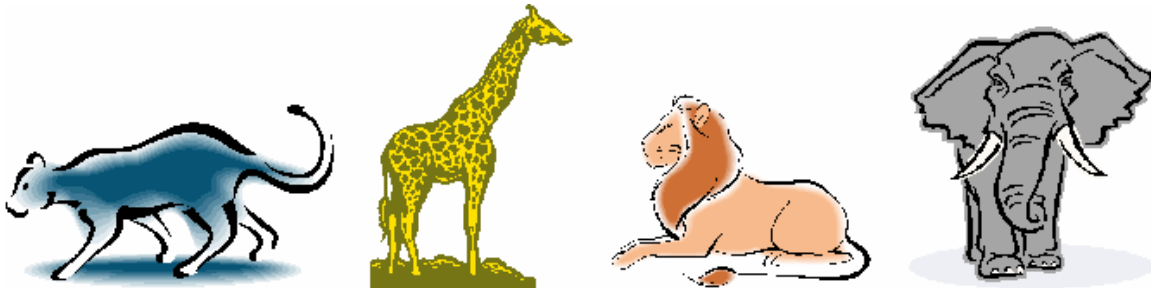


CogniSight MTVS Quick Start

Installation

- Connect the CogniSight MTVS to the Micron USB adaptor
- Connect the USB adaptor to the USB2 port of your PC.
- Windows will detect the new device and ask you to install a driver. The later is supplied on the CD delivered with the CogniSight Control Panel.
- Install the CogniSight Control Panel software
- Launch the application from the Start\Program Files menu\ General Vision menu.
- The live video image will appear instantaneously on screen.

Step-by-step demonstration with Animal cards



Print the AnimalCard.jpg supplied on the CD and cut them to obtain four cards per page

Let's define what to recognize...

Select Tools menu/ Control Panel

Select the Sensor tab

Adjust the camera and sensor settings to get a good image in the image window

Select the Training Tab

Right click at the Cat0 button and edit "Else" in the dialog box

Right click at the Cat1 button and edit "Cheetah" in the dialog box

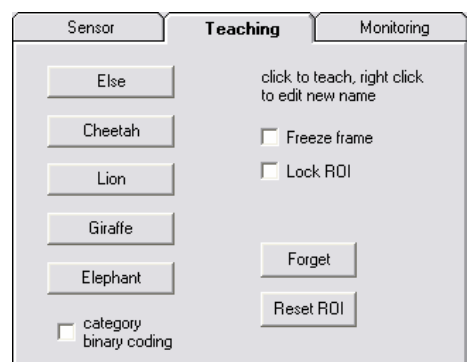
Right click at the Cat2 button and edit "Lion" in the dialog box

Right click at the Cat3 button and edit "Giraffe" in the dialog box

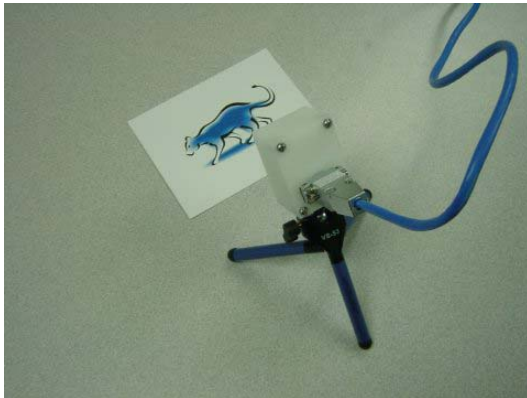
Right click at the Cat4 button and edit "Elephant" in the dialog box

Select File menu/Save As and save the settings to a file "Animalcard.ikf"

The knowledge is empty and the bottom of the main panel should report "Neurons= 0"



Lets' start teaching....



Move the card with the Cheetah in front of the sensor so it appears as follow in the image window.

The idea is that the Cheetah appears centered in the image and fits roughly inside the blue rectangle on the screen.

Click at the "Cheetah" button. The main panel should report "Neurons= 1"

Remove the Cheetah card.

Move the card with the Lion in front of the sensor so it fits similarly inside the blue rectangle.

The application should report that it recognizes a 'Cheetah' at the top of the image window. This is because the CogniSight engine does not know yet how to discriminate a Cheetah from a lion or anything else.

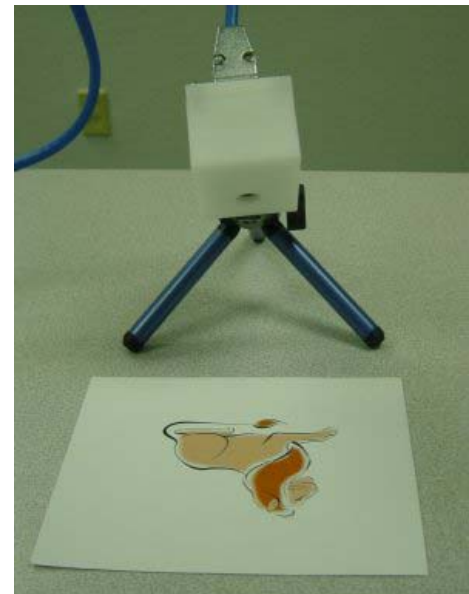
Click at the "Lion" button. The main panel should report "Neurons= 2"

Verify that the application now recognizes a "Lion" even if you move it slightly under the sensor. If not, click at the "Lion" button again.

Remove the "Lion" card.

Put back the "Cheetah" card and verify that the application recognizes a "Cheetah". If not, click at the "Cheetah" button again.

If you would like to teach a Giraffe or an Elephant, you know how to do it!



What happens when no card appears in the field of view of the sensor?

In order to avoid false identification of animals, it might be useful to teach the camera to recognize the category "Else" when no card is present in the blue rectangle, or when only an edge of the card is present in the rectangle.

Verify that no card appears inside the blue rectangle and click at the "Else" button. If necessary, click several times until the application reports "Else" at the top of the image window.

What to do if the response is incorrect or unstable?

If the application reports an incorrect or unstable response, this means that the recognition engine does not have enough information to discriminate a card from the background, or two cards or more. This can be easily corrected by showing new examples of the animals which cause this confusion.

Note that if the mis-recognition comes from an erroneous training, the only alternative is to click the Forget button and start the learning from scratch.

Monitoring results with selective display...

Once you have teach a few animal cards, you can switch to the Monitoring panel and decide to only view images of a given animal.

By default, all categories are transmitted.

Unselect Lion, Giraffe, Elephant and Else. Keep Cheetah.

The video shown on the screen should be still unless the application recognizes a Cheetah.

Check Lion and Else.

The video should be live if you present a Cheetah, a Lion, no card or an unknown card.

It should be still if you present a Giraffe or Elephant.

If the application does not behave as expected, you can easily identify between which animals it makes confusion. Go back to the Training tab and re-enforce the learning of these critical categories by clicking at the appropriate buttons.



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