Compiler

Definition:

a computer program that translates computer code written in one programming language (the source language) into another language (the target language)

Compilation Types (C):

- hello.c (source program, text)

- hello.i (modified source program, text) preprocessor (cpp)

    - modifies according to # directives (#include<stdio.h>)

- hello.s (assembly program, text) compiler (cc1)

    - assembly
    - language program (statement equals 1 low level machine language instruction)
    - assembly language common compiler output for different high level languages

- hello.o (relocatable object programs, binary) assembler (as)

    - to binary file (relocatable object program) whose bytes encode machine language instructions

- hello (executable object program, binary) linker (ld) (linked with printf.o)

    - linker merges standard c library functions (executable object file)

Sources:

- Computer Systems: A Programmers Perspective pg 4-7