

ioctl VIDIOC_G_ENC_INDEX

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\linux-master) (Documentation) (userspace-api) (media) (v4l)vidioc-g-enc-index.rst, line 2)

Unknown directive type "c.namespace".

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

Name

VIDIOC_G_ENC_INDEX - Get meta data about a compressed video stream

Synopsis

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Unknown directive type "c.macro".

```
.. c:macro:: VIDIOC_G_ENC_INDEX
```

```
int ioctl(int fd, VIDIOC_G_ENC_INDEX, struct v4l2_enc_idx *argp)
```

Arguments

fd

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

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Unknown interpreted text role "c.func".

argp

Pointer to struct `c:type:v4l2_enc_idx`.

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Unknown interpreted text role "c.type".

Description

The `ref:VIDIOC_G_ENC_INDEX<VIDIOC_G_ENC_INDEX>` ioctl provides meta data about a compressed video stream the same or another application currently reads from the driver, which is useful for random access into the stream without decoding it.

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Unknown interpreted text role "ref".

To read the data applications must call `ref:VIDIOC_G_ENC_INDEX<VIDIOC_G_ENC_INDEX>` with a pointer to a struct `c:type:v4l2_enc_idx`. On success the driver fills the `entry` array, stores the number of elements written in the `entries` field, and initializes the `entries_cap` field.

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Unknown interpreted text role "c:type".

Each element of the `entry` array contains meta data about one picture. A `ref`VIDIOC_G_ENC_INDEX`<VIDIOC_G_ENC_INDEX>` call reads up to `V4L2_ENC_IDX_ENTRIES` entries from a driver buffer, which can hold up to `entries_cap` entries. This number can be lower or higher than `V4L2_ENC_IDX_ENTRIES`, but not zero. When the application fails to read the meta data in time the oldest entries will be lost. When the buffer is empty or no capturing/encoding is in progress, `entries` will be zero.

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Currently this ioctl is only defined for MPEG-2 program streams and video elementary streams.

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Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |p{4.2cm}|p{6.2cm}|p{6.9cm}|
```

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Unknown directive type "c:type".

```
.. c:type:: v4l2_enc_idx
```

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Unknown directive type "flat-table".

```
.. flat-table:: struct v4l2_enc_idx
   :header-rows: 0
   :stub-columns: 0
   :widths: 1 3 8

   * - __u32
     - ``entries``
     - The number of entries the driver stored in the ``entry`` array.
   * - __u32
     - ``entries_cap``
     - The number of entries the driver can buffer. Must be greater than zero.
   * - __u32
     - ``reserved``\ [4]
     - Reserved for future extensions. Drivers must set the array to zero.
   * - struct :c:type:`v4l2_enc_idx` entry`
     - ``entry``\ [``V4L2_ENC_IDX_ENTRIES``]
     - Meta data about a compressed video stream. Each element of the array corresponds to one picture, sorted in ascending order by their ``offset``.
```

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Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |p{4.4cm}|p{4.4cm}|p{8.5cm}|
```

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Unknown directive type "c:type".

```
.. c:type:: v4l2_enc_idx_entry
```

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Unknown directive type "flat-table".

```
.. flat-table:: struct v4l2_enc_idx_entry
   :header-rows: 0
   :stub-columns: 0
   :widths:      1 1 2

   * - u64
     - ``offset``
     - The offset in bytes from the beginning of the compressed video
       stream to the beginning of this picture, that is a *PES packet
       header* as defined in :ref:`mpeg2part1` or a *picture header* as
       defined in :ref:`mpeg2part2`. When the encoder is stopped, the
       driver resets the offset to zero.
   * - u64
     - ``pts``
     - The 33 bit *Presentation Time Stamp* of this picture as defined in
       :ref:`mpeg2part1`.
   * - u32
     - ``length``
     - The length of this picture in bytes.
   * - u32
     - ``flags``
     - Flags containing the coding type of this picture, see
       :ref:`enc-idx-flags`.
   * - u32
     - ``reserved`` [2]
     - Reserved for future extensions. Drivers must set the array to
       zero.
```

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Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |p{6.6cm}|p{2.2cm}|p{8.5cm}|
```

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Unknown directive type "flat-table".

```
.. flat-table:: Index Entry Flags
   :header-rows: 0
   :stub-columns: 0
   :widths:      3 1 4
```

```
* - ``V4L2_ENC_IDX_FRAME_I``  
  - 0x00  
  - This is an Intra-coded picture.  
* - ``V4L2_ENC_IDX_FRAME_P``  
  - 0x01  
  - This is a Predictive-coded picture.  
* - ``V4L2_ENC_IDX_FRAME_B``  
  - 0x02  
  - This is a Bidirectionally predictive-coded picture.  
* - ``V4L2_ENC_IDX_FRAME_MASK``  
  - 0x0F  
  - *AND* the flags field with this mask to obtain the picture coding  
    type.
```

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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