Querying Capabilities

Because V4L2 covers a wide variety of devices not all aspects of the API are equally applicable to all types of devices. Furthermore devices of the same type have different capabilities and this specification permits the omission of a few complicated and less important parts of the API.

The :ref:`VIDIOC_QUERYCAP` ioctl is available to check if the kernel device is compatible with this specification, and to query the :ref:`functions <devices>` and :ref:`I/O methods <io>` supported by the device.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\[linux-master][Documentation][userspace-api][media][v4l]querycap.rst, line 14); *backlink*

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System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\[linux-master][Documentation][userspace-api][media][v4l]querycap.rst, line 14); *backlink*

Unknown interpreted text role "ref".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\[linux-master][Documentation][userspace-api][media][v4l]querycap.rst, line 14); *backlink*

Unknown interpreted text role "ref".

Starting with kernel version 3.1, :ref:`VIDIOC_QUERYCAP` will return the V4L2 API version used by the driver, with generally matches the Kernel version. There's no need of using :ref:`VIDIOC_QUERYCAP` to check if a specific ioctl is supported, the V4L2 core now returns `ENOTTY` if a driver doesn't provide support for an ioctl.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\[linux-master][Documentation][userspace-api][media][v4l]querycap.rst, line 19); *backlink*

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System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\[linux-master][Documentation][userspace-api][media][v4l]querycap.rst, line 19); *backlink*

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Other features can be queried by calling the respective ioctl, for example :ref:`VIDIOC_ENUMINPUT` to learn about the number, types and names of video connectors on the device. Although abstraction is a major objective of this API, the :ref:`VIDIOC_QUERYCAP` ioctl also allows driver specific applications to reliably identify the driver.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\[linux-master][Documentation][userspace-api][media][v4l]querycap.rst, line 26); *backlink*

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System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\[linux-master][Documentation][userspace-api][media][v4l]querycap.rst, line 26); *backlink*

Unknown interpreted text role "ref".

All V4L2 drivers must support :ref:`VIDIOC_QUERYCAP`. Applications should always call this ioctl after opening the device.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\[linux-master][Documentation][userspace-

api][media][v4l]querycap.rst, line 33); *backlink*

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