INTERNATIONAL STANDARD

ISO 13584-26

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Industrial automation systems and integration — Parts library —

Part 26: Logical resource: Information supplier identification

Systèmes d'automatisation industrielle et intégration — Bibliothèque de composants —

Partie 26: Ressource logique: Identification des fournisseurs d'information

Reference number
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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 734 10 79
E-mail copyright@iso.ch
Web www.iso.ch

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Foreword

ISO (the International Organization for Standardization) is a world-wide 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.

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.

International Standard ISO 13584-26 was prepared by Technical Committee ISO/TC 184, *Industrial automation systems and integration,* Subcommittee SC4, *Industrial data.*

ISO 13584 consists of the following parts under the general title *Industrial automation systems and integration — Parts library:*

Part 1, Overview and fundamental principles;

Part 10, Conceptual description: Conceptual model of parts library;

Part 20, Logical resource: Logical model of expressions;

Part 24, Logical resource: Logical model of supplier library;

Part 26, Logical resource: Information supplier identification;

Part 31, Implementation resource: Geometric programming interface;

Part 42, Description methodology: Methodology for structuring part families;

Part 101, View exchange protocol: Geometric view exchange protocol by parametric program;

Part 102, View exchange protocol: View exchange protocol by ISO 10303 conforming specification.

The structure of this International Standard is described in ISO 13584-1. The numbering of the parts of this International Standard reflects its structure:

— Parts 10 to 19 specify the conceptual descriptions;

— Parts 20 to 29 specify the logical resources;

— Parts 30 to 39 specify the implementation resources;

— Parts 40 to 49 specify the description methodology;

— Parts 50 to 59 specify the conformance testing;

— Parts 100 to 199 specify the view exchange protocol;

— Parts 500 to 599 specify the standardised content.

Should further parts of ISO 13584 be published, they will follow the same numbering pattern.

Annex A forms an integral part of this part of ISO 13584.

Annexes B and C are for information only.

Introduction

ISO 13584 is an International Standard for the computer-interpretable representation and exchange of part library data. The objective is to provide a neutral mechanism capable of transferring parts library data, independent of any application that is using a parts library data system. The nature of this description makes it suitable not only for the exchange of files containing parts, but also as a basis for implementing and sharing databases of parts library data.

This International Standard is organized as a series of parts, each published separately. The parts of ISO 13854 fall into one of the following series: conceptual descriptions, logical resources, implementation resources, description methodology, conformance testing, view exchange protocol, and standardised content. The series are described in ISO 13584-1.

This part of ISO 13584 is a member of the logical resources series. It defines the identification of the information suppliers of the contents of a library in order to trace who supplied them and who is therefore responsible for them. This identification has to be easy and unambiguous for all supplied libraries whether they are based on external (e.g. national, international) or internal (e.g. company) standards. This part of ISO 13584 defines a code to identify the supplier within this International Standard, and, when the content of a library was already defined in a standard document, a code to identify this standard document. Basic knowledge of EXPRESS is required to understand this part of ISO 13584. No knowledge of the other parts of ISO 13584 is required.

Industrial automation systems and integration – Parts library – Part 26: Logical resource: Information supplier identification

1 Scope

This part of ISO 13584 specifies a supplier code to identify the information suppliers of the contents of a library and, when the content of this library was provided in a standard document, a code that identifies this standard document.

The following are within the scope of this part of ISO 13584:

— a code to identify the supplier of information contained in a parts library, and

— a code to identify a standard document when the content of a parts library are defined in a standard document.

The following is outside the scope of this part of ISO 13584:

— a code to identify the supplier of a part.

NOTE The supplier code enables the user of a library to trace the supplier of any information about a part that has an entry in the library and to trace the data given by a particular information supplier.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 13584. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 13584 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references the latest edition of the publication referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 6523-1:1998, *Information technology — Structure for the identification of organizations and organization parts — Part 1: Indentification of organization identification schemes.*

ISO/IEC 8824-1:1995, *Information Technology —Abstract Syntax Notation One (ASN.1): Specification of basic notation.*

ISO 10303-11:1994, *Industrial automation systems and integration — Product data representation and exchange — Part 11: Description methods: The EXPRESS language reference manual.*

ISO/IEC 10646-1:1993, *Information technology — Universal Multiple-Octet Coded Character Set (UCS) — Part 1: Architecture and Basic Multilingual Plane.*

ISO/IEC 11179-3:1994, *Information technology — Specification and standardization of data elements — Part 3: Basic attributes of data elements.*

ISO 13584-1:—[1)], *Industrial Automation Systems and Integration — Parts Library — Part 1: Overview and Fundamental Principles.*

3 Terms, definitions, and abbreviations

For the purposes of this part of ISO 13584, the following terms and definitions apply. Some of these terms and definitions are repeated for convenience from ISO 11179-3:1994 and ISO/IEC 6523-1:1998.

1) To be published.

3.1

data element
a unit of data for which the definition, identification, representation and permissible values are specified by means of a set of attributes
[ISO/IEC 11179-3:1994]

3.2

data element value
a value out of a set of permissible values pertaining to a data element
[ISO/IEC 6523-1:1998]

3.3

identification scheme
a system allocating identifiers to registered objects
[ISO/IEC 6523-1:1998]

3.4

identifier
a character or group of characters constituting a data element value used to identify or name an object and possibly to indicate certain properties of that object
[ISO/IEC 6523-1:1998]

3.5

information supplier
an organization or organization part (see 3.10) that supplies information about parts (see 3.13)

EXAMPLE A person, a company, a part of a company, or a government agency.

3.6

International Code Designator
ICD
the data element used to uniquely identify an organization identification scheme
[ISO/IEC 6523-1:1998]

3.7

organization
a unique framework of authority within which a person or persons act, or are designated to act, towards some purpose
[ISO/IEC 6523-1:1998]

NOTE The kinds of organizations covered by ISO/IEC 6523-1 include the following examples:

a) an organization incorporated under law;

b) an unincorporated organization or activity providing goods and/or services including:

1) partnerships;

2) social or other non-profit organizations or similar bodies in which ownership or control is vested in a group of individuals;

3) sole proprietorships;

4) governmental bodies.

c) groupings of the above types of organizations where there is a need to identify these in information interchange.

3.8

organization identification scheme
an identification scheme dedicated to the unique identification of organizations
[ISO/IEC 6523-1:1998]

3.9

organization identifier
OI
the identifier assigned to an organization within an organization identification scheme, and unique within that scheme
[ISO/IEC 6523-1:1998]

3.10

organization part
any department, service or other entity within an organization, which needs to be identified for information interchange
[ISO/IEC 6523-1:1998]

3.11

organization part identifier
OPI
an identifier allocated to a particular organization part
[ISO/IEC 6523-1:1998]

3.12

OPI source indicator
OPIS
the data element used to specify the source for the organization part identifier
[ISO/IEC 6523-1:1998]

3.13

part
a material or functional element that is intended to constitute a component of different products
[ISO 13584-1:—[2)]]

3.14

parts library
an identified set of data and possibly programs which may generate information about a set of parts
[ISO 13584-1:—[2)]]

3.15

standard document
a documented agreement containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that one or more materials, products, processes, or services are fit for the purposes for which the materials, products, processes, or services are intended

3.16

Wirth Syntax Notation derivative
WSND
the derivative of Wirth Syntax Notation defined in Clause 6.1 of ISO 10303-11:1994

4 Structure

4.1 Structure for the identification of organizations

The information supplier shall be identified as specified in ISO/IEC 6523-1:1998, Clause 4.

NOTE 1 Table 1 shows the data elements that make up the structure for the identification of organizations defined in ISO/IEC 6523-1:1998, Clause 4.

2) To be published.

NOTE 2 Leading zeroes may appear in the ICD. They are not significant for identifying the organization.

EXAMPLE "0004", "004", "04" and "4" all identify the "NBS/OSI NETWORK" (see Table C.1). NBS is an abbreviation for the National Bureau of Standards (the old name for the United States National Institute of Standards and Technology). OSI is an abbreviation for Open Systems Interconnection (see ISO/IEC 2382-26:1993).

NOTE 3 It is the responsibility of the information supplier to decide in which identification scheme it applies for registration. A supplier may apply for registration under more than one identification scheme. A supplier may also apply for only one organization identification for all the libraries it provides or it may apply for several organization identifications.

The structure for the identification of organizations shall be encoded using the character set specified in Clause 7.1 of ISO 10303-11:1994.

NOTE 4 The character set specified in Clause 7.1 of ISO 10303-11:1994 is a subset of the character set specified in ISO/IEC 10646-1:1993.

NOTE 5 Technical Corrigendum 1 to ISO 10303-11:1994 makes important changes to Clause 7.1.

NOTE 6 ISO 6523-1 does not specify the character set that shall be used for encoding the structure for the identification of organizations. The character set specified in Clause 7.1 of ISO 10303-11:1994 is chosen in this part of ISO 13584 so that the structure for the identification of organizations may be stored as a STRING attribute of an EXPRESS entity data type.

When the supplier identification is used within any other part of ISO 13584 or within IEC 61360-2:1997, the OPI and OPIS shall not be present.

NOTE 7 Although the OPI and OPIS may not be used within any other part of ISO 13584 or within ISO 61360-2:1997, this part of ISO 13584 provides a mechanism for encoding them so that they may be used as part of the supplier identification when this part of ISO 13584 is used by other standards.

Table 1 — Data elements of the structure for the identification of organizations

Data element name	Description	Mandatory or optional	Data type[a]	Maximum length
International Code Designator (ICD)	the identification of an organization identification scheme	mandatory	integer[b]	4
organization identifier (OI)	the identification of an organization within an identification scheme	mandatory	string	35
organization part identifier (OPI)	the identification of an organization part	optional	string	35
OPI source indicator (OPIS)	the specification of the source of the OPI	optional	character	1

[a]The data types in this table conceptually describe the structure for the identification of organizations. An implementation of this part of ISO 13584 may use any representation of the data type internally. Requirements for exchange of this information are given in Clause 4.3.

[b]The ICD may be represented as a string internally within implementations of this part of ISO 13584.

4.2 Functions

4.2.1 encode

Function encode is used to encode the OI and the OPI so that they can be transmitted unambiguously. Function encode transforms the string s by replacing any occurrence of a character in the column entitled "Character" of Table 2 with the corresponding sequence shown in the column entitled "Substituted string" of the same row of Table 2.

Function `encode` always replaces '%' with '%%' and '/' with '%/'. In addition, any characters that are passed in the `characters` argument are replaced with the sequence '%', the character's code in the ISO/IEC 10646-1:1993 character set, and ';'.

Table 2 — Character substitutions for encode function

Character	Character name	Substituted string	Comment
%	percent	%%	
/	forward slash	%/	
	any character that the referencing standard does not allow in the supplier code	%*N*;	*N* is the character code of the character in the ISO/IEC 10646-1:1993 character set, interpreted as an integer

```
*)

FUNCTION encode(s : STRING; characters : SET OF STRING): STRING;

  LOCAL
    i: INTEGER;
    pos: INTEGER;
    strtmp: STRING;
    result: STRING := '';
  END_LOCAL;

  REPEAT i := 1 TO LENGTH(s);
    IF s[i] IN ['%', '/'] THEN
      result := result + '%' + s[i];
        ELSE
      IF s[i] IN characters THEN
        pos := icode(s[i]);
        strtmp := FORMAT(pos, '2I');
        IF pos < 10 THEN
          strtmp := strtmp[2:2];
        END_IF;
        result := result + '%' + strtmp + ';';
      ELSE
        result := result + s[i];
      END_IF;
    END_IF;
  END_REPEAT;
  RETURN (result);
END_FUNCTION;

(*
```

4.2.2 icode

Function `icode` returns the character code of a character in the ISO/IEC 10646-1:1993 character set, interpreted as an integer value.

```
*)

FUNCTION icode (c : STRING): INTEGER;
  LOCAL
    i: INTEGER;
  END_LOCAL;

  (* set i to character code of c in the ISO/IEC 10646-1:1993
     character set, interpreted as an integer value *)

  RETURN (i);
END_FUNCTION;
```



```
(*
```

NOTE 1 Function `icode` is incompletely specified in EXPRESS because the limitations of the EXPRESS language would make such a function extremely long.

NOTE 2 A function equivalent to `icode` may be included in the second edition of ISO 10303-11.

4.3 Syntax

The normal supplier code is a string formed by concatenating the ICD, the encoded OI, the encoded OPI or the empty string, and the OPIS or the empty string, in that order, with adjoining elements separated by the slash ('/') character. The "encoded OI" is the result of applying function `encode` to the OI; the "encoded OPI" is the result of applying function `encode` to the OPI.

The above is expressed formally, in WSND, as:

```
1 normal_supplier_code = icd '/' encoded_oi '/' organization_part_spec .

2 organization_part_spec = ('/') | ( encoded_opi '/' [ opis ]) .
```

Table 3 — Examples of supplier codes

Supplier code	Interpretation
234/65x25/97@f/	ICD = 234 OI = 65x25 OPI = 97@f OPIS omitted
0234/65x25/97@f/	Same as above. The leading digit on the ICD is ignored.
234/97a%/xy%%z/R weq%%9987/1	ICD = 234 OI = 97a/xy%z OPI = R weq%9987 OPIS = 1

The normal supplier code shall be used when the content of a particular library is not specified in a standard document.

NOTE 1 According to ISO/IEC 6523-1:1998, if the OPI is omitted, the OPIS must be omitted as well.

NOTE 2 Because the OI and the OPI may contain the separator character, they must be encoded to avoid ambiguity.

EXAMPLE 1 Examples of supplier codes are shown in Table 3.

NOTE 3 Standards making normative reference to this part of ISO 13584 may place restrictions on the supplier code or any of its components.

EXAMPLE 2 IEC 61360-2:1997 (the contents of which are also informatively duplicated in ISO 13584-42:1998) requires that the supplier code be 18 characters long or less, and that it not contain the characters space (' '), period ('. ') or hyphen ('-').

EXAMPLE 3 If x is an OPI to be used with ISO 13584-42:1998, then y = encode(x, ['"', '.', '-']) is the encoded OPI that would form part of the supplier code.

NOTE 4 It is the joint intention of ISO TC184/SC4/WG2 and IEC SC3D to remove the requirements listed in Example 2 through a future amendment or second edition of IEC 61360-2.

5 Identification of a standard document

When the content of a particular library is specified in a standard document, the standard number shall be supplied as part of the supplier identification. The standard number is an additional data element beyond those specified in Clause 4.

NOTE If the organization issuing the standard is registered in the ISO Register for Standards Producing Organizations, then the standard document should be identified using the data element values shown in Table 4.

Table 4 — The structure of a supplier code that identifies a standard document

Element	Value
ICD	112
OI	Organization identification in the ISO Register for Standards Producing Organizations.
OPI	As needed.
OPIS	As needed.
SI	The standard number, including part and edition designation.

The supplier code for a standard document shall consist of the normal supplier code followed by a slash ('/') followed by the standard number, encoded as specified in Clause 5.1 or 5.2.

The above is expressed formally, in WSND, as:

```
3 supplier_code_for_standard = normal_standard_code '//'
                               encoded_standard_number .
```

5.1 Number of a standard document

The encoded standard number shall use only the character set comprising:

a) the letters A to Z, upper case only;

b) the digits 0 to 9;

c) underscore ('_').

NOTE The specific encoding of a standard that is not an ISO, IEC or ISO/IEC standard is not specified by this part of ISO 13584.

5.2 Number of an ISO, IEC or ISO/IEC standard

The encoded standard number of an ISO, IEC or ISO/IEC International Standard shall consist of the following:

— the number of this standard;

— underscore ('_');

— the part number, or, if the part is not part of a multipart series, the empty string;

— underscore ('_');

— the edition number;

For this identification, ISO, IEC and ISO/IEC shall be identified according to their identification in the organization identification scheme: "ISO Register for Standards Producing Organizations" whose International Code Designator is 112.

The edition number of the first edition of a standard shall be encoded as "1", even if the standard document does not explicitly identify the edition number as 1.

NOTE 1 The International Code Designator 112 corresponds to the identification scheme known as the "ISO Register for Standards Producing Organizations." Its issuing organization and sponsoring authority are described in informative Annex B.

NOTE 2 In the ISO Register for Standards Producing Organizations, the identifications of ISO, IEC and ISO/IEC are 1, 2 and 3, respectively.

EXAMPLE The supplier code for the first edition of IEC 61360-4 is "112/2///61360_4_1".

5.3 Identification of the International Classification of Standards (ICS)

The document "International Classification of Standards" (ICS), jointly published by ISO and IEC in 1992, shall be identified by the supplier code "112/3///_00".

NOTE 1 Subsequent amendments to or revisions to the 1992 edition of ICS may be assigned a supplier code only by amendment to or revision of this part of ISO 13584.

NOTE 2 ISO 13584-42:1998 requires that the root class of any dictionary defined according to ISO 13584-42:1998 by a standardisation committee refer to a class already identified in ICS.

Annex A (normative)
Information object registration

A.1 Document identification

In order to provide for unambiguous identification of an information object in an open system, the object identifier

{ iso standard 13584 part (26) version (1) }

is assigned to this part of ISO 13584. The meaning of this value is defined in ISO 8824-1, and is described in ISO 13584-1.

Annex B (informative)
ISO Register for Standards Producing Organizations

This annex describes the organization identification scheme associated with the International Code Designator: 112.

ICD: 112

Name of identification system: ISO Register for Standards Producing Organizations

Name & address of issuing organization: International Organization for Standardization (ISO), 1 rue de Varembe, Case Postale 56, CH 1211, Geneve 20, Switzerland

Structure of code: Numeric sequential

Display requirements: None

Description of organizations covered by identification system: Any organization, at its highest level, producing standards that need to be referenced by a Technical Committee or other body of ISO or of another international organization working in the area of standardization.

Notes on use of codes: None

Sponsoring authority: Association Francaise de Normalization (AFNOR)

Date of issue of ICD: May 1997/Amended May 1999

Additional comments: This system is intended to be used among others by TC 184 for referencing standard producing bodies within the components library standards.

Annex C (informative)
Assigned ICDs

Table C.1 shows the ICD-codes that have been assigned by the Registration Authority defined in ISO/IEC 6523-2:1998, through February 1998.

Table C.1 — Assigned ICDs

ICD code	Name of Code	Registration Authority	Country
0002	System Information et Repertoire des Entreprise et des Etablissements: SIRENE	Institute National de la Statistique et des Etudes Economiques (I.N.S.E.E.)	France
0003	Codification Numerique des Etablissments Financiers En Belgique	Association Belge des Banques	Belgium
0004	NBS/OSI NETWORK	National Institute of Standards and Technology	USA
0005	USA FED GOV OSI Network	National Institute of Standards and Technology	USA
0006	USA DOD OSI Network	Defense Communication Agency	USA
0007	Organisationsnummer	The National Tax Board	Sweden
0008	Le Numero National	Ministere De L ‘interieur et de la Fonction Publique	Belgium
0009	SIRET-CODE	Du Pont de Nemours (FRANCE) S.A.	France
0010	Organizational Identifiers for Structured Names under ISO 9541 Part2	Association for Font Information Interchange: AFII	USA
0011	International Code Designator for the Identification of OSI-based, Amateur Radio Organizations, Network Objects and Application Services	The Radio Amateur Telecommunications Society	USA
0012	European Computer Manufacturers Association: ECMA	European Computer Manufacturers Association	Switzerland
0013	VSA FTP Code	Verband der Automobilindustrie	Germany
0014	NIST/OSI Implements’ Workshop	United States Department of Commerce/NIST	USA
0015	Electronic Data Interchange: EDI	Avon Rubber	UK
0016	EWOS Object Identifiers	EWOS	Belgium

Table C.1 — Assigned ICDs (continued)

ICD code	Name of Code	Registration Authority	Country
0017	Common Language	Data Communications Technology Planning	USA
0018	SNA/OSI Network	IBM	USA
0019	Air Transport Industry Services Communications Network	International Air Transport Association	Switzerland
0020	European Laboratory for Particle Physics: CERN	European Laboratory for Particle Physics: CERN	Switzerland
0021	Society for Worldwide Interbank Financial Telecommunication S.W.I.F.T.	Society for Worldwide Interbank Financial Telecommunication S.W.I.F.T.	Belgium
0022	OSF Distributed Computing Object Identification	Open Software Foundation	USA
0023	Nordic Universty and Research Network: NORDUnet	NORDUnet	Sweden
0024	Digital Equipment Corporation: DEC	Digital Equipment (Europe)	France
0025	OSI Asia-Oceanic Workshop	Interoperability Technology Association for Information Processing	Japan
0026	NATO ISO 6523 ICDE coding scheme	North Atlantic Treaty Organization	Belgium
0027	Aeronautical Telecommunications Network (ATN)	International Civil Aviation Organization (ICAO)	Canada
0028	International Standard ISO 6523	Styria Federn	Austria
0029	The All-Union Classifier of Enterprises and Organizations	General Computing Centre of the State Committee of the USSR on Statistics	Russia
0030	AT&T/OSI Network	AT&T	USA
0031	EDI Partner Identification Code	Odette	The Netherlands
0032	Telecom Australia	Australia Telecommunications Corporation	Australia
0033	SGW OSI Internetwork	SG Warburg Group Management	UK
0034	Reuter Open Address Standard	Reuters	UK

Table C.1 — Assigned ICDs (continued)

ICD code	Name of Code	Registration Authority	Country
0035	ISO 6523-ICD	The British Petroleum	UK
0036	TeleTrust Object Identifiers	TeleTrust Deutschland	Germany
0037	LY-tunnus	National Board of Taxes	Finland
0038	The Australian GOSIP Network	Standards Australia	Australia
0039	The OZ DOD OSI Network	The Australian Department of Defence	Australia
0040	Unilever Group Companies	Information Technology Group Unilever	UK
0041	Citicorp Global Information Network	Citicorp Global Information Network	USA
0042	DBP Telekom Object Identifiers	Telekom	Germany
0043	HydroNETT	Norsk Hydro	Norway
0044	Thai Industrial Standards Institute	Thai Industrial Standards Institute (TISI)	Thailand
0045	ICI Company Identification System	ICI PLC	UK
0046	FUNLOC	Philips Electronics	The Netherlands
0047	BULL ODI/DSA/UNIX Network	Bull	France
0048	OSINZ	OSINZ	New Zealand
0049	Auckland Area Health	Auckland Area Health Board	New Zealand
0050	Firmenich	Firmenich	Switzerland
0051	AGFA-DIS	AGFA	Belgium
0052	Society of Motion Picture and Television Engineers	Society of Motion Picture and Television Engineers (SMPTE)	USA
0053	Migros_Network M_NETZ	Migros-Genossenschafts-Bund	Switzerland
0054	ISO 6523-ICDPCR	Pfizer Central Research	UK
0055	ABB Corporate Network	ABB Asea Brown Boveri	Switzerland
0056	Nokia Object Identifiers (NOI)	Nokia Corporation	Finland
0057	Saint Gobain	Saint Gobain	France
0058	Siemens Corporate Network	Siemens	Germany
0059	DANZNET	DANZAS	Switzerland

Table C.1 — Assigned ICDs (continued)

ICD Code	Name of Code	Registration Authority	Country
0060	Data Universal Numbering System (DUNS Number)	Dun and Bradstreet	UK
0061	SOFFEX OSI	SOFFEX Swiss Options and Financial Futures Exchange	Switzerland
0062	Unisource Business Networks	Unisource Business Networks	The Netherlands
0063	ascomOSINet	Ascom	Switzerland
0064	UTC Uniforme Transport Code	Foundation UTC	The Netherlands
0065	SOLVAY OSI Coding	Direction Centrale Technique SOLVAY	Belgium
0066	Roche Corporate Network	F. Hoffmann - La Roche	Switzerland
0067	ZellwegerOSINet	Zellweger Uster	Switzerland
0068	Intel Corporation OSI	Intel Corporation	USA
0069	SITA Object Identifier Tree	SITA	France
0070	Daimler Benz Corporate Network	debis Systemhaus Network Services	Germany
0071	LEGO/OSI Network	LEGO Systems	USA
0072	NAVISTAR/OSI Network	Navistar International Corporation	USA
0073	ICD Formatted ATM address	Newbridge Networks Corporation	Canada
0074	ARINC	ARINC	USA
0075	Alcanet/Alcatel-Alsthom Corporate Network	Alcatel Network Services Deutschland	Germany
0076	Sistema Italiano di Identificazione di ogetti gestito da UNINFO	UNINFO	Italy
0077	Sistema Italiano di Indirizzamento di Reti OSI Gestito da UNINFO	UNINFO	Italy
0078	Mitel terminal or switching equipment	Mitel Corporation	Canada
0079	ATM Forum	The ATM Forum	USA
0080	UK National Health Service Scheme	National Health Service	UK
0081	International NSAP	Federal Office for Communications	Switzerland

Table C.1 — Assigned ICDs (continued)

ICD code	Name of Code	Registration Authority	Country
0082	Norwegian Telecommunications Authority's, NTA'S, EDI, identifier scheme	Norwegian Telecommunications Authority	Norway
0083	Advanced Telecommunications Modules Limited Corporate Network	ATM	UK
0084	Athens Chamber of Commerce & Industry Scheme	Athens Chamber of Commerce & Industry	Greece
0085	Swiss Chambers of Commerce Scheme	Zurich Chamber of Commerce	Switzerland
0086	United States Council for International Business (USCIB) Scheme	United States Council for International Business	USA
0087	National Federation of Chambers of Commerce & Industry of Belgium Scheme	National Federation of Chambers of Commerce & Industry of Belgium	Belgium
0088	EAN Location Code	EAN International	Belgium
0089	The Association of British Chambers of Commerce Ltd. Scheme	The Association of British Chambers of Commerce	UK
0090	Internet IP addressing - ISO 6523 ICD encoding	Internet Assigned Numbers Authority	USA
0091	Cisco Systems/OSI Network	Cisco systems	USA
0092	not to be assigned		
0093	Revenue Canada Business Number registration	Revenue Canada	Canada
0094	Deutscher Industrie- und Handelstag Scheme	Deutscher Industrie- und Handelstag	Germany
0095	Hewlett-Packard Company Internal AM Network	Hewlett-Packard Company	USA
0096	Danish Chamber of Commerce Scheme	Danish Chamber of Commerce	Denmark
0097	FTI - Ediforum Italia (EDIRA Compliant)	FTI - Ediforum Italia	Italy
0098	Chamber of Commerce Tel Aviv-Jaffa Scheme	Chamber of Commerce Tel Aviv-Jaffa	Israel

Table C.1 — Assigned ICDs (continued)

ICD code	Name of Code	Registration Authority	Country
0099	Siemens Supervisory Systems Network	Siemens	Germany
0100	PNG_ICD Scheme	GPT	UK
0101	South African Code Allocation	Thawte Consulting	South Africa
0102	HEAG	Hessische Elektrizitats-AG	Germany
0103	(Reserved for later allocation)		
0104	BT - ICD Coding System	John P Baughan	UK
0105	Portuguese Chamber of Commerce and Industry Scheme (EDIRA compliant)	Portuguese Chamber of Commerce and Industry	Portugal
0106	Vereniging van Kamers van Koophandel en Fabrieken in Nederland (Association of Chambers of Commerce and Industry in the Netherlands) Scheme (EDIRA compliant)	Vereniging van Kamers van Koophandel en Fabrieken in Nederland	The Netherlands
0107	Association of Swedish Chambers of Commerce and Industry Scheme (EDIRA compliant)	Association of Swedish Chambers of Commerce and Industry	Sweden
0108	Australian Chambers of Commerce and Industry Scheme (EDIRA compliant)	Australian Chambers of Commerce and Industry	Australia
0109	BellSouth ICD AESA (ATM End System Address)	BellSouth Corporation	USA
0110	Bell Atlantic	Bell Atlantic	USA
0111	Object Identifiers	Institute of Electrical and Electronics Engineers	USA
0112	ISO Register for Standards Producing Organizations	International Organization for Standardization (ISO)	Switzerland
0113	OriginNet	Origin BV	Netherlands
0114	Check Point Software Technologies	Check Point Software Technologies Ltd	Israel
0115	Pacific Bell Data Communications Network	Pacific Bell	USA
0116	PSS Object Identifiers	PSS (Postal Security Services)	Finland

Table C.1 — Assigned ICDs (concluded)

ICD code	Name of Code	Registration Authority	Country
0117	STENTOR-ICD CODING SYSTEM	Stentor Resource Centre Inc.	Canada
0118	ATM-Network ZN'96	Deutsche Telekom AG	Germany
0119	MCI / OSI Network	MCI Telecommunications Corporation	USA
0120	Advantis	Advantis	USA
0121	Affable Software Data Interchange Codes	Affable Software Corporation	Canada

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[3] ISO 13584-42:1998, *Industrial automation systems and integration — Parts Library — Part 42: Description methodology — Methodology for structuring part families.*

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