



# Juggler Systems

## ASCII / XML External Control of Juggler Systems

User Guide



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Printed: January 2023

This edition is for software version Compere 1.0.2  
Document ref.: M639-2

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## ASCII / XML External Control

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This guide covers the ASCII / XML protocol of external control introduced with the original Juggler pixel processor.

### Principle

Every element of a Compere Project (the branching tree you see in the Project panel) has a unique identifier (UUID) and a common text name that you give to it. The same is true for every parameter that you can see, and may want to change, in the Properties panel for that element.

TCP and UDP ports are defined in *Settings > Preferences*.

- Use a **remote terminal client** e.g. PuTTY, or Tera Term, on a raw (or raw ASCII over TCP) connection, to address Compere on the **server** for a project group.
- The **IP of a target Juggler** can be found in *Configuration > Network Configuration > [Discovery]*.
- For TCP, use Port 2300.
- For UDP, first enable 'Use UDP Console Connection' in *Settings > Juggler*. UDP receive port is 8001, UDP Remote Transmit port is 8002.

### Expressions in this guide

Elements shown in [\[SquareBrackets\]](#) indicate that the string is replaced by a user string, e.g. [\\[JugglerName\]\](#) might typically be the serial name, [\Juggler5678\](#).

Similarly, [C:\\[Compere Root Path\]\](#) is almost always [C:\Users\\[UserName\]\AppData\Local\compere\](#).

### Protocol

In the Project Panel you see the structure of the Project file that contains all the instructions for the entire setup of a Juggler system.

From this information you can see that there is a route to the value of everything. In the same way as we use paths to files in folders on devices on a network, you can send commands, to find or change any value. As an example we might want, in rough terms, to do this:

set the value to '10' for the x-axis position of a projector in this project

which as a command would look something like this:

```
set path="/GroupSet/Group/Projector 1/position/x" value="10" (in plain text)
```

```
<command cmd="set" path="/GroupSet/Group/Projector 1/position/x" value="10"/> (in xml)
```

The message format (plain text or xml) is detected and the response is returned in the same format. All recognised commands respond immediately with: `success=true/false`.

For commands that do not have an instant response (e.g. `open`, or `"Import MPCDI"`) the command must be followed by a system status request.

These commands or controls can be sent in either plain text or XML to the IP address of the **server Juggler** in a project group, or to a Windows control PC as client or server.

Compere supports commands sent via TCP. Use the Compere Preferences Panel to configure IP addresses and transmit/receive ports, including the connection timeout.

Commands and their parameters are case insensitive. Each parameter's actual *value* is case sensitive. Individual commands are activated in text strings by line ending characters `\n`, or in xml, by opening and closing tags `<command> </command>` or, for empty tags, `<command />`.

## Grouping Commands

It can be more efficient to encapsulate many SET commands in a single group using the `<commands></commands>` tag.

For example to position two projectors in a single control message:

```
<commands>
<command cmd="set" path="/GroupSet/Group/proj1/position/x" value="0.2"/>
<command cmd="set" path="/GroupSet/Group/proj1/position/y" value="0.3"/>
<command cmd="set" path="/GroupSet/Group/proj1/position/z" value="0.4"/>
<command cmd="set" path="/GroupSet/Group/proj1/heading/az" value="0.5"/>
<command cmd="set" path="/GroupSet/Group/proj1/heading/el" value="0.6"/>
<command cmd="set" path="/GroupSet/Group/proj1/heading/roll" value="0.7"/>
<command cmd="set" path="/GroupSet/Group/proj2/position/x" value="0.2"/>
<command cmd="set" path="/GroupSet/Group/proj2/position/y" value="0.3"/>
<command cmd="set" path="/GroupSet/Group/proj2/position/z" value="0.4"/>
<command cmd="set" path="/GroupSet/Group/proj2/heading/az" value="0.5"/>
<command cmd="set" path="/GroupSet/Group/proj2/heading/el" value="0.6"/>
<command cmd="set" path="/GroupSet/Group/proj2/heading/roll" value="0.7"/>
</commands>
```

The reply would be:

```
<group success="true" numberOfCommands="12" atomic="true" commandDuration="8111us"/>
```

**Note:** 'atomic' in this reply indicates that the **commands** group was not to be distributed to the other members of the Compere Project Group until all commands had been received by the instance of Compere addressed.

In this example, projector movement will therefore be smoother. The attribute `atomic="true"` is implicit, but `atomic="false"` can be used if you want commands to be distributed one at a time as received, i.e. while other commands are still being received.

Explicit example:

```
<commands atomic="true">
<command cmd="set" path="/GroupSet/Group/proj1/position/x" value="0.2"/>
...
</commands>
```

The plain text equivalent would be like this:

```
group commands="GroupSet/Group/proj1/position/x=0.2;
[...];GroupSet/Group/proj2/heading/roll=0.2"
```

## Scope of external control

With complex multi-Juggler systems, External Control is the route to both systems management, and dynamic interaction with all the elements. Whether used directly or through show controllers, it removes the need to use Compere for complex daily interaction with devices, models, projectors, sources, processes and interconnections.

## Static and Dynamic commands

There are two types of external control commands, **static** and **dynamic**.

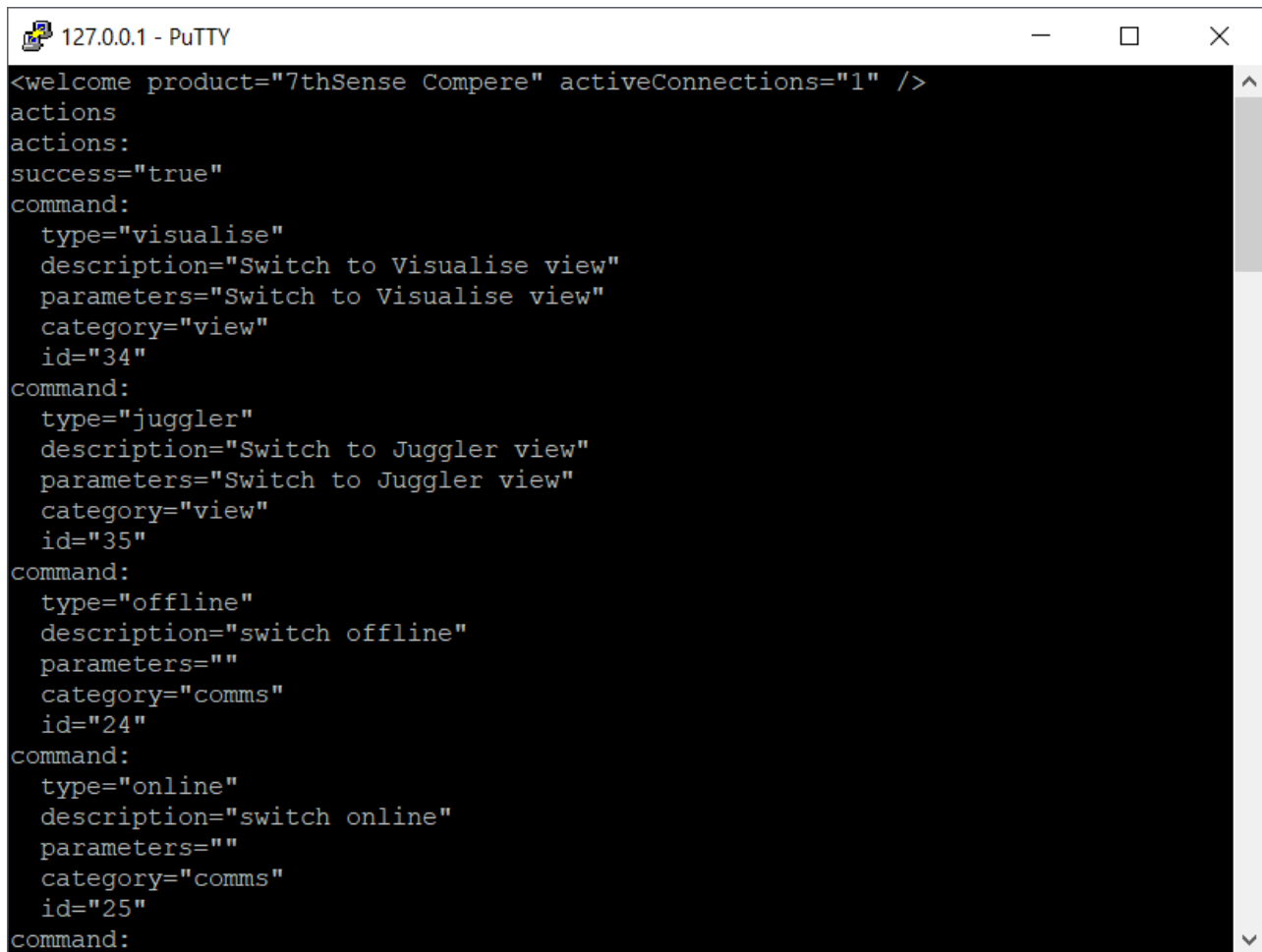
**Static**, or core, commands interact with a Compere Project, load and save Project files, and request specific notifications (registers). For example to `set` a value of an object property.

- The full list of core commands is available within Compere, *Help > External Control Protocol*.
- For the latest version, on this Portal, see [ExternalControlHelp.html](#)

**Dynamic** (action) commands are less generic and go beyond changing properties in the Project in order to do something. These are detailed with examples in the following pages of this guide.

## Available actions

Type "actions" to list all actions available for the target instance of Compere in its current state. This will return a series of actions of name `type=` under headings of `command:`

A screenshot of a PuTTY terminal window titled "127.0.0.1 - PuTTY". The terminal displays XML configuration for actions. The root element is <welcome product="7thSense Compere" activeConnections="1" />. Below it, there are four <actions> elements. Each <actions> element has attributes success="true", category, and id. The first <actions> element has type="visualise", description="Switch to Visualise view", and parameters="Switch to Visualise view". The second <actions> element has type="juggler", description="Switch to Juggler view", and parameters="Switch to Juggler view". The third <actions> element has type="offline", description="switch offline", and parameters="". The fourth <actions> element has type="online", description="switch online", and parameters="". Each <actions> element is followed by a <command> element with attributes type, description, parameters, category, and id.

```
<welcome product="7thSense Compere" activeConnections="1" />
actions
actions:
success="true"
command:
  type="visualise"
  description="Switch to Visualise view"
  parameters="Switch to Visualise view"
  category="view"
  id="34"
command:
  type="juggler"
  description="Switch to Juggler view"
  parameters="Switch to Juggler view"
  category="view"
  id="35"
command:
  type="offline"
  description="switch offline"
  parameters=""
  category="comms"
  id="24"
command:
  type="online"
  description="switch online"
  parameters=""
  category="comms"
  id="25"
command:
```

To use an action:

`actions type="[name]"` enacts a specific action of this name

### Example

Import an MPCDI file from a given location:

`actions type="import MPCDI" file="C:[MyPath]\MPCDI\example.mpcdi"`

Real use case example:

`actions type="Import MPCDI" file="C:\Users\[UserName]\Downloads\MyFile01.mpcdi"`

## Options

Any of the commands below could be used to set the x position of a Canvas Window value to 800:

## Using names

```
<command cmd="set" path="/GroupSet/Group/Canvas 1/Window 1/canvasposition/x" value="800"/>
```

## Using class names (i.e. non-specific)

The element `path="juggler"`, for example, addresses all objects of type 'juggler'.

```
<command cmd="set" path="/GroupSet/Group/juggler"/>
```

## Using a mixture of [wildcards](#) <sup>8</sup> (\*), names (specific) and class names (non-specific)

```
<command cmd="set" path="*/*/*/Window 1/canvasposition/x" value="800" />
```

## Wildcards

---

### Matching a name between slashes

#### Command

```
<command cmd="get" path="[JugglerName]*/health"/>
```

#### Reply

```
<replies success="true" path="[JugglerName]*/health" numberofreplies="1"
  commandDuration="123us">
```

```
<health value="~RxLane:1-LaneDown~RxLane:2-LaneDown~RxLane:3-
  LaneDown~RxLane:4-LaneDown~" fullpath="GroupSet/Group/
  [JugglerName]/Bus:1/health"/>
```

```
</replies>
```

### Absolute versus relative paths

**Relative :** `<command cmd="get" path="[JugglerName]/DpRx:2/VideoTiming"/>`

**Absolute:** `<command cmd="get" path="/GroupSet/Group/[JugglerName]/DpRx:2/VideoTiming"/>`

It is possible to use a relative path, offering a shortcut for an absolute path. Compere will perform an exhaustive search so there is a performance overhead depending on the extent of the Juggler system. Additionally, multiple results may be returned: searching for "name" will return every absolute path that matches.

The full path is returned in replies, and in commands, the leading / (/GroupSet) is preferred.



**Command**

```
<command cmd="get" path="health"/>
```

**Reply**

```
<replies success="true" path="health" numberofreplies="3" commandDuration="123us">
<health value="~RxLane:1-LaneDown~RxLane:2-LaneDown~RxLane:3-
LaneDown~RxLane:4-LaneDown~"
fullpath="GroupSet/Group/JugglerName1/Bus:1/health"/>
<health value="~RxLane:1-LaneDown~RxLane:2-LaneDown~RxLane:3-
LaneDown~RxLane:4-LaneDown~"
fullpath="GroupSet/Group/JugglerName2/Bus:1/health"/>
<health value="~RxLane:1-LaneDown~RxLane:2-LaneDown~RxLane:3-
LaneDown~RxLane:4-LaneDown~"
fullpath="GroupSet/Group/JugglerName3/Bus:1/health"/>
</replies>
```

## Message Formats

---

### Message formats: core and extended

Messages may be sent in either plain text or XML format – see below for the plain text summary – and Compere will respond in the same format as the incoming message. All XML attributes must be quoted.

Messages are defined by a ‘command’ tag with various attributes depending on the message. Typical attributes include: cmd, path, type, value, makeactive and fullpath.

The core message set – as described in the HTML API – must have at a minimum a ‘cmd’ attribute.

```
<command cmd="status" />
```

The extended message set is accessible via the ‘action’ command. The availability of these commands depends on the current system configuration: e.g., adding a Juggler to the system will make additional commands available to the external control user.

**Apps that use backslash as an escape character**

Where the backslash \ is used as an escape character (e.g. C++, or a showcontroller app) paths to a file must themselves be escaped:  
e.g., file="C:\\Images\\foldername".

Example (Windows o/s):

```
<command cmd="actions" type="Import MPCDI" file="C:\Users\[UserName]\Downloads\mpcdi-file-name.mpcdi"/>
```

and in plain text:

```
actions type="Import MPCDI" file="C:\Users\[UserName]\Downloads\mpcdi-file-name.mpcdi"
```

## Response format

All valid messages are acknowledged immediately with 'success=true/false'. The XML response is a well-formed XML document which may be parsed by any established third-party library.

**Note:** the Compere version example below includes a date string and a build hash which can be used for build tracking/reporting.

### Request

```
<command cmd="get" path="compereversion" />
```

### Response

```
<replies success="true" path="compereversion" numberofreplies="1"
commandDuration="123us">
<compereversion value="1.0.0.1 (20200924 50473f3)"
fullpath="GroupSet/Group/JugglerName/atom/compereversion"/>
</replies>
```

Replies include the number of replies (relative paths especially are likely to elicit multiple responses) and how long the reply took (commandDuration), in microseconds.

## System configuration

The complete system configuration can be read using the 'get' command with an additional 'path' (keyword) attribute.

### Get current project and default project

```
<command cmd="status" />
```

### Get info for all Jugglers in a project

```
<command cmd="get" path="juggler" />
```

### Get info for a specific Juggler

```
<command cmd="get" path="[JugglerName]" />
```

### Get all versions from all Jugglers in a system

```
<command cmd="get" path="fwversion" />
```

```
<command cmd="get" path="swversion" />
```

```
<command cmd="get" path="compereversion" />
```

### Get versions for a specific Juggler

```
<command cmd="get" path="[JugglerName]/atom/fwversion" />
```

```
<command cmd="get" path="[JugglerName]/atom/swversion" />
```

```
<command cmd="get" path="[JugglerName]/atom/compereversion" />
```

## Unsolicited notifications: registers

Typically, commands elicit an immediate response, but an external control user can add callbacks via registers to be notified asynchronously when a parameter changes: e.g., when the status of an interface is updated.

### Get all CPU temperatures in the system

```
<command cmd="get" path="temperatureCPU" />
```

### Receive a notification when any CPU temperature changes

```
<command cmd="register" path="temperatureCPU" />
```

## Plain text messages

For convenience, when typing at a console, all XML messages have a shorter, plain text equivalent. This can be constructed by removing the outer command tag and dropping the quotes on the 'cmd' attribute.

### Example: get all IP addresses in the system

#### XML

```
<command cmd="get" path="externalipaddress" />
```

#### Plain text

```
get path="externalipaddress"
```

### Example: MPCDI import

#### XML

```
<command cmd="actions" type="Import MPCDI" file="C:\\path\\to\\system.mpcdi" />
```

#### Plain text

```
actions type="Import MPCDI" file="C:\\path\\to\\system.mpcdi"
```

### Further examples

#### Get all temperatures for all Jugglers in a system

```
<command cmd="get" path="temperaturePL" />  
<command cmd="get" path="temperatureCPU" />
```

#### Get CPU temperature for a specific Juggler

```
<command cmd="get" path="/GroupSet/Group/[JugglerName]/SystemMonitor/temperatureCPU" />
```

#### Disable red beams system-wide

```
<command cmd="actions" type="Red Beam Off" />
```

#### Enable blue beams for a specific Juggler

```
<command cmd="actions" type="Blue Beam On" path="/GroupSet/Group/Juggler4540" />
```

#### Get active pixels and lines for a specific Juggler's video input

```
<command cmd="get" path="/GroupSet/Group/[JugglerName]/DpRx:2/VideoTiming/activepixels" />  
<command cmd="get" path="/GroupSet/Group/[JugglerName]/DpRx:2/VideoTiming/activelines" />
```

### Heartbeats

A heartbeat could be implemented by periodically requesting 'status' from each Juggler.

## System Status

---

### Contains status elements:

- Timestamp of Compere
- Task manager
- Current project
- Default project
- Comms mode (client/server/off)
- Peer data

### Command

```
<command cmd="status" />
```

### Reply

```
<status success="true" time="Thu Jan 21 15:32:21 2021">
  <taskSummary total="0" failed="0" pending="0" complete="0"
    percentComplete="0.000000"/>
  <projectStatus ProjectPath="C:\Users\[UserName]
    \AppData\Local\compere\Projects\myproject.prj" DefaultProject="C:
    \Users\[UserName]\AppData\Local\compere\Projects\myproject.prj"/>
  <networkInfo commsMode="server"/>
  <peers>
    <peer uniqueId="79833e07d0e64ffe9a874c49e4516b5e" auxData="Host Name=BootCamp-0263E
      (Windows);MemUse=85% DiskFree=57.6GiB CPU idle=239 kernel=18 user=34;Curr Tree=My
      Project (8c5202e4b1174e4ea6055df9279ca500);Project Group: MainGroup;machineID=00-
      60-73-06-86-16;10.100.150.20;10.0.10.207;192.168.0.11;172.29.144.1;172.28.80.1;"
      userData="" />
  </peers>
</status>
```

## Juggler Status

---

### Uptime

### Command

```
<command cmd="get" path="[JugglerName]/juggleruptime"/>
```

### Reply

```
<replies success="true" path="[JugglerName]/juggleruptime" numberOfreplies="1"
  commandDuration="123us">
```

```
<juggleruptime value="0d:01h:52m" fullpath="GroupSet/Group/
  [JugglerName]/juggleruptime"/>
</replies>
```

## Bus Status

---

### Get bus status

#### Command

```
<command cmd="get" path="/GroupSet/Group/[JugglerName]/Bus:1/health"/>
```

#### Reply

```
<replies success="true" path="/GroupSet/Group/[JugglerName]/Bus:1/health"
  numberOfreplies="1" commandDuration="123us">
  <health value="~RxLane:1-LaneDown~RxLane:1-CtrlBad~RxLane:2-
    LaneDown~RxLane:3-LaneDown~RxLane:3-CtrlBad~RxLane:4-
    LaneDown~RxLane:4-CtrlBad~RxLane:5-LaneDown~RxLane:6-
    LaneDown~RxLane:7-LaneDown~RxLane:8-LaneDown~"
    fullpath="GroupSet/Group/[JugglerName]/Bus:1/health"/>
</replies>
```

## Bus Reset

---

### Flash the bus

#### Command

```
<command cmd="set" path="/GroupSet/Group/[JugglerName]/Bus:1/reset" value="1"/>
```

#### Reply

```
<set success="true"/>
```

## Genlock

---

### Get genlock status

#### Command

```
<command cmd="get" path="/GroupSet/Group/
  [JugglerName]/VideoChannel:2/outputgenlocked"/>
```

**Reply**

```
<replies success="true" path="/GroupSet/Group/
  [JugglerName]/VideoChannel:2/outputgenlocked" numberofreplies="1"
  commandDuration="123us">
  <outputgenlocked value="0" fullpath="GroupSet/Group/
    [JugglerName]/VideoChannel:2/outputgenlocked"/>
</replies>
```

**Get current genlock ratio and available options****Command**

```
<command cmd="get" path="/GroupSet/Group/[JugglerName]/HdmiTx:3/genlockratio"/>
```

**Reply**

```
<replies success="true" path="/GroupSet/Group/[JugglerName]/HdmiTx:3/genlockratio"
  numberofreplies="1" commandDuration="234us">
  <genlockratio typeName="MemberArray" value="1:1" enabled="1"
    fullpath="GroupSet/Group/[JugglerName]/HdmiTx:3/genlockratio">
    <memberarrayitem UUID="04e120c500000000040000000000178" value="1:1"
      enabled="1"/>
    <memberarrayitem UUID="04e120c500000000040000000000179" value="1:2"
      enabled="1"/>
    <memberarrayitem UUID="04e120c500000000040000000000180" value="2:1"
      enabled="1"/>
  </genlockratio>
</replies>
```

**Get current genlock configuration and available options****Command**

```
<command cmd="get" path="/GroupSet/Group/[JugglerName]/HdmiTx:3/genlockconfig"/>
```

**Reply**

```
<replies success="true" path="/GroupSet/Group/[JugglerName]/HdmiTx:3/genlockconfig"
  numberofreplies="1" commandDuration="123us">
  <genlockconfig typeName="MemberArray" value="Free Run" enabled="1"
    fullpath="GroupSet/Group/[JugglerName]/HdmiTx:3/genlockconfig">
    <memberarrayitem UUID="04e120c500000000040000000000165" value="Free Run"
      enabled="1"/>
    <memberarrayitem UUID="04e120c500000000040000000000166" value="Lock to Rx:1"
      enabled="1"/>
    <memberarrayitem UUID="04e120c500000000040000000000167" value="Lock to Rx:2"
      enabled="1"/>
  </genlockconfig>
</replies>
```

```

<memberarrayitem UUID="04e120c5000000000400000000000168" value="Lock to Rx:3"
  enabled="1"/>
<memberarrayitem UUID="04e120c5000000000400000000000169" value="Lock to Rx:4"
  enabled="1"/>
<memberarrayitem UUID="04e120c5000000000400000000000170" value="Lock to Tx:1"
  enabled="1"/>
<memberarrayitem UUID="04e120c5000000000400000000000171" value="Lock to Tx:2"
  enabled="1"/>
<memberarrayitem UUID="04e120c5000000000400000000000172" value="Lock to Tx:3"
  enabled="1"/>
<memberarrayitem UUID="04e120c5000000000400000000000173" value="Lock to Tx:4"
  enabled="1"/>
<memberarrayitem UUID="04e120c5000000000400000000000174" value="Lock to
  GPIO:1" enabled="1"/>
<memberarrayitem UUID="04e120c5000000000400000000000175" value="Lock to
  GPIO:2" enabled="1"/>
<memberarrayitem UUID="04e120c5000000000400000000000176" value="Lock to
  GPIO:3" enabled="1"/>
<memberarrayitem UUID="04e120c5000000000400000000000177" value="Lock to
  GPIO:4" enabled="1"/>
</genlockconfig>
</replies>

```

## Hotplug Detect

---

### Simulate removal and reinsertion of HDMI output

#### Command

```

<command cmd="set" path="/GroupSet/Group/[JugglerName]/HdmiTx:3/triggerhpd"
  value="1"/>

```

#### Reply

```

<set success="true"/>

```

## EDID Lists

---

### Get current EDID selection and EDID list

#### Command

```

<command cmd="get" path="/GroupSet/Group/[JugglerName]/DpRx:2/edidlist"/>

```



**Reply**

```

<replies success="true" path="/GroupSet/Group/[JugglerName]/DpRx:2/edidlist"
  numberOfreplies="1" commandDuration="567us">
  <edidlist typeName="MemberArray" value="HD60-Internal" enabled="1"
    fullpath="GroupSet/Group/[JugglerName]/DpRx:2/edidlist">
    <memberarrayitem UUID="04e120c5000000000400000000000081" value="HD60-
      Internal" enabled="1"/>
    <memberarrayitem UUID="04e120c5000000000400000000000082" value="2xHD120.bin"
      enabled="1"/>
    <memberarrayitem UUID="04e120c5000000000400000000000083" value="2xHD60.bin"
      enabled="1"/>
    <memberarrayitem UUID="04e120c5000000000400000000000084" value="4k30.bin"
      enabled="1"/>
    <memberarrayitem UUID="04e120c5000000000400000000000085" value="4K60.BIN"
      enabled="1"/>
    <memberarrayitem UUID="04e120c5000000000400000000000086" value="720p60.bin"
      enabled="1"/>
    <memberarrayitem UUID="04e120c5000000000400000000000087" value="HD120-
      10.bin" enabled="1"/>
    <memberarrayitem UUID="04e120c5000000000400000000000088" value="HD120.BIN"
      enabled="1"/>
    <memberarrayitem UUID="04e120c5000000000400000000000089" value="HD60.BIN"
      enabled="1"/>
    <memberarrayitem UUID="04e120c5000000000400000000000090" value="UHD60.BIN"
      enabled="1"/>
  </edidlist>
</replies>

```

**Resolution**

---

**Get active lines for an input****Command**

```

<command cmd="get" path="/GroupSet/Group/
  [JugglerName]/DpRx:2/VideoTiming/activelines"/>

```

**Reply**

```

<replies success="true" path="/GroupSet/Group/
  [JugglerName]/DpRx:2/VideoTiming/activelines" numberOfreplies="1"
  commandDuration="123us">
  <activelines value="2160" fullpath="GroupSet/Group/

```

```
[JugglerName]/DpRx:2/VideoTiming/activelines"/>
</replies>
```

## Get all input info

### Command

```
<command cmd="get" path="/GroupSet/Group/[JugglerName]/DpRx:2/VideoTiming"/>
```

### Reply

```
<replies success="true" path="/GroupSet/Group/[JugglerName]/DpRx:2/VideoTiming"
  numberofreplies="1" commandDuration="789us">
  <videotiming UUID="04e120c5000000000000000000000010" fullpath="GroupSet/Group/
    [JugglerName]/DpRx:2/VideoTiming" value="">
    <name value="VideoTiming"/>
    <enabled value="1"/>
    <state value="0"/>
    <activepixels value="4096"/>
    <activelines value="2160"/>
    <totalpixels value="4256"/>
    <totallines value="2222"/>
    <hsyncwidth value="32"/>
    <vsyncwidth value="10"/>
    <hactivestart value="112"/>
    <vactivestart value="59"/>
    <vrate value="59.999523"/>
    <pixelclockmhz value="567.409999999999996816769"/>
    <bpp value="8"/>
    <colourspace value="RGB-4:4:4"/>
    <interlaced value="0"/>
    <stereo3d value="0"/>
    <direction value="3"/>
    <icon value=""/>
    <dynamicicon value="0"/>
    <bitsperpixel value="8"/>
  </videotiming>
</replies>
```

## MPCDI

---

## Get import progress

### Command

```
<command cmd="status"/>
```

### Reply

```
<status success="true">  
  <taskSummary total="7" failed="0" pending="1" complete="6"  
    percentComplete="85.714286" MPCDI-Processing="85.714286%"/>  
  <projectStatus ProjectPath="C:\Users\[UserName]  
    \AppData\Local\compere\Projects\primary.prj" DefaultProject="C:  
    \Users\[UserName]\AppData\Local\compere\Projects\myproject.prj"/>  
  <networkInfo commsMode="server" peerData="64-4b-f0-12-75-fd "/>  
</status>
```

## Project Controls

---

**Note:** Saving and Loading is to the server and the path must use the correct slashes for the server OS.

### Open a project

#### Command

```
<command cmd="open" file="C:\Users\[UserName]  
  \AppData\Local\compere\Projects\primary.prj"/> (Windows)  
<command cmd="open" file="/share/compere/bin/Projects/primary.prj"/> (Linux)
```

#### Reply

```
<open success="true" commandDuration="123us"/>
```

### Save a project

#### Command

```
<command cmd="save" file="C:\Users\[UserName]  
  \AppData\Local\compere\Projects\secondary.prj"/> (Windows)  
<command cmd="save" file="/share/compere/bin/Projects/secondary.prj"/> (Linux)
```

#### Reply

```
<save success="true" commandDuration="123us"/>
```

### Create a new project

#### Command

```
<command cmd="new" projectname="My project"/>
```

**Reply**

```
<new success="true" commandDuration="123us"/>
```

## Presets and Clones

---

**Use a Preset or Clone resource**

(Recalling a Preset imports values to matching UUIDs. Loading a Clone imports saved copies of objects with new UUIDs.)

**Command (Presets)**

```
<command cmd="recallpreset" file="C:[Compere Root Path]\Presets\[file].pre"/>
```

or (implied file location)

```
<command cmd="recallpreset" file="[file].pre"/>
```

**Reply**

```
<recallpreset success="true" commandDuration="504us"/>
```

**Command (Clones)**

```
<command cmd="loadclone" file="C:[Compere Root Path]\Clones\[file].clo"/>
```

or (implied file location)

```
<command cmd="loadclone" file="[file].clo"/>
```

**Reply**

```
<loadclone success="true" commandDuration="652us"/>
```

## Shutdown or Reboot Jugglers

---

### Shut an individual Juggler down

There is currently no wake on LAN facility in Juggler.

#### Command:

```
<command cmd="set" path="/GroupSet/Group/[JugglerName]/shutdown" value="1"/>
```

#### Reply

```
<set success="true"/>
```

### Reboot an individual Juggler

#### Command:

```
<command cmd="set" path="/GroupSet/Group/[JugglerName]/reboot" value="1"/>
```

#### Reply

```
<set success="true"/>
```

## Document Information

---

Date	Document edition	Software version	Revision Details	Author/Editor
February 2021	1	Compere 1.0.1	New Release	Dean Turpin
April 2021	2	Compere 1.0.2	Updated with additional command examples	Andie Davidson
July 2021	3	Compere 1.0.2	Updated with additional command examples	Andie Davidson

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