

The programming process

Computers do not understand human languages. In fact, at the lowest level, computers only understand sequences of numbers that represent operational codes. On the other hand, it would be very difficult for humans to write programs in terms of op codes. Human languages were invented to make it easier for humans to write computer programs.

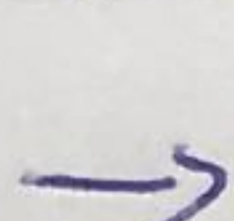
Programming languages are for humans to read and understand. The program must be translated into machine language so that computers can execute the program.

compiled languages (e.g. C, C++)

Below illustrates the programming process for a

~~compiled~~ compiled programming language.

source code



Compiler



object file



runtime library file



linker



executable file

Conjugal Bliss

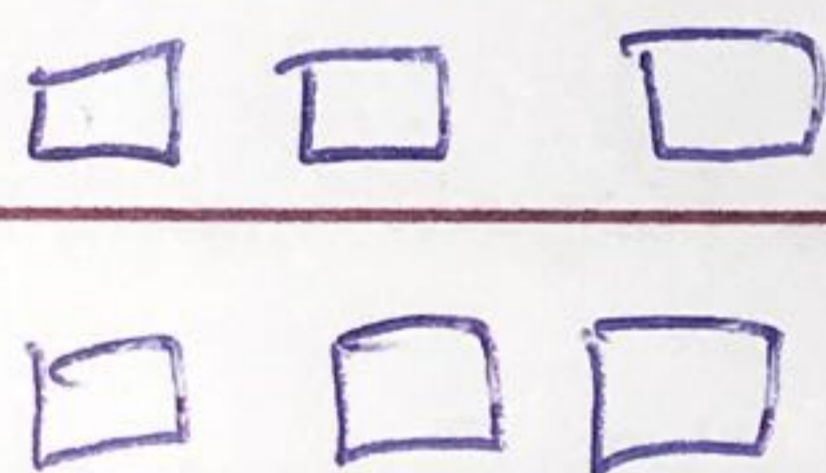
A computer takes the program code and converts the source code to a machine language module.

Another specialized program, called a linker, combines the object file with other previously compiled object files to create an executable file.

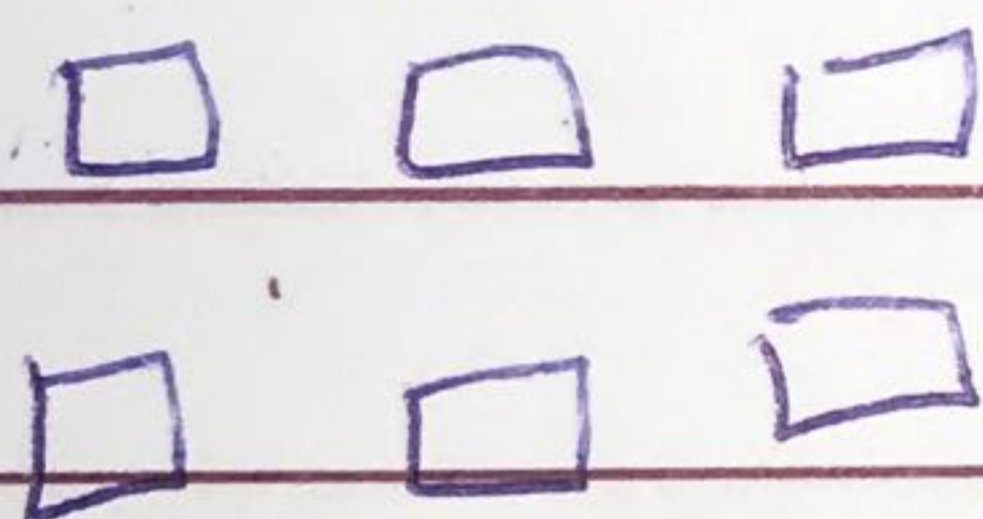
SC.

Compiler

object file

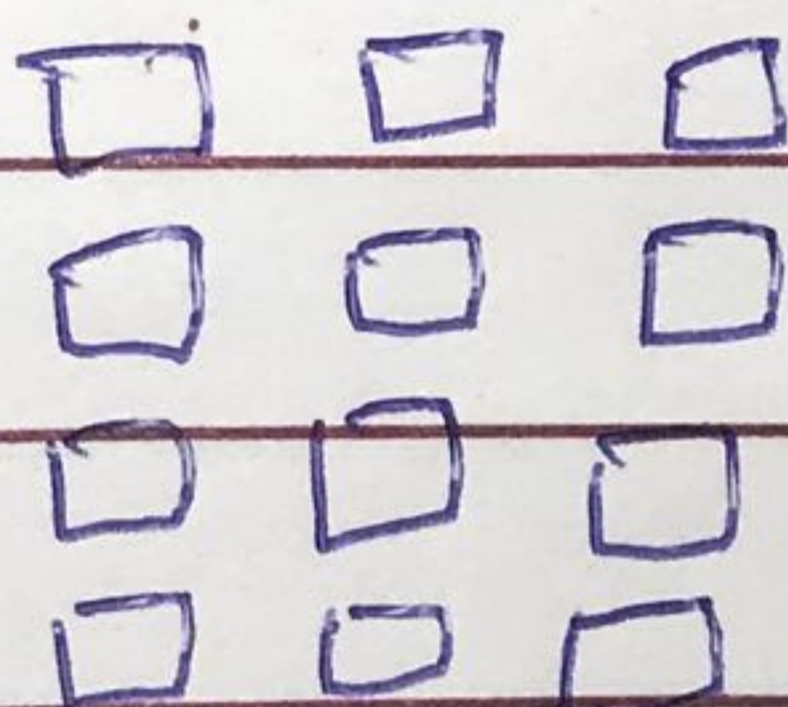


library files



linker

executable file



output

So, for a compiled language the conversion from source code to machine executable code takes place before the program is run.

PATIENCE & EMMANUEL

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