

# OSVP Clip documentation

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## Introduction

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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

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### **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].

#### **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 an 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

## Units

0.001 unit

## Sampling

Regular

## Constraints

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

## JSON Schema

```
"$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
    }
  }
}
```

```
    "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}"
    }
  },
  "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		+		+