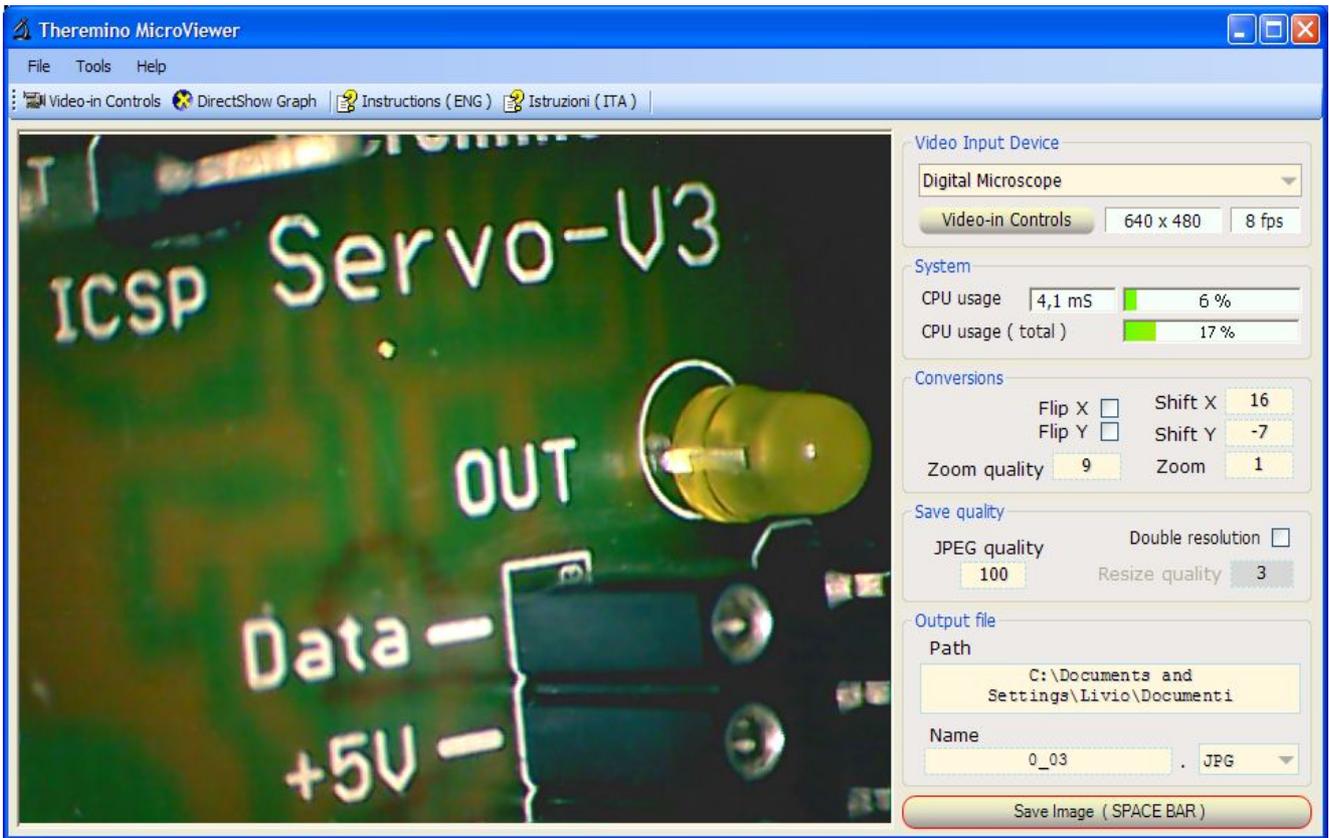


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System Theremino

Theremino MicroViewer Instructions

Theremino MicroViewer

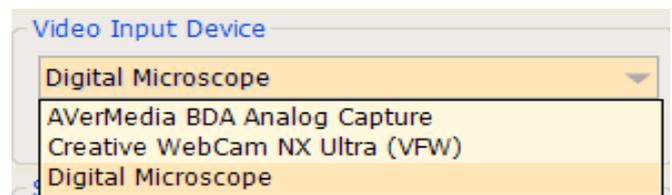


This application allows you to get the most out of each Webcam or digital microscope. Of course if you start from a device with 640 x 480 native pixels (as in this picture) the quality will be limited.

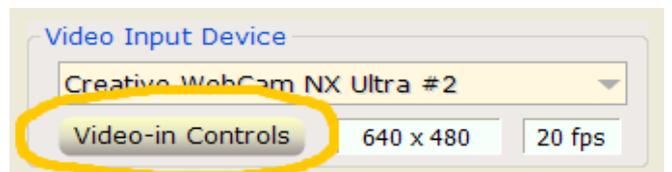
When you buy a device, make sure it is at least 720p HD (1280 x 720) or better yet, Full-HD 1080p (1920 x 1080) And be careful not to be fooled by the many mega-pixels that are often declared. The mega pixels interpolated by the software are always much higher resolution of the real hardware but you have to identify the true resolution, which unfortunately is often the usual 640 x 480.

Selecting the video input device

Clicking on the name you choose the input device.



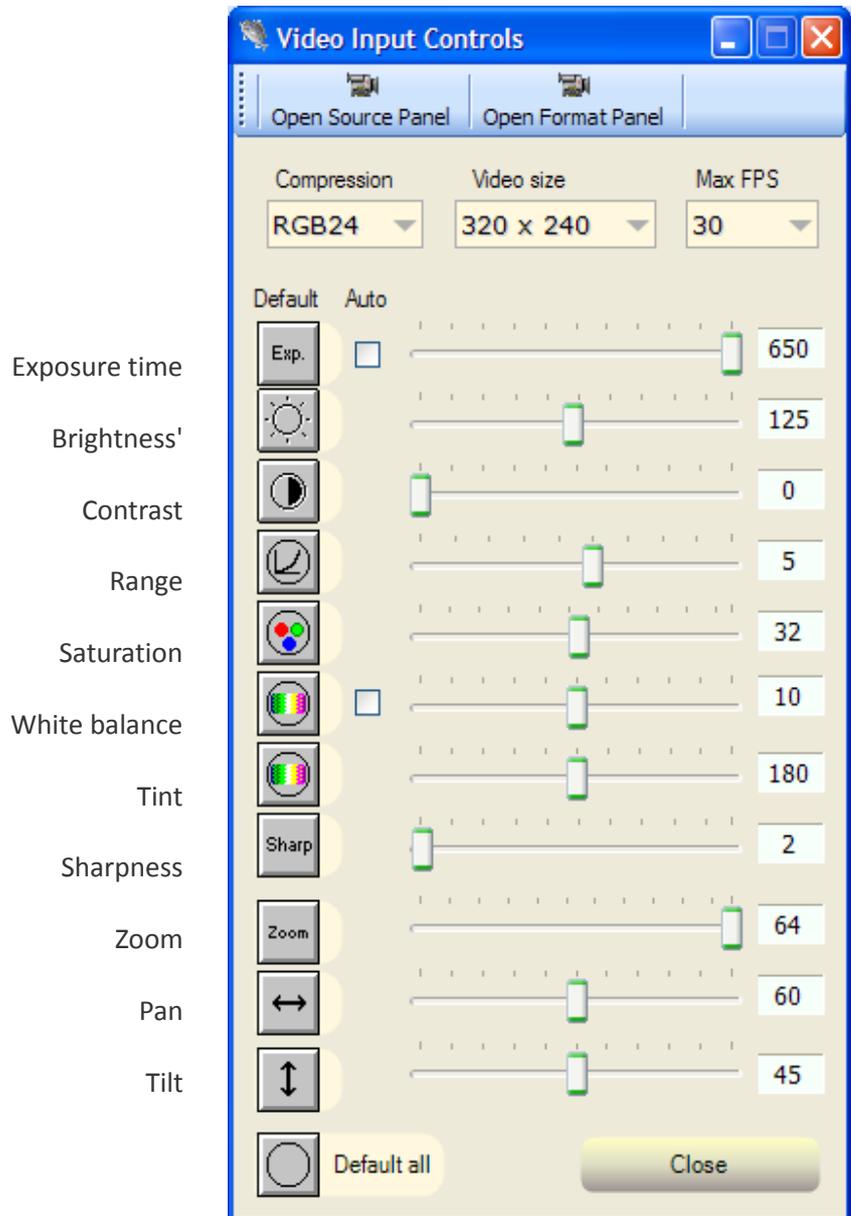
The "Video controls" button opens the panel of the video input parameters (See next page)



Adjusting the video input parameters

Depending on the device selected video some of these properties can be disabled. For example, if you use a OVT Scanner the settings "Zoom", "Pan" and "Tilt" are not enabled.

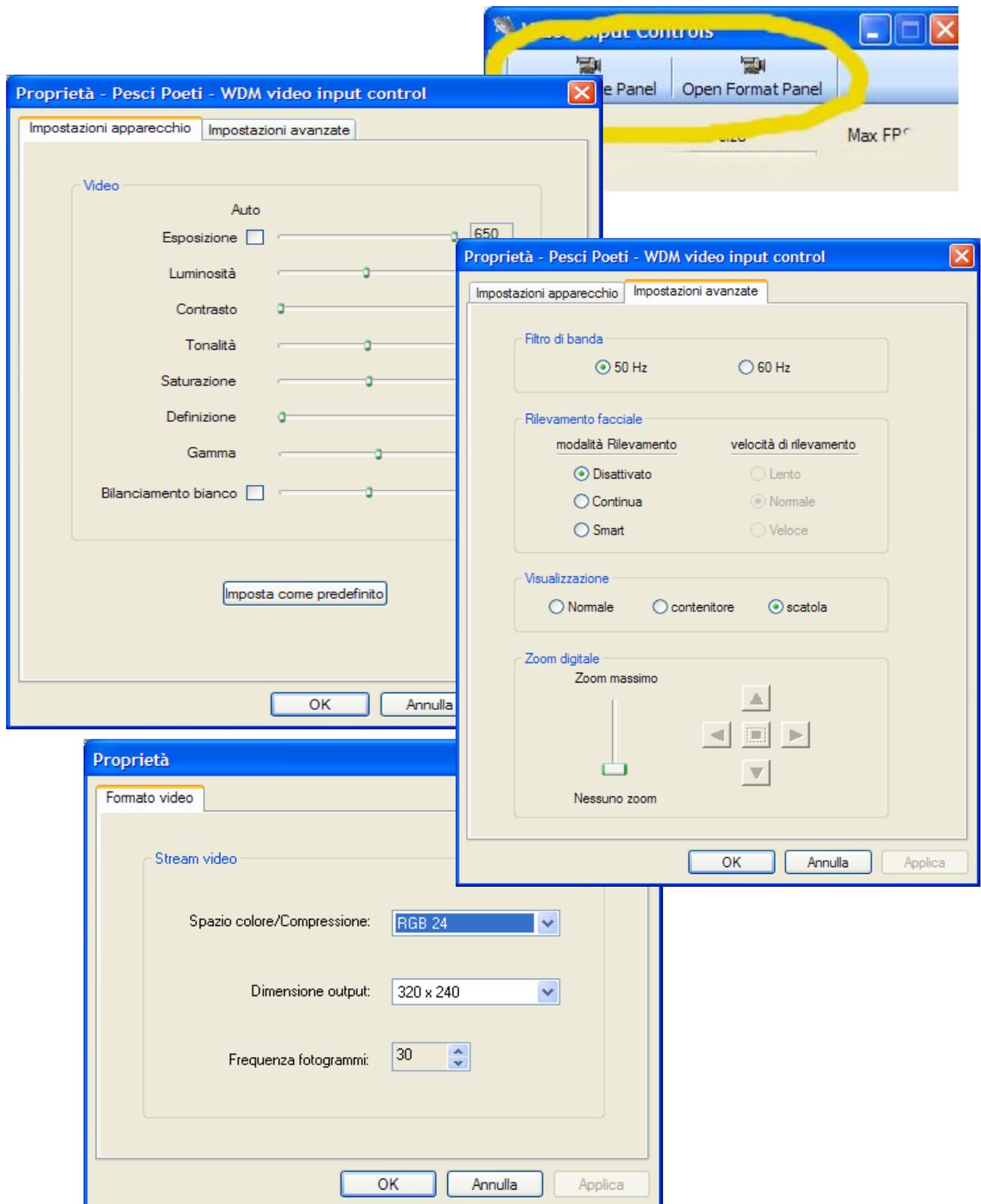
It can easily happen to accidentally leave active the box "Auto", so the box "Auto" is always disabled at the start of the program even if they were active in the previous session.



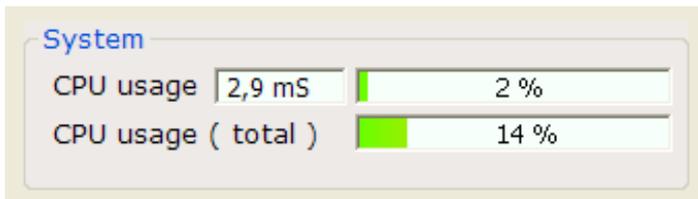
These properties are only accessible if you use video devices with drivers such as "WMV". If you only have drivers "VFW" it will be necessary to use "Open source panel" and "Open format panel" as shown on the next page.

VFW devices properties

Some properties of the video devices may be accessible only with "Open source panel" and "Open format panel"



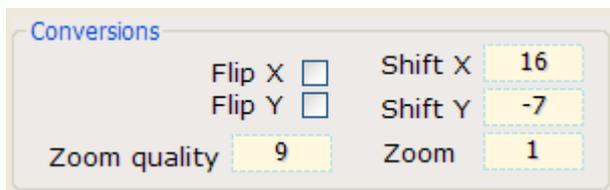
CPU info



This information is convenient to check the status of the CPU load.

In the event of delays can realize what it is (for example, that are being Windows updates) without the need to stop work and to open the Task Manager.

Image adjustments



Zoom

Digital magnification of the image. You can also magnify with the mouse wheel.

FlipX / Flipy

Flip Horizontal and vertical image.

The MicroViewer can also work with cameras, cameras and other devices that provide a mirror image.

Another use of the controls and FlipX Flipy is to overturn slides and negatives placed in reverse. The reversal occurs without slowing each other down conversion and without loss of quality.

ShiftX / Shifty

You can make the image move with these boxes or by pressing the left mouse button on the image and dragging it.

Shifting is only valid if the image is enlarged.

Zoom quality

Adjust quality for the digital on-screen magnification.

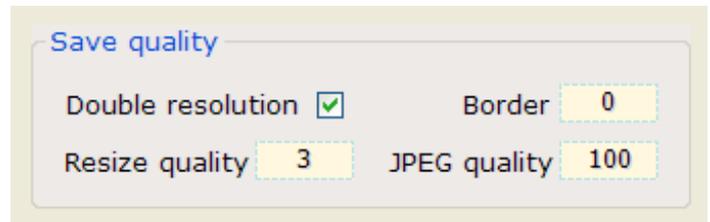
Quality for the images stored on the disk

Double resolution

This parameter is only effective while saving the image to disk.

Allows to double the resolution in software with an algorithm of high quality.

The end result is almost the same as you would get with dual hardware resolution.



The parameter "Resize quality", adjusts the quality of the resizing filter to obtain a good compromise between quality and computational time.

In order not to make it too long the time it takes to save the image you want to use the value: "3"

Quality adjustments

Meaning of "Zoom quality" and "Resize quality"

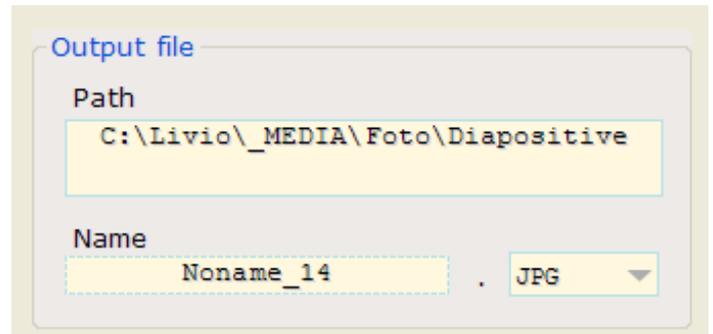
| Value | CompositingQuality | SmoothingMode | InterpolationMode |
|---------|--------------------|---------------|---------------------|
| 1 | HighSpeed | HighSpeed | Low |
| 2 | HighSpeed | HighSpeed | Bilinear |
| 3 >> << | HighSpeed | HighSpeed | HighQualityBilinear |
| 4 | HighSpeed | HighSpeed | Bicubic |
| 5 | HighQuality | HighQuality | Bicubic |
| 6 | HighQuality | HighQuality | HighQualityBilinear |
| 7 | HighQuality | HighQuality | HighQualityBicubic |

Folders and file names

Path

The box "Path" indicates the destination folder, to change it you double click on the box, you select a folder and press OK.

You can also change the "Path" or by manually copying and pasting.



Name

Here you can set a name for the images to be saved, with every shot the final figures will be increased automatically.

The number of digits is respected so if you want a four-digit number must be from, for example, with "xxxx 0001" which will be increased in "0002 xxxx" "Xxxx 0003" etc ...

No matter what's left of the digits, space or hyphen or another, the first non-numeric character from the right is considered the end of the name.

The name can not begin or end with space, any leading or trailing spaces are automatically removed.

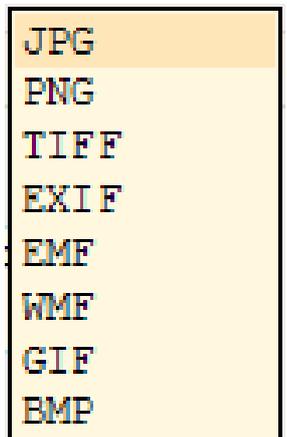
File Format

Normally it is recommended that you save in JPG with quality 100. If you want a higher quality and a good size 'that uses the PNG compression without any loss of information.

If a JPG image is loaded and then saved a very large number of times should theoretically worsen gradually (but in practice you do not notice any change)

Instead, the PNG can be saved and reloaded an infinite number of times and are always identical to the original.

Even TIFF, EXIF and BMP formats are lossless but files are very big.



The "Save Image" button

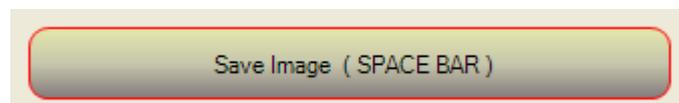
This software was initially made to copy slides with a "OVT Scanner" for which the "Save image" has been carefully chosen to allow you to save many images in sequence without watching the program but relying only on the sounds.

Click with the mouse on this button to save the image



After saving the first image you will notice that the edge of the button turns red.

When the edge is red you can save the following images also using the space bar on the keyboard.



To avoid inadvertently save images when typing on the keyboard the red border, and therefore the possibility to save images with the space bar will disable automatically as soon as you use some other program control.

To re-enable the red border without saving the image, you can make a click with the right mouse button.

When saving the image on the button lights up in orange and shuts down the process is complete.



During the process of saving are also no sound:

First beep

The process of saving the image is started, it is already possible to remove the slide and put a new one in order to save time.

According to beep

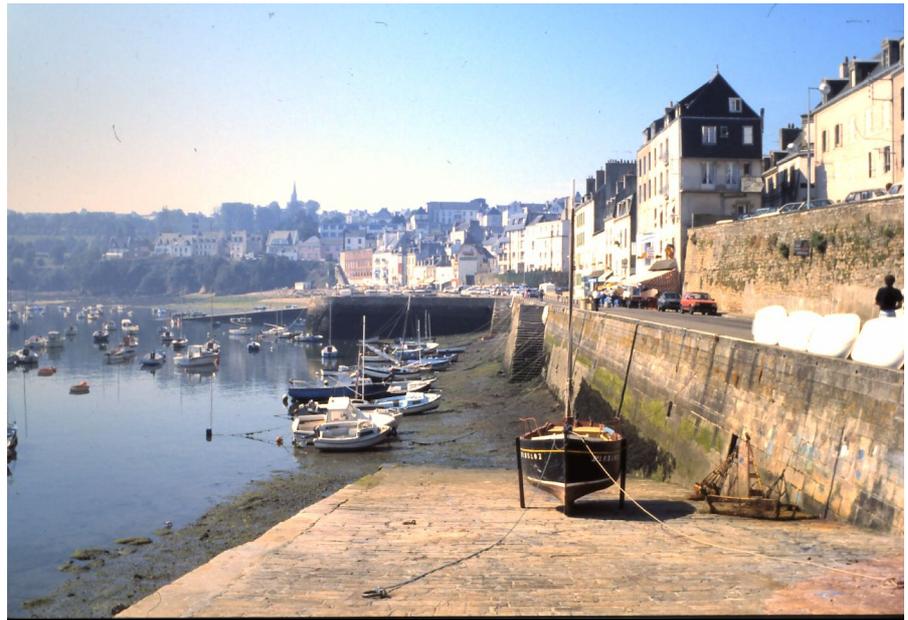
The processing of the image is finished and start saving to disk.

Third beep

The whole procedure is finished and you can start a new cycle.

Some of the previous stages can be very short for which, in certain cases, the beep overlap and may appear only two or one.

Quality tests on a slide



| | |
|-----------------|-----------------|
| Scanning device | Canon D646U |
| Software | Paint Shop Pro |
| Scan time | 26 seconds |
| Resolution | 1516 x 1032 |
| Pixel | 1.6 mega pixels |



| | |
|-----------------|---------------|
| Scanning device | OVT Scanner |
| Software | Film Scanner |
| Scan time | 0.5 seconds |
| Resolution | 2592 x 1680 |
| Pixel | 5 mega pixels |



| | |
|-----------------|----------------|
| Scanning device | OVT Scanner |
| Software | Film Scanner |
| Scan time | 3 seconds |
| Resolution | 5184 x 3360 |
| Pixel | 20 mega pixels |



The last image has been resized with quality "3" (HighQualityBilinear) and saved in JPG format (quality 100), if you set quality "7" and save it in PNG you still get a little improvement but the time goes up to about 10 seconds.