UML Modeling in the Open Health Tools (OHT)

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**VISION OF OPEN HEALTH TOOLS**

**Vision:**

To enable a ubiquitous ecosystem where members of the Health and IT professions can collaborate to build open, standards-based interoperable systems that enable patients and their care providers to have access to vital and reliable medical information at the time and place it is needed.
Enhancements for HL7 Message Design

Extend the UML2 Tools model editors to enable design of clinical models that support and enforce HL7 methodology:

• UML Profile for HL7 modeling extensions
• HL7 Properties view tab for editing stereotype values
• Import HL7 Model Interchange Format (MIF)
  ◆ Using a custom Ant task
• Colorize class diagrams
  ◆ Based on stereotype assignments
• HL7 Reference Information Model (RIM)
  ◆ All HL7 domain classes must be restrictions of RIM classes
• Validate UML models with HL7 Constraints
  ◆ Using EMF Validation Framework
Enhancements to UML2 Tools

Several enhancements are required before UML2 Tools editors are usable by modelers. I have made these changes:

• **Project Explorer**
  - Filter model content; extends SaveablesProvider; enable undo/redo; use EMF transactions; improved context menus; add label decorator for validation problems
  - [https://bugs.eclipse.org/bugs/show_bug.cgi?id=139767](https://bugs.eclipse.org/bugs/show_bug.cgi?id=139767)

• **Explorer and all diagrams use a shared EditingDomain**
  - Is this a fundamental limitation of GMF?
  - [https://bugs.eclipse.org/bugs/show_bug.cgi?id=189974](https://bugs.eclipse.org/bugs/show_bug.cgi?id=189974)

• **Properties View Tabs for editing model**
HL7 Properties View Tab

HL7 tab allows domain expert users to assign stereotypes and values, without requiring knowledge that they are using UML stereotypes.
Colorize Class Diagrams based on Stereotypes
Validating UML models with HL7 Constraints