

# Vaio Picturebook Motion Eye Camera Driver

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## Private API

The driver supports frame grabbing with the video4linux API, so all video4linux tools (like xawtv) should work with this driver.

Besides the video4linux interface, the driver has a private interface for accessing the Motion Eye extended parameters (camera sharpness, agc, video framerate), the snapshot and the MJPEG capture facilities.

This interface consists of several ioctls (prototypes and structures can be found in include/linux/meye.h):

### MEYEIOC\_G\_PARAMS and MEYEIOC\_S\_PARAMS

Get and set the extended parameters of the motion eye camera. The user should always query the current parameters with MEYEIOC\_G\_PARAMS, change what he likes and then issue the MEYEIOC\_S\_PARAMS call (checking for -EINVAL). The extended parameters are described by the meye\_params structure.

### MEYEIOC\_QBUF\_CAPT

Queue a buffer for capture (the buffers must have been obtained with a VIDIOCGMBUF call and mmap'ed by the application). The argument to MEYEIOC\_QBUF\_CAPT is the buffer number to queue (or -1 to end capture). The first call to MEYEIOC\_QBUF\_CAPT starts the streaming capture.

### MEYEIOC\_SYNC

Takes as an argument the buffer number you want to sync. This ioctl blocks until the buffer is filled and ready for the application to use. It returns the buffer size.

### MEYEIOC\_STILLCAPT and MEYEIOC\_STILLJCAPT

Takes a snapshot in an uncompressed or compressed jpeg format. This ioctl blocks until the snapshot is done and returns (for jpeg snapshot) the size of the image. The image data is available from the first mmap'ed buffer.

Look at the 'motioneye' application code for an actual example.