

# Curve4™

## Information Sheet

Curve4™ is available in three licensed levels, each including the functionality of the previous levels;

### Curve4 VERIFY

Is the world's first dedicated compliance testing tool for the Idealliance G7 Master® program.

- Measure a test print or proof with a variety of automated spectrophotometers.
- Verify Pass/Fail status of a printing system for “G7 Grayscale”, “G7 Targeted” or “G7 Colorspace”.
- Verify Pass/Fail status of individual proofs using standard ISO 12647-7 control strips.
- Export measured data for G7 Master submission or use in other programs.

### Curve4 CALIBRATE

Adds the ability to ...

- Calibrate any stable and repeatable printing system to G7.
- Use smaller P2P targets for faster calibration.
- Calibrate by the TVI method to ISO-standard or custom TVI curves.
- Calibrate “spot color” inks using the new SCTV method.
- Calculate ink restriction settings for ink-jet printing systems.

### Curve4 COMPLETE

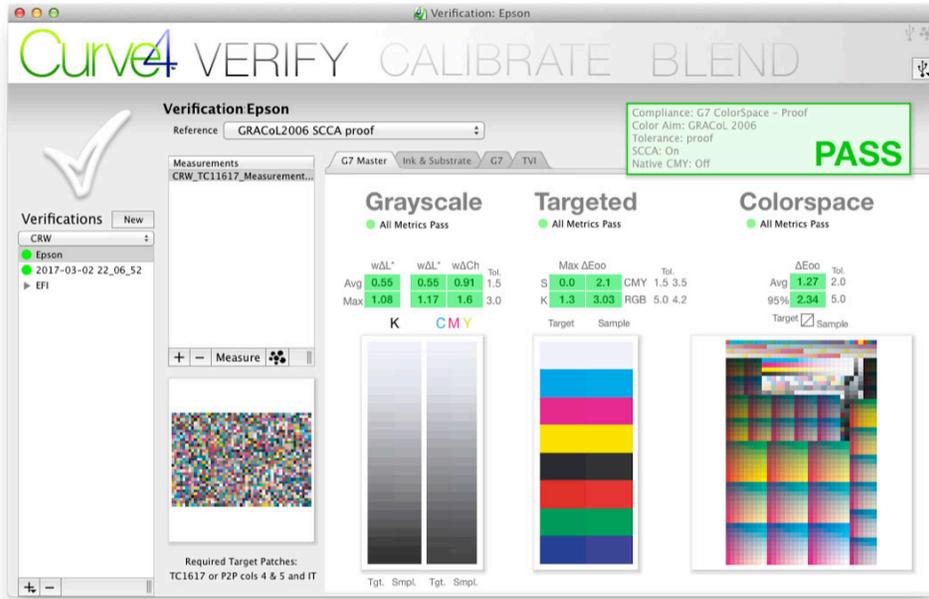
Adds the ability to ...

- Quickly re-calibrate with a small  $\Delta$ reCal target.
- Calibrate without a P2P, e.g. with an IT8.7/4 or TC1617 target.
- Eliminate the cost of a second press run.
- Post-calibrate characterization data for virtually-perfect G7-compliant profiles.
- Reduce the effects of uneven printing in characterization data.
- Average characterization data from multiple prints and/or mixed target types.
- Adjust the white point of characterization data by the SCCA method.
- Adjust the black point of characterization data to improve profiles of uncoated or matte stock.
- Generate new targets from an initial target, e.g. export an IT8.7/4 data set from a TC1617.

# The Verify Tool

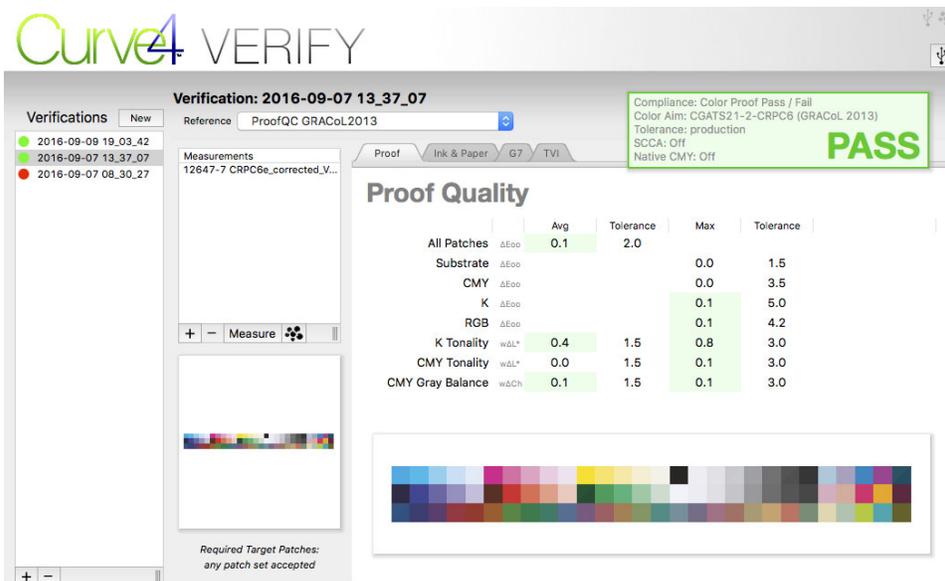
## G7 Master Pass/Fail

Curve4 provides full Pass/Fail reporting for all Idealliance G7 Master conditions, with extensive analytical tools to quickly analyze and solve printing problems.



## Individual Proof Pass/Fail

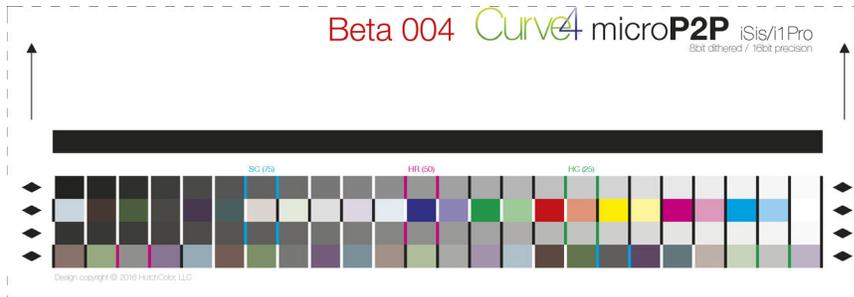
Individual proofs can be verified with a standard ISO 12647-7 control strip.



# The Calibrate Tool

## G7 Calibration

Curve4 works with legacy P2P25 and P2P51 targets, as well as new, smaller targets that are faster and take up less space on press, like the MicroP2P.

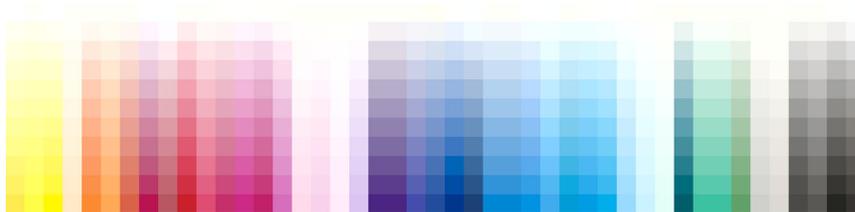


## TVI Calibration

Curve4 calibrates to standard ISO 12647-2 (1994 or 2013) TVI curves, or your own custom curves.

## SCTV (Spot Color) Calibration

Curve4 calibrates spot color plates by the new ISO-standard SCTV method, for more consistent and predictable results and a better match to the designer's expectations.



## P2Pless calibration\*<sup>1</sup>

With the Curve4 Complete license, Curve4 can calibrate from non-P2P targets like the IT8.7/4 or TC1617. So if you intend to create a custom profile, you don't have to print a separate P2P target, and less space is needed on press. As a bonus, the second press run is eliminated.

P2Pless calibration can G7-calibrate legacy characterization data printed before G7 existed, or data from foreign organizations such as Fogra. Curve4 (with COMPLETE license) will even calibrate from an existing ICC profile.

## Delta re-calibration ( $\Delta$ reCal)\*

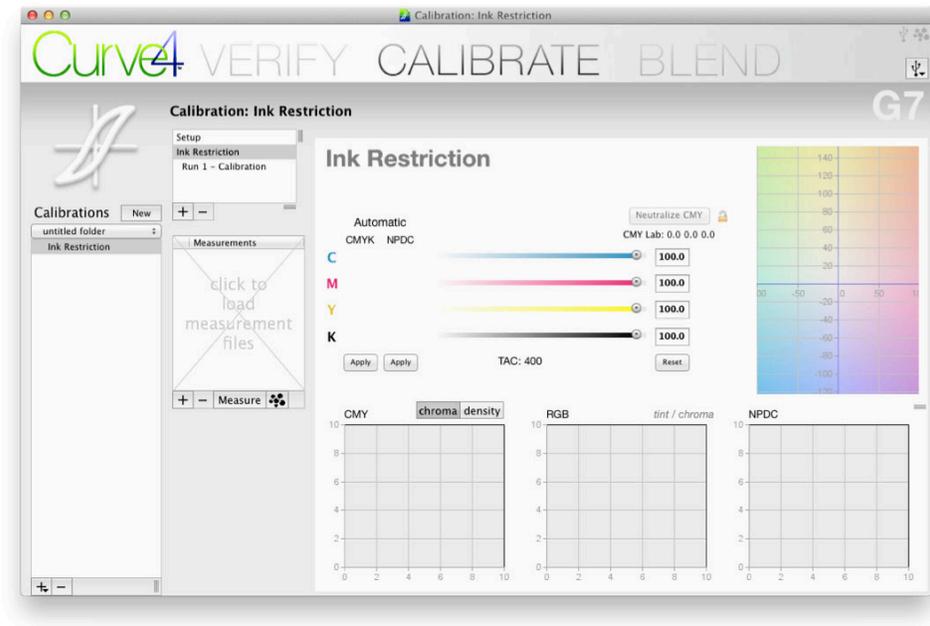
$\Delta$ reCal replaces a full P2P target with a small  $\Delta$ reCal target printed on a live job that can restore a press to optimum G7 compliance without the time and cost of a new G7 calibration run.



<sup>1</sup> Items with an Asterisk (\*) require the COMPLETE license.

## Ink Restriction calculator

Curve4's *Ink Restriction* function calculates suggested maximum CMYK percentages for ink jet printing systems. These *Restriction percentages* can be applied in the RIP or in Curve4's *Control Point* values.



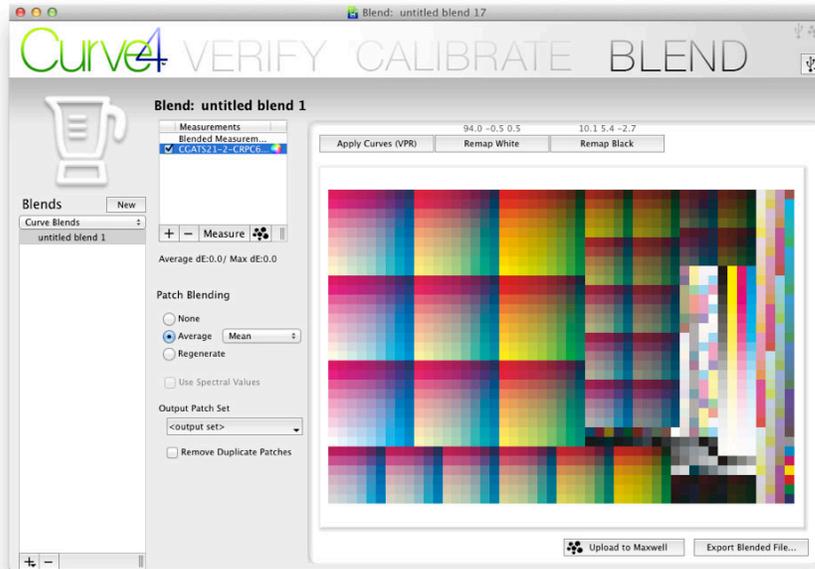
## Virtual Press Run (VPR)\*<sup>2</sup>



VPR saves time and money by eliminating the need for a second press run to create a profile. Instead, the raw characterization data from the first run is post-calibrated, which eliminates differences between the first and second run and produces more accurate profiles.

<sup>2</sup> Items with an Asterisk (\*) require the COMPLETE license.

## The Blend Tool



The Blend tool (requires COMPLETE license) modifies characterization data in several ways, including;

- Averaging and smoothing multiple datasets
- Re-mapping a dataset's white point by an enhanced SCCA method
- Re-mapping a dataset's black point to improve visual accuracy of uncoated profiles
- Post-calibrating a dataset with G7 or TVI curves
- Regenerating new target files with patches not in the original data.

### Data Averaging and smoothing

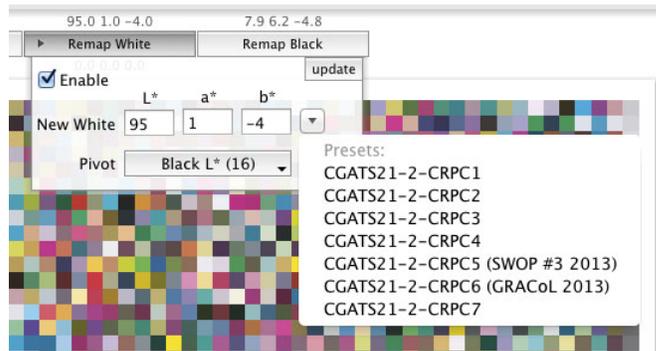
Averaging minimizes press variation across the target, for smoother ICC profiles.



*Banding from a profile made from noisy data (left) and after smoothing (right)*

## Remap White (SCCA)

*Remap White* approximates the effect of printing on different colored substrates, using the standard SCCA method, with some enhanced features that are unique to Curve4.



## Remap Black

*Remap Black* improves the visual accuracy of proofs simulating matte or uncoated substrates (which normally look “washed-out”) by approximating the effect of a polarized instrument.



*Appearance of an actual newsprint sample in a viewing booth (left) and its typical washed-out proof (right).*

## Measuring Device Compatibility

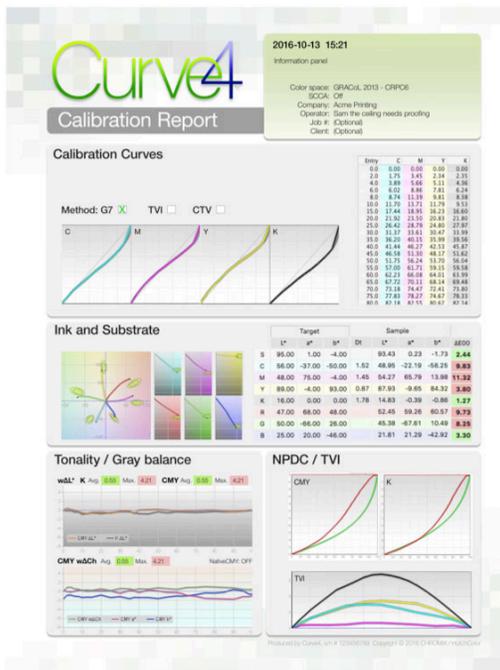
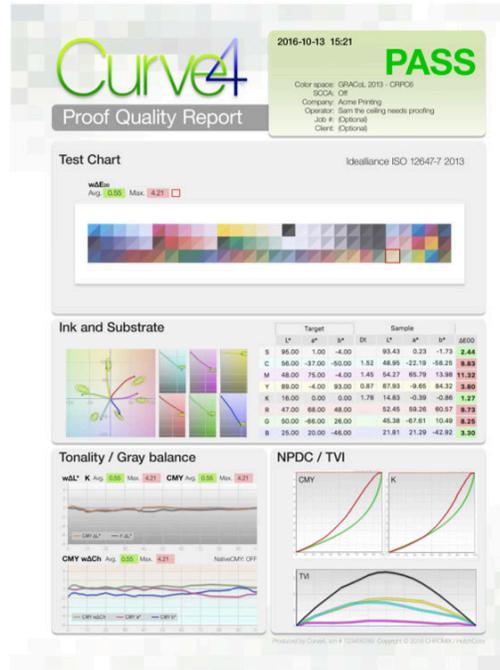
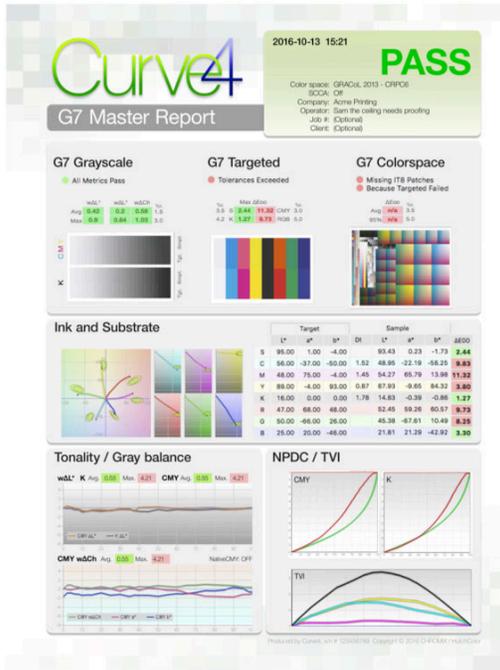
All levels of Curve4 can measure directly with multiple spectrophotometers, including;

- Barbieri Spectro LFP
- Konica Minolta FD-9
- Techkon SpectroDens
- X-Rite i1 Pro versions 1 & 2
- X-Rite i1/iO versions 1 & 2
- X-Rite i1iSis versions 1 & 2



# Printable Reports<sup>3</sup>

The **G7 Master Report** records the results of a printing system G7 Master Verification.  
 The **Proof Quality Report** records the results of an individual Proof Verification.  
 The **Calibration Report** is a convenient way to record or transport curve point values to a RIP.



<sup>3</sup> The number of reports available depends on license level.