

Data Create	2015/03/26	Release Note	<input type="checkbox"/> Internal <input checked="" type="checkbox"/> External
Category	FAQ	Product Group	IAG
Function	Communication	Related OS	Linux
Related Product	UNO-2174A		

[Abstract]

How to Install Com Driver in Linux Terminal

[Solution]

1. Ctrl + Alt + F2
 - A. To change window to Terminal and type the following instrument.
2. uname -r
 - A. To print the current Linux kernel information.
 - B. In this case, the kernel version is "2.6".

```
[root@localhost ~]# uname -r
2.6.32-431.el6.x86_64
[root@localhost ~]# _
```

Figure: The version of Linux.

3. Go to Advantech website to download UNO-2174A Linux driver and extract it. (Linux driver for Adv950)
4. Copy and paste the corresponding file to the USB disk. Remember that the format of USB disk should be FAT32.
 - A. In this case, I only copy 2.6 file to my USB disk.

Stage 2: Mount the file

1. fdisk -l
 - A. To list disk partition, you can find USB disk path.
 - B. In this case, the USB disk path is /dev/sda1.

```
Disk /dev/sda: 8032 MB, 8032092160 bytes
131 heads, 50 sectors/track, 2396 cylinders
Units = cylinders of 6550 * 512 = 3353600 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0xd6f5195e

Device Boot      Start      End  Blocks  Id System
/dev/sda1          2      2396   7839744   b  W95 FAT32

Disk /dev/mapper/VolGroup-lv_root: 53.7 GB, 53687091200 bytes
255 heads, 63 sectors/track, 6527 cylinders
```

Figure: As you can see, my USB disk is 8GB, and the path is /dev/sda1.

2. mkdir /tmp/driver
 - A. To create a new file which called “driver” under “tmp” path.
3. mount /dev/sda1 /tmp/driver
 - A. To mount the USB disk on this path.

Stage 3: Go to the file and make installation

1. cd /tmp
2. cd driver/
3. cd 2.6/
 - A. Go to the driver material file.
4. ls
 - A. To list all files within this level.

```
[root@localhost ~]# cd /
[root@localhost ~]# ls
bin  cgroup  etc  lib  lost+found  misc  net  proc  sbin  srv  tmp  var
boot  dev  home  lib64  media  mnt  opt  root  selinux  sys  usr
[root@localhost ~]# cd 2.6/
-bash: cd: 2.6/: No such file or directory
[root@localhost ~]# cd tmp/
[root@localhost tmp]# ls
apple  keyring-kEuj0B  orbit-gdm  pulse-8TttWQKGbph8  usb  virt
driver  keyring-ou4wU  orbit-Luke  pulse-WSB3i1sdZe5n  virtual-Luke.2c2GMS  virt
[root@localhost tmp]# cd driver/
[root@localhost driver]# ls
2.6
[root@localhost driver]# cd 2.6/
[root@localhost 2.6]# ls
8250.c  8250.h  8250_pci.c  Makefile  serial_core.c
[root@localhost 2.6]#
```

Figure: You can see there is a “Makerfile”.

5. make
 - A. Compile the file.
6. make install
 - A. Installation.
7. lsmod | grep adv
 - A. Search module name which relates to “adv”.
8. ls /dev/ttyAP*
 - A. You can find ttyAP0 and ttyAP1, which is the name of COM A and COM B.

Stage 4: Com port test

1. yum install minicom
 - A. Install application program “minicom”, which is one of com port test tools.
 - B. Yum instrument means apt-get in other version of Linux.
2. minicom -s
 - A. Create a new connection.

- B. Serial port setup -> Device name use com port ttyAP0, which stands for COM A.
- 3. Select COM mode
 - A. In this case, COM A and B will auto detection RS422/485 mode.
- 4. Connect the corresponding wire and transmit data.
 - A. If the data shown, it stands for the com port have passed the test.