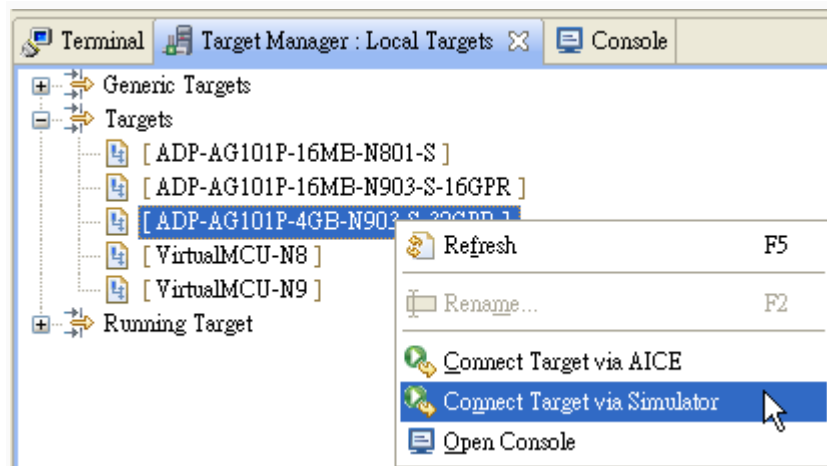


如何在 gdb console 裡連線到 simulator

以下提供 gdb 在 console 裡，連線到 simulator 的方法。

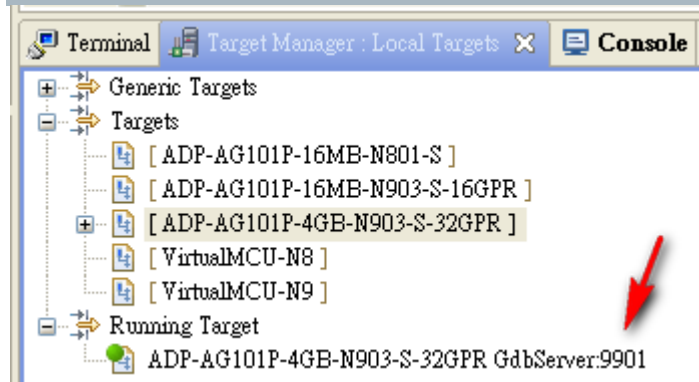
方法有 2 種

(1) 在 Andesight 裡將 simulator 啟動，

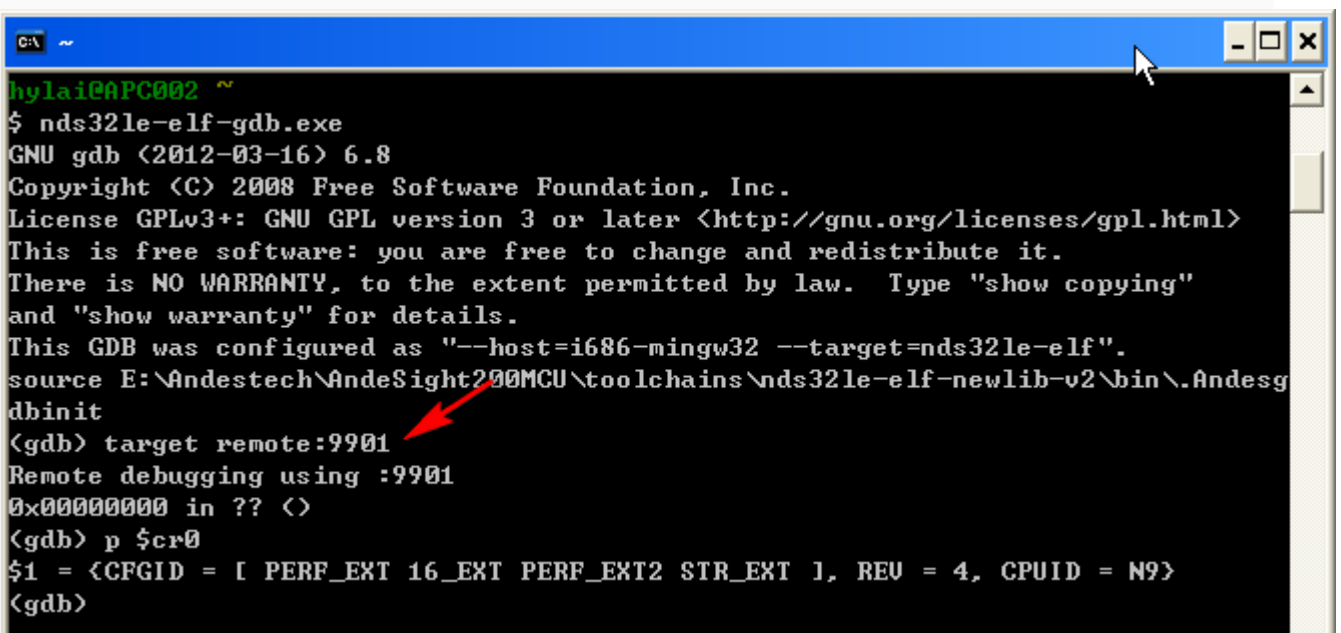


得到 port number 之後，再用 gdb 連線。

Attachment:



如下圖，我們連到 port 9901。



```
C:\> hylai@APC002 ~
$ nds32le-elf-gdb.exe
GNU gdb (2012-03-16) 6.8
Copyright (C) 2008 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law. Type "show copying"
and "show warranty" for details.
This GDB was configured as "--host=i686-mingw32 --target=nds32le-elf".
source E:\Andestech\AndeSight200MCU\toolchains\nds32le-elf-newlib-v2\bin\Andesg
dbinit
(gdb) target remote:9901
Remote debugging using :9901
0x00000000 in ?? (<)
(gdb) p $cr0
$1 = {CFGID = [ PERF_EXT 16_EXT PERF_EXT2 STR_EXT 1, REV = 4, CPUID = N9}
(gdb)
```

(2) 不用 Andesight，在 console 裡用 sid 將 simulator 啟動。

(指令為 sid *.conf)

注意！這個模式下只有 console 輸出，其他在 Andesight 裡的 GUI，如 LCD display 等都不會顯示。

請看下圖，

我們預設的 vep 檔案在

/cygdrive/e/Andestech/AndeSight200MCU/vep/tmpl 裡

用以下 command 啟動 simulator

sid.exe ADP-XC5-for-N903-S-32GPR.vep.conf

```
C:\ /cygdrive/e/Andestech/AndeSight200MCU/vep/tmpl
hylai@APC002 /cygdrive/e/Andestech/AndeSight200MCU/vep/tmpl
$ ls
ADP-AG101-for-N1213_43U1H.vep      N1033A-S.vep
ADP-XC5-for-N1033A-S.vep          N1213-43U1H.vep
ADP-XC5-for-N1213-S.vep           N1213-S.vep
ADP-XC5-for-N1233F-S.vep          N1213_30T2G.vep
ADP-XC5-for-N1233_40U2S.vep       N1233-S.vep
ADP-XC5-for-N801-S-16M.vep        N1233_40U2S.vep
ADP-XC5-for-N801-S-16M.vep.conf   N801-S-16M.vep
ADP-XC5-for-N903-S-16GPR-16M.vep  N903-S-16GPR.vep
ADP-XC5-for-N903-S-16GPR-16M.vep.conf N903-S-32GPR.vep
ADP-XC5-for-N903-S-16GPR.vep     N903A-S.vep
ADP-XC5-for-N903-S-32GPR.vep      TestAG101.vep
ADP-XC5-for-N903-S-32GPR.vep.conf VirtualMCU-N8.vep
ADP-XC5-for-N903A-S.vep           VirtualMCU-N8.vep.conf
N1033-S.vep                       VirtualMCU-N9.vep

hylai@APC002 /cygdrive/e/Andestech/AndeSight200MCU/vep/tmpl
$ ../../sid/sid.exe ADP-XC5-for-N903-S-32GPR.vep.conf
socketio: using fd 4
socketio: server at 0.0.0.0:9898
GDB init ...
UEPsocketio: init ...
socketio: using fd 5
socketio: server at 0.0.0.0:9899
-
```

再以 gdb 連上 port 9898

```
C:\ ~
hylai@APC002 ~
$ nds32le-elf-gdb.exe
GNU gdb (2012-03-16) 6.8
Copyright (C) 2008 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law. Type "show copying"
and "show warranty" for details.
This GDB was configured as "--host=i686-mingw32 --target=nds32le-elf".
source E:\Andestech\AndeSight200MCU\toolchains\nds32le-elf-newlib-v2\bin\Andesg
dbinit
(gdb) target remote:9898
Remote debugging using :9898
0x00000000 in ?? (<)
(gdb)
```

在 sid console 裡可以看到有一條新連線。

```
hylai@APC002 /cygdrive/e/Andestech/AndeSight200MCU/vep/tmpl
$ ../../sid/sid.exe ADP-XC5-for-N903-S-32GPR.vep.conf
socketiobase: using fd 4
socketiobase: server at 0.0.0.0:9898
GDB init ...
UEPsocketio: init ...
socketiobase: using fd 5
socketiobase: server at 0.0.0.0:9899
socketio: accepted connection from 127.0.0.1:3155, fd 6
```

vep 轉成 conf 檔的方法

在上面提到的 `tmpl` 目錄下，預設是 `*.vep` 檔，

如果曾用 IDE 啟動 simulator 的 target，則 Andesight 會自動產生 `*.vep.conf` 檔。

這個 `.vep.conf` 檔，可以用 `sid` 啟動。

我們有另個 tool `vep2conf.exe`，能將 `vep` 檔轉成 `conf` 檔。指令如下。

```
../../sid/ins/vep2conf.exe ADP-XC5-for-N1033A-S.vep -o ADP-XC5-for-N1033A-S.vep.conf
```

打 `vep2conf.exe --help` 可以看使用說明。

```
hylai@APC002 /cygdrive/e/Andestech/AndeSight200MCU/vep/tmpl
$ ../../sid/ins/vep2conf.exe ADP-XC5-for-N1033A-S.vep -o ADP-XC5-for-N1033A-S.vep.conf

hylai@APC002 /cygdrive/e/Andestech/AndeSight200MCU/vep/tmpl
$ ../../sid/sid.exe ADP-XC5-for-N1033A-S.vep.conf
socketiobase: using fd 4
socketiobase: server at 0.0.0.0:9898
GDB init ...
UEPsocketio: init ...
socketiobase: using fd 5
socketiobase: server at 0.0.0.0:9899
```