

# Instrument Flight® incl. ISO and G7®

*InkZone Instrument Flight® is the perfect convergence between open scan measurement technology, the integration of nearly any offset printing machine and the internationally leading solution for color control and analysis in the printing industry. This new color control system has been developed in close collaboration between Swiss companies System Brunner and Digital Infor-*



**System Brunner**

*mation and provides a full set of functions for color control by taking into account more than 30 printing parameters. With InkZone Instrument Flight®, color control on the printing press can now be achieved and measured according to the process parameters defined by ISO 12647-2, G7® specifications, as well as the comprehensive Globalstandard by System Brunner.*

## Highest level of quality management

With InkZone Instrument Flight® from System Brunner, users of Digital Information's InkZone technology can now access and benefit from the industry's leading process analysis and quality control tool. The newly developed InkZone Instrument Flight® software is an innovative solution for color control in offset printing and an invaluable asset for any print shop – regardless of the process standard used. This highly efficient software allows the four process colors to be compared against and fully controlled according to the parameters defined by ISO-12647-2/PSO, G7® specifications, or the comprehensive Globalstandard by System Brunner. InkZone Instrument Flight® enables press

operators to consistently and accurately achieve stable print results of the highest quality.

## Measuring and Color Control for all offset presses

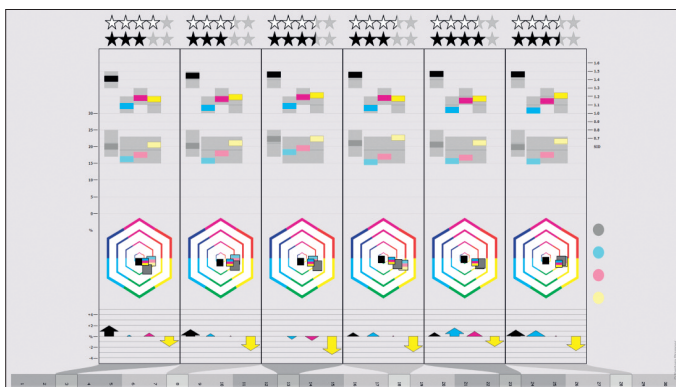
InkZone Instrument Flight® is a completely open solution supporting well-known and widely used scan measurement instrumentation including X-Rite (IntelliTrax/ EasyTrax), Techkon (SpectroDrive/SpectroJet) and Digital Information's InkZone Move control software. The system can be used on nearly all offset presses by established manufacturers such as Heidelberg, KBA, Komori, Manroland, Ryobi, Mitsubishi, etc.

The InkZone Instrument Flight® system solution is available in conjunction with new installations of Digital Infor-

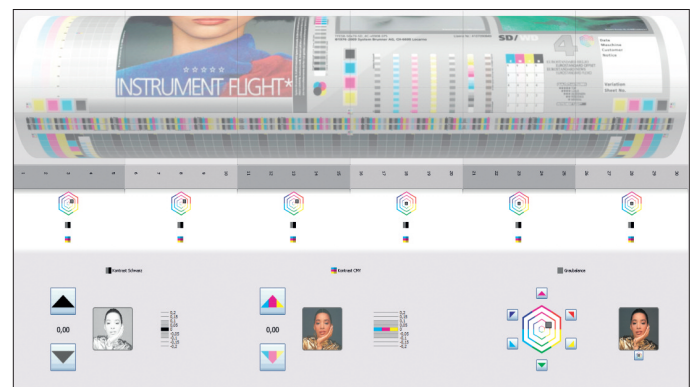
mation's InkZone Loop online color control software, or it can be retrofitted to existing InkZone installations – adding a whole new level of investment value to the already incomparable InkZone technology. Through this strategic alliance between System Brunner and Digital Information, users can harness the power of the most comprehensive ink-preset and closed-loop instrumentation with the most sophisticated technology in standardization and printing process control.

## Excellent image stability

InkZone Perfect supplies InkZone Instrument Flight® with preset data calculated by the prepress workflow. During color makeready and the production run, InkZone Instrument Flight® receives the



Real-time process-diagnostics with easy 5 Star Quality Rating in relation to the selected Printing Standard



Balance Navigator® for easy and fast color and contrast modification



*Minute color variations in skin tones are immediately visible*

measured data of each ink key in the form of spectral values, analyzes it by taking into account more than 30 process parameters, and calculates the optimum adjustments for meeting the defined standard or the OK-sheet values.

With InkZone Instrument Flight® a print shop has the choice between three regulation strategies according to customer requirements or quality demands:

- The ISO/PSO regulation controls the printing process including the defined attributes of the Solid densities (depending on the colorimetric reference values), dot gain (TVI) and mid tone TVI spread. InkZone Instrument Flight® keeps optimum balance of these variables.
- Production control according to the G7® specifications gives priority to mid-tone gray balance, taking into account to a lesser degree the solids and dot gains of BCMY, which are kept within the defined tolerance.
- Color control according to System Brunner's Globalstandard uses not only the parameters defined by ISO/PSO, but also the gray balances in the mid-tones and solids created from the primary colors cyan, magenta and yellow, the overprint of the three chromatic colors and other variables, including L\*a\*b\* values. With

more than 30 parameters, InkZone Instrument Flight® brings real value to the pressroom.

The multi-dimensional color control performed by InkZone Instrument Flight® handles the full spectrum of process dynamics in offset printing. The result is a uniform and consistent visual representation of the entire print run – including the delicate gray and tertiary tones.

### Exclusive quality assessment at a glance ★★★★★

The conformity of the actual print result with the selected printing standard is a criterion for the print quality achieved. InkZone Instrument Flight® measures more than 30 parameters, which are grouped, assessed and rated in a summary consisting of five white and black stars. Set-up times and perfect color control are significantly enhanced so that at a glance, the press operator can easily recognize how well his printing

### Precise color modifications with Balance Navigator®

Press operators face many challenges on a daily basis – less than ideal printing conditions, imperfect proofs, special customer requirements, etc. The answer is Balance Navigator®, the ultimate tool for fast and secure color corrections. Utilizing on-screen modification of color balance and contrast, print results can be elegantly harmonized. Balance Navigator® achieves maximum color conformity without putting the print process into over- or under-inking. And, it takes the guesswork out of color correction for the press operator.

process has been optimized and whether he can reach the standard by color control alone. With InkZone Instrument Flight® from System Brunner, printing provider are transformed into five star companies.

### Why use InkZone Instrument Flight®?

Offset printing is subject to numerous variables, affecting the target colors in an image. Despite consistent solid densities or the L\*a\*b\* values in the solids, differing tonal and overprint values result in the printing format and during print production. Yet in the mid-tones, grays, skin-tones and tertiary tones of a screened image, such variations are immediately recognized. The smallest amount of ink added to one of the four color separations results in a visible color shift. Therefore, it is insufficient to conduct color control by simply measuring and adjusting the solids in order to achieve the color stability demanded.

Far more important is to consider the interactions between the four process colors cyan, magenta, yellow and black within the different tonal values and their overprints.

Investigations by System Brunner have shown that minute variations in the print run,

which have an impact on the color/gray balance, are immediately noticed by the viewer who perceives them as a disturbing color shift. With a correct color/gray balance the whole color rendering stays in balance and consistent color perception is preserved. Therefore, a stable color/gray balance remains the key to a visually consistent print quality in the print run.

However, because an image also may contain solids and halftone steps in the individual colors, these also have to be considered in image-related color control and kept in balance. The solids determine the gamut and the entire contrast range between paper white and the image shadows. The tone value increases determine the gradation of the image. System Brunner and Digital Information accommodate these circumstances with their InkZone Instrument Flight® analysis and regulation technologies by prioritizing the color/gray balance.

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