The IDEAlliance Print Properties Working Group has established a certification process for G7 Systems. In accordance with this process, the G7 System Certification Program is designed to evaluate the ability of a candidate system to calibrate a printing device to meet the G7 grayscale definition using four 1-D Curves within the tolerances outlined in this document. All evaluations are based on the parameters of the G7 Specification (draft 2008). The following information is intended to assist producers and consumers in the use of the vendor system as specified for creating the four 1-D Curves.

**Manufacturer**

*Print Standard Verifier G7* is a production of:

**Caldera**

1 rue des Frères Lumière  
BP 78002  
P.A. d'Eckbolsheim  
67038 Strasbourg Cedex 02  
FRANCE  
www.caldera.com

**Product**

*Print Standard Verifier G7*

Print Standard Verifier G7 is a core technology of Caldera’s software suite available on Mac OS X and Linux. Included in the EasyMedia Calibration software, it allows to calibrate to G7 aims and to verify conformance against many standards (FOGRA’s PSD and PSO, IDEAlliance G7 GrayScale, GRACoL® and SWOP® and to the ISO Standards: ISO 12647-2, ISO 12647-7 and ISO 12647-8) in a easy and fast wizard-based interface. Designed for inkjet printing, it can be easily used for any N-Color processes.

Video is available on Caldera website:

Full PDF guide is available with Caldera software.

**Testing Instructions (procedures)**

**Printing and measuring the test target(s)**

Tests targets can be printed and measured in EasyMedia, after selecting a printer, a printing configuration, you can choose to perform a G7 linearization in the linearization step:

Then, select the spectrophotometer and the P2P target you want to use:
You have the choice to print and measure the print or to load an existing measurement.

Note that in inkjet, it is often recommended to do a classical calibration (linearization and ink limiting) before going into a G7 linearization due to ink bleeding problems when printing a P2P target. Also a pre-linearization will ease the G7 linearization step.

**Print and Measure**
Click on the print button then and start button to begin measurement:
Load a measurement

Measured CMYK curves are shown:
**Adjusting parameters and saving**

Parameters are automatically adjusted to match G7 aims when you click on Next button, and you can export the curves.

You can go forward to the Profiling tab to make an ICC profile for your print configuration or go directly to the Standards tab to check G7 standards (next session).

At the end of your session, you will be prompted to save your project.
Verification By Physical Print Testing

Printing and measuring a “Verification” target

Of course, you can also load an existing measurement file or use the profile made for this print configuration (if available) to simulate the results.

Note that you can print and measure multiple targets depending on what standard you want to test:
Analyzing Results

A summary page offers a quick view:

When selecting a standard, you can access to the full details:
Print Standard Verifier Tolerances

Using the 2010 G7 System Certification sample test files and the Analysis Instructions (see above) or the IDEAlliance Validation Process (see below), “Product Name” will achieve tolerances equal to or lower than the following.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Average</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>ΔF* (CMY only)</td>
<td>&lt;1.0</td>
<td>&lt;2</td>
</tr>
<tr>
<td>ΔL* (CMY &amp; K)</td>
<td>&lt;1.0</td>
<td>&lt;2</td>
</tr>
</tbody>
</table>

Table 1: Caldera tolerances for 2010 sample test files

Note: Because the current G7 System Certification method uses a simulation process that eliminates print-to-print variation, and because the sample data provided by IDEAlliance for G7 System Certification is highly uniform, Caldera can produce extremely low delta errors with those specific data files. Higher errors should be expected when calibrating live printing devices, depending on the characteristics and variability of each printing system.