
**Graphic technology — Vocabulary —
Part 2:
Prepress terms**

Technologie graphique — Vocabulaire —

Partie 2: Termes de préimpression

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Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 Terms and definitions.....	1
Bibliography	15

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 12637-2 was prepared by Technical Committee ISO/TC 130, *Graphic technology*.

ISO 12637 consists of the following parts, under the general title *Graphic technology — Vocabulary*:

- *Part 1: Fundamental terms*
- *Part 2: Prepress terms*
- *Part 3: Printing terms*
- *Part 4: Postpress terms*
- *Part 5: Screen printing terms*

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Introduction

Documentation gives rise to numerous international exchanges of both intellectual and material nature. These exchanges often become difficult, either because of the great variety of terms used in various fields or languages to express the same concept, or because of the absence of, or the imprecision of, useful concepts.

To avoid misunderstandings due to this situation and to facilitate such exchanges, it is advisable to select terms to be used in various languages or in various countries to express the same concept, and to establish definitions providing satisfactory equivalents for the various terms in different languages.

This part of ISO 12637 contains terms and definitions associated with the prepress stage of printing.

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Graphic technology — Vocabulary —

Part 2: Prepress terms

1 Scope

This part of ISO 12637 defines a set of prepress terms which may be used in the drafting of other International Standards for graphic technology. In order to facilitate their translation into other languages, the definitions are worded so as to avoid, where possible, any peculiarity attached to one language.

2 Terms and definitions

2.1

aliasing

jagged or staircase effect in a raster image, caused by an insufficient number of image elements

NOTE See also ISO 12651:1999, definition 4.38.

2.2

assembly

placing digital, film or paper elements together in order on a suitable substrate or file

NOTE See also ISO 12637-1:2006, definitions 2 and 3.

2.3

bit-mapped image

image represented by an array of picture elements, each of which is encoded as a single binary element

NOTE 1 See also ISO 12651:1999, definition 4.02.

NOTE 2 This is representation of characters or graphics by individual pixels, or points of colour/no-colour arranged in a row and column order (analogous to a graph paper grid). Each pixel is represented by either one bit (black and white printing) or up to 32 bits (higher quality colour printing). Physically the bit map exists only as digital information in the computer memory until transformed into an image on a monitor or print output device.

2.4

bleed

additional printing area outside the nominal printing area necessary for the allowance of mechanical tolerance in the trimming process

[ISO 15930-3:2002, definition 3.1]

2.5

blind exchange

exchange of compound entities that requires no exchange of technical information between sender and receiver in order to render the printed page as intended by the sender

2.6
colour electronic prepress system
CEPS
electronic, computer-based, image manipulation system used to prepare digital data files of material for graphic arts printing production

NOTE This term is used by the printing industry to describe a class of equipment, used from 1980 to approximately 1995, which ushered in the electronic revolution in the printing and publishing industry.

2.7
characterization
relationship between input/output device-dependent and device-independent values

2.8
characterized printing condition
characterization of tone values in relation to colour definition in the various printing processes

2.9
choke
process whereby background colour is expanded to overlap image perimeter to ensure that there is no visible gap between the two

NOTE See also **trapping** (2.138).

2.10
chromaticity diagram
graphical representation of two of the three dimensions of colour

2.11
CIE chromaticity coordinates
trichromatic coefficients
ratios of each of the tristimulus values of a colour to the sum of the tristimulus values

NOTE In CIE (Commission Internationale de l'Eclairage) systems, these coordinates are designated X, Y and Z. See also **CIE chromaticity diagram** (2.12).

2.12
CIE chromaticity diagram
two-dimensional diagram representing visible colours in terms of the CIE chromaticity coordinates, which are derived from the standard 1931 CIE XYZ tristimulus values

2.13
CIELAB colour space
rectangular opponent-type colour space derived from non-linear transformations of the 1931 CIE XYZ system and expressed by the colour coordinates L^* , a^* , b^* approximately uniform with respect to colour differences, where L^* represents relative lightness, a^* represents redness or greenness and b^* represents yellowness or blueness

2.14
CIELUV colour space
rectangular opponent-type colour space derived from non-linear transformations of the 1931 CIE XYZ system expressed by the colour coordinates L^* , u^* , v^* approximately uniform with respect to the perception of colour differences, where L^* represents relative lightness, u^* represents redness or greenness, and v^* represents yellowness or blueness

2.15
CIE standard illuminants
illuminants A, D50, D65, etc., defined by the CIE in terms of relative spectral power distribution

2.16**CIEXYZ tristimulus values**

values of x , y , z components of a colour obtained by multiplying the relative power of a CIE standard illuminant, the reflectance or transmittance of the object, and the CIE standard observer functions \bar{x} , \bar{y} and \bar{z}

2.17**CMYK**

abbreviation for cyan, magenta, yellow and black process colours

2.18**colorimeter**

instrument for measuring colour values, such as the tristimulus values of a colour stimulus

2.19**colour characterization target**

standard colour reference used for establishing the relationship between a printed image and the input values of that image

2.20**colour correction**

photographic, electronic or manual procedure used to enhance original colour and to compensate for the deficiencies of the process inks, colour separation and defects in the original

2.21**colour difference**

distinction between two colours observed or measured under standard conditions

2.22**colour encoding**

generic term for a quantized digital encoding of a colour space, encompassing both colour space encodings and colour image encodings

[ISO 22028-1:2004, definition 3.7]

2.23**colour gamut**

solid in a colour space, consisting of all those colours that are either present in a specific scene, artwork, photograph, photomechanical or other reproduction; or capable of being created using a particular output device and/or medium

[ISO 22028-1:2004, definition 3.8]

2.24**colour image encoding**

digital encoding of the colour values for a digital image, including the specification of a colour space encoding, together with any information necessary to properly interpret the colour values such as the image state, the intended image viewing environment and the reference medium

[ISO 22028-1:2004, definition 3.9]

2.25**colour profile**

data file that provides colour management systems with the information necessary to convert colour data between native device colour spaces and device-independent colour spaces

2.26**colour rendering**

mapping of image data representing the colorimetric coordinates of the elements of a scene to output-referred image data representing the colorimetric coordinates of the elements of a reproduction

NOTE Adapted from ISO 22028-1:2004, definition 3.11.

2.27

colour separation

(process) act of separation by which a multi-coloured original is split into the separate colour files or films associated with the printing colorants for process colour printing

2.28

colour separation

(product) set of data files or films created by the process of **colour separation** (2.27)

2.29

colour sequence

order in which the colours are stored in a data file

2.30

colour space

geometric representation of colours in space, usually of three dimensions

[ISO 22028-1:2004, definition 3.13]

2.31

colour space encoding

digital encoding of a **colour space** (2.30), including the specification of a digital encoding method, and an encoding range

NOTE Adapted from ISO 22028-1:2004, definition 3.14.

2.32

colour value

set of numeric values associated with each of the pixels in one of the colour spaces

2.33

complementary colours

two colours that, when mixed in appropriate ratios, produce an achromatic colour

NOTE In graphic arts processes the complementary pairs are yellow and blue; magenta and green; cyan and red.

2.34

complete exchange

exchange of compound entities in which all elements and element resources are present as part of a single exchange and all of the information needed to process the composite entity is either in the composite entity or is specified within the applicable standard and its normative references

[ISO 15930-1:2001, definition 3.5]

2.35

composite

unit of work with all text, graphics and image elements prepared for final print reproduction

2.36

compound entity

unit of work with all text, graphic and image elements prepared for final print reproduction and that may represent a single page for printing, a portion of a page or a combination of pages

[ISO 15930-1:2001, definition 3.6]

2.37

continuous tone

image that has not been screened and has infinite tone gradations between the lightest highlights and the deepest shadows