Also, those involved with software development may at times engage in reverse engineering, which is the practice of seeking to understand an existing program so as to re-implement its function in some way.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Use of a static code analysis tool can help detect some possible problems.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
However, readability is more than just programming style.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
For this purpose, algorithms are classified into orders using so-called Big O notation, which expresses resource use, such as execution time or memory consumption, in terms of the size of an input.  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
To produce machine code, the source code must either be compiled or transpiled.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
This is interpreted into machine code.  
 Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code.