This can be a non-trivial task, for example as with parallel processes or some unusual software bugs..  
In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
There are many approaches to the Software development process.  
Normally the first step in debugging is to attempt to reproduce the problem.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
 It is very difficult to determine what are the most popular modern programming languages.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
Later a control panel (plug board) added to his 1906 Type I Tabulator allowed it to be programmed for different jobs, and by the late 1940s, unit record equipment such as the IBM 602 and IBM 604, were programmed by control panels in a similar way, as were the first electronic computers.  
  
 Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 The academic field and the engineering practice of computer programming are both largely concerned with discovering and implementing the most efficient algorithms for a given class of problems.  
The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
 The first computer program is generally dated to 1843, when mathematician Ada Lovelace published an algorithm to calculate a sequence of Bernoulli numbers, intended to be carried out by Charles Babbage's Analytical Engine.