$Id: 08-formalisms.fig,v 1.4 1997/01/18 22:04:40 gunther Release $, © 1997 by Gunther Schadow, all rights reserved.

The HL7 standard uses formalisms,

Messages are defined by regular expressions.
Segments are defined by tables.
Coded values are defined by tables.
Style and layout conventions can be interpreted as a formal language.

but it does not meet the requirements.

Completeness:	**Message definitions** **- do not make groups of segments explicit,** **- use ellipses in order entry and master files chapter.** **Much information scattered informally in the text.** **Many code tables are missing.**
Consistency:	**Syntax errors in message definitions (parentheses).** **Inconsistent style of tables and text (WYSIWYG).** **Manually edited and not checked for consistency.**
Simplicity:	**The whole standard could be defined using tables.** **Scanning for elements of style and layout is difficult.**

The specification must be compiled into a consistent form semi-automatically.

1. Existing IDL (ASN.1, RPC, CORBA, ...)
- **depend too much on the chosen technology,**
- **important concepts of HL7 (segment vs. composite) not captured,**
- **each tool uses its own encoding rules, neither supports HL7's.**

2. Relational databases are good to capture tabular data but message syntax must be pretransformed into relations.

3. A more general formalism tailored for HL7.