Idealliance

Standard Definitions: Key Terms and Differences

GRACoL® stands for the General Requirements for Applications in Commercial Offset Lithography. GRACoL is a color reproduction Specification for sheetfed offset lithography. The GRACoL specification pertains to sheetfed offset printing using ISO defined inks and paper (#1 or #2). CGATS TR006 is based on the reference characterization GRACoL2006 Coated1. Idealliance no longer specifies TVI (solid ink density (SID), dot gain or print contrast) GRACoL targets. Idealliance does recognize the value of TVI as an important element of managing and monitoring the chemical and mechanical elements of printing machinery. Any reference you may read for GRACoL TVI metrics should be considered historical reference data only.

SWOP® stands for Specifications for Web Offset Publications. SWOP is a color reproduction Specification for web offset lithography. The SWOP specification pertains to web offset printing using ISO defined inks and paper. There are two SWOP specifications, SWOP3, for printing on a #3 sheet stock and SWOP5 for printing on a #5 sheet stock. CGATS TR003 and TR005 are based on SWOP2006 Coated3 and SWOP2006 Coated5 reference characterizations. Any reference you may read for SWOP TVI metrics should be considered historical reference data only.

G7® is both a definition of grayscale appearance, and a calibration method for adjusting any CMYK imaging device to simulate the G7 grayscale definition. G7 yields a close relative match on B&W images or neutral gray image areas between different printing systems or specifications, using simple one dimensional curves, and enables "shared neutral appearance" between printing systems or specifications. (Exact color matching may require additional ICC color management.) G7 is the basis for GRACoL on #1 paper (TR006), SWOP on # 3 paper (TR003), SWOP on #5 paper (TR005) and FIRST's Flexo on white polyester substrate (TR007). G7 utilizes one of the implementation methods of the new ISO 10128 standard for near-neutral calibration. A key benefit of G7 is that it is device independent. The G7 neutral print density curve (NPDC), gray balance definitions and calibration methodology are the same for any imaging technology, regardless of substrate, colorants, screening technologies, etc. G7 should not be confused with GRACoL7, which is the 7th edition of the GRACoL Specification.

Standard, Specification, Method

A Standard is distinguished from specifications in that they apply broadly and have been through a formal process of review and acceptance by a governing body (i.e. ISO).

A Specification is not a standard. It is a detailed description of design criteria for a piece of work. GRACoL1, SWOP3 and SWOP5 are specifications for printing using a precise characterization data set for a specific print process and substrate.

A Method is "a way, technique, or process of or for doing something". Stated most simply, there can be many methods that yield a desired result. G7 is a method of attaining a desired grayscale and tonal curve used for calibrating a proofing and/or printing system.

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