

TEOS third party devices

Installation & User Manual

Document revision 1.6

Overview

Thank you for purchasing Manage for TEOS. This document will provide information about third party devices compatible with TEOS, and will deliver the process configuration and installation possible with It.

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1.Third party devices reference table

Brand	Type of device	Protocol	Series (models)
SONY	Projectors	ADCP	All lineup from 2018
Windows	PC	MSI in client PC	Windows 7+ with WoL support
Barco	Clickshare	Clickshare API	CS-100 CSE-200 CSE-200+ CSE-800 CS-100 Huddle
Samsung	Monitors	SSSP2.0	OMD (46,55,75) OME (55,75)
	Monitors	SSSP3.0	DBE (32, 40, 48, 55) DME (32, 40, 48, 55, 65,75) MLE (55) SHF (37) OME (24)
	Monitors	SSSP4.0	PMH (32, 43, 49, 55) PHF (43, 49, 55) PMF-BC (32, 43, 55) OHF (46, 55, 75) OMH (32) OMF (46, 55, 75)
	Monitors	SSSP5.0	DBJ (43, 49) QBH (65, 75) QMH (49, 55, 65) QHH (55, 65)
LG	Monitors	SNMP	LT341H (32, 43, 49) LV340C (32, 43, 49, 55) EU961H (55, 65) UL3E (49, 55, 65, 75, 86) UM3E (49, 55, 65, 75, 86, 98) UH5E (49, 55, 65, 75, 86, 98)
Philips	Monitors	SICP	HFL6014U/12 (43, 50, 55, 65) HFL5014/12 (43, 50, 55, 65) HFL38 (40, 48, 49, 55, 65, 75)
NEC	Projectors	PJLINK	
CASIO	Projectors	PJLINK	
Canon	Projectors	PJLINK	
Sharp	Projectors	PJLINK	
Epson	Projectors	PJLINK	
Panasonic	Projectors	PJLINK	
Fujifilm	Projectors	PJLINK	
Hitachi	Projectors	PJLINK	
Ricoh	Projectors	PJLINK	
Cisco	Visio	Cisco API	SX10, SX20, SX80, Roomkit
GUDE System	Power Distribution Unit (PDU)	GUDE API	All PDU lineup
Open API Using TEOS custom protocol	AV orientated devices	Custom protocols in TEOS, HTTP and TCP compatible	Add any type of virtual devices which has API in HTTP (Post, get, put, patch)

2. Control capabilities from TEOS

Manage for TEOS can integrate third party devices for control only purposes, this means that the only license compatible with these devices is the control license (TEM-CO10). To display signage content on a third-party device controlled by Manage for TEOS requires player

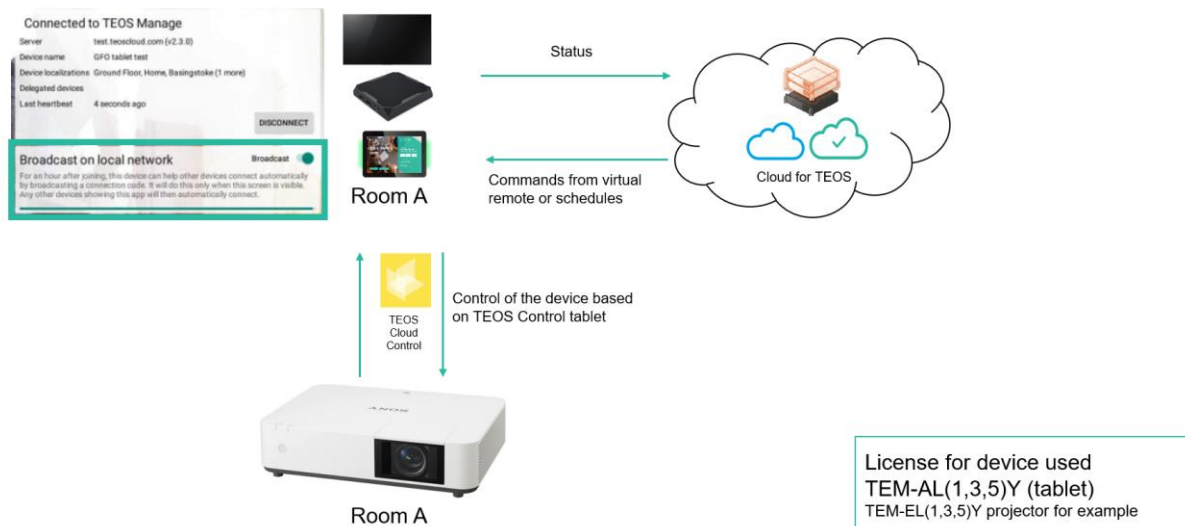
2.1. Add a third-party device to TEOS on premise

- Verify that the third-party device is compatible with TEOS
- Follow the networking instructions (open ports etc.)
- Purchase the control license for the device (**TEM-CO10/TEM-ELxY**) and to display signage you should purchase (**TEM-DS10/TEM-ALxY**) signage license and an **Android Player for TEOS**
- Add the device in TEOS, for signage usage you can link the device with a Player



2.2. Add a third-party device to TEOS on CLOUD

- Verify that the third-party device is compatible with TEOS
- Follow the networking instructions (open ports etc.)
- Purchase the control license for the device (**TEM-ELxY**) and to display signage you should purchase (**TEM-ALxY**) signage license and an **Android Player for TEOS**
- To be able to control the third-party device you **need a device with TEOS Cloud Control app installed in the same network** that will be used to broadcast the commands from the cloud to the local network



2.3. Control commands integrated into TEOS:

Type of device	Protocol	Series (models)
Windows PC	Control for TEOS for Windows (msi file needed)	POWER ON/OFF control & schedule Power ON is based on Wake on Lan POWER ON/OFF status
Clickshare	Clickshare API	POWER ON/OFF control & schedule POWER ON/OFF status
Monitors	Brands API	POWER ON/OFF control & schedule Power ON can be based on Wake on Lan Change Input Change volume POWER ON/OFF status Error Status
Projectors	PJLINK (authentication added)	POWER ON/OFF control & schedule Power ON can be based on Wake on Lan Change Input Change volume POWER status Current Input Device model Lamp status Error Status Warning message
Visioconference	Cisco	POWER ON/OFF control, schedule, status Reboot Serial Number & firmware Information

3. Network configuration for the control

Manage for TEOS follows the network protocols of the integrated third party devices. In this case specific ports.

3.1. Manage for TEOS & projectors

Devices	Incoming port from server	Outgoing port to server
SONY Projectors	53595 TCP - ADCP	80 TCP -Web server
	Type 8 and 0 ICMP - ICMP	443 TCP - Web server
NEC, Panasonic, Epson, Optoma, BenQ, Other PJlink compatible	4352 TCP - PJlink	80 TCP -Web server
	Type 8 and 0 ICMP - ICMP	443 TCP - Web server

3.2. Manage for TEOS & third-party monitors

Devices	Incoming port from server	Outgoing port to server
Samsung (SSSP2 to SSSP6)	Type 8 and 0 ICMP	80 TCP -Web server
	1515 TCP - for control/status	443 TCP - Web server
LG (SNMP)	Type 8 and 0 ICMP - ICMP	80 TCP -Web server
	161 UDP - IP Control using SNMP for control/status	443 TCP - Web server
	162 UDP - IP Control using SNMP for control/status	123 UDP – NTP
	10161 TCP - IP Control using SNMP (Secure) for control/status	
	10162 TCP - IP Control using SNMP (Secure) for control/status	
Philips (IP control)	5000 TCP - for control/status	80 TCP -Web server
		443 TCP - Web server

3.3. Manage for TEOS & third party devices

Devices	Incoming port from server	Outcoming port to server
BARCO Clickshare	4000 TCP – IP Control (ON/OFF, reboot)	80 TCP -Web server
	4001 TCP – IP Control (ON/OFF, reboot)	443 TCP - Web server
Windows devices (using msi in client side)	80 TCP – Web request (shutdown)	80 TCP -Web server
	Wake on Lan (Power ON)	443 TCP - Web server
		123 UDP
Cisco Visioconference	80 TCP – Web request	80 TCP – Web request
Gude System	80 TCP – Web request	81 TCP – Web request
Custom Protocol TEOS	80 TCP – For HTTP commands Configurable port – for TCP	80 TCP – For HTTP commands Configurable port – for TCP

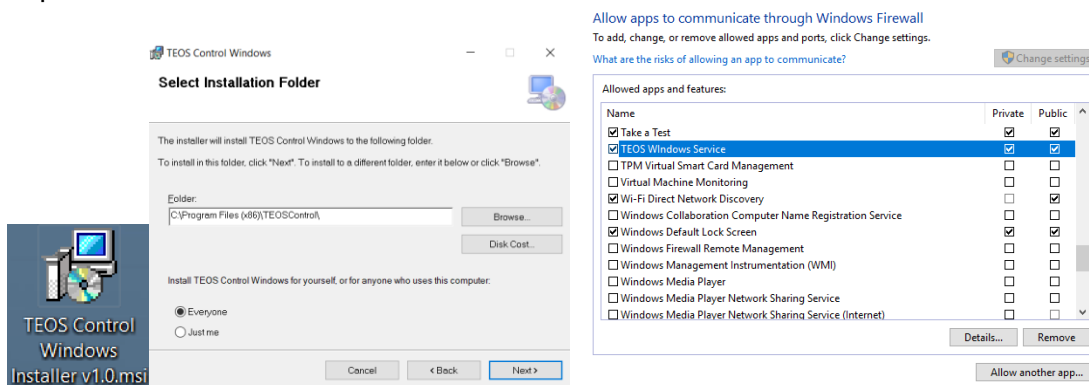
3.1. Add a third-party device to TEOS on premise

4. Devices configuration

This section will explain the required configuration for each third-party device.

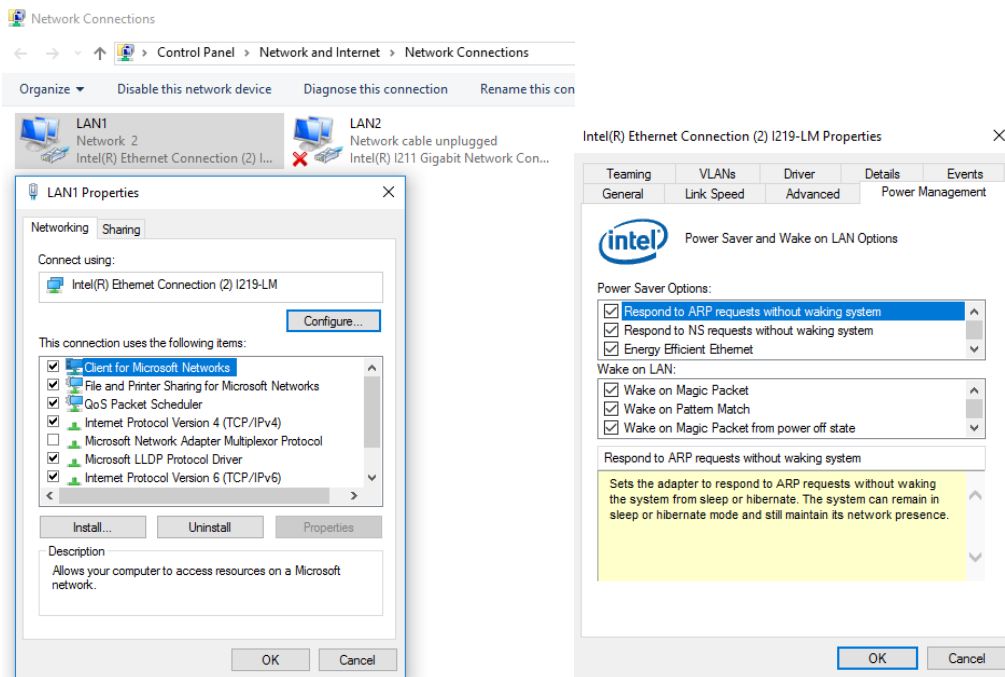
3.2. Windows 7+ machine

Procedure to control Vision Exchange and Windows 7 and newer versions is the same. For this you must install the Control for TEOS for windows setup which allows the device to receive http commands from TEOS and send the Windows command to shut down the device.



Please make sure that the tool is allowed on your windows machine and not blocked by the firewall.

To power ON, the method use is Wake on LAN. Go to your network card configuration and enable magic packet and Wake on LAN.

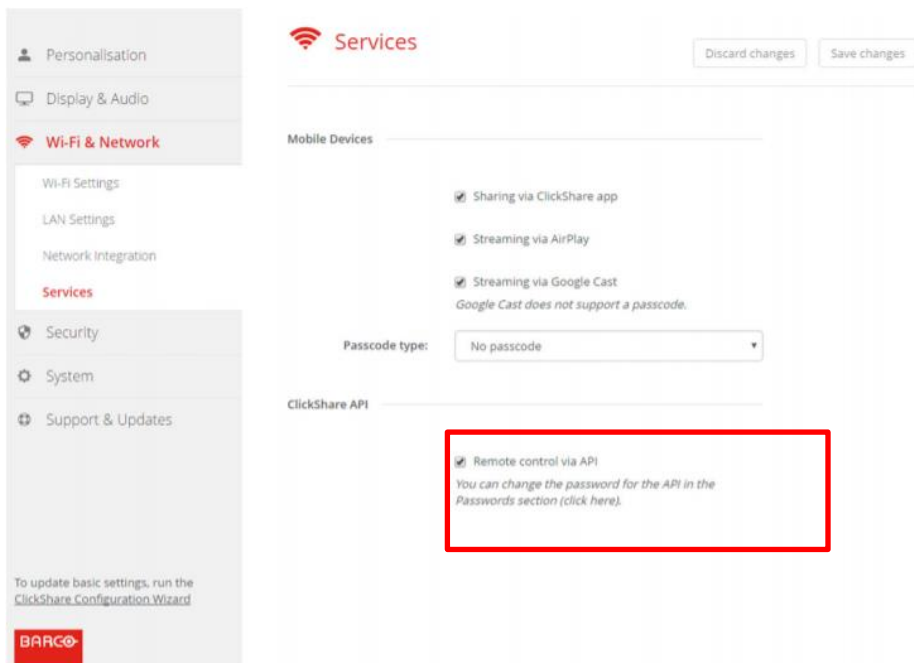


3.3. Barco Clickshare

In regard to API settings, the API can be enabled or disabled, that means that the access to the unit from an external device can be allowed or blocked. This isn't enabled by default.

How to enable:

1. Log in to the Configurator.
2. Click WiFi & Network → Services. Image



Check the check box in front of 'Remote control via API' to enable this function. Password management is not included in TEOS.

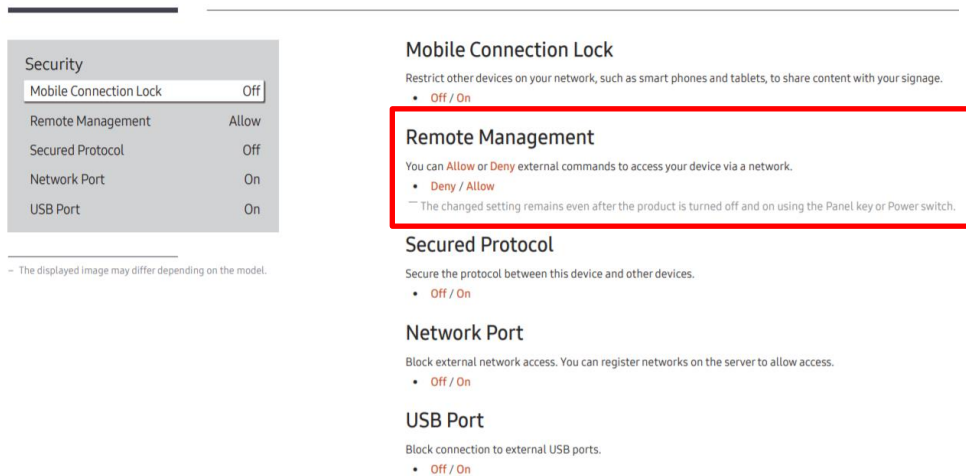
3.4. Samsung monitor

Please follow the Instruction on your specific device, you can find below an example of

configuration in DBJ, QBH device type:

How to enable:

1. Go to settings
2. Remote Management



- The displayed image may differ depending on the model.

3.5. LG Monitor

The LG platform includes support tools for the SIs to manage their systems such Simple Network Management Protocol (SNMP), to enable monitoring of TV's on the network by the head-end or cloud-based server for maintenance and admin purposes. The Wake-on-LAN features allows the TV to communicate in a background mode while the TV is powered off and without disruption to the guest, providing the ability to deliver remote software updates from the head end server.

You need to configure network parameters and allow control in your LG device.

[Power On Status]

- Select the operating status of the monitor when the main power has turned on.
- You can choose from among [PWR (Power On)], [STD (Standby)], [and LST (Last Status)].
- [PWR (Power On)] keep the monitor powered on when the main power has turned on.
- [STD (Standby)] switch the monitor to Standby status when the main power has turned on.
- [LST (Last Status)] switches the monitor back to its previous status.

[Wake On LAN]

- Set whether to use [Wake On LAN].
- You can set the feature to On or Off for each wired/wireless network.
- [Wired]: When set to [On], the [Wake On LAN] feature is enabled, letting you turn the product on remotely through a wired network.
- [Wireless]: When set to [On], the [Wake On LAN] feature is enabled, letting you turn the product on remotely through a wireless network.

3.6. Philips Monitor

Please follow the instruction on your specific device, you can find below an example: Use EasyLink Remote Control if you want devices to communicate but you don't want to operate them with the TV remote control, you can switch off EasyLink Remote Control separately. To switch EasyLink Remote Control on or off...

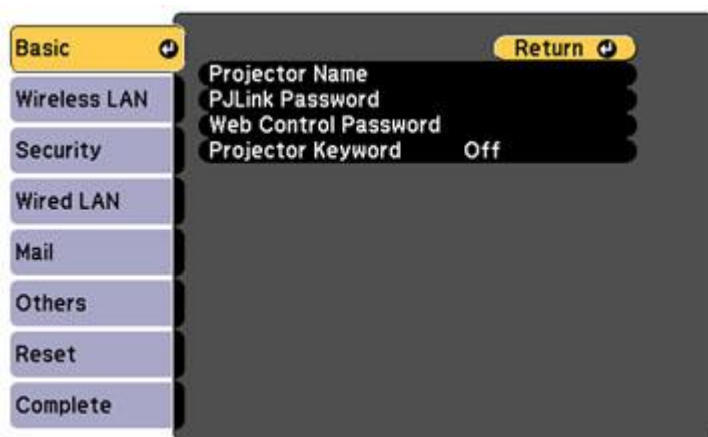
- 1 - Consumer Mode: On - Press HOME and select Features and press OK.
- Guest Mode: On - Guest Menu: Not available in this mode.
- (For professional mode information, please refer to Installation manual)
- 2 - Select Sources > Advanced and press OK.
- 3 - Select EasyLink and press OK, then select EasyLink one step further.
- 4 - Select Easylink Remote Control and press OK.
- 5 - Select Off.
- 6 - Press BACK repeatedly if necessary, to close the menu.

3.7. PJLink devices

Please follow the instruction on your specific device, you can find below an example of configuration with Epson device:

Got to MENU and Select **Network Configuration** and press **Enter**.

Select the **Basic** menu and press **Enter**.



1. Select the following basic options as necessary:

- **Projector Name** lets you enter a name up to 16 alphanumeric characters long to identify the projector over the network.
- **PJLink Password** lets you enter a password up to 32 alphanumeric characters long for using the PJLink protocol for projector control

3.8. Cisco Visio conferencing devices

Please follow the instruction on your specific device, you can find below an example of configuration with Epson device:

Got to MENU and Select **Network Configuration** and press **Enter**.

NetworkServices HTTP Mode

Define whether or not to allow access to the video system using the HTTP or HTTPS (HTTP Secure) protocols. Note that the video system's web interface use HTTP or HTTPS. If this setting is switched Off, you cannot use the web interface.

If you need extra security (encryption and decryption of requests, and pages that are returned by the web server), allow only HTTPS.

Requires user role: ADMIN

Default value: HTTP+HTTPS

Value space: Off/HTTP+HTTPS/HTTPS

Off: Access to the video system not allowed via HTTP or HTTPS.

HTTP+HTTPS: Access to the video system allowed via both HTTP and HTTPS.

HTTPS: Access to the video system allowed via HTTPS, but not via HTTP.

How to administer the video system (page 1 of 4)

In general, we recommend you to use the web interface to administer and maintain the video system, as described in this administrator guide.

Alternatively, you can access the API of the video system by other methods:

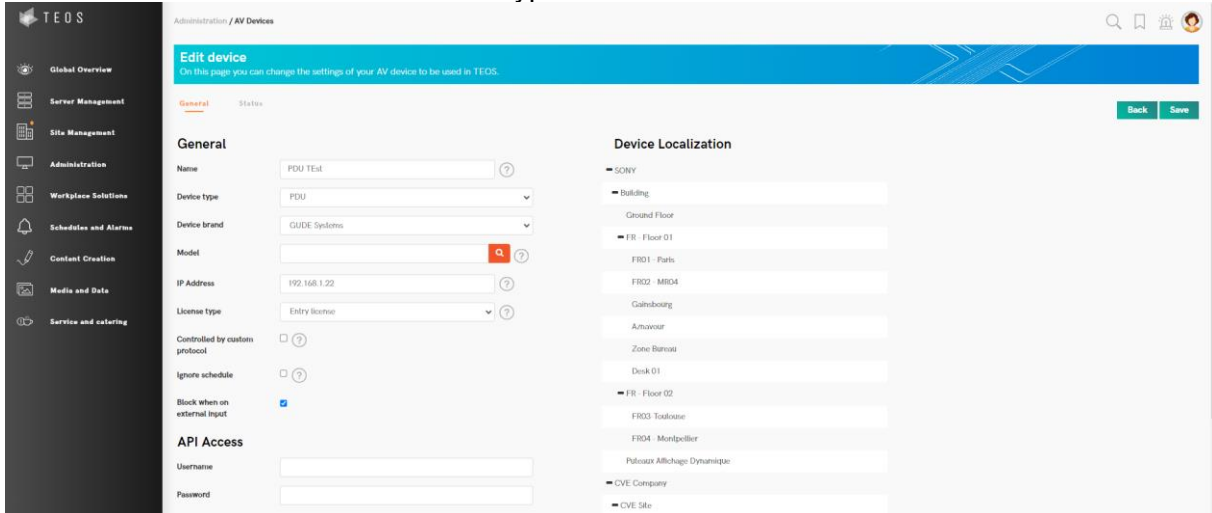
- HTTP or HTTPS (also used by the web interface)
- `ccu`

Access method	Notes	How to enable/disable the methods
HTTP/HTTPS	<ul style="list-style-type: none"> · Used by the web interface of the video system · Non-secure (HTTP) or secure (HTTPS) communication · HTTP: <i>Enabled</i> by default · HTTPS: <i>Enabled</i> by default 	NetworkServices > HTTP > Mode Restart the video system for changes to take effect

3.9. Gude System Power Distribution Unit

Since version 3.2 of TEOS, a new device type has been introduced, the PDU (Power distribution Unit) will provide direct data about the power consumption of any device connected in watt and voltage. And you will be able to setup the plug activity.

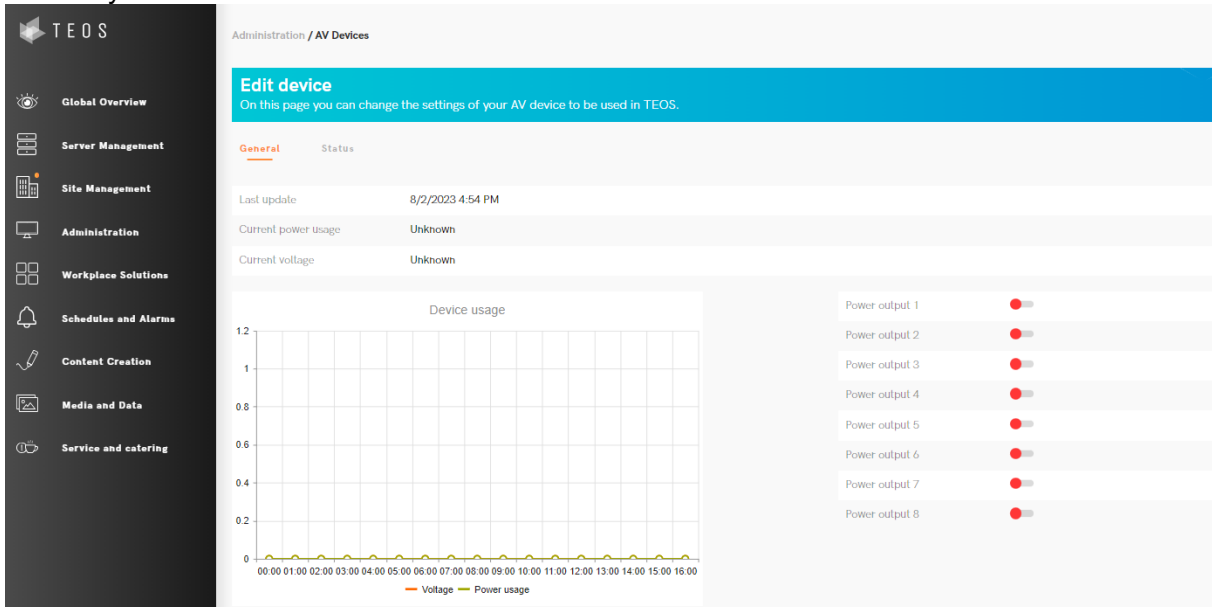
For this to be possible, create a new device on your TEOS tenant under Administration > AV Device add new device and select the type PDU :



The Gude System brand will appear with an API access which should include a username and password is required.

As soon as this field is added and with an Entry license you will be able needed to retrieve the informations and control the power outputs.

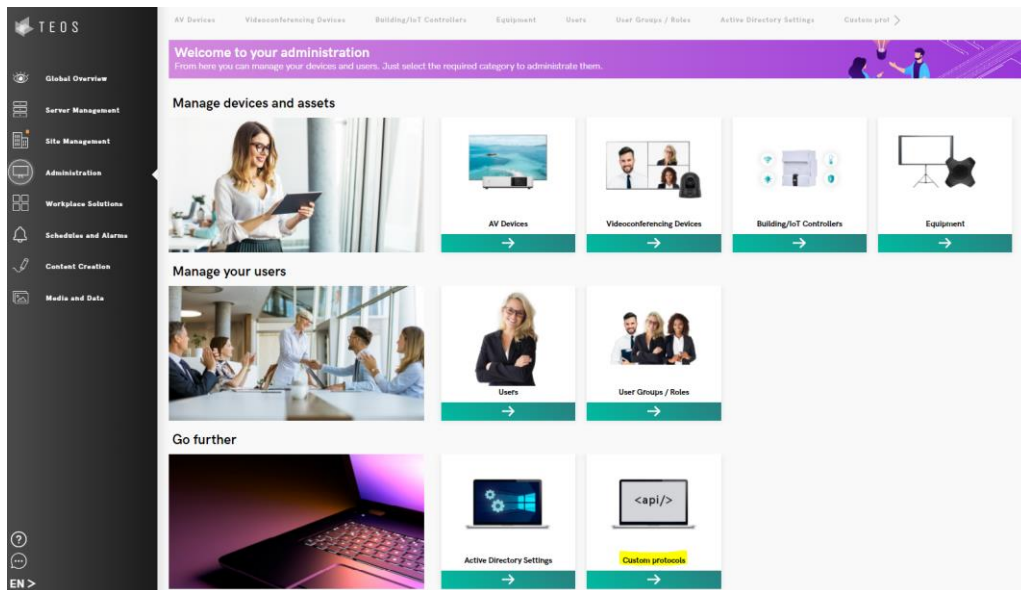
Save the configuration and go back to the device and under status you will be able to control manually the device



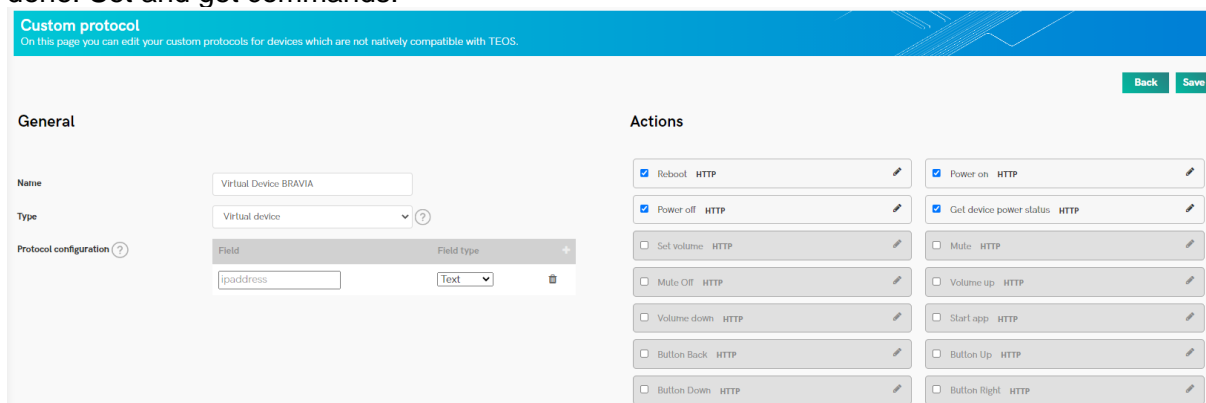
The device can be also part of the power schedule because it is part of a localization and can be selected in the automation scenarios to power on/off plugs based on different conditions.

3.10. TEOS Custom Protocol

From Version 3.0 you can add Custom Protocols to use devices in TEOS platform that are not integrated in it. For that you can go to Administration tab in TEOS and Custom Protocols.



Under custom protocols you can add a custom protocol which can represent a virtual device (which is the target in this documentation) or just a custom command. Focusing in the virtual when creating it (select virtual device), you will find in the right side all the Actions that can be done. Set and get commands.



As an example of configuration, you can use the web API from BRAVIA. In terms of configuration, you need first to create a field which will be the IP address of the device you will input, the variable in our case will be name `ipaddress` and it is a text type field



Taking now the example of the power ON button using the Sony BRAVIA webAPI, select HTTP protocol, the URL is [http://\[ipaddress\]/sony/system](http://[ipaddress]/sony/system), the request method in a POST and the content-type is json: application/json. There is no header and the body is the following:

```
{
  "method": "setPowerStatus",
  "id": 55,
  "params": [{"status": true}],
  "version": "1.0"
}
```

Edit action
✕

Request

URL

HTTP method

HTTP content-type

HTTP headers

HTTP header	Value
No custom HTTP headers	

Body

```

{
  "method": "setPowerStatus",
  "id": 55,
  "params": [{"status": true}],
  "version": "1.0"
}

```

You then need to press save and do the same procedure for the other commands. You can save the full custom protocol.

When this part is done you can create the device under Administration > AV devices. Add your device by adding its name, the IP address and simple control for the license. You need after to enable the controlled by custom protocol button and select in the dropdown list the name you created for your custom protocol. Press save

The screenshot shows the 'Edit device' page in the TEOS Administration interface. The left sidebar contains navigation options like Global Overview, Server Management, Site Management, Administration, Workplace Solutions, Schedules and Alarms, Content Creation, and Media and Data. The main content area is titled 'Edit device' and includes a sub-header: 'On this page you can change the settings of your AV device to be used in TEOS.' Below this are three tabs: 'General', 'Mirroring Settings', and 'Status'. The 'General' tab is selected and contains the following fields:

- Name: Delegation GFO
- Device type: Display
- Device brand: Sony
- Model: (empty)
- IP Address: 192.168.100.140
- Sub device: No sub device
- License type: Simple Control
- Controlled by custom protocol:
- Custom protocol: Virtual Device BRAVIA

At the bottom, there is a 'Protocol configuration' table with the following data:

Field	Value
ipaddress	192.168.100.140

On the right side, the 'Device Localization' section shows a tree view of the organization structure, including Dave Company, Garpreet Company, Gullkane Company, John Company, Hendrik Company, Hendrik Site, Hendrik Building, and HTU Floor.

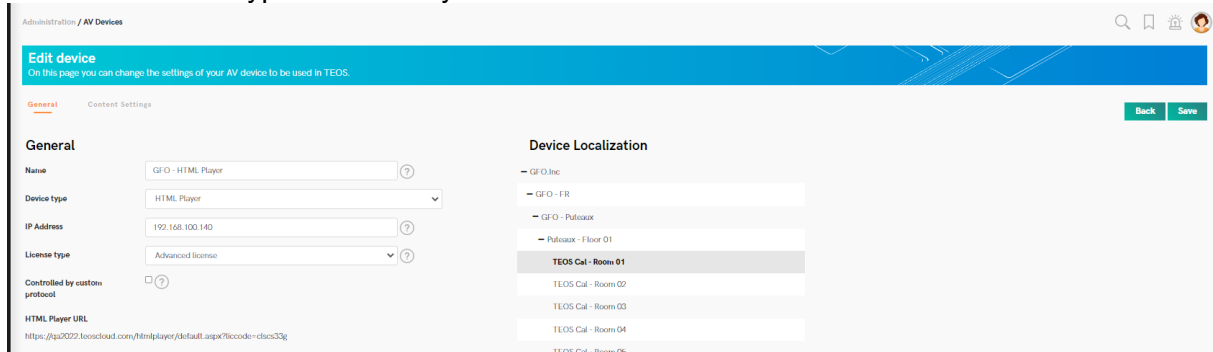
From that point that point the device will be pilot like it is was another device based also on the API integrated.

4. Add an HTML devices in TEOS

This option has been developed to be able to send content to third party devices (such as Barco Clickshare, Poly X series or any other device which support HTML5).

For that, you only have to go to Administration > Av devices and add a new device.

Select the device type: HTML Player



The screenshot shows the 'Edit device' configuration page in the TEOS Administration interface. The page is titled 'Administration / AV Devices' and 'Edit device'. Below the title, there is a blue banner with the text 'On this page, you can change the settings of your AV device to be used in TEOS.' The page is divided into two main sections: 'General' and 'Device Localization'. The 'General' section includes fields for 'Name' (GFO - HTML Player), 'Device type' (HTML Player), 'IP Address' (192.168.100.140), 'License type' (Advanced license), and 'HTML Player URL' (https://192.1022.teoscloud.com/htmlplayer/default.aspx?licode=clics33g). The 'Device Localization' section shows a tree view of device groups, with 'TEOS Cal - Room 01' selected. The 'Back' and 'Save' buttons are visible in the top right corner.

Define the IP address and add an Advanced license to the device.

A unique URL will be created to add in the third-party device.

Any type of content or assignment like if it was a normal device can be send (via default presentation or content schedule

5. Add devices to Manage for TEOS

Manage for TEOS offers a "supervision" module to manage all the devices, knowing their status, but also allows you to control them manually or via a schedule. Below, you can find the procedure to configure this workflow:

5.1. Add a device in Manage for TEOS

- On the TEOS web interface go to Administration and Device Management.
- There are 3 possibilities to add devices into TEOS: Import devices via excel, device auto-discovery, add it manually (explain in this document)
- Press "add device" and:
 - 1) Insert name of the device
 - 2) Select "display" as device type
 - 3) Select Sony as device brand
 - 4) Model will be automatically field
 - 5) Insert the IP address of the device
 - 6) Insert the MAC address of the device (for Wake on LAN)**
 - 7) Select "simple control" as license type (min license requested: TEM-CO10)
 - 8) Add the device in a device group (create before a group in site configuration)
 - 9) Press **save**

Edit device

On this page you can change the settings of your AV device to be used in TEOS.

General | Mirroring Settings | Status Back Save

General

Name:

Device type:

Device brand:

Model:

IP Address:

Sub device:

License type:

Controlled by custom protocol:

Custom protocol:

Protocol configuration

Field	Value
ipaddress	<input type="text" value="192.168.100.140"/>

Device Localization

- Dave Company
 - Chichester
 - Dave House
 - Dave House Ground Floor
 - Dave Lounge
 - Dave Kitchen
 - Dave Entrance Hall Reception
 - Dave Basic Desk Zone
 - Dave House First Floor
 - Dave Advanced Desk Zone
 - Dave Bedroom
 - Dave Basic Parking
 - Dave Adv Parking
 - Dave Work Desk

Note: If you don't have an activated license for the device, or you don't have any more licenses, you will get a message on top of this tab.

5.2. Control the device in Manage for TEOS

If the device is not connected to the network, IP control is not ON or ADB Is not activated, you will not be able to control the device or to see the Android interface

Connecting cloud-controlled devices				Connecting Non-cloud-controlled devices				
Refresh	Name	Device model	IP Address	Status	Behaviour status	Device type	License type	Localization
	GFO Player	Sony X96Max_Plus2	Cloud: d..6FD68A	On		Player	Signage	Guillaume Home - MR01

If you go to Site Management and site overview, you will see graphically your group hierarchy. You can to see the status of your device, power on/off the devices from here and control the virtual remote from this overview.

Sites Overview | Sites Configuration | Tenants Management | Service Management

Overview of your company in a hierarchy level including the possibility to navigate on all your areas to get the data in the tiles

See directly the room name, number of seats and localization

Check the status of your devices






If you have sensors, get in live temperature and Co2 level on your meeting rooms

Click on the remote to get a live snapshot from your device

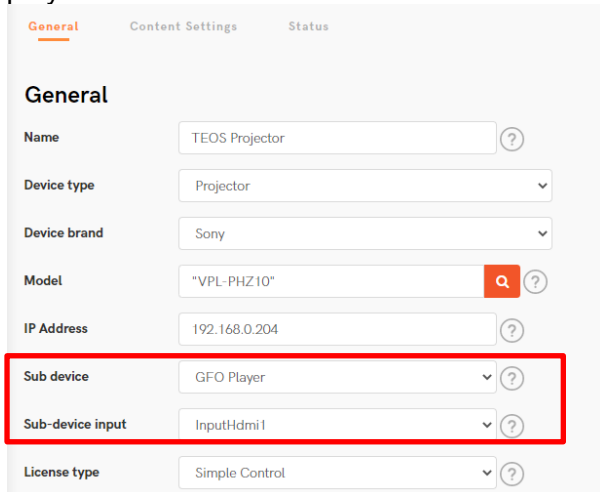
5.3. Link display device with the Player device in TEOS

This option is used to simplify the workflow when using a third-party device with digital signage. When linking the third-party device and the Player, scheduling rules are

implemented for both devices when power ON or power OFF actions are configured or if a content is scheduled.

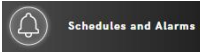
On the TEOS web interface go to Administration  and Device Management and edit your device ,  Edit  Delete  **Execute command**  Update screen

select the sub-device in the Player you want to link with. You can select the input where the player is connected.



General	Content Settings	Status
General		
Name	TEOS Projector	?
Device type	Projector	▼
Device brand	Sony	▼
Model	"VPL-PHZ10"	🔍 ?
IP Address	192.168.0.204	?
Sub device	GFO Player	▼ ?
Sub-device input	InputHdmi1	▼ ?
License type	Simple Control	▼ ?

5.4. Schedule action to the device in Manage for TEOS

From Manage for TEOS you can schedule your commands to have automatic control of your devices. For that go to Schedules & Alarms  and go to Actions schedules. You will be able to control power, reboot, update apps, start signage, start meeting, mute, manage volume, channel etc. These schedule commands can be addressed to a device or a group of devices.

SONY



Visit us on
<https://teos.solutions>

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