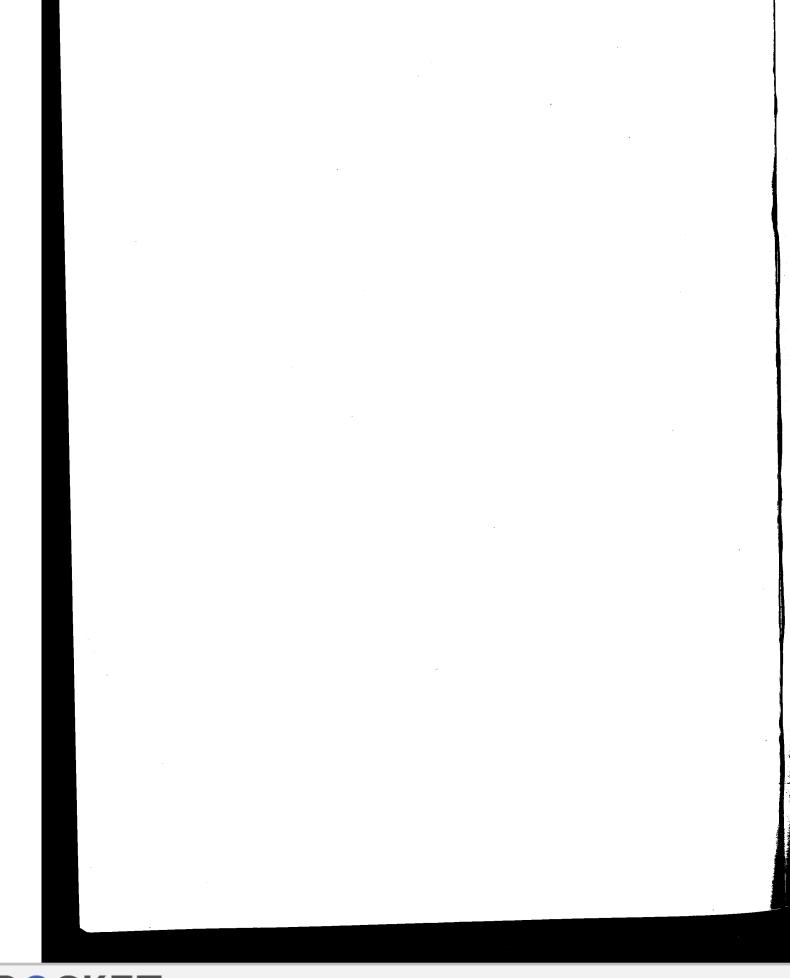
Computer-to-Plate: Automating the Printing Industry



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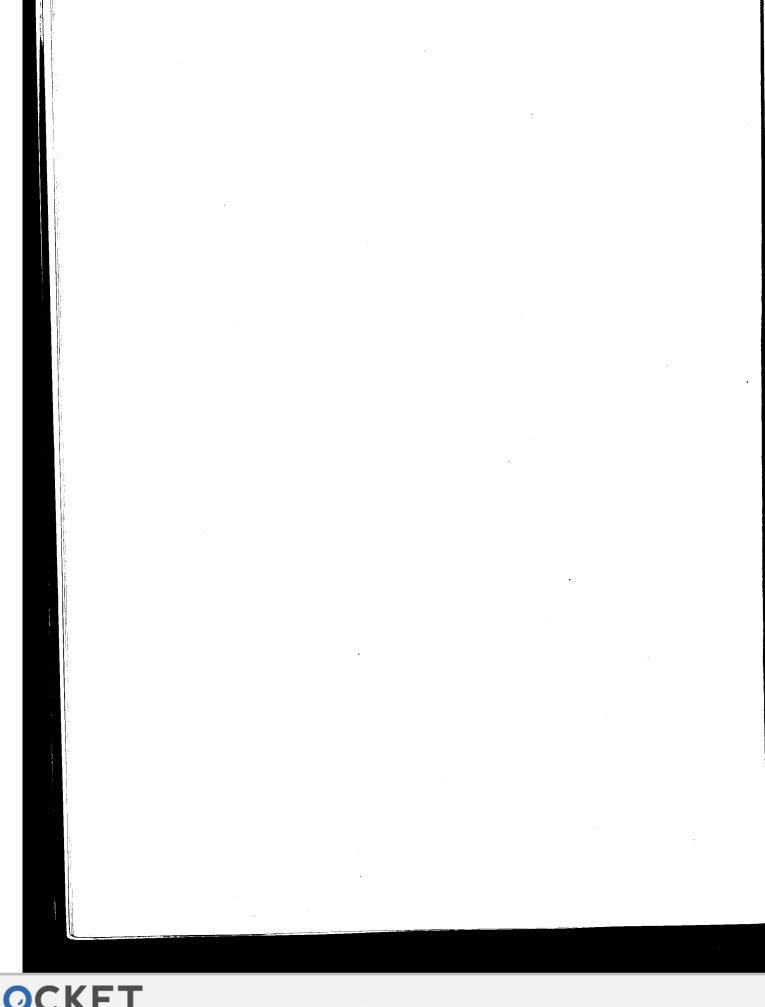
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advertising industry universally supports digital delivery of ad material. Having worked with *Scientific American*, we can all see how this process can save time in the future."

Scientific American has been committed to the regular use of CTP technology since October 1994, publishing more than 60 million printed pages to date with the Mattoon, Ill. division of printer R.R.

Donnelley & Sons Co.

"Computer-to-plate printing for the web-offset process is a promising technology for the publishing industry," said Bob Pyzdrowski, president of magazine services for R.R. Donnelley. "This new technology that we've implemented for *Scientific American* benefits publishers, printers, and advertisers alike with time-savings, efficiency, and quality."

"As this new technology evolves, we face many challenges. Standards must be put firmly in place. Industry organizations such as Specifications for Web Offset Publications (SWOP) need to implement specifications for transporting digital data and proofing," said Sasso. "We've proven the technology works. Now all parties should work together to develop and embrace the techniques that will improve magazine publishing."

Anyone who has been reading the trade press over the past two years, or has attended the most recent trade exhibitions, will be aware of the enormous interest in CTP. Potentially, investing in CTP

can provide the following benefits:

Savings in supplies—film, carrier sheets, film chemicals, tapes, and adhesives

- Savings in personnel—stripping, film exposure, retouching, and processing
- Savings in equipment—film exposure, film processing, and processing
- Savings in space of up to 50%

And so, a market with roots back almost 20 years begins to have an impact on the printing and publishing industries.

Computer-to-Plate Printing Systems

The trend in printing is toward shorter run lengths, which means changing plates more often. CTP seems to be the primary method for conventional lithography to cope with the continuously growing demand for short-run printing and increased productivity. CTP means more than installing a plate imaging device. A CTP installation involves many additional devices and systems that enable the application of a digital workflow. New organizational and technological requirements are created (networking, storage and archiving, digital proofing, file transfer, preflighting), and it is important that each is thoroughly implemented in order for the whole system to operate efficiently. Imaging plates directly from computer files has been an approach to increased productivity in prepress and reduced makeready in the pressroom. Its time has come.

What began in the late 1980s and early 1990s as a trickle has become a river. There are more than 16 different engines sold by almost 40 firms with about 20 different plates. Some systems expose a variety of plates; some concentrate on one plate. CTP has now gone beyond confusion to a point that

some consider maddening.

You can quickly categorize the systems into eight or more-up, four-up, and two-up, although some systems can handle both four-up and eight-up. Then you can categorize them by dry or wet processing. The wet processing can be water for the photopolymer plats or chemistry for the silver-based plates. Some of the dry processing requires a smidgen of water.

These two categorizations get you into a reasonable ballpark in terms of comparison. We will assume that the system can produce 8–20 plates per hour (depending on size) from the time the file is sent to the RIP until the plates exit from the system. Price tags are still above \$400,000 for eight-up



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