

Integrated Workflow Solutions for Digital Production Printing

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Abstract

Digital Print reduces the production time of jobs drastically – at least in the expectations! How can short production times be achieved? Not only the print process must be very fast, but also the entire process from the generation of a document till the finished product must be optimized. Open standards like JDF for automation and easy communication can help. Integrated workflow solutions are the subject of this presentation. How can the production costs be reduced by automation of the process, how flexible is an integrated process and how does it fit into the different environments are some question which should be addressed.

Color Digital Print was focused during the last years mainly on short run color, but this changes step by step. More and more requirements are coming up to differentiate from Offset. Due to the bad economy even in Offset prices are reduced for short runs. To be competitive and gain market share it is necessary to offer workflows in digital print, which enables the owner to offer new products or services and to produce fast and – more or less - without waste.

Process Automation for Fast Turnaround

The process from document generation, quoting, delivery of data, refinement of the document for specific print requirements incl. pre-flight check, color management, trapping and last minute changes etc., printing and finishing, calculation and delivery must be optimized to have very fast turnaround times and reduce costs. For this purpose the full integration of all workflow components is required. The products for the special applications must talk to each other and provide the information to set up the next steps as well as feedback about the history for billing and post calculation. And this must work of course not only in a closed system, but also with products coming from different vendors. JDF is the tool, which will enable this communication. Defined as a standard “Job Ticket” by CIP 4 and accepted by a lot of manufacturers, JDF will give the structure to communicate between different products. Some products are already available like the Prinect Printready System from Heidelberg Druckmaschinen, others will follow soon – like NexStation from NexPress. We expect to see a lot of solutions at DRUPA 2004.

Open, but Standardized Workflows to Fit Individual Requirements

One Scenario Could Be:

The printer offers job templates for different purposes on his web page. The customer requests an offer for his special job via Internet and gets the offer quickly on the same way. All the info about the job like customer name, kind of job, size, number of pages, etc. as well as required delivery date will be stored in a JDF which belongs to this order. The customer delivers the data by uploading it to the web page of the printer who is informed by automatic email that the data is now available. The production management system automatically plans the job into the queues of the involved production tools. Every tool knows from the JDF what should be done with the job: e.g. the delivered data can be refined and imposed according to the production requirements. Maybe the job must be split into different parts, some pages to be printed on a digital colour press like NexPress P2100, some on a black & white press like Digimaster. Both get the info in the JDF what should be done. For Finishing the pages must be merged together again. The sequence of the pages – mixed between colour and black & white – is coming from the JDF. The info how to set up e.g. the cutting device and the folder or the booklet maker is stored inside the JDF too. This info was created already during the imposition. This reduces the set up time and the waste for set up tremendously. If the data is variable, an integrity check is required to make sure that in each set the pages are complete and belonging together.

Better Production Info by Automatic Data Collection

All devices do not only read info from the JDF, but will in future as well write info into it: how much time was required for this workflow step, what material and how much of it was used etc. This info can be used by the commercial system for billing and post calculation. The bill can be send directly with the delivery of the final product to one address or separately, if the products are maybe send directly to the end-user.

This is only one example of a workflow. To be flexible it is necessary that all or at least most of the involved production tools are JDF enabled. Nevertheless it must be possible at any time to interactively change parameters or steps by the operator to be flexible.

Even if these preconditions are given, the production system must be configured to the individual need of each printer. This is one of the services NexPress Print Solutions and Services will do for their customers – analyzing the needs, consulting about the required workflow according to the individual wishes, testing, implementing and installing as well as training of complete, open solutions.

Biography

Sabine Roob is 43 years old. She has a master's degree as an engineer for printing technologies. Since 1985 she worked for Dr. Hell, Linotype-Hell and Heidelberger Druckmaschinen in different jobs, mainly as Vice President Product Management for workflow products. Since June 2002 she is responsible for Print Solutions & Services at NexPress GmbH, Kiel.