

OSVP Clip documentation

Introduction

The OSVP Clip (clip) is a collection of metadata parameters sampled over a specified duration. Each parameter is either:

- static: the parameter has at constant value over the duration of the clip
- dynamic: the parameter is sampled at regular intervals over the duration of the clip

Each parameter is identified by a unique name. It also has a general description as well as a specific set of constraints.

Parameters

active_sensor_physical_dimensions

Description

Height and width of the active area of the camera sensor

Units

micron

Sampling

Static

Constraints

The height and width shall be each be an integer in the range [0..2,147,483,647].

anamorphic_squeeze

Description

Nominal ratio of height to width of the image of an axis-aligned square captured by the camera sensor. It can be used to de-squeeze images but is not however an exact number over the entire captured area due to a lens' intrinsic analog nature.

Units

0.01 unit

Sampling

Static

Constraints

The parameter shall be a integer in the range (0..2,147,483,647].

capture_fps

Description

Capture frame frate of the camera

Units

hertz

Sampling

Static

Constraints

The parameter shall be a rational number whose numerator and denominator are in the range (0..2,147,483,647].

duration

Description

Duration of the clip

Units

second

Sampling

Static

Constraints

The parameter shall be a rational number whose numerator and denominator are in the range (0..2,147,483,647].

entrance_pupil_position

Description

Entrance pupil diameter of the lens

Units

millimeter

Sampling

Regular

Constraints

The parameter shall be a rational number whose numerator and denominator are in the range (0..2,147,483,647].

f_number

Description

The linear f-number of the lens, equal to the focal length divided by the diameter of the entrance pupil.

Units

0.001 unit

Sampling

Regular

Constraints

The parameter shall be a integer in the range (0..2,147,483,647].

fdl_link

Description

Unique identifier of the FDL used by the camera.

Units

n/a

Sampling

Static

Constraints

The parameter shall be a UUID URN as specified in IETF RFC 4122. Only lowercase characters shall be used. Example: urn:uuid:f81d4fae-7dec-11d0-a765-00a0c91e6bf6

focal_length

Description

Focal length of the lens

Units

millimeter

Sampling

Regular

Constraints

The parameter shall be a integer in the range (0..2,147,483,647].

focal_position

Description

Focus distance/position of the lens

Units

millimeter

Sampling

Regular

Constraints

The parameter shall be a integer in the range (0..2,147,483,647].

iso

Description

Arithmetic ISO scale as defined in ISO 12232

Units

unit

Sampling

Static

Constraints

The parameter shall be a integer in the range (0..2,147,483,647].

lens_serial_number

Description

Unique identifier of the lens

Units

n/a

Sampling

Static

Constraints

The parameter shall be a Unicode string between 0 and 1023 codepoints.

shutter_angle

Description

Shutter speed as a fraction of the capture frame rate. The shutter speed (in units of 1/s) is equal to the value of the parameter divided by 360 times the capture frame rate.

Units

degrees (angular)

Sampling

Static

Constraints

The parameter shall be an integer in the range (0..360000].

t_number

Description

The linear t-number of the lens, equal to the F-number of the lens divided by the square root of the transmittance of the lens.

Units

0.001 unit

Sampling

Regular

Constraints

The parameter shall be a integer in the range (0..2,147,483,647].

JSON Schema

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"$schema": "https://json-schema.org/draft/2020-12/schema",
"type": "object",
"properties": {},
"active_sensor_physical_dimensions": {
  "type": "object",
  "additionalProperties": false,
  "required": [
    "height",
    "width"
  ],
  "properties": {
    "height": {
      "type": "integer",
      "minimum": 0,
      "maximum": 2147483647
    },
    "width": {
      "type": "integer",
      "minimum": 0,
      "maximum": 2147483647
    }
  }
},
"anamorphic_squeeze": {
  "type": "integer",
  "minimum": 1,
  "maximum": 2147483647
},
"capture_fps": {
  "type": "string",
  "regex": "[0-9]{1,10}/[0-9]{1,10}"
},
"duration": {
  "type": "string",
  "regex": "[0-9]{1,10}/[0-9]{1,10}"
},
"entrance_pupil_position": {
  "type": "array",
  "items": {
    "type": "string",
    "regex": "[0-9]{1,10}/[0-9]{1,10}"
  }
},
"f_number": {
  "type": "array",
  "items": {
    "type": "integer",
    "minimum": 1,
    "maximum": 2147483647
  }
},
"fdl_link": {
  "type": "string",
  "pattern": "^urn:uuid:[0-9a-f]{8}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{4}-[0-9a-f]{12}$"
```

```

},
"focal_length": {
  "type": "array",
  "items": {
    "type": "integer",
    "minimum": 1,
    "maximum": 2147483647
  }
},
"focal_position": {
  "type": "array",
  "items": {
    "type": "integer",
    "minimum": 1,
    "maximum": 2147483647
  }
},
"iso": {
  "type": "integer",
  "minimum": 1,
  "maximum": 2147483647
},
"lens_serial_number": {
  "type": "string",
  "minLength": 1,
  "maxLength": 1023
},
"shutter_angle": {
  "type": "integer",
  "minimum": 1,
  "maximum": 360000
},
"t_number": {
  "type": "array",
  "items": {
    "type": "integer",
    "minimum": 1,
    "maximum": 2147483647
  }
}
}

```

Reader coverage

The following table indicates the camera parameters supported by each of the readers.

Reader	active_sensor_physical_dimensions	anamorphic_squeeze	capture_fps	duration
RED	+	+	+	+
ARRI	+	+	+	+
Venice	+	+	+	+
Canon		+		+

