLoop reads the scan export data file format from 3<sup>rd</sup> party software.

To connect the X-Rite software which connects to IntelliTrax / EasyTrax / eXact scanner use the InkzoneConvert “IZC” program .

InkzoneConvert reads the export data format and converts it to the universal scan.xml format.

### 4.2 Scan.xml Import Directory

InkzoneLoop receives the scan data file scan.xml in the directory (1).



Configure InkzoneConvert, Expresso 3, InkzoneMove, PressSign, PressView to export the scan measurement data file, the scan.xml, into this directory.

## 4.3 IZC - InkzoneConvert

IZC converts measurement data file from 3<sup>rd</sup> party software such as

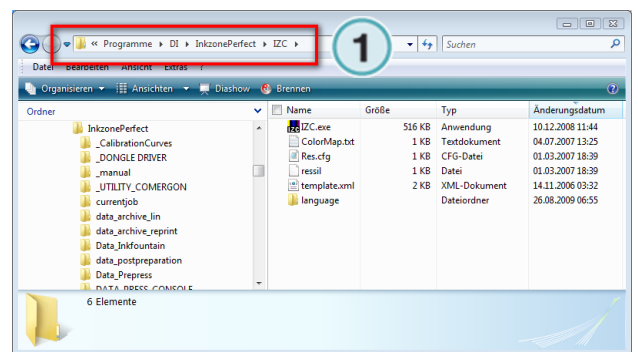
- Espresso 2.x
- X-Rite ATD/ATS/ITX/ETX

to the XML format called "scan.xml".



### 4.3.1 Default Program Directory

InkzoneConvert is located in the subdirectory called "IZC" as shown (1).



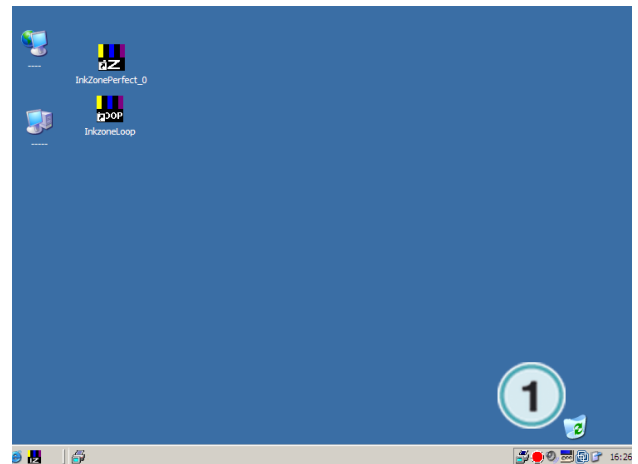
### 4.3.2 Access the IZC Program

When enabling the IZC checkbox, InkzoneLoop automatically starts InkzoneConvert during the program start-up.

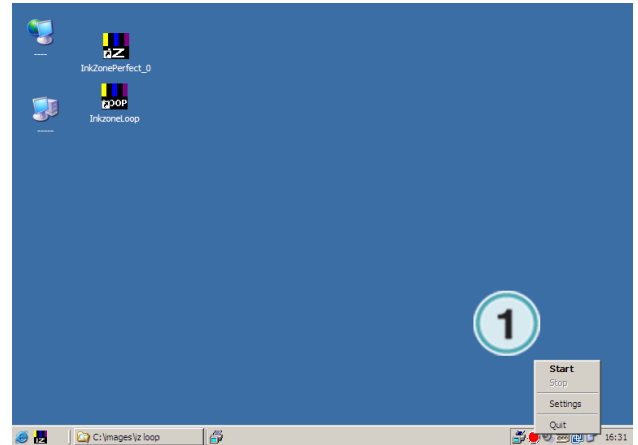
Access IZC through the blue or red dot in the program tray area (1).

Blue dot = Active.  
Ready to convert scan data from the 3<sup>rd</sup> party software to XML/JDF (scan.xml)

Red dot = Inactive. Conversion is on stopped



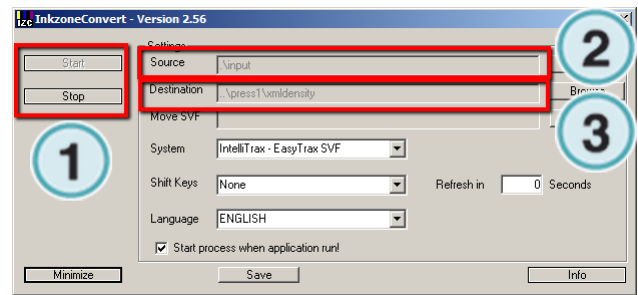
Open the configuration menu with a right mouse click on the red or blue circle. The program menu pops up (1).



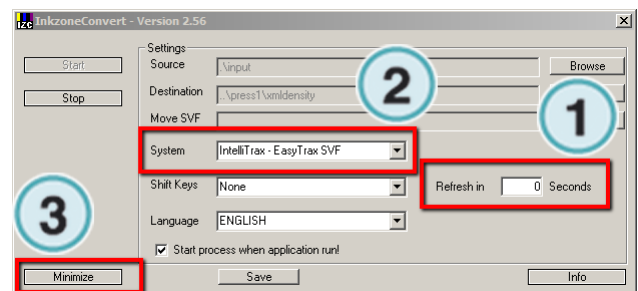
### 4.3.3 Configuration

Select the entry “Settings” from the program menu. The control panel comes up with the following items:

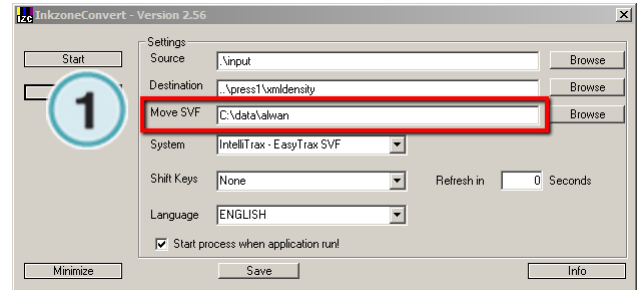
- 1) Start and Stop button to activate the conversion
- 2) Source directory: the location where the 3<sup>rd</sup> party software will export the file format, containing the spectral/density values. Standard path is “..\IZC\Input”
- 3) Destination directory: the location where the converted XML/JDF file is written. Standard path is “..\press1\XMLDensity”



- 1) Scan cycle time Default value is 0.
- 2) Select the 3<sup>rd</sup> party software output format. Depending on the format, the press perfector position needs to be set
- 3) Minimize button. The panel minimizes and is visible in the program tray as a blue (active) or red (stopped) circle

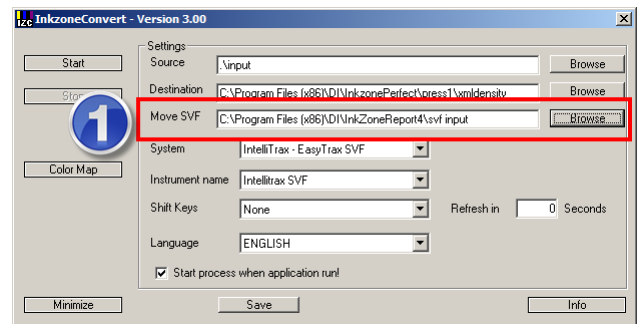


When using Alwan Print Standardizer (APS) with an X-Rite or Techkon measuring system with the original software, set the “MOVE SVF” path to the input folder of APS.



#### 4.3.4 Setup for IZReport

Set up the path for “Move SVF” to the input folder of InkzoneReport.



### 4.4 Setup X-Rite IntelliTrax1 – IntelliTrax2 Software

#### 4.4.1 IntelliTrax1

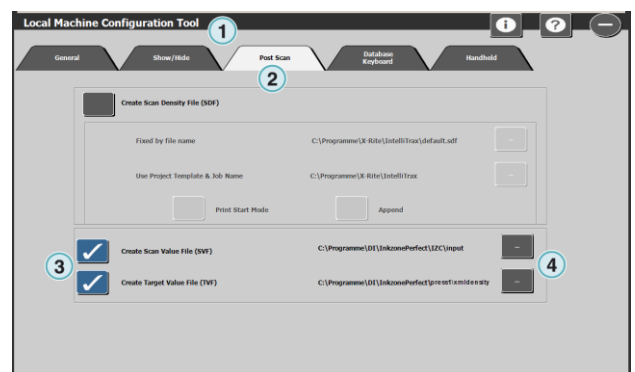
Open Local Machine Configuration Tool (1).

Select the tab Post Scan (2) tab.

Activate the SVF and TVF data export (3).

Select the export directory (3) for the SVF to the input directory of IZC:

“..\inkzoneperfect\IZC\input”



Select the export directory (3) of the TVF to the XMLDensity directory of InkzoneLoop:

“..\inkzoneperfect\press1\xmldensity”

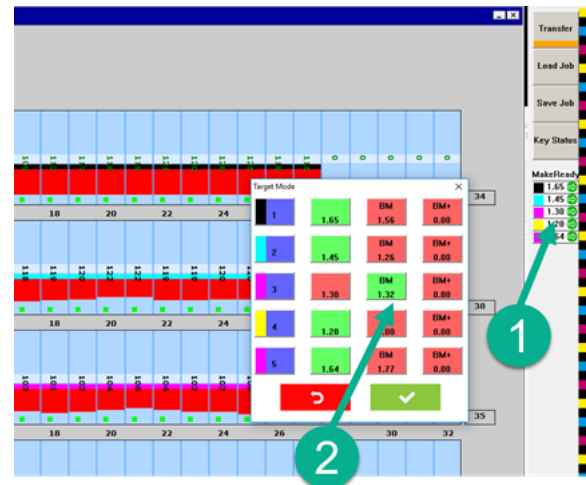




After scanning from ITX software, the BestMatch target can be activatee from IZCockpit:

- click in the density information area (1)
- activate in “Target Mode” the unit for BestMatch (2)

InkZoneLoop processes BestMatch target values until the setup is changed back to the standard target densities.



#### 4.4.3 Show Windows Taskbar

It's mandatory to activate the visibility of the Windows taskbar to reserve the area for IZCockpit.

Set in the configuration file “ATSII.ini” the entry “showtaskbar=true”. The entry is located in the section [UI].

[UI]

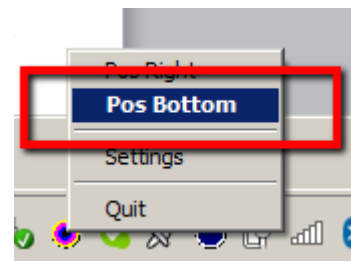
“showtaskbar=true”



On a Windows7 system, the ATSII.ini file is located in the folder “c:\programdata\xrite\”

#### 4.4.4 Activate IZCockpit

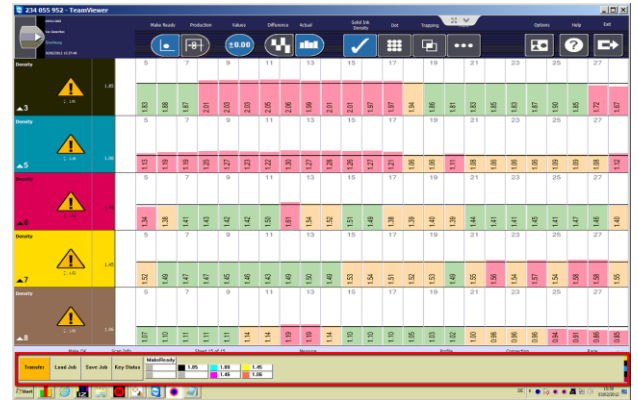
In the InkzoneLoop activate IZCockpit. After startup, configure IZCockpit with a right mouse click on the icon an set the position to “Bot Position”.



The IZCockpit goes below the GUI of the X-Rite software as shown in the pictures.

Manage from here the Inkzone software operation.

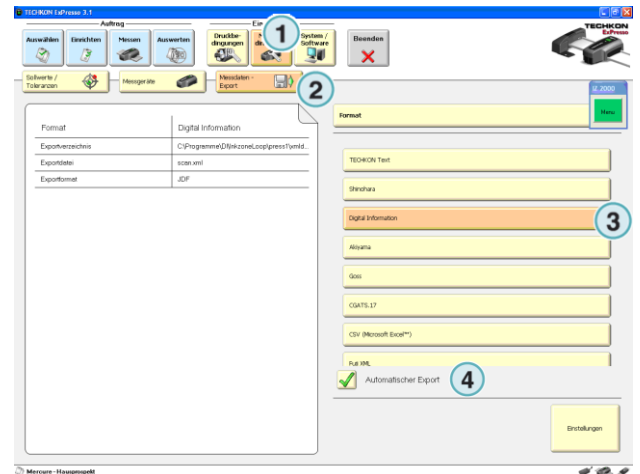
All details about IZCockpit are described in the Chapter "IZCockpit".



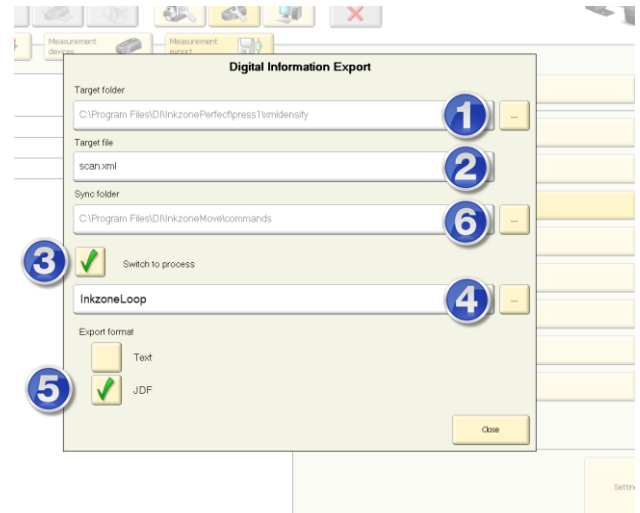
## 4.5 Setup Techkon Espresso 3

To configure the data export, go like:

- Select the button (1) from the top row
- Select the export feature button (2)
- Select the format Digital Information (3)
- Set the checkbox auto export (4)



- Select the export directory for the xml file (1) like “..\InkzonePerfect\press1\xmldensity\”
- Set the export file name as scan.xml (2)
- Select the checkbox (3) to bring InkzoneLoop automatically into the foreground after a successful scan
- Select here (4) Inkzone as the application which comes to the foreground
- Select JDF (5) as the export format
- For the “Sync folder” select “..\InkzoneMove\commands\”



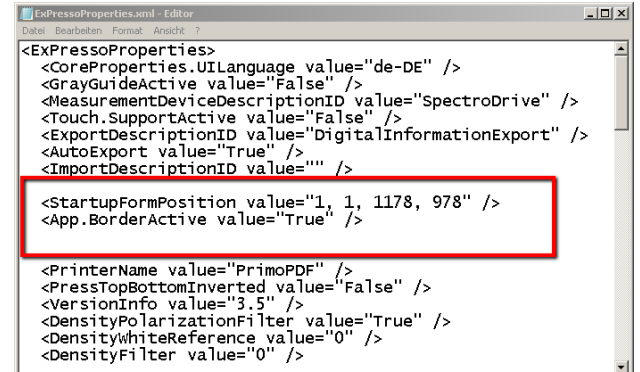
#### 4.5.1 Show Windows Taskbar

It's mandatory to activate the visibility of the Windows taskbar to reserve the area for IZCockpit.

Set in the configuration file “ExpressoProperties.xml” the entry “App.Border Active value = True”

When Expresso keeps on covering the full screen, delete the following entry in the ExpressoProperties.xml file:

<StartupFormPosition value="1, 1, 1178, 978" />



#### 4.5.2 Activate IZCockpit

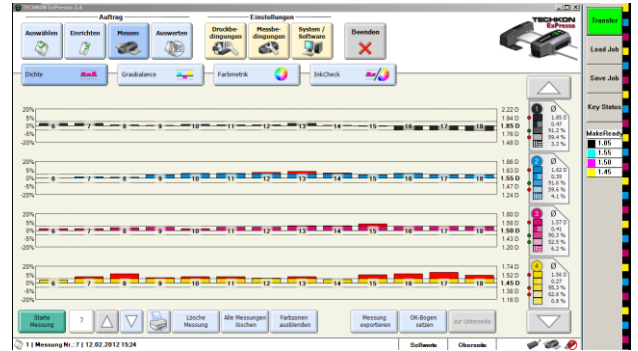
In the InkzoneLoop activate IZCockpit. After startup, configure IZCockpit with a right mouse click on the icon and set the position to “Bot Right”.



The IZCockpit goes on the right side of the Espresso as shown in the pictures.

Manage from here the Inkzone software operation.

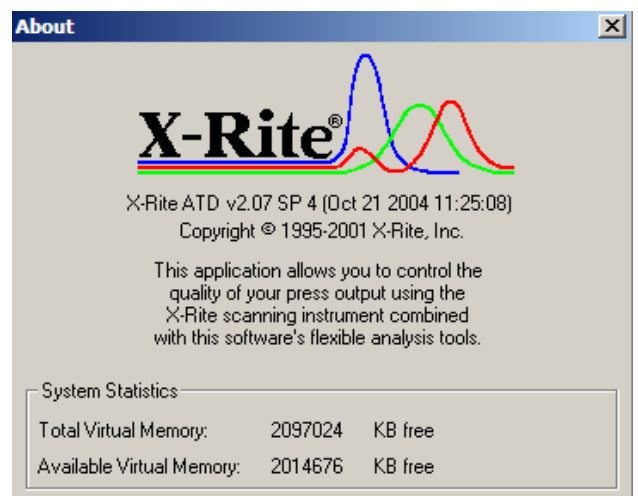
All details about IZCockpit are described in the Chapter "IZCockpit".



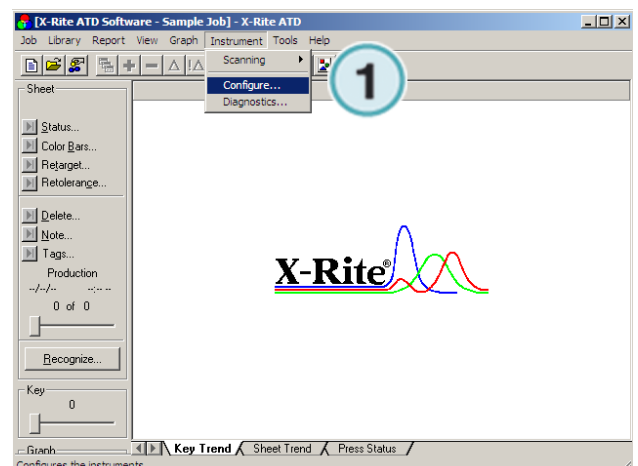
## 4.6 Setup X-Rite ATD-ATS SW

Use the X-Rite version 2.x with Service Pack 4.

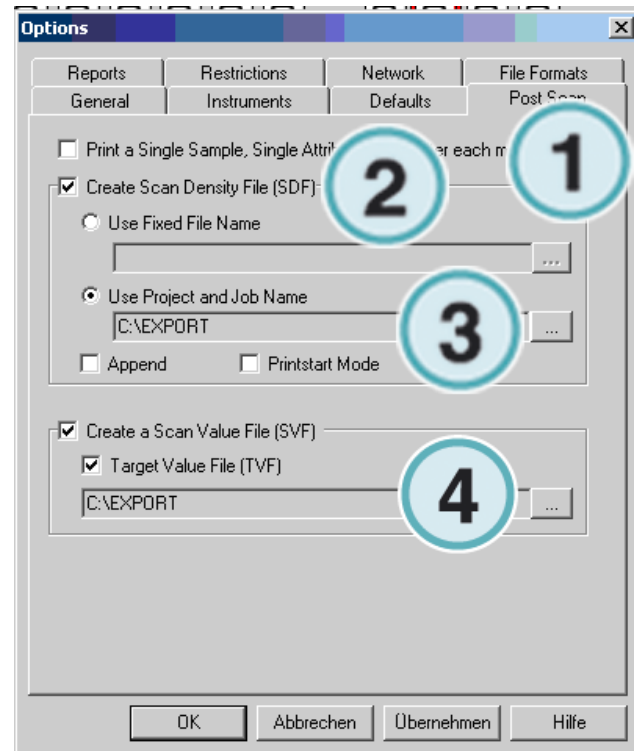
The Service Pack is available on the X-Rite website.



To activate the export feature, go the menu instrument and select the entry configure (1).



Open the tab Post Scan (1). Set the checkbox (2) to create a SDF file. Select the export directory and use the setting "Use project and Job name" (3). Set the checkbox to create a SVF and TVF file (4). The export directory needs to be equal the export directory from the SDF file.



In a next step, setup IZC to read the exported files to convert them to the appropriate XML format.

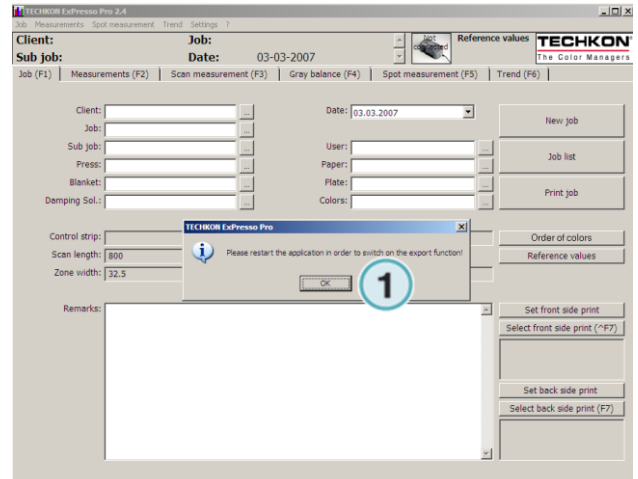
## 4.7 Setup Techkon Expresso 2

Use the version 2.4 or higher to activate the export feature. The upgrade from version 2.x to 2.4 is available on the Techkon website.

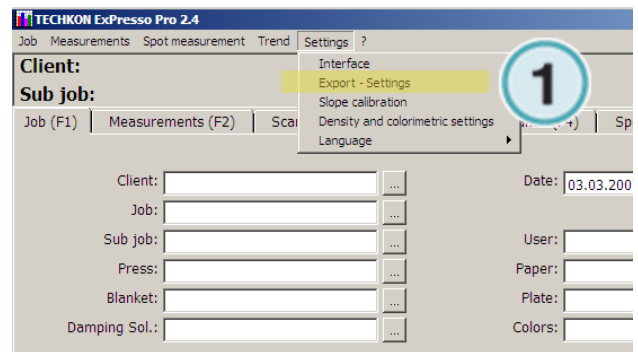


To activate the export feature, press at the same time on the keyboard ALT + CTRL + SHIFT + E.

A dialog box confirms the export function (1) as enabled. Restart the program.



After the restart, go to the menu Settings and select the entry Export – Settings.



Set in dialog window the export directory and the file name (1).

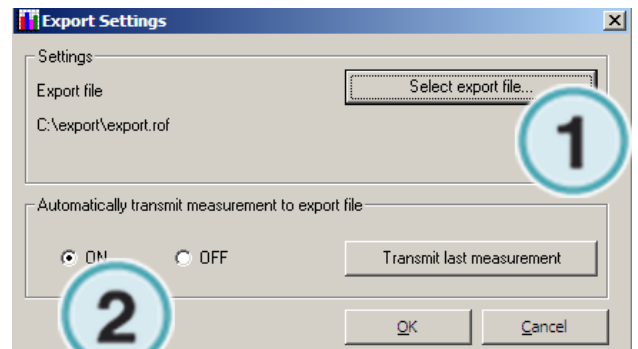
Activate the export with the radio button ON (2).

Note

The exported file needs the extension ROF

Example

Export.ROF



In a next step, setup InkzoneConvert “IZC” for converting the export data to the scan.xml data format.

## 4.8 IZCockpit

### 4.8.1 Basic

IZCockpit is an app which simplifies the operation of InkzoneLoop with 3rd party software such as PressSign, PressView, Techkon Espresso or X-Rite IntelliTrax / EasyTrax / InstrumentFlight etc.

IZCockpit runs either as a floating window application or as a fixed positioned application.

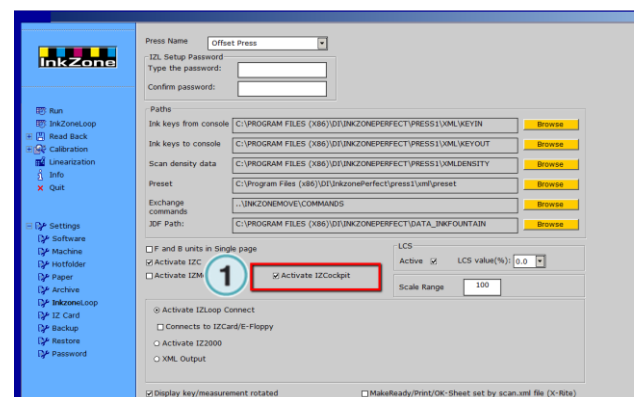
By choosing the fixed positioned mode, IZCockpit runs aligned either to the top, bottom, left or right.

IZCockpit controls:

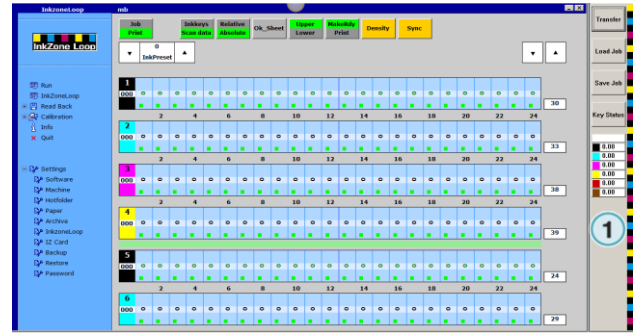
- Transfer key changes to console/press
- Deactivates/Activates ink key / units from being regulated
- Load a new job
- Save a job after printing for Linearization or Archive
- Activates the BestMatch and BestMatch Plus mode
- Shows current target values
- Shows current print mode (MakeReady / Print / OK-Sheet)

### 4.8.2 Activation

Activate the Checkbox “IZCockpit” from the menu “IZLoop”.



IZCockpit starts as an application aligned to the left side (1).

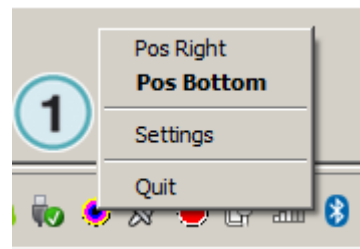


### 4.8.3 Usage with X-Rite software

Access the configuration menu with a right mouse click on the IZCockpit icon in the program tray area.

Select the entry "Pos Bottom" (1) to start IZCockpit aligned to the bottom (X-Rite mode).

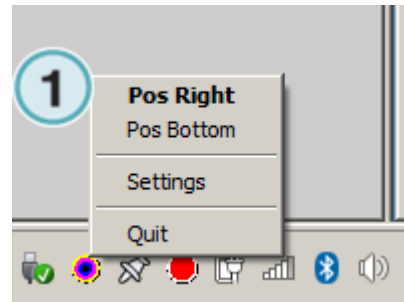
IZCockpit is aligned to the bottom. Operate from here the InkzoneLoop operation.



### 4.8.1 Usage with Techkon Espresso

Access the configuration menu with a right mouse click on the IZCockpit icon in the program tray area.

Select the entry "Pos Right" (1) to start IZCockpit aligned to the right side (Espresso mode).

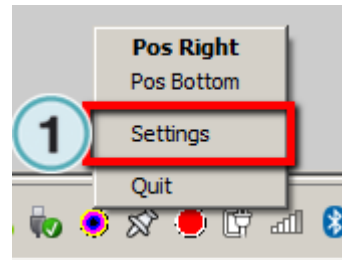




### 4.8.2 Further Options

To configure further options, access the configuration menu with a right mouse click on the IZCockpit icon in the program tray area.

Select the menu entry Settings



#### <Lang>

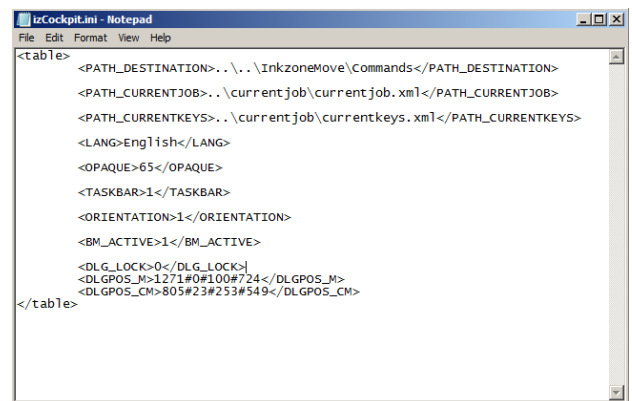
Select the language.

#### <Opaque>

When the application is in the floating window mode (taskbar=0), an opaque level is set here.

Opaque = 0 / opaque (not visible)

Opaque = 100 / none opaque (covers background completely)



#### <Taskbar>

IZCockpit runs either in the floating window mode or in a taskbar mode.

Taskbar = 0 / floating window mode

Taskbar = 1 / taskbar mode

#### <Orientation>

When the taskbar mode is active (taskbar=1), IZCockpit is positioned on the screen side.

Orientation = 1 / right aligned (Expresso mode)

Orientation = 2 / top aligned

Orientation = 3 / left aligned

Orientation = 4 / bottom aligned (X-Rite Mode)

#### <BM Mode>

BestMatch function

BM Mode = 0 / switched off

BM Mode = 1 / switched on

#### <Monitor>

Select on which monitor the application runs

Monitor = 1     / monitor 1

Monitor = 2     / monitor 2

### 4.8.3 Status Indication

Status GRAY:

IZCockpit is ready and monitoring the InkzoneLoop status.



Status ORANGE (hourglass function)

Confirmation:

InkzoneLoop acknowledge the receipt of scan data values from 3<sup>rd</sup> party application.

The level gradually decreases and therefore indicates the “age” of the scan file



Status GREEN

Confirmation:

the key data has been successfully transferred to the press.



In case of measuring twice without transferring the key correction to the press, wait for the orange hourglass to be on the top level again

## 4.8.4 Manage Keys

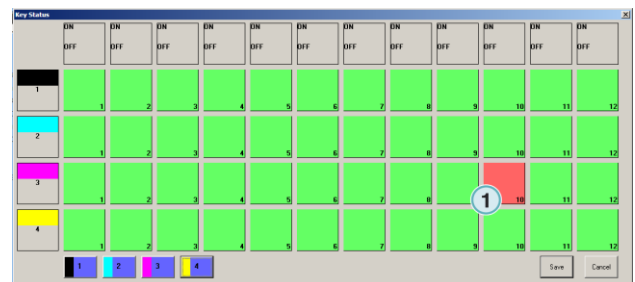
Disable a unit from being regulated by switching it off from position (1).



Disable the regulation for a certain area of ink keys switching them off from position (1).



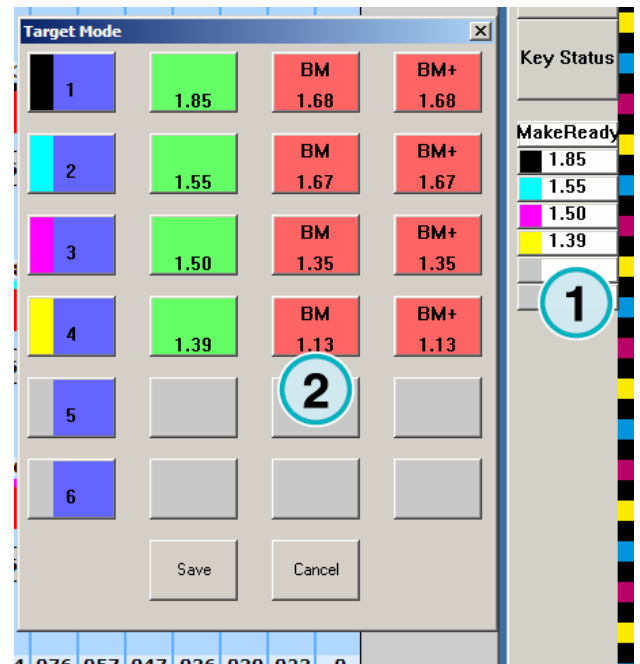
Click on a single ink key to disable it for the regulation (1).



### 4.8.1 BestMatch „Standard“

Click at position (1) on the target density indicator. In the Target Mode form, enable BestMatch for a particular unit (2).

The new target value shows up at position (1).



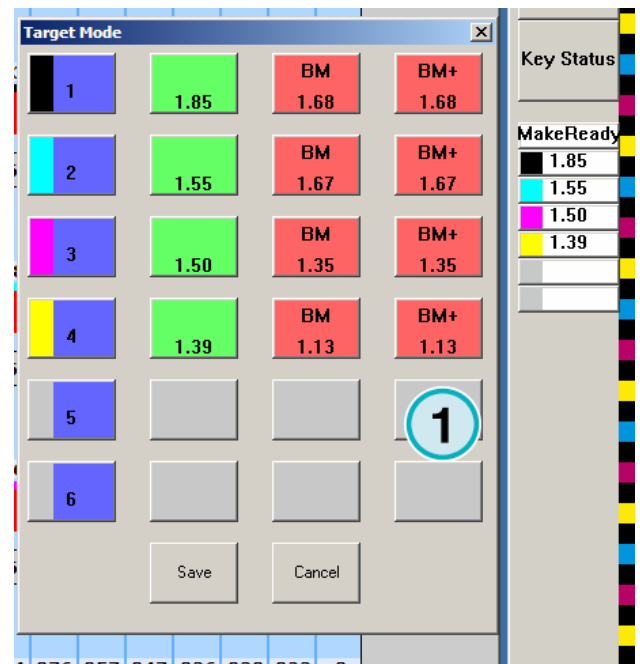
To use the BestMatch target mode, the colorbar must contain a paper white patch!

### 4.8.2 Best Match „Plus“

With BestMatch Plus, the BestMatch density is calculated as before. Additionally the scan data is statistically analysed.

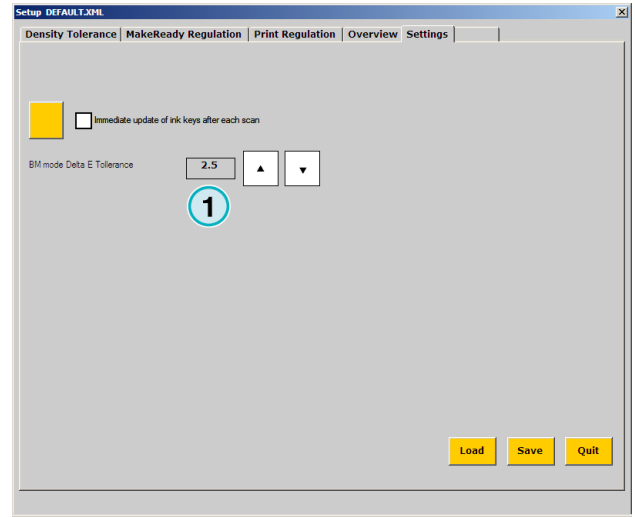
If a patch with a smaller DeltaE is detected, the calculated BestMatch density is ignored and the new target density is used from the patch with the smallest DeltaE.

In the Target Mode form, enable BestMatch Plus for a particular unit (1).



The DeltaE tolerance for BestMatch Plus is set in the InkzoneLoop setting window. Go to the tab "Settings".

When the DeltaE is equal or lower than the selected value (1), BM Plus uses the density from this patch as the new target density.



## 4.9 Direct JDF Job Setup for X-Rite and Espresso Software

### 4.9.1 Background

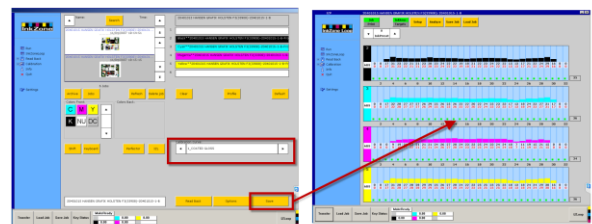
InkzoneLoop sends a JDF setup file to the 3rd party software. The JDF contains:

- job name
- colorbar front / back side
- colour names and targets
- colour sequence
- ...

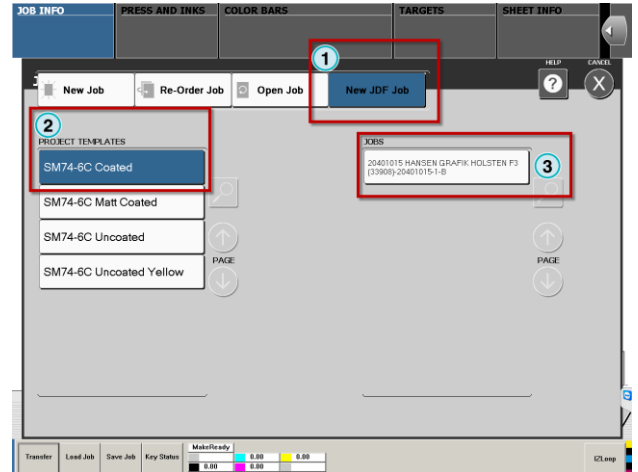
### 4.9.2 Workflow X-Rite

Select a job in Inkzone, select a paper calibration curve and save it.

Inkzone exports the JDF file for X-Rite in the background.



In the X-Rite software, select New JDF Job (1) with the project according template (2). Then click on the JDF job (3).



#### 4.9.3 JDF Input Path X-Rite

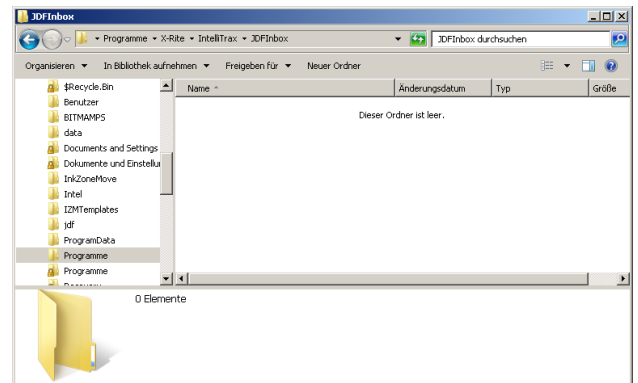
The X-Rite software reads the JDF job preparation files from the folder

Intellitrax

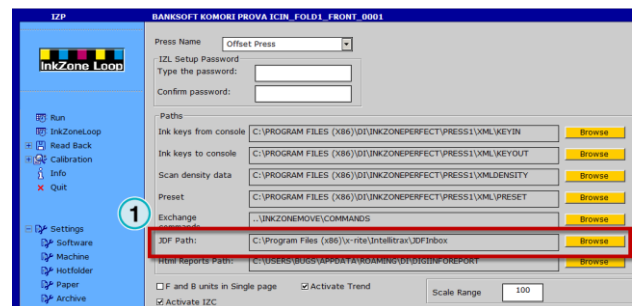
C:\program files\x-rite\intellitrax\JDFInBox

Easytrax

C:\program files\x-rite\Easytrax\JDFInBox



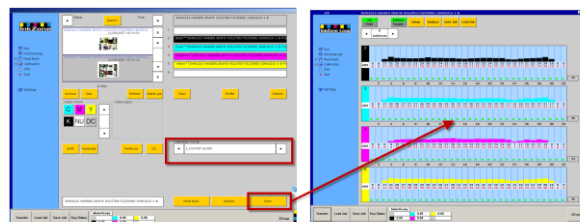
Modify in InkzoneLoop the JDF export path accordingly (1).



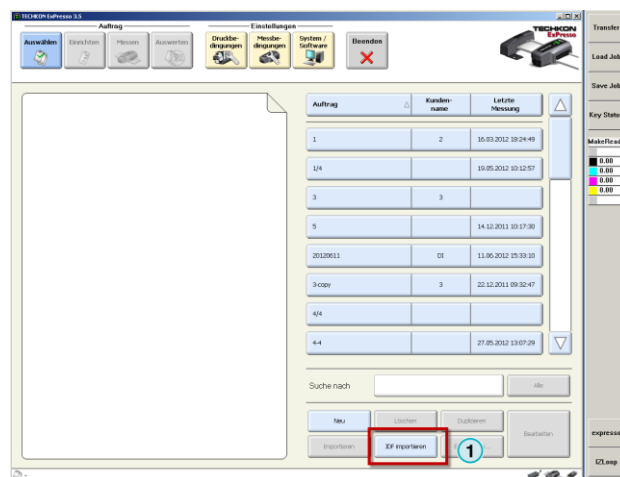
#### 4.9.4 Workflow Espresso

Select a job in Inkzone, select a paper calibration curve and save it.

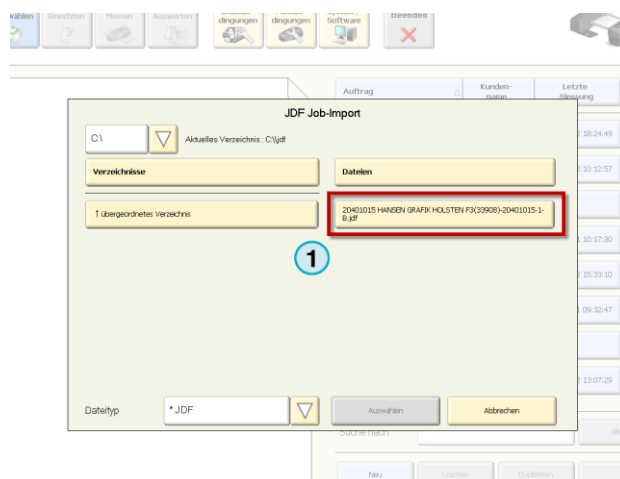
Inkzone exports the JDF file for Espresso in the background.



In the Espresso software, select “JDF Import” (1)



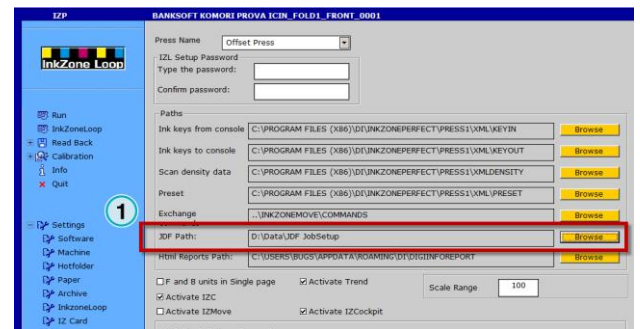
Then click on the JDF job (1) which was prepared in Inkzone.



JDF Setup works with Espresso version 3.5 or higher.

### 4.9.1 JDF Input Path for Espresso

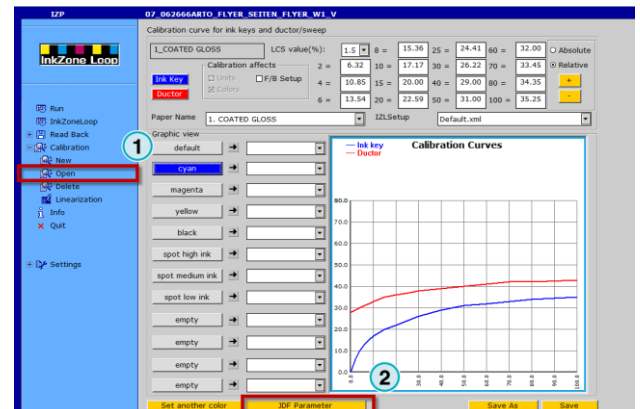
Create on the local hard disk a folder called “JDF JobSetup” and configure in InkzoneLoop this path as the JDF export path.



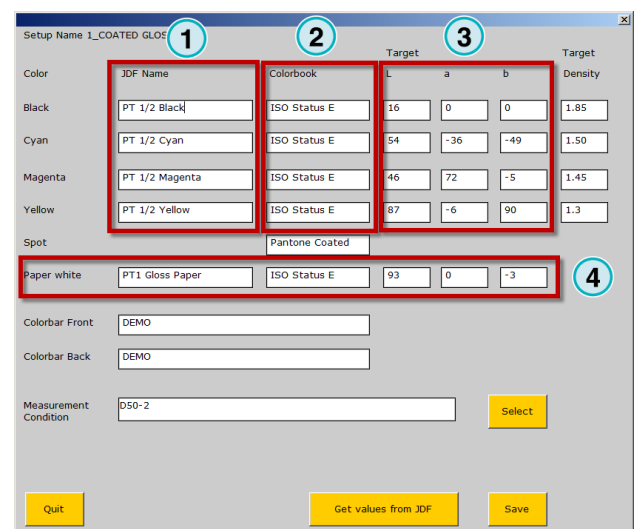
### 4.9.2 Create a JDF Template in Inkzone

Each Inkzone calibration curve is linked to the JDF template. The template has the information for the colour names, colour library, colour-bar etc.

Open an existing Inkzone Calibration Curve (1).  
Then click on the button “JDF Parameter” (2).



- 1) Colour name as used in the X-Rite or Espresso application
- 2) Colour book or colour library
- 3) Lab target
- 4) Paper white name and lab target





- 1) Colour-bar name
- 2) Measurement condition

Color	JDF Name	Colorbook	Target L	a	b	Target Density
Black	PT 1/2 Black	ISO Status E	16	0	0	1.85
Cyan	PT 1/2 Cyan	ISO Status E	54	-36	-49	1.50
Magenta	PT 1/2 Magenta	ISO Status E	46	72	-5	1.45
Yellow	PT 1/2 Yellow	ISO Status E	87	-6	90	1.3
Spot		Pantone Coated				
Paper white	PT1 Gloss Paper	ISO Status E	93	0	-3	

Colorbar Front: DEMO

Colorbar Back: DEMO

Measurement Condition: D50-2

Buttons: Quit, Get values from JDF, Save

### 4.9.3 Project Template Settings X-Rite

Open the X-Rite “Editor” and select “Project Template” (1) and the according Template (2).

Create a template if it does not exist!

Set in the JDF Inkzone Template the parameters from here:

- 1) Colour-bar name
- 2) Density Status and Illuminant

EDITORS

Buttons: Press, Target Library, Targets, Color Bar, Profile Cho, Project Template

Templates: SM74-6C Coated, SM74-6C Matt Coated, SM74-6C Uncoated, SM74-6C Uncoated Yellow

Buttons: Create, Delete, Rename, Duplicate, Edit, Import, Export

Item 1 of 4 selected

- 1) Paper name
- 2) Paper Target Library

PAPER PICKER

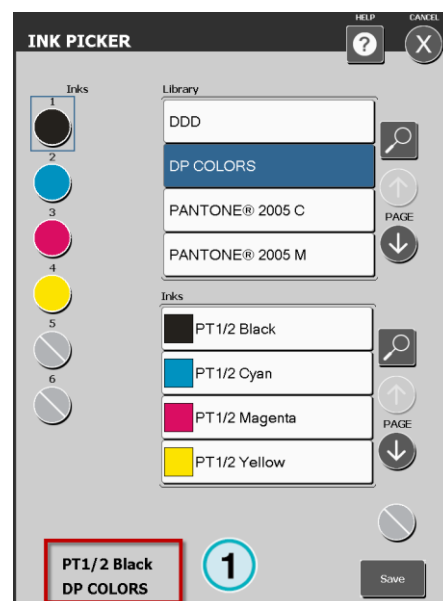
Buttons: Paper Target Library, Paper Name, Paper Color Swatch

Library: DDD, DP COLORS, PANTONE® 2005 C, PANTONE® 2005 M

Papers: Paper

Buttons: Save

- 1) Colour name
- 2) Library name



#### 4.9.4 Parameter Settings in Espresso

TBD

## 5 Further Configuration

### 5.1 Manage Ink Keys in Inkzone

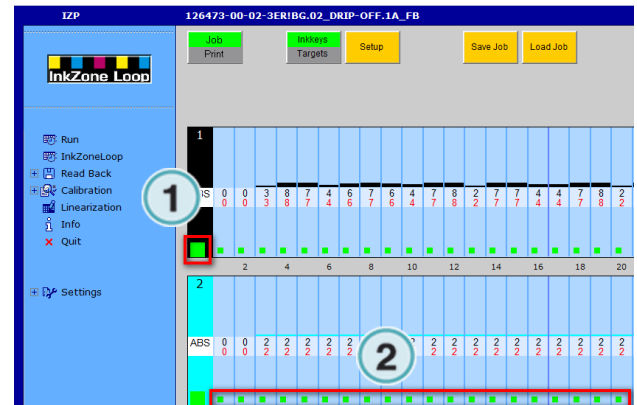
#### 5.1.1 Unit and Ink Key Status

At each unit a status indicator is shown (1).

Statuses are:

- GREEN Unit is on for regulation
- GRAY Unit is switched off for regulation
- RED After scan data receives, the red indicator shows, if the unit needs to be regulated.

Status green stands for Unit is ON for regulation.



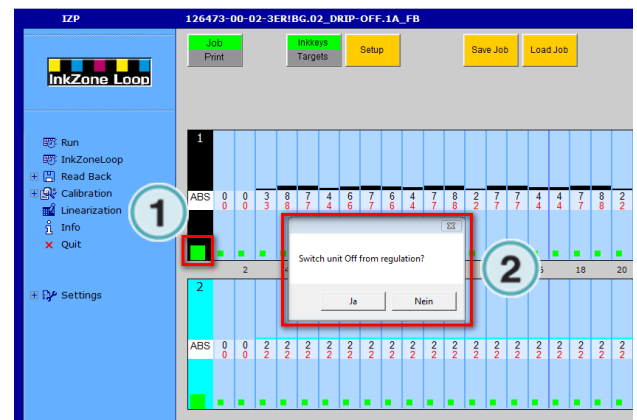
At each ink key, a status indicator is shown (2).

Statuses are:

- GREEN Ink key is on for regulation
- GRAY Ink key is switched off for regulation
- RED After scan data receives, the red indicator shows, if the ink key needs to be regulated.

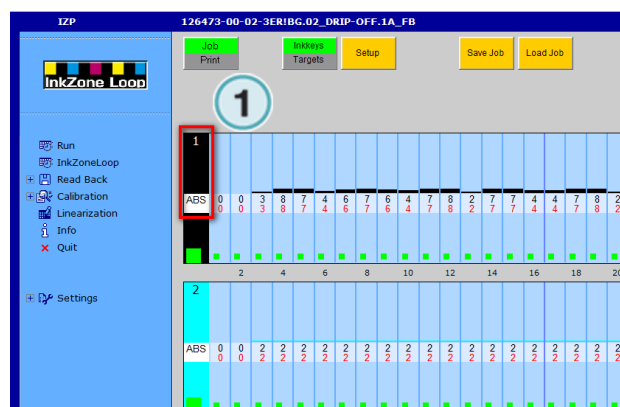
#### 5.1.2 Switch OFF the Unit

To switch off the unit from regulation, click on the unit indicator (1). A message box comes up (2). To confirm, press the YES button. The unit indicator switches to GREY.



### 5.1.3 Switch OFF the Ink Keys

To manage single ink keys, change to the single unit view by clicking in the upper area of the unit colour like shown (1).

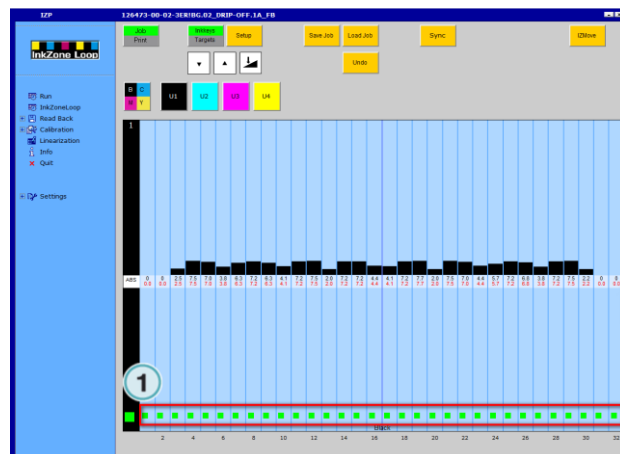


In the single unit view, use the key status indicator (1) to toggle the unit or key/s between status Regulation=ON or Regulation=OFF

GREEN = Regulation is ON

GREY = Regulation is OFF

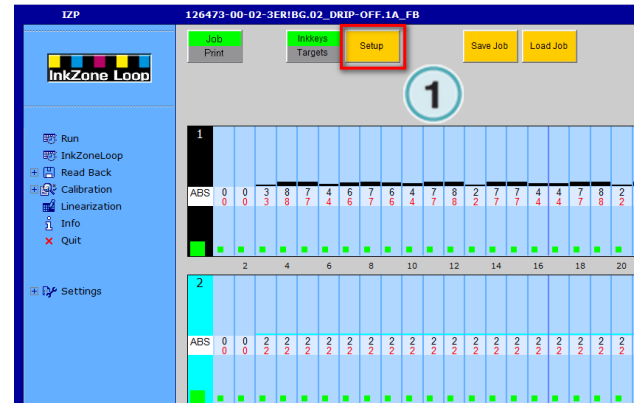
RED = Needs to be regulated (comes up after a scan).



The key status is also changeable through IZCockpit.

## 5.2 Regulation Setup

Enter the regulation setup through the button (1) in job mode.



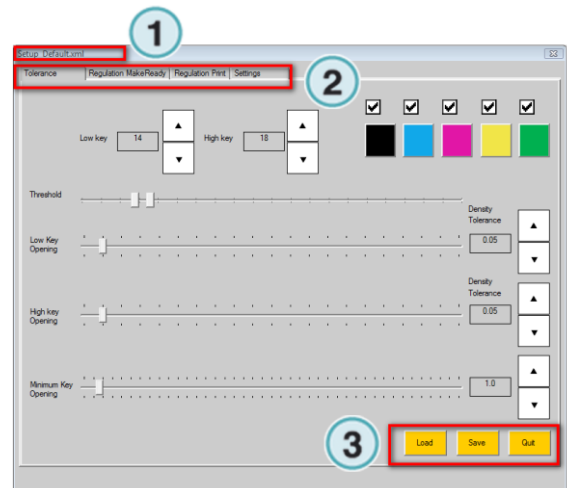
### 5.2.1 Regulation Window

In the dialog title bar, the regulation setup name shows up (1).

Underneath the tabs (2) are shown to configure:

- Tolerance
- Regulation value for MakeReady mode
- Regulation values for Print mode
- Further settings.

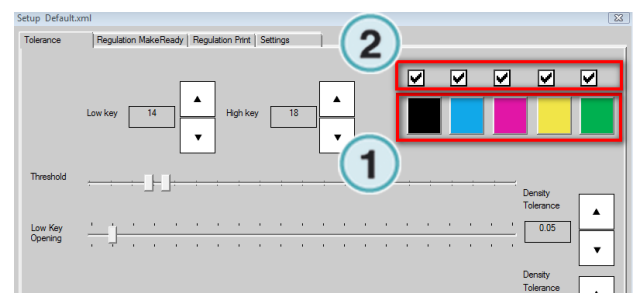
Save or load a regulation setting through the buttons (3).



### 5.2.2 Colour Selection

For each process colour Black, Cyan, Magenta, Yellow and a Spot colour, an own set of regulation values can be set.

Select a single colour by clicking on the colored button (1). To select two or more colours, select them through the checkbox (2).



When pressing save, the defined values are saved to the colours where the checkbox (2) is set.

### 5.2.3 Ink Key Ranges

The software allows defining three ink key ranges (1):

- Low ink key range: from 0 to LOW KEY value
- High ink key range: from HIGH KEY value to 100
- Transition ink key range: from LOW KEY value to HIGH KEY value

Example:

The system is setup as:

Low key = 14

High key = 18

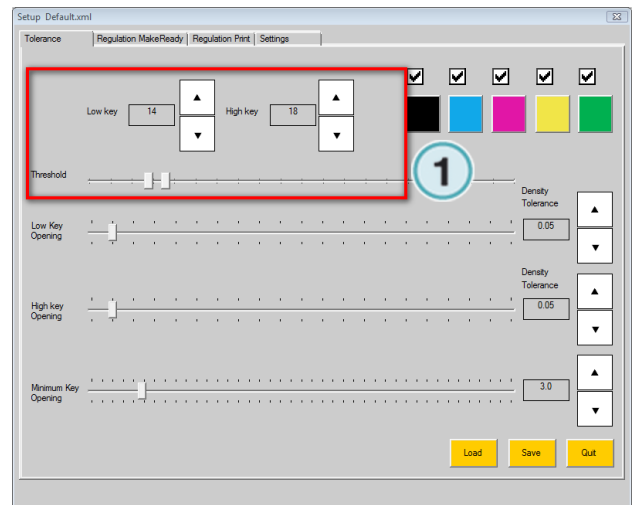
Low ink key range = 0 – 14

Transition ink key range = 14 – 18

High ink key range = 18 – 100

For each range, the following parameters are definable:

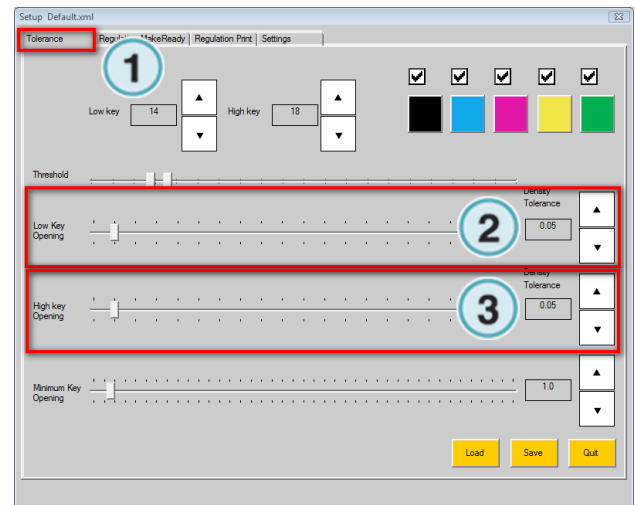
- Density tolerance
- Minimum ink key opening
- Regulation constant MakeReady Mode
- Regulation constant Print Mode
- Over inked compensation MakeReady Mode
- Over inked compensation Print Mode



### 5.2.4 Density Tolerance

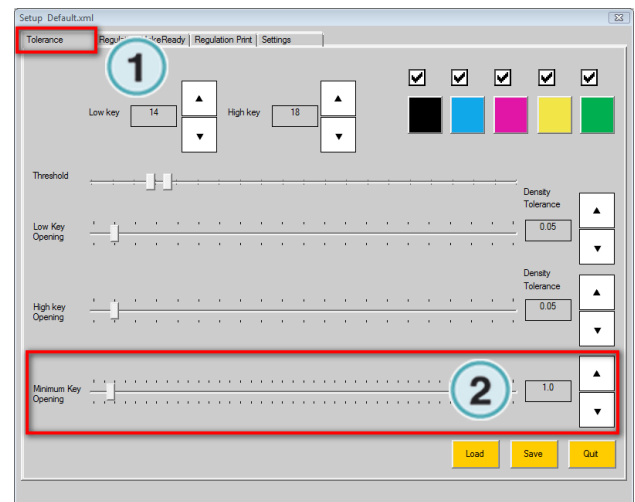
Open the tab Tolerance (1). Set the density tolerance value for the low ink key area (2) and the high ink key area (3) here.

If a measured density value is out of the given tolerance, IZLoop regulates the ink key to reach the target density.



### 5.2.5 Minimum Ink Key Opening

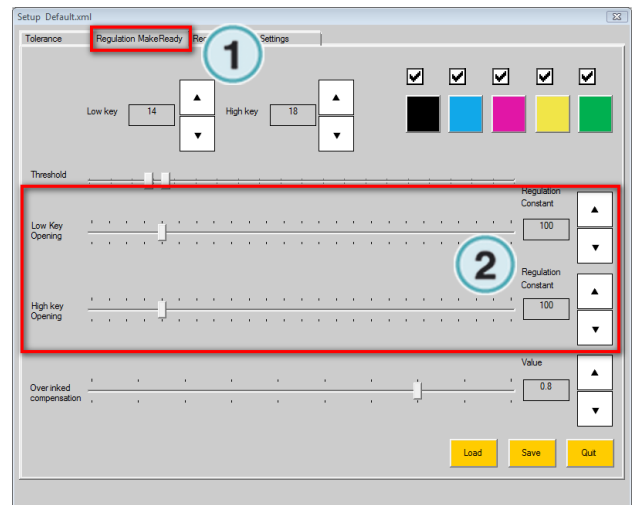
Open the tab Tolerance (1). Set the value of the minimum ink key opening (2). The regulation system will not regulate the ink key below the given value.



### 5.2.6 Regulation Constant Make Ready Mode

Open the tab Regulation Make Ready (1). Set regulation constant (2) for the ink key area low ink key and high ink key.

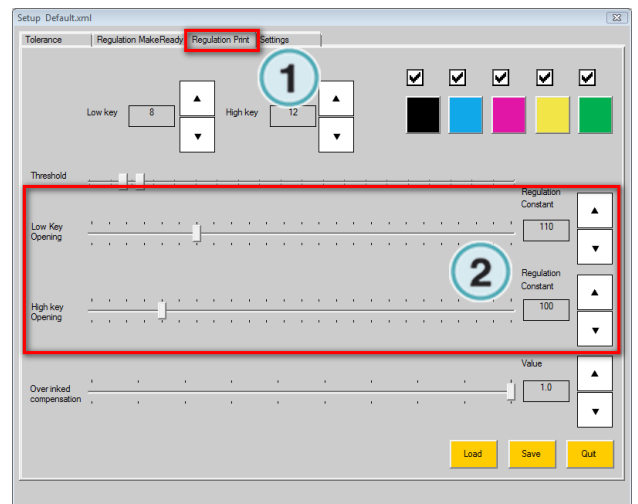
A higher regulation value causes a more aggressive ink key regulation.



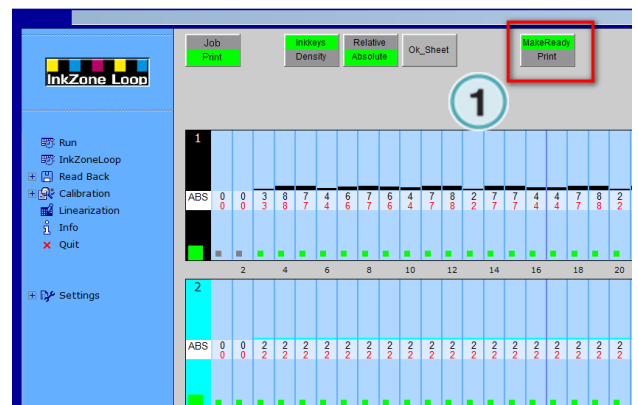
### 5.2.7 Regulation Constant Print Mode

Open the tab Regulation Print (1). Set regulation constant (2) for the ink key area low ink key and high ink key.

A higher regulation value causes a more aggressive ink key regulation.



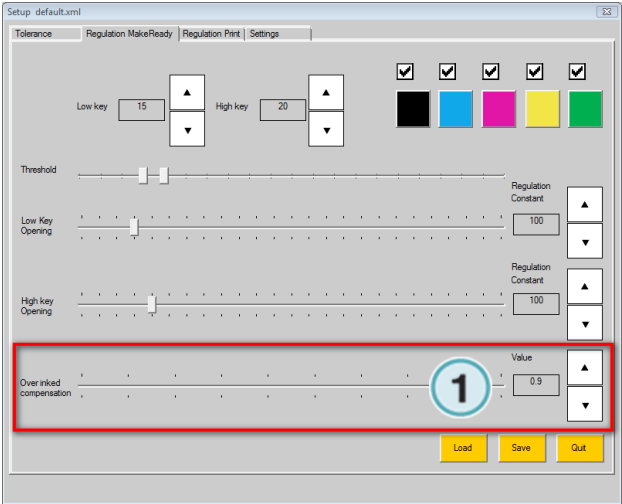
During the production run, change between MakeReady and Print with the Mode button (1).





### 5.2.8 Over Inked Compensation MakeReady Mode

Open the tab Regulation MakeReady. Set the over inked compensation value for MakeReady (1). A lower value then 1, causes the regulation system to regulate the over inked key are more smoothly down.

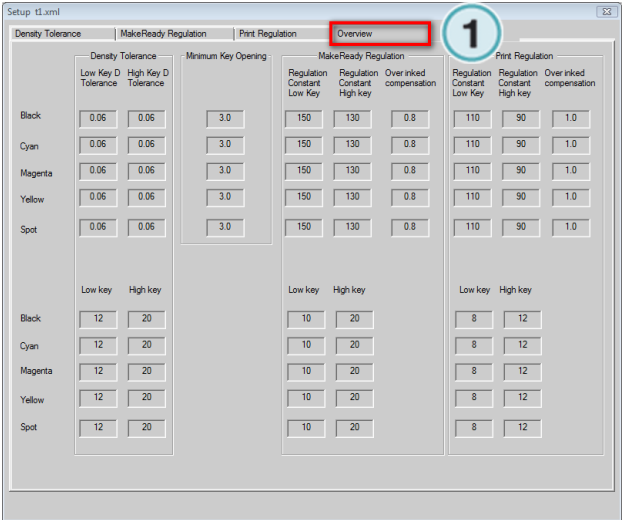


### 5.2.9 Over Inked Compensation Print Mode

Open the tab Regulation Print. Set the over inked compensation value for Print (1). A lower value then 1, causes the regulation system to regulate the over inked key more smoothly down.

## 5.3 Regulation Parameter Overview

An overview of all regulation values is shown in the overview tab (1).





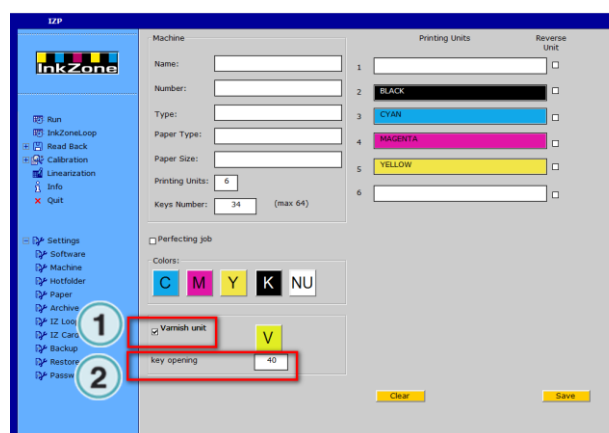
## 6 Operation

### 6.1 Varnish

The varnish feature helps to setup a varnish job in a much simpler way when the prepress workflow is not delivering an ink profile (CIP3 information) for the varnish plate.

#### 6.1.1 Enable Varnish

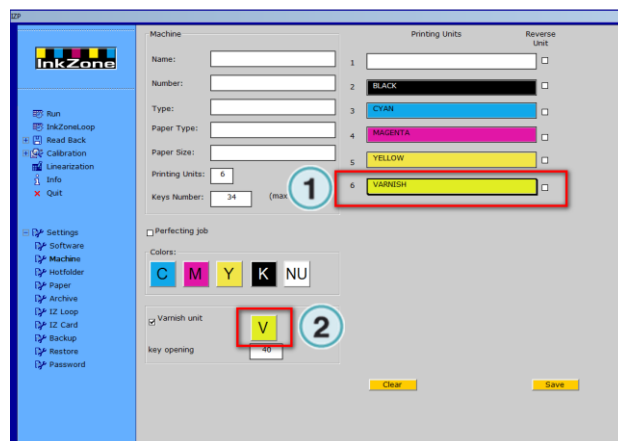
Open the machine setup and activate the checkbox (1). Set the varnish key opening and the ductor value to a standard value (2).



#### 6.1.2 Define the Print Unit as Varnish Unit

If most jobs run with varnish it would be most convenient to predefine a varnish unit:

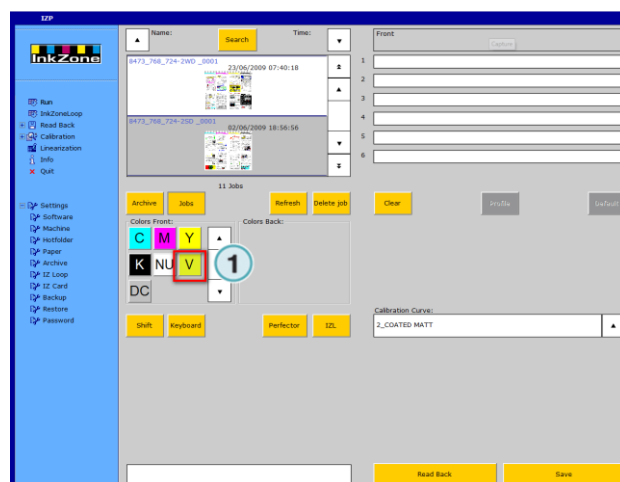
Select first the unit (1) then click on the varnish button (2). The unit becomes the standard unit for varnish. For every job the varnish is automatically set to this predefined unit.



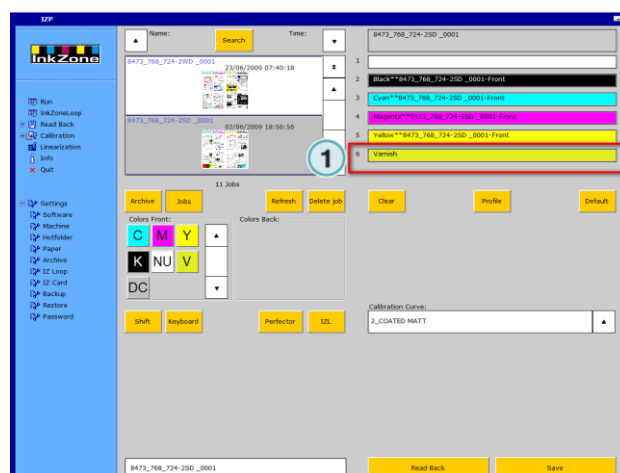
It is not necessary to set a unit fix as varnish. If there are many jobs printed without varnish, it might be better to not predefine a unit as varnish unit. In such a case, only activate the checkbox.

### 6.1.3 Ink Preset a Job with Varnish (Varnish is predefined)

The varnish plate is available in the job colour area at (1).

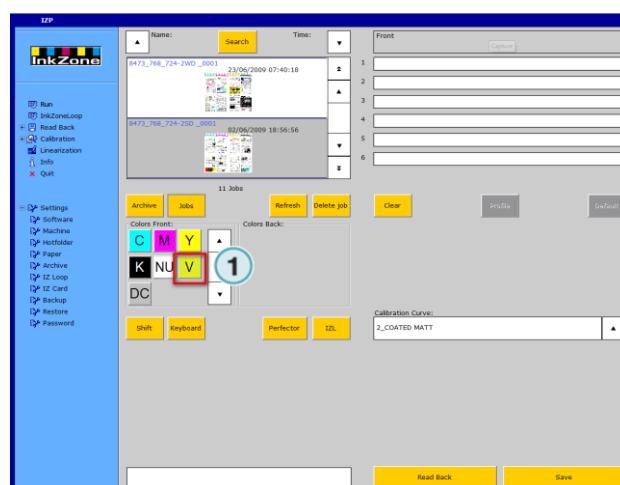


Drag and drop the job to the units. The varnish unit is set automatically (1).

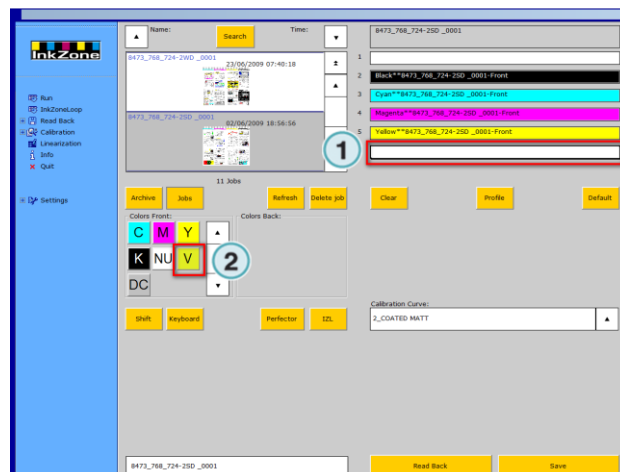


### 6.1.4 Ink Preset a Job with Varnish (Varnish is not defined)

The varnish plate is available in the job colour area at (1).



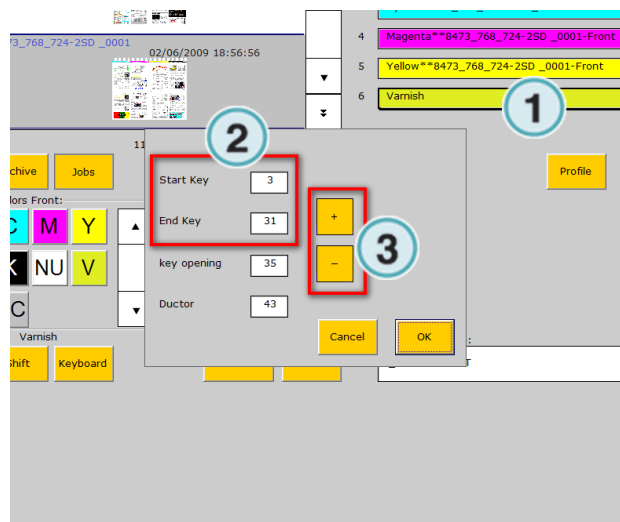
To place the varnish to the unit, select first the unit (1) and then click on the varnish colour (2) in the job colour area.



### 6.1.5 Set the Keys and the Ductor

Click on the varnish unit (1). Select in the dialog the ink key area which is used for varnish by setting the start and the end key.

Select first the start / end key (2) and then set with the plus / minus button (3) the ink key.



#### Example

- Machine with 34 ink keys
- start key = 3
- end key = 31
- key opening = 35
- Ductor = 43

