HY16F18X C Library Compiling Operation Specification

Index

1. Operation Instruction

If the clients were to amend C standard library provided by HYCON, they should recompile C standard library so that Andesight can invoke it. However, the prerequisite is to guarantee that C document and H document in C standard library are both correct. This document majorly explains ways to realize recompilation in C standard library.

2. Operation Steps

2.1 Document Preparation

Prepare the original C document and H document before saving them into the document named “Library”. Make sure to put folder “Library” to a location of the shortest path. Since compilation need to point to the folder “Library”through instruction, it is recommended to put the folder “library” directly below disk C.

2.2 Compiling Instrument Opening

Open Andesight compiling instrument nds32le-elf-mculib-v3m, with address presented in illustration 1 and software interface presented in illustration 2.

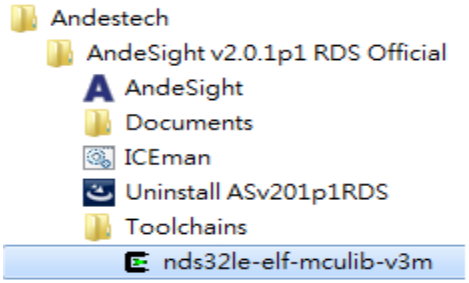

Illustration 1: Compiling Instrument Opening

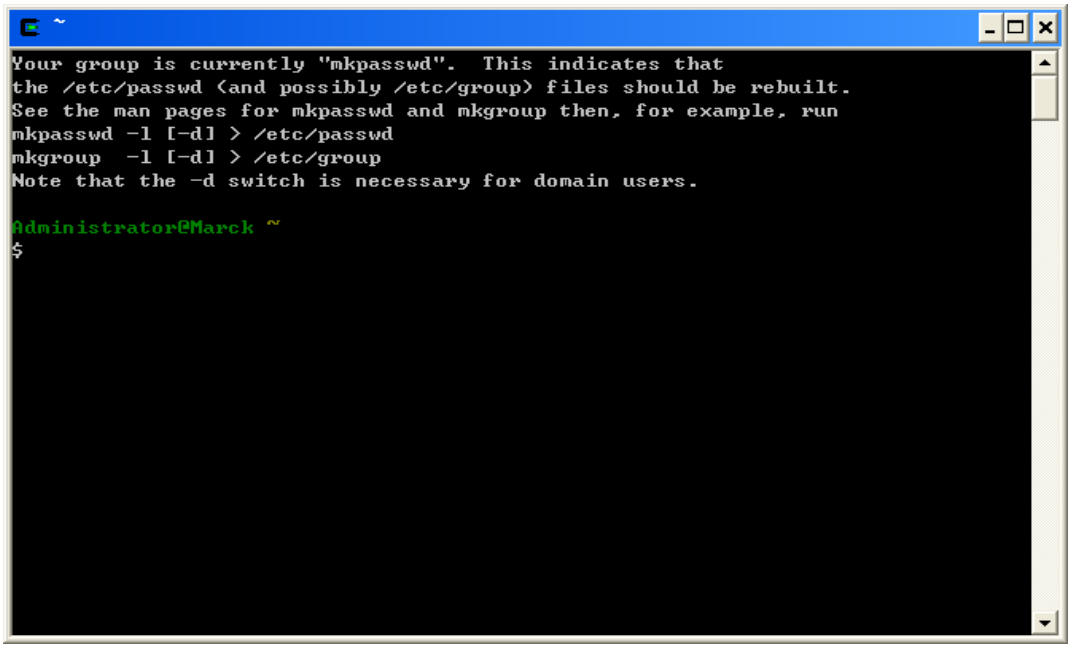

Illustration 2: Software Interface

2.3 Compiling Order to be Inserted

Compiling Order is Specified Below:

Document .c Compiling Instruction:

nds32le-elf-gcc -c DrvOP.c DrvTimer.c DrvUART.c DrvGPIO.c System.c DrvSPI32.c DrvCMP.c DrvADC.c DrvPMU.c DrvDAC.c DrvClock.c FPGA_register_initial.c DrvI2C.c DrvRTC.c

Document .o Compiling Instruction:

nds32le-elf-ar crv libHYCON.a DrvOP.o DrvTimer.o DrvUART.o DrvGPIO.o System.o DrvSPI32.o DrvCMP.o DrvADC.o DrvPMU.o DrvDAC.o DrvClock.o FPGA_register_initial.o DrvI2C.o DrvRTC.o

2.4 Compiling Operation Specification

1) Find “Library” folder path and point to the folder presented below. Through order “cd”, target document “Library” is being pointed to.

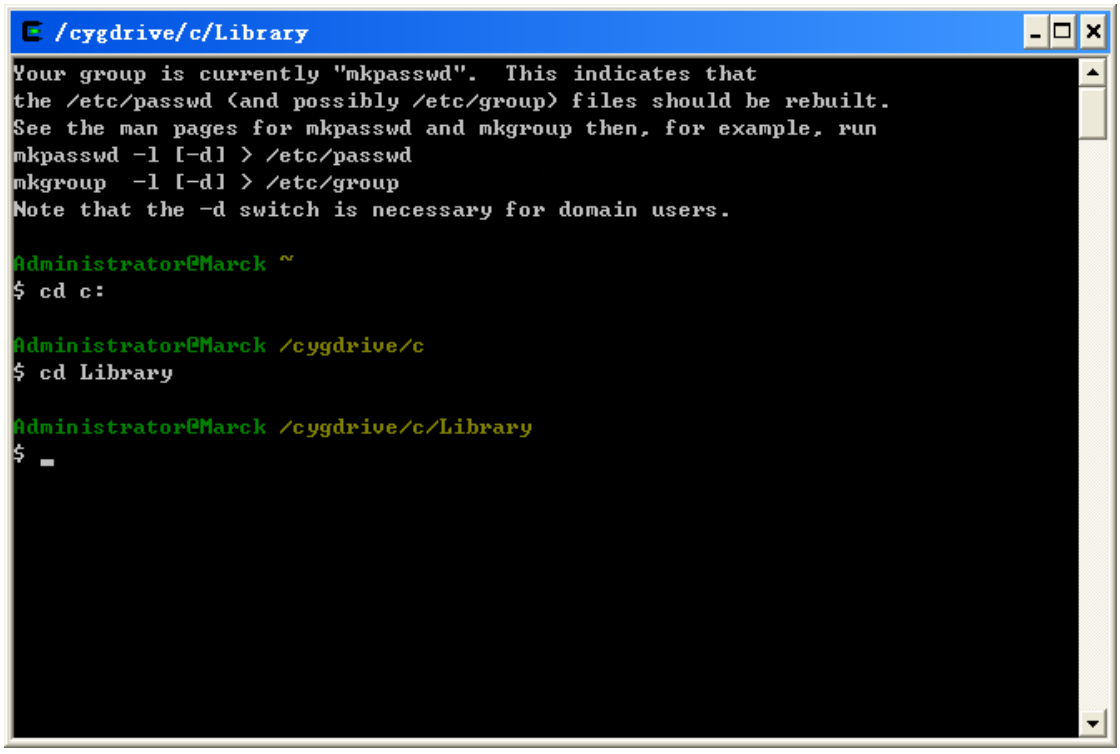

Illustration 3: Directing “Library” Folder

2) Since the instruction is too long, we apply the pasting measure to paste instruction.

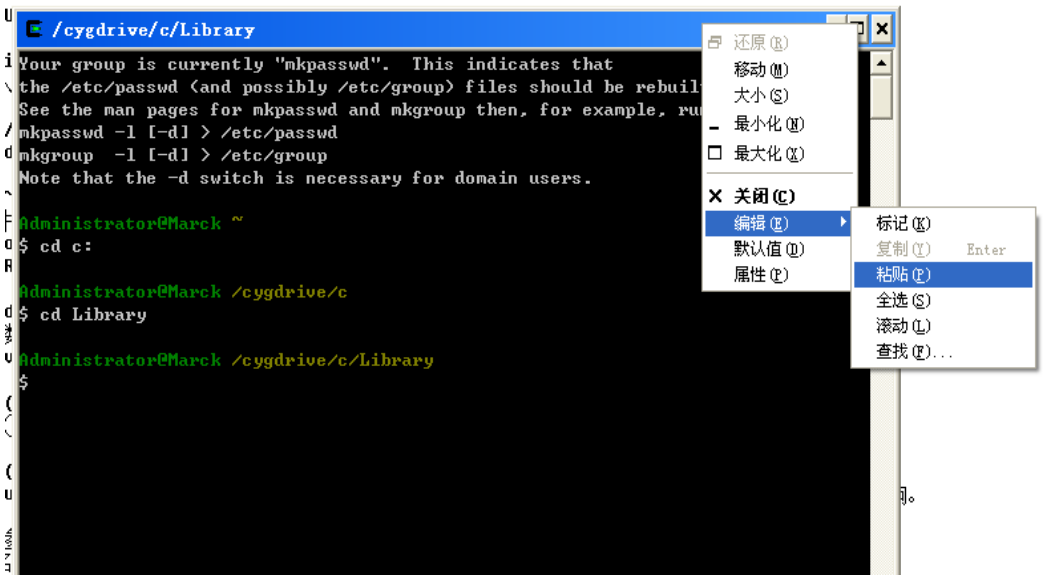

Illustration 4: Instruction Pasting Operation

3) Enter .C document compiling order before clicking “enter” for compilation, as presented in the illustration below.

nds32le-elf-gcc -c DrvOP.c DrvTimer.c DrvUART.c DrvGPIO.c System.c DrvSPI32.c DrvCMP.c DrvADC.c DrvPMU.c DrvDAC.c DrvClock.c FPGA_register_initial.c DrvI2C.c DrvRTC.c

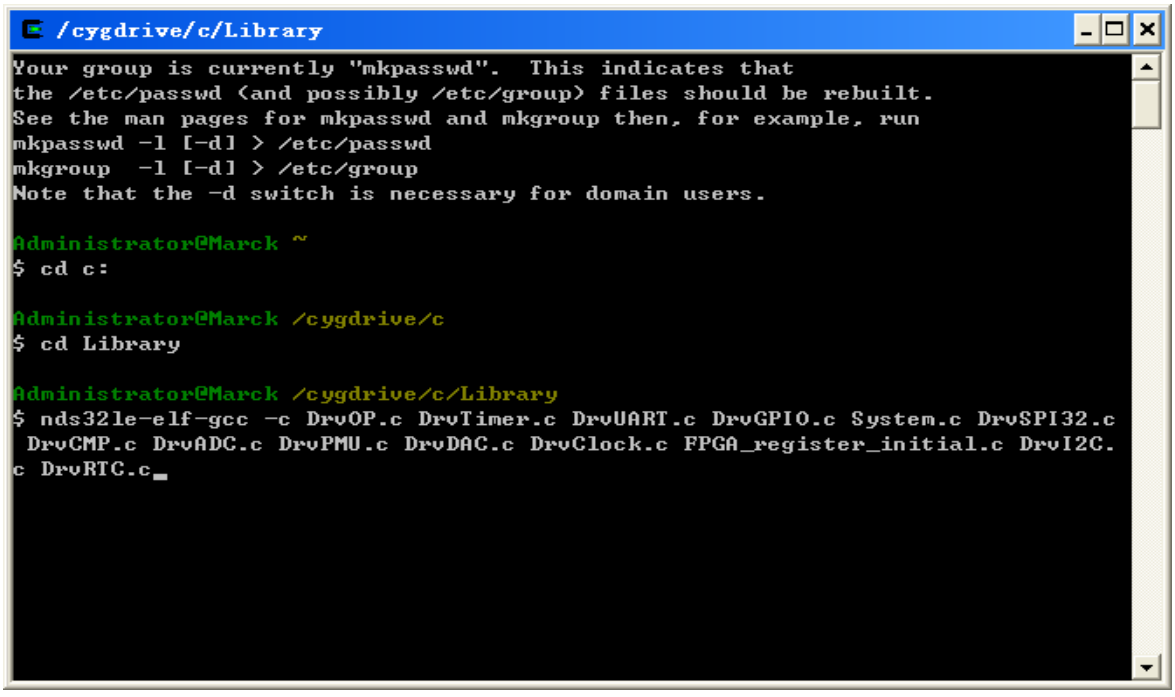

Illustration 5: Input .c Document Compilation Instruction

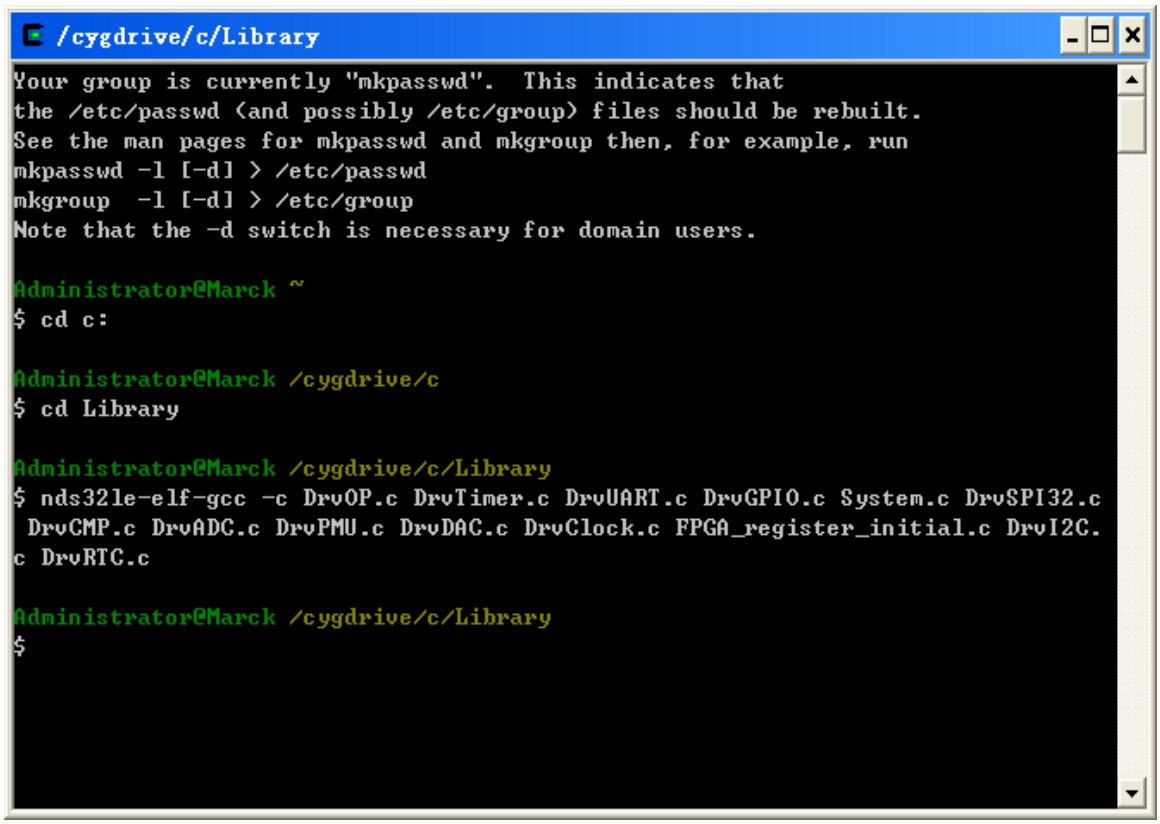

Illustration 6: Successful .c Document Compilation

4) Enter .o document compilation instruction before clicking “enter” button to start compilation, as presented in the illustration below.
nds32le-elf-ar crv libHYCON.a DrvOP.o DrvTimer.o DrvUART.o DrvGPIO.o System.o DrvSPI32.oDrvCMP.oDrvADC.oDrvPMU.oDrvDAC.o DrvClock.o FPGA_register_initial.o DrvI2C.o DrvRTC.o

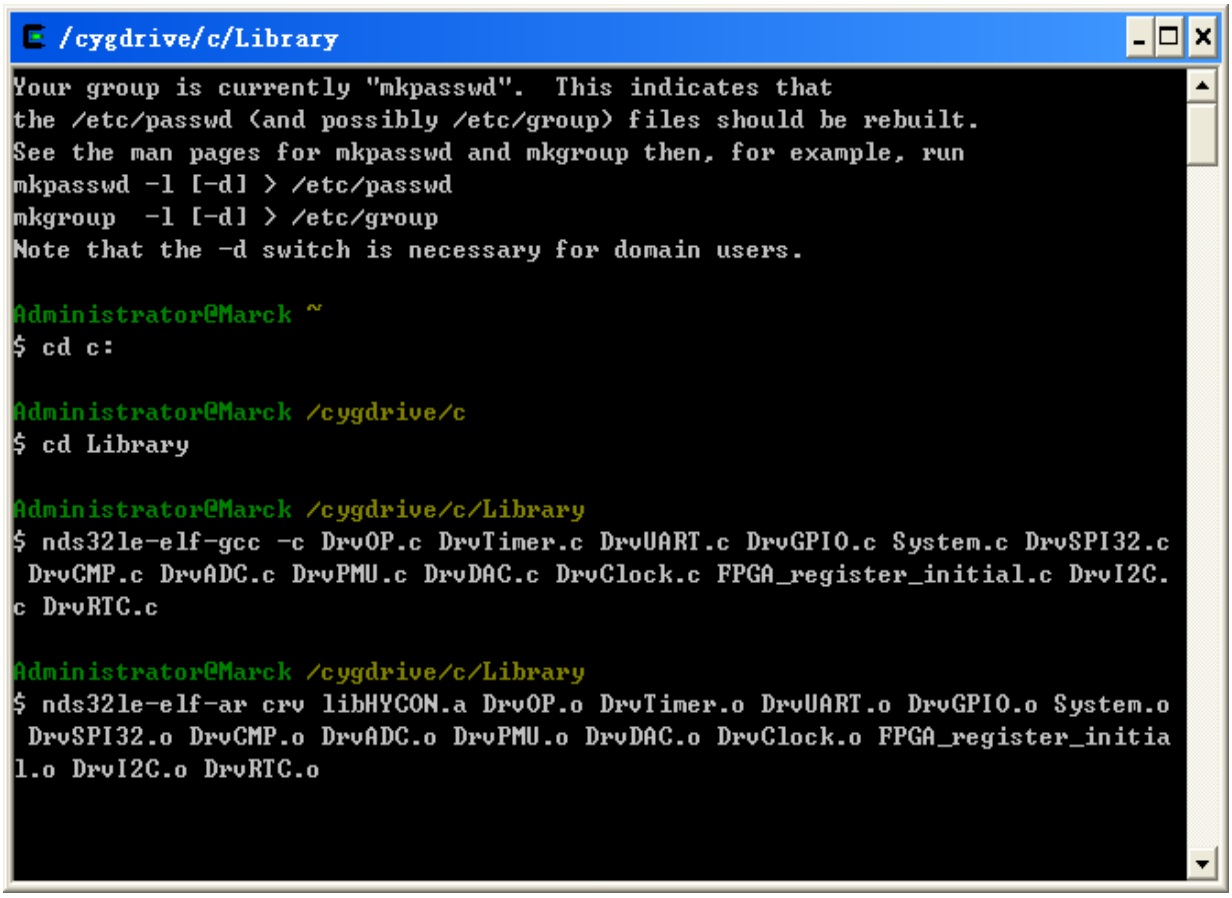

Illustration 7: .O Document Compilation Instruction Input

5) Illustration presented below indicates successful compilation. Document .a is generated within document Library

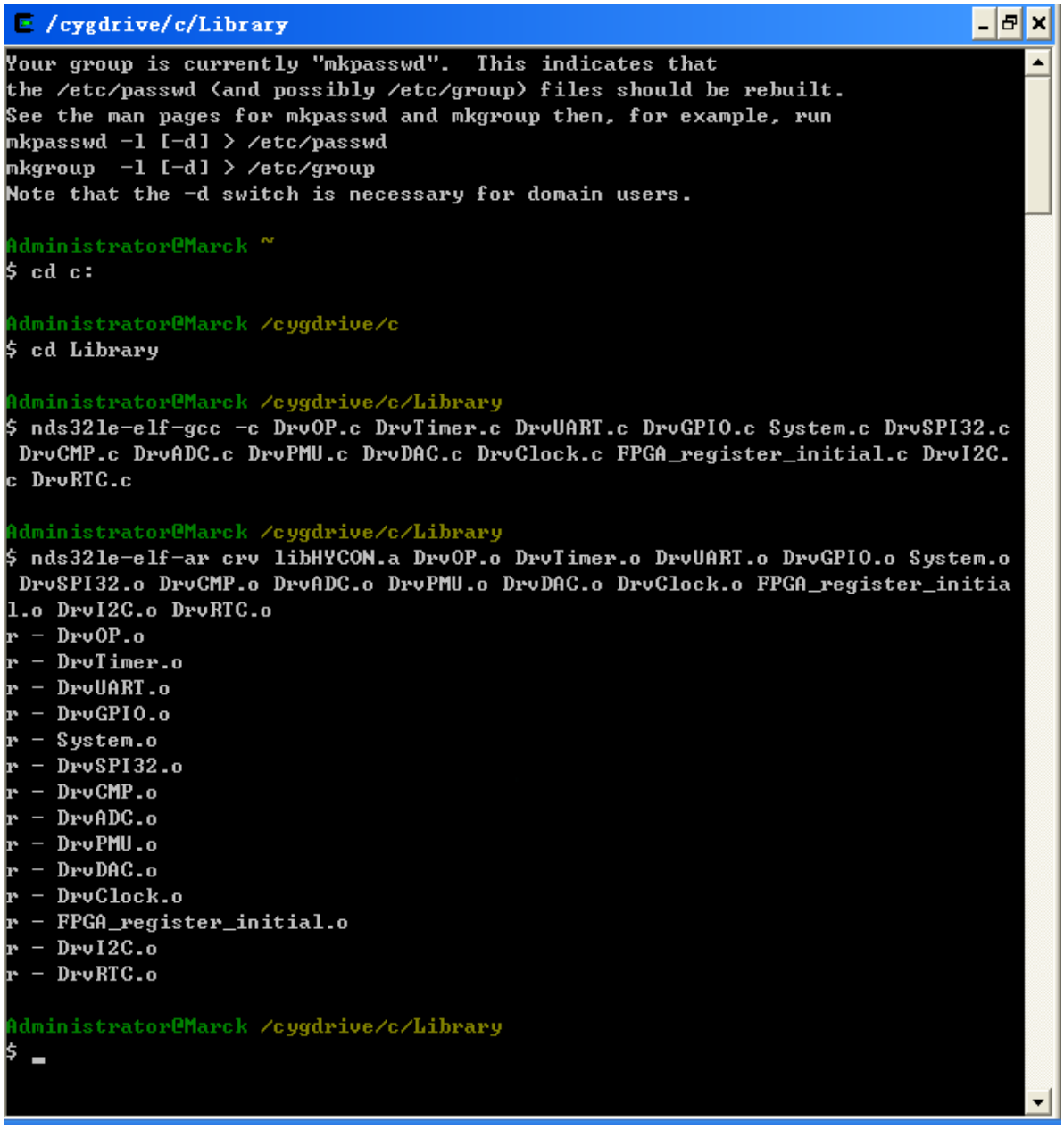

Illustration 8: Successful Compilation Interface

2.5 Andesight C Standard Library Update

1） Withdraw the required document: Upon successfully completing new C standard library compilation, please copy .a documents and .H documents before pasting them onto another folder, with a name of: peripheral_lib, as presented in the illustration.

Illustration 9: Withdraw the Required Document

2） Exchange documents in old folder peripheral_lib: Currently, folder peripheral_lib is saved under installation index: \Andestech\AndeSight201p1RDS\target\HY16F188\peripheral_lib; As a result, we replace it by newly compiled header file, in another word, we replace by header file and .a document generated from step (1). However, folder name remains peripheral_lib as shown in the illustration.

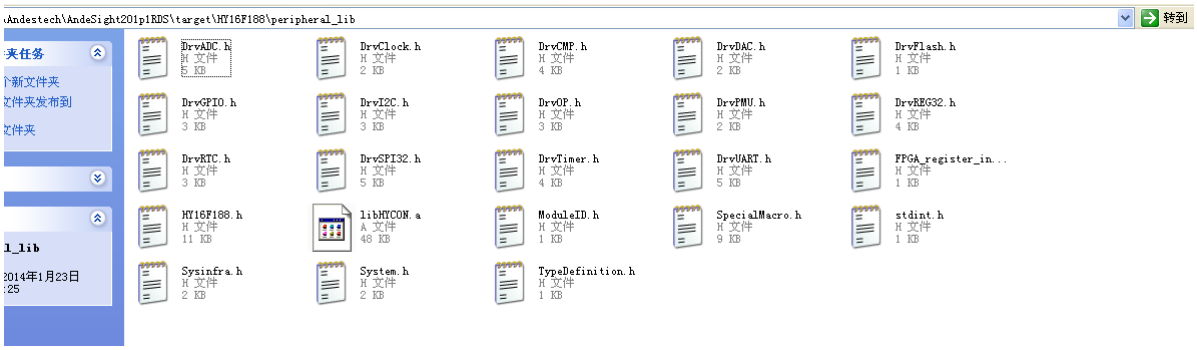

Illustration 10 Replace peripheral_lib under Replace Software Installation Index

3） Since peripheral_lib header file and library are amended, all engineering requires rebuilding to generate new debug file and bin document. Concrete operation is to cancel only debug folder, along with its content, in the engineering document, with other settings remain intact. By rebuilding engineering, the debug folder generated will be compiled by utilizing new library.

3. Appendix

None

4 Referential Literature

http://www.hycontek.com/

5 Amendment Record

Below presents the greater differences in this document, with variation in punctuation and font excluded.

Version	Page Number	Amendment Summary
V04	All	Version Issuing