ECI offset profiles 2007

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New characterization data and ICC profiles for standard printing conditions

Based on optimized aim values of the international printing standard ISO 12647-2 ECI, bvdm and Fogra recommend to use new Fogra characterization data and ECI offset profiles. The new aim values are contained in an amendment. They replace the respective provisions in the standard. The amendment to ISO 12647-2 will be officially published by ISO in January 2007 as a supplement to the standard.

The changes mainly affect the aim values for the CIELAB color coordinates of the process color solids and the two and three color overprints. All other provisions in ISO 12647-2 remain untouched and valid.

Enhancement of the well proven standard offset printing condition "ISO Coated"

The well proven previous standard offset printing condition "ISO Coated" has not been changed fundamentally but was optimized in some color regions. For example the color coordinates of the Cyan solid tone now better matches practical values. All normative CIELAB aim values for the ink primaries and the paper tint as defined by ISO 12647 have been incorporated with identical values into the FOGRA characterization data and the ECI offset profiles.

Based on the informative aim values of the amendment, the CIELAB values for the secondary colors have been adjusted based on practical values derived from a large number of e.g. European printing tests. The new FOGRA characterization data sets and the ECI profiles have been carefully tested and are now ready for use in production.

Substantial improvements of the new ECI offset profiles are closely related to the characterization data:

+ Identical aim values for the ink solids in the ISO standard and the characterization data: The CIELAB values in FOGRA39 perfectly match the respective values in ISO 12647-2:2004/ Amd 1 (2007). The unpleasant choice between "FOGRA" or "ISO" aim values finally belongs to the past.
+ Practice-oriented adjustment of the aim values for the secondaries green and blue based on a number of evaluated print runs. This applies in particualar to the critical blue color area (tendency to be more purple in print compared to the proof).
+ Practice-oriented reduction of the maximum ink coverage: Reducing the maximum ink coverage from 350% to 330%, or 300% respectively (setup value in profiling software), reflects the practical need of many printers, to avoid printing problems caused by too high ink coverage.

As before, details on how the profiles were created can be found in the relevant Info files.

Which new profiles are available?

For two standard offset printing conditions new profiles are available. ECI, bvdm and FOGRA jointly recommend the use of "ISO Coated v2 (ECI)" and "ISO Coated v2 300% (ECI)". The latter is a version with lower maximum ink coverage (300%) suitable for e.g. heat set web offset. Both profiles are based on "FOGRA39L".

The third new profile named "SC Paper (ECI)" applies to web offset printing on SC paper (super calandered). Web offset printers requested the profile due to the rising number of publications printed on SC paper. So far neither "standard" profiles nor specifications in ISO 12647-2 are available for this paper type.

For that reason the ECI Web Offset Working Group developed the characterization data and the profile for SC paper with substantial contribution from the bvdm. Starting from the printing condition for paper type 3 (LWC) test prints on SC paper (from four different paper mills) have been conducted by five European web offset printers. Based on these prints both, characterization data ("FOGRA40L") and profile have been carefully created and tested.

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How about further standard offset printing conditions?

The profiles "ISO Web Coated", "ISO Uncoated" and "ISO Uncoated Yellowish" based on the characterization data "FOGRA28", "FOGRA29" und "FOGRA30" remain valid.

These profiles will be reviewed during 2007 on the background of the new aim values of the ISO 12647-2 amendment. Where neccessary new versions will be created and made available by ECI and FOGRA after thorough testing.

Where can the profiles be obtained? From when on should they be used?

The ECI offset profiles "ISO Coated v2 (ECI)", "ISO Coated v2 300% (ECI)" and "SC Paper (ECI)" are available as a free download on the website of the ECI (www.eci.org). To simplify the selection of the current versions, the profile package "ECI_Offset_2007" contains both the new offset profiles and the still valid profiles for the paper types 3, 4 und 5.

The characterization data "FOGRA39L" and "FOGRA40L" can be downloaded free of charge from the FOGRA website (www.fogra.org).

You may wish to use the new data immediately. ECI, bvdm and Fogra recommend to familiarize yourself with the new data as soon as possible and to switch over to the new profiles in early April 2007 at the latest. The previous profile "ISO Coated" and the characterization data "FOGRA27" respectively, should not be used in production jobs thereafter.

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"Offset" package 2007 • Overview

Profiles for sheet-fed and heat-set web offset printing according to ISO 12647-2:2004

Profile filename	Profile name	Printing condition	Characterization data
ISOcoated_v2_eci.icc ***New 2007***	ISO Coated v2 (ECI)	Paper type 1 and 2, gloss- and matte coated • Tone value increase curves A (CMY) and B (K) as defined in ISO 12647-2:2004	FOGRA39L
ISOcoated_v2_300_eci.icc ***New 2007***	ISO Coated v2 300% (ECI)	Paper type 1 and 2, gloss- and matte coated • Tone value increase curves A (CMY) and B (K) as defined in ISO 12647-2:2004	FOGRA39L
ISOwebcoated.icc	ISO Web Coated	Paper type 3, gloss coated (LWC) • Tone value increase curves B (CMY) and C (K) as defined in ISO 12647-2:2004	FOGRA28L
ISOuncoated.icc	ISO Uncoated	Paper type 4, uncoated white offset • Tone value increase curves C (CMY) and D (K) as defined in ISO 12647-2:2004	FOGRA29L
ISOuncoatedyellowish.icc	ISO Uncoated Yellowish	Paper type 5, uncoated slightly yellowish off-set • Tone value increase curves C (CMY) and D (K) as defined in ISO 12647-2:2004	FOGRA30L
SC_paper_eci.icc ***New 2007***	SC Paper (ECI)	Paper type SC, Super calandered • Tone value increase curves B (CMY) and C (K) as defined in ISO 12647-2:2004	FOGRA40L

Tone value increase for the 40% control patch:
Curve ***A***: ***13***% • Curve ***B***: ***16***% • Curve ***C***: ***19***% • Curve ***D***: ***22***%

The bvdm "Media Standard Print" (free of charge download from www.bvdm.org) contains aim values for the whole range from 0 up to 100 percent in 5% steps.

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