



## THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3010

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### MEMORANDUM FOR DISTRIBUTION

**SUBJECT:** Standard for Data Syntax and Semantics, and Symbols for Logistics Data Elements Used in Automatic Identification Technology (AIT)

This memorandum establishes American National Standards Institute (ANSI) Materiel Handling (MH) 10.8.2/International Standards Organization's (ISO) international standard (IS) 15418 as the interim data semantics standard. Further, it establishes ANSI MH10.8.3/IS 15434 as the interim data syntax standard. They will remain in an interim status until publication of the Defense Information Systems Agency (DISA) Center for Information Technology Standards releases the Department of Defense (DoD) Joint Technical Architecture, version 4.0. These two data format standards will be used for data encoded on all high capacity AIT media/devices used in Defense logistics applications. The ANSI/ISO standard for data semantics is the means by which the purpose of a field of data is identified. The ANSI/ISO standard for data syntax is the means by which multiple fields of data are assembled into messages for information technology systems processing.

The Department has moved to the use of standard AIT media/devices used by industry. Full exploitation of the rapidly developing potential of commercial AIT requires a separation between the AIT devices and the data they carry. This separation allows users to select the most appropriate AIT media without a corresponding requirement to modify the software of the supported information system fed by various AIT devices.

The DoD policy is to move away from military unique standards and adopt those International/National standards that promote best commercial business practices. These two widely accepted standards offer DoD the ability to effectively separate the data from the AIT devices (two-dimensional bar codes, optical memory cards (OMC), contact memory button, and radio frequency identification devices) and fully standardize messages to comply with commercial and defense information systems requirements.

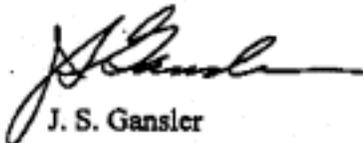
It is the responsibility of the logistics and acquisition information technology (IT) proponent to ensure that ISO standard data formats and interfaces are used in new or redesigned IT systems that include data acquisition from AIT devices. The IT program manager will coordinate AIT implementation with the Weapons Systems Program Manager (WSPM) or Inventory Manager (IM) acquiring the item to be marked. As new AIT capabilities are phased in, it shall be the responsibility of the WSPM or IM to notify the procurement officer that appropriate language should be placed in existing or new



contracts. This contract language will require commercial vendors to comply with MH10.8.2 & 3 (IS 15418 and 15434) data protocols for DoD.

In 1981, the Department adopted code 39 as the standard for linear bar codes. In 1995, DoD adopted the PDF-417 two-dimensional bar code (and optionally Maxicode for rapid sortation when required), the DELA compliant standard for OMC and the Universal Product Code (UPC). This policy is hereby amended to add the Data Matrix two-dimensional symbol and code 128 as permanently acceptable bar codes when identified in an international or national standard.

The Services and Defense Agencies will use the ANSI/ISO standards as the semantics and syntax for high capacity AIT data symbols and devices used in logistics IT systems applications. The adoption of these ANSI/ISO data standards implement in AIT, the Department's policy governing use of commercial logistics data standards can be found in the May 5, 2000, DoD Directive 8190.1 - *DoD Logistics use of Electronic Data Interchange Standards* and the June 23, 2000, DoD Directive 8190.2 - *Department of Defense Electronic Business/Electronic Commerce Program*. All new AIT applications will be acquired with, or developed using, the ANSI/ISO standards cited above. Additionally, military unique formats will be phased out and replaced with ANSI/ISO standardized formats whenever information systems are upgraded or new AIT devices introduced into the system.



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**Distribution:**

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