

ColorPursuit™ 1.0

HANDS-ON TUTORIAL



1. PROFILE QUALITY ASSESSMENT

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This is a hands-on tutorial illustrating one of the numerous features and ways of using Alwan ColorPursuit.

Before reading this document, please do read **cp_introduction.pdf** available on our web site page <http://www.alwancolor.com/english/products/colorpursuit.html>

The purpose of this tutorial is to evaluate and compare **Profile Quality** using Alwan ColorPursuit.

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1. Profile Quality Evaluation

1.1 Profile Quality

- To evaluate a profile, you need first to create an Image Widget or a Linked Image Widget.

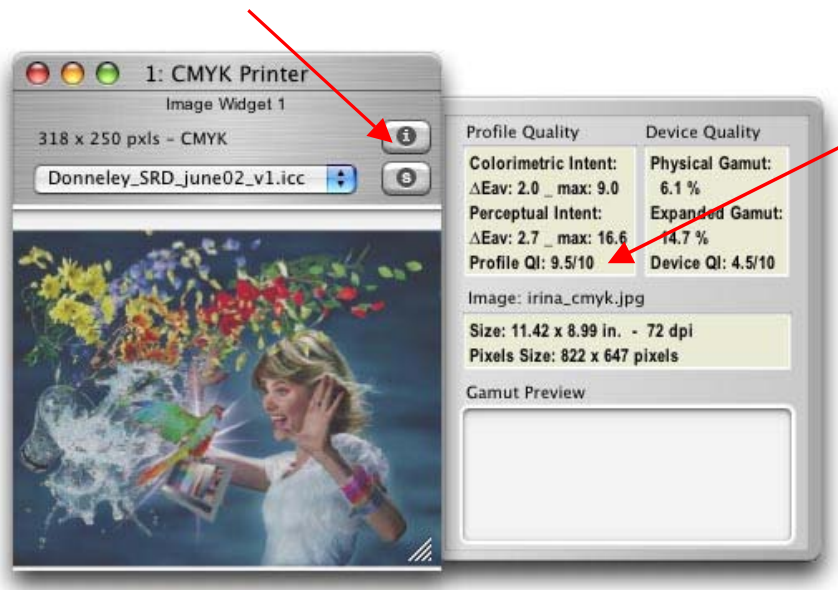
You can use either the **Widget menu** or the buttons from the **Widget Creation Toolbar** :



- Choose any desired color space or image. This has no effect on the Profile evaluation



- Click on the i (information) button to display information on the right of the Widget



Profile QI (Quality Index) is indicated in the tab on a scale of 10. The higher the **QI** the better is the profile accuracy.

Profile accuracy is calculated using the error which is introduced by the Profile tables in color transformation operations. This error is called "roundtrip error".

Colorimetric and Perceptual tables are used for this evaluation. The average ΔE (ΔE_{av}) error for each of these tables is calculated. The maximum ΔE (ΔE_{max}) error for each of these tables is also calculated. The resulting data is used to calculate the **Profile QI (Quality Index)**. The smaller the error, the higher the **Profile QI**.

1.2 Examples of Profile Quality Index (QI)

A **bad profile** has a ΔE_{av} greater than 5 and/or a Profile QI less than 7

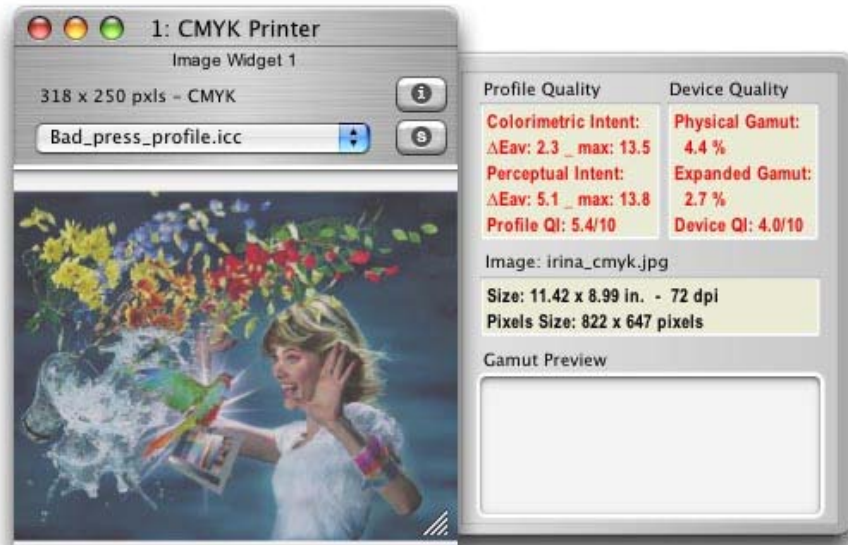
A **fair profile** has a ΔE_{av} of 3 - 5 and/or a Profile QI around 7 - 8

A **good profile** has a ΔE_{av} between, 2 - 3 and/or a Profile QI around 8 - 9

A **very good profile** has a ΔE_{av} between, 1 - 2 and/or a Profile QI greater than 9

A **“perfect”** (ie no roundtrip error) profile has a ΔE_{av} less than 1 and/or a Profile QI of 10.

Bad profile information is displayed in red. This means that you may encounter serious accuracy problems by using this profile.



2. Profile Quality Comparison

You can easily compare the performance of two profiles by creating an independent Image Widget for each profile.



The two presses Profiles Quality index can be easily compared. In this example, the Profile named *Sheetfed PV glossy* has a better **Profile QI** than the one named *SWOP-TROO1*.

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