



GUIDE 77-1

Guide for specification of product properties and classes —

Part 1: Fundamental benefits

First edition 2008

© ISO/IEC 2008

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.



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2008

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 Product data in the supply chain	2
2.1 General.....	2
2.2 Business context	2
2.3 Goal and solution.....	3
2.4 International standardization activities	4
2.5 Benefits	6
3 Procedure for creating reference dictionaries.....	7
3.1 General.....	7
3.2 Building a reference dictionary	7
3.3 Resources required	8
3.4 Maintenance	9
4 Technical aspects	9
Annex A (informative) Assessment of savings potential	11
Annex B (informative) Technical expertise and guidance	13
Bibliography	14

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.

Draft Guides adopted by the responsible Committee or Group are circulated to the member bodies for voting. Publication as a Guide 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/IEC Guide 77-1 was prepared by the Joint Technical Advisory Group of the ISO Technical Management Board and the IEC Standardization Management Board on product properties and families.

ISO/IEC Guide 77 consists of the following parts, under the general title *Guide for specification of product properties and classes*:

- *Part 1: Fundamental benefits*
- *Part 2: Technical principles and guidance*
- *Part 3: Experience gained*

Introduction

Business processes are increasingly being conducted electronically, a situation which applies to internal processes as well as to the interfaces with external partners. Product data is currently defined predominantly on a system-specific or organization-specific basis, usually without the general exchangeability of the data being taken into account. On the originator side, this results in costly multiple definition and data storage for different addressees or customers and, on the recipient side, in repeated data editing and system integration of data from different sources combined with inherent, costly interpretation and conversion errors. Hence, there is a massive opportunity here for rationalization.

From the market side, pressure is increasingly being exerted to supply product data in electronic form and as this pressure grows, it will have a considerably impact on all businesses. For these reasons, a seamless exchange of product data, i.e. an exchange that is free from media discontinuities requires a unified, joint approach both for exchanging internal product data within a company and for exchanging product data with suppliers and customers.

Information about a product is generated over the entire life cycle of the product, from the idea, planning and design stages, through the manufacture, marketing, service and use stages, to product disposal. Information is required in the course of many process steps, both during product manufacture and sales and during product utilization (e.g. for maintenance and service) and recycling. Therefore, a harmonized, consistent process for preparing and disseminating relevant information about a product (across all organization and information systems) is of critical importance, as illustrated in Figure 1.

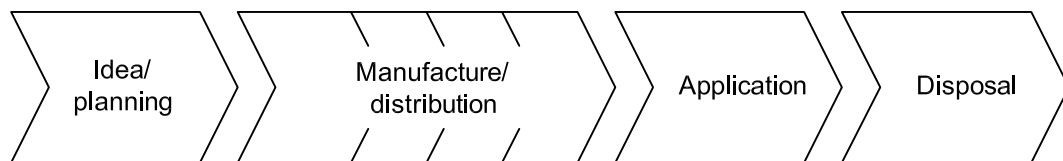


Figure 1 — Example of product life cycle and information transfer

This calls for the use of a methodology that allows product descriptions to be produced in a standardized, computer-sensible form that is acceptable over a wide range of industrial systems. Such a methodology is provided by IEC 61360-1 and ISO 13584-42. This methodology should be proactively promoted both internally in a company and externally between the business partners so that it becomes standard practice, thereby increasing the efficiency and cost-effectiveness of electronic business processes.

A company should respond to these external and internal requirements and ensure that electronic product data is supplied in a coordinated and inexpensive manner. This includes the provision of uniform data (i.e. product properties) for catalogues, electronic marketplaces, computer-aided design/computer-aided systems (CAD/CAX systems), product data management (PDM) systems, etc. To this end, rules for harmonization have been laid down. A common internal database is required to ensure the cost-effective utilization and distribution of this product data, both internally in a company and externally between the business partners.

Guide for specification of product properties and classes —

Part 1: Fundamental benefits

1 Scope

ISO/IEC Guide 77 provides recommendations for standardization committees for the description of products and their properties for the creation of computer processable product libraries, catalogues and reference dictionaries. This description will provide the details of the products and their properties in an unambiguous manner capable of computer communication, in a form that is independent from any proprietary application software.

NOTE 1 The term “product” is taken to include devices, processes, systems, installations, etc.

ISO/IEC Guide 77 is intended to assist the objective of enabling the flow of technical information between internal and external business partners in a cost-effective and timely manner.

The guidance given in this part of ISO/IEC Guide 77 is intended to assist convenors and members of ISO and IEC Technical Committees, as well as managers and technical experts in the manufacturing industry.

This part of ISO/IEC Guide 77 is intended to provide an overview of the needs and benefits and the process of creating product libraries, catalogues and reference dictionaries. The following are within the scope of this part of ISO/IEC Guide 77:

- international standardization activities related to reference dictionaries;
- benefits of reference dictionaries to International Standards;
- a procedure for creating reference dictionaries;
- resources required;
- assessment of savings;
- sources of information and expertise.

The following are outside the scope of this part of ISO/IEC Guide 77:

- technical guidance for the creation of product libraries and dictionaries;

NOTE 2 Technical guidance for the creation of product libraries and dictionaries is provided in ISO/IEC Guide 77-2.

- case studies from experiences in the creation of dictionaries of product information in industrial practice.

NOTE 3 Experience gained in the creation of product libraries and dictionaries is provided in ISO/IEC Guide 77-3.

Reference dictionaries can be useful in the context of product data in the supply chain, as well as in the business context of product data management.

This part of ISO/IEC Guide 77 is for guidance only and is intended to support activities such as education.