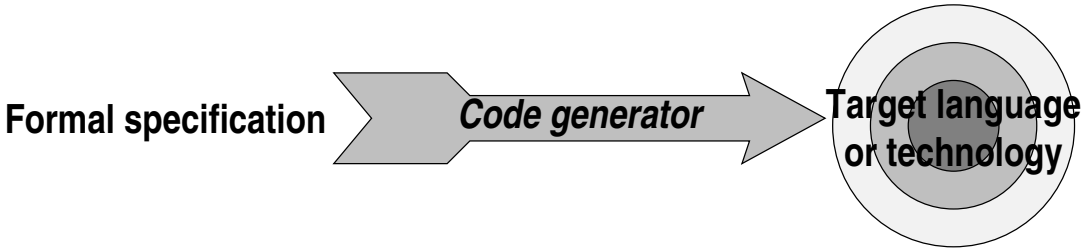
$Id: 07-automatic.fig,v 1.4 1997/01/20 21:06:01 gunther Exp $, © 1997 by Gunther Schadow, all rights reserved.

Deriving implementation from the specification

by a set of rules. These rules can be implemented as a code generator.



Examples of target languages and technologies:

Compiler languages: C++, C, Pascal, MODULA, ..., Java
Legacy languages: COBOL, M, ...
Scripting languages: Tcl, Perl, ...
Interface definition languages (IDLs): ASN.1, RPC, CORBA, ...
Database: SQL, 4GL
Standard documents: HTML, SGML, TeX, ...

Advantages: **Standard conformance is guaranteed by the rules.**
No random errors.
Flexibility with respect to:
> Future development of the standard,
> Local variations,
> Target languages or technologies of implementation.

Disadvantage: **Implementation of the code generator is costly, more than a single manual implementation?**

requires formal specification of the standard.

Requirements to the formal specification:

1. **completeness,**
2. **consistency,**
3. **simplicity.**