



CTP Technology at a Small Offset Printer

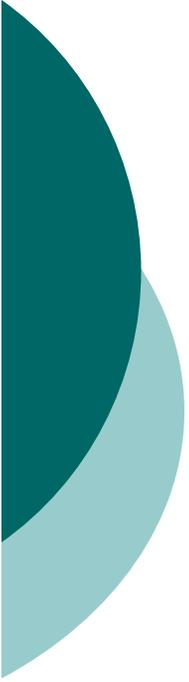
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Prepress Production Manager
Stillwater Graphics
Williamstown, VT

Background

- Family-owned commercial printer
- 15 FTE
- 5 presses including a large 4 color press
- Prints everything from business cards to full color annual reports

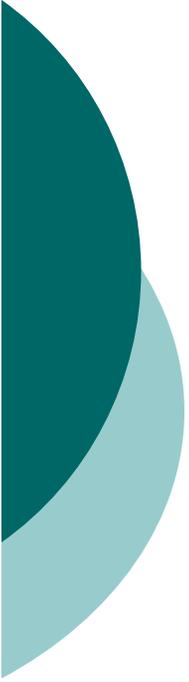
- Member of Vermont Business Environmental Partnership
- Winner of 2006 Governor's Award for Environmental Excellence in Pollution Prevention





Background (cont.)

- Stillwater's environmental policy pledges to minimize the environmental consequences of their business operations.
- Researched CTP technologies for two years before finding a good match. The goal was to:
 - make prepress chemistry free
 - eliminate hazardous waste generation
 - "green-up" their system for creating proofs
 - keep electricity consumption as low as possible
- CTP process has been in place for 1+ year

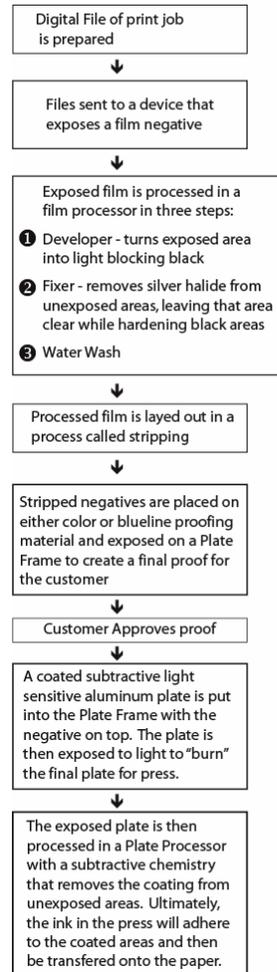


Motivating factors to switch to CTP

- Environmental benefits in line with environmental commitment
- CTP offers new capabilities which improves quality of print jobs
- More streamlined workflow (less work)
- Cost savings (mainly in labor)
- Greater productivity & faster turn-around for customers

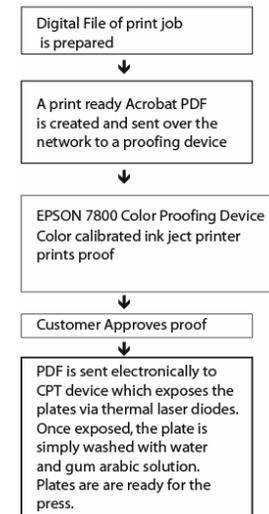
Analog Prepress Workflow vs. CTP Prepress Workflow

Analog Prepress Workflow



Spent Fixer = hazardous waste

CTP Prepress Workflow



Some additional technical points...

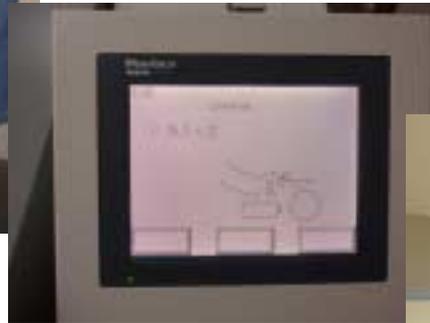
- CTP involves two components
 - Platesetter + plate
 - Computer hardware and software to run the system



- Stillwater utilizes chemistry free, thermal CTP technology which uses lasers to harden a substrate on the plate. Unaffected areas are washed away. Ink sticks to these areas and is then transferred to the paper.
- No final baking step is required

Some additional technical points...(cont.)

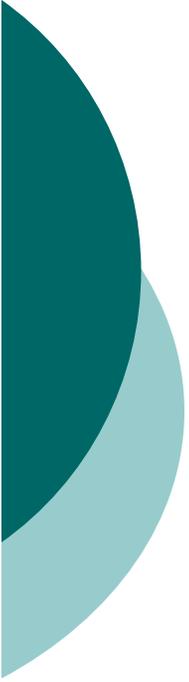
- Simple to use... send file electronically... feed plate into plating device... lasers work their magic...plate moves by conveyor to water / gum arabic wash...press ready plate comes out.



Some additional technical points...(cont.)

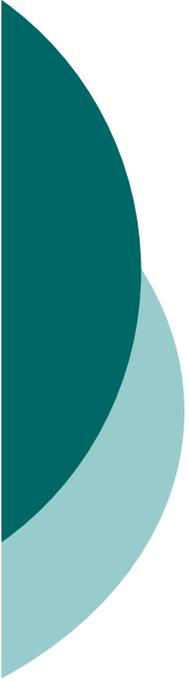
- Plates are aluminum and come in various sizes
 - 13" x 19-3/8" up to 28" x 24"
 - Plates are sold to a recycler after use
- All other prepress wastes are recyclable
 - Waste paper from proofing is reused for smaller proofs & to print photos
 - Ink jet cartridges & boxes they come in are recycled





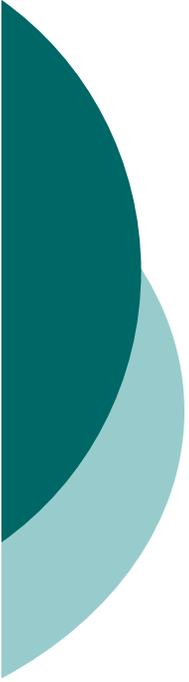
Benefits of CTP prepress system

- Realized improved quality! CTP eliminates...
 - Dot Gain (which progressively gets worse with each step of the analog workflow)
 - Defects due to dust and scratches on the film during platemaking
 - Registration problems that can occur when film shifts or stretches during exposure on the plate frame
 - The difficulty in matching color on repeat orders due to variability in film densities and plate exposure times from batch to batch
- New software that is used to run the CTP system
 - Much more user friendly
 - Many more technical capabilities – trapping & screening
 - These trapping & screening capabilities improve quality & if marketed properly can increase sales



Cost Savings associated with new process

- Stillwater spent about \$5K / month on supplies for the old analog system (film + plates + stripping materials + chemicals)
 - Additionally, Stillwater spent approximately \$2,500 per month in labor to run prepress operations
 - Approximately \$600 / year in hazardous waste disposal
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- New CTP equipment + plates cost about \$5K / month
 - Labor was freed up to work in press room @ a value of approximately \$2,500 per month
 - Saves \$600 / year in hazardous waste disposal



Realities of implementing new system

- Patience paid off – waited until the technology evolved enough to meet all of their goals
- Had to come up to speed on new software and new workflow
- Took a couple of months for vendors to complete color calibration of color proof printer
- Minor renovation of space to house new equipment
- Short period when analog overlapped with CTP system
- No noticeable increase in electricity usage
- Ability to sell old analog equipment + selling archived film to a recycler