

Multi-planar format structures

The struct `c:type:'v4l2_plane_pix_format'` structures define size and layout for each of the planes in a multi-planar format. The struct `c:type:'v4l2_pix_format_mplane'` structure contains information common to all planes (such as image width and height) and an array of struct `c:type:'v4l2_plane_pix_format'` structures, describing all planes of that format.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\linux-master [Documentation] [userspace-api] [media] [v4l]pixfmt-v4l2-mplane.rst, line 7); [backlink](#)

Unknown interpreted text role "c:type".

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Unknown interpreted text role "c:type".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\linux-master [Documentation] [userspace-api] [media] [v4l]pixfmt-v4l2-mplane.rst, line 16)

Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |p{1.4cm}|p{4.0cm}|p{11.9cm}|
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\linux-master [Documentation] [userspace-api] [media] [v4l]pixfmt-v4l2-mplane.rst, line 18)

Unknown directive type "c:type".

```
.. c:type:: v4l2_plane_pix_format
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\linux-master [Documentation] [userspace-api] [media] [v4l]pixfmt-v4l2-mplane.rst, line 20)

Unknown directive type "flat-table".

```
.. flat-table:: struct v4l2_plane_pix_format
   :header-rows: 0
   :stub-columns: 0
   :widths:      1 1 2

   * - _u32
     - sizeimage`
     - Maximum size in bytes required for image data in this plane,
       set by the driver. When the image consists of variable length
       compressed data this is the number of bytes required by the
       codec to support the worst-case compression scenario.

       The driver will set the value for uncompressed images.

       Clients are allowed to set the sizeimage field for variable length
       compressed data flagged with V4L2_FMT_FLAG_COMPRESSED` at
       :ref:VIDIOC_ENUM_FMT`, but the driver may ignore it and set the
       value itself, or it may modify the provided value based on
       alignment requirements or minimum/maximum size requirements.
       If the client wants to leave this to the driver, then it should
       set sizeimage to 0.
```

- * - `__u32`
- `__bytesperline`
- Distance in bytes between the leftmost pixels in two adjacent lines. See struct `:c:type:'v4l2_pix_format'`.
- * - `__u16`
- `__reserved[6]`
- Reserved for future extensions. Should be zeroed by drivers and applications.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\linux-master [Documentation] [userspace-api] [media] [v4l]pixfmt-v4l2-mplane.rst, line 55)

Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |p{4.4cm}|p{5.6cm}|p{7.3cm}|
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\linux-master [Documentation] [userspace-api] [media] [v4l]pixfmt-v4l2-mplane.rst, line 57)

Unknown directive type "c:type".

```
.. c:type:: v4l2_pix_format_mplane
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\linux-master [Documentation] [userspace-api] [media] [v4l]pixfmt-v4l2-mplane.rst, line 59)

Unknown directive type "flat-table".

```
.. flat-table:: struct v4l2_pix_format_mplane
   :header-rows: 0
   :stub-columns: 0
   :widths:      1 1 2

   * - __u32
     - __width
     - Image width in pixels. See struct :c:type:'v4l2_pix_format'.
   * - __u32
     - __height
     - Image height in pixels. See struct :c:type:'v4l2_pix_format'.
   * - __u32
     - __pixelformat
     - The pixel format. Both single- and multi-planar four character codes can be used.
   * - __u32
     - __field
     - Field order, from enum :c:type:'v4l2_field'. See struct :c:type:'v4l2_pix_format'.
   * - __u32
     - __colospace
     - Colorspace encoding, from enum :c:type:'v4l2_colospace'. See struct :c:type:'v4l2_pix_format'.
   * - struct :c:type:'v4l2_plane_pix_format'
     - __plane_fmt[VIDEO_MAX_PLANES]
     - An array of structures describing format of each plane this pixel format consists of. The number of valid entries in this array has to be put in the __num_planes field.
   * - __u8
     - __num_planes
     - Number of planes (i.e. separate memory buffers) for this format and the number of valid entries in the __plane_fmt array.
   * - __u8
     - __flags
     - Flags set by the application or driver, see :ref:'format-flags'.
   * - union {
     - (anonymous)
   * - __u8
     - __ycbcr_enc
     - Y'CbCr encoding, from enum :c:type:'v4l2_ycbcr_encoding'. See struct :c:type:'v4l2_pix_format'.
```

```
* - __u8
  - ``hsv_enc``
  - HSV encoding, from enum :c:type:`v4l2_hsv_encoding`.
    See struct :c:type:`v4l2_pix_format`.
* - }
  -
* - __u8
  - ``quantization``
  - Quantization range, from enum :c:type:`v4l2_quantization`.
    See struct :c:type:`v4l2_pix_format`.
* - __u8
  - ``xfer_func``
  - Transfer function, from enum :c:type:`v4l2_xfer_func`.
    See struct :c:type:`v4l2_pix_format`.
* - __u8
  - ``reserved[7]``
  - Reserved for future extensions. Should be zeroed by drivers and
    applications.
```