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].

`camera_firmware`

Description

Version identifier for the firmware of the camera

Units

n/a

Sampling

Static

Constraints

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

`camera_make`

Description

Make of the camera

Units

n/a

Sampling

Static

Constraints

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

`camera_model`

Description

Model of the camera

Units

n/a

Sampling

Static

Constraints

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

`camera_serial_number`

Description

Unique identifier of the camera

Units

n/a

Sampling

Static

Constraints

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

`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

Position of the entrance pupil 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. Onlyu 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_firmware`

Description

Version identifier for the firmware of the lens

Units

n/a

Sampling

Static

Constraints

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

`lens_make`

Description

Make of the lens

Units

n/a

Sampling

Static

Constraints

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

`lens_model`

Description

Model of the lens

Units

n/a

Sampling

Static

Constraints

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

`lens_serial_number`

Description

Unique identifier of the lens

Units

n/a

Sampling

Static

Constraints

The parameter shall be a Unicode string betwee 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": {},
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  "additionalProperties": false,
  "required": [
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    "width"
  ],
  "properties": {
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      "minimum": 0,
      "maximum": 2147483647
    },
    "width": {
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      "minimum": 0,
      "maximum": 2147483647
    }
  }
},
"anamorphic_squeeze": {
  "type": "integer",
  "minimum": 1,
  "maximum": 2147483647
},
"camera_firmware": {
  "type": "string",
  "minLength": 1,
  "maxLength": 1023
},
```

```
  "camera_make": {
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  },
  "camera_model": {
    "type": "string",
    "minLength": 1,
    "maxLength": 1023
  },
  "camera_serial_number": {
    "type": "string",
    "minLength": 1,
    "maxLength": 1023
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  "capture_fps": {
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    "regex": "[0-9]{1,10}/[0-9]{1,10}"
  },
  "duration": {
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  "entrance_pupil_position": {
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      "regex": "[0-9]{1,10}/[0-9]{1,10}"
    }
  },
  "f_number": {
    "type": "array",
    "items": {
      "type": "integer",
      "minimum": 1,
      "maximum": 2147483647
    }
  },
  "fdl_link": {
    "type": "string",
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  },
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      "maximum": 2147483647
    }
  },
  "focal_position": {
    "type": "array",
    "items": {
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      "minimum": 1,
      "maximum": 2147483647
    }
```

```
  },
  "iso": {
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    "minimum": 1,
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    "maxLength": 1023
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    "type": "string",
    "minLength": 1,
    "maxLength": 1023
  },
  "lens_model": {
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    "minLength": 1,
    "maxLength": 1023
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    "minLength": 1,
    "maxLength": 1023
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  "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	camera_firmware	can
RED	+	+	+	+
ARRI	+	+		+
Venice	+	+	+	+
Canon		+		+