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].

`active_sensor_pixel_dimensions`

Description

Height and width of the active area of the camera sensor

Units

pixel

Sampling

Static

Constraints

The height and width shall be each be an integer 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].

`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].

`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].

`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 betwee 0 and 1023 codepoints.

`t_number`

Description

The linear t-number of the lens

Units

0.001 unit

Sampling

Regular

Constraints

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

`white_balance`

Description

White balance of the camera.

Units

kelvin

Sampling

Static

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
    }
  }
},
"active_sensor_pixel_dimensions": {
  "type": "object",
  "additionalProperties": false,
  "required": [
    "height",
    "width"
  ],
  "properties": {
    "height": {
      "type": "integer",
      "minimum": 0,
      "maximum": 2147483647
    },
    "width": {
      "type": "integer",
      "minimum": 0,
      "maximum": 2147483647
    }
  }
```

```
  },
  "duration": {
    "type": "string",
    "regex": "[0-9]{1,10}/[0-9]{1,10}"
  },
  "entrance_pupil_position": {
    "type": "array",
    "items": {
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      "regex": "[0-9]{1,10}/[0-9]{1,10}"
    }
  },
  "focal_length": {
    "type": "array",
    "items": {
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      "minimum": 1,
      "maximum": 2147483647
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  },
  "focal_position": {
    "type": "array",
    "items": {
      "type": "integer",
      "minimum": 1,
      "maximum": 2147483647
    }
  },
  "fps": {
    "type": "string",
    "regex": "[0-9]{1,10}/[0-9]{1,10}"
  },
  "iso": {
    "type": "integer",
    "minimum": 1,
    "maximum": 2147483647
  },
  "lens_serial_number": {
    "type": "string",
    "minLength": 1,
    "maxLength": 1023
  },
  "t_number": {
    "type": "array",
    "items": {
      "type": "integer",
      "minimum": 1,
      "maximum": 2147483647
    }
  },
  "white_balance": {
    "type": "integer",
    "minimum": 1,
    "maximum": 2147483647
  }
}
```