

Advantech AE Technical Share Document

Date	2018/ 1 / 12	Release Note	■ Internal □ External
Category	■ FAQ □ SOP	Related OS	Linux
Abstract	How to install DIO driver on AdvLinux		
Keyword	DIO, AdvLinux		
Related Product	UNO-1171,UNO-1172A,UNO-2050,UNO-2176, UNO-2679,UNO-3062,UNO-3062L,UNO-3072, UNO-3074,UNO-3072A,UNO-3082,UNO-3084,UNO-4672,TPC-1571		

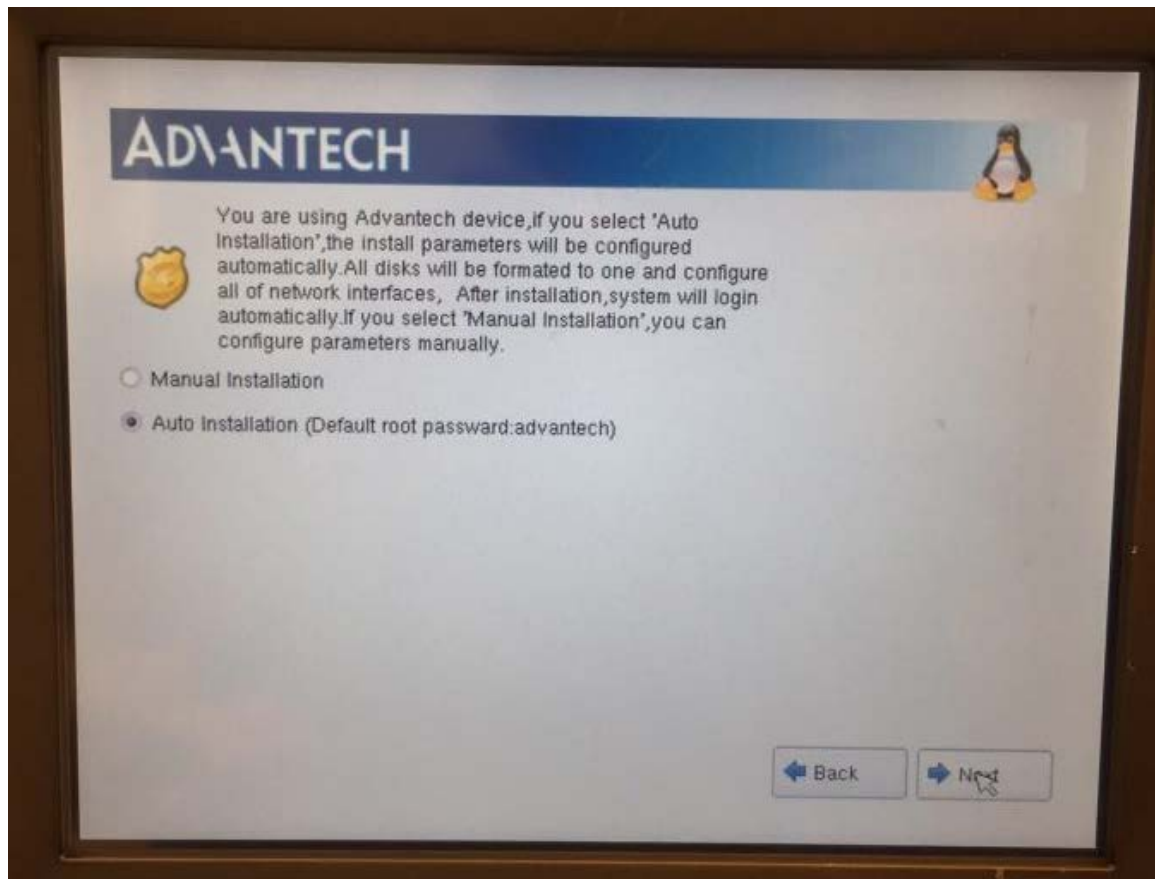
■ **Problem Description:**

Install the AdvLinux and how to run the test applaction.

■ **Brief Solution - Step by Step:**

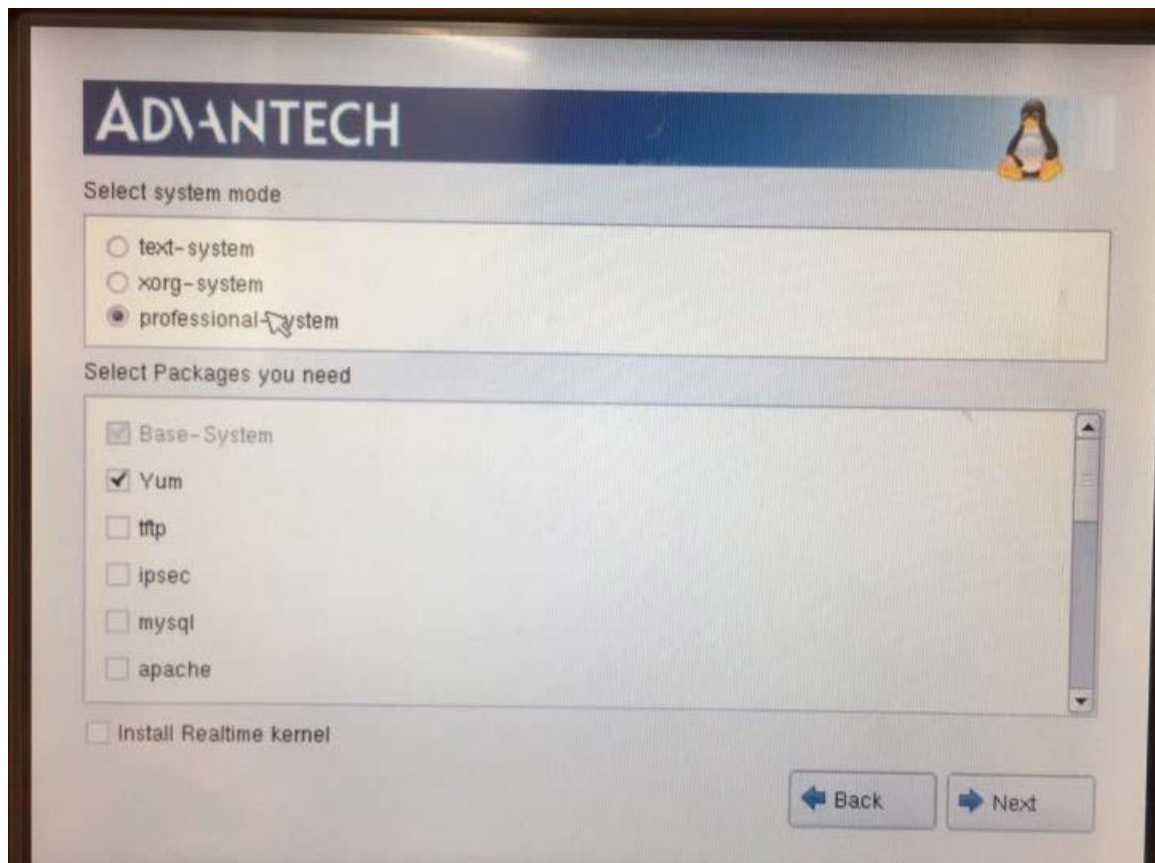
Step1

Select Auto installation



Step2

Uncheck "install Realtime kernel"

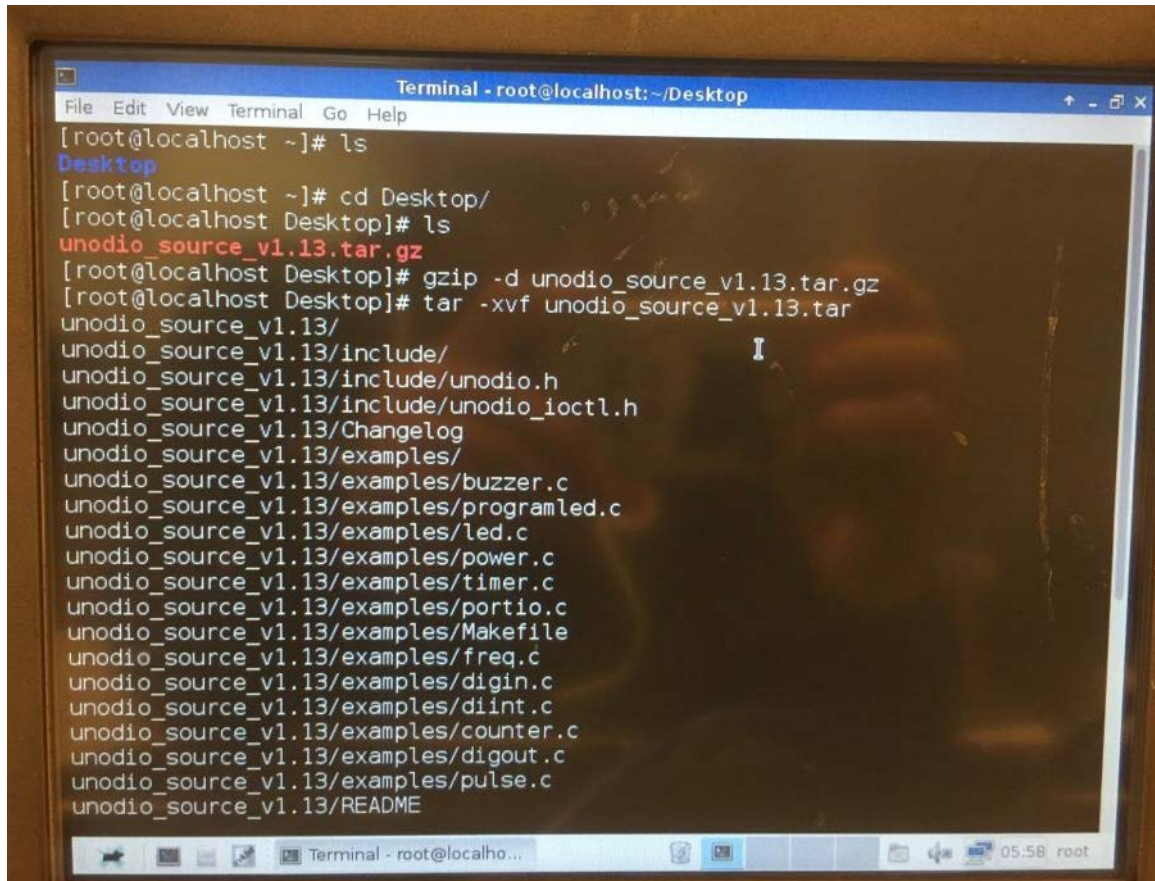


Step3

When OS install done, un-zip the “unodio_source_v1.13.tar.gz” by
“gzip -d unodio_source_v1.13.tar.gz” , “tar -xvf unodio_source_v1.13.tar”command.



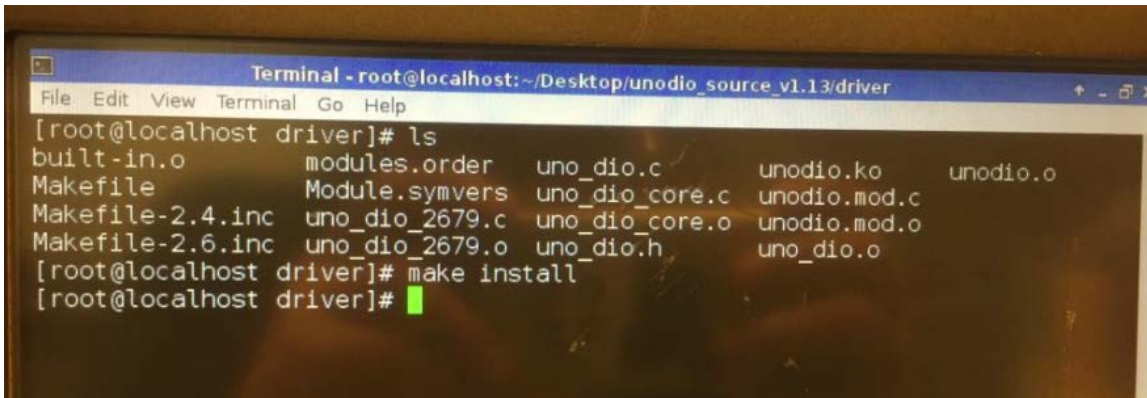
unodio_source_v1.13.tar.gz



```
Terminal - root@localhost:~/Desktop
File Edit View Terminal Go Help
[root@localhost ~]# ls
Desktop
[root@localhost ~]# cd Desktop/
[root@localhost Desktop]# ls
unodio_source_v1.13.tar.gz
[root@localhost Desktop]# gzip -d unodio_source_v1.13.tar.gz
[root@localhost Desktop]# tar -xvf unodio_source_v1.13.tar
unodio_source_v1.13/
unodio_source_v1.13/include/
unodio_source_v1.13/include/unodio.h
unodio_source_v1.13/include/unodio_ioctl.h
unodio_source_v1.13/Changelog
unodio_source_v1.13/examples/
unodio_source_v1.13/examples/buzzer.c
unodio_source_v1.13/examples/programled.c
unodio_source_v1.13/examples/led.c
unodio_source_v1.13/examples/power.c
unodio_source_v1.13/examples/timer.c
unodio_source_v1.13/examples/portio.c
unodio_source_v1.13/examples/Makefile
unodio_source_v1.13/examples/freq.c
unodio_source_v1.13/examples/digin.c
unodio_source_v1.13/examples/diint.c
unodio_source_v1.13/examples/counter.c
unodio_source_v1.13/examples/digout.c
unodio_source_v1.13/examples/pulse.c
unodio_source_v1.13/README
```

Step4

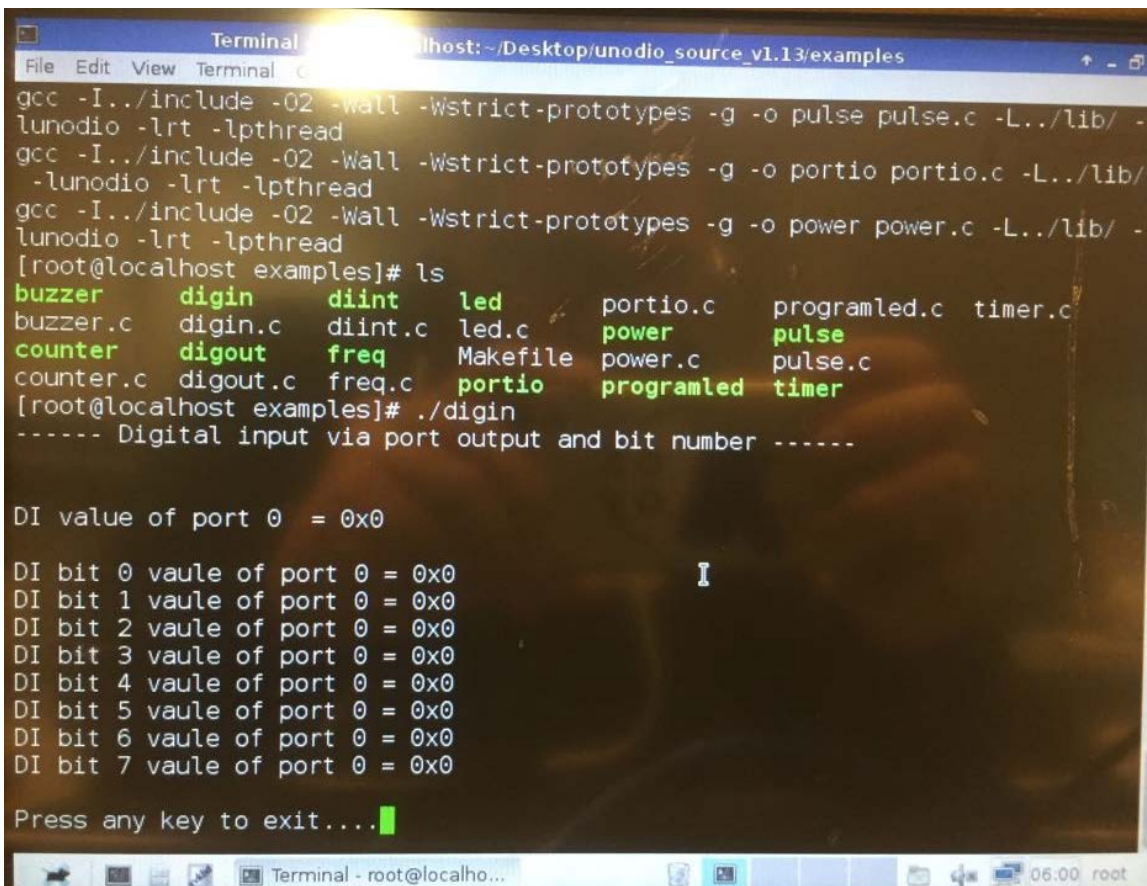
Cd to /driver folder and "make install"



```
Terminal - root@localhost: ~/Desktop/unodio_source_v1.13/driver
[root@localhost driver]# ls
built-in.o      modules.order  uno_dio.c      unodio.ko      unodio.o
Makefile        Module.symvers uno_dio_core.c unodio.mod.c
Makefile-2.4.inc uno_dio_2679.c uno_dio_core.o unodio.mod.o
Makefile-2.6.inc uno_dio_2679.o uno_dio.h      uno_dio.o
[root@localhost driver]# make install
[root@localhost driver]#
```

Step5

Run the sample application by "./+application name" command. If test pass you will see the DI bit and value of the port as below picture.



```
Terminal - root@localhost: ~/Desktop/unodio_source_v1.13/examples
gcc -I../include -O2 -Wall -Wstrict-prototypes -g -o pulse pulse.c -L../lib/ -
lunodio -lrt -lpthread
gcc -I../include -O2 -Wall -Wstrict-prototypes -g -o portio portio.c -L../lib/ -
lunodio -lrt -lpthread
gcc -I../include -O2 -Wall -Wstrict-prototypes -g -o power power.c -L../lib/ -
lunodio -lrt -lpthread
[root@localhost examples]# ls
buzzer      digin      diint      led         portio.c    programled.c timer.c
buzzer.c    digin.c    diint.c    led.c       power        pulse
counter     digout     freq       Makefile    power.c     pulse.c
counter.c   digout.c   freq.c     portio      programled  timer
[root@localhost examples]# ./digin
----- Digital input via port output and bit number -----

DI value of port 0 = 0x0

DI bit 0 vaule of port 0 = 0x0
DI bit 1 vaule of port 0 = 0x0
DI bit 2 vaule of port 0 = 0x0
DI bit 3 vaule of port 0 = 0x0
DI bit 4 vaule of port 0 = 0x0
DI bit 5 vaule of port 0 = 0x0
DI bit 6 vaule of port 0 = 0x0
DI bit 7 vaule of port 0 = 0x0

Press any key to exit....
```

Reference:

N/A

Contact Window and File Link:

If you have any questions, please contact Simon.Peng #7707