NAME

meteor – Matrox Meteor PC Board Frame Grabber

DESCRIPTION

The Matrox Meteor frame grabber is a PCI board supported by spec on *Linux* platforms through the kernel-level driver available at

.

(The currently supported driver version is 1.5.4.)

spec treats the frame grabber as a CCD-like device. It is selected on the **A**cquisition-type device screen of the configuration editor as:

```
MCA- and CCD-Acquisition Type Device Configuration

CCD-like        DEVICE  ADDR <>MODE                        <>TYPE
 0   YES  /dev/meteor0     1             Meteor Frame Grabber PCI
```

The device name, of course, must match what was created with the driver installation. The address field (ADDR) is used to select the signal format for the frame grabber as follows:

ADDR	Format	Size
1	NTSC	480×640
2	PAL	576×768
3	SECAM	576×768

Currently spec sets the input source to the RCA-type connector when the device is opened.

FUNCTIONS

From spec, the frame grabber is accessed as an image device. It is read using the `image_get()` function, for example, as

```
ubyte array image[480][640]
image_get(0, image)
```

The native data type the unsigned byte `ubyte`, as used above.

Special options include:

`image_par(`*`sel`*`, "single")` – Selects single-capture mode. Every `image_get()` function will start a single frame capture, and wait until the frame is available. The frame buffer will then be copied to the user's data area. Single-capture mode is the default on start-up.

`image_par(`*`sel`*`, "continuous")` – Selects continuous-capture mode. Each time `image_get()` is called, spec will check the time stamp on the current frame buffer. When the time stamp changes from spec's previously saved value, spec will copy the current frame buffer contents to the user's data area. This method should insure that a different frame is returned each time. (A more robust method of collecting a series of frames may be implemented in the future. Contact CSS for more information.)

`image_par(`*`sel`*`, "fps" [, `*`value`*`])` – Returns or sets the number of frames per second acquired by the device in continuous-capture mode. The maximum value is 30 in NTSC mode and 25 in PAL and SECAM modes.

`image_par(`*`sel`*`, "timestamp")` – Returns the time stamp of the last frame obtained via `image_get()` in terms of the current UNIX epoch. (The UNIX epoch is the number of seconds from January 1, 1970, 00:00:00 GMT.) The value returned includes a fractional part with the resolution of the system clock. The value returned is in the same units as spec's `time()` function.

`image_par(`*`sel`*`, "frames")` Returns the current frame count.

`image_par(`*`sel`*`, "showall")` Displays internal driver information.

`image_par(`*`sel`*`, "reset")` Resets the hardware interface.