ioctl VIDIOC_S_HW_FREQ_SEEK

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Unknown directive type "c:namespace".

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

Name

VIDIOC_S_HW_FREQ_SEEK - Perform a hardware frequency seek

Synopsis

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Unknown directive type "c:macro".

```
.. c:macro:: VIDIOC_S_HW_FREQ_SEEK
```

```
int ioctl(int fd, VIDIOC_S_HW_FREQ_SEEK, struct v4l2_hw_freq_seek *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_hw_freq_seek`.

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Unknown interpreted text role "c:type".

Description

Start a hardware frequency seek from the current frequency. To do this applications initialize the `tuner`, `type`, `seek_upward`, `wrap_around`, `spacing`, `rangelow` and `rangehigh` fields, and zero out the `reserved` array of a struct :c:type:`v4l2_hw_freq_seek` and call the `VIDIOC_S_HW_FREQ_SEEK` ioctl with a pointer to this structure.

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Unknown interpreted text role "c:type".

The `rangelow` and `rangehigh` fields can be set to a non-zero value to tell the driver to search a specific band. If the struct

:c:type:`v4l2_tuner` ``capability`` field has the ``V4L2_TUNER_CAP_HWSEEK_PROG_LIM`` flag set, these values must fall within one of the bands returned by :ref:`VIDIOC_ENUM_FREQ_BANDS`. If the ``V4L2_TUNER_CAP_HWSEEK_PROG_LIM`` flag is not set, then these values must exactly match those of one of the bands returned by :ref:`VIDIOC_ENUM_FREQ_BANDS`. If the current frequency of the tuner does not fall within the selected band it will be clamped to fit in the band before the seek is started.

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Unknown interpreted text role "c:type".

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Unknown interpreted text role "ref".

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Unknown interpreted text role "ref".

If an error is returned, then the original frequency will be restored.

This ioctl is supported if the ``V4L2_CAP_HW_FREQ_SEEK`` capability is set.

If this ioctl is called from a non-blocking filehandle, then ``EAGAIN`` error code is returned and no seek takes place.

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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_hw_freq_seek
```

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Unknown directive type "flat-table".

```
.. flat-table:: struct v4l2_hw_freq_seek
    :header-rows:  0
    :stub-columns: 0
    :widths:       1 1 2

    * - __u32
      - ``tuner``
      - The tuner index number. This is the same value as in the struct
        :c:type:`v4l2_input` ``tuner`` field and the struct
        :c:type:`v4l2_tuner` ``index`` field.
    * - __u32
      - ``type``
      - The tuner type. This is the same value as in the struct
        :c:type:`v4l2_tuner` ``type`` field. See
        :c:type:`v4l2_tuner_type`
    * - __u32
      - ``seek_upward``
      - If non-zero, seek upward from the current frequency, else seek
        downward.
```

```
    * - __u32
      - ``wrap_around``
      - If non-zero, wrap around when at the end of the frequency range,
        else stop seeking. The struct :c:type:`v4l2_tuner`
        ``capability`` field will tell you what the hardware supports.
    * - __u32
      - ``spacing``
      - If non-zero, defines the hardware seek resolution in Hz. The
        driver selects the nearest value that is supported by the device.
        If spacing is zero a reasonable default value is used.
    * - __u32
      - ``rangelow``
      - If non-zero, the lowest tunable frequency of the band to search in
        units of 62.5 kHz, or if the struct
        :c:type:`v4l2_tuner` ``capability`` field has the
        ``V4L2_TUNER_CAP_LOW`` flag set, in units of 62.5 Hz or if the
        struct :c:type:`v4l2_tuner` ``capability`` field has
        the ``V4L2_TUNER_CAP_1HZ`` flag set, in units of 1 Hz. If
        ``rangelow`` is zero a reasonable default value is used.
    * - __u32
      - ``rangehigh``
      - If non-zero, the highest tunable frequency of the band to search
        in units of 62.5 kHz, or if the struct
        :c:type:`v4l2_tuner` ``capability`` field has the
        ``V4L2_TUNER_CAP_LOW`` flag set, in units of 62.5 Hz or if the
        struct :c:type:`v4l2_tuner` ``capability`` field has
        the ``V4L2_TUNER_CAP_1HZ`` flag set, in units of 1 Hz. If
        ``rangehigh`` is zero a reasonable default value is used.
    * - __u32
      - ``reserved``\ [5]
      - Reserved for future extensions. Applications 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 `tuner` index is out of bounds, the `wrap_around` value is not supported or one of the values in the `type`, `rangelow` or `rangehigh` fields is wrong.

EAGAIN
: Attempted to call `VIDIOC_S_HW_FREQ_SEEK` with the filehandle in non-blocking mode.

ENODATA
: The hardware seek found no channels.

EBUSY
: Another hardware seek is already in progress.