

# The big drama — CtP



Having discussed in recent articles the importance of using standards to control quality and improve printing production efficiency, Yves Roussange tackles CtP and explores simple methods for getting control of platemaking to deliver more effective results.

» It's interesting to consider some of the recent history of platemaking when examining the current situation in CtP for many printers.

For the 25 years to the mid-'90s we have been calibrating the output scanner and imagesetter to match a linear tone curve (or TVI) of 50 per cent. The calibration of film involved control of the power of the laser, the focus of the laser, the emulsion of the films, the chemistry, the processor developing time and temperature and the opacity of the films, all in an effort to guarantee good stability of the points to be copied onto the plate. Keeping control of all these elements was the daily working process of a prepress operator or trade house in the '90s.

This was a skill, a craft, which was highly valued in the prepress profession. Then along comes computer-to-plate technology, probably the single biggest technological change to the way printers operate and with huge time and cost efficiencies to be gained. But when we stopped producing films and moved to CtP, what happened to all this "dot knowledge"?

In 2003 the German print body BVDM sent a questionnaire to all members about their CtP. The results were shocking. Four out of five printers surveyed had no process and quality control for the creation of a printing plate, and the TVI curve was not matching any standard or printing specification.

In effect, the change in working process from film-making to CtP led to the loss of significant knowledge and process control in the prepress area. As the BVDM survey confirmed, a knowledge, skill and process control vacuum was created which in many cases has never properly been addressed.

CtP and the process of producing printing plates is the most significant weakness for printers seeking to print in the PSO (Process Standard Offsetprinting) standard. In fact, printers generally are not able to tell how their CtP is calibrated or what the TVI target is. This lack of awareness and control inevitably leads to variable results and significant time and energy spent identifying and rectifying an issue in CtP and platemaking.

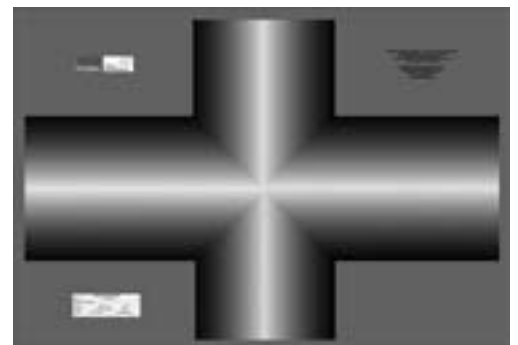
Below are examples of the influence of an inappropriate TVI curve and CtP setup:

- colour shifts in neutral grey and images are out of balance;
- images are flat;
- skin tones appear dirty;
- vignettes are not smooth;
- blue sky has a magenta effect;
- images are unbalanced.

FOGRA has, for the last six years, analysed the need to control the quality of plate production and has created a set of test forms and procedures to improve the consistency of plate quality.

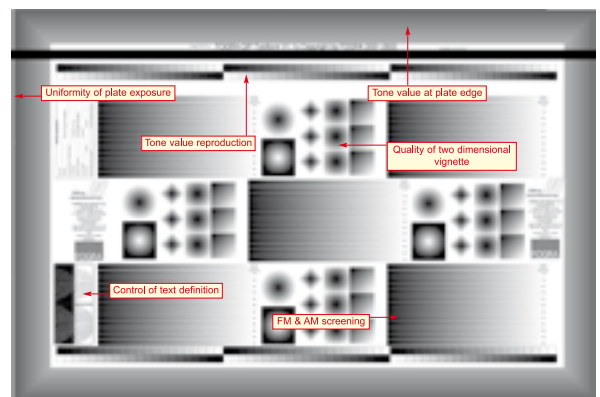
The main points to cover for CtP process control are:

- exposure of the plate;
- uniformity of the plate exposure;
- definition of the plate;
- focus of the laser in the platesetter;
- laser intensity;
- processor development uniformity;
- uniformity of the vignette;
- smoothness of the TVI curve;
- dot shape;
- compensation curve calculation or TVI.

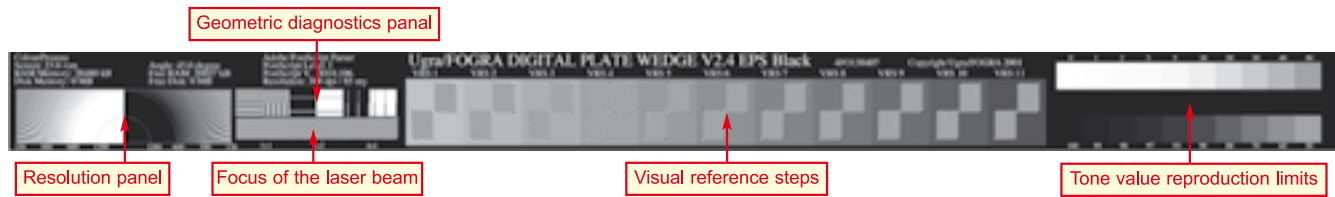


The processing test form is used to control the uniformity of the development of the plate across all formats and orientations.

By using the Fogra CtP test form, printers will be able to confirm the quality of reproduction of the plate.



The CtP test form is used to control the following characteristics of the CtP by comparison to the reference plate: 2-dimensional vignette, text definition, tone value across the plate, tone value reproduction.



The FOGRA plate wedge is used to compare with the reference plate the following elements: resolution panel, geometric diagnostics panel, focus of the laser beam, visual reference steps and measurement of tone value reproduction.

By applying this wedge to the plates in the imagesetting process, prepress personnel and press operators have the ability to quickly ensure, using visual appreciation and comparison to a reference plate, that the plates have been created well and to the tolerances.

Implementing this process and utilising the Ugra/Fogra CtP plate wedge will give the operator all the required information to quickly and easily perform a quality check on their plate. There will still be a need to use a plate densitometer to measure the results to ensure the correct TVI curve has been used and to

check whether any developing process or CtP problems have affected the plate exposure.

Having visited many Australian printers in the last 12 months, the reproduction issues I see these printers are facing are often a result of an inappropriate TVI and CtP configuration. This is why CtP quality control and process is the first step towards the implementation to PSO (Process Standard Offsetprinting) and the ISO 12647-2 AMD-2007 Process Standard. «

**Author Yves Roussange has over 24 years' experience in colour management and has held the position of director, Technical Division of the French printing industry body SICOGIF. Having sold his prepress, high-end retouching and colour management companies in France in 2004, he is now based in Australia.**

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