
Graphic technology — Vocabulary —
Part 1:
Fundamental terms

Technologie graphique — Vocabulaire —
Partie 1: Termes fondamentaux



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Foreword

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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.

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ISO 12637-1 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 5: Screen printing terms*

The following parts are under preparation:

- *Part 2: Prepress terms*
- *Part 3: Printing terms*
- *Part 4: Postpress terms*

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.

The purpose of this part of ISO 12637 is to provide definitions in English that are rigorous, uncomplicated and which can be understood by all concerned. The scope of each concept defined has been chosen to provide a definition that is suitable for general application within graphic technology. Graphic technology includes the processes of design through the final printed product. In those circumstances, where a restricted application is concerned, the definition may need to be more specific. Additional definitions are included where necessary to exemplify the terms shown in Figure 1.

The intention of this part of ISO 12637 is to define fundamental terminology due to the enormous changes brought about by digital processes/methods within the graphic field.

Present technology is addressed to traditional printing systems and processes while the model proposed in the following pages contemplates the peculiarities of the new technologies as well.

Graphic technology has been divided into three workflow stages: prepress, printing and postpress.

In prepress, analog and digital technologies begin with original design concepts and end up with the preparation of image carriers that can be validated by proofing.

The distinction between reprographic and printed copies of original images, based mainly on qualitative criteria, has been substituted by the presumption that all graphic original reproduction methods can be considered printing processes.

With a view to creating a structure that can include all present graphic systems and processes/methods and adapt itself to the needs of future technologies, without becoming rapidly obsolete, ISO 12637 separated printing systems into three groups according to the techniques employed in each and every one and established parameters so as to determine the relationships of the various processes/methods to their respective systems.

The first group, called "forme-based printing technology", includes the so called traditional or conventional processes/methods that use inked formes to reproduce original images onto substrates.

The second group, called "formeless printing technology", dispenses with those specific image carriers and uses ink-jet, thermal-transfer and electrographic systems to reproduce original images onto substrates.

The third group, named "inkless printing technology", does away with image carriers and printing inks and employs specially prepared substrates and chemical or physical reactions produced by various ways of applied energy to reproduce original images on their surface.

In the postpress stage of this part of ISO 12637, finishing is considered a technology, whose systems are responsible for the general surface properties of blank and printed substrates and their definite sizes.

Converting is viewed as a technology whose systems are capable of transforming the purely physical form of blank and printed substrates into consumer products.

The fundamental terms deal specifically with the workflow stages of graphic technology and its final product, hard-copy printed matter. Digital processes/methods and virtual images are considered only as intermediate by-products.

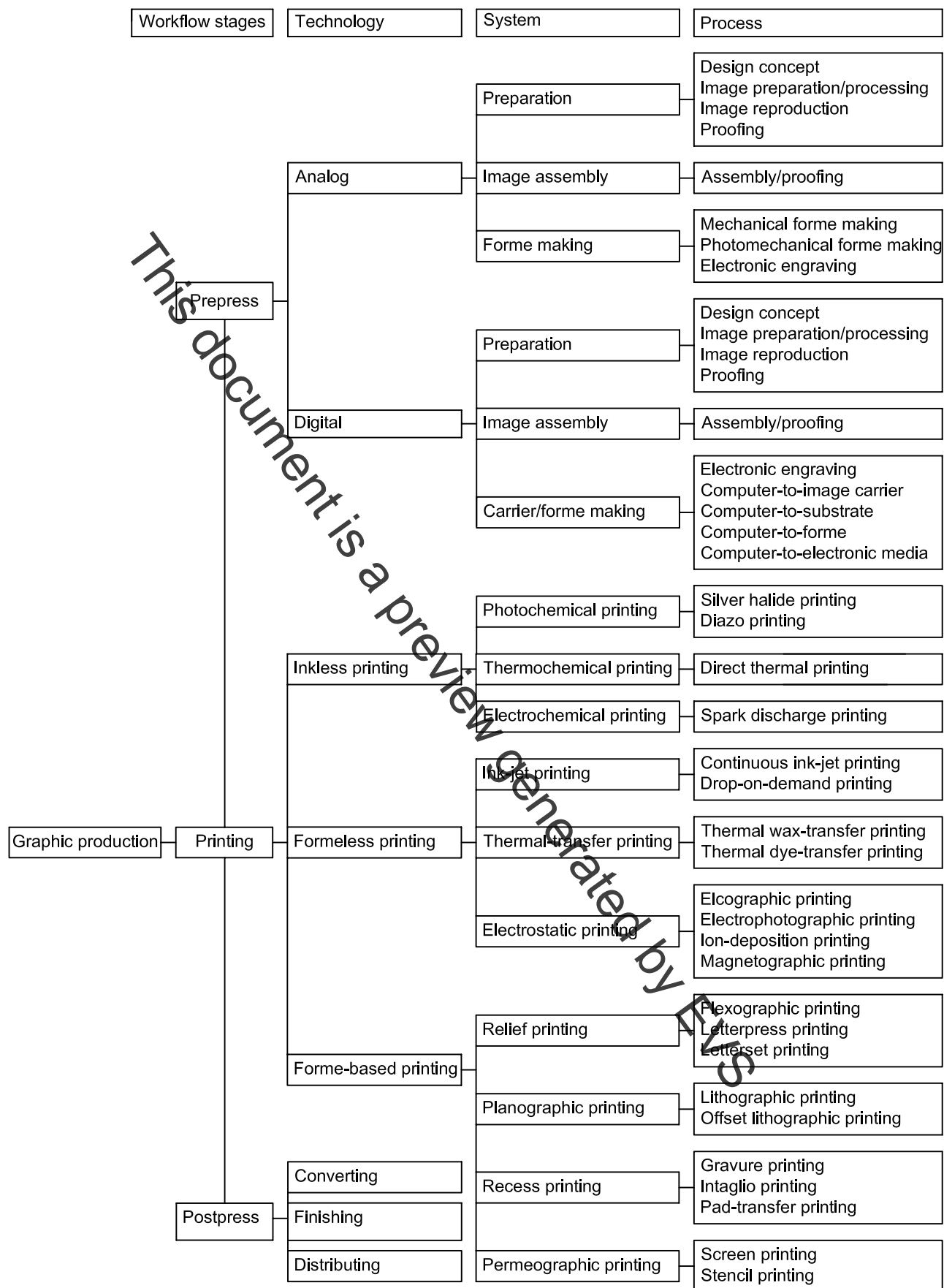


Figure 1 — Structure of fundamental terms

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Graphic technology — Vocabulary —

Part 1: Fundamental terms

Scope

This part of ISO 12637 defines a set of fundamental terms that can 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. The entries in this part of ISO 12637 are arranged alphabetically.

Terms and definitions

1

analog technology

representation, transmission and reproduction of visual data in unbroken succession, such as in continuous-tone art, films and photographic images

NOTE In common practice, analog processes (sometimes called conventional processes) are differentiated from digital methods, as their original images are computed and written only once to produce reuseable physical carriers in forme-based printing technology.

2

assembly

(analog) prepress process used to join photographic negatives or positives of individual image elements into film flats following layout and imposition directives to reproduce images in forme-based printing technology

3

assembly

(digital) prepress process used to place all original texts and illustrative material in their proper position according to layout directives, within a digital page file to reproduce images by forme-based, formeless, and inkless printing technologies

4

computer to electronic media

process in which computers store original image data for reproduction onto any kind of substrate

5

computer to forme

process in which computers interface with printing formes to reproduce original images onto substrates

6

computer to image carrier

process in which computers interface with image carriers to reproduce original images onto substrates

7

computer to substrate

process in which computers interface with substrates to reproduce original images onto their surfaces