

ioctl VIDIOC_G_SLICED_VBI_CAP

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-sliced-vbi-cap.rst, line 2)

Unknown directive type "c.namespace".

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

Name

VIDIOC_G_SLICED_VBI_CAP - Query sliced VBI capabilities

Synopsis

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Unknown directive type "c.macro".

```
.. c:macro:: VIDIOC_G_SLICED_VBI_CAP
```

```
int ioctl(int fd, VIDIOC_G_SLICED_VBI_CAP, struct v4l2_sliced_vbi_cap *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_sliced_vbi_cap`.

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Unknown interpreted text role "c.type".

Description

To find out which data services are supported by a sliced VBI capture or output device, applications initialize the `type` field of a struct `c:type:v4l2_sliced_vbi_cap`, clear the `reserved` array and call the `ref:VIDIOC_G_SLICED_VBI_CAP` `<VIDIOC_G_SLICED_VBI_CAP>` `ioctl`. The driver fills in the remaining fields or returns an `EINVAL` error code if the sliced VBI API is unsupported or `type` is invalid.

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Unknown interpreted text role "c.type".

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Unknown interpreted text role "ref".

Note

The `type` field was added, and the `ioctl` changed from read-only to write-read, in Linux 2.6.19.

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Unknown directive type "c.type".

```
.. c:type:: v4l2_sliced_vbi_cap
```

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Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |p{1.4cm}|p{4.4cm}|p{4.5cm}|p{3.6cm}|p{3.6cm}|
```

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Unknown directive type "flat-table".

```
.. flat-table:: struct v4l2_sliced_vbi_cap
   :header-rows: 0
   :stub-columns: 0
   :widths:      3 3 2 2 2

* - __u16
  - ``service_set``
  - :cspan: `2` A set of all data services supported by the driver.

    Equal to the union of all elements of the ``service_lines`` array.
* - __u16
  - ``service_lines`` [2][24]
  - :cspan: `2` Each element of this array contains a set of data
    services the hardware can look for or insert into a particular
    scan line. Data services are defined in :ref:`vbi-services`.
    Array indices map to ITU-R line numbers [#f1]_ as follows:
* -
  -
  - Element
  - 525 line systems
  - 625 line systems
* -
  - ``service_lines`` [0][1]
  - 1
  - 1
* -
  - ``service_lines`` [0][23]
  - 23
  - 23
* -
  -
  - ``service_lines`` [1][1]
  - 264
  - 314
* -
  -
  - ``service_lines`` [1][23]
  - 286
  - 336
```

```

* -
* -
-
- :cspan:2` The number of VBI lines the hardware can capture or
output per frame, or the number of services it can identify on a
given line may be limited. For example on PAL line 16 the hardware
may be able to look for a VPS or Teletext signal, but not both at
the same time. Applications can learn about these limits using the
:ref:VIDIOC_S_FMT <VIDIOC_G_FMT>` ioctl as described in
:ref:sliced`.
* -
* -
-
- :cspan:2` Drivers must set ``service_lines`` [0][0] and
``service_lines`` [1][0] to zero.
* -
- u32
- ``type``
- Type of the data stream, see :c:type:v4l2_buf_type`. Should be
``V4L2_BUF_TYPE_SLICED_VBI_CAPTURE`` or
``V4L2_BUF_TYPE_SLICED_VBI_OUTPUT``.
* -
- u32
- ``reserved`` [3]
- :cspan:2` This array is reserved for future extensions.

Applications and drivers must set it to zero.

```

[1] See also [ref`vbi-525`](#) and [ref`vbi-625`](#).

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Unknown interpreted text role "ref".

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Unknown interpreted text role "ref".

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Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |p{3.9cm}|p{1.0cm}|p{2.0cm}|p{3.0cm}|p{7.0cm}|
```

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Unknown directive type "flat-table".

```
.. flat-table:: Sliced VBI services
:header-rows: 1
:stub-columns: 0
:widths:      2 1 1 2 2

* - Symbol
  - Value
  - Reference
  - Lines, usually
  - Payload
* - ``V4L2_SLICED_TELETEXT_B`` (Teletext System B)
  - 0x0001
  - :ref:ets300706`,

  :ref:itu653`
  - PAL/SECAM line 7-22, 320-335 (second field 7-22)
  - Last 42 of the 45 byte Teletext packet, that is without clock

```

```

    run-in and framing code, lsb first transmitted.
* - ``V4L2_SLICED_VPS``
  - 0x0400
  - :ref:`ets300231`
  - PAL line 16
  - Byte number 3 to 15 according to Figure 9 of ETS 300 231, lsb
    first transmitted.
* - ``V4L2_SLICED_CAPTION_525``
  - 0x1000
  - :ref:`cea608`
  - NTSC line 21, 284 (second field 21)
  - Two bytes in transmission order, including parity bit, lsb first
    transmitted.
* - ``V4L2_SLICED_WSS_625``
  - 0x4000
  - :ref:`en300294`,

  :ref:`itull19`
  - PAL/SECAM line 23
  - See :ref:`v4l2-sliced-vbi-cap-wss-625-payload` below.
* - ``V4L2_SLICED_VBI_525``
  - 0x1000
  - :cspan:`2` Set of services applicable to 525 line systems.
* - ``V4L2_SLICED_VBI_625``
  - 0x4401
  - :cspan:`2` Set of services applicable to 625 line systems.

```

V4L2_SLICED_VBI_CAP WSS_625 payload

The payload for V4L2_SLICED_WSS_625 is:

Byte	0								1							
Bit	msb				lsb				msb				lsb			
	7	6	5	4	3	2	1	0	x	x	13	12	11	10	9	8

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 value in the `type` field is wrong.