

# GELLO a Decision Support Language

GELLO Expression language was started in 2001 and introduced in 2002; in 2005, GELLO was adopted as an international standard by HL7 and ANSI for a decision support language.

The GELLO specification has been developed in coordination with the HL7 Clinical Decision Support TC (CDSTC)[1] GELLO is a class based object-oriented programming language and a relative of the Object Constraint Language (OCL). OCL is a well developed constraint language that makes it an attractive use as an expression language.

The intention was for GELLO to evolve as a standard query and expression language for decision support. GELLO creates the potential for many decision support options, as the full array of atomic patient data is greatly accessible to compliment better, safer clinical decision making by health professionals. Furthermore this enables specialist clinicians to customize their current systems and create flexible purpose built decision support systems.[2] Through the standardization of GELLO it has made this language compatible with the Reference Information Model (RIM). GELLO uses an abstract "virtual medical record" (vMR) so that the same GELLO code can run on multiple systems accessing data stored in different formats. The vMR is a simplified view of the HL7 V3 RIM (Reference Information Model)

GELLO cannot alter a medical record but can perform complex logic in order to make a decision about a patients care. It can be used to provide standards based data access for other advanced decision support applications. Medical-Objects produced the first GELLO compiler in clinical use and uses GELLO for Guidelines (using GLIF or Guideline Interchange Format) and for constraints, validation and calculated fields in Archetyped data entry. It is also used to create complex data series for graphing or statistical analysis.

The initial deployment the GELLO engine can abstract HL7 V2 data to produce a vMR that is RIM compliant. It can be integrated into any system that can provide structured data through the abstract vMR interface. It integrates seamlessly with the HL7 based Medical-Objects EHR servers and has full support for SNOMED-CT expressions using canonical forms to compare different SNOMED-CT pre and post coordinated concepts. It also has LOINC and ICD-10 support.

Medical-Objects use of GELLO v.2 represents the cutting edge of Clinical Decision support capabilities using a standards based, cross platform, high performance GELLO engine.

GELLO Release 2 has been successfully re-ballotted as a standard.

## References:

1. <http://sage.whenever.org/references/docs/gello.pdf>
2. [www.medical-objects.com.au](http://www.medical-objects.com.au)
3. [Knowledgebase GELLO](#)

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