Also, specific user environment and usage history can make it difficult to reproduce the problem..  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
Scripting and breakpointing is also part of this process.  
The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA.  
For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash.  
Many programmers use forms of Agile software development where the various stages of formal software development are more integrated together into short cycles that take a few weeks rather than years.  
While these are sometimes considered programming, often the term software development is used for this larger overall process – with the terms programming, implementation, and coding reserved for the writing and editing of code per se.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 Following a consistent programming style often helps readability.  
 New languages are generally designed around the syntax of a prior language with new functionality added, (for example C++ adds object-orientation to C, and Java adds memory management and bytecode to C++, but as a result, loses efficiency and the ability for low-level manipulation).  
Many applications use a mix of several languages in their construction and use.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.