

Computer integrated manufacturing (CIM): CIM systems architecture framework for modelling

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Amendments issued since publication

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National foreword

This Draft for Development has been prepared under the direction of the Advanced Manufacturing Technology Standards Policy Committee and is identical with ENV 40003:1990 “*Computer Integrated Manufacturing — Systems Architecture — Framework for Enterprise Modelling*”.

This ENV is the result of an evaluation of a number of activities related to computer integrated manufacturing (CIM) and is mainly based on the Esprit project “CIM-Open Systems Architecture” (CIM-OSA). It focuses on the needs of discrete parts manufacturing.

The UK actively participated through BSI Technical Committee AMT/5 in the development of the ENV 40003.

Cross-references

Where there are British Standards corresponding to International Standards quoted in this standard the relationship is given in National appendix B.

International and European Standards, as well as overseas standards, are available from BSI Sales Department, BSI, Linford Wood, Milton Keynes, MK14 6LE.

Information on the availability of developing and published international and European Standards, as well as up-to-date information on existing and projected British Standards publications in the general area of information technology, is included in the “BASIC LIST” and regular Newsletter published as part of the BSI Information Technology Service (BITS) initiative. For details of the BITS scheme, contact the Marketing Department, BSI, Linford Wood, Milton Keynes, MK14 6LE.

This publication is not to be regarded as a British Standard

It is being issued in the Draft for Development series of publications and is of a provisional nature because the subject matter is still under technical development requiring wider exposure. It should be applied on this provisional basis, so that information and experience of its practical application may be obtained.

A review of this Draft for Development will be carried out not later than two years after its publication. Notification of the start of the review period, with a request for the submission of comments from users of this Draft for Development will be made in an announcement in the appropriate issue of *BSI News*. According to the replies received, the responsible BSI committee will judge whether the Draft for Development can be converted into a British Standard or what other action should be taken.

Observations which it is felt should receive attention before the official call for comments will be welcomed. These should be sent to the Secretary of the BSI Technical Committee AMT/5 at the BSI Head Office address as shown on the back cover.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the ENV title page, pages 2 to 20, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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English Version

Computer Integrated Manufacturing — Systems Architecture — Framework for Enterprise Modelling

Productique — Architecture des Systèmes —
Cadre pour la modelisation de
l'Enterprise

Rechner Integrierte Fertigung —
System Architektur — Rahmewerk für
Unternehmensmodellierung

This European Prestandard (ENV) was accepted by a technical body of CEN/CENELEC on 19 April 1990 as a prospective standard for provisional application. The period of validity of this ENV is limited initially to three years. After two years the members of CEN/CENELEC will be requested to submit their comments, particularly on the question whether the ENV can be converted into an EN.

CEN/CENELEC members are required to announce the existence of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

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The Joint European Standards Institution
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Brief history

This European Prestandard (ENV) was elaborated by the Working Group CEN/CENELEC/IT/WG ARC and submitted by the CEN/CENELEC Central Secretariat to the members for Formal Vote on 10 January 1990. The technical and editorial comments were reviewed at an editing meeting on 5 April 1990.

The resulting amended version was adopted at the CEN/CENELEC voting meeting on 18 and 19 April 1990, where the following member countries voted for its acceptance : Belgium, Denmark, France, Germany, Italy and United Kingdom.

Foreword

This European Prestandard (ENV) sets out a framework for future standardisation in the area of Computer Integrated Manufacturing¹⁾ enterprise modelling. Like the ISO Reference Model for Open System Interconnection, the ENV guides the structuring and the development of related, detailed standards.

This ENV was prepared by CEN/CENELEC/AMT/WG-ARC to help in the identification of necessary standards in the area of Computer Integrated Manufacturing (CIM), focusing on the needs of Discrete Parts Manufacturing.

Many of the concepts of this ENV may be usable in other industries (process industry, transportation industry, etc.) which are outside the mandate of this present work as defined in CEN/CENELEC/ETSI Memorandum M-IT-04, Directory of European Standardisation Requirements for Advanced Manufacturing Technology and Programme for the Development of Standards. Representatives of other industries are encouraged to consider the applicability of this ENV elsewhere.

This ENV is the result of an evaluation of a number of activities in the development of architectures for Computer Integrated Manufacturing.

The method of selecting contributions from these activities has been to make an evaluation of their work, and based on this to select some of the projects for further assessment.

The selected projects were assessed relative to each other, leading to the conclusion that the CIM-OSA Framework for Enterprise Modelling is adequate to express the common concepts of those projects.

So while the work draws upon ideas in a number of European projects, the work is based mainly on the CIM-OSA architecture resulting from the ESPRIT 1 project 688, AMICE, whose results have proved to be of particular value.

¹⁾ For the purposes of this ENV on Systems Architecture, Computer Integrated Manufacturing (CIM) is defined as the joint application of Information Technology and Manufacturing Technology to increase the productivity and responsiveness of manufacturing enterprises, whereby all functional, informational and organisational aspects of enterprise are parts of an integrated whole.

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