ioctl VIDIOC_SUBDEV_ENUM_FRAME_SIZE

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Unknown directive type "c:namespace".

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

Name

VIDIOC_SUBDEV_ENUM_FRAME_SIZE - Enumerate media bus frame sizes

Synopsis

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Unknown directive type "c:macro".

```
.. c:macro:: VIDIOC_SUBDEV_ENUM_FRAME_SIZE
```

```
int ioctl(int fd, VIDIOC_SUBDEV_ENUM_FRAME_SIZE, struct v4l2_subdev_frame_size_enum * 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_subdev_frame_size_enum`.

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Unknown interpreted text role "c:type".

Description

This ioctl allows applications to enumerate all frame sizes supported by a sub-device on the given pad for the given media bus format. Supported formats can be retrieved with the :ref:`VIDIOC_SUBDEV_ENUM_MBUS_CODE` ioctl.

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Unknown interpreted text role "ref".

To enumerate frame sizes applications initialize the `pad`, `which` , `code` and `index` fields of the struct :c:type:`v4l2_subdev_mbus_code_enum` and call the :ref:`VIDIOC_SUBDEV_ENUM_FRAME_SIZE` ioctl with a pointer to the

structure. Drivers fill the minimum and maximum frame sizes or return an EINVAL error code if one of the input parameters is invalid.

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Unknown interpreted text role "c:type".

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Sub-devices that only support discrete frame sizes (such as most sensors) will return one or more frame sizes with identical minimum and maximum values.

Not all possible sizes in given [minimum, maximum] ranges need to be supported. For instance, a scaler that uses a fixed-point scaling ratio might not be able to produce every frame size between the minimum and maximum values. Applications must use the :ref:`VIDIOC_SUBDEV_S_FMT <VIDIOC_SUBDEV_G_FMT>` ioctl to try the sub-device for an exact supported frame size.

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Unknown interpreted text role "ref".

Available frame sizes may depend on the current 'try' formats at other pads of the sub-device, as well as on the current active links and the current values of V4L2 controls. See :ref:`VIDIOC_SUBDEV_G_FMT` for more information about try formats.

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Unknown interpreted text role "ref".

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Unknown directive type "c:type".

```
.. c:type:: v4l2_subdev_frame_size_enum
```

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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_subdev_frame_size_enum
    :header-rows:  0
    :stub-columns: 0
    :widths:       1 1 2

    * - __u32
      - ``index``
      - Number of the format in the enumeration, set by the application.
    * - __u32
      - ``pad``
```

```
  - Pad number as reported by the media controller API.
* - __u32
  - ``code``
  - The media bus format code, as defined in
    :ref:`v4l2-mbus-format`.
* - __u32
  - ``min_width``
  - Minimum frame width, in pixels.
* - __u32
  - ``max_width``
  - Maximum frame width, in pixels.
* - __u32
  - ``min_height``
  - Minimum frame height, in pixels.
* - __u32
  - ``max_height``
  - Maximum frame height, in pixels.
* - __u32
  - ``which``
  - Frame sizes to be enumerated, from enum
    :ref:`v4l2_subdev_format_whence <v4l2-subdev-format-whence>`.
* - __u32
  - ``reserved``\ [8]
  - Reserved for future extensions. Applications and drivers must set
    the array to zero.
```

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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Unknown interpreted text role "ref".

EINVAL

The struct :c:type:`v4l2_subdev_frame_size_enum` `pad` references a non-existing pad, the `code` is invalid for the given pad or the `index` field is out of bounds.

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Unknown interpreted text role "c:type".