

# 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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### **activeSensorPhysicalDimensions**

#### **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].

### **anamorphicSqueeze**

#### **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].

## cameraFirmwareVersion

### Description

Version identifier for the firmware of the camera

### Units

n/a

### Sampling

Static

### Constraints

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

## cameraMake

### Description

Make of the camera

### Units

n/a

### Sampling

Static

### Constraints

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

## cameraModel

### Description

Model of the camera

### Units

n/a

## Sampling

Static

## Constraints

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

### cameraSerialNumber

## Description

Unique identifier of the camera

## Units

n/a

## Sampling

Static

## Constraints

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

### captureRate

## Description

Capture frame rate 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].

## entrancePupilPosition

### 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].

## fNumber

### 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 an integer in the range (0..2,147,483,647].

## fdlLink

### 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`

## focalLength

### 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].

## focusPosition

### 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].

## isoSpeed

## 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].

### lensFirmwareVersion

## Description

Version identifier for the firmware of the lens

## Units

n/a

## Sampling

Static

## Constraints

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

### lensMake

## Description

Make of the lens

## Units

n/a

## Sampling

Static

## Constraints

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

### lensModel

## Description

Model of the lens

## Units

n/a

## Sampling

Static

## Constraints

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

### lensSerialNumber

## Description

Unique identifier of the lens

## Units

n/a

## Sampling

Static

## Constraints

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

### shutterAngle

## 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].

## tNumber

### 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": {},
"activeSensorPhysicalDimensions": {
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  "additionalProperties": false,
  "required": [
    "height",
    "width"
  ],
  "properties": {
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      "minimum": 0,
      "maximum": 2147483647
    },
    "width": {
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      "minimum": 0,
      "maximum": 2147483647
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  }
},
"anamorphicSqueeze": {
  "type": "integer",
  "minimum": 1,
  "maximum": 2147483647
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"cameraFirmwareVersion": {
  "type": "string",
  "minLength": 1,
  "maxLength": 1023
},
```



```
"cameraMake": {
  "type": "string",
  "minLength": 1,
  "maxLength": 1023
},
"cameraModel": {
  "type": "string",
  "minLength": 1,
  "maxLength": 1023
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"cameraSerialNumber": {
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  "minLength": 1,
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"captureRate": {
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},
"duration": {
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  "regex": "[0-9]{1,10}/[0-9]{1,10}"
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    "regex": "[0-9]{1,10}/[0-9]{1,10}"
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  "type": "array",
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    "minimum": 1,
    "maximum": 2147483647
  }
},
"fdlLink": {
  "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}$"
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  "items": {
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  }
},
"focusPosition": {
  "type": "array",
  "items": {
    "type": "integer",
    "minimum": 1,
    "maximum": 2147483647
  }
}
```

```

},
"isoSpeed": {
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  "minimum": 1,
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  "maxLength": 1023
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  "maxLength": 1023
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"tNumber": {
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  "items": {
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    "minimum": 1,
    "maximum": 2147483647
  }
}
}

```

## Reader coverage

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

Reader	activeSensorPhysicalDimensions	anamorphicSqueeze	cameraFirmwareVersion	
RED				
ARRI				
Venice				
Canon				

