

## Crescentec DC-1100 User's Manual

### Introduction

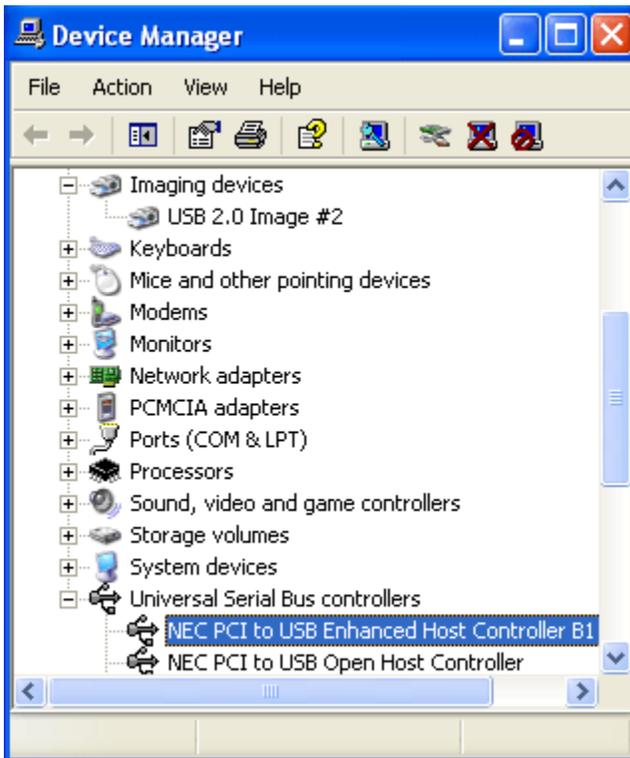
Welcome to Crescentec test suite, this user manual will guide you to setup and preview Crescentec's evaluation kit includes Crescentec demo web cam/video grabber. User can obtain the latest USB 2.0 Host driver for Windows 2000 and Windows XP via Windows Update. To preview Crescentec USB 2.0 web cam / video grabber, please use Microsoft Utility applications (Graph Edit and Amcap) which include in Microsoft DirectX SDK kit.

### 1. Setup

Insert the installation CD into your CD-ROM. The installer will run itself. Follow the on screen instruction. If cd auto-run is disabled on your PC, simply find DC-1100.exe on the CD and run it. If User has previous Crescentec driver installed, please remove previous driver first. Then run installer again to install the new driver.

**Note: Do not plug in the camera until the installer prompt to do so.**

After driver installed and camera plug in, windows will prompt to upload the driver from system (USB enumeration process). Checks Device Manager (Go to Control Panel -> System Properties -> Device Manager). Look under "Imaging devices". If you see yellow or red make on the USB card or the camera, the driver is not installed working properly (see below).

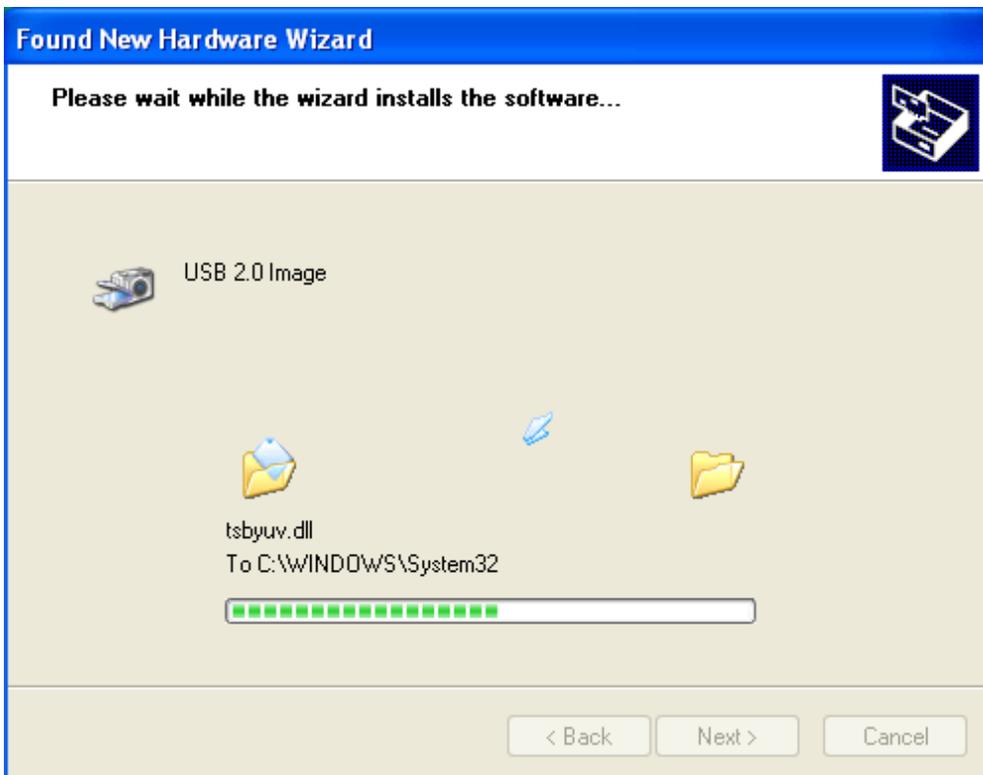


### 2. Enumeration

After driver installed, user can plug in the camera and system will enumerate the camera. See below



Select next... (Driver .inf file is located in the Windows directory Crescentec folder C:\windows\crescentec\)



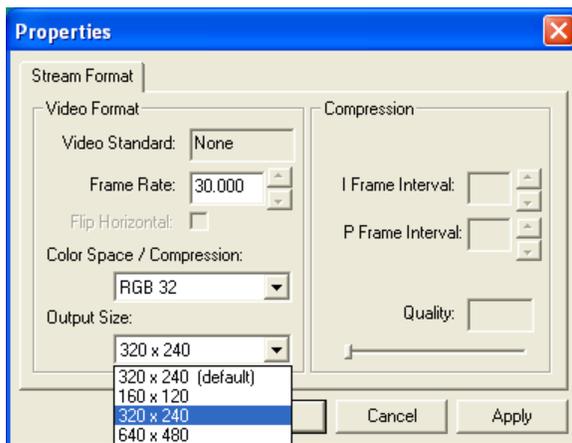
System will copy driver files in Windows\system32\... directory. Then system will prompt to install USB 2.0

Audio driver. Select next... (Note: please read application for more detail information on USB 2.0 Audio driver)

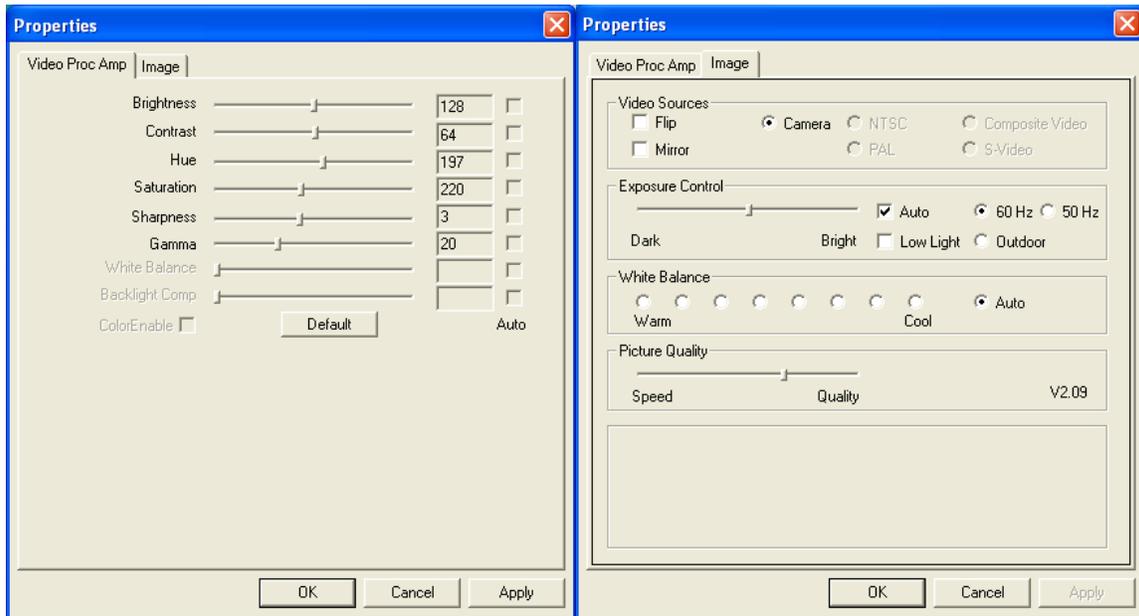


### 3. Viewing the image with AMCAP

The simplest way to view Crescentec demo camera is to run Amcap. Open amcap.exe, select Options->Preview and you should see video starting running. To see different size of video, select "Option->Video Capture Pin" (see below): There are two available formats I420 and RGB32, three resolutions to choose 160x120, 320x240, 640x480, 800x600 (SVGA sensor) and 1280x1024 (mega pixel sensor). The Frame Rate selection is currently disabled at this moment.



To gain control over the image, select "Option->Video Capture Filter". (See Below):



### Image Buttons

Fluorescence light flicker and cause horizontal band on the image. Select either 50 Hz or 60 Hz, depends on your electrical source, will reduce the problem. For non-flickering lighting source, select Outdoor.

“Mirror” flips the image horizontally, and “Vertical Flip” flips it vertically.

### Exposure Control

The sliding bar changes the exposure level. It works whether you check “Auto” or not. Also check “Low Light” will increase the exposure range; check it if your environment is dark. This may slow down the frame rate.

### White Balance Control

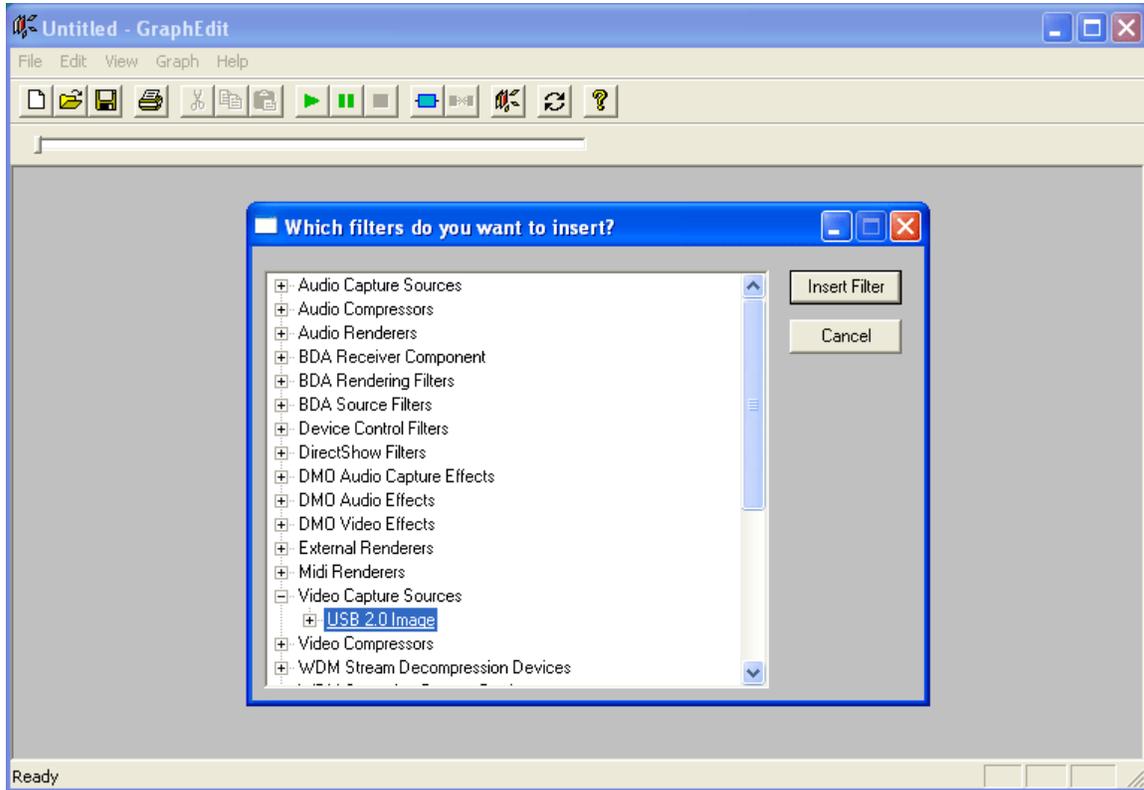
“White Balance” buttons make your image looks “white”; not too yellow, not too blue. Select “Auto” to let it do its work. The other 8 buttons are not yet implemented. Select any of them simply turn off auto white balance. You can also change white balance on the standard control page (not shown).

### Picture Quality

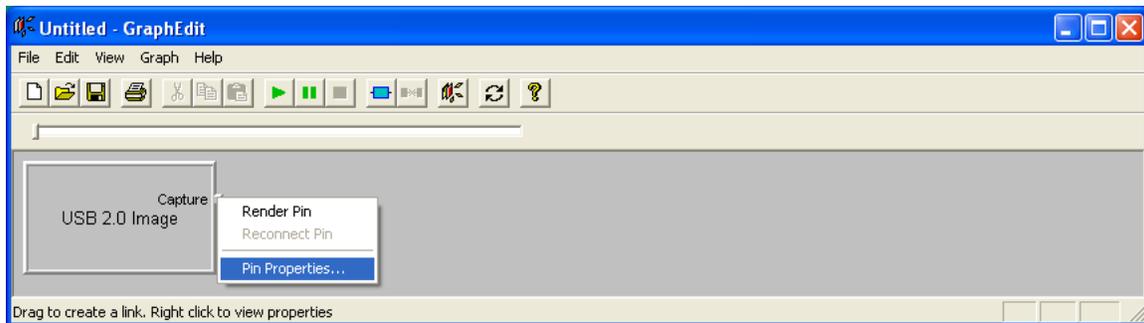
“Picture Quality” let you choose between quality and speed. If you have a lower end Pentium III, you may have to set it to “Speed” for fast frame rate. Currently there are 4 settings to choose, although first 2 on the Speed side are the same. We will differentiate it and improve quality on later revision.

#### 4. Viewing the image with Graph Edit

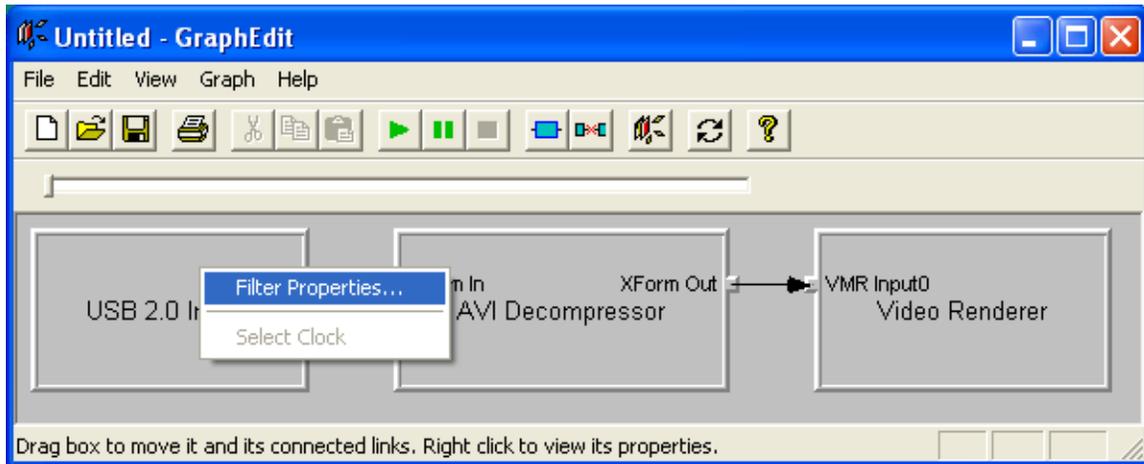
1. Builds a display on Graph Edit, first selects "Graph -> Insert Filters", then finds "USB 2.0 Image" as below, high light and click "Insert Filter"



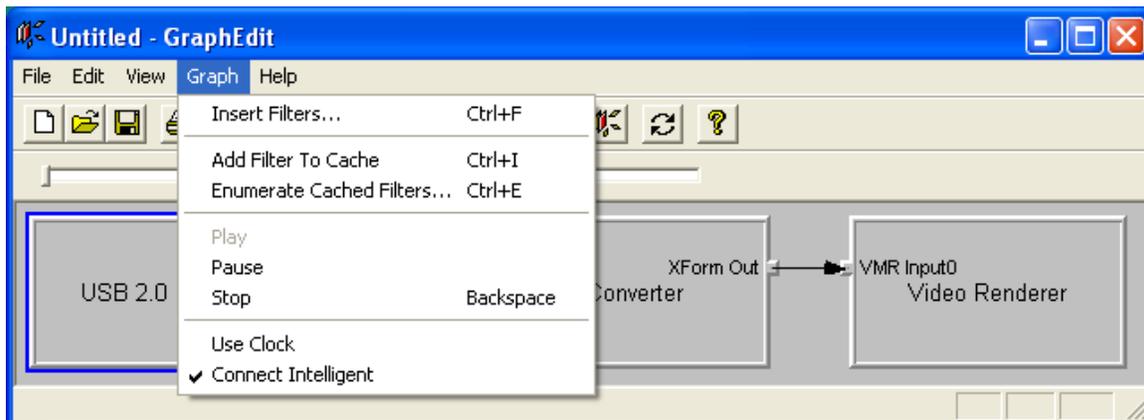
2. Right click on the little square "Capture". You should then see "Pin Properties" and "Render Pin". Select your idea resolution and click "Render Pin":



Picture below shows “I420” format filters



Picture below shows “RGB32” filters

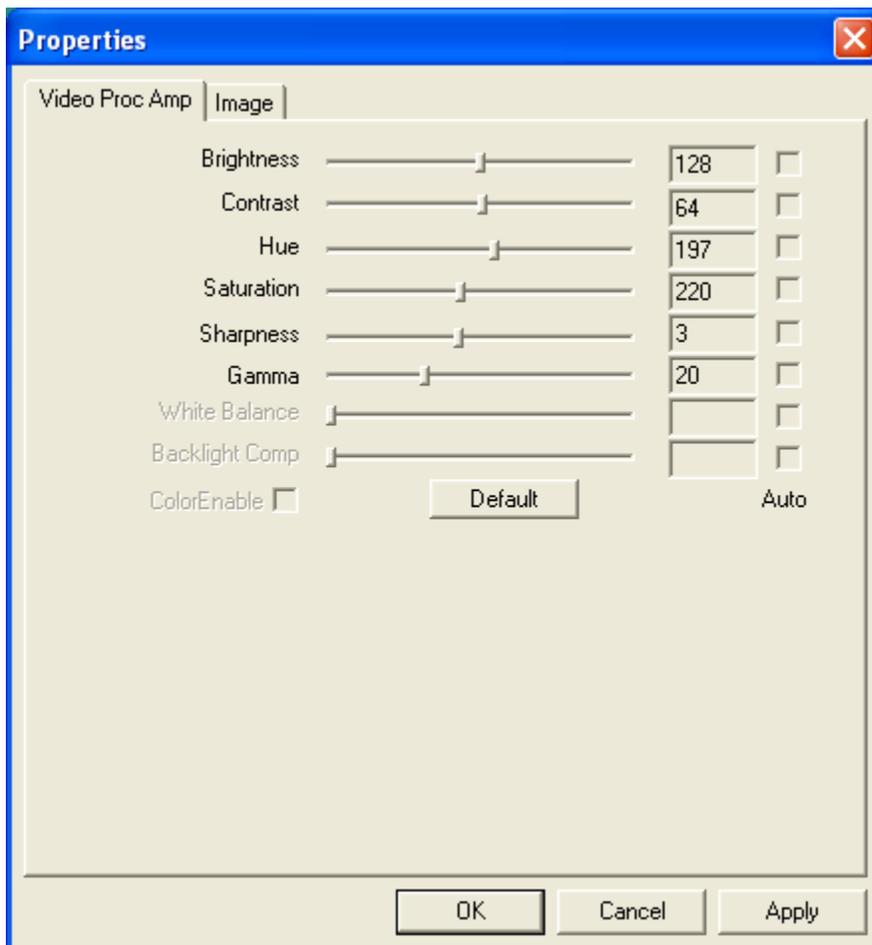


**Important: Make sure "Graph -> Use Clock" option is not checked. It will slow down the frame rate.**

3. Hit Play button and you should see video. Again, you can right click on the little Capture square to select image size. Right click on the big "Crescentec USB 2.0 Video Camera" box give you image control pop up menu.
4. Although “Use Clock” option is default off, the option will automatic turns on when first hit “Play” button. To turn off “Use Clock” option, user need to (1) click “play” button, let “Use Clock” automatic turns on. (2) Click “Stop” button to stop video. (3) Click “Graph” and then disable “Use Clock”, the option will be disabled since then. (4) Click “Play” again you will see video with improved frame rate.

## 5. Trouble Shooting

1. **Use drivers from Microsoft only**, drivers develop by non-Microsoft vendor most likely not support USB2.0 Isochronous transfer at this moment. Even though you have been successfully installed USB2.0 host driver from non-Microsoft vendor, it does not mean they support Iso transfer. Crescentec is currently working with driver software vendor to upgrade their driver. If your PC reboot as soon as you plug in the camera, you are not using the supported USB2.0driver. For Microsoft driver, please download from Microsoft Web site or contact Crescentec supporting staff for help.
2. When you check “Low Light”, “50Hz”, “60Hz” or “Outdoor”, you will see image color and brightness level change. There is really nothing “wrong” here; the camera will adjust itself back to normal if you have auto exposure and auto white balance turned on. We will fix it in later revision, though.
3. If you did not check “Low Light”, the camera will not set exposure time lower than an internally determined level. So when moved “Auto Exposure Control” bar to bright side, the brightness level will not change accordingly. It looks like the sliding bar is not working, but this is normal.
4. The three standard control bar in the Microsoft page (below) only work when you choose highest quality setting.



5. When preview with Amcap, you may see flashing if auto exposure is turned on. This is a known problem for Amcap. We are working with Microsoft for a solution.

## **System Requirement**

This camera send out VGA size image at >30 frames per second. You should make sure your PC have enough memory, CPU power and a fast enough graphic card for the job. The minimum requirement is PCs with P3 500 Mhz, 128M DDR memory, AGP display card, Windows 2000 or Windows XP.

Microsoft does not provide USB2.0 driver for Windows 98 and Windows ME, and as such, will not work with our camera. Non-Microsoft Windows 98, Windows ME driver will work with Crescentec camera once Iso transfer enabled.

## **Contact Info**

If you have any questions, contact Dominic Wong at [dominic@crescentec.com](mailto:dominic@crescentec.com). The phone number of Crescentec is (408)435-1000.

## **Legal Notice**

Amcap.exe and graphedt.exe belongs to Microsoft. Do not re-distribute. All software on the bundled CD belongs to their rightful owner. Software piracy is a federal crime. So is copyright violation.