INTERNATIONAL STANDARD

**ISO/IEC 15418**

Second edition
2009-02-01

# Information technology — Automatic identification and data capture techniques — GS1 Application Identifiers and ASC MH10 Data Identifiers and maintenance

*Technologies de l'information — Techniques automatiques d'identification et de capture des données — Identificateurs d'application GS1, identificateurs de données ASC MH10 et maintenance*



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# Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national 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 and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 15418 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 31, *Automatic identification and data capture techniques*.

This second edition cancels and replaces the first edition (ISO/IEC 15418:1999), of which it constitutes a minor revision.

# Information technology — Automatic identification and data capture techniques — GS1 Application Identifiers and ASC MH10 Data Identifiers and maintenance



## 1 Scope

This International Standard:

— specifies sets of Data Identifiers and Application Identifiers for the purpose of identifying encoded data;

— identifies the organizations responsible for their maintenance.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 19762 (all parts), *Information technology — Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary*

ANSI MH10.8.2, *Data Identifier and Application Identifier Standard*

*GS1 General Specifications*, GS1

## 3 Terms, definitions and documentation notation conventions

For the purposes of this document, the terms, definitions and documentation notation conventions given in ISO/IEC 19762 (all parts) apply.

## 4 Data Identifiers and Application Identifiers

Where appropriate, information encoded shall be identified in accordance with one of the following sets of identifiers:

a) GS1 Application Identifiers;

b) ASC MH10 Data Identifiers.

### 4.1 GS1 Application Identifiers

The GS1 item identification system and related encodation standard are complemented by the GS1 maintained Application Identifiers, hereafter referred to as “GS1 Application Identifiers” or “GS1 AIs”. This standard comprises two principal elements that are the key to any encoding system: the data content and the data carrier.

The use of GS1 AIs is subject to the rules established by GS1.

GS1 AIs identify generic and simple data fields for use in cross-sectorial and international supply chain applications. The GS1 General Specifications provide rules for the definition, format and structure of the data fields.

Each GS1 AI consists of two or more characters. The first two digits determine the length of the AI. A list of two-digit codes indicating the predefined length of existing and future AIs and their data fields is available from the Application Identifier Maintenance Body specified in Clause 5.

## 4.2 ASC MH10 Data Identifiers

The full list of registered ASC MH10 Data Identifiers and the full specification for their use are given in ANSI MH10.8.2, hereafter referred to as the “ASC MH10 Data Identifiers”

ASC MH10 Data Identifiers may be used with any alphanumeric data carrier and are designed to ensure cross-industry commonality of data identifiers used in automatic identification technologies.

ASC MH10 Data Identifiers have a format of one alphabetic character alone, or one alphabetic character prefixed by one, two or three numeric characters.

Some ASC MH10 Data Identifiers may incorporate format definitions. The American National Standards Institute (ANSI) has designated ANSI MH10.8.2 as a “Continuous Maintenance” standard. As such, the official standard with maintenance updates is available at:

http://www.autoid.org/ANSI_MH10/ansi_mh10sc8_wg2.htm

A full list of ASC MH10 Data Identifiers is available from:

Customer Service
Material Handling Industry
8720 Red Oak Blvd., Suite 201
Charlotte, NC 28217-3992
USA
(V): +1 704/522-8644
(F): +1 704/522-7826
(U): http://www.mhia.org/

or

Customer Service
American National Standards Institute (ANSI)
25 West 43rd Street, 4th Floor
New York, NY 10036
USA
(V): +1 212/642-4900
(F): +1 212/398-0023
(U): http://webstore.ansi.org/

# 5 Maintenance

## 5.1 GS1 Application Identifiers

The organization responsible for the maintenance of GS1 Application Identifiers in accordance with Clause 4 is:

GS1 Application Identifier Secretariat:
GS1 Customer Service
Blue Tower, Avenue Louise 326, bte 10
BE 1050 Brussels
Belgium
(V): +32 2/788 78 00
(F): +32 2/788 78 99
(E): contactus@gs1.org

GS1 is a world-wide coding management organization for identification numbers, encompassing the associations previously known as EAN International and Uniform Code Council. The GS1 System is maintained through a network of national and plurinational agencies known as Member Organizations, named GS1 followed by the country name, for example, GS1 France, GS1 US, or GS1 Russia. The working language of GS1 Application Identifier Secretariat is English. Local language versions of the GS1 Application Identifier definitions, and full information on how to request a new Application Identifier, are available from GS1 Member Organizations. Contact details of GS1 Member Organizations are available via:

http://www.gs1.org/contact/worldwide.php

## 5.2 ASC MH10 Data Identifiers

The organization responsible for the maintenance of ASC MH10 Data Identifiers in accordance with Clause 4 is:

ANSI MH10.8.2 Data Identifiers Maintained by
ASC MH10 Data Identifier Maintenance Committee
c/o DI Maintenance Committee Chair
Q.E.D. Systems
3963 Highlands Lane, SE
Cedar Rapids, IA 52403
USA
(V): +1 319/364-0212
(E): craig.harmon@qed.org

The purpose of the ASC MH10 Data Identifier Maintenance Committee is to provide ANSI MH10.8.2 DIs for any legitimate data element used between trading partners, as well as for internal applications, providing that there is no conflict with an existing ANSI MH10.8.2 DI. The Chair of the Data Identifier Maintenance Committee provides the secretariat and the working language is English. In order to ensure system integrity, once codified in the standard, ANSI MH10.8.2 DIs are never modified. Should an ASC MH10 DI user find that no ASC MH10 DI meets their specific need, the user is encouraged to contact the Chair of the Data Identifier Maintenance Committee for guidance or submit a request for a new ANSI MH10.8.2 DI. The ASC MH10 Data Identifier Maintenance Committee maintains submittal offices in Europe, Japan, and the United States. Contact details are available from the ASC MH10 Data Identifier Maintenance Committee chair.

# Annex A
(informative)

# User guidance

## A.1 Choice between GS1 Application Identifiers or ASC MH10 Data Identifiers

The choice between GS1 Application Identifiers or ASC MH10 Data Identifiers for any user will normally be defined in the applicable industry convention being followed.

Other industries developing product or shipment identification conventions should consider business practices, information requirements and systems capabilities of the trading partners in choosing between ASC MH10 Data Identifiers and GS1 Application Identifiers. The user may also consider the following guidelines:

a) GS1 Application Identifiers:

   The definitions of the GS1 Application Identifiers are supported by application guidelines. The GS1 AIs, and associated guidelines, have been designed for international and multi-sectorial trading purposes.

b) ASC MH10 Data Identifiers:

   The descriptions in the ASC MH10 Data Identifier list are general in nature. ASC MH10 Data Identifier users are advised to look in the appropriate ISO or industry application guidelines for guidance.

## A.2 Working with GS1 Application Identifiers and ASC MH10 Data Identifiers

This standard recognises two identifier groups: The GS1 Application Identifiers and the ASC MH10 Data Identifiers. The user, normally in association with trading partners, has to decide which to use.

All user organizations would prefer a universal information flow based upon a single system, however the two systems, which have some very different characteristics and functionalities, are used by organizations that have invested in data systems and see a change to another approach as offering an incremental improvement at a relatively high cost.

Thus some manufacturing industries are forced to work with both systems to meet ALL their customer needs. It is therefore necessary for these industries to build internal systems capable of “mapping” the data in one system to the other. Further, it is often required to assign also the information elements of EDIFACT (or other Electronic Data Interchange Message Set) in the electronic data of the orders and deliveries.

Due to the different philosophies used to develop GS1 Application Identifiers and ASC MH10 Data Identifiers, it is impossible to provide 100% accurate one-to-one mapping. However, publicly available mappings between GS1 Application Identifiers and ASC MH10 Data Identifiers have been developed. For example:

http://www.autoid.org/ANSI_MH10/Mapping_Identifiers/DI_to_AI.html and

http://www.autoid.org/ANSI_MH10/Mapping_Identifiers/AI_to_DI.html

These mapping tables may be of help to companies in the situation of using GS1 Application Identifiers and ASC MH10 Data Identifiers.