ioctl VIDIOC_STREAMON, VIDIOC_STREAMOFF

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Unknown directive type "c:namespace".

```
.. c:namespace:: V4L
```

Name

VIDIOC_STREAMON - VIDIOC_STREAMOFF - Start or stop streaming I/O

Synopsis

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Unknown directive type "c:macro".

```
.. c:macro:: VIDIOC_STREAMON
```

```
int ioctl(int fd, VIDIOC_STREAMON, const int *argp)
```

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Unknown directive type "c:macro".

```
.. c:macro:: VIDIOC_STREAMOFF
```

```
int ioctl(int fd, VIDIOC_STREAMOFF, const int *argp)
```

Arguments

`fd`

File descriptor returned by :c:func:`open()`.

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`argp`

Pointer to an integer.

Description

The `VIDIOC_STREAMON` and `VIDIOC_STREAMOFF` ioctl start and stop the capture or output process during streaming (:ref:`memory mapping <mmap>`, :ref:`user pointer <userp>` or :ref:`DMABUF <dmabuf>`) I/O.

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Capture hardware is disabled and no input buffers are filled (if there are any empty buffers in the incoming queue) until VIDIOC_STREAMON has been called. Output hardware is disabled and no video signal is produced until VIDIOC_STREAMON has been called. The ioctl will succeed when at least one output buffer is in the incoming queue.

Memory-to-memory devices will not start until VIDIOC_STREAMON has been called for both the capture and output stream types.

If VIDIOC_STREAMON fails then any already queued buffers will remain queued.

The VIDIOC_STREAMOFF ioctl, apart of aborting or finishing any DMA in progress, unlocks any user pointer buffers locked in physical memory, and it removes all buffers from the incoming and outgoing queues. That means all images captured but not dequeued yet will be lost, likewise all images enqueued for output but not transmitted yet. I/O returns to the same state as after calling :ref:`VIDIOC_REQBUFS` and can be restarted accordingly.

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If buffers have been queued with :ref:`VIDIOC_QBUF` and VIDIOC_STREAMOFF is called without ever having called VIDIOC_STREAMON, then those queued buffers will also be removed from the incoming queue and all are returned to the same state as after calling :ref:`VIDIOC_REQBUFS` and can be restarted accordingly.

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Both ioctls take a pointer to an integer, the desired buffer or stream type. This is the same as struct :c:type:`v4l2_requestbuffers` `type`.

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If VIDIOC_STREAMON is called when streaming is already in progress, or if VIDIOC_STREAMOFF is called when streaming is already stopped, then 0 is returned. Nothing happens in the case of VIDIOC_STREAMON, but VIDIOC_STREAMOFF will return queued buffers to their starting state as mentioned above.

Note

Applications can be preempted for unknown periods right before or after the VIDIOC_STREAMON or VIDIOC_STREAMOFF calls, there is no notion of starting or stopping "now". Buffer timestamps can be used to synchronize with other events.

Return Value

On success 0 is returned, on error -1 and the `errno` variable is set appropriately. The generic error codes are described at the :ref:`Generic Error Codes <gen-errors>` chapter.

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EINVAL

The buffer `type` is not supported, or no buffers have been allocated (memory mapping) or enqueued (output) yet.

EPIPE

The driver implements :ref:`pad-level format configuration <pad-level-formats>` and the pipeline configuration is invalid.

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ENOLINK

The driver implements Media Controller interface and the pipeline link configuration is invalid.