

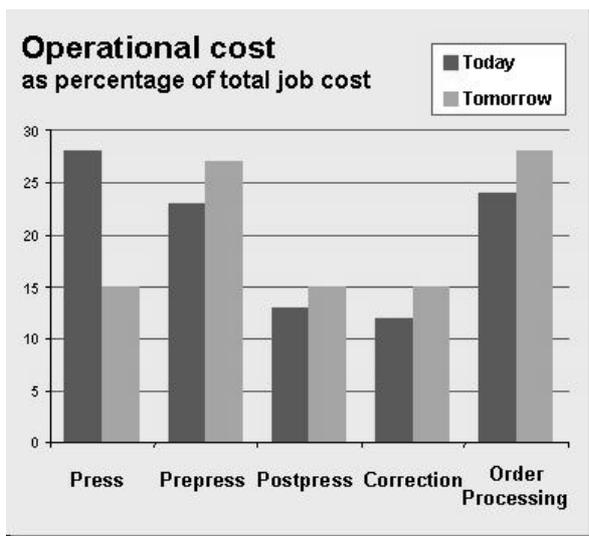
# Integrated Workflow Systems: The Strategic Challenge of the Graphic Arts Industry

*Martin Ritter*  
*Heidelberger Druckmaschinen AG, Germany*

Today, print shops are confronted with huge challenges to stay on top of the competition and remain successful in the face of increasingly demanding print buyers. Jobs are getting more complex, while the average run lengths are getting shorter and deadlines tighter.

Printers who are able to adapt to the new challenges will stay very profitable, yet those who fail to do so might go out of business. We at Heidelberg are convinced that our customers have to make active preparations to continue operating successfully in the future:

- Printers have to start thinking on a broader scale, constantly analyzing and optimizing their cost structures, processes, order mix business models and workflow tools to stay on top of the competition.
- Process efficiency is the most crucial factor for the success of print shops. The optimization of all processes, from the idea up to the finished product, is one of the most important steps. Therefore all production and business processes have to be connected in a highly efficient way to achieve the best possible synergy.



- Printers will have to become service providers. Just printing is not enough anymore. Additional services, from data handling up to personalization, and the delivery of the product generate added value and a strong link between printer and customer.
- Customer orientation and marketing expertise is crucial. Knowing exactly what the customer needs creates strong customer loyalty and therefore a profitable business.
- The intelligent combination of offset and digital printing will allow enterprises to win additional orders and generate higher margins.
- Knowledge becomes the key. Marketing, technology and process knowledge is a mandatory prerequisite for success.

A workflow can no longer be seen as a set of manually linked sources of information, where there is a lot of paper flying around and people have to run across the site chasing information or trying to incorporate last minute changes or entering data that have already been captured by a colleague in an earlier process step.

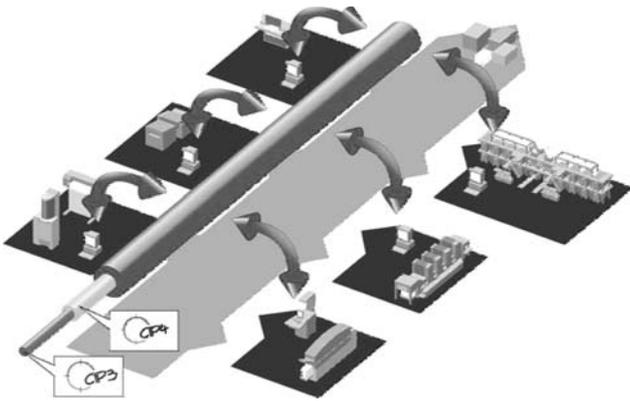
Printers have to integrate their process steps into an integrated workflow system. The main target will be to achieve the same efficiency regarding the workflow processes as with the printing itself.

The workflow system therefore not only has to integrate the production steps, but also the administrative and production management functions. Information must travel automatically from one process step to another. All redundancies have to be eliminated. Presetting has to be automated wherever economically justified and possible, while all shop floor data has to be captured in the most efficient and accurate way so that it can be used for status information and analyses.

Once a Printer has set up his processes in this way, he will be able to achieve decisive competitive advantages through improved job management, faster make-ready with less waste, faster turnaround and ultimately improved profitability.

To achieve these goals, print shops have to think about investing in the integration of all processes into the existing environment on the one hand, and consulting and training on the other.

Consulting is becoming increasingly important. The first step is to analyze what kind of overall workflow is already in place in a print shop. Then the potential for optimization has to be found. Once this has been done a strategy for migration can be drawn up, including a training schedule for anyone handling these workflows.



The workflow systems clearly also need to support these new processes. To enable the link between the different workflow steps, all major suppliers have teamed up in the CIP4 consortium to develop the open JDF (Job Definition Format) standard. JDF is the most powerful

way to interlink the different process steps, and can even handle products from different vendors. But JDF is more than just an interface description. By implementing JDF logic as the basis of the workflow systems, such a system can offer even better results.

Heidelberg, as one of the CIP4 founders, is playing a very active role - not only by contributing its knowledge to the JDF development, but also through the development of PRINECT, the first comprehensive and fully JDF-based workflow system.

PRINECT is Heidelberg's integrated workflow solution for offset and digital printing. It integrates the business and production workflow and allows the entire process chain to be streamlined.

JDF will be the core of all future PRINECT modules, allowing a seamless link between the different Prinect modules, and also offering easy integration of 3<sup>rd</sup> party JDF modules where appropriate. Heidelberg also offers consulting and training services to help print shops move towards a networked future.