



MTK Andes Tool Chains Usage

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Revision History

Date	Revision	Author	Description
2014.02.12	First v0.01	Jinchuan	Initial draft.
2014.04.15	v0.02	Jinchuan	Add Andes Sight Setup Add Q&A
2014.05.28	v0.03	Jinchuan	

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1. Install AndeSight

1-1: How to get AndeSight install files

<http://www.andestech.com/cn/download/andesight-download.htm>



Access this website, and fill information for application

AndeSight

Thanks for requesting the evaluation version of AndeSight™.

You have finished your apply for evaluating Andesight. **We will approve your apply in 3 days.** Please check your mailbox. In the notified e-mail, it contains downloading link and quick start guide. If you have any question, please feel free to contact us via e-mail or phone. support@andestech.com +86-3-6668300

Have a nice day!

Andes Technology Corporation Marketing & Service Division

Your will receive a email include AndeSight download path, after


AndeSight Evaluation Edition Request Notification Mail

发件人: Andes Support Team<support@andestech.com>

收件人: [REDACTED]

时间: 2014年02月13日 09:38 (星期四)

附件: 1个([REDACTED] license.txt) 查看附件

 翻译成中文

Dear jasonbao :

Your request for AndeSight™ evaluation version has been received and approved. This is the license file for mtech as attached.

Request ID : 527

License Type: Active Code

Expiration Date: 2014/05/13

Please click the following link to download the AndeSight™ evaluation version. This link is active for 7 days from now on.

URL: http://quick.andestech.com/andesight/get_file/db69e851201ddfded3e4d85ddbde773e

Quick Start: ["AndeSight v2.0.1 MCU Quick Start"](#)

We recommend that you use ["Free Download Manager"](#) tool to make the download smooth.

If there is any problem, please contact Andes at support@andestech.com

and there is a quick start for AndeSight installation

<http://forum.andestech.com/viewtopic.php?f=23&t=576&p=672>

1-2: Install AndeSight following the quick start :

AndeSight default install Path is : C:\Andestech\AndeSight14\

The toolchains install Path is : C:\Andestech\AndeSight14\toolchains\nds32le-elf-newlib-V2j

The config file in C:\Andestech\AndeSight***\toolchains\nds32le-elf-newlib-v2j\cygwin-andes.bat must mapping the toolchain install path, if the toolchain install path is changed, below path setting also need to be changed in cygwin-andes.bat

```
set TOP=C:\Andestech\AndeSight14\cygwin
```

```
set TOP=%TOP:~=/%
```

```
set TMP=C:\Andestech\AndeSight14\cygwin\cygwin_tmp
```

```
set PATH=C:\Andestech\AndeSight14\cygwin\bin;%CD%\bin
```

```
set HOME=%CD%\bin
```

```
IF EXIST "C:\Andestech\AndeSight14\cygwin\bin\bash.exe" set SHELL=/bin/bash
```

```
"C:\Andestech\AndeSight14\cygwin\bin\bash.exe" --login -i
```

For MTK MT7681 Project, a special tool chains should be used,

Thus, we need instead the original tool chains as MTK ones

2. Update Tool chains

Decompress the MTK's toolchains package "nds32le-elf-newlib-v2j.rar"

to C:\Andestech\AndeSight14\toolchains\nds32le-elf-newlib-V2j

The original one should be deleted or rename first.

3. Modify MT7681 configuration file

Modify the configuration files in MT7681 folder: mak/compiler.mk

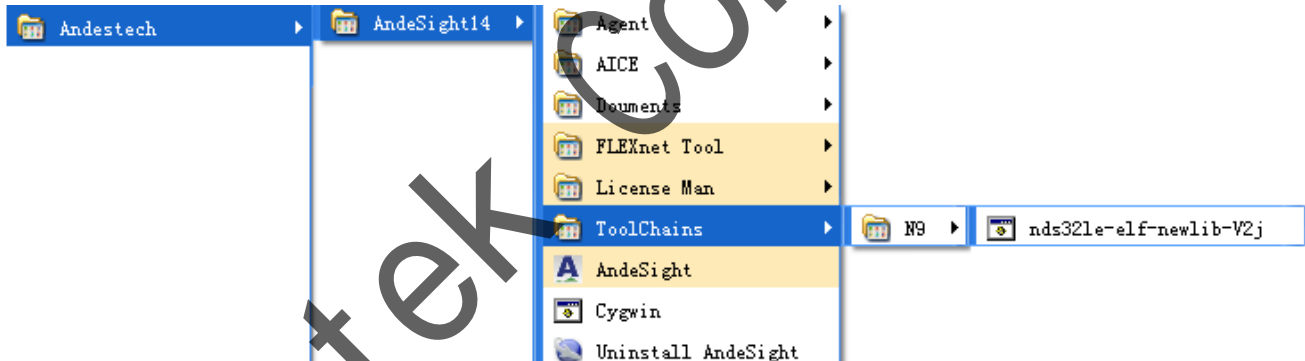
Add yellow line and delete gray line

```
*****
# TOOLCHAINS DEFINE
*****
#TOOLCHAINS = /root/Andestech/BSPv310/toolchains/nds32le-elf-newlib-v2j/bin
#TOOLCHAINS = /cygdrive/c/Andestech/BSPv310/toolchains/nds32le-elf-newlib-v2j/bin
TOOLCHAINS = /cygdrive/c/Andestech/AndeSight14/toolchains/nds32le-elf-newlib-v2j/bin
CROSS = $(TOOLCHAINS)/nds32le-elf
```

4. Select Cygwin to Compile MT7681 Source Code

Click "Begin" Button on the Windows OS

Select Toolchains->N9->nds32le-elf-newlib-V2j, a Cygwin window shall be opened



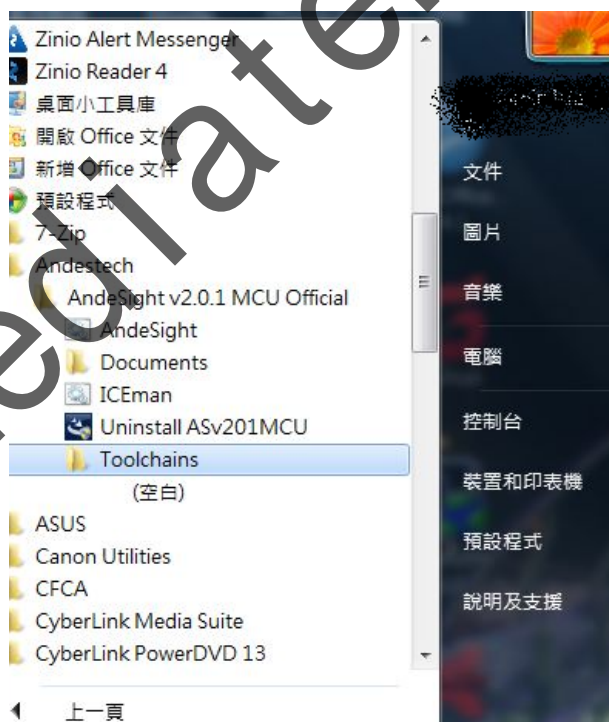
The Normal Compile message:

```
~\MT7681_IoT_Package_v0.02\Src\IoT_MT7681_PKG_v0.02
MTK05528@PC11064726 ~\MT7681_IoT_Package_v0.02\Src\IoT_MT7681_PKG_v0.02
$ make clean;make
Makefile:293: target `cust/vectors.o' doesn't match the target pattern
Makefile:293: target `cust/startup.o' doesn't match the target pattern
Makefile:293: target `cust/ctxsw.o' doesn't match the target pattern
Makefile:325: target `cust/vectors.d' doesn't match the target pattern
Makefile:325: target `cust/startup.d' doesn't match the target pattern
Makefile:325: target `cust/ctxsw.d' doesn't match the target pattern
clean obj/iot_at_cmd.o obj/iot_at_cmd_utility.o obj/iot_parse.o out/MT7681.elf o
ut/build.log
Makefile:293: target `cust/vectors.o' doesn't match the target pattern
Makefile:293: target `cust/startup.o' doesn't match the target pattern
Makefile:293: target `cust/ctxsw.o' doesn't match the target pattern
Makefile:325: target `cust/vectors.d' doesn't match the target pattern
Makefile:325: target `cust/startup.d' doesn't match the target pattern
Makefile:325: target `cust/ctxsw.d' doesn't match the target pattern
echo Compiling cust/iot_at_cmd.c ...
Compiling cust/iot_at_cmd.c ...
echo Compiling cust/iot_at_cmd.c ... >> out/build.log
echo Compiling cust/iot_at_cmd_utility.c ...
Compiling cust/iot_at_cmd_utility.c ...
echo Compiling cust/iot_at_cmd_utility.c ... >> out/build.log
echo Compiling cust/iot_parse.c ...
Compiling cust/iot_parse.c ...
echo Compiling cust/iot_parse.c ... >> out/build.log
Linking out/MT7681.elf ...
/cygdrive/c/Andestech/AndeSight14/toolchains/nds32le-elf-newlib-v2j/bin/nds32le-
elf-ar r libandes.a
/cygdrive/c/Andestech/AndeSight14/toolchains/nds32le-elf-newlib-v2j/bin/nds32le-
elf-ld -EL -g -Bstatic -Bsymbolic -Bsymbolic-functions --check-sections --gc-se
ctions -T mak/MT7681/ram.lds -Map out/MT7681.map -o out/MT7681.elf --start-group
obj/iot_at_cmd.o obj/iot_at_cmd_utility.o obj/iot_parse.o cust/vectors.o cust/s
tartup.o cust/ctxsw.o -L. -landes --end-group >> out/build.log
C:\Andestech\AndeSight14\toolchains\nds32le-elf-newlib-v2j\bin\nds32le-elf.ld.ex
e: warning: _SDA_BASE_ is recommended being located in an output section, please
fix it in the linker script.
Making out/MT7681.bin ...

MTK05528@PC11064726 ~\MT7681_IoT_Package_v0.02\Src\IoT_MT7681_PKG_v0.02
$
```

5. Q&A

5-1: [install AndeSight](#) 之後 Toolchains 下面是空白的。請問要怎麼啟動 Cygwin



有人在 Win 7 OS 下 可能不能打开 Cygwin， 但相同安装档在 **Win XP** 下可以

5-2: 在 Cygwin 环境下编译时 提示:

```
compiler.mk | build.log |
0 10 20 30 40 50 60 70 80 90 100 110 120
1 Compiling cust/iot_at_cmd.c ...
2 /bin/sh: /cygdrive/c/Andestech/BSPv310/toolchains/nds32le-elf-newlib-v2j/bin/nds32le-elf-gcc: No such file or directory
```

原因是 toolchains 未安装 或者安装后在 mak/compiler.mk 文件中的设定不对造成

解决方法: 参考第 3 章, 将 toolchains 路径 设定到 Package 的 MT7681 Source Code (mak/compiler.mk) 中