Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards. Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation. 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. In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them. He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm. Techniques like Code refactoring can enhance readability. Programs were mostly entered using punched cards or paper tape. Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability. Proficient programming usually requires expertise in several different subjects, including knowledge of the application domain, details of programming languages and generic code libraries, specialized algorithms, and formal logic. Languages form an approximate spectrum from "low-level" to "high-level"; "low-level" languages are typically more machine-oriented and faster to execute, whereas "high-level" languages are more abstract and easier to use but execute less quickly. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability. Some of these factors include: The presentation aspects of this (such as indents, line breaks, color highlighting, and so on) are often handled by the source code editor, but the content aspects reflect the programmer's talent and skills. One approach popular for requirements analysis is Use Case analysis. Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages. Use of a static code analysis tool can help detect some possible problems. 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. 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. Programmable devices have existed for centuries. Use of a static code analysis tool can help detect some possible problems. When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear. One approach popular for requirements analysis is Use Case analysis. Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications. 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.