

Source Code (.c, .cpp, .h)

Preprocessing

**Step 1: Preprocessor (cpp)**

`cpp HelloWorld.c > HelloWorld.i`

Include Header, Expand Macro (.i, .ii)

Compilation

**Step 2: Compiler (gcc, g++)**

`gcc -S HelloWorld.i`

Assembly Code (.s)

Assemble

**Step 3: Assembler (as)**

`Assembly ← object  
xt-objdump -dr fib.o`

Machine Code (.o, .obj)

Linking

**Step 4: Linker (ld)**

`Assembly ← source code  
xt-xcc -O2 -Os -S fib.c`

Static Library (.lib, .a)

Executable Machine Code (.exe)