

# ioctl VIDIOC\_ENUM\_DV\_TIMINGS, VIDIOC\_SUBDEV\_ENUM\_DV\_TIMINGS

**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-enum-dv-timings.rst, line 2)

Unknown directive type "c:namespace".

.. c:namespace:: V4L

## Name

VIDIOC\_ENUM\_DV\_TIMINGS - VIDIOC\_SUBDEV\_ENUM\_DV\_TIMINGS - Enumerate supported Digital Video timings

## Synopsis

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Unknown directive type "c:macro".

.. c:macro:: VIDIOC\_ENUM\_DV\_TIMINGS

```
int ioctl(int fd, VIDIOC_ENUM_DV_TIMINGS, struct v4l2_enum_dv_timings *argp)
```

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Unknown directive type "c:macro".

.. c:macro:: VIDIOC\_SUBDEV\_ENUM\_DV\_TIMINGS

```
int ioctl(int fd, VIDIOC_SUBDEV_ENUM_DV_TIMINGS, struct v4l2_enum_dv_timings *argp)
```

## Arguments

fd

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

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[backlink](#)

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argp

Pointer to struct `c:type:v4l2_enum_dv_timings`.

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[backlink](#)

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## Description

While some DV receivers or transmitters support a wide range of timings, others support only a limited number of timings. With this ioctl applications can enumerate a list of known supported timings. Call `ref`VIDIOC_DV_TIMINGS_CAP`` to check if it also supports other standards or even custom timings that are not in this list.

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Unknown interpreted text role "ref".

To query the available timings, applications initialize the `index` field, set the `pad` field to 0, zero the reserved array of struct `c:type`v4l2_enum_dv_timings`` and call the `VIDIOC_ENUM_DV_TIMINGS` ioctl on a video node with a pointer to this structure. Drivers fill the rest of the structure or return an `EINVAL` error code when the index is out of bounds. To enumerate all supported DV timings, applications shall begin at index zero, incrementing by one until the driver returns `EINVAL`.

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#### Note

Drivers may enumerate a different set of DV timings after switching the video input or output.

When implemented by the driver DV timings of subdevices can be queried by calling the `VIDIOC_SUBDEV_ENUM_DV_TIMINGS` ioctl directly on a subdevice node. The DV timings are specific to inputs (for DV receivers) or outputs (for DV transmitters), applications must specify the desired pad number in the struct `c:type`v4l2_enum_dv_timings`` `pad` field. Attempts to enumerate timings on a pad that doesn't support them will return an `EINVAL` error code.

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Unknown interpreted text role "c.type".

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Unknown directive type "c.type".

```
.. c:type:: v4l2_enum_dv_timings
```

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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 "flat-table".

```
.. flat-table:: struct v4l2_enum_dv_timings
   :header-rows: 0
   :stub-columns: 0
   :widths: 1 1 2

   * - __u32
     - ``index``
     - Number of the DV timings, set by the application.
   * - __u32
```

- ``pad``
- Pad number as reported by the media controller API. This field is only used when operating on a subdevice node. When operating on a video node applications must set this field to zero.
- \* - `_u32`
- ``reserved`` [2]
- Reserved for future extensions. Drivers and applications must set the array to zero.
- \* - struct `:c:type: `v4l2_dv_timings``
- ``timings``
- The timings.

## 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 struct `:c:type: `v4l2_enum_dv_timings`` index is out of bounds or the pad number is invalid.

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### ENODATA

Digital video presets are not supported for this input or output.