HL7 International Tutorial Specification

Title:

Arden Syntax Specialist Tutorial

Summary:

Arden Syntax for Medical Logic Systems is an ANSI/HL7 formalism used for representing and sharing computable medical knowledge that is invoked in clinical decision support systems to provide decision support, including alerts and reminders. The unit of representation in Arden Syntax is the medical logic module (MLM), which contains enough data and logic to make a single clinical decision. This tutorial will provide information about the philosophy behind Arden Syntax and will teach the ability to write, read and understand Arden Syntax MLMs. It will focus on explaining the general structure of medical logic modules, available data types and the most common operators. The concepts of primary time, event handling and actions are introduced. The tutorial will explain the challenges of data mapping, known in Arden Syntax as the “curly braces problem.” Finally, the faculty will discuss different clinical use cases of Arden Syntax.

The Tutorial Will Benefit:

* Anyone who needs or wants to write Arden Syntax MLMs.
* Anyone interested in Arden Syntax implementation or standards development
* Anyone interested in more advanced classes on Arden Syntax.

Upon Completion of This Tutorial, Students Will Have Obtained:

* General understanding of Arden Syntax MLM development
* Knowledge of the overall structure of Arden Syntax MLMs
* Explanation of how to read the Arden Syntax specification
* Knowledge of data structures available in Arden Syntax
* Knowledge of syntax and usage of the most common operators in Arden Syntax
* Understanding of the idea and usage of curly braces
* Ability to read, analyze and understand Arden Syntax MLMs
* Understanding of general interaction between Arden Syntax and external systems

Prerequisites:

* None. Experience in programing languages would be helpful but is not needed.

Faculty:

Robert Jenders, Peter Haug, Klaus-Peter Adlassnig, Karsten Fehre

Other faculty who have experience teaching this Course:

Training Plan:

TBD

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| **Topic** | **Competency/Content** | **Minutes** | **Resources** |
| Context: Clinical decision support |  |  |  |
| Context: Rule-based reasoning |  |  |  |
| Philosophy of Arden Syntax |  |  |  |
| Mappings: Data, destinations, interface, arguments |  |  |  |
| Time: Primary time, temporal operators |  |  |  |
| Event Handling: Evoke Slot |  |  |  |
| Objects |  |  |  |
| Fuzzy Logic |  |  |  |
| MLM Interaction |  |  |  |
| MLM structure: Categories, slots |  |  |  |
| Control statements |  |  |  |
| Actions |  |  |  |
| Operators: String, list, mathematical, aggregation |  |  |  |