

ioctl DMX_REQBUFS

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Unknown directive type "c:namespace".

```
.. c:namespace:: DTV.dmx
```

Name

DMX_REQBUFS - Initiate Memory Mapping and/or DMA buffer I/O

Warning

this API is still experimental

Synopsis

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Unknown directive type "c:macro".

```
.. c:macro:: DMX_REQBUFS
```

```
int ioctl(int fd, DMX_REQBUFS, struct dmx_requestbuffers *argp)
```

Arguments

fd

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

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argp

Pointer to struct `c:type:dmx_requestbuffers`.

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Description

This ioctl is used to initiate a memory mapped or DMABUF based demux I/O.

Memory mapped buffers are located in device memory and must be allocated with this ioctl before they can be mapped into the application's address space. User buffers are allocated by applications themselves, and this ioctl is merely used to switch the driver into user pointer I/O mode and to setup some internal structures. Similarly, DMABUF buffers are allocated by applications through a device driver, and this ioctl only configures the driver into DMABUF I/O mode without performing any direct allocation.

To allocate device buffers applications initialize all fields of the struct `c:type:dmx_requestbuffers` structure. They set the `count` field to the desired number of buffers, and `size` to the size of each buffer.

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When the `ioctl` is called with a pointer to this structure, the driver will attempt to allocate the requested number of buffers and it stores the actual number allocated in the `count` field. The `count` can be smaller than the number requested, even zero, when the driver runs out of free memory. A larger number is also possible when the driver requires more buffers to function correctly. The actual allocated buffer size can be returned at `size`, and can be smaller than what's requested.

When this I/O method is not supported, the `ioctl` returns an `EOPNOTSUPP` error code.

Applications can call `ref:DMX_REQBUFS` again to change the number of buffers, however this cannot succeed when any buffers are still mapped. A `count` value of zero frees all buffers, after aborting or finishing any DMA in progress.

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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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`EOPNOTSUPP`

The the requested I/O method is not supported.