

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. In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them. This can be a non-trivial task, for example as with parallel processes or some unusual software bugs. 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. One approach popular for requirements analysis is Use Case analysis. 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. He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm. Code-breaking algorithms have also existed for centuries. Code-breaking algorithms have also existed for centuries. Ideally, the programming language best suited for the task at hand will be selected. Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language. Ideally, the programming language best suited for the task at hand will be selected. 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. Computer programmers are those who write computer software. Unreadable code often leads to bugs, inefficiencies, and duplicated code. Computer programmers are those who write computer software. Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display. 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). Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display. FORTRAN, the first widely used high-level language to have a functional implementation, came out in 1957, and many other languages were soon developed—in particular, COBOL aimed at commercial data processing, and Lisp for computer research. 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. He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm. Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation. This can be a non-trivial task, for example as with parallel processes or some unusual software bugs. However, readability is more than just programming style.