

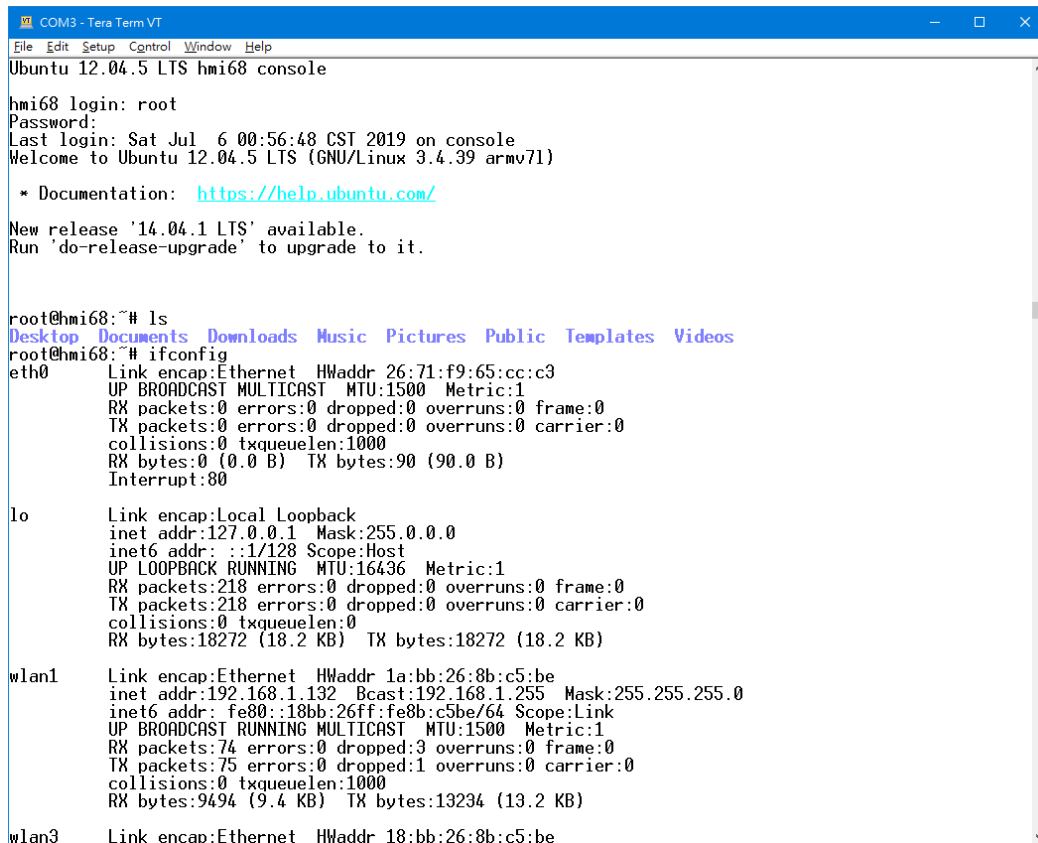
## 1. HMI Linux – UBUNTU Version

### Development Notice

- (1) Desktop environment, including the desktop itself, menus, panels, file management, window management, and some other applications. Belongs to a complete graphical representation
- (2) The desktop environment of HMI of the DMATEK uses ubuntu 12.04/14.04, The deskless version is 14.04
- (3) Because the Arm device needs to be hard-tuned, the user cannot upgrade the desktop version by himself.
- (4) The Ubuntu version of the desktop environment contains a large number of application libraries. There are also a large number of developers who have improved the old library updates, or added various new types of libraries. Very convenient for developers in development
- (5) Because the desktop environment has full functionality and a large number of subset libraries. This will allow the HMI to consume more device capacity and performance, ie it will cost more on the device.

### HMI ontent

- (1) Command interface - login system and general linux instructions



```
COM3 - Tera Term VT
File Edit Setup Control Window Help
Ubuntu 12.04.5 LTS hmi68 console

hmi68 login: root
Password:
Last login: Sat Jul 6 00:56:48 CST 2019 on console
Welcome to Ubuntu 12.04.5 LTS (GNU/Linux 3.4.39 armv7l)

 * Documentation: https://help.ubuntu.com/

New release '14.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

root@hmi68:~# ls
Desktop Documents Downloads Music Pictures Public Templates Videos
root@hmi68:~# ifconfig
eth0      Link encap:Ethernet  HWaddr 26:71:f9:65:cc:c3
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 B)  TX bytes:90 (90.0 B)
          Interrupt:80

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:218 errors:0 dropped:0 overruns:0 frame:0
          TX packets:218 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:18272 (18.2 KB)  TX bytes:18272 (18.2 KB)

wlan1     Link encap:Ethernet  HWaddr 1a:bb:26:8b:c5:be
          inet addr:192.168.1.132  Bcast:192.168.1.255  Mask:255.255.255.0
          inet6 addr: fe80::18bb:26ff:fe8b:c5be/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:74 errors:0 dropped:3 overruns:0 frame:0
          TX packets:75 errors:0 dropped:1 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:9494 (9.4 KB)  TX bytes:13234 (13.2 KB)

wlan3     Link encap:Ethernet  HWaddr 18:bb:26:8b:c5:be
```

## (2) Command Interface - Use the instructions to install and update the package

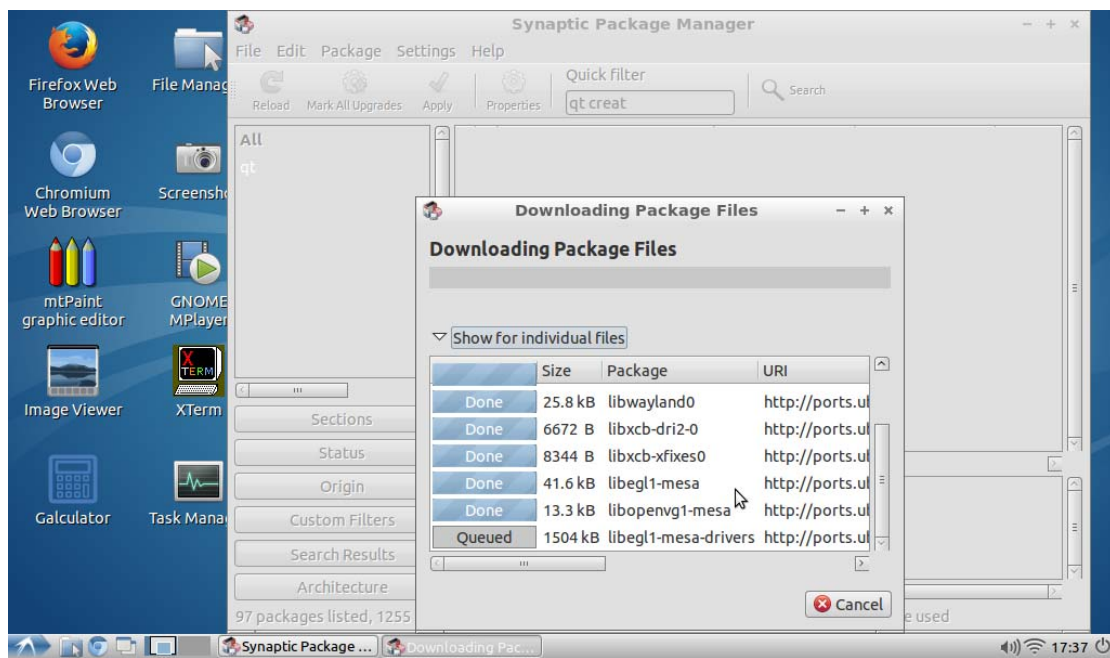
```
COM3 - Tera Term VT
File Edit Setup Control Window Help
UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
RX packets:48 errors:0 dropped:13 overruns:0 frame:0
TX packets:43 errors:0 dropped:1 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:6160 (6.1 KB)  TX bytes:9917 (9.9 KB)

root@hmi68:~#
root@hmi68:~# apt-get update
Err http://ports.ubuntu.com precise Release.gpg
  Something wicked happened resolving 'ports.ubuntu.com:http' (-5 - No address associated with hostname
)
Err http://ports.ubuntu.com precise-updates Release.gpg
  Something wicked happened resolving 'ports.ubuntu.com:http' (-5 - No address associated with hostname
)
Err http://ports.ubuntu.com precise-backports Release.gpg
  Something wicked happened resolving 'ports.ubuntu.com:http' (-5 - No address associated with hostname
)
Err http://ports.ubuntu.com precise-security Release.gpg
  Something wicked happened resolving 'ports.ubuntu.com:http' (-5 - No address associated with hostname
)
Ign http://ports.ubuntu.com precise Release
Ign http://ports.ubuntu.com precise-updates Release
Hit http://ports.ubuntu.com precise-backports Release
Hit http://ports.ubuntu.com precise-security Release
Ign http://ports.ubuntu.com precise/main Sources/DiffIndex
Ign http://ports.ubuntu.com precise/restricted Sources/DiffIndex
Ign http://ports.ubuntu.com precise/universe Sources/DiffIndex
Ign http://ports.ubuntu.com precise/main armhf Packages/DiffIndex
Ign http://ports.ubuntu.com precise/restricted armhf Packages/DiffIndex
Ign http://ports.ubuntu.com precise/universe armhf Packages/DiffIndex
Hit http://ports.ubuntu.com precise/main TranslationIndex
Hit http://ports.ubuntu.com precise/restricted TranslationIndex
Hit http://ports.ubuntu.com precise/universe TranslationIndex
Ign http://ports.ubuntu.com precise-updates/main Sources/DiffIndex
Ign http://ports.ubuntu.com precise-updates/restricted Sources/DiffIndex
Ign http://ports.ubuntu.com precise-updates/universe Sources/DiffIndex
Ign http://ports.ubuntu.com precise-updates/main armhf Packages/DiffIndex
Ign http://ports.ubuntu.com precise-updates/restricted armhf Packages/DiffIndex
Ign http://ports.ubuntu.com precise-updates/universe armhf Packages/DiffIndex
Hit http://ports.ubuntu.com precise-updates/main TranslationIndex
Hit http://ports.ubuntu.com precise-updates/restricted TranslationIndex
Hit http://ports.ubuntu.com precise-updates/universe TranslationIndex
Ign http://ports.ubuntu.com precise-backports/main Sources/DiffIndex
Ign http://ports.ubuntu.com precise-backports/restricted Sources/DiffIndex
```

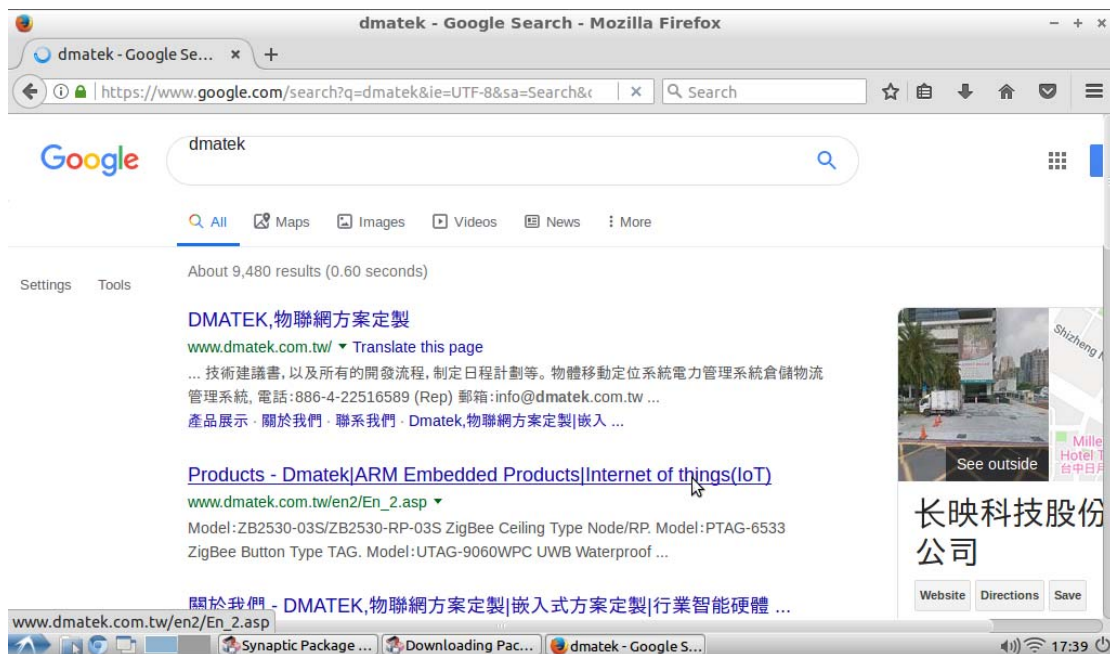
## (3) Desktop environment - Ubuntu 12.04 interface



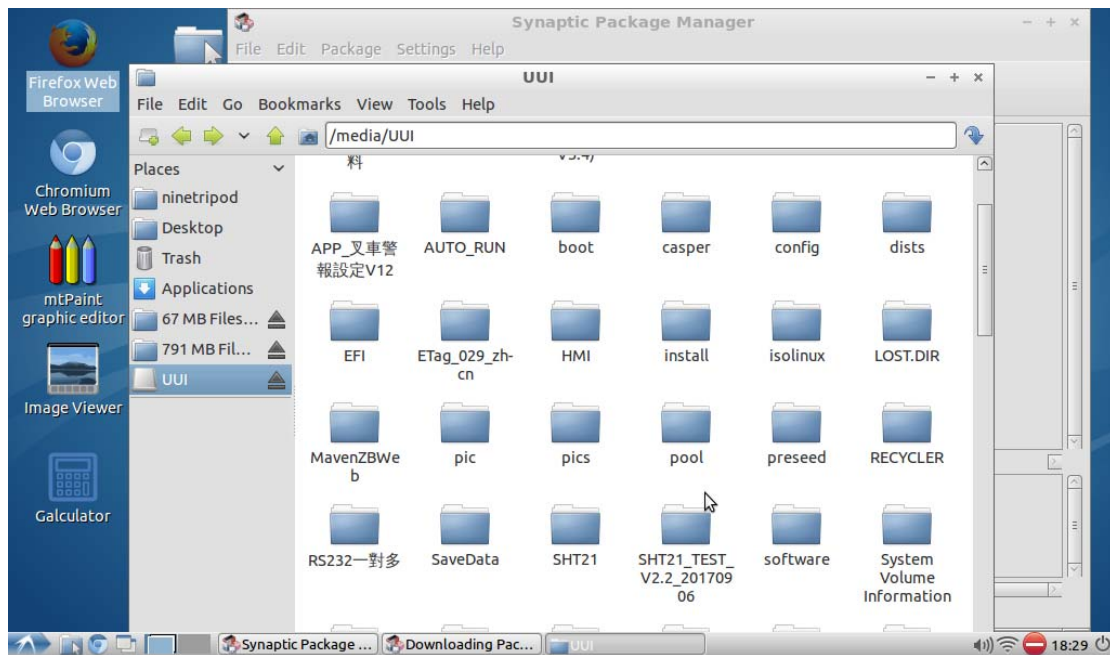
#### (4) Desktop environment - package installation and update



#### (5) Desktop environment – Browser



(6) Desktop environment - file system and external storage devices such as USB flash drive



(7) Desktop environment - development environment, such as the self-installed QT Creator shown below

