This can be a non-trivial task, for example as with parallel processes or some unusual software bugs..  
  
 Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks.  
Scripting and breakpointing is also part of this process.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
 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.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
Many applications use a mix of several languages in their construction and use.  
 Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line.  
 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).  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
 It is very difficult to determine what are the most popular modern programming languages.  
 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).