Image Process Control Reference

The Image Process control class is intended for low-level control of image processing functions. Unlike `V4L2_CID_IMAGE_SOURCE_CLASS`, the controls in this class affect processing the image, and do not control capturing of it.

Image Process Control IDs

`V4L2_CID_IMAGE_PROC_CLASS (class)`
: The IMAGE_PROC class descriptor.

`V4L2_CID_LINK_FREQ (integer menu)`
: The frequency of the data bus (e.g. parallel or CSI-2).

`V4L2_CID_PIXEL_RATE (64-bit integer)`

: Pixel sampling rate in the device's pixel array. This control is read-only and its unit is pixels / second.

  Some devices use horizontal and vertical balanking to configure the frame rate. The frame rate can be calculated from the pixel rate, analogue crop rectangle as well as horizontal and vertical blanking. The pixel rate control may be present in a different sub-device than the blanking controls and the analogue crop rectangle configuration.

  The configuration of the frame rate is performed by selecting the desired horizontal and vertical blanking. The unit of this control is Hz.

`V4L2_CID_TEST_PATTERN (menu)`

: Some capture/display/sensor devices have the capability to generate test pattern images. These hardware specific test patterns can be used to test if a device is working properly.

`V4L2_CID_DEINTERLACING_MODE (menu)`

: The video deinterlacing mode (such as Bob, Weave, ...). The menu items are driver specific and are documented in :ref:`uapi-v4l-drivers`.

  > **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\userspace-api\media\v4l\[linux-master][Documentation][userspace-api][media][v4l]ext-ctrls-image-process.rst`, line 49); *backlink***
  >
  > Unknown interpreted text role "ref".

`V4L2_CID_DIGITAL_GAIN (integer)`

: Digital gain is the value by which all colour components are multiplied by. Typically the digital gain applied is the control value divided by e.g. 0x100, meaning that to get no digital gain the control value needs to be 0x100. The no-gain configuration is also typically the default.