This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
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.  
However, with the concept of the stored-program computer introduced in 1949, both programs and data were stored and manipulated in the same way in computer memory.  
By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Normally the first step in debugging is to attempt to reproduce the problem.  
To produce machine code, the source code must either be compiled or transpiled.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Also, specific user environment and usage history can make it difficult to reproduce the problem.  
As early as the 9th century, a programmable music sequencer was invented by the Persian Banu Musa brothers, who described an automated mechanical flute player in the Book of Ingenious Devices.  
  
 Computer programming is the process of performing particular computations (or more generally, accomplishing specific computing results), usually by designing and building executable computer programs.  
 Different programming languages support different styles of programming (called programming paradigms).  
Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.