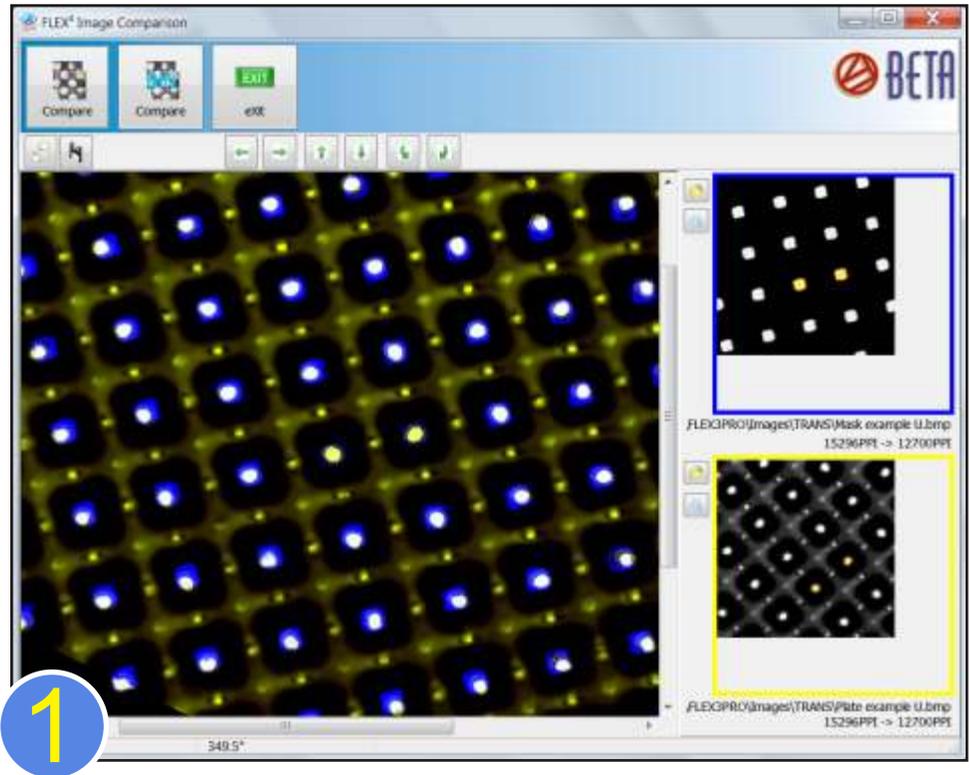


Betaflex Pro Image Comparison

Figure 1 The ablation mask, keyed in blue, is clearly larger than the processed dot, keyed in yellow. The “digital sharpening effect” is easily seen in this comparison.

Another more troubling effect is also visible. The two yellow dots in the center are automatically aligned by the software. The increasing misalignment of the mask to the processed plate towards the edges indicates that the screen ruling has changed because of a change in the size of the plate. Excessive pro-cessing or finishing temperatures have caused the finished plate to expand.

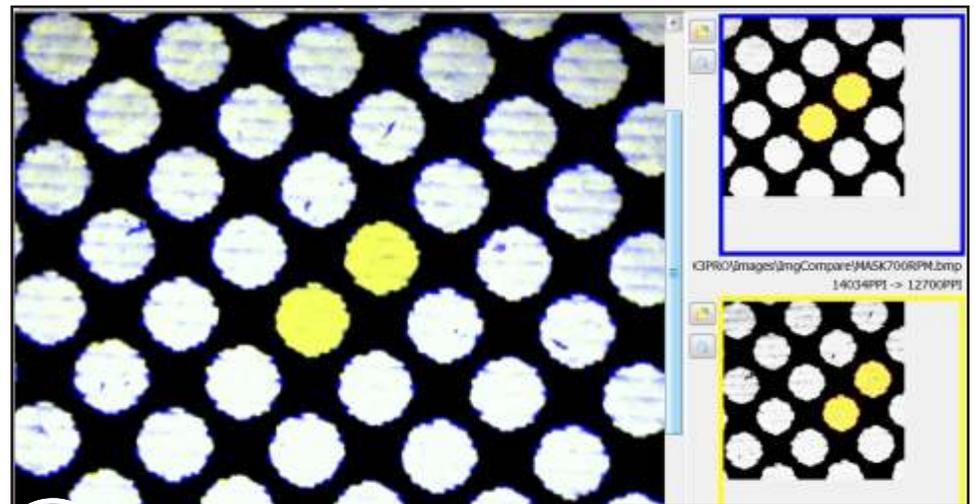


1

The job will not register on press and may exhibit undesirable moire patterns due to the altered screen ruling. Don't be so quick to blame the press.

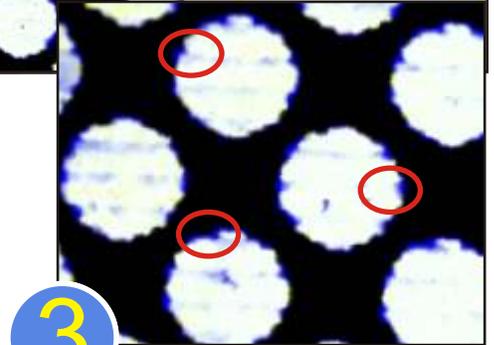
Figure 2 Increasing the laser exposure by reducing the rotational speed of the drum reduces the stain density.

Highlighted in blue at the edge of each dot is the increase in the dot size that accompanies the change in exposure. Unexpected alterations to the tone reproduction curve can occur if this effect is not controlled.



2

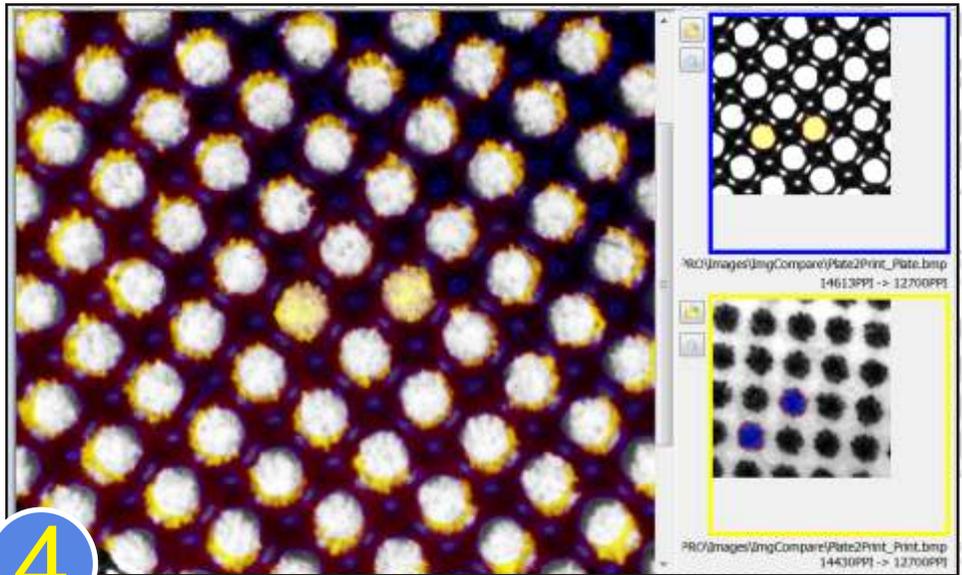
Figure 3 A magnified detail of the same image. Significant areas of dot size change are highlighted in red.



3

Figure 4 Dot growth from plate to substrate is seen here. The ink image, keyed in yellow, is visibly larger than the plate image.

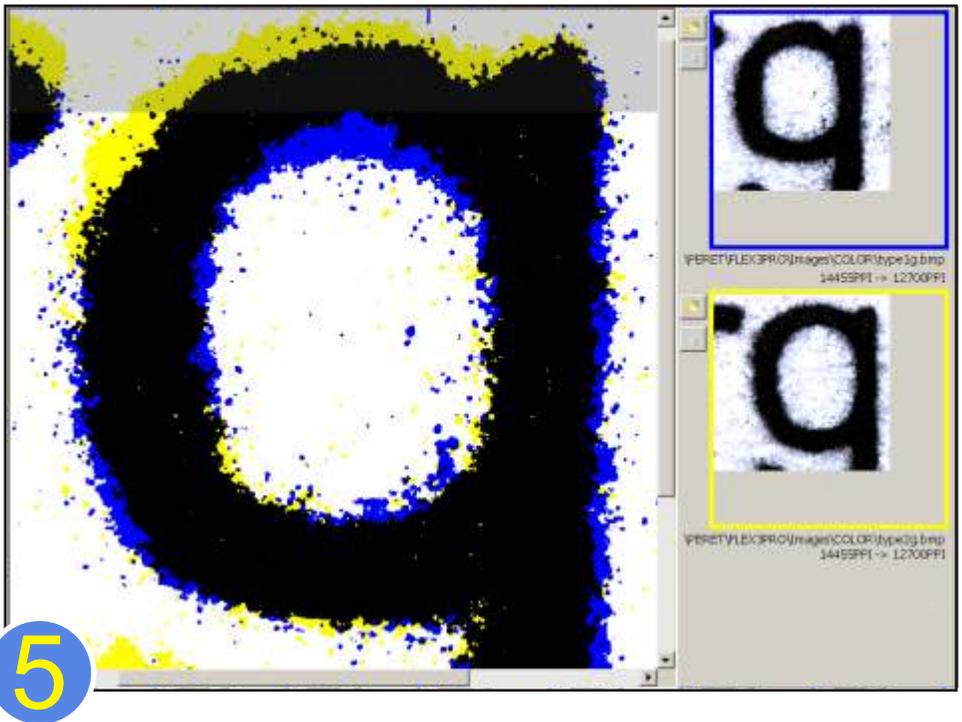
Tone curves created from press fingerprint data are valid only as long as the press is run in a consistent manner. Fingerprint images and their plates can now be compared directly to production images and plates.



All Betaflex Pro images are normalized for size and resolution, allowing direct comparison of images and data from different devices in different locations. Images may be transferred across facilities, producing identical results when analyzed

Figure 5 Forensic document verification relies on detecting small changes to image and type characteristics. Counterfeit products may contain incorrect typefaces that pass casual inspection.

Using Image Comparison, two type specimens can be perfectly aligned to show differences in weight, curvature, or other critical characteristics.



The genuine typeface keyed in blue has been substituted with the counterfeit keyed in yellow. The rounder shape of the counterfeit is readily visible as the yellow image at the top of the character.

These digitally printed samples are typical of documents in common use created without traditional printing plates. While documents are more easily generated on-demand, so are counterfeits. The same analytical techniques shown here are employed with the most sophisticated, high-resolution printing solutions, and the attempts to thwart them.