Also, specific user environment and usage history can make it difficult to reproduce the problem..  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
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.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
Programming languages are essential for software development.  
 Computer programmers are those who write computer software.  
Trial-and-error/divide-and-conquer is needed: the programmer will try to remove some parts of the original test case and check if the problem still exists.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
 Auxiliary tasks accompanying and related to programming include analyzing requirements, testing, debugging (investigating and fixing problems), implementation of build systems, and management of derived artifacts, such as programs' 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.  
  
 Programs were mostly entered using punched cards or paper tape.