INTERNATIONAL STANDARD

ISO
12637-1

First edition
2006-02-01

Graphic technology — Vocabulary —

Part 1:
Fundamental terms

Technologie graphique — Vocabulaire —

Partie 1: Termes fondamentaux

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

---

iTeh Standards
(https://standards.iteh.ai)
Document Preview

ISO 12637-1:2006
https://standards.iteh.ai/catalog/standards/iso/6a13198f-cbe3-4854-9b0b-917ead8136ba/iso-12637-1-2006

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 12637-1 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.

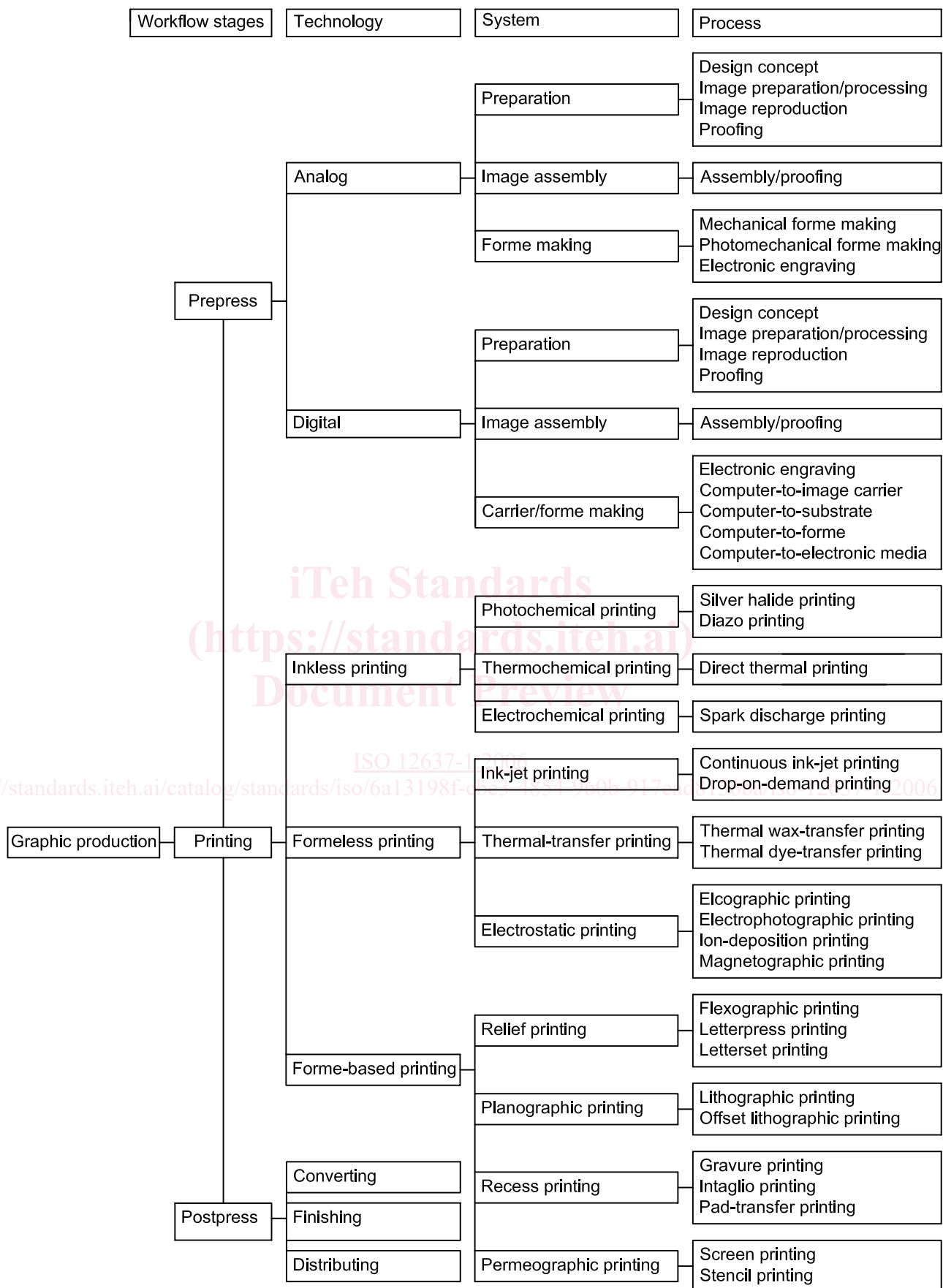| Workflow stages	Technology	System	Process
		Preparation	Design concept Image preparation/processing Image reproduction Proofing
	Analog	Image assembly	Assembly/proofing
		Forme making	Mechanical forme making Photomechanical forme making Electronic engraving
Prepress		Preparation	Design concept Image preparation/processing Image reproduction Proofing
	Digital	Image assembly	Assembly/proofing
		Carrier/forme making	Electronic engraving Computer-to-image carrier Computer-to-substrate Computer-to-forme Computer-to-electronic media
		Photochemical printing	Silver halide printing Diazo printing
	Inkless printing	Thermochemical printing	Direct thermal printing
		Electrochemical printing	Spark discharge printing
		Ink-jet printing	Continuous ink-jet printing Drop-on-demand printing
Graphic production / Printing	Formeless printing	Thermal-transfer printing	Thermal wax-transfer printing Thermal dye-transfer printing
		Electrostatic printing	Elcographic printing Electrophotographic printing Ion-deposition printing Magnetographic printing
		Relief printing	Flexographic printing Letterpress printing Letterset printing
	Forme-based printing	Planographic printing	Lithographic printing Offset lithographic printing
	Converting	Recess printing	Gravure printing Intaglio printing Pad-transfer printing
Postpress	Finishing		
	Distributing	Permeographic printing	Screen printing Stencil printing

Figure 1 — Structure of fundamental terms