## Linux 系统 UVC 驱动配置

UVC,全称为: USB video class,是微软与另外几家设备厂商联合推出的为 USB 视频捕获设备定义的协议标准。符合 UVC 规格的硬件设备在不需要安装任何的驱动程序下即可在主机中正常使用。

使用 UVC 技术的包括摄像头、数码相机、类比影像转换器、电视棒及静态影像相机等设备。

在主流的操作系统中都已经包含 UVC 协议,如:

Windows XP SP2 及以上

Win7, Win8, Vista

MacOS 10.5 及以上

Linux-2.6 及以上

发行版 Linux,如:Ubuntu,Fedora, Debian等

Android 4.0 及以上

下文介绍在 linux 系统中配置 UVC 驱动,适用于嵌入式系统开发人员。

## 配置内核:

Device Drivers --->

[\*]Multimedia support --->

<\*>Video For Linux

[\*] Video capture adapters --->

[\*]V4L USB Devices --->

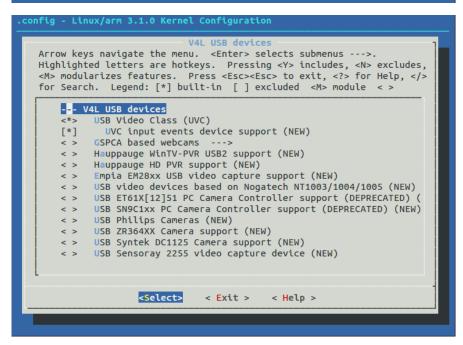
<\*>USB Video Class(UVC)

[\*] UVC input event devices support

注: 其他 USB Camera 不需要选择

```
onfig - Linux/arm 3.1.0 Kernel Configuration
 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 >
```

```
Video captur
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 >
```



保存配置,把 UVC 编译进内核,也可把 UVC 编译成模块,名为 uvcvideo.ko,动态加载

插入 USB 摄像头,系统提示 uvcvideo: Found UVC 1.00 device (不同的系统,显示的内容不同)

usb 2-1.2: new high-speed USB device number 8 using ehci\_hcd uvcvideo: Found UVC 1.00 device HD USB Camera (05a3:9230)

生成设备: /dev/video0

如果插入多个摄像头,设备名后缀数字依次增加,如: video1 video2 video3