

Oneday, if we have an program ( hw0306\_sample.c ).

In main function, we call func\_a, then call func\_b in func\_a.

However, if we want to debug in func\_b, such as num can't smaller than zero.

In func\_b, we need to return an error number to func\_a, then func\_a return errno number to main function.

It is too complex. And setjmp and longjmp can deal with this problem.

For instance ( hw0306\_example.c ), first, we declare a "jmp\_buf" type variable to record the information of jumping.

Using "setjmp" to tag the jumping destination, and using "longjmp" at the program which need to jump.

And declare a number variable(jmpval) to record the error number.

When setjmp excute, jmpval will be set 0.

When longjmp excute, program will jump to setjmp function positon, and jmpval will be set val parameter of longjmp.

By doing so, if any function want to return error number and stop previous function, setjmp and longjmp can help us.

In addition,

in manual C11 7.13 Nonlocal jumps.2

The type declared is "jmp\_buf", which is an array type suitable for holding the information needed to restore a calling environment.

Acutally, jmp\_buf is a array to store the information.