

News Lounge



Superior Printing

Measure and Control Color

• Accomplish Standards

• Stable Press Runs



Imposed EcoProofs

Double Sided Proofs

• 50% Paper Savings

• No Glue-ups



Room Service

Bitmap Proofing

• Content-Reliable

• Confidence in Your Workflow



Waste Terminator

Preset Ink Console

• Up to Color Fast

• More Jobs per Day



Meeting ISO Standards with a Small Capital Expenditure

Grafimedia AG in Goldach has recently obtained Process Standard Offset (PSO) certification for its printing process. And according to the high-quality printer, it was the InkZone Move Press solution from Digital Information that made all the difference.

The All-In-One Package

In opting for the InkZone solution from Digital Information, Grafimedia AG acquired a complete system for working at a consistent printing quality. The key components of their system are: InkZone Perfect for presetting ink keys prior to press makeready; InkZone Loop – a closed-loop color solution which helps maintain on-press results within the tightest of tolerances; and InkZone Move Press for automatic scanning with the affordable X-Rite EyeOne (i1) spectrophotometer. InkZone Move Press has been approved by UGRA, the Swiss standards institute for the graphics industry, as a solution to obtain certification to ISO 12647-2 (sheetfed offset printing). A color bar developed by UGRA is an official part of the InkZone Move package.

Dreaming About PSO Certification

Grafimedia AG has long been aware of the importance of standards as a means not only for promoting internal efficiency, but also for delivering quality to customers and for differentiating their printing services in the marketplace. Although Grafimedia's working practices have always been organized with standards in mind, they were never officially recognized as such. One reason for this is that PSO certification requires the use of a scanning measuring instrument – and for a company of Grafimedia's size, that's a considerable investment, especially considering the large price tag associated with press manufacturer's solutions.

Unbeatable in price and performance

With the recent introduction of InkZone Move Press to the market, however,



Contented faces after successful PSO certification (from left): Peter Breu, Grafimedia AG; Roland Gisler, Digistuff AG, Andreas Breu, Grafimedia AG, the printing technician Adela Kujovic; Erwin Widmer, UGRA St. Gallen; Martin Breu, Grafimedia AG.

the situation at Grafimedia changed. The affordability, quality and adaptability of this new solution from Digital Information makes it ideal for this type of situation.

The measuring system relies upon the EyeOne, a commercially available, open-ended and accurate spectrophotometer. On the price/performance side, this measuring device is unequalled. Grafimedia saw the benefits, equipped their Heidelberg Speedmaster SM 52-6 with InkZone Move Press, and also installed the optional DC2 (Digital Control) electrical drive to ensure ease of use and more reproducible measurement results. With this arrangement, the press operator triggers the fully-automatic measurement sequence via a graphical, touch-screen interface.

An Excellent Foundation in Pre-Media

With products from Digital Information, Grafimedia has always been sure of sound and economical investments. Like thousands of others in the printing industry, they have relied upon DI-Plot software to output imposed proofs prior to making plates for the press, in this case via a Harlequin RIP. In terms of workflow, DI-Plot simply sends the zone coverage values as JDF files to InkZone Perfect, which then converts the data into calibrated values for presetting the ink keys and duct rollers on the six-color Heidelberg. So with only a small capital outlay, the full package including DI-Plot, InkZone Perfect, InkZone Loop and InkZone Move Press brings the sheetfed press at Grafimedia AG up to the very latest specification, while also making their operation more efficient.

InkZone Move

Finally, a comprehensive solution for the automated measurement and control of all the stages of the sheetfed printing process: InkZone Move can automatically measure your proof, printing plates and printed press sheets, all using a single, cost-effective, scanning spectrophotometer. Never before has such an affordable, ingenious solution been developed to incorporate three applications, available as separate

licenses or as a full suite: InkZone Move Press (IZM Press) for color control, measurement and visualization while on press; InkZone Move Plate (IZM Plate) for measuring surface coverage from printing plates; and InkZone Move Wedge (IZM Wedge) for evaluating control strips on color proofs.



IZM Press: Fast, Simple Color Checks for any Press Operator

When it comes to color control, IZM Press will make easy work of color evaluation in the pressroom. Leveraging the X-Rite EyeOne spectrophotometer, scanning a color bar is a simple sequence that's precise, quick and accurate. Thanks to the spectrophotometric engine, the IZM Press system goes beyond the limits of CMYK and provides dependable data to control important spot colors as well.

In semi-automatic mode, the included straight-edge guide assures smooth and steady measurement of your color bar – the result is precise measurements every time that can be counted on for keeping the entire print run under control. In addition, IZM Press documents all of your results, allowing you to conform with customer requirements or to verify adherence to industry standards like ANSI/ISO or specifications like GRACoL and the G7 approach.

Visual and Numerical Process Control

With IZM Press, your printing process is always in full view. The graphic interface allows you to visualize the results of each measurement on screen, with graphics that are easy and quick to interpret. The control screen shows the ink key zones for each press unit along with the relevant color data including density (absolute and relative), dot gain, gradation, and colorimetry (CIELAB and Delta-E).

And for documentation or further analysis, all measured data is continuously saved in easy-to-read, industry-standard XML format, ready for importing to any standard reporting software.

Full Automation on any Press Model

IZM Press supports a wide range of sheetfed offset presses from most every recognized manufacturer. That means we have a system that will work for you. IZM Press covers formats ranging from DIN A3 (52 cm or 20 in) to machines in the 70 cm (28 in) and 100 cm (40 in) width. For the small 52 cm and 70 cm formats, semi-automatic hand-scanning of the color bar (using the included precision guide) is the simplest and most efficient approach. But for larger sheet sizes, or for more convenience, IZM Press can be equipped with a digitally-controlled motor, which fully-automates the measurement. Get the DC2 for 2-up presses, DC4 for 4-up sheet sizes, and the DC8 for larger 8-up sheet sizes. This automation takes the accurate, hand-held, EyeOne from X-Rite and transforms into an automated pressroom workhorse.

Even More Functionality – Expand IZM Press into Closed-Loop Inking

Now the press operator has an intelligent choice, either rely on the process control information provided by IZM Press as



The measuring system can be equipped or retrofitted with a motorized digitally controlled (DC) drive. The DC module can be obtained in the DC2 (2-up, A3 format), DC4 (4-up, A2 format) and DC8 (8-up, A1 format) versions.



Manual measurement of the color bar using the straight-edge guide is the best and most efficient solution for the 37 x 52 and 50 x 70 cm formats.

an aid in maintaining critical colors at their optimum level, or take it to the next level and close the loop. With the addition of InkZone Loop we add the benefits of automated ink key adjustments which correct for any color variations identified by the IZM Press spectral measurements. And we can add this for you at any time as an upgrade. For the first time ever, the same type of capability offered on larger or newer presses can now be added at a fraction of the big-press solution cost. With full automation, closed-loop feedback, and a cost-effective price point, most any press can justify IZM Press and InkZone Loop in a relatively short time through benefits realized during the pressrun.

IZM Plate: Easily Verify Plates to Ensure On-Press Performance

Printing plate imaging is often overlooked in the production workflow, and this oversight can be costly in terms of press time and materials. And when a plate-related problem is discovered, fixing it can be an equally big challenge. Fortunately, IZM Plate can help close this loophole. In a similar approach to IZM Press, a control wedge on the printing plate can be measured and in a few seconds. IZM Plate analyzes the measuring wedge in 5% or 10% steps, displaying the results for each plate on the screen both visually as a curve as well as numerically as dot percentage.

IZM Plate has been designed for effective use with either metal or polyester plates. It's a unique solution that is as fast as it is accurate, allowing you to confidently deliver plates to press that will get the job done. As with IZM Print, each sequence of measured values is saved automatically by IZM Plate in standard XML format. Using the export function, the data can be transferred to any standard software application that can support the XML format.

IZM Wedge Validates Proof to Press Accuracy

The InkZone Move Wedge module evaluates proofing control elements according to target values called out in industry standards, applicable specifications, or according to your own shop guidelines. In addition to popular proofing media wedges issued by trade organizations, the extended control wedge included with IZM Press provides a respectively reliable method for controlling the print run. After scanning and evaluating the measured data, IZM Wedge displays the results taking into account the substrate. The printing result can be checked quickly and accurately against a predetermined set of standard values using either CIELAB color space or a characteristic printing curve.

A Meaningful Evaluation

InkZone Move Wedge is definitive when converting the measured proofing data into numeric tables and various graphic illustrations. In addition to a table format, the measured values can be graphed as dot gain curves, or primary and sec-



In addition to controlling the imaging device – a standard feature in any quality-minded operation – IZM also brings maximum efficiency and accuracy when calibrating the CtP system.

ondary color positions in CIELAB color space. With the included CIELCH capability, you can evaluate results based upon the hue (H*) independent from the color saturation/chroma (C*). This series of information immediately reveals whether or not the printing result is within the permitted tolerances, as well as the extent to which a color tone deviates from the predetermined target value. IZM Wedge provides reliable information about the feasibility of obtaining a proof using a specific set of printing colors, and the necessary corrective measures.

Efficient Quality Assurance

With its three software modules for Press, Plate and Proof Wedge, the InkZone Move suite offers an economical, comprehensive set of tools for color

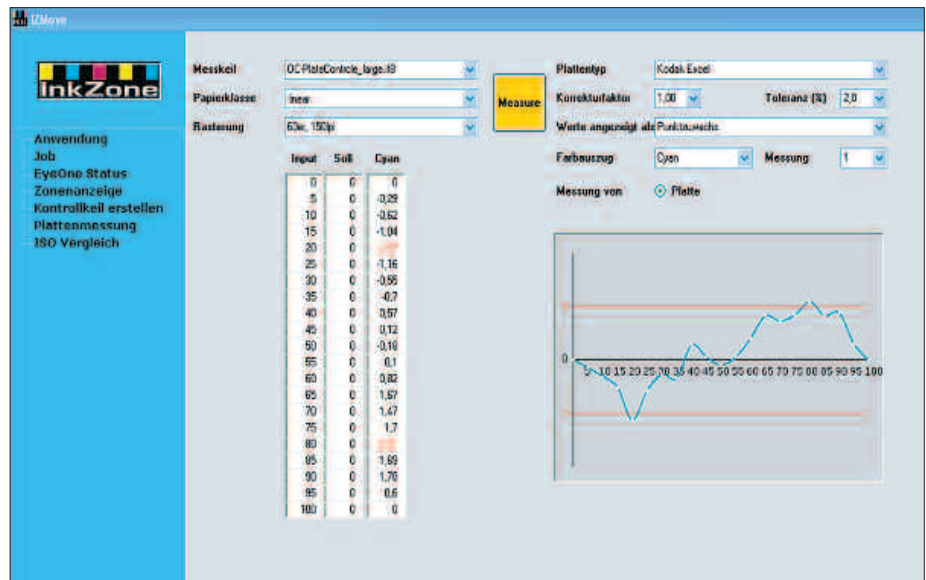
The motorized DC drive enables automatic scanning with X-Rite's EyeOne for the very first time.



consistency and uniformity across all stages of the sheetfed offset print process. For a modest investment, users can realize significant savings due to fewer costly color-related issues and faster response time to any issues that do arise.

By providing objective, measurement-based evaluation of the proofing media wedge, printing plates and press-sheet color bar, InkZone Move delivers a comprehensive approach to controlling all of the factors relating to quality sheetfed offset printing.

And as the industry's first, integrated aftermarket solution, InkZone Move has the capability to unite otherwise incongruent solutions from multiple system providers at each stage of the process. In this way, the full process can be controlled using a single, comprehensive approach. When paired with the benefits of automation and affordability, it's hard to envision a packaging or commercial printing environment that wouldn't realize a substantial benefit from the use of the InkZone Move solution.



Quality control at every step of the process:
Printing plate evaluation with InkZone Move Plate

Technical Requirements

Hardware, Operating System, User Software

- Eye-One spectrophotometer from X-Rite (firmware B, C, D or higher; not version A)
- Microsoft Windows XP Professional or Vista Business
- Microsoft .Net Framework 3.x or higher
- 1 free USB port for the hardware protection key (dongle)
- 1 free USB port with sufficient power for EyeOne measuring device
- 1 free RS232 series connection when using DC2, DC4 or DC8 electrical drive options
- Touchscreen monitor (19" or larger) strongly recommended

Technical Specifications DC 2/4/8 (Motor Drive)

- Electrical drive for automatic measurement of the printing control strip
- DC2 for maximum scan and paper lengths of 54 cm/21"
- DC4 for maximum scan and paper lengths of 77 cm/30"
- DC8 for maximum scan and paper lengths of 106 cm/41"
- 1 x series port (RS232) for the drive control
- 1 x USB port with sufficient power supply for the X-Rite EyeOne

Technical Specifications

InkZone Move Press (IZM Press)

Visualization and Checking of

- Deviation from full color densities (CMYK)
- Deviation in Delta E
- Dot gain
- Gradation

Further Functions

- Control according to target values
- Control according to proof sheets
- Back-up of each individual measurement (ASCII/XML)
- Output of a measurement log using standard software
- Connection to InkZone Loop (closed-loop ink control and digital presetting)

Measuring Wedges

- Measuring wedge with 5 mm edge length per patch

Measurement Specifications

- Individual predetermined density values
- Dot gain in line with industry standards

InkZone Move Plate (IZM Plate)

For Ascertaining

- Dot gain curve
- Correction curve for imaging device
- Deviation from target value

Further Functions

- Back-up of each separate measurement (ASCII/XML)
- Output of measurement log using standard software

Measuring Wedges

- Stepped measuring wedges (5% and 10%) for EyeOne
- Measuring strips according to customer specifications (option)

Measurement Specifications

- Dot gain in line with industry standards
- Specifications according to company standard (option)

Plate Material (Substrate and Coating)

- Polyester plates
- Aluminum plates
- Diazo coatings (UV-sensitive coatings)
- Thermally sensitive coatings

InkZone Move Wedge (IZM Wedge)

Monitoring of

- Primary CMYK (L*a*b*) color positions
- Dot gain in 20%, 40%, 60% and 80% patches
- Gradation
- Special color tones

Further Functions

- Graphic visualization of the measured data (2D CIE-L*a*b* color space, dot gain)
- Back-up of each separate measurement
- Outputting of measurement log
- Measurement within the printed design (dependent on prepress)

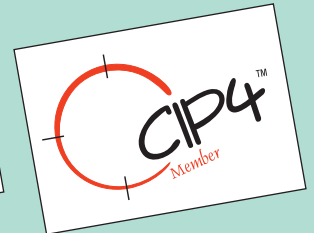
Measuring Wedges

- Media wedges from standards institutes (not included in package)
- Press control wedge (special wedge included in the InkZone Move Suite)
- ECI2002
- Special color specifications from InkZone Move

Measurement Specifications

- Values for full color densities and secondary colors in line with industrial standards
- Dot gain values
- Measurement values according to standard references
- Tolerances according to specific customer specifications
- Specifications according to company standard

We Put the ROOM in Pressroom



DI-Plot:

Accurate Proofs Guaranteed

How can you be sure your proof will match the imaged printing plate? With DI-Plot, of course! That's because DI-Plot works with the exact same RIP files that are sent to your CtP system. DI-Plot takes the bitmap files calculated and separated in the RIP, converts them to the required resolution for proofing, and sends the descreened result to any color printer. This high-performance technology from Digital Information guarantees full data integrity as well as identical positioning and content between the press sheet and a fully-imposed proof.

JDF Technology for Ink Key Preset

DI-Plot creates synergy. In addition to providing imposed proofs, the software also delivers the appropriate data for presetting ink keys and duct rollers on all units of your sheetfed or web presses. DI-Plot calculates ink coverage data from bitmap files generated by any RIP, writes an industry-standard JDF file and transfers the data via Ethernet to your pressroom. As a universal link between workflow, proofer and press console, DI-Plot works equally well in older and more recent technology environments. DI-Plot generates JDF files of the highest quality, resulting in accurate initial color settings for all printing units. Hundreds of press operators rely on data from DI-Plot and the companion press console interface InkZone Perfect



to operate the presses with efficiency and confidence. That's because the DI-Plot and InkZone Perfect solution minimizes duct roller feed, allowing exploitation of the full range of each ink key in addition to greater sensitivity to individual ink key adjustments.

Thanks to the CIP4/JDF functionality of DI-Plot and InkZone Perfect, most any prepress workflow can now be

extended directly to the pressroom via straightforward XML, even to presses of different age or origin. No need to invest in expensive, proprietary workflow plug-ins for outputting obsolete CIP3 files. DI-Plot takes you directly there.

DI-Plot Means Reliability and Quality

DI-Plot uses high-resolution bitmap files calculated in the RIP for outputting digital «blueprints», in full color, and on any inkjet or laser printer. In addition to the page contents, DI-Plot accurately prints all instructions, like trim, fold, collating and register marks – even color bars. With access to the fully calculated bitmap, DI-Plot won't create issues related to font spacing, incorrectly reduced transparencies or other defects unless they are truly part of the CTP image. And before imaging the plate, the printer can submit a complete, imposed proof to the customer for approval that is guaranteed accurate.

DI-Plot yields cost savings, but it also introduces confidence in color, in the pressroom, in prepress, and with the customer.

PDF Technology for the Remote Proof

What's more, DI-Plot can generate PDF files from the fully-imposed, RIPped print form. Compared to large bitmap files, imposed PDFs are small, so the

files are ideal for fast exchange via e-mail or network. And because they are based on the CtP data, you can also have confidence in the positioning and content fidelity, even when used in remote proofing applications, either on-screen or in hardcopy.

Color Managed

DI-Plot is fully CMS enabled. When applying an ICC profile for a given output path (device, colorants, media, print sequence, trapping, etc.) the result will be an imposition proof that corresponds to the color of the final print. In addition, DI-Plot can emulate up to ten special colors on the basis of predefined values.

Open for Expansion

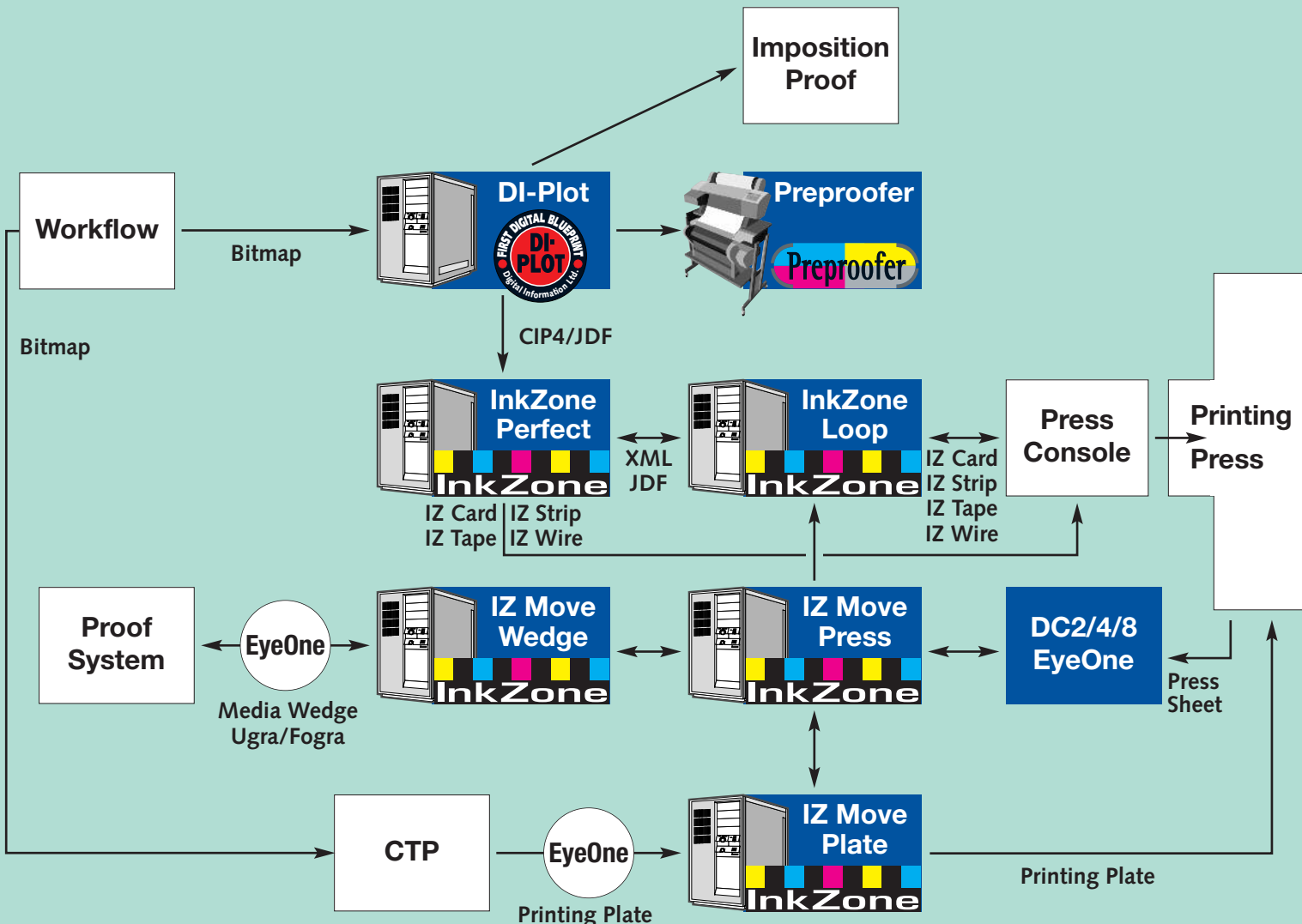
The open concept of DI-Plot allows continuous development in applications, and can grow with the requirements of daily production. Regardless of the pre-press workflow, DI-Plot can be used as the glue to assemble otherwise incompatible technologies and environments. This means that files which are assembled and RIPped once can be saved and applied to a wide range of efficiency-gaining uses: the creation of color- and content-accurate imposed proofs, remote soft- or hard-proofing via PDF, the preparation of JDF files for presetting ink keys and duct rollers on press, the list goes on and on.

Technical Specifications

DI-Plot runs on commercially-available hardware and standard operating systems. So investment costs are low. But DI-Plot can bring a wealth of tangible benefits in productivity, interconnectivity and reliability, across diverse application options. The result is that in most cases a DI-Plot license will pay for itself in just a few short weeks.

- Hardware:
CPU Intel 2 Core Quad, 2.x GHz, 2 GB RAM, ATA 10,000 RPM disk, 19" TFT monitor, 10/100/1000 Mbit Ethernet, DVD/CD, keyboard, mouse, USB (for copy protection/dongle)
- Operating system: Microsoft Windows XP Professional or Vista Business

Workflow



Fast set-up, minimum waste

Presetting Ink Keys via Network

InkZone Perfect delivers economical, state-of-the-art ink key presetting technology for almost all offset presses. Thanks to InkZone, you can unleash the profitability that is hiding in your pressroom.



Small Gap, Big Opportunity

In many printing companies, the digital workflow stops with plate imaging. Preflight, layout, color corrections, proofs, plates and that's it. The press may have some digital controls, but in most shops, there is still a gap between the prepress workflow and the controls in the pressroom. Unfortunately, this means that the valuable capability to leverage prepress output data in order to preset ink keys on press remains unused. And because existing proprietary connections often come with high investment costs, there is little incentive to close

what seems to be a small gap in the flow of data. So, small to mid-sized companies will be throwing away the chance to achieve significant savings, better efficiency and a boost to quality.

This is the very reason Digital Information has developed InkZone. InkZone is an intelligent, JDF-enabled concept for closing the prepress to press workflow gap. InkZone is independent of all press manufacturers. Thanks to dedicated interfaces, an unique method to make a network connection to most any press console – even on older offset presses – and a low price point, closing

the workflow gap is affordable for printing operations of all sizes.

JDF-supported ink key presetting

InkZone is based on JDF technology and is fully compliant with global workflows and international standards. The DI-Plot software sends ink coverage values in the form of JDF files to InkZone Perfect for conversion to calibrated machine- and print-related values for presetting the ink keys and ductor rollers. The InkZone hardware components send this data via network and in the specific format required by the press console.

Technical Specifications

Preset Software: InkZone Perfect

Software package for accepting zone coverage values generated by DI-Plot in XML/JDF format. Allocation of all printing inks to the appropriate printing unit. Calibration of the zone percentage values in line with ink key openings and ductor roller positions on the press. Transmission of this data

to the press console using the InkZone hardware connections or existing network connections. Copying the print job from the press console for calibration and archiving of machine data. Local storage and administration of archived jobs.

PC Configuration:

System Requirements

- CPU Intel Core 2 Duo, 2.x GHz, 2 GB RAM, 80 GB hard disk, 10,000 RPM, 19-inch TFT monitor (touch screen recommended), USB, 2x RS 232 (series), 2 x Ethernet
- Operating system: Microsoft Windows XP Professional or Vista Business

InkZone Hardware Connections:

InkZone Card Delivery

- Use on press consoles with card slot (e.g. Heidelberg CPC, MAN Roland)
- InkZone Card for console connection
 - Converter for integration into the Ethernet network via TCP/IP.
 - IZ Perfect software package
 - 120/230 Volt power supply

InkZone Strip Delivery

- Use on press consoles with magnetic strip readers (e.g. Komori)
- InkZone Strip, control unit for console connection
 - Converter for integration into the Ethernet network via TCP/IP.
 - IZ Perfect software package
 - 120/230 Volt power supply

InkZone Tape Delivery

- Use on press consoles with tape drives (e.g. Planeta)
- InkZone Tape, control unit for console connection
 - RS232 port
 - IZ Perfect software package

InkZone Wire Delivery

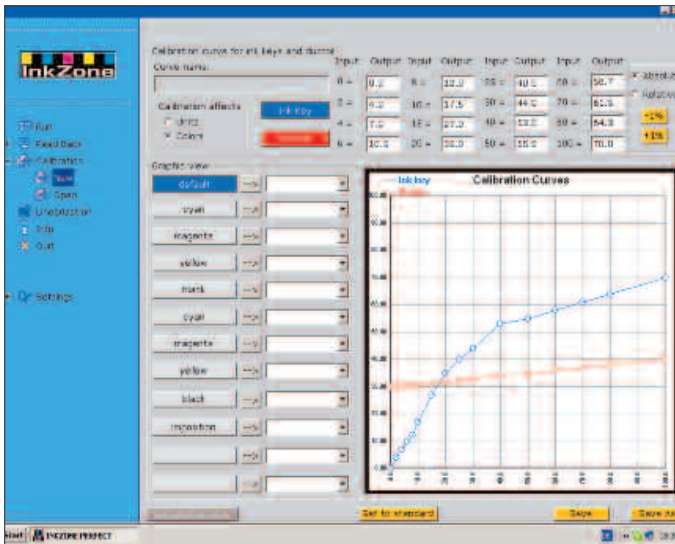
- Use on press consoles with cable connection (e.g. Heidelberg CP2000)
- InkZone Wire, control unit for console connection

- RS232 port
- Cable set, switch box if required
- IZ Perfect software package

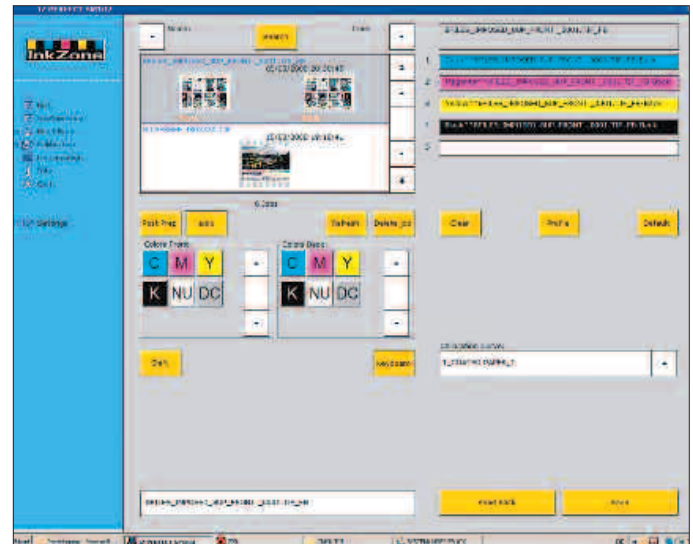
InkZone eFloppy Delivery

- Use on press consoles with floppy drive connection (e.g. KBA Rapida)
- InkZone eFloppy, control unit for console connection
 - Converter for integration into the Ethernet network via TCP/IP
 - IZ Perfect software package
 - 120/230 Volt power supply

For presetting the ink keys using InkZone, a DI-Plot license will be required. This software license is not ordinarily included in the InkZone system delivery.



InkZone Perfect: automatic adjustment of the linearization curves to specific printing conditions



Drag & drop: straightforward operating with mouse or touch screen

Greater efficiency, higher quality, fast ROI

With InkZone, Digital Information offers an interface between prepress and press that's equally powerful and economical. First, the solution provides networked ink key presetting, so color start-up is accomplished in a fraction of the previous time, bringing a clear increase in productivity. What's more, InkZone generates a database of your settings, allowing corrections and continuous improvement in results over time. This makes InkZone a component that's indispensable on the road to a standardized printing process. Consider the following: As you use InkZone Perfect, it compares the computed preset data with the corrected values during each press run. By reading back the values measured throughout the print run, the calibration curve for a given set of printing conditions can be continuously corrected and will gradually approach an optimum. When it comes to repeat orders, that means a further boost to the speed of set-up sequences, significant savings in paper, and a permanently stable, high-quality printing process.

An investment in extending your workflow to the pressroom with InkZone from Digital Information is worthwhile. From the hundreds of printers using InkZone worldwide, experience shows the ROI horizon to be only a few months away.

A Connection to Every Press

Using the appropriate hardware components, ink key presetting with InkZone can be realized on almost all offset presses. The IZ Card, IZ Strip, IZ Tape, IZ eFloppy and IZ Wire connections support press consoles/offset presses from the following manufacturers:

Heidelberg CPC, Heidelberg CP2000, MAN Roland, KBA, Planeta, Komori, Ryobi, Sakurai, Mitsubishi, Akiyama, Adast, Caber, Eltromat, EPG, Goss, Harris, Müller Martini, InkFlow, GMI, EPG, MDS Monigraf, Perretta, Rockwell, TGC Grafitel, Shinohara, and many more.

InkZone comes with connections that are suitable for networked ink key presetting on almost every printing press.



InkZone Loop: Automated Color for Everyone

InkZone Loop is the first closed-loop color solution for digital ink control on offset presses from all leading manufacturers. InkZone Loop enables the automatic measurement and evaluation of color bars

and then direct, digital feedback of the appropriate ink-key adjustments.



First, Measure

InkZone Loop supports measuring systems from all leading color instrument manufacturers. With IZ Loop, you pick the measurement technology, and we help you put it to work, automating ink adjustments and showing you a visual representation of each measured sheet.

By comparing measured press results against your reference conditions, Ink-

Zone Loop alerts your press operators immediately, allowing them to recognize where color adjustments are required. You can make use of the full capability of your measuring instrument, including ink density as well as other printing-related data like dot gain, print contrast, ghosting, slurring, and more. InkZone Loop supports the needs of today's printer, including 4-

color process work as well as support for special and brand-specific colors. You will find that the efficiency of InkZone Loop can bring you a significant increase in productivity and quality, by combining multiple color-checking steps that until now may have been carried out manually, if at all. And with print runs getting shorter all the time, investments that can streamline your processes are increasingly important.

Once measurements are complete, InkZone Loop saves all of the measured color data, increasing your velocity on repeat jobs or runs with multiple forms. And the recorded data helps in documenting your compliance with your customer requirements or with international quality standards like ANSI/ISO, PSO, GRACol and G7.

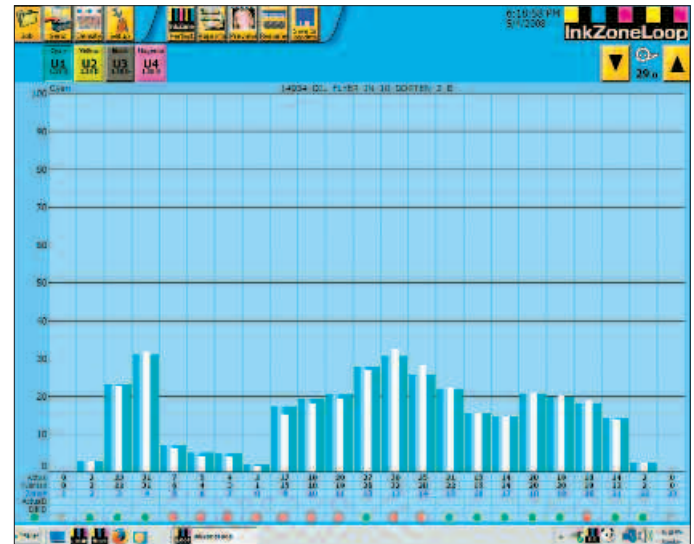
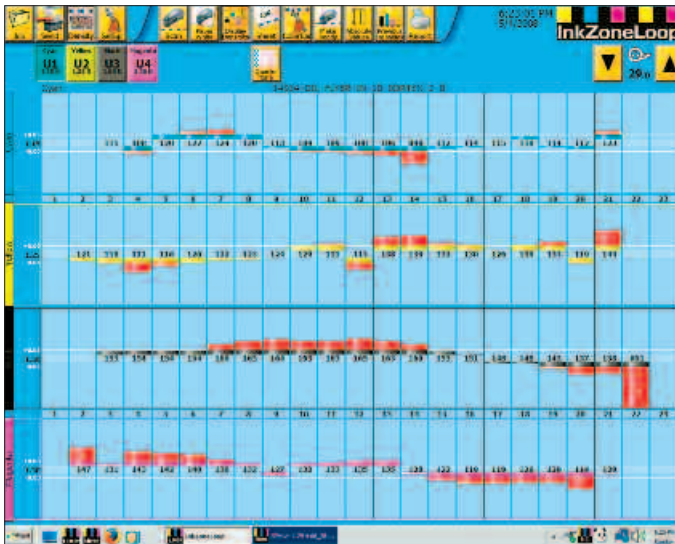
Next, Take Control

With your on-press color results in-hand, and with your saved reference conditions, InkZone Loop calculates correction values which are specific to your printing press. And then, InkZone communicates via a direct, network link to your ink console, regardless of the press manufacturer, the age of the press or its ability to support CIP or JDF standards.

So, once the operator checks the color results and the recommended press adjustments, at the touch of a button the ink keys for all printing units can be adjusted automatically. This can lead to results that are clear: a significant reduction in makeready and run waste, higher overall color quality, and consistent, stable production runs.



InkZone Loop is compatible with almost all press consoles.



Input:
see all ink values in all zones at a glance.

Output:
transmitting the correction values to the press console.

Benefits in the Pressroom

InkZone Loop's high-performance software and your selected measuring technology can work together to accurately characterize, and systematically correct, ink key settings. These results are much faster, more consistent, and permanently archived, unlike results with hand-held color devices or purely visual color control.

Immediately after each measurement, the ink and density values for all zones are displayed on screen. The operator sees a graphic representation of all of the job colors in a format that is familiar – resembling the ink key graphics of a press console. Of course, the underlying color data can also be seen at a glance. When the operator is ready, the ink adjustments can be carried out automatically. Naturally, there's still an option to adjust ink keys manually on the console, or to exclude certain zones and printing units from the automatic control.

InkZone has two ways to set the color reference conditions, with preset customer- or standards-based values, or with the unique «OK-sheet» function. With this second approach, the touch of a button is all that is required to save the status of all ink keys as color reference conditions. Then, each sheet is compared to this goal and the ink keys are adjusted via the closed-loop network, thereby assuring that the customer quality needs are met.

With InkZone Loop the operator can spend less time evaluating color and guessing at the ink settings, and more time making those critical adjustments which can make or break the profitability of either a short or long print run.

Benefits in Pre-Media

The same technology that drives closed-loop color adjustments can also be used to actually pre-set the ink keys of each fountain based on the prepress plate-image data. This allows the press to get up to color quickly, and then stay there with closed-loop color control. In other words, the better the preset, the more efficient the closed loop! In many cases, the press manufacturer's ink preset solutions do not provide optimal results, costing you makeready time and effort. Replacement of existing ink preset systems with InkZone Perfect allows the same high-efficiency solution on all of your printing presses, regardless of their make or model.

Ready for Production in Record Time

The combination of an independent solution that encompasses closed-loop control, measuring technology and a workflow interface is truly unique. With InkZone Loop, you save time and reduce waste. Reference values are attained

faster, and it's easier to keep your production within narrow limits. InkZone Loop enables set-ups in record time, even on offset machines from the last millennium. It's the perfect way to protect your investment in existing equipment and system installations. Many printers are discovering that InkZone Loop is one of the best investments that can be made in your business today!

InkZone Loop Configuration

InkZone Loop Software Package

Densitometer processing of measured densities and/or spectral values, control of ink keys in offset printing machines, feedback of ink key values from control consoles, creation of an automatic, closed-loop interface. Software package for Windows, copy protection (dongle) and complete documentation (PDF).

Compatible Measuring Systems

Digital Information: InkZone Move Press with manual measuring guide rail, or optional electrical DC2, DC4, DC8 drives based on the X-Rite EyeOne engine.

X-Rite: ATD, ATS, or IntelliTrax

Techkon: RS 400, RS 800, or SpectroDrive

Hardware

CPU Intel Core 2 Duo, 2.x GHz, 2 GB RAM, 80 GB hard disk, 10,000 RPM, 19" TFT monitor (touch screen recommended), USB, 2x RS 232 (serial), 2 x Ethernet, keyboard, mouse

Operating System

Microsoft Windows XP Professional or Microsoft Vista Business

Further Requirements

InkZone Loop functions only in conjunction with networked ink key presetting. InkZone Loop can therefore only be used in connection with DI-Plot and the console connections InkZone Card, InkZone Strip, InkZone Tape, InkZone Wire, etc.

InkZone Move Digital & Flexo

InkZone Move, already an established color measurement solution for commercial print applications, is now available in a format specifically designed for digital and flexo printing applications. InkZone Move Digital & Flexo is both cost-effective and easy to use. The Eye-One measurement device from X-Rite is an integral part of the system and supports both manual and automatic

measurements. Digital and Flexo printers now have a complete package for quality control and color consistency with a never-before seen price-performance ratio.



Flexible use and simple operation

The InkZone Move Digital & Flexo (IZM Digital & Flexo) solution works both in manual and automatic mode. For manual monitoring, the user can measure single elements across the substrate width during makeready or production. Once measured, the color results are displayed both graphically and as numeric values using the included IZM Digital & Flexo software. Measured results are compared to colorimetric tolerances which can be tailored to individual customer or process requirements.

IZM Digital & Flexo is equally well-suited for automated measurements via the Eye-One and the optional DC2/4/8 motor drive. For each measured color, the operator can evaluate solid and tonal density to ensure highlights, mid-

tones and shadows are reproduced within pre-established tolerances. In addition, neutral gray can be evaluated to assess color balance between primary process colors. All measured patches are represented in an additional chart as Delta E deviations from the target color. At a glance, the IZM Digital & Flexo software shows if the measured color values are within the established tolerances so that corrective action can be taken.

Communicating Via JDF

A key feature of the IZM Digital & Flexo measuring system is the clever support of the Job Definition Format (JDF). Using JDF, IZM Digital & Flexo can take advantage of information previously entered into a Management Information System (MIS), in order to automatically create

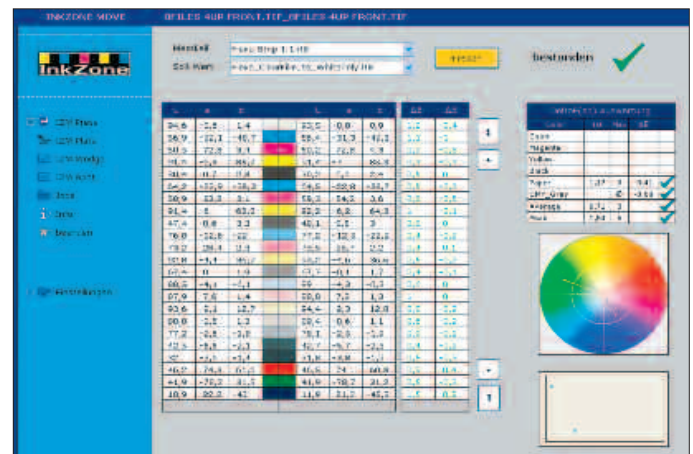
job information such as customer name, job number, as well as color names and values. Once created, color reference values for different job substrates are saved in a centralized library, along with all measured data. JDF can be used to access this information and combine it with other job or customer information for reporting, data analysis and quality control.

Quality and Reliability

IZM Digital & Flexo is the only solution on the market that requires a single, comparatively-inexpensive, scanning device for both manual and automatic measurements. Unlike many other solutions in the market, IZM Digital & Flexo is specifically tailored to the needs of flexo and digital printers in order to maintain high quality with an uncom-



InkZone Move Digital & Flexo: all relevant data for the process run and quality checks are displayed within seconds.



Simple presentation compares actual and target values for all color patches.



Fully automatic measurements with the Eye-One from X-Rite and the optional DC 2/4/8 motor drive.

plicated solution. The objective measurement of color control patches guarantees process results based on data and tolerances, not on visual assessment and subjective press adjustments. Using IZM Digital & Flexo can help bring consistency based on metrics to digital, packaging and label printers, reducing costs and increasing quality.

Technical Specifications for Optional Motor Drive DC2/4/8

- electrical drive for automatic measurement of printing control strips
- DC2/4/8: maximum scanning and paper length 54 cm/21" (DC2); 77 cm/30" (DC4); 106 cm/41" (DC8)
- 1 free USB port with sufficient power supply for the Eye-One measuring device
- 1 free serial RS232 port for the drive control

The Advantages of InkZone Move Digital & Flexo

- Use of the X-Rite Eye-One in the pressroom allows an inexpensive, market-proven, spectrophotometer to take the place of more expensive instruments used in competitive systems.
- The scanning process is fast and effective, and assures accurate measuring results
- All color parameters can be measured easily with a single scan of a color control bar
- The software displays both graphical and numerical values on a single screen for easy interpretation and press color adjustment.
- Data exchange is fully supported, based on industry-approved standards (JDF, XML, ASCII)
- Job files can be imported from many MIS solutions in XML format (customized formats can also be configured)
- The system allows manual measurement of color tones at any position across the substrate width providing analysis of maximum Delta E and average Delta E (average deviations over the whole production run)
- Graphic representation of spectral curves allows for easy comparison between proof and press run.

Technical Requirements

Hardware, Operating System, Software Applications

- Eye-One spectrophotometer from X-Rite (firmware B, C, D or higher; version A not applicable)
- Microsoft Windows XP Professional or Vista Business
- Microsoft .Net Framework 3.x or higher
- 1 free USB port for the hardware protection key (dongle)
- 1 free USB port with sufficient power supply for the Eye-One measuring device
- 1 free serial RS232 port for DC2, DC4 or DC8 electrical drive
- touchscreen monitor (19" or larger) strongly recommended

Technical Data InkZone Move Digital & Flexo

Scan Function (Automatic Measuring Procedure)

Visualization of a complete color chart and of five tonal patches for up to twelve ink colors

- as density values
- as Delta E
- as gray balance

Single Measurement (manually)

Visualization of the difference between target value and actual value with reference to

- lightness
- color hue angle
- Delta E

Numeric Readout

- as Delta E
- as LAB value

Monitoring of

- LAB coordinates of primary colors CMYK (L* a* b*)
- dot gain of 20%, 40%, 60% and 80% patches
- variation of tonal values
- spot colors measurement

Further Functions

- control compared to target values
- control compared to a measured proof
- file backup of measurements to a centralized location (ASCII/XML)
- output of measurement logs using standard reporting software
- graphic visualization of measured data (2-D CIELAB plot, Dot Gain)

Color Bars

Individual color bars for digital and flexo printing are included. User-defined color bars are also supported. Patch sizes must be a minimum of 5 mm in the scanning direction.

Setting Target Values

Target values for each print substrate are specified by the user

Preproofer –
the low cost way to double-sided proofs

Double Room

The new Preproofer 745, 788, 945 and 988 deliver double-sided proofs fully automatically in top quality and at peak performance. The unique concept is based on the latest Epson Stylus Pro generation, and at up to 16 double-sided proofs per hour, Preproofer is the fastest system of them all.



Top Technology from Epson

The new Preproofers use the leading technology of the latest Epson Stylus Pro 7450, 9450, 7880 and 9880 models. The Epson Stylus Pro 7450 and 9450 with dual CMYK configuration are tuned to maximum performance, while the eight-color Epson Stylus Pro 7880 and 9880 systems deliver brilliant output

quality. The Preproofer now uses bidirectional SNMP control and reacts in real-time to printer-readiness status messages (ink cartridge level, paper end, production progress, etc.).

Free Fall to a Spot Landing

DI-Plot software has been proven a thousand times over and delivers the

proof data from the RIP imaging device in the specific printer resolution. A minimum of mechanical parts means maximum operating security and ease of use. The simple concept functions on the roll-to-sheet principle with no sheet turning: after the cutting sequence, the sheet (printed on one side) reaches the lower printing system in free fall, solely under its own weight. Precision electro-optical alignment of the front edge guarantees perfect, on-the-spot registration between the front and back side.

The Fastest Double-Sided Proofer

With the 7450 (4-up) and 9450 (8-up) printers, the Preproofer delivers up to 16 double-sided proofs per hour in the classic 360 x 360 DPI resolution. That makes it the fastest proof system on the market, and predestined for the production of double-sided imposed proofs when high performance at top quality is the order of the day.



The Preproofers are controlled by DI-Plot bitmap software and use leading Epson Stylus Pro 7450, 9450, 7880 and 9880 inkjet printer technology.



An Extended Gamut and Stable Gray Balance

The Preproofer 788 and 988 models combine efficiency for double-sided formproofs with color-accuracy for contract proofs. In addition to cyan, light cyan, yellow and two gray tones, the eight color set is now based on Vivid Magenta and Vivid Magenta light. The high-pigment UltraChrome-K3 inks lead to more saturated color tones and a clearly extended color gamut. Apart from the production of proofs according to FOGRA 39/ISO Coated V2, the simulation of a large number of special color tones is now also possible. Moreover, there is far better stability in the gray balance and a significantly reduced metamerism effect.

Top Performance, Low Consumption

All four models in the new Preproofer series use Epson's new micro-piezo printing heads. When it comes to size, shape and positioning, the drop-on-demand principle enables high-precision control of the ink droplets. Thanks to subject-related variation of the droplet size, the printing process is much faster and there is a correspondingly significant saving in inks.



Configuration, Preproofer 745/945/788/988

1x Kit DIL Preproofer

Software package DI-Plot.
Stand-rack and guide unit for the Epson Stylus Pro 7450, 7880, 9450 or 9880 printers.
Electronic control unit for Preproofer 6"/15 cm core adapter for the «Mediaware DIL Preproofer» paper range from Tecco (24"/61 cm or 44"/111 cm width)

2x Large-Format Epson Printers

In each case two Preproofer-matched Epson Stylus Pro 7450 (C11C594011) Stylus Pro 7880 (C11C594001) Stylus Pro 9450 (C11C595011) or Stylus Pro 9880 (C11C595001)

The printers must be connected via Ethernet ports.

1x PC

CPU Intel Core 2 Duo, 2.x GHz, 2 GB RAM, 80 GB hard disk, 10,000 RPM, 19" TFT monitor (Touch screen recommended), USB, 2x Ethernet

Specifications for Preproofer 745/945/788/988

Supported Resolutions (DPI)

360 x 360 HighSpeed, 360 x 360 Standard, 720 x 360, 720 x 720.

Epson Stylus Pro 7880 and 9880, also 1440 x 1440. Printing can be selected between unidirectional or bidirectional.

Printing Method

Inkjet, drop-on-demand, piezo technology

Printers Used

In each case Stylus Pro 7450 (C11C594011) Stylus Pro 7880 (C11C594001) Stylus Pro 9450 (C11C595011) Stylus Pro 9880 (C11C595001)

Printer Connection

Integrated Ethernet port

Operating System

Microsoft Windows XP Professional or Vista Business

Production Speeds

Double-sided sheets per hour,
360 x 360 DPI standard formproof quality
Preproofer 745: max. 16 forms, 50 x 70 cm
Preproofer 788: max. 12 forms, 50 x 70 cm
Preproofer 945: max. 16 forms, 70 x 100 cm
Preproofer 988: max. 12 forms, 70 x 100 cm

Repeatability

+/- 1 mm

Job Size

Preproofer 745 and 788:
min. length 70 cm/27,5", max. length 90 cm/36", width 61 cm/24"
Preproofer 945 and 988:
min. length 70 cm/27,5", max. length 90 cm/36", width 111 cm/44"

PC Ports

Ethernet

Paper

24"/61 cm width for Preproofer 745 and 788
44"/111 cm width for Preproofer 945 and 988
Tecco «mediaware DIL Preproofer DUO» papers from www.tecco.de

Recommended Ambient Conditions

Temperature 73° F/23° C
40–50% relative humidity
Zero condensation

Large Format Double-Sided Printing

More and more sheetfed and web offset presses are supporting XXL formats for economy of scale and efficiency. Now, for the first time ever, Digital Information is bringing to market a fully-automatic, double-sided proof system to match this XXL format – introducing the new Preproofer 118.



The Future of Inkjet

The Preproofer 118 is based on the Epson Stylus Pro 11880 inkjet printer. With a paper width of 162 cm (64") and automatic roll-to-roll printing, this new double-sided XXL Preproofer can accommodate the biggest jumbo-class printing press formats. With Epson's legendary TFP Micro Piezo printing head, a total of 3240 nozzles, and resolutions up to 2880 x 1440 dpi, the Preproofer 118 delivers proof results in pin-sharp quality. The Stylus Pro 11880 also boasts formidable printing speed; and cartridges with 220 ml capacity can keep pace in delivering high-pigment Ultrachrome-K3 inks to the system. Using new Vivid-Magenta technology, the gamut can be precisely controlled across a broad range of uses. The brilliance, stability and high-precision repeatability of the printing

results obtained on the Preproofer 118 are truly impressive.

Advanced Registration Technology

On the Preproofer 118, double-sided proof output is accomplished with a roll-to-roll-to-sheet printing configuration, using a tandem of large-format Epson printers, stagger-mounted within a rugged, aluminum structural frame.

The proofer is linked to the prepress workflow via DI-Plot which can handle a wide variety of bitmap data formats. This linkage guarantees that proof and press sheet are identical every time.

Printing of a proof's front side is done with the upper printer onto roll media. A continuous, redundant, 30-bit dot-code of 15 mm width is automatically printed in black ink on the right-hand paper edge, and a camera mounted on

the printer delivery registers this control strip ten times a second. The photo-digital control ensures precision registration and assures high print quality.

From a systems perspective, the DI-Plot output control software continuously communicates with the both Epson printers via TCP/IP and SNMP protocol. DI-Pilot provides operators with on-screen feedback of the system's production readiness (ink cartridge levels, paper supply, production status, etc.).

Immediately after completion of the front-side printing, the paper is fed into the second printer, where a second camera monitors the control strip. Only when the media is photo-digitally aligned will the back-side printing commence, assuring precision register. This pioneering registration technology yields best-in-class print quality at groundbreaking production printing speeds. The Preproofer 118 sets a new standard for fully-automatic, double-sided proofing.

Preproofer 118 Configuration

- 1x DIL Preproofer 118 Kit**
DI-Plot software package, structural frame with integrated paper guides for Epson Stylus Pro 11880 printer. Photo-digital alignment control with Ethernet connection and two monitoring cameras with light sources and housing.
- 2x Epson Large-Format Printers**
Two Epson Stylus Pro 11880 (C11C679001A0) systems. The printers must be controlled via Ethernet interfaces.
- 1x PC**
CPU Intel 2 Core Quad, 2.8 GHz, 2 GB RAM, ATA 10,000 RPM disk, 19" TFT monitor, 10/100/1000 Mbit Ethernet, DVD/CD, keyboard, mouse, USB (for copy protection/dongle), Ethernet network, Ethernet switch with at least four connections. Microsoft Windows XP Professional or Vista Business operating system.



A Proofing Solution Legacy, Now in It's Second Generation

With the Preproofer 945, Rheintaler Druckerei und Verlag AG is saving money, materials and time. The system produces more than twelve 16-page DIN A4 double-sided imposed proofs per hour – in a single pass, with an excellent register and exceptional print quality.

Closing the Last Gap in the Digital Workflow

Even though workflow systems are aimed at combining process steps into a fully automated production flow, this chain is often broken when it comes to hand assembly of imposed proofs. The gains made in productivity up to that point are then abruptly lost, and the sizeable investments made in a capital-intensive, digital workflow can be called into question. That's why, back in 2005, the Rheintaler Druckerei und Verlag AG closed this final gap in the workflow with an investment in the Preproofer 960, the state-of-the-art solution available at that time. Now, just three short years later, the company has upgraded to the latest 945 model, and has seen productivity double compared to the previous system.

DI-Plot: a Powerful Nucleus

According to Prepress Manager Urs Staudacher, «the Preproofer 945 is the definition of efficiency and quality. We have invested once again in a solution from Digital Information because we can count on the efficiency and reliability of their products. And thanks to the Epson inkjet technology, we achieve a level of productivity that no other double-sided proof system is able to deliver.»

Staudacher recognizes DI-Plot as a crucial element in the overall system. This software nucleus of the Digital Information solution repurposes bitmap files generated in the RIP imaging device in order to create fully-imposed proofs. As a result, Urs Staudacher can rest assured that the proof and the printing plates contain identical content and positioning. In addition, DI-Plot is used for data management and Preproofer



The Preproofer produces double-sided imposed proofs with no turning module. For Urs Staudacher, that makes it the winning solution also from the conceptual point of view.

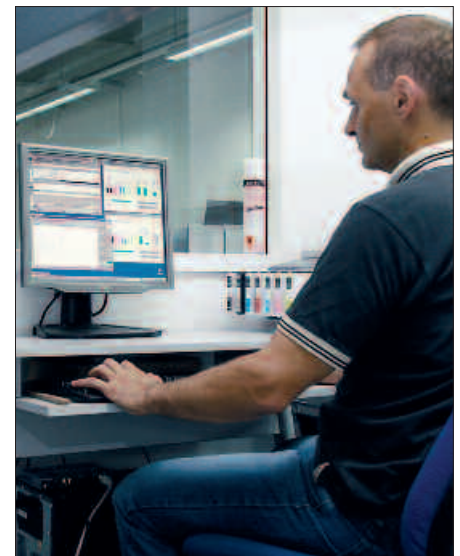
control tasks, making both daily operation and occasional maintenance much simpler.

Perfect Results, Front and Back

For Urs Staudacher, the Preproofer 945 is the premier imposed-proofing solution. He says «Our past experience convinced us of the product's simplicity, elegance and efficiency. Thanks to the staggered arrangement of the printers one above the other, double-sided proofs are generated in no time.»

The Preproofer 945 operates from roll to sheet, with the front printed from the paper roll, and the back imaged onto the previously printed and cut sheet. Because the second printer is fed by gravity and optically checked to ensure exact register, the solution is incredibly reliable and accurate. «The system is perfect. There is no need to turn the

paper, so no mechanical devices are required whatsoever. This dependability means less maintenance and far fewer spare parts», says Urs Staudacher.



Efficient production with DI-Plot.



Digital Information

Technopark-Strasse 1, CH-8005 Zürich, Switzerland

Phone +41 43 818 20 00, Fax +41 43 818 20 09, www.digiinfo.com, info@digiinfo.com

Your sales partner: