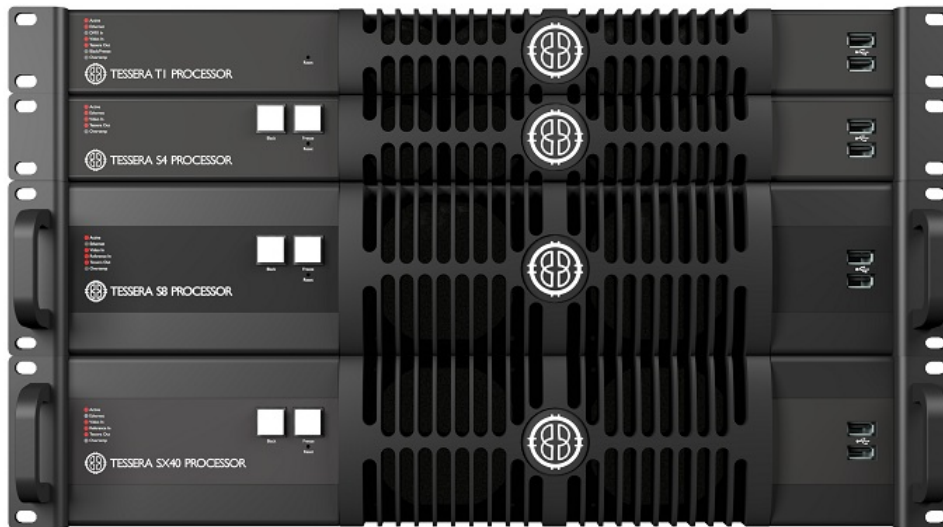


# TESSERA PROCESSING IP CONTROL API

SOFTWARE VERSION: 3.5.0.BETA20 (REVISION 3F44968)

PUBLISH DATE: 18/03/24 14:57



## CHANGELOG

### 3.5.0

- Added optional units for numerical endpoints
- Added hidden markers subtree to contain StarTracker endpoints and new custom marker endpoints
- Moved StarTracker endpoints into new hidden markers subtree, marked old paths as deprecated to be removed in a future release
- Added project name endpoint
- Added processor name and serial endpoints
- Added processor temperature sensor endpoints
- Added fan speed and status endpoints

### 3.4.0

- Added colour replace endpoints
- Added colour curves endpoints
- Added test pattern restrict to achievable colours switch
- Added group and global brightness overdrive switches
- Added DynaCal highlight out of gamut and overbright pixels switches
- Added Genlock source and internal source framerate endpoints

- Added endpoints for the remaining StarTracker parameters
- Added Dynalcal gamut endpoints for all inputs and output
- Removed deprecated input refresh rate and resolution height/width endpoints
- Added custom gradient test pattern endpoints
- Added group and global extended bit depth switches
- Added ShutterSync sensor type and readout time endpoints

## 3.3.0

- Added StarTracker enabled switch at output/network/startracker/enabled, and group StarTracker enabled and global override switches under group/items/{number}
- Added extensive new input endpoints for each port type under input/ports. input/active/resolution/height and width, and input/active/refresh-rate are now deprecated, to be removed in 3.4
- Added failover trigger endpoint at output/network/failover/actions/request-failover
- Added genlock phase offset controls under output/network/genlock/phase-offset
- Added test pattern custom colour controls under override/test-pattern/custom-colour
- Added system reboot and shutdown trigger endpoints under system/actions

# CONTENTS

- [1. INTRODUCTION](#)
  - [SUPPORTED PROTOCOLS](#)
  - [PROCESSOR SETUP](#)
- [2. API](#)
  - [DATA TYPES](#)
  - [COMMANDS](#)
  - [ACCESS SPECIFIERS](#)
  - [ERRORS](#)
  - [DYNAMIC PATHS](#)
- [3. FULL ENDPOINT REFERENCE](#)
  - [API TREE STRUCTURE](#)
  - [ENDPOINTS DESCRIPTION](#)
- [4. PROTOCOL EXAMPLE USAGE](#)
  - [HTTP](#)
  - [TELNET/TCP SOCKET](#)

# I. INTRODUCTION

As of version 3.1.0 Tessera processors support remote query and control/triggering functionality over a variety of IP-based protocols via a filesystem-like, RESTful API. This document describes how to access the information available and the format in which it is presented.

The API currently focuses on functionality needed for runtime control of the processor, it does not seek to offer all functions of the processor UI. More functionality will be added in future releases.

In order to use IP control it must be enabled in the Live Control tile in the processor user interface. The processor on the client must be on the same network and have a compatible IP address configuration.

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## SUPPORTED PROTOCOLS

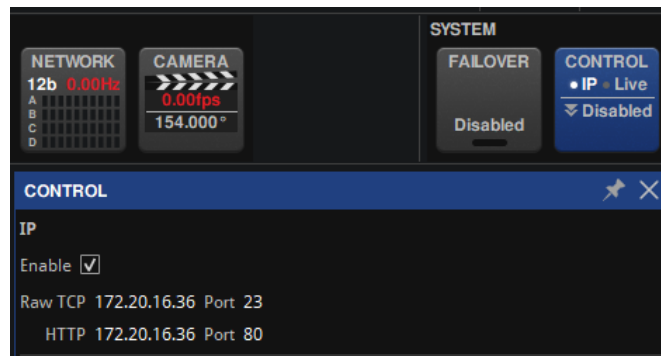
The following protocols are supported by the Tessera API:

- **HTTP** - standard requests via an HTTP client (e.g. web browser)
- **Commandline TCP socket** - Telnet-style text-based commands sent over TCP

Examples of use of each protocol are detailed after the generic control section. All paths, tags and commands are case-insensitive for all protocols.

# PROCESSOR SETUP

IP control must be enabled within the project file in order to function, this is done from the control tile in the processor UI. Please refer to the Tessera User Manual for more information



# 2. API

## DATA TYPES

The following endpoint data types are supported:

- **string**: text string of up to 128 UTF-8 encoded characters
- **bool**: boolean state, true or false
- **integer**: signed 16-bit integer, range -32768 to 32767
- **float**: floating point value
- **bytearray**: array of bytes containing binary data
- **enum**: string enumeration representing one of a discrete set of possible values

## COMMANDS

- **get**: get one or more endpoints' value(s)
- **set**: set an endpoint or group of endpoints' value(s)
- **list**: show a summary of available endpoints starting from any position in the API tree
- **help**: show help text for an endpoint or directory detailing what the endpoint represents, access specifier, data format and range

Examples of each command are given in the protocol section.

## ACCESS SPECIFIERS

The following access specifiers are supported:

- **R/W**: the endpoint is both readable and writable
- **R/O**: the endpoint is read-only and may not be written to
- **W/O**: the endpoint is write-only and may not be read

## ERRORS

The following errors may be returned as the result of a command operation:

- **Path not found**: the requested endpoint path was not recognised
- **Bad operation**: operation was not valid, e.g. trying to set a read-only endpoint
- **Not supported**: not supported by the hardware platform or not yet implemented
- **Missing input parameter**: required input parameters are missing or malformed
- **Bad input parameter type**: one of the input parameters had an incorrect type or format
- **Bad input parameter value**: one of the input parameters had an invalid/out of range value
- **Access denied**: insufficient privilege level for the requested operation
- **No project loaded**: the target processor does not have a project loaded
- **Object not found**: the requested object (e.g. panel) was not found
- **Operation failed**: general runtime failure

## DYNAMIC PATHS

Some paths in the API are dynamic in that they depend on the project configuration. For example, accessing group properties depends on what groups have been created in the project. The dynamic sections in the tree

are marked with brackets, for example {number}.

# 3. FULL ENDPOINT REFERENCE

## API TREE STRUCTURE

```
api/  
  devices/  
    items/  
      {serial}/  
        firmware  
        type  
    statistics/  
      associated-count  
      error-count  
      online-count  
  groups/  
    items/  
      {number}/  
        brightness  
        brightness-limit/  
          enabled  
          value  
        colour-temperature  
        dark-magic/  
          enabled  
        extended-bit-depth/  
          enabled  
        gains/  
          blue  
          green  
          intensity  
          red  
        gamma  
        global-colour-override  
        global-gains-override  
        global-startracker-override  
        name  
        overdrive/  
          enabled  
        puretone/  
          enabled  
        startracker/  
          enabled  
  input/  
    active/  
      source/  
        port-number  
        port-type  
    ports/  
      dvi/  
        {dvi-port-number}/  
          controls/  
            colour-space/  
              colour  
            dvi-colour-format  
          dynacal/  
            blue/  
              gamut  
              x  
              y  
            green/
```

- gamut
  - x
  - y
- red/
  - gamut
    - x
    - y
- white/
  - colour-temperature
- gamut
  - x
  - y
- meta-data/
  - refresh-rate
- resolution/
  - height
  - width
- proc-amp/
  - black-level
  - contrast
- highlight/
  - blue
  - green
  - red
- hue
- saturation
- shadow/
  - blue
  - green
  - red
- hdmi/
  - {hdmi-port-number}/
    - controls/
      - colour-space/
        - colour
      - info-frame-override-enabled
    - hdmi-colour-format
    - hdr/
      - format
      - pq/
        - auto-brighten
        - gain
        - max-cll-override/
          - enabled
          - luminance
    - quantisation-range
  - dynacal/
    - blue/
      - gamut
        - x
        - y
    - green/
      - gamut
        - x
        - y
    - red/
      - gamut
        - x
        - y
    - white/
      - colour-temperature
    - gamut
      - x
      - y



- meta-data/
  - bit-depth
  - hdr/
    - format
  - refresh-rate
  - resolution/
    - height
    - width
  - sampling
- proc-amp/
  - black-level
  - contrast
  - highlight/
    - blue
    - green
    - red
  - hue
  - saturation
  - shadow/
    - blue
    - green
    - red
- sdi/
  - {sdi-port-number}/
    - controls/
      - colour-space/
        - colour
      - hdr/
        - format
      - pq/
        - auto-brighten
        - gain
        - max-cll-override/
          - enabled
          - luminance
  - dynacal/
    - blue/
      - gamut
      - x
      - y
    - green/
      - gamut
      - x
      - y
    - red/
      - gamut
      - x
      - y
    - white/
      - colour-temperature
      - gamut
      - x
      - y
  - meta-data/
    - refresh-rate
    - resolution/
      - height
      - width
  - proc-amp/
    - black-level
    - contrast
    - highlight/
      - blue
      - green

- red
- hue
- saturation
- shadow/
  - blue
  - green
  - red
- output/
  - dynacal/
    - {panel-type}/
      - blue/
        - mode
        - x
        - y
      - green/
        - mode
        - x
        - y
      - luminance-only-fraction
      - mode
      - red/
        - mode
        - x
        - y
  - global-colour/
    - brightness
    - brightness-limit/
      - enabled
      - value
    - colour-temperature
    - dark-magic/
      - enabled
    - dynacal/
      - highlight-out-of-gamut-pixels-enabled
      - highlight-overbright-pixels-enabled
    - extended-bit-depth/
      - enabled
    - gains/
      - blue
      - green
      - intensity
      - red
    - gamma
    - overdrive/
      - enabled
    - puretone/
      - enabled
  - network/
    - bit-depth
    - cable-redundancy/
      - loops/
        - {loop-number}/
          - state
  - failover/
    - actions/
      - request-failover
    - settings/
      - enabled
      - modes/
        - on-button-press
        - on-partner-fail
        - on-partner-video-fail
        - prefer-primary
      - role

- state/
  - is-active
  - is-partner-present
  - partner-absence-duration
  - partner-name
  - partner-serial
  - partner-video-absence-duration
- frame-rate-multiplier
- frame-remapping/
  - enabled
  - frames/
    - {frame}/
      - blue
      - green
      - mode
      - red
    - x-offset
    - y-offset
- genlock/
  - internal-rate
  - phase-offset/
    - absolute/
      - lines
      - pixels
    - angle
    - fraction
    - mode
  - source
- hidden-markers/
  - background-gain
  - blackout-affects-markers
  - closed-shutter-markers
  - custom/
    - data
    - filename
    - marker-gain/
      - blue
      - green
      - red
    - scaling
  - enabled
  - frames-enabled-on
  - mode
- redspy/
  - distance-to-tracker
  - marker-gain
  - marker-seed
  - marker-size-scaler
- startracker/
  - blue/
    - distance-to-tracker
    - enabled
    - marker-gain
    - marker-seed
    - marker-size-scaler
  - green/
    - distance-to-tracker
    - enabled
    - marker-gain
    - marker-seed
    - marker-size-scaler
  - red/
    - distance-to-tracker
    - enabled

- marker-gain
- marker-seed
- marker-size-scaler
- shuttersync/
  - angle-settings/
    - custom-frame-rate
    - shutter-angle
    - use-custom-frame-rate
  - dark-frame-insert
  - mode
  - prioritise-refresh-rate
  - sensor-readout-time
  - sensor-type
  - speed-settings/
    - shutter-speed
    - time
- startracker/
  - background-gain **(deprecated)**
  - blackout-affects-markers **(deprecated)**
  - blue/
    - distance-to-tracker **(deprecated)**
    - enabled **(deprecated)**
    - marker-gain **(deprecated)**
    - marker-size-scaler **(deprecated)**
    - star-map-seed **(deprecated)**
  - enabled **(deprecated)**
  - frames-enabled-on **(deprecated)**
  - green/
    - distance-to-tracker **(deprecated)**
    - enabled **(deprecated)**
    - marker-gain **(deprecated)**
    - marker-size-scaler **(deprecated)**
    - star-map-seed **(deprecated)**
  - red/
    - distance-to-tracker **(deprecated)**
    - enabled **(deprecated)**
    - marker-gain **(deprecated)**
    - marker-size-scaler **(deprecated)**
    - star-map-seed **(deprecated)**
- override/
  - blackout/
    - enabled
    - fade-time
  - freeze/
    - enabled
  - test-pattern/
    - custom-colour/
      - blue
      - green
      - red
    - custom-gradient/
      - end-colour/
        - blue
        - green
        - red
      - orientation
      - start-colour/
        - blue
        - green
        - red
    - enabled
    - format
    - restrict-to-achievable-colours
    - type

- presets/
  - active/
    - name
    - number
  - items/
    - {number}/
      - name
      - status
- processing/
  - 3d-lut/
    - data
    - enabled
    - filename
    - strength
  - colour-correct/
    - black/
      - blue
      - green
      - red
    - blue/
      - brightness
      - hue
      - saturation
    - cobalt/
      - brightness
      - hue
      - saturation
    - crimson/
      - brightness
      - hue
      - saturation
    - cyan/
      - brightness
      - hue
      - saturation
    - enabled
    - green/
      - brightness
      - hue
      - saturation
    - lime/
      - brightness
      - hue
      - saturation
    - magenta/
      - brightness
      - hue
      - saturation
    - orange/
      - brightness
      - hue
      - saturation
    - red/
      - brightness
      - hue
      - saturation
    - turquoise/
      - brightness
      - hue
      - saturation
    - violet/
      - brightness
      - hue
      - saturation

- white/
  - blue
  - green
  - red
- yellow/
  - brightness
  - hue
  - saturation
- colour-replace/
  - apply-to-brightness
  - apply-to-hue
  - apply-to-saturation
  - brightness-tolerance
- colour-from/
  - blue
  - green
  - red
- colour-to/
  - blue
  - green
  - red
- colour-tolerance
  - enabled
  - method
  - softness
  - strength
  - view-matte
- curves/
  - blue/
    - points
  - enabled
  - green/
    - points
  - red/
    - points
  - white/
    - points
- osca/
  - module-correction-enabled
  - seam-correction-enabled
- scaler/
  - enabled
- project/
  - name
- system/
  - actions/
    - reboot
    - shutdown
  - current-date-time
- fan/
  - case/
    - one/
      - speed
      - status
    - two/
      - speed
      - status
  - fpga/
    - speed
    - status
- processor-name
- processor-type
- serial-number
- software-version

temperature/  
  ambient  
  cpu  
  dsp  
  ethernet/  
    copper/  
      a  
      b  
    sfp/  
      a  
      b  
      c  
      d  
  fpga  
  front  
  gpu  
  main  
  psu  
  rear  
uptime

## ENDPOINTS DESCRIPTION

### DEVICES

#### DEVICE FIRMWARE

Path: **devices/items/{serial}/firmware**  
Description: Current device firmware version  
Data type: string  
Access Specifier: ReadOnly

#### DEVICE TYPE

Path: **devices/items/{serial}/type**  
Description: Device type name  
Data type: string  
Access Specifier: ReadOnly

#### ASSOCIATED DEVICES COUNT

Path: **devices/statistics/associated-count**  
Description: The number of devices currently being controlled by the processor  
Data type: int  
Range: 0 - 2200  
Access Specifier: ReadOnly

#### ERROR DEVICES COUNT

Path: **devices/statistics/error-count**  
Description: The number of online devices currently reporting an error state  
Data type: int  
Range: 0 - 2048  
Access Specifier: ReadOnly

#### ONLINE DEVICE COUNT

Path: **devices/statistics/online-count**

Description: The number of online devices currently detected by the processor

Data type: int

Range: 0 - 2048

Access Specifier: ReadOnly

## GROUPS

### GROUP BRIGHTNESS

Path: **groups/items/{number}/brightness**

Description: Gets or sets the group output brightness/luminance

Data type: int

Units: Nits

Range: 0 - 10000

Access Specifier: ReadWrite

### GROUP BRIGHTNESS LIMIT

Path: **groups/items/{number}/brightness-limit/enabled**

Description: Enables or disables group brightness limit

Data type: bool

Access Specifier: ReadOnly

### GROUP BRIGHTNESS LIMIT VALUE

Path: **groups/items/{number}/brightness-limit/value**

Description: Current group maximum brightness value if brightness limit enabled

Data type: int

Units: Nits

Range: 0 - 10000

Access Specifier: ReadOnly

### GROUP COLOUR TEMPERATURE

Path: **groups/items/{number}/colour-temperature**

Description: Gets or sets the group colour temperature

Data type: int

Units: Kelvin

Range: 2000 - 11000

Access Specifier: ReadWrite

### GROUP DARK MAGIC ENABLED

Path: **groups/items/{number}/dark-magic/enabled**

Description: Enables or disables group Dark Magic

Data type: bool

Access Specifier: ReadWrite

### GROUP EXTENDED BIT DEPTH

Path: **groups/items/{number}/extended-bit-depth/enabled**

Description: Enables or disables group extended bit depth

Data type: bool

Access Specifier: ReadWrite

### GROUP BLUE GAIN



Path: **groups/items/{number}/gains/blue**

Description: Gets or sets the value of the group blue gain

Data type: float

Units: Percentage

Range: 0 - 100

Decimal places: 2

Access Specifier: ReadWrite

## GROUP GREEN GAIN

Path: **groups/items/{number}/gains/green**

Description: Gets or sets the value of the group green gain

Data type: float

Units: Percentage

Range: 0 - 100

Decimal places: 2

Access Specifier: ReadWrite

## GROUP INTENSITY GAIN

Path: **groups/items/{number}/gains/intensity**

Description: Gets or sets the value of the group intensity gain

Data type: float

Units: Percentage

Range: 0 - 100

Decimal places: 2

Access Specifier: ReadWrite

## GROUP RED GAIN

Path: **groups/items/{number}/gains/red**

Description: Gets or sets the value of the group red gain

Data type: float

Units: Percentage

Range: 0 - 100

Decimal places: 2

Access Specifier: ReadWrite

## GROUP OUTPUT GAMMA

Path: **groups/items/{number}/gamma**

Description: Gets or sets the group gamma value

Data type: float

Range: 0.2 - 4.0

Decimal places: 2

Access Specifier: ReadWrite

## GROUP GLOBAL COLOUR OVERRIDE

Path: **groups/items/{number}/global-colour-override**

Description: Enables or disables group global colour override

Data type: bool

Access Specifier: ReadWrite

## GROUP GLOBAL GAINS OVERRIDE

Path: **groups/items/{number}/global-gains-override**

Description: Enables or disables group global gains override

Data type: bool

Access Specifier: ReadWrite

## GROUP GLOBAL STARTRACKER OVERRIDE

Path: **groups/items/{number}/global-startracker-override**

Description: Enables or disables global StarTracker override for this group

Data type: bool

Access Specifier: ReadWrite

## GROUP NAME

Path: **groups/items/{number}/name**

Description: Gets or sets the group name

Data type: string

Access Specifier: ReadWrite

## GROUP OVERDRIVE ENABLED

Path: **groups/items/{number}/overdrive/enabled**

Description: Enables or disables group brightness overdrive

Data type: bool

Access Specifier: ReadWrite

## GROUP PURE TONE ENABLED

Path: **groups/items/{number}/puretone/enabled**

Description: Enables or disables group PureTone

Data type: bool

Access Specifier: ReadWrite

## GROUP STARTRACKER ENABLED

Path: **groups/items/{number}/startracker/enabled**

Description: Enables or disables markers in group StarTracker override

Data type: bool

Access Specifier: ReadWrite

# INPUT

## INPUT PORT NUMBER

Path: **input/active/source/port-number**

Description: Which physical port instance is currently enabled for video input. For example, SDI A = port 1, SDI B = port 2. The available number of port instances for any port type will vary based on the processor hardware variant.

Data type: int

Range: 1 - 2

Access Specifier: ReadWrite

## INPUT PORT TYPE

Path: **input/active/source/port-type**

Description: Which physical port instance is currently enabled for video input. The available types will vary based on the processor hardware variant.

Data type: enum

Supported values: dvi, hdmi, sdi

Access Specifier: ReadWrite

## DMI INPUT COLOUR SPACE

Path: **input/ports/dvi/{dvi-port-number}/controls/colour-space/colour**

Description: Gets or sets the colour space used for the incoming DVI content

Data type: enum

Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom

Access Specifier: ReadWrite

## INPUT DM COLOUR FORMAT

Path: **input/ports/dvi/{dvi-port-number}/controls/dvi-colour-format**

Description: Gets or sets the colour format applied by the processor to the input for DVI input

Data type: enum

Supported values: rgb, ypbpr601, ypbpr709

Access Specifier: ReadWrite

## DM DYNACAL BLUE GAMUT

Path: **input/ports/dvi/{dvi-port-number}/dynacal/blue/gamut**

Description: Blue component of DVI input colour space

Data type: enum

Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom

Access Specifier: ReadWrite

## DM DYNACAL BLUE X

Path: **input/ports/dvi/{dvi-port-number}/dynacal/blue/x**

Description: Blue component X value of DVI input colour space

Data type: float

Range: 0.0 - 0.8

Decimal places: 4

Access Specifier: ReadWrite

## DM DYNACAL BLUE Y

Path: **input/ports/dvi/{dvi-port-number}/dynacal/blue/y**

Description: DVI component Y value of video input colour space

Data type: float

Range: 0.0 - 0.9

Decimal places: 4

Access Specifier: ReadWrite

## DM DYNACAL GREEN GAMUT

Path: **input/ports/dvi/{dvi-port-number}/dynacal/green/gamut**

Description: Green component of DVI input colour space

Data type: enum

Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom

Access Specifier: ReadWrite

## DM DYNACAL GREEN X

Path: **input/ports/dvi/{dvi-port-number}/dynacal/green/x**

Description: Green component X value of DVI input colour space

Data type: float

Range: 0.0 - 0.8

Decimal places: 4

Access Specifier: ReadWrite

## DM DYNACAL GREEN Y

Path: **input/ports/dvi/{dvi-port-number}/dynacal/green/y**

Description: Green component Y value of DVI input colour space

Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## DM DYNACAL RED GAMUT

Path: **input/ports/dvi/{dvi-port-number}/dynacal/red/gamut**  
Description: Red component of DVI input colour space  
Data type: enum  
Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom  
Access Specifier: ReadWrite

## DM DYNACAL RED X

Path: **input/ports/dvi/{dvi-port-number}/dynacal/red/x**  
Description: Red component X value of DVI input colour space  
Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## DM DYNACAL RED Y

Path: **input/ports/dvi/{dvi-port-number}/dynacal/red/y**  
Description: Red component Y value of DVI input colour space  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## DM DYNACAL WHITE COLOUR TEMPERATURE

Path: **input/ports/dvi/{dvi-port-number}/dynacal/white/colour-temperature**  
Description: DVI input white component colour temperature  
Data type: int  
Units: Kelvin  
Range: 2000 - 11000  
Access Specifier: ReadWrite

## DM DYNACAL WHITE GAMUT

Path: **input/ports/dvi/{dvi-port-number}/dynacal/white/gamut**  
Description: White component of DVI input colour space. Set to 'Colour Temperature' to control this white-only parameter  
Data type: enum  
Supported values: d65, aces, colour-temperature, custom  
Access Specifier: ReadWrite

## DM DYNACAL WHITE X

Path: **input/ports/dvi/{dvi-port-number}/dynacal/white/x**  
Description: White component X value of DVI input colour space  
Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## DM DYNACAL WHITE Y

Path: **input/ports/dvi/{dvi-port-number}/dynacal/white/y**

Description: DVI input white component Y value  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## DM INPUT REFRESH RATE

Path: **input/ports/dvi/{dvi-port-number}/meta-data/refresh-rate**  
Description: DVI input refresh rate  
Data type: float  
Units: Hertz  
Range: 24 - 250  
Decimal places: 1  
Access Specifier: ReadOnly

## DM INPUT RESOLUTION HEIGHT

Path: **input/ports/dvi/{dvi-port-number}/meta-data/resolution/height**  
Description: DVI input height  
Data type: int  
Units: Pixels  
Range: 32 - 4095  
Access Specifier: ReadOnly

## DM INPUT RESOLUTION WIDTH

Path: **input/ports/dvi/{dvi-port-number}/meta-data/resolution/width**  
Description: DVI input width  
Data type: int  
Units: Pixels  
Range: 32 - 4096  
Access Specifier: ReadOnly

## DM INPUT BLACK LEVEL

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/black-level**  
Description: Gets or sets black level of a DVI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## DM INPUT CONTRAST

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/contrast**  
Description: Gets or sets contrast of a DVI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## DM BLUE HIGHLIGHT

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/highlight/blue**  
Description: Gets or sets blue highlight of a DVI input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## DM GREEN HIGHLIGHT

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/highlight/green**

Description: Gets or sets green highlight of a DVI input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## DM RED HIGHLIGHT

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/highlight/red**  
Description: Gets or sets red highlight of a DVI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## DM INPUT HUE

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/hue**  
Description: Gets or sets hue of a DVI video input. 0° is the passthrough value  
Data type: int  
Units: Degrees  
Range: -180 - 180  
Access Specifier: ReadWrite

## DM INPUT SATURATION

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/saturation**  
Description: Gets or sets saturation of a DVI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## DM BLUE SHADOW

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/shadow/blue**  
Description: Gets or sets blue shadow of a DVI input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## DM GREEN SHADOW

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/shadow/green**  
Description: Gets or sets green shadow of a DVI input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## RED SHADOW

Path: **input/ports/dvi/{dvi-port-number}/proc-amp/shadow/red**  
Description: Gets or sets red shadow of a DVI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## HDMI INPUT COLOUR SPACE

Path: **input/ports/hdmi/{hdmi-port-number}/controls/colour-space/colour**  
Description: Gets or sets the colour space used for the incoming HDMI content  
Data type: enum  
Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom  
Access Specifier: ReadWrite

## INFOFRAME OVERRIDE ENABLED

Path: **input/ports/hdmi/{hdmi-port-number}/controls/colour-space/info-frame-override-enabled**

Description: Enables or disables InfoFrame override

Data type: bool

Access Specifier: ReadWrite

## HDMI INPUT COLOUR FORMAT

Path: **input/ports/hdmi/{hdmi-port-number}/controls/hdmi-colour-format**

Description: Gets or sets the colour format applied by the processor to the input for HDMI input

Data type: enum

Supported values: from-input, rgb, ycbcr

Access Specifier: ReadWrite

## HDMI INPUT HDR FORMAT OVERRIDE

Path: **input/ports/hdmi/{hdmi-port-number}/controls/hdr/format**

Description: Gets or sets the HDR format applied by the processor to the input for HDMI input

Data type: enum

Supported values: from-input, standard-dynamic-range, perceptual-quantiser, hybrid-log-gamma

Access Specifier: ReadWrite

## HDMI PQ AUTO BRIGHTEN

Path: **input/ports/hdmi/{hdmi-port-number}/controls/hdr/pq/auto-brighten**

Description: Enables or disables PQ auto brighten for HDMI input

Data type: bool

Access Specifier: ReadWrite

## HDMI PQ GAIN

Path: **input/ports/hdmi/{hdmi-port-number}/controls/hdr/pq/gain**

Description: Gets or sets the value of the PQ gain for HDMI input

Data type: float

Range: 0.1 - 10.0

Decimal places: 2

Access Specifier: ReadWrite

## HDMI PQ MAXCLL OVERRIDE ENABLED

Path: **input/ports/hdmi/{hdmi-port-number}/controls/hdr/pq/max-cll-override/enabled**

Description: Enables or disables PQ MaxCLL override for HDMI input

Data type: bool

Access Specifier: ReadWrite

## HDMI PQ MAXCLL OVERRIDE LUMINANCE

Path: **input/ports/hdmi/{hdmi-port-number}/controls/hdr/pq/max-cll-override/luminance**

Description: Gets or sets the value of the PQ MaxCLL override luminance for HDMI input

Data type: int

Units: Nits

Range: 1 - 10000

Access Specifier: ReadWrite

## HDMI INPUT QUANTISATION RANGE

Path: **input/ports/hdmi/{hdmi-port-number}/controls/quantisation-range**

Description: Gets or sets the quantisation range applied by the processor to the HDMI input

Data type: enum

Supported values: from-input, full, limited  
Access Specifier: ReadWrite

## HDMI DYNACAL BLUE GAMUT

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/blue/gamut**  
Description: Blue component of HDMI input colour space  
Data type: enum  
Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom  
Access Specifier: ReadWrite

## HDMI DYNACAL BLUE X

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/blue/x**  
Description: Blue component X value of HDMI input colour space  
Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## HDMI DYNACAL BLUE Y

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/blue/y**  
Description: Blue component Y value of HDMI input colour space  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## HDMI DYNACAL GREEN GAMUT

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/green/gamut**  
Description: Green component of HDMI input colour space  
Data type: enum  
Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom  
Access Specifier: ReadWrite

## HDMI DYNACAL GREEN X

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/green/x**  
Description: Green component X value of HDMI input colour space  
Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## HDMI DYNACAL GREEN Y

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/green/y**  
Description: Green component Y value of HDMI input colour space  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## HDMI DYNACAL RED GAMUT

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/red/gamut**  
Description: Red component of HDMI input colour space  
Data type: enum  
Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom



Access Specifier: ReadWrite

## HDMI DYNACAL RED X

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/red/x**

Description: Red component X value of HDMI input colour space

Data type: float

Range: 0.0 - 0.8

Decimal places: 4

Access Specifier: ReadWrite

## HDMI DYNACAL RED Y

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/red/y**

Description: Red component Y value of HDMI input colour space

Data type: float

Range: 0.0 - 0.9

Decimal places: 4

Access Specifier: ReadWrite

## HDMI DYNACAL WHITE COLOUR TEMPERATURE

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/white/colour-temperature**

Description: HDMI input white component colour temperature

Data type: int

Units: Kelvin

Range: 2000 - 11000

Access Specifier: ReadWrite

## HDMI DYNACAL WHITE GAMUT

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/white/gamut**

Description: White component of HDMI input colour space. Set to 'Colour Temperature' to control this white-only parameter

Data type: enum

Supported values: d65, aces, colour-temperature, custom

Access Specifier: ReadWrite

## HDMI DYNACAL WHITE X

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/white/x**

Description: White component X value of HDMI input colour space

Data type: float

Range: 0.0 - 0.8

Decimal places: 4

Access Specifier: ReadWrite

## HDMI DYNACAL WHITE Y

Path: **input/ports/hdmi/{hdmi-port-number}/dynacal/white/y**

Description: HDMI input white component Y value

Data type: float

Range: 0.0 - 0.9

Decimal places: 4

Access Specifier: ReadWrite

## HDMI INPUT BIT DEPTH

Path: **input/ports/hdmi/{hdmi-port-number}/meta-data/bit-depth**

Description: Gets bit depth of HDMI video input. Valid values are 8, 10, and 12

Data type: int

Units: Bits  
Range: 8 - 12  
Access Specifier: ReadOnly

## HDMI INPUT HDR FORMAT

Path: **input/ports/hdmi/{hdmi-port-number}/meta-data/hdr/format**  
Description: HDR format reported by the HDMI input  
Data type: enum  
Supported values: standard-dynamic-range, perceptual-quantiser, hybrid-log-gamma  
Access Specifier: ReadOnly

## HDMI INPUT REFRESH RATE

Path: **input/ports/hdmi/{hdmi-port-number}/meta-data/refresh-rate**  
Description: Hdmi input refresh rate  
Data type: float  
Units: Hertz  
Range: 24 - 250  
Decimal places: 1  
Access Specifier: ReadOnly

## HDMI INPUT RESOLUTION HEIGHT

Path: **input/ports/hdmi/{hdmi-port-number}/meta-data/resolution/height**  
Description: HDMI input height  
Data type: int  
Units: Pixels  
Range: 32 - 4095  
Access Specifier: ReadOnly

## HDMI INPUT RESOLUTION WIDTH

Path: **input/ports/hdmi/{hdmi-port-number}/meta-data/resolution/width**  
Description: HDMI input width  
Data type: int  
Units: Pixels  
Range: 32 - 4096  
Access Specifier: ReadOnly

## HDMI INPUT SAMPLING

Path: **input/ports/hdmi/{hdmi-port-number}/meta-data/sampling**  
Description: Gets current HDMI sampling scheme  
Data type: enum  
Supported values: rgb, ycbcr422, ycbcr444, ycbcr420  
Access Specifier: ReadOnly

## HDMI INPUT BLACK LEVEL

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/black-level**  
Description: Gets or sets black level of an HDMI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## HDMI INPUT CONTRAST

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/contrast**  
Description: Gets or sets contrast of an HDMI video input. 100% is the passthrough value  
Data type: int

Range: 0 - 200  
Access Specifier: ReadWrite

## HDMI BLUE HIGHLIGHT

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/highlight/blue**  
Description: Gets or sets blue highlight of an HDMI input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## HDMI GREEN HIGHLIGHT

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/highlight/green**  
Description: Gets or sets green highlight of an HDMI input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## HDMI RED HIGHLIGHT

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/highlight/red**  
Description: Gets or sets red highlight of an HDMI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## HDMI INPUT HUE

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/hue**  
Description: Gets or sets hue of an HDMI video input. 0° is the passthrough value  
Data type: int  
Units: Degrees  
Range: -180 - 180  
Access Specifier: ReadWrite

## HDMI INPUT SATURATION

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/saturation**  
Description: Gets or sets saturation of an HDMI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## HDMI BLUE SHADOW

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/shadow/blue**  
Description: Gets or sets blue shadow of an HDMI input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## HDMI GREEN SHADOW

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/shadow/green**  
Description: Gets or sets green shadow of an HDMI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## HDMI RED SHADOW

Path: **input/ports/hdmi/{hdmi-port-number}/proc-amp/shadow/red**

Description: Gets or sets red shadow of an HDMI video input. 100% is the passthrough value

Data type: int

Range: 0 - 200

Access Specifier: ReadWrite

## SDI INPUT COLOUR SPACE

Path: **input/ports/sdi/{sdi-port-number}/controls/colour-space/colour**

Description: Gets or sets the colour space used for the incoming SDI content

Data type: enum

Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom

Access Specifier: ReadWrite

## SDI INPUT HDR FORMAT OVERRIDE

Path: **input/ports/sdi/{sdi-port-number}/controls/hdr/format**

Description: Gets or sets the HDR format applied by the processor to the input for SDI input

Data type: enum

Supported values: from-input, standard-dynamic-range, perceptual-quantiser, hybrid-log-gamma

Access Specifier: ReadWrite

## SDI PQ AUTO BRIGHTEN

Path: **input/ports/sdi/{sdi-port-number}/controls/hdr/pq/auto-brighten**

Description: Enables or disables PQ auto brighten for SDI input

Data type: bool

Access Specifier: ReadWrite

## SDI PQ GAIN

Path: **input/ports/sdi/{sdi-port-number}/controls/hdr/pq/gain**

Description: Gets or sets the value of the PQ gain for SDI input

Data type: float

Range: 0.1 - 10.0

Decimal places: 2

Access Specifier: ReadWrite

## SDI PQ MAXCLL OVERRIDE ENABLED

Path: **input/ports/sdi/{sdi-port-number}/controls/hdr/pq/max-cll-override/enabled**

Description: Enables or disables PQ MaxCLL override for SDI input

Data type: bool

Access Specifier: ReadWrite

## SDI PQ MAXCLL OVERRIDE LUMINANCE

Path: **input/ports/sdi/{sdi-port-number}/controls/hdr/pq/max-cll-override/luminance**

Description: Gets or sets the value of the PQ MaxCLL override luminance for SDI input

Data type: int

Units: Nits

Range: 1 - 10000

Access Specifier: ReadWrite

## SDI DYNACAL BLUE GAMUT

Path: **input/ports/sdi/{sdi-port-number}/dynacal/blue/gamut**

Description: Blue component of SDI input colour space

Data type: enum  
Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom  
Access Specifier: ReadWrite

## SDI DYNACAL BLUE X

Path: **input/ports/sdi/{sdi-port-number}/dynacal/blue/x**  
Description: Blue component X value of SDI input colour space  
Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## SDI DYNACAL BLUE Y

Path: **input/ports/sdi/{sdi-port-number}/dynacal/blue/y**  
Description: Blue component Y value of SDI input colour space  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## SDI DYNACAL GREEN GAMUT

Path: **input/ports/sdi/{sdi-port-number}/dynacal/green/gamut**  
Description: Green component of SDI input colour space  
Data type: enum  
Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom  
Access Specifier: ReadWrite

## SDI DYNACAL GREEN X

Path: **input/ports/sdi/{sdi-port-number}/dynacal/green/x**  
Description: Green component X value of SDI input colour space  
Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## SDI DYNACAL GREEN Y

Path: **input/ports/sdi/{sdi-port-number}/dynacal/green/y**  
Description: Green component Y value of SDI input colour space  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## SDI DYNACAL RED GAMUT

Path: **input/ports/sdi/{sdi-port-number}/dynacal/red/gamut**  
Description: Red component of SDI input colour space  
Data type: enum  
Supported values: rec-2020, dci-p3, rec-709, aces-cg, custom  
Access Specifier: ReadWrite

## SDI DYNACAL RED X

Path: **input/ports/sdi/{sdi-port-number}/dynacal/red/x**  
Description: Red component X value of SDI input colour space  
Data type: float

Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## SDI DYNACAL RED Y

Path: **input/ports/sdi/{sdi-port-number}/dynacal/red/y**  
Description: Red component Y value of SDI input colour space  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## SDI DYNACAL WHITE COLOUR TEMPERATURE

Path: **input/ports/sdi/{sdi-port-number}/dynacal/white/colour-temperature**  
Description: SDI input white component colour temperature  
Data type: int  
Units: Kelvin  
Range: 2000 - 11000  
Access Specifier: ReadWrite

## SDI DYNACAL WHITE GAMUT

Path: **input/ports/sdi/{sdi-port-number}/dynacal/white/gamut**  
Description: White component of SDI input colour space. Set to 'Colour Temperature' to control this white-only parameter  
Data type: enum  
Supported values: d65, aces, colour-temperature, custom  
Access Specifier: ReadWrite

## SDI DYNACAL WHITE X

Path: **input/ports/sdi/{sdi-port-number}/dynacal/white/x**  
Description: White component X value of SDI input colour space  
Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## SDI DYNACAL WHITE Y

Path: **input/ports/sdi/{sdi-port-number}/dynacal/white/y**  
Description: SDI input white component Y value  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## SDI INPUT REFRESH RATE

Path: **input/ports/sdi/{sdi-port-number}/meta-data/refresh-rate**  
Description: SDI input refresh rate  
Data type: float  
Units: Hertz  
Range: 24 - 250  
Decimal places: 1  
Access Specifier: ReadOnly

## SDI INPUT RESOLUTION HEIGHT

Path: **input/ports/sdi/{sdi-port-number}/meta-data/resolution/height**

Description: SDI input height

Data type: int

Units: Pixels

Range: 32 - 4095

Access Specifier: ReadOnly

## SDI INPUT RESOLUTION WIDTH

Path: **input/ports/sdi/{sdi-port-number}/meta-data/resolution/width**

Description: SDI input width

Data type: int

Units: Pixels

Range: 32 - 4096

Access Specifier: ReadOnly

## SDI INPUT BLACK LEVEL

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/black-level**

Description: Gets or sets black level of an SDI video input. 100% is the passthrough value

Data type: int

Range: 0 - 200

Access Specifier: ReadWrite

## SDI INPUT CONTRAST

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/contrast**

Description: Gets or sets contrast of an SDI video input. 100% is the passthrough value

Data type: int

Range: 0 - 200

Access Specifier: ReadWrite

## SDI BLUE HIGHLIGHT

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/highlight/blue**

Description: Gets or sets blue highlight of an SDI input. 100% is the passthrough value

Data type: int

Range: 0 - 200

Access Specifier: ReadWrite

## SDI GREEN HIGHLIGHT

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/highlight/green**

Description: Gets or sets green highlight of an SDI input. 100% is the passthrough value

Data type: int

Range: 0 - 200

Access Specifier: ReadWrite

## SDI RED HIGHLIGHT

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/highlight/red**

Description: Gets or sets red highlight of an SDI video input. 100% is the passthrough value

Data type: int

Range: 0 - 200

Access Specifier: ReadWrite

## SDI INPUT HUE

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/hue**

Description: Gets or sets hue of an SDI video input. 0Â° is the passthrough value

Data type: int

Units: Degrees  
Range: -180 - 180  
Access Specifier: ReadWrite

## SDI INPUT SATURATION

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/saturation**  
Description: Gets or sets saturation of an SDI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## SDI BLUE SHADOW

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/shadow/blue**  
Description: Gets or sets blue shadow of an SDI input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## SDI GREEN SHADOW

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/shadow/green**  
Description: Gets or sets green shadow of an SDI input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

## SDI RED SHADOW

Path: **input/ports/sdi/{sdi-port-number}/proc-amp/shadow/red**  
Description: Gets or sets red shadow of an SDI video input. 100% is the passthrough value  
Data type: int  
Range: 0 - 200  
Access Specifier: ReadWrite

# OUTPUT

## OUTPUT DYNACAL BLUE MODE

Path: **output/dynacal/{panel-type}/blue/mode**  
Description: Gets or sets the blue component of panel output colour space  
Data type: enum  
Supported values: achievable, custom  
Access Specifier: ReadWrite

## OUTPUT DYNACAL BLUE X

Path: **output/dynacal/{panel-type}/blue/x**  
Description: X value of panel output colour space blue component  
Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## OUTPUT DYNACAL BLUE Y

Path: **output/dynacal/{panel-type}/blue/y**



Description: Y value of panel output colour space blue component  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## OUTPUT DYNACAL GREEN MODE

Path: **output/dynacal/{panel-type}/green/mode**  
Description: Gets or sets the green component of panel output colour space  
Data type: enum  
Supported values: achievable, custom  
Access Specifier: ReadWrite

## OUTPUT DYNACAL GREEN X

Path: **output/dynacal/{panel-type}/green/x**  
Description: X value of panel output colour space green component  
Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## OUTPUT DYNACAL GREEN Y

Path: **output/dynacal/{panel-type}/green/y**  
Description: Y value of panel output colour space green component  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## OUTPUT DYNACAL LUMINANCE ONLY FRACTION

Path: **output/dynacal/{panel-type}/luminance-only-fraction**  
Description: Gets or sets the percentage mix of output calibration  
Data type: int  
Units: Percentage  
Range: 0 - 100  
Access Specifier: ReadWrite

## OUTPUT DYNACAL MODE

Path: **output/dynacal/{panel-type}/mode**  
Description: Gets or sets the panel output colour space  
Data type: enum  
Supported values: match-input, achievable, custom  
Access Specifier: ReadWrite

## OUTPUT DYNACAL RED MODE

Path: **output/dynacal/{panel-type}/red/mode**  
Description: Gets or sets the red component of panel output colour space  
Data type: enum  
Supported values: achievable, custom  
Access Specifier: ReadWrite

## OUTPUT DYNACAL RED X

Path: **output/dynacal/{panel-type}/red/x**  
Description: X value of panel output colour space red component

Data type: float  
Range: 0.0 - 0.8  
Decimal places: 4  
Access Specifier: ReadWrite

## OUTPUT DYNACAL RED Y

Path: **output/dynacal/{panel-type}/red/y**  
Description: Y value of panel output colour space red component  
Data type: float  
Range: 0.0 - 0.9  
Decimal places: 4  
Access Specifier: ReadWrite

## OUTPUT BRIGHTNESS

Path: **output/global-colour/brightness**  
Description: Write -1 to reset output brightness to calculated common maximum for available fixtures.  
Data type: int  
Units: Nits  
Range: -1 - 10000  
Access Specifier: ReadWrite

## BRIGHTNESS LIMIT ENABLED

Path: **output/global-colour/brightness-limit/enabled**  
Description: Enables or disables global brightness limit  
Data type: bool  
Access Specifier: ReadOnly

## BRIGHTNESS LIMIT VALUE

Path: **output/global-colour/brightness-limit/value**  
Description: Current maximum brightness value if brightness limit enabled  
Data type: int  
Units: Nits  
Range: 0 - 10000  
Access Specifier: ReadOnly

## OUTPUT COLOUR TEMPERATURE

Path: **output/global-colour/colour-temperature**  
Description: Gets or sets the output colour temperature  
Data type: int  
Units: Kelvin  
Range: 2000 - 11000  
Access Specifier: ReadWrite

## DARK MAGIC ENABLED

Path: **output/global-colour/dark-magic/enabled**  
Description: Enables or disables the processor's Dark Magic feature  
Data type: bool  
Access Specifier: ReadWrite

## HIGHLIGHT OUT OF GAMUT PIXELS ENABLED

Path: **output/global-colour/dynacal/highlight-out-of-gamut-pixels-enabled**  
Description: Enables or disables DynaCal's out-of-gamut pixel feature  
Data type: bool  
Access Specifier: ReadWrite

## HIGHLIGHT OVERBRIGHT PIXELS ENABLED

Path: **output/global-colour/dynacal/highlight-overbright-pixels-enabled**

Description: Enables or disables DynaCal's overbright pixel feature

Data type: bool

Access Specifier: ReadWrite

## EXTENDED BIT DEPTH ENABLED

Path: **output/global-colour/extended-bit-depth/enabled**

Description: Enables or disables extended bit depth

Data type: bool

Access Specifier: ReadWrite

## BLUE GAIN

Path: **output/global-colour/gains/blue**

Description: Gets or sets the value of the output blue gain

Data type: float

Units: Percentage

Range: 0 - 100

Decimal places: 2

Access Specifier: ReadWrite

## GREEN GAIN

Path: **output/global-colour/gains/green**

Description: Gets or sets the value of the output green gain

Data type: float

Units: Percentage

Range: 0 - 100

Decimal places: 2

Access Specifier: ReadWrite

## INTENSITY GAIN

Path: **output/global-colour/gains/intensity**

Description: Gets or sets the value of the output intensity gain

Data type: float

Units: Percentage

Range: 0 - 100

Decimal places: 2

Access Specifier: ReadWrite

## RED GAIN

Path: **output/global-colour/gains/red**

Description: Gets or sets the value of the output red gain

Data type: float

Units: Percentage

Range: 0 - 100

Decimal places: 2

Access Specifier: ReadWrite

## OUTPUT GAMMA

Path: **output/global-colour/gamma**

Description: Gets or sets the value of the output gamma

Data type: float

Range: 0.2 - 4.0

Decimal places: 2

Access Specifier: ReadWrite

## OVERDRIVE ENABLED

Path: **output/global-colour/overdrive/enabled**

Description: Enables or disables global brightness overdrive

Data type: bool

Access Specifier: ReadWrite

## PURE TONE ENABLED

Path: **output/global-colour/puretone/enabled**

Description: Enables or disables PureTone

Data type: bool

Access Specifier: ReadWrite

## NETWORK BIT DEPTH

Path: **output/network/bit-depth**

Description: Gets or sets bit depth of video output. Valid values are 8, 10, and 12

Data type: int

Units: Bits

Range: 8 - 12

Access Specifier: ReadWrite

## REDUNDANT CABLE LOOP STATE

Path: **output/network/cable-redundancy/loops/{loop-number}/state**

Description: Current state of cable loop redundancy on the processor

Data type: enum

Supported values: loop-found, no-loop-found, incorrect-loop-found, one-to-many-error

Access Specifier: ReadOnly

## REQUEST FAILOVER

Path: **output/network/failover/actions/request-failover**

Description: Send an empty string to activate processor redundancy

Data type: string

Access Specifier: WriteOnly

## FAILOVER ENABLED

Path: **output/network/failover/settings/enabled**

Description: Enables or disables failover mode on the processor

Data type: bool

Access Specifier: ReadWrite

## BUTTON PRESS FAILOVER MODE ENABLED

Path: **output/network/failover/settings/modes/on-button-press**

Description: Enables or disables failover to backup processor when the processor's Blackout/Freeze buttons are pushed

Data type: bool

Access Specifier: ReadWrite

## PARTNER FAILOVER MODE ENABLED

Path: **output/network/failover/settings/modes/on-partner-fail**

Description: Enables or disables partner processor failover when processor failure is detected (e.g. the processor loses power)

Data type: bool  
Access Specifier: ReadWrite

## PARTNER VIDEO FAILOVER MODE ENABLED

Path: **output/network/failover/settings/modes/on-partner-video-fail**  
Description: Enables or disables partner processor failover on video signal loss  
Data type: bool  
Access Specifier: ReadWrite

## PREFER PRIMARY FAILOVER MODE ENABLED

Path: **output/network/failover/settings/modes/prefer-primary**  
Description: If prefer primary processor failover mode is activated, when primary processor is functioning correctly, it will be automatically always be the active processor  
Data type: bool  
Access Specifier: ReadWrite

## FAILOVER ROLE

Path: **output/network/failover/settings/role**  
Description: Is processor's failover role Primary or Backup  
Data type: enum  
Supported values: primary, backup  
Access Specifier: ReadOnly

## FAILOVER IS ACTIVE

Path: **output/network/failover/state/is-active**  
Description: Whether failover is active on the processor  
Data type: bool  
Access Specifier: ReadOnly

## FAILOVER PARTNER IS ONLINE

Path: **output/network/failover/state/is-partner-present**  
Description: Whether the backup processor is currently online and detected  
Data type: bool  
Access Specifier: ReadOnly

## FAILOVER PARTNER ABSENCE DURATION

Path: **output/network/failover/state/partner-absence-duration**  
Description: How long the backup processor has been absent for  
Data type: string  
Access Specifier: ReadOnly

## FAILOVER PARTNER NAME

Path: **output/network/failover/state/partner-name**  
Description: Name of the backup processor  
Data type: string  
Access Specifier: ReadOnly

## FAILOVER PARTNER SERIAL

Path: **output/network/failover/state/partner-serial**  
Description: Serial number of the backup processor  
Data type: string  
Access Specifier: ReadOnly

## FAILOVER PARTNER VIDEO ABSENCE DURATION

Path: **output/network/failover/state/partner-video-absence-duration**  
Description: Time since backup processor video source was last detected  
Data type: string  
Access Specifier: ReadOnly

## NETWORK FRAME RATE MULTIPLIER

Path: **output/network/frame-rate-multiplier**  
Description: Gets or sets frame rate multiplier of video output. Set value to 1 to disable frame rate multiplication.  
Data type: int  
Range: 1 - 10  
Access Specifier: ReadWrite

## FRAME REMAPPING ENABLED

Path: **output/network/frame-remapping/enabled**  
Description: Is frame remapping globally enabled or disabled  
Data type: bool  
Access Specifier: ReadWrite

## FRAME REMAPPING BLUE

Path: **output/network/frame-remapping/frames/{frame}/blue**  
Description: Gets or sets blue value of frame colour  
Data type: int  
Range: 0 - 255  
Access Specifier: ReadWrite

## FRAME REMAPPING GREEN

Path: **output/network/frame-remapping/frames/{frame}/green**  
Description: Gets or sets green value of frame colour  
Data type: int  
Range: 0 - 255  
Access Specifier: ReadWrite

## FRAME REMAPPING MODE

Path: **output/network/frame-remapping/frames/{frame}/mode**  
Description: Is frame mode Colour or Video  
Data type: enum  
Supported values: colour, video  
Access Specifier: ReadWrite

## FRAME REMAPPING RED

Path: **output/network/frame-remapping/frames/{frame}/red**  
Description: Gets or sets red value of frame colour  
Data type: int  
Range: 0 - 255  
Access Specifier: ReadWrite

## FRAME REMAPPING X OFFSET

Path: **output/network/frame-remapping/frames/{frame}/x-offset**  
Description: Gets or sets x offset of frame  
Data type: int

Units: Pixels  
Range: -4095 - 4095  
Access Specifier: ReadWrite

## FRAME REMAPPING Y OFFSET

Path: **output/network/frame-remapping/frames/{frame}/y-offset**

Description: Gets or sets y offset of frame

Data type: int

Units: Pixels

Range: -4095 - 4095

Access Specifier: ReadWrite

## GENLOCKINTERNALSOURCE RATE

Path: **output/network/genlock/internal-rate**

Description: Gets or sets current refresh rate for internal genlock source

Data type: float

Units: Hertz

Range: 23.5 - 251.0

Decimal places: 4

Access Specifier: ReadWrite

## GENLOCK PHASE OFFSET LINES

Path: **output/network/genlock/phase-offset/absolute/lines**

Description: Gets or sets genlock phase offset absolute lines value for the processor

Data type: int

Range: -9999 - 9999

Access Specifier: ReadWrite

## GENLOCK PHASE OFFSET PIXELS

Path: **output/network/genlock/phase-offset/absolute/pixels**

Description: Gets or sets genlock phase offset absolute pixels value for the processor

Data type: int

Range: -9999 - 9999

Access Specifier: ReadWrite

## GENLOCK PHASE OFFSET ANGLE

Path: **output/network/genlock/phase-offset/angle**

Description: Gets or sets genlock phase offset angle for the processor

Data type: float

Units: Degrees

Range: -360 - 360

Decimal places: 6

Access Specifier: ReadWrite

## GENLOCK PHASE OFFSET FRACTION

Path: **output/network/genlock/phase-offset/fraction**

Description: Gets or sets genlock phase offset fraction for the processor

Data type: float

Range: -100 - 100

Decimal places: 5

Access Specifier: ReadWrite

## GENLOCK PHASE OFFSET MODE

Path: **output/network/genlock/phase-offset/mode**

Description: Gets or sets genlock phase offset mode for the processor  
Data type: enum  
Supported values: none, angle, fraction, absolute  
Access Specifier: ReadWrite

## GENLOCK SOURCE

Path: **output/network/genlock/source**

Description: Gets or sets the current genlock source for the processor  
Data type: enum  
Supported values: internal, sdi, sdi-a, sdi-b, hdmi, dvi, ref-in, active-input  
Access Specifier: ReadWrite

## HIDDENMARKERS BACKGROUND GAIN

Path: **output/network/hidden-markers/background-gain**

Description: Gets or sets brightness of the video underneath hidden markers as a percentage  
Data type: int  
Units: Percentage  
Range: 0 - 100  
Access Specifier: ReadWrite

## HIDDENMARKERS BLACKOUT AFFECTS MARKERS

Path: **output/network/hidden-markers/blackout-affects-markers**

Description: Gets or sets whether blackout affects markers as well as video  
Data type: bool  
Access Specifier: ReadWrite

## CLOSED SHUTTER MARKERS

Path: **output/network/hidden-markers/closed-shutter-markers**

Description: Gets or sets whether markers are only shown when camera shutter is closed  
Data type: bool  
Access Specifier: ReadWrite

## CUSTOM MARKERS DATA

Path: **output/network/hidden-markers/custom/data**

Description: Send bulk data in image file format to upload custom markers  
Data type: bytearray  
Access Specifier: ReadWrite

## CUSTOM MARKERS FILENAME

Path: **output/network/hidden-markers/custom/filename**

Description: The name of the stored custom markers file  
Data type: string  
Access Specifier: ReadOnly

## CUSTOM MARKERS BLUE GAIN

Path: **output/network/hidden-markers/custom/marker-gain/blue**

Description: Gets or sets the current brightness of the blue custom markers as a percentage  
Data type: int  
Units: Percentage  
Range: 0 - 100  
Access Specifier: ReadWrite

## CUSTOM MARKERS GREEN GAIN



Path: **output/network/hidden-markers/custom/marker-gain/green**

Description: Gets or sets the current brightness of the green custom markers as a percentage

Data type: int

Units: Percentage

Range: 0 - 100

Access Specifier: ReadWrite

## CUSTOM MARKERS RED GAIN

Path: **output/network/hidden-markers/custom/marker-gain/red**

Description: Gets or sets the current brightness of the red custom markers as a percentage

Data type: int

Units: Percentage

Range: 0 - 100

Access Specifier: ReadWrite

## CUSTOM MARKERS SCALING

Path: **output/network/hidden-markers/custom/scaling**

Description: Gets or sets current scaling for hidden markers

Data type: enum

Supported values: 1:1, stretch, fit, fill

Access Specifier: ReadWrite

## HIDDENMARKERS ENABLED

Path: **output/network/hidden-markers/enabled**

Description: Enables or disables hidden markers

Data type: bool

Access Specifier: ReadWrite

## HIDDENMARKERS FRAMES ENABLED ON

Path: **output/network/hidden-markers/frames-enabled-on**

Description: A valid array must contain ints in the range between 1 and the max supported frame rate multiplier for the platform

Data type: array

Access Specifier: ReadWrite

## HIDDEN MARKERS MODE

Path: **output/network/hidden-markers/mode**

Description: Gets or sets current hidden markers mode

Data type: enum

Supported values: none, redspy, startracker, custom

Access Specifier: ReadWrite

## REDSPY DISTANCE TO TRACKER

Path: **output/network/hidden-markers/redspy/distance-to-tracker**

Description: Gets or sets distance to tracker for RedSpy markers in metres

Data type: float

Units: Metres

Range: 0.1 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## REDSPY MARKER GAIN

Path: **output/network/hidden-markers/redspy/marker-gain**

Description: Gets or sets the current brightness of the RedSpy markers as a percentage

Data type: int  
Units: Percentage  
Range: 0 - 100  
Access Specifier: ReadWrite

## REDSPY MARKER SEED

Path: **output/network/hidden-markers/redspy/marker-seed**  
Description: Gets or sets seed value for RedSpy marker positions  
Data type: int  
Range: 1 - 65535  
Access Specifier: ReadWrite

## REDSPY MARKER SIZE SCALER

Path: **output/network/hidden-markers/redspy/marker-size-scaler**  
Description: Gets or sets the size scaling for RedSpy markers as a percentage  
Data type: int  
Units: Percentage  
Range: 10 - 200  
Access Specifier: ReadWrite

## STARTRACKER BLUE DISTANCE TO TRACKER

Path: **output/network/hidden-markers/startracker/blue/distance-to-tracker**  
Description: Gets or sets distance to tracker for blue StarTracker markers in metres  
Data type: float  
Units: Metres  
Range: 0.1 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## STARTRACKER BLUE ENABLED

Path: **output/network/hidden-markers/startracker/blue/enabled**  
Description: Enables or disables blue markers for StarTracker  
Data type: bool  
Access Specifier: ReadWrite

## STARTRACKER BLUE MARKER GAIN

Path: **output/network/hidden-markers/startracker/blue/marker-gain**  
Description: Gets or sets the current brightness of the blue StarTracker markers as a percentage  
Data type: int  
Units: Percentage  
Range: 0 - 100  
Access Specifier: ReadWrite

## STARTRACKER BLUE MARKER SEED

Path: **output/network/hidden-markers/startracker/blue/marker-seed**  
Description: Gets or sets seed value for blue StarTracker marker positions  
Data type: int  
Range: 1 - 65535  
Access Specifier: ReadWrite

## STARTRACKER BLUE MARKER SIZE SCALER

Path: **output/network/hidden-markers/startracker/blue/marker-size-scaler**  
Description: Gets or sets the size scaling for blue StarTracker markers as a percentage  
Data type: int

Units: Percentage  
Range: 10 - 200  
Access Specifier: ReadWrite

## STARTRACKER GREEN DISTANCE TO TRACKER

Path: **output/network/hidden-markers/startracker/green/distance-to-tracker**  
Description: Gets or sets distance to tracker for green StarTracker markers in metres  
Data type: float  
Units: Metres  
Range: 0.1 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## STARTRACKER GREEN ENABLED

Path: **output/network/hidden-markers/startracker/green/enabled**  
Description: Enables or disables green markers for StarTracker  
Data type: bool  
Access Specifier: ReadWrite

## STARTRACKER GREEN MARKER GAIN

Path: **output/network/hidden-markers/startracker/green/marker-gain**  
Description: Gets or sets the current brightness of the green StarTracker markers as a percentage  
Data type: int  
Units: Percentage  
Range: 0 - 100  
Access Specifier: ReadWrite

## STARTRACKER GREEN MARKER SEED

Path: **output/network/hidden-markers/startracker/green/marker-seed**  
Description: Gets or sets seed value for green StarTracker marker positions  
Data type: int  
Range: 1 - 65535  
Access Specifier: ReadWrite

## STARTRACKER GREEN MARKER SIZE SCALER

Path: **output/network/hidden-markers/startracker/green/marker-size-scaler**  
Description: Gets or sets the size scaling for green StarTracker markers as a percentage  
Data type: int  
Units: Percentage  
Range: 10 - 200  
Access Specifier: ReadWrite

## STARTRACKER RED DISTANCE TO TRACKER

Path: **output/network/hidden-markers/startracker/red/distance-to-tracker**  
Description: Gets or sets distance to tracker for red StarTracker markers in metres  
Data type: float  
Units: Metres  
Range: 0.1 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## STARTRACKER RED ENABLED

Path: **output/network/hidden-markers/startracker/red/enabled**  
Description: Enables or disables red markers for StarTracker

Data type: bool  
Access Specifier: ReadWrite

## STARTRACKER RED MARKER GAIN

Path: **output/network/hidden-markers/startracker/red/marker-gain**  
Description: Gets or sets the current brightness of the red StarTracker markers as a percentage  
Data type: int  
Units: Percentage  
Range: 0 - 100  
Access Specifier: ReadWrite

## STARTRACKER RED MARKER SEED

Path: **output/network/hidden-markers/startracker/red/marker-seed**  
Description: Gets or sets seed value for red StarTracker marker positions  
Data type: int  
Range: 1 - 65535  
Access Specifier: ReadWrite

## STARTRACKER RED MARKER SIZE SCALER

Path: **output/network/hidden-markers/startracker/red/marker-size-scaler**  
Description: Gets or sets the size scaling for red StarTracker markers as a percentage  
Data type: int  
Units: Percentage  
Range: 10 - 200  
Access Specifier: ReadWrite

## SHUTTERSYNC CUSTOM FRAME RATE

Path: **output/network/shuttersync/angle-settings/custom-frame-rate**  
Description: Gets or sets the value of the ShutterSync custom frame rate  
Data type: float  
Units: Frames per Second  
Range: 1 - 250  
Decimal places: 3  
Access Specifier: ReadWrite

## SHUTTERSYNC ANGLE

Path: **output/network/shuttersync/angle-settings/shutter-angle**  
Description: Gets or sets the value of the shutter angle  
Data type: float  
Units: Degrees  
Range: 1 - 360  
Decimal places: 3  
Access Specifier: ReadWrite

## SHUTTERSYNC USE CUSTOM FRAME RATE

Path: **output/network/shuttersync/angle-settings/use-custom-frame-rate**  
Description: Enables or disables ShutterSync Custom Frame Rate  
Data type: bool  
Access Specifier: ReadWrite

## SHUTTERSYNC DARK FRAME INSERT

Path: **output/network/shuttersync/dark-frame-insert**  
Description: Enables or Disables Dark Frame Insertion  
Data type: bool

Access Specifier: ReadWrite

## SHUTTERSYNC MODE

Path: **output/network/shuttersync/mode**

Description: Gets or sets ShutterSync operation mode

Data type: enum

Supported values: none, speed, angle

Access Specifier: ReadWrite

## SHUTTERSYNC PRIORITISE REFRESH RATE

Path: **output/network/shuttersync/prioritise-refresh-rate**

Description: Enables or disables ShutterSync prioritise refresh rate setting

Data type: bool

Access Specifier: ReadWrite

## SHUTTERSYNC SENSOR READOUT TIME

Path: **output/network/shuttersync/sensor-readout-time**

Description: Gets or sets sensor readout time

Data type: float

Units: Milliseconds

Range: 0.00 - 42.00

Decimal places: 2

Access Specifier: ReadWrite

## SHUTTERSYNC SENSOR TYPE

Path: **output/network/shuttersync/sensor-type**

Description: Gets or sets ShutterSync sensor type

Data type: enum

Supported values: any, global-shutter, rolling-shutter

Access Specifier: ReadWrite

## SHUTTERSYNC SPEED

Path: **output/network/shuttersync/speed-settings/shutter-speed**

Description: Gets or sets the denominator value of ShutterSync speed, numerator is 1

Data type: float

Range: 10 - 250

Decimal places: 3

Access Specifier: ReadWrite

## SHUTTERSYNC TIME

Path: **output/network/shuttersync/speed-settings/time**

Description: Gets or sets the time value of ShutterSync speed

Data type: float

Units: Milliseconds

Range: 4 - 100

Decimal places: 3

Access Specifier: ReadWrite

## OLD STARTRACKER BACKGROUND GAIN

Path: **output/network/startracker/background-gain**

Description: Gets or sets brightness of the video underneath StarTracker markers as a percentage

Data type: int

Units: Percentage

Range: 0 - 100

Access Specifier: ReadWrite

## OLD STARTRACKER BLACKOUT AFFECTS MARKERS

Path: **output/network/startracker/blackout-affects-markers**

Description: Gets or sets whether blackout affects markers as well as video

Data type: bool

Access Specifier: ReadWrite

## OLD STARTRACKER BLUE DISTANCE TO TRACKER

Path: **output/network/startracker/blue/distance-to-tracker**

Description: Gets or sets distance to tracker for blue StarTracker markers in metres

Data type: float

Units: Metres

Range: 0.1 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## OLD STARTRACKER BLUE ENABLED

Path: **output/network/startracker/blue/enabled**

Description: Enables or disables blue markers for StarTracker

Data type: bool

Access Specifier: ReadWrite

## OLD STARTRACKER BLUE MARKER GAIN

Path: **output/network/startracker/blue/marker-gain**

Description: Gets or sets the current brightness of the blue StarTracker markers as a percentage

Data type: int

Units: Percentage

Range: 0 - 100

Access Specifier: ReadWrite

## OLD STARTRACKER BLUE MARKER SIZE SCALER

Path: **output/network/startracker/blue/marker-size-scaler**

Description: Gets or sets the size scaling for blue StarTracker markers as a percentage

Data type: int

Units: Percentage

Range: 10 - 200

Access Specifier: ReadWrite

## OLD STARTRACKER BLUE MARKER SEED

Path: **output/network/startracker/blue/star-map-seed**

Description: Gets or sets seed value for blue StarTracker marker positions

Data type: int

Range: 1 - 65535

Access Specifier: ReadWrite

## OLD STARTRACKER ENABLED

Path: **output/network/startracker/enabled**

Description: Enables or disables StarTracker markers

Data type: bool

Access Specifier: ReadWrite

## OLD STARTRACKER FRAMES ENABLED ON

Path: **output/network/startracker/frames-enabled-on**

Description: A valid array must contain ints in the range between 1 and the max supported frame rate multiplier for the platform

Data type: array

Access Specifier: ReadWrite

## OLD STARTRACKER GREEN DISTANCE TO TRACKER

Path: **output/network/startracker/green/distance-to-tracker**

Description: Gets or sets distance to tracker for green StarTracker markers in metres

Data type: float

Units: Metres

Range: 0.1 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## OLD STARTRACKER GREEN ENABLED

Path: **output/network/startracker/green/enabled**

Description: Enables or disables green markers for StarTracker

Data type: bool

Access Specifier: ReadWrite

## OLD STARTRACKER GREEN MARKER GAIN

Path: **output/network/startracker/green/marker-gain**

Description: Gets or sets the current brightness of the green StarTracker markers as a percentage

Data type: int

Units: Percentage

Range: 0 - 100

Access Specifier: ReadWrite

## OLD STARTRACKER GREEN MARKER SIZE SCALER

Path: **output/network/startracker/green/marker-size-scaler**

Description: Gets or sets the size scaling for green StarTracker markers as a percentage

Data type: int

Units: Percentage

Range: 10 - 200

Access Specifier: ReadWrite

## OLD STARTRACKER GREEN MARKER SEED

Path: **output/network/startracker/green/star-map-seed**

Description: Gets or sets seed value for green StarTracker marker positions

Data type: int

Range: 1 - 65535

Access Specifier: ReadWrite

## OLD STARTRACKER RED DISTANCE TO TRACKER

Path: **output/network/startracker/red/distance-to-tracker**

Description: Gets or sets distance to tracker for red StarTracker markers in metres

Data type: float

Units: Metres

Range: 0.1 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## OLD STARTRACKER RED ENABLED

Path: **output/network/startracker/red/enabled**

Description: Enables or disables red markers for StarTracker

Data type: bool

Access Specifier: ReadWrite

## OLD STARTRACKER RED MARKER GAIN

Path: **output/network/startracker/red/marker-gain**

Description: Gets or sets the current brightness of the red StarTracker markers as a percentage

Data type: int

Units: Percentage

Range: 0 - 100

Access Specifier: ReadWrite

## OLD STARTRACKER RED MARKER SIZE SCALER

Path: **output/network/startracker/red/marker-size-scaler**

Description: Gets or sets the size scaling for red StarTracker markers as a percentage

Data type: int

Units: Percentage

Range: 10 - 200

Access Specifier: ReadWrite

## OLD STARTRACKER RED MARKER SEED

Path: **output/network/startracker/red/star-map-seed**

Description: Gets or sets seed value for red StarTracker marker positions

Data type: int

Range: 1 - 65535

Access Specifier: ReadWrite

# OVERRIDE

## BLACKOUT ENABLED

Path: **override/blackout/enabled**

Description: Enables or disables blackout

Data type: bool

Access Specifier: ReadWrite

## BLACKOUT FADE TIME

Path: **override/blackout/fade-time**

Description: The value of the blackout fade time. The fade time may be adjusted between zero (snap) and 10 seconds

Data type: float

Units: Seconds

Range: 0.0 - 10.0

Decimal places: 1

Access Specifier: ReadWrite

## FREEZE ENABLED

Path: **override/freeze/enabled**

Description: Enables or disables video freeze

Data type: bool

Access Specifier: ReadWrite



## TEST PATTERN CUSTOM COLOUR BLUE

Path: **override/test-pattern/custom-colour/blue**

Description: Gets or sets the custom colour test pattern blue value

Data type: int

Range: 0 - 4095

Access Specifier: ReadWrite

## TEST PATTERN CUSTOM COLOUR GREEN

Path: **override/test-pattern/custom-colour/green**

Description: Gets or sets the custom colour test pattern green value

Data type: int

Range: 0 - 4095

Access Specifier: ReadWrite

## TEST PATTERN CUSTOM COLOUR RED

Path: **override/test-pattern/custom-colour/red**

Description: Gets or sets the custom colour test pattern red value

Data type: int

Range: 0 - 4095

Access Specifier: ReadWrite

## TEST PATTERN CUSTOM GRADIENT END BLUE

Path: **override/test-pattern/custom-gradient/end-colour/blue**

Description: Gets or sets blue component of custom gradient test pattern end colour as a 12 bit integer

Data type: int

Range: 0 - 4095

Access Specifier: ReadWrite

## TEST PATTERN CUSTOM GRADIENT END GREEN

Path: **override/test-pattern/custom-gradient/end-colour/green**

Description: Gets or sets green component of custom gradient test pattern end colour as a 12 bit integer

Data type: int

Range: 0 - 4095

Access Specifier: ReadWrite

## TEST PATTERN CUSTOM GRADIENT END RED

Path: **override/test-pattern/custom-gradient/end-colour/red**

Description: Gets or sets red component of custom gradient test pattern end colour as a 12 bit integer

Data type: int

Range: 0 - 4095

Access Specifier: ReadWrite

## TEST PATTERN CUSTOM GRADIENT ORIENTATION

Path: **override/test-pattern/custom-gradient/orientation**

Description: Gets or sets the custom gradient test pattern orientation

Data type: enum

Supported values: horizontal, vertical

Access Specifier: ReadWrite

## TEST PATTERN CUSTOM GRADIENT START GREEN

Path: **override/test-pattern/custom-gradient/start-colour/blue**

Description: Gets or sets green component of custom gradient test pattern start colour as a 12 bit integer

Data type: int  
Range: 0 - 4095  
Access Specifier: ReadWrite

## TEST PATTERN CUSTOM GRADIENT START BLUE

Path: **override/test-pattern/custom-gradient/start-colour/green**  
Description: Gets or sets blue component of custom gradient test pattern start colour as a 12 bit integer  
Data type: int  
Range: 0 - 4095  
Access Specifier: ReadWrite

## TEST PATTERN CUSTOM GRADIENT START RED

Path: **override/test-pattern/custom-gradient/start-colour/red**  
Description: Gets or sets red component of custom gradient test pattern start colour as a 12 bit integer  
Data type: int  
Range: 0 - 4095  
Access Specifier: ReadWrite

## TEST PATTERN ENABLED

Path: **override/test-pattern/enabled**  
Description: Enables or disables test pattern output function  
Data type: bool  
Access Specifier: ReadWrite

## TEST PATTERN FORMAT

Path: **override/test-pattern/format**  
Description: Format of the generated test pattern  
Data type: enum  
Supported values: from-input, standard-dynamic-range, perceptual-quantiser, hybrid-log-gamma  
Access Specifier: ReadWrite

## TEST PATTERN RESTRICT TO ACHIEVABLE COLOURS

Path: **override/test-pattern/restrict-to-achievable-colours**  
Description: Enables or disables restrict to achievable colours switch  
Data type: bool  
Access Specifier: ReadWrite

## TEST PATTERN TYPE

Path: **override/test-pattern/type**  
Description: Determines which test pattern to generate. Defaults to SMPTE bars  
Data type: enum  
Supported values: brompton, brompton-overlay, red, green, blue, cyan, magenta, yellow, white, black, grid, scrolling-grid, checkerboard, scrolling-checkerboard, colour-bars, gradient, scrolling-gradient, strobe, smpte-bars, scrolling-smpte-bars, custom-colour, custom, forty-five-degree-grid, scrolling-forty-five-degree-grid, custom-gradient, scrolling-custom-gradient  
Access Specifier: ReadWrite

# PRESETS

## ACTIVE PRESET NAME

Path: **presets/active/name**

Description: Name of the currently active preset  
Data type: string  
Access Specifier: ReadOnly

## ACTIVE PRESET NUMBER

Path: **presets/active/number**  
Description: Set to activate a preset  
Data type: int  
Range: 1 - 128  
Access Specifier: ReadWrite

## PRESET NAME

Path: **presets/items/{number}/name**  
Description: Processor preset name  
Data type: string  
Access Specifier: ReadWrite

## PRESET STATUS

Path: **presets/items/{number}/status**  
Description: Preset activation status  
Data type: bool  
Access Specifier: ReadOnly

# PROCESSING

## 3D LUT DATA

Path: **processing/3d-lut/data**  
Description: Send bulk data in .cube file format to upload 3D LUT  
Data type: bytearray  
Access Specifier: ReadWrite

## 3D LUT ENABLED

Path: **processing/3d-lut/enabled**  
Description: Enables or disables 3D LUT mapping  
Data type: bool  
Access Specifier: ReadWrite

## 3D LUT FILENAME

Path: **processing/3d-lut/filename**  
Description: The name of the stored 3D LUT file  
Data type: string  
Access Specifier: ReadOnly

## 3D LUT STRENGTH

Path: **processing/3d-lut/strength**  
Description: Intensity/opacity of 3D LUT  
Data type: float  
Range: 0.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT BLACK BLUE

Path: **processing/colour-correct/black/blue**  
Description: Gets or sets the value of the black blue  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT BLACK GREEN

Path: **processing/colour-correct/black/green**  
Description: Gets or sets the value of the black green  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT BLACK RED

Path: **processing/colour-correct/black/red**  
Description: Gets or sets the value of the black red  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT BLUE BRIGHTNESS

Path: **processing/colour-correct/blue/brightness**  
Description: Gets or sets the value of the blue brightness  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT BLUE HUE

Path: **processing/colour-correct/blue/hue**  
Description: Gets or sets the value of the blue hue  
Data type: float  
Units: Degrees  
Range: -180.0 - 180.0  
Decimal places: 1  
Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT BLUE SATURATION

Path: **processing/colour-correct/blue/saturation**  
Description: Gets or sets the value of the blue saturation  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT COBALT BRIGHTNESS

Path: **processing/colour-correct/cobalt/brightness**  
Description: Gets or sets the value of the cobalt brightness  
Data type: float  
Range: -100.0 - 100.0

Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT COBALT HUE

Path: **processing/colour-correct/cobalt/hue**  
Description: Gets or sets the value of the cobalt hue  
Data type: float  
Units: Degrees  
Range: -180.0 - 180.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT COBALT SATURATION

Path: **processing/colour-correct/cobalt/saturation**  
Description: Gets or sets the value of the cobalt saturation  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT CRIMSON BRIGHTNESS

Path: **processing/colour-correct/crimson/brightness**  
Description: Gets or sets the value of the crimson brightness  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT CRIMSON HUE

Path: **processing/colour-correct/crimson/hue**  
Description: Gets or sets the value of the crimson hue  
Data type: float  
Units: Degrees  
Range: -180.0 - 180.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT CRIMSON SATURATION

Path: **processing/colour-correct/crimson/saturation**  
Description: Gets or sets the value of the crimson saturation  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT CYAN BRIGHTNESS

Path: **processing/colour-correct/cyan/brightness**  
Description: Gets or sets the value of the cyan brightness  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT CYAN HUE

Path: **processing/colour-correct/cyan/hue**

Description: Gets or sets the value of the cyan hue

Data type: float

Units: Degrees

Range: -180.0 - 180.0

Decimal places: 1

Access Specifier: ReadWrite

## 14-WAY COLOUR CORRECT CYAN SATURATION

Path: **processing/colour-correct/cyan/saturation**

Description: Gets or sets the value of the cyan saturation

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## 14-WAY COLOUR CORRECT ENABLED

Path: **processing/colour-correct/enabled**

Description: Enables or disables the processor's 14-Way Colour Correct feature

Data type: bool

Access Specifier: ReadWrite

## 14-WAY COLOUR CORRECT GREEN BRIGHTNESS

Path: **processing/colour-correct/green/brightness**

Description: Gets or sets the value of the green brightness

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## 14-WAY COLOUR CORRECT GREEN HUE

Path: **processing/colour-correct/green/hue**

Description: Gets or sets the value of the green hue

Data type: float

Units: Degrees

Range: -180.0 - 180.0

Decimal places: 1

Access Specifier: ReadWrite

## 14-WAY COLOUR CORRECT GREEN SATURATION

Path: **processing/colour-correct/green/saturation**

Description: Gets or sets the value of the green saturation

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## 14-WAY COLOUR CORRECT LIME BRIGHTNESS

Path: **processing/colour-correct/lime/brightness**

Description: Gets or sets the value of the lime brightness

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT LIME HUE

Path: **processing/colour-correct/lime/hue**

Description: Gets or sets the value of the lime hue

Data type: float

Units: Degrees

Range: -180.0 - 180.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT LIME SATURATION

Path: **processing/colour-correct/lime/saturation**

Description: Gets or sets the value of the lime saturation

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT MAGENTA BRIGHTNESS

Path: **processing/colour-correct/magenta/brightness**

Description: Gets or sets the value of the magenta brightness

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT MAGENTA HUE

Path: **processing/colour-correct/magenta/hue**

Description: Gets or sets the value of the magenta hue

Data type: float

Units: Degrees

Range: -180.0 - 180.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT MAGENTA SATURATION

Path: **processing/colour-correct/magenta/saturation**

Description: Gets or sets the value of the magenta saturation

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT ORANGE BRIGHTNESS

Path: **processing/colour-correct/orange/brightness**

Description: Gets or sets the value of the orange brightness

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT ORANGE HUE

Path: **processing/colour-correct/orange/hue**

Description: Gets or sets the value of the orange hue

Data type: float

Units: Degrees  
Range: -180.0 - 180.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT ORANGE SATURATION

Path: **processing/colour-correct/orange/saturation**  
Description: Gets or sets the value of the orange saturation  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT RED BRIGHTNESS

Path: **processing/colour-correct/red/brightness**  
Description: Gets or sets the value of the red brightness  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT RED HUE

Path: **processing/colour-correct/red/hue**  
Description: Gets or sets the value of the red hue  
Data type: float  
Units: Degrees  
Range: -180.0 - 180.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT RED SATURATION

Path: **processing/colour-correct/red/saturation**  
Description: Gets or sets the value of the red saturation  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT TURQUOISE BRIGHTNESS

Path: **processing/colour-correct/turquoise/brightness**  
Description: Gets or sets the value of the turquoise brightness  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT TURQUOISE HUE

Path: **processing/colour-correct/turquoise/hue**  
Description: Gets or sets the value of the turquoise hue  
Data type: float  
Units: Degrees  
Range: -180.0 - 180.0  
Decimal places: 1  
Access Specifier: ReadWrite



## I4-WAY COLOUR CORRECT TURQUOISE SATURATION

Path: **processing/colour-correct/turquoise/saturation**

Description: Gets or sets the value of the turquoise saturation

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT VIOLET BRIGHTNESS

Path: **processing/colour-correct/violet/brightness**

Description: Gets or sets the value of the violet brightness

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT VIOLET HUE

Path: **processing/colour-correct/violet/hue**

Description: Gets or sets the value of the violet hue

Data type: float

Units: Degrees

Range: -180.0 - 180.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT VIOLET SATURATION

Path: **processing/colour-correct/violet/saturation**

Description: Gets or sets the value of the violet saturation

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT WHITE BLUE

Path: **processing/colour-correct/white/blue**

Description: Gets or sets the value of the white blue

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT WHITE GREEN

Path: **processing/colour-correct/white/green**

Description: Gets or sets the value of the white green

Data type: float

Range: -100.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## I4-WAY COLOUR CORRECT WHITE RED

Path: **processing/colour-correct/white/red**

Description: Gets or sets the value of the white red

Data type: float

Range: -100.0 - 100.0

Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT YELLOW BRIGHTNESS

Path: **processing/colour-correct/yellow/brightness**  
Description: Gets or sets the value of the yellow brightness  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT YELLOW HUE

Path: **processing/colour-correct/yellow/hue**  
Description: Gets or sets the value of the yellow hue  
Data type: float  
Units: Degrees  
Range: -180.0 - 180.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### I4-WAY COLOUR CORRECT YELLOW SATURATION

Path: **processing/colour-correct/yellow/saturation**  
Description: Gets or sets the value of the yellow saturation  
Data type: float  
Range: -100.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

#### COLOUR REPLACE APPLY TO BRIGHTNESS

Path: **processing/colour-replace/apply-to-brightness**  
Description: Enables or disables apply to brightness switch for colour replace  
Data type: bool  
Access Specifier: ReadWrite

#### COLOUR REPLACE APPLY TO HUE

Path: **processing/colour-replace/apply-to-hue**  
Description: Enables or disables apply to hue switch for colour replace  
Data type: bool  
Access Specifier: ReadWrite

#### COLOUR REPLACE APPLY TO SATURATION

Path: **processing/colour-replace/apply-to-saturation**  
Description: Enables or disables apply to saturation switch for colour replace  
Data type: bool  
Access Specifier: ReadWrite

#### COLOUR REPLACE BRIGHTNESS TOLERANCE

Path: **processing/colour-replace/brightness-tolerance**  
Description: Gets or sets the value of the brightness tolerance for colour replace  
Data type: float  
Range: 10.0 - 100.0  
Decimal places: 1  
Access Specifier: ReadWrite

## COLOUR REPLACE FROM BLUE

Path: **processing/colour-replace/colour-from/blue**

Description: Gets or sets the blue component of the colour replace source colour

Data type: int

Range: 0 - 255

Access Specifier: ReadWrite

## COLOUR REPLACE FROM GREEN

Path: **processing/colour-replace/colour-from/green**

Description: Gets or sets the green component of the colour replace source colour

Data type: int

Range: 0 - 255

Access Specifier: ReadWrite

## COLOUR REPLACE FROM RED

Path: **processing/colour-replace/colour-from/red**

Description: Gets or sets the red component of the colour replace source colour

Data type: int

Range: 0 - 255

Access Specifier: ReadWrite

## COLOUR REPLACE TO BLUE

Path: **processing/colour-replace/colour-to/blue**

Description: Gets or sets the blue component of the colour replace target colour

Data type: int

Range: 0 - 255

Access Specifier: ReadWrite

## COLOUR REPLACE TO GREEN

Path: **processing/colour-replace/colour-to/green**

Description: Gets or sets the green component of the colour replace target colour

Data type: int

Range: 0 - 255

Access Specifier: ReadWrite

## COLOUR REPLACE TO RED

Path: **processing/colour-replace/colour-to/red**

Description: Gets or sets the red component of the colour replace target colour

Data type: int

Range: 0 - 255

Access Specifier: ReadWrite

## COLOUR REPLACE COLOUR TOLERANCE

Path: **processing/colour-replace/colour-tolerance**

Description: Gets or sets the value of the colour tolerance for colour replace

Data type: float

Range: 10.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## COLOUR REPLACE ENABLED

Path: **processing/colour-replace/enabled**

Description: Enables or disables the processor's Colour Replace feature

Data type: bool

Access Specifier: ReadWrite

## COLOUR REPLACE METHOD

Path: **processing/colour-replace/method**

Description: Gets or sets the method applied by the processor for colour replacement

Data type: enum

Supported values: set-to-colour, transform-to-colour

Access Specifier: ReadWrite

## COLOUR REPLACE SOFTNESS

Path: **processing/colour-replace/softness**

Description: Gets or sets the value of the softness for colour replace

Data type: float

Range: 6.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## COLOUR REPLACE STRENGTH

Path: **processing/colour-replace/strength**

Description: Gets or sets the value of the strength for colour replace

Data type: float

Range: 6.0 - 100.0

Decimal places: 1

Access Specifier: ReadWrite

## COLOUR REPLACE VIEW MATTE

Path: **processing/colour-replace/view-matte**

Description: Enables or disables view matte for colour replace

Data type: bool

Access Specifier: ReadWrite

## CURVES BLUE POINTS

Path: **processing/curves/blue/points**

Description: A valid array must contain JSON objects with x and y values specified in the range [0,1] e.g. `[[{x:0.2, y:0.2}, {x:0.64, y:0.77}]`, or send an empty array to clear all points. Minimum separation between points is 0.0625

Data type: array

Access Specifier: ReadWrite

## CURVES ENABLED

Path: **processing/curves/enabled**

Description: Enables or disables the processor's Colour Curves feature

Data type: bool

Access Specifier: ReadWrite

## CURVES GREEN POINTS

Path: **processing/curves/green/points**

Description: A valid array must contain JSON objects with x and y values specified in the range [0,1] e.g. `[[{x:0.2, y:0.2}, {x:0.64, y:0.77}]`, or send an empty array to clear all points. Minimum separation between points is 0.0625

Data type: array

Access Specifier: ReadWrite

## CURVES RED POINTS

Path: **processing/curves/red/points**

Description: A valid array must contain JSON objects with x and y values specified in the range [0,1] e.g. [{x:0.2, y:0.2}, {x:0.64, y:0.77}], or send an empty array to clear all points. Minimum separation between points is 0.0625

Data type: array

Access Specifier: ReadWrite

## CURVES WHITE POINTS

Path: **processing/curves/white/points**

Description: A valid array must contain JSON objects with x and y values specified in the range [0,1] e.g. [{x:0.2, y:0.2}, {x:0.64, y:0.77}], or send an empty array to clear all points. Minimum separation between points is 0.0625

Data type: array

Access Specifier: ReadWrite

## OSCA MODULE CORRECTION ENABLED

Path: **processing/osca/module-correction-enabled**

Description: Enables or disables OSCA module correction

Data type: bool

Access Specifier: ReadWrite

## OSCA SEAM CORRECTION ENABLED

Path: **processing/osca/seam-correction-enabled**

Description: Enables or disables OSCA seam correction

Data type: bool

Access Specifier: ReadWrite

## SCALER

Path: **processing/scaler/enabled**

Description: Enables or disables scaler

Data type: bool

Access Specifier: ReadWrite

## PROJECT

### PROJECT NAME

Path: **project/name**

Description: Gets the name of the Project

Data type: string

Access Specifier: ReadOnly

## SYSTEM

### SYSTEM REBOOT

Path: **system/actions/reboot**

Description: If the processor password is set then this must be sent in the body. Otherwise send a blank string to trigger the reboot.

Data type: string

Access Specifier: WriteOnly

## SYSTEM SHUTDOWN

Path: **system/actions/shutdown**

Description: If the processor password is set then this must be sent in the body. Otherwise send a blank string to trigger the shutdown.

Data type: string

Access Specifier: WriteOnly

## CURRENT DATE AND TIME

Path: **system/current-date-time**

Description: Current date/time of processor in yyyy-MM-dd hh:mm:ss 24 hour format

Data type: string

Access Specifier: ReadOnly

## CASE FAN 1 SPEED

Path: **system/fan/case/one/speed**

Description: Current speed of the Case Fan

Data type: float

Units: RPM

Range: 0 - 5000

Access Specifier: ReadOnly

## CASE FAN 1 STATUS

Path: **system/fan/case/one/status**

Description: Current activation status of Case Fan 1

Data type: bool

Access Specifier: ReadOnly

## CASE FAN 2 SPEED

Path: **system/fan/case/two/speed**

Description: Current speed of Case Fan 2

Data type: float

Units: RPM

Range: 0 - 5000

Access Specifier: ReadOnly

## CASE FAN 2 STATUS

Path: **system/fan/case/two/status**

Description: Current activation status of Case Fan 2

Data type: bool

Access Specifier: ReadOnly

## FPGA FAN SPEED

Path: **system/fan/fpga/speed**

Description: Current speed of the FPGA Fan. Supported only on SX40, S8.

Data type: float

Units: RPM

Range: 0 - 5000

Access Specifier: ReadOnly

## FPGA FAN STATUS

Path: **system/fan/fpga/status**

Description: Current activation status of the FPGA Fan. Supported only on SX40, S8.

Data type: bool

Access Specifier: ReadOnly

## PROCESSOR NAME

Path: **system/processor-name**

Description: The name of the processor

Data type: string

Access Specifier: ReadOnly

## PROCESSOR TYPE

Path: **system/processor-type**

Description: Processor hardware model

Data type: enum

Supported values: m2, s4, s8, t1, t8, sx40

Access Specifier: ReadOnly

## SERIAL NUMBER

Path: **system/serial-number**

Description: Gets the Serial Number of the processor

Data type: string

Access Specifier: ReadOnly

## SOFTWARE VERSION

Path: **system/software-version**

Description: Current version of software in format x.y.z

Data type: string

Access Specifier: ReadOnly

## AMBIENT TEMPERATURE

Path: **system/temperature/ambient**

Description: Current Ambient Temperature. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## CPU TEMPERATURE

Path: **system/temperature/cpu**

Description: Current temperature of the main CPU core. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## DSP TEMPERATURE

Path: **system/temperature/dsp**

Description: Current Temperature of the DSP. Supported by M2, T1, S4.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## ETHERNET COPPER PHY A TEMPERATURE

Path: **system/temperature/ethernet/copper/a**

Description: Current Temperature of Ethernet Copper Physical Interface A. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## ETHERNET COPPER PHY B TEMPERATURE

Path: **system/temperature/ethernet/copper/b**

Description: Current Temperature of Ethernet Copper Physical Interface B. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## ETHERNET SFP A TEMPERATURE

Path: **system/temperature/ethernet/sfp/a**

Description: Current Temperature of Ethernet SFP A. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## ETHERNET SFP B TEMPERATURE

Path: **system/temperature/ethernet/sfp/b**

Description: Current Temperature of Ethernet SFP B. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## ETHERNET SFP C TEMPERATURE

Path: **system/temperature/ethernet/sfp/c**

Description: Current Temperature of Ethernet SFP C. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## ETHERNET SFP D TEMPERATURE

Path: **system/temperature/ethernet/sfp/d**

Description: Current Temperature of Ethernet SFP D. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## FPGA TEMPERATURE

Path: **system/temperature/fpga**

Description: Current temperature of the FPGA core. Supported by SX40, S8, M2.

Data type: float

Units: Celsius

Range: 0 - 200



Access Specifier: ReadOnly

## FRONT TEMPERATURE

Path: **system/temperature/front**

Description: Current Temperature of the Front Panel. Supported by M2.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## GPU TEMPERATURE

Path: **system/temperature/gpu**

Description: Current Temperature of the GPU. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## MAIN BOARD TEMPERATURE

Path: **system/temperature/main**

Description: Current Temperature of the Main Board. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## PSU TEMPERATURE

Path: **system/temperature/psu**

Description: Current Temperature of the PSU. Supported by SX40, S8.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## REAR TEMPERATURE

Path: **system/temperature/rear**

Description: Current Temperature of the Rear Panel. Supported by M2.

Data type: float

Units: Celsius

Range: 0 - 200

Access Specifier: ReadOnly

## UPTIME

Path: **system/uptime**

Description: Time since processor boot in DDd HHh MMm SSs format

Data type: string

Access Specifier: ReadOnly

# 4. PROTOCOL EXAMPLE USAGE

## HTTP

IP Control functionality over HTTP on port 80 is accessed via the `/api` path root to distinguish it from other web services.

All commands are accessible via the regular HTTP verbs GET (for read, list and help operations) and PUT (for set). There is also query-parameter based support for accessing all operations exclusively via GET for older clients that do not support extra verbs.

PUT request body data is passed/returned in standard JSON object format. If a PUT request returns a `MissingInputParam` error, a likely cause is that the JSON of the request body is either malformed or missing.

For a GET operation the data in the response body will have the path end as the top level key. For a SET operation the endpoint data in the request body must be contained within a top level "data" key. See the examples below.

If a request fails, the response body will contain the response code string and any error messages generated by the API.

## GET

Use GET verb with target path. Example to get input video refresh rate:

```
Client:
GET http://SERVERADDRESS/api/input/active/refresh-rate

Server:
HTTP/1.1 200 OK
Content-Type: application/json
{ refresh-rate: 60 }
```

## SET (ENDPOINT)

Use PUT verb including data to set in a "data" tag in a JSON body. Example to set output brightness:

```
Client:
PUT http://SERVERADDRESS/api/output/global-colour/brightness
Content-Type: application/json
{ "data": 5000 }

Server:
HTTP/1.1 200 OK
Content-Type: application/json
{ "brightness": 5000 }
```

Alternative using GET verb only: pass the value to set as a "set=" query parameter.

```
Client: GET http://SERVERADDRESS/api/output/global-colour/brightness?set=5000
```

## SET (ENDPOINT - FAILED)

```
Client:
PUT http://SERVERADDRESS/api/output/global-colour/brightness
Content-Type: application/json
{ "data": 500000 }

Server:
HTTP/1.1 400 Bad Request
Content-Type: application/json
{ "error-messages": [
  "Value for endpoint 'Output Brightness' not within allowed range: [-1:10000]"
]}
```

```
],
  "response-code": "Bad input parameter value"}

```

## SET (DIRECTORY)

Pass the directory path, set=1 and one or more endpoint subpath=value as query parameters. Example to switch video input source to first SDI port:

```
Client:
PUT http://SERVERADDRESS/api/input/active/source
Content-Type: application/json
{
  "data" : {
    "port-type": "sdi",
    "port-number": 0
  }
}

```

```
Server:
HTTP/1.1 200 OK
Content-Type: application/json
{
  "source": {
    "port-type": "sdi",
    "port-number": 0
  }
}

```

Alternative using GET verb only: pass "set=1" as a query parameter along with all endpoint subpaths/values to set.

```
Client:
GET http://SERVERADDRESS/api/input/active/source?set=1&port-type=sdi&port-number=1

```

## SET (MULTIPLE ENDPOINTS VIA JSON)

This is supported across the API. For example setting multiple Colour Correct endpoints in one go:

```
Client:
PUT http://SERVERADDRESS/api/processing/colour-correct
Content-Type: application/json
{
  "data": {
    "white": {
      "red": 22,
      "green": 23,
      "blue": 24
    }
  }
}

```

```
Server:
HTTP/1.1 200 OK
Content-Type: application/json
{
  "colour-correct": {
    "white": {
      "blue": "24",
      "green": "23",
      "red": "22"
    }
  }
}

```

## SET (BULK DATA IN .CUBE FILE)

Use to upload a 3D LUT via command line client:

```
Client:
  curl -X PUT --header "Content-Type:application/cube"
  --data-binary @test_3d_table.cube
  http://SERVERADDRESS/api/processing/3d-lut/data

Server:
  HTTP/1.1 200 OK
  Content-Type: text/plain
  {
    "data":""
  }
```

Or you can use a GUI HTTP client that allows you to send binary data files (e.g. Postman)

## LIST

Use GET verb passing "list=1" as a query parameter

```
Client:
  GET http://SERVERADDRESS/api/override?list=1

Server:
  HTTP/1.1 200 OK
  Content-Type: application/json
  {
    "override":{
      "blackout":{
        "enabled":"Enable blackout",
        "fade-time":"Time taken to fade to black when blackout enabled"
      },
      "freeze":{
        "enabled":"Enable video freeze"
      },
      "test-pattern":{
        "enabled":"Enable test pattern output function",
        "format":"Format of the generated test pattern",
        "type":"Type of test pattern to generate."
      }
    }
  }
```

## HELP

Use GET verb passing "help=1" as a query parameter

```
Client:
  GET http://SERVERADDRESS/api/override?help=1

Server:
  HTTP/1.1 200 OK
  Content-Type: application/json
  {
    "override":{
      "blackout":{
        "enabled":{
          "Access Specifier":"R/W",
          "Details":"Enables or disables blackout",
          "Name":"Blackout Enabled",
          "Summary":"Enable blackout",
          "Type":"Boolean"
        },
        "fade-time":{
          "Access Specifier":"R/W",
          "Details":"The value of the blackout fade time. The fade time
            may be adjusted between zero (snap) and 10 seconds",
          "Name":"Blackout Fade Time",

```

```

        "Summary":"Time taken to fade to black when blackout enabled",
        "Type":"Float (range: 0 - 10)"
    }
},
"freeze":{
    "enabled":{
        "Access Specifier":"R/W",
        "Details":"Enables or disables video freeze",
        "Name":"Freeze Enabled",
        "Summary":"Enable video freeze",
        "Type":"Boolean"
    }
}
}
}
}

```

## TELNET/TCP SOCKET

Commandline access may be achieved by connecting on TCP port 23.

Commands, paths and parameters should be separated by spaces. Data is returned as human-readable formatted text.

### GET

Example to get input video refresh rate:

```

Client:
    get /input/active/refresh-rate
Server:
    refresh-rate=60

```

### SET (DIRECTORY)

Set video input source to first SDI port

```

Client:
    set /input/active/source port-type=sdi,port-number=0
Server:
    /source/
    port-type=sdi
    port-number=0

```

### LIST

```

Client:
    list /project/properties
Server:
    /properties/
    blackout-fade-time: Time in seconds to fade to black
    test-pattern-format: Format of applied test pattern

```