

Direct Imaging and Computer to Plate Technology

Gotthard Schmid
Heidelberger Druckmaschinen AG
 Heidelberg, Germany

Abstract

The market trend in the graphic arts industry is going towards shorter turn-around-times and decreasing run-lengths at the same time. "Print on demand" resounds throughout the land and last-minute changes are being taken for granted. In short – flexibility is more important than ever before. This evolution becomes possible due to digital technologies rushing into the print process. Where films used to be developed and plates used to be copied, a continuous digital workflow all the way into the printing press is to be found today. The usage of these possibilities is going to become an important economic factor and a crucial competitive advantage. Direct Imaging (DI) and Computer to Plate (CtP) are two complementary offset solutions fully compatible to

digital workflow, fulfilling the demands for highest multicolor print quality.

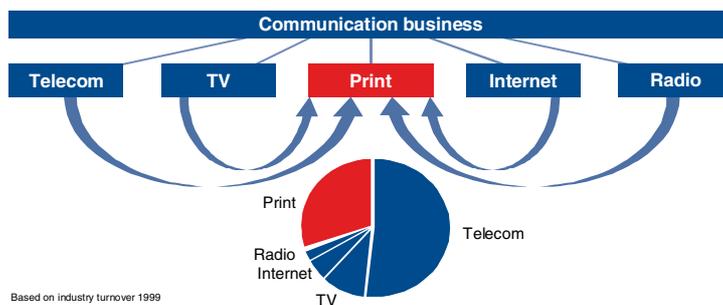
Content of the Presentation:

We are living in a world of increasing communication through ever faster and ever more flexible ways enabling this. Businesses dealing with distributing information must decide which method to choose in order to get and stay successful. The one method doing this reliably and with a lasting proof on your hand is printing. While printing is just one element in the workflow chain of creating high offset quality multicolor signatures there are different ways to get from your prepress data to your printing form and further to your printed sheet.

Market and technology trends 1.1

The current market situation

Print media is an essential part of the 'New World' of communication



Based on industry turnover 1999

Furthermore, other media is driving print due to its outstanding added value over alternative media.

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Three distinct and complementary ways of suiting the workflow chain, depending on the print shop's business model and customer requirements, are:

- Conventional Offset Presses combined with a CtP device
- Direct Imaging presses
- Digital Presses, mostly toner based

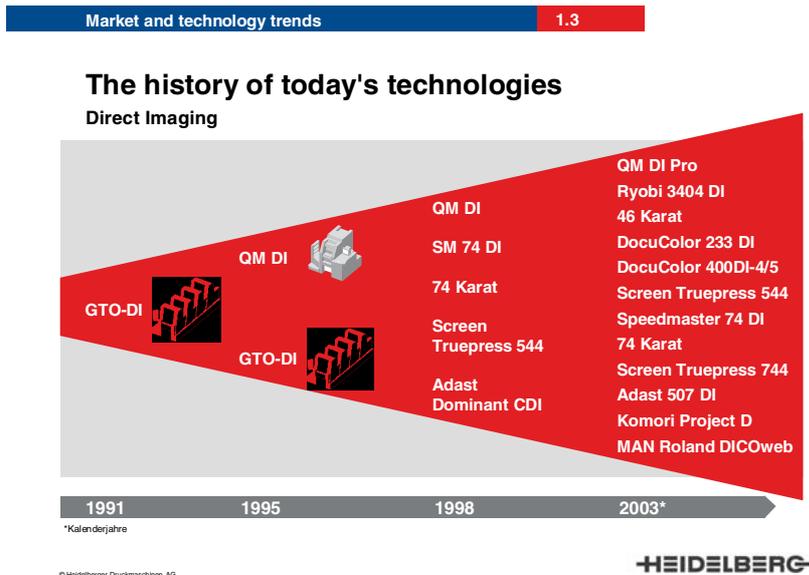
All three types of presses have shown and therewith proven their validity and are being enhanced as technology moves on. Key remains the right choice of the suitable device for the business model to use it for. This becomes more and more important because habits in the market are changing due to the new features of the devices out there (expl.: internet connectivity, acceptance of last minute changes, faster turn around, hybrid technologies like combining offset with digital

printing) and target groups get formed that do want differentiated print products which means shorter run lengths for the printer and his equipment.

Direct Imaging (DI):

The first Direct Imaging Press, the GTODI was introduced at Print 91 in Chicago in September 1991. Since then DI made big inroad in the graphical industry, both in the industrial print shops but mainly in the prepress houses that are having the customer base

needing on demand, short run, quick turnaround and high quality printing. With the A2 format presses the larger then printers started to appreciate to now have a tool that enables them to serve their customers also on a brought scale namely in the short run business, a new service not offered before as cost effectively. The increase in offerings of DI presses from a growing number of press manufacturers is effidence that DI ideally complements the other two kinds of printing devices listed above.



Computer to Plate (CtP) Combined with Conventional Offset Presses:

It is undoubted that today the installed base of offset presses is still by far larger than the number of DI presses and also larger than the amount of digital presses (not counting the desktop office printers). The business cases of print shops using multiple multicolor offset presses are in most cases different from the one of a user of a direct imaging press. He has longer runs, often more than one press of the same kind and his jobs are in average delivered on a lesser tight schedule than those of a DI or Digital printer. This allows a "CtP plus offset press user" to optimise his job processing in a way where he can use one CtP device for multiple presses and still meet his job delivery deadlines of his customer.

Evaluating the development of the different CtP technologies we see two that lead the industry today side by side. The one is the **violet technology** for users that are going for a solution with lesser initial investment cost required for the equipment and a smaller plate throughput. The second technology, the **thermal**

imaging technology is based on high power lasers delivering a higher plate throughput but at a higher initial equipment price as well. Again here the customer must decide depending on his existing and upcoming customer base, job portfolio and use of the equipment chosen.

Digital Presses:

Just to complete the portfolio of the three different but complementary methods of printing the True Digital Presses must be mentioned. These devices have their clear advantage in ultra short run printing down to run length of one sample. They are therefore the most cost effective device for personalization.

Summary:

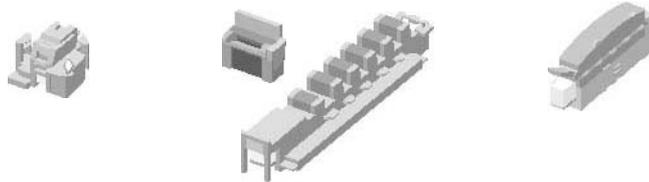
We have seen many customers of ours that have two or even three of these different printing devices in their shop, serving dedicated customer needs by intelligently combining the three methods of printing in new and enhanced print products that were not possible to produce as efficiently before.

The current market situation: **Print**

Heidelberg provides all relevant technologies



"Technologies exist in a complementary way."



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There is no doubt in our mind that all three of these systems combined with other components like workflow intelligence, an effective management system, remote functionalities and many more, are composing the

printers solution letting him enjoy a successful business into the future. All three systems will see even more enhancements and will become standard in our industry.