Linux system UVC driver configuration

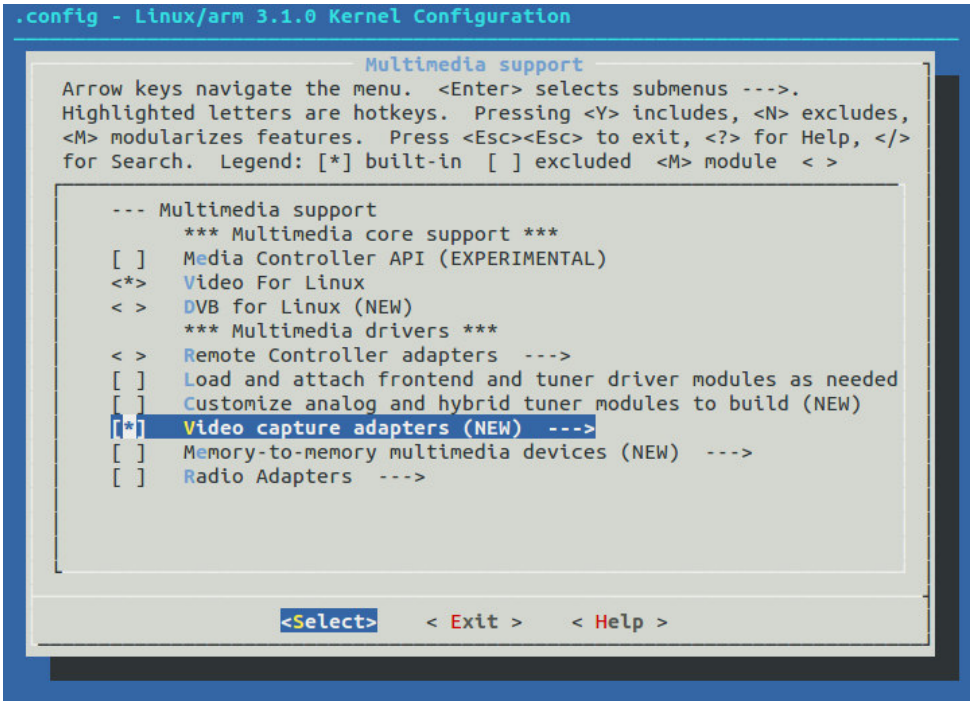
UVC, full name: USB video class, is a Microsoft and several other equipment manufacturers jointly launched the protocol standard for delimiting USB video capture device. Hardware devices that are comply with the UVC specifications can be used in host computer without installing any drivers .
UVC technology include the use of cameras, digital cameras, analog video converters, TV stick and still image cameras and other equipment.

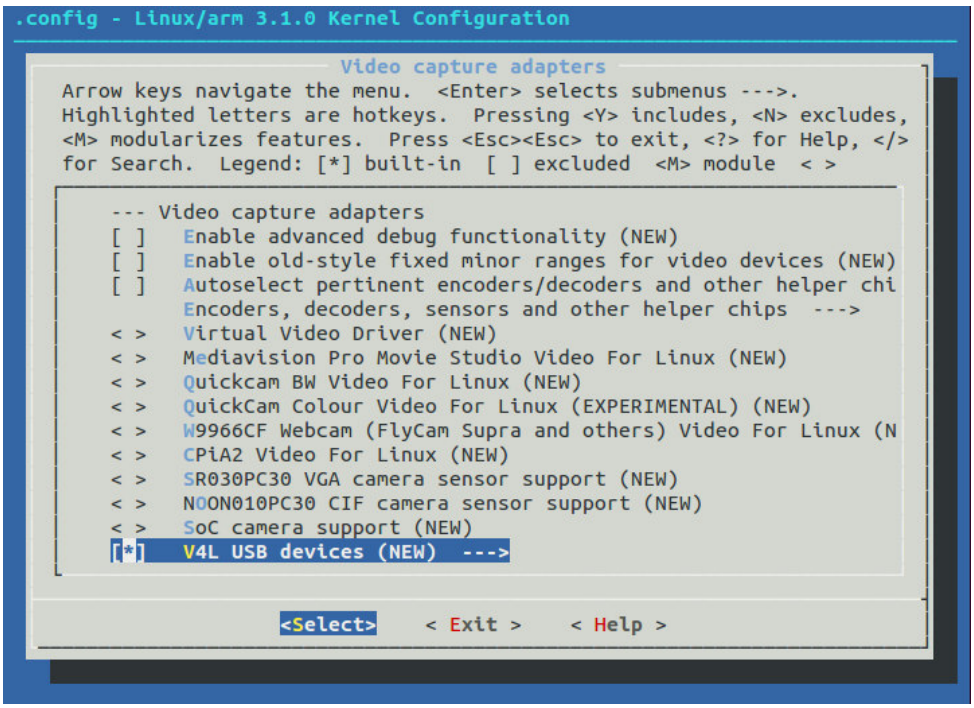
In the mainstream operating systems are already included UVC protocols, such as:
Windows XP SP2 and above
Win7、Win8、Vista
MacOS 10.5 and above
Linux-2.6 and above
Release Version Linux，as：Ubuntu，Fedora，Debian etc.

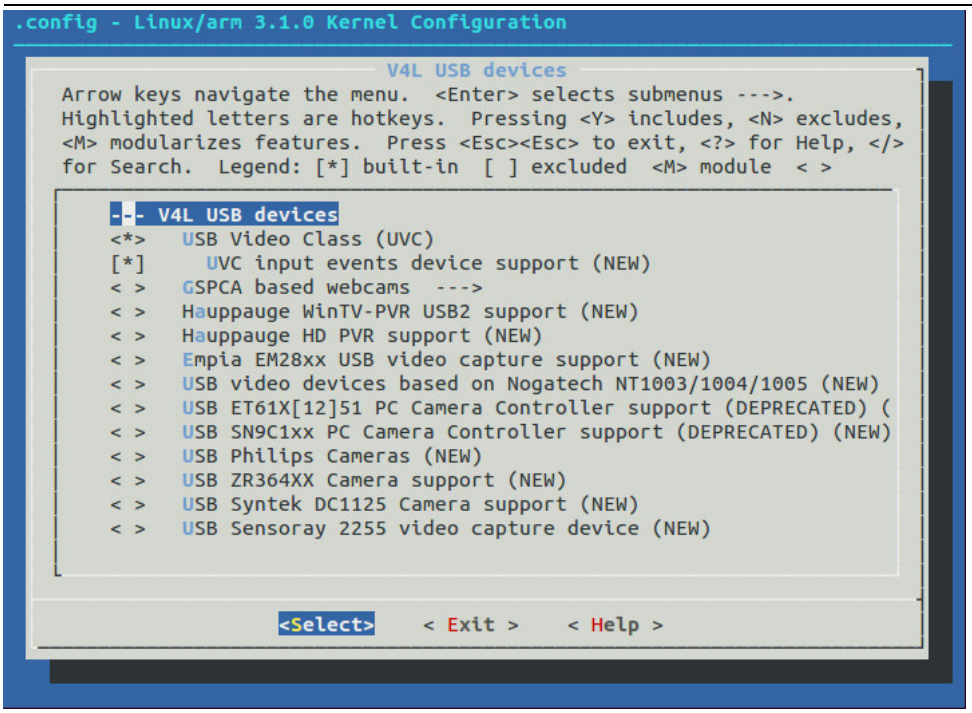
Below describes the configuration UVC driver linux systems for embedded systems developers.
Configuring the kernel:

```
Device Drivers --->
    [*]Multimedia support --->
        <*>Video For Linux
        [*] Video capture adapters --->
            [*]V4L USB Devices --->
                <*>USB Video Class(UVC)
                [*] UVC input event devices support
```

Note: Other USB Camera not need to choose.


.config - Linux/arm 3.1.0 Kernel Configuration
Multimedia support
Arrow keys navigate the menu. <Enter> selects submenus --->.
Highlighted letters are hotkeys. Pressing <Y> includes, <N> excludes,
<M> modularizes features. Press <Esc><Esc> to exit, <?> for Help, </>
for Search. Legend: [*] built-in [ ] excluded <M> module < >
--- Multimedia support
*** Multimedia core support ***
[ ] Media Controller API (EXPERIMENTAL)
<*> Video For Linux
< > DVB for Linux (NEW)
*** Multimedia drivers ***
< > Remote Controller adapters --->
[ ] Load and attach frontend and tuner driver modules as needed
[ ] Customize analog and hybrid tuner modules to build (NEW)
[*] Video capture adapters (NEW) --->
[ ] Memory-to-memory multimedia devices (NEW) --->
[ ] Radio Adapters --->
<Select> < Exit > < Help >


.config - Linux/arm 3.1.0 Kernel Configuration
Video capture adapters
Arrow keys navigate the menu. <Enter> selects submenus --->.
Highlighted letters are hotkeys. Pressing <Y> includes, <N> excludes,
<M> modularizes features. Press <Esc><Esc> to exit, <?> for Help, </>
for Search. Legend: [*] built-in [ ] excluded <M> module < >
--- Video capture adapters
[ ] Enable advanced debug functionality (NEW)
[ ] Enable old-style fixed minor ranges for video devices (NEW)
[ ] Autoselect pertinent encoders/decoders and other helper chi
Encoders, decoders, sensors and other helper chips --->
< > Virtual Video Driver (NEW)
< > Mediavision Pro Movie Studio Video For Linux (NEW)
< > Quickcam BW Video For Linux (NEW)
< > QuickCam Colour Video For Linux (EXPERIMENTAL) (NEW)
< > W9966CF Webcam (FlyCam Supra and others) Video For Linux (N
< > CPiA2 Video For Linux (NEW)
< > SR030PC30 VGA camera sensor support (NEW)
< > NOON010PC30 CIF camera sensor support (NEW)
< > SoC camera support (NEW)
[*] V4L USB devices (NEW) --->
<Select> < Exit > < Help >



Save the configuration, the UVC compiled into the kernel, the UVC can be compiled into a module called uvcvideo.ko, dynamic loading

Insert the USB camera, the system prompts uvcvideo: Found UVC 1.00 device

Generating equipment：/dev/video0

```
[root@XC2440 /]# usb 1-1: new full speed USB device using s3c2410-ohci and address 2
usb 1-1: New USB device found, idVendor=1b17, idProduct=0210
usb 1-1: New USB device strings: Mfr=2, Product=1, SerialNumber=0
usb 1-1: Product: USB 2.0 Camera
usb 1-1: Manufacturer: Sonix Technology Co., Ltd.
uvcvideo: Found UVC 1.00 device USB 2.0 Camera (1b17:0210)
input: USB 2.0 Camera as /devices/platform/s3c2410-ohci/usb1/1-1/1-1:1.0/input/input4
```