

# 3TControl: IPA



The monitor at the press control desk at Heraldo de Aragón in Saragossa, Spain, shows the colour corrections carried out automatically by the IPA system in real time.

**IPA measures and controls various print parameters – including colour density – by means of a single camera system.**

Integrated Print Automation (IPA) is a joint development of 3TControl Precision Systems and the daily newspaper Heraldo de Aragón (both belong to the Heraldo Group in Spain). The system has been tested and developed to market maturity on the newspaper's KBA Commander CT press.

IPA combines a series of automatic control functions in *one* system: Using the same camera, colour register and fan-out, lateral register and colour density are measured and corrected. With IPA, 3TControl is taking an integrated, process-oriented approach: „IPA moves away from this approach of a separate camera system per adjustment, so reducing complexity and the investment required and it has integrated the control of all these and other adjustments into one camera per colour web side,“, says Sergio Muñoz, Head of Business Development at 3TControl. CEO Ian Banerjee adds: “We have achieved a big step forward in terms of process automation, reliability and cost effectiveness – all from one system..”

Because the same hardware is used for various control applications, a gradual extension of the level of automation is possible.

## **Colour control via the density**

As opposed to most other manufacturers of colour control systems, 3TControl does not work with measuring in the image for colour control (in order to avoid having to print control elements in the page). “We take density measurement as a basis and not colour measurement“, says Ian Banerjee. IPA uses a colour control strip designed specifically for newspapers as a reference for carrying out corrections. The special feature of this colour control strip is that the integrated measuring points are so small – a fraction of a millimetre – that they are practically invisible to the reader and therefore cannot disturb him.

The optical solid densities as defined by the printer (e.g. D 1.1 for black and D 0.9 for C, M, Y) are taken as the reference for colour control.

IPA begins measuring across the width of the web immediately after press start-up: “The various measured parameters provide the feedback for the closed-loop control algorithms that automate production via the press interface“, says Muñoz.

IPA can be installed on single, double and triple-width presses. These can be either new or older presses built in the satellite or four-high tower configuration. For this purpose, a camera system is fitted on each web side at the web delivery of each printing tower, together with a control cabinet per tower. The operator interface is a central control system equipped with a touch screen for intuitive operation.

All the printer must do is to start up the system and then track the progress of the print run on the monitor; thus becoming production supervisor.

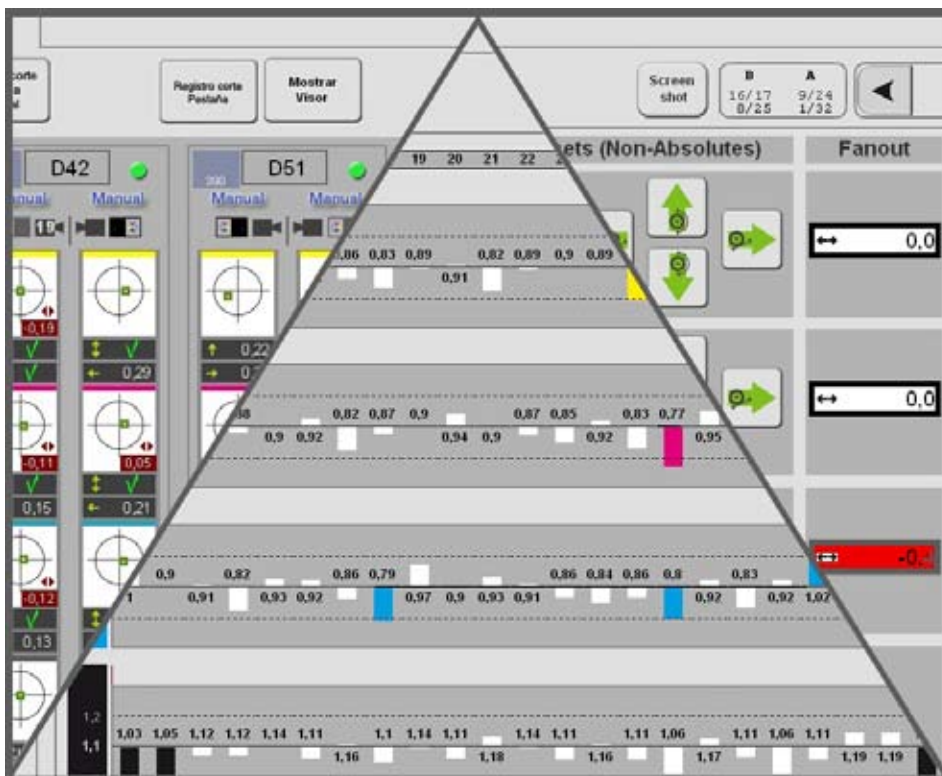


IPA travels across the web width and uses the same camera system to monitor different parameters.

### Special features of the system and advantages for the user

The special features of the system include:

- multifunctional use
- invisible register marks
- stabilises colour printing quality
- eliminates subjectivity and reduces the workload of the personnel
- emits alarm signals in the event of risk of dot loss on the plate
- identifies wrongly positioned plates
- reduces waste and makeready times
- detects toning
- reduces complaints
- reporting and analysis function for continuous improvements



Register, density and fan-out are all measured and automatically controlled by IPA.

### In brief

■ **System name:**  
Integrated Print Automation (IPA)

■ **Manufacturer:**  
3TControl Precision Systems,  
[www.3tcontrol.com](http://www.3tcontrol.com)

■ **Measuring device:**  
Sensor camera

■ **Measuring position:**  
Density measurement in the colour strips (very small measuring marks)

■ **Function:**  
The camera system travels across the web width and measures in the control patches positioned on the page margin. Besides density, other parameters are also measured and controlled.

■ **Colour reference:**  
Solid densities defined by the printer.