

# ioctl MEDIA\_IOC\_ENUM\_ENTITIES

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\mediactl\[linux-master] [Documentation] [userspace-api] [media] [mediactl]media-ioc-enum-entities.rst, line 2)

Unknown directive type "c.namespace".

```
.. c:namespace:: MC
```

## Name

MEDIA\_IOC\_ENUM\_ENTITIES - Enumerate entities and their properties

## Synopsis

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Unknown directive type "c.macro".

```
.. c:macro:: MEDIA_IOC_ENUM_ENTITIES
```

```
int ioctl(int fd, MEDIA_IOC_ENUM_ENTITIES, struct media_entity_desc *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:media_entity_desc`.

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Unknown interpreted text role "c.type".

## Description

To query the attributes of an entity, applications set the id field of a struct `c:type:media_entity_desc` structure and call the MEDIA\_IOC\_ENUM\_ENTITIES ioctl with a pointer to this structure. The driver fills the rest of the structure or returns an EINVAL error code when the id is invalid.

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Unknown interpreted text role "c.type".

Entities can be enumerated by or'ing the id with the MEDIA\_ENT\_ID\_FLAG\_NEXT flag. The driver will return information about the

entity with the smallest id strictly larger than the requested one ('next entity'), or the `EINVAL` error code if there is none.

Entity IDs can be non-contiguous. Applications must *not* try to enumerate entities by calling `MEDIA_IOC_ENUM_ENTITIES` with increasing id's until they get an error.

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Unknown directive type "c.type".

```
.. c:type:: media_entity_desc
```

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Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |p{1.5cm}|p{1.7cm}|p{1.6cm}|p{1.5cm}|p{10.6cm}|
```

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\mediactl\[linux-master] [Documentation] [userspace-api] [media] [mediactl]media-ioc-enum-entities.rst, line 55)**

Unknown directive type "flat-table".

```
.. flat-table:: struct media_entity_desc
   :header-rows: 0
   :stub-columns: 0
   :widths: 2 2 1 8

   * - u32
     - ``id``
     -
     - Entity ID, set by the application. When the ID is or'ed with
       ``MEDIA_ENT_ID_FLAG_NEXT``, the driver clears the flag and returns
       the first entity with a larger ID. Do not expect that the ID will
       always be the same for each instance of the device. In other words,
       do not hardcode entity IDs in an application.

   * - char
     - ``name`` [32]
     -
     - Entity name as an UTF-8 NULL-terminated string. This name must be unique
       within the media topology.

   * - u32
     - ``type``
     -
     - Entity type, see :ref:`media-entity-functions` for details.

   * - u32
     - ``revision``
     -
     - Entity revision. Always zero (obsolete)

   * - u32
     - ``flags``
     -
     - Entity flags, see :ref:`media-entity-flag` for details.

   * - u32
     - ``group_id``
     -
     - Entity group ID. Always zero (obsolete)

   * - u16
     - ``pads``
     -
     - Number of pads

   * - u16
     - ``links``
     -
     - Total number of outbound links. Inbound links are not counted in
```

```

        this field.

* - __u32
  - ``reserved[4]``
  -
  - Reserved for future extensions. Drivers and applications must set
    the array to zero.

* - union {
  - (anonymous)

* - struct
  - ``dev``
  -
  - Valid for (sub-)devices that create a single device node.

* -
  - __u32
  - ``major``
  - Device node major number.

* -
  - __u32
  - ``minor``
  - Device node minor number.

* -
  - __u8
  - ``raw``\ [184]
  -
  -
* - }
  -

```

## 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:'media_entity_desc'` `id` references a non-existing entity.

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Unknown interpreted text role "c:type".