

MH10.8.3 – 2002
(a revision and redesignation of ANSI MH10.8.3M – 1996)



American National Standard

***Transfer Data Syntax for
High Capacity ADC Media***

Approved: 9 August 2002

Abstract

This standard specifies a transfer structure, syntax, and coding of messages and data formats when using high capacity ADC media between trading partners, specifically between suppliers and recipients, and where applicable, in support of carrier applications, such as bills of lading and carrier sortation and tracking.

Developed by:

**MH10 Committee, Unit-Loads and Transport-Packages
Subcommittee 8, Coding & Labeling of Unit-Loads**

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American National Standard

Transfer Data Syntax for High Capacity ADC Media

Material Handling Industry

Approved August 9, 2002
American National Standards Institute, Inc.

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Foreword (This foreword is not part of American National Standard MH10.8.3-2002)

This standard was prepared by ANSI. MH10.8.3 was developed using ISO 15434 as a primary reference.

This standard defines the manner in which the data is transferred to the high capacity. Automatic Data Capture, ADC, media from a supplier's information system and the manner in which the data is transferred to the recipient's information system. This standard does not define the internal data storage format for specific high capacity ADC media. This standard does not specify the application of data structures provided by a specific data syntax format. The application of this data structure is specified by industry conventions.

Users of Automatic Data Capture technologies benefit by being able to receive data in a standard form and by being able to provide data in a standard form. Static ADC technologies such as bar code symbologies, magnetic stripe, optical character recognition, surface acoustical wave (SAW), and Weigand effect typically encode a single field of data. Most applications of these technologies involve the encoding of a single field of datum by the supplier of the medium and the subsequent decoding of the datum field by the recipient. Encoding single fields of data permit the supplier to perform the encodation from a single field within the supplier's information system. Decoding single fields of data permit the recipient to input this data into a single field into the recipients information system, in lieu of key entry.

High capacity ADC technologies, such as two-dimensional symbols, RFID transponders, contact memories, and smart cards encode multiple fields of data. These multiple fields usually are parsed by the recipient's information system and then mapped to specific fields of data in recipients information system. It is a purpose of this standard to define the syntax for high capacity ADC media, so as to enable ADC users to utilize a single mapping utility, regardless of which high capacity ADC media is employed.

Notes:

1. Normative references will be replaced by the appropriate ISO/IEC JTC1/SC31 reference in the draft international standard (DIS).
2. The following annex is provided:

Annex A – subset of ASCII/ISO 646 (table of hexadecimal and decimal values) (informative).

At the date of approval of this standard, the MH10 Committee, Unit-Loads and Transport-Packages, consisted of the following members:

AIM, USA	International Cargo Handling Coordination Assoc.
American Trucking Associations	International Safe Transit Association
American Wood Packaging Association	Material Handling Industry
APA – The Engineered Wood Association	Material Handling Management Society
Association of American Railroads	National Wooden Pallet & Container Association
Assoc. of Professional Material Handling Consultants	Plastic Drum Institute
ASTM	QED Systems
Automotive Industry Action Group	Rack Manufacturers Institute
Comp TIA	Reusable Industrial Packaging Association
Containerization & Intermodal Institute	Steel Shipping Container Institute
Electronics Industries Association	Textile Bag Manufacturers Association
Fibre Box Association	The Soap & Detergent Association
Flexible Intermediate Bulk Containers Association	U.S. Dept. of Agriculture
Food Marketing Institute	U.S. Dept. of Defense Logistics
Glass Packaging Institute	U.S. Forest Products Laboratory
Graphic Communications Association	Uniform Code Council
IMC & WD, Product Section – Material Handling Industry	United Fresh Fruit & Vegetable Association
Institute of Packaging Professionals	United Parcel Service
Integrated Business Communications Alliance	

Suggestions for improvement, and questions regarding interpretation of this standard will be welcome. They should be sent to: MH 10 Committee (MHIA), Material Handling Industry of America, 8720 Red Oak Blvd., Suite 201, Charlotte, NC, 28217-3992 or mhstandards@mhia.org.

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AMERICAN NATIONAL STANDARD

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TRANSFER DATA SYNTAX FOR HIGH CAPACITY ADC MEDIA

1 SCOPE

This standard specifies a transfer structure, syntax, and coding of messages and data formats when using high capacity ADC media between trading partners, specifically between suppliers and recipients, and where applicable, in support of carrier applications, such as bills of lading and carrier sortation and tracking;

The data encoded pursuant to this standard includes:

- That which may be used in the shipping, receiving, and inventory of transport units.
- That which may be contained within supporting documentation, in paper or electronic form, related to unit loads or transport packages.
- That which may be used in the sortation and tracking of transport units.

This standard describes the ASCII (ISO 646) data transfer syntax for automatic data capture. Where ASCII is not the transfer syntax of choice for transfer this standard does not apply. An example of this is in the case where ASN.1 (ISO 8824-1 through ISO 8825-1 and 8825-2) is applied for RFID purposes.¹

This standard does not apply when there is a symbology, standardized by ISO, reserved for a given transfer syntax.

This standard does not supersede or replace any applicable safety or regulatory marking or labeling requirements. The standard is to be applied in addition to any other mandated labeling requirements.

2 NORMATIVE REFERENCES

This Standard incorporates, by dated or undated references, provisions from other publications. These normative references are listed as follows. For dated references, subsequent amendments to or revisions of any of these publications apply to this American National Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ISO/IEC JTC1 (SC31 N0102)	Terms, Definitions, and Letter Symbols for Machine-Readable Symbols
ISO/IEC 15418	Automatic Identification and Data Capture Techniques International Specification – Data Application Identifiers
ISO/IEC 8824-1	Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation

¹ This statement does not imply that ASN.1 is the required syntax for RFID.