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Health Level Seven Arden Syntax,
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Health Level Seven
Arden Syntax
Version 2.5



The first version of this standard was developed under the auspices of the American Society for Testing and Materials (ASTM) and published in April 1992 as ASTM E1460-92. Version 2, developed and published under Health Level Seven, Inc (HL7), was accepted as a standard by the American National Standards Institute (ANSI) in 1999. Version 2.1 also developed and published under Health Level Seven, Inc (HL7), was accepted as a standard by the American National Standards Institute (ANSI) in 2002. This version, 2.5, represents an extension of the previous ANSI version.

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WHAT'S NEW IN VERSION 2.5

The principal new feature of this version is the ability to define structured types (Objects) and to create and manipulate instances of these types in the MLM. The modifications include:

- 6.2.4, **Citations** slot now recommends ANSI/NISO OpenURL format for structured citations
- 6.2.5, **Links** slot now recommends ANSI/NISO OpenURL format for structured links
- 8.10, **Object** data type.
- 9.6.24, Is [Not] Object
- 9.6.25, Is [Not] <Object-Type>
- 9.18, Object operators
 - 9.18.1, **Dot** notation (attribute reference).
 - 9.18.2, **Clone** operator.
 - 9.18.3, Extract Attribute Names ... operator
 - 9.18.4, Attribute .. From ... operator
- 10.2.1.1, **Attribute assignment** statement.
- 10.2.7, **New** statement.
- 11.2.1.9, **Read As** statement.
- 11.2.5.2 **Message As** statement
- 11.2.6.1 **Destination As** statement
- 11.2.13, **Object** statement.
- 12.2.3, Action slot **If/Then** statements now allow the condition to be an expression.
- 12.2.7, **Assignment** statements now permitted in the action slot.
- Appendix X2, XML schema for MLMs replaces DTD
- Annex A6, Objects in Arden: rationale, details, etc.

A number of changes were also made to the Backus-Naur Forms in Annex A1. These were done to correct errors in version 2.1 and to reflect additional features listed above.

1 SCOPE

This specification covers the sharing of computerized health knowledge bases among personnel, information systems, and institutions. The scope has been limited to those knowledge bases that can be represented as a set of discrete modules. Each module, referred to as a Medical Logic Module (MLM), contains sufficient knowledge to make a single decision. Contraindication alerts, management suggestions, data interpretations, treatment protocols, and diagnosis scores are examples of the health knowledge that can be represented using MLMs. Each MLM also contains management information to help maintain a knowledge base of MLMs and links to other sources of knowledge. Health personnel can create MLMs directly using this format, and the resulting MLMs can be used directly by an information system that conforms to this specification.