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Professional BRAVIA & TEOS
ANDROID 10 – Installation Manual
Document revision 1.0

Overview

This guide explains all the features and workflows to configure BRAVIA with Android Version 10.0 for TEOS. Visit us on https://teos.solutions
More details about BRAVIA can be found under: https://pro-bravia.sony.net

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1.2 BRAVIA compatibility with TEOS

Generation	Model name	Platform version	Compatibility with TEOS
FY14 & FY15	W600P, W705C, X9600P (4K), W805C (FHD), X8370C (4K-Tuner)	Non- Android Version & Android 7	Signage with Android Player Signage with Android Player
FY16	FW-43/49XD8001 (4K-Tuner) FW-85XD8501 (4K-Tuner) FWD-100ZD9501 (4K-Tuner)	Android Version 7 Android Version 8 Android Version 8	Signage with Android Player Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage
FY17	FW-XE8001 (4K) FW-XE9001 (4K-Tuner)	Android Version 8 Android Version 8	Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage
FY18 & FY19	BZ35F (4K) FW-A1 (4K-Tuner Oled)	Android Version 9 Android Version 9	Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage
FY19 Tuner non- Android	FWD-43/49X70G/T (4K-Tuner) FWD-55/65X70G/T (4K-Tuner) FWD-32WD605/T (Tuner) FWD-43WG66/T (Tuner) FWD-50WG66/T (Tuner)	Non-Android Non-Android Non-Android Non-Android Non-Android	Signage with Android Player Signage with Android Player Signage with Android Player Signage with Android Player Signage with Android Player
FY19 Tuner	FWD-43/49XG80/T (4K-Tuner) FWD-55/65/75XG85/T (4K-Tuner) FWD-85XG85/T (4K-Tuner) FWD-55AG8/T (4K-Tuner Oled) FWD-65AG8/T (4K-Tuner Oled) FWD-55AG9/T (4K-Tuner Oled) FWD-65A9G/T (4K-Tuner Oled) FWD-77A9G/T (4K-Tuner Oled)	Android Version 8 Android Version 8 Android Version 8 Android Version 8 Android Version 8 Android Version 8 Android Version 8 Android Version 8	Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage
FY20 & 21 Pro models	FW-43BZ35F (4K) FW-49BZ35F (4K) FW-55BZ40H (4K) FW-65BZ40H (4K) FW-75BZ40H (4K) FW-85BZ40H (4K)	Android Version 8 Android Version 8 Android Version 9 Android Version 9 Android Version 9 Android Version 9	Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage
FY20 & 21 Tuner non- Android	FWD-43X70H/T (4K-Tuner) FWD-49X70H/T (4K-Tuner) FWD-55X70H/T (4K-Tuner) FWD-65X70H/T (4K-Tuner) FWD-32WE605/T (Tuner) FWD-43WF66/T (Tuner) FWD-50WF66/T (Tuner)	Non-Android Non-Android Non-Android Non-Android Non-Android Non-Android Non-Android	Signage with Android Player Signage with Android Player Signage with Android Player Signage with Android Player Signage with Android Player Signage with Android Player Signage with Android Player
FY20 & 21 Tuner	FWD-43X80H/T (4K-Tuner) FWD-49X80H/T (4K-Tuner) FWD-X80H/T (4K-T) FWD-X95H/T (4K-Tuner) FWD-A8/T (4K-Tuner Oled) FWD-AG9/T (4K-T Oled) FWD-Z8H/T (8K-Tuner) FWD-98Z9G/T (8K-Tuner)	Android Version 9 Android Version 9 Android Version 9 Android Version 9 Android Version 9 Android Version 9 Android Version 9 Android Version 9	Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage
FY22 Pro models	FW-32/43/50/55/65/75BZ30J (4K) FW-43/50BZ35J (4K) FW-55/65/75BZ40H (4K) FW-100BZ40J (4K)	Android Version 10 Android Version 10 Android Version 10 Android Version 10	Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage Built-in Control, TEOS Connect and Signage
FY22 Tuner	FWD-X80J/T (4K-Tuner) FWD-X85J/T (4K-Tuner) FWD-X80K/T (4K-T)	Google TV Google TV Google TV	Signage with Android Player Signage with Android Player Signage with Android Player

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1. BRAVIA Professional common configuration for TEOS usage

1.1. Access to pro mode

In [Pro mode], you can use various convenient functions for professional use. Here, we introduce how to change to [Pro mode] and typical functions of [Pro mode].


UI Selection or Key sequence → Pro settings mode

UI Selection "Start Pro Mode" → Pro mode
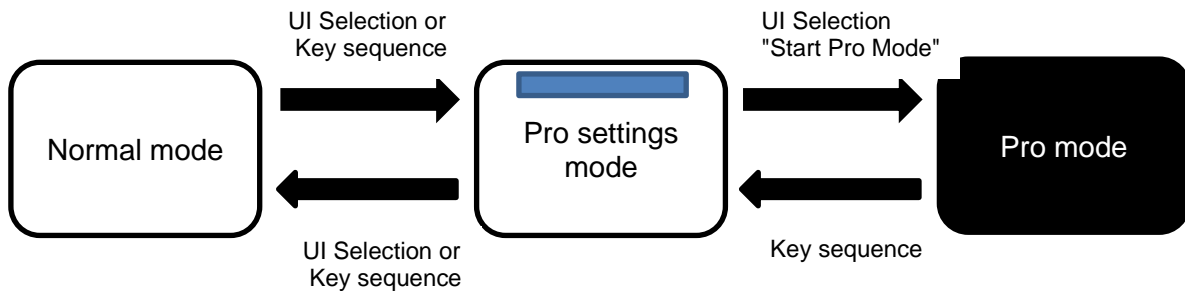
Normal mode

Normal mode: This is the default mode. [Pro mode] functions are not available in this mode.
Pro settings mode: This mode allows you to set various settings of [Pro mode] functions.
Pro mode: This is the operation mode for professional use where you can use the [Pro mode] functions.
After each switch in each mode, the monitor will reboot.
Key sequence (press the below keys on the remote commander in order within 3 seconds)

| (1) Info [i+] | (2) Mute | (3) Vol + | (4) HOME |
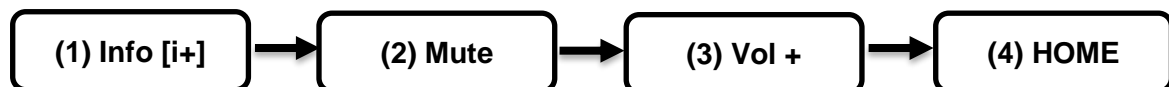
UI Selection (only for FW-XXBZ35F models), this option allows you to switch between the different modes using the Android UI (app view)

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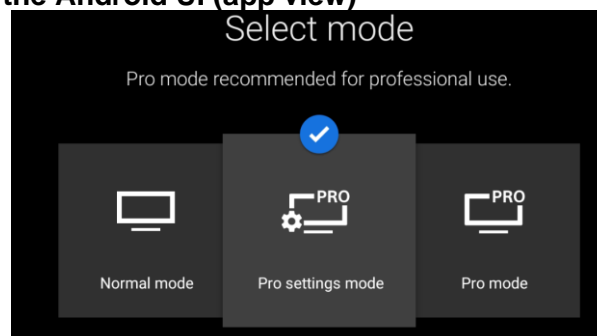
* Initially you cannot change the mode from [Pro mode tool] in [Pro mode]. If you want to change the mode from [Pro mode tool], go to [Pro settings] t [Function restrictions] t [Apps] and change [Pro mode tool] to [Enable] in [Pro settings mode].

1.2. Disable TV standby

Standby mode on BRAVIA are by default to 4 hours from factory. This section will give more details about these possibilities and explain how to configure.

a) Standby mode
The configuration of the standby mode can be done going into Home>Settings> System > Power
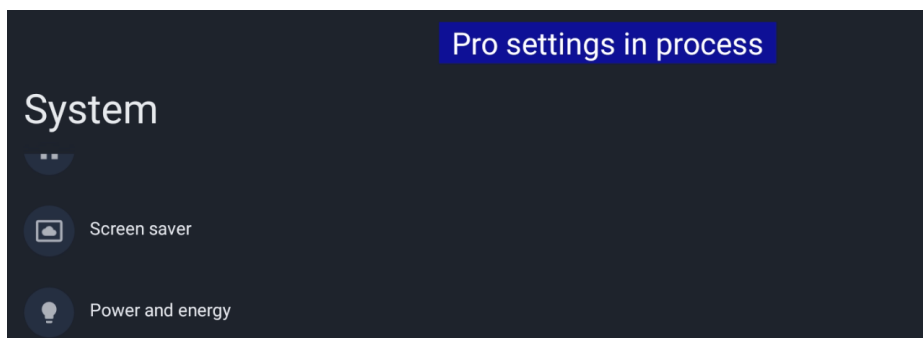
In power, set the 3 options to off:
- – Power saving: Off
- – Idle TV standby: Off
- – Auto shut-off: Off

b) Sleep mode (screen saver) for HDMI, option in home > setting > system > screen saver

When using the device in professional usage, [screen saver] should be set to sleep, [when to start] to 1 hour and [put device to sleep] to never

1.3. Configure Network connection

This section explains all the settings available in the network configuration of the BRAVIA.
First go to [Settings] / [Network]
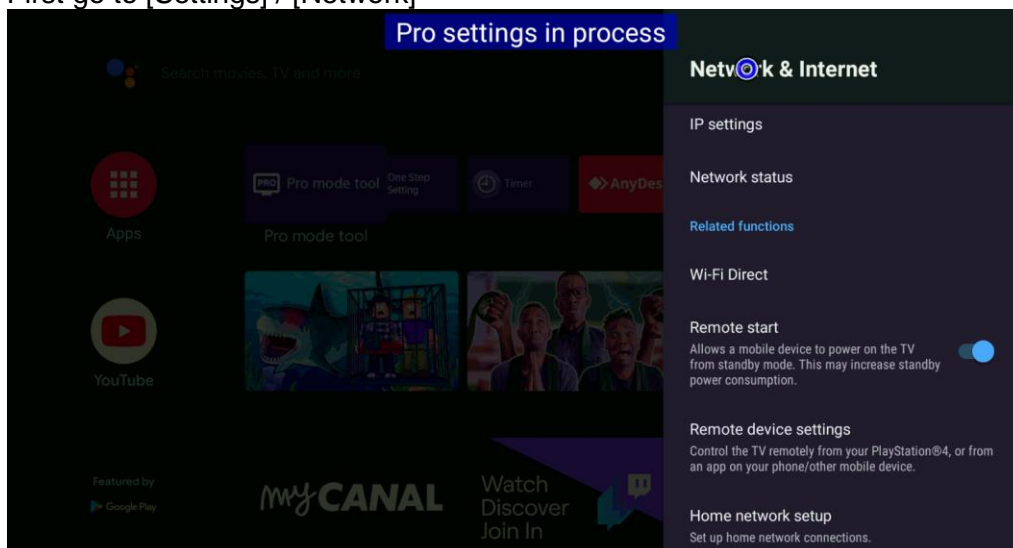
a) Network setup: Set up internet and local network connections:

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- o Easy: simple way to configure network in BRAVIA via Wired LAN of Wi-Fi
- o Expert: advanced way to setup the Wi-Fi or Wired LAN connection
  - ▪ In **Wi-Fi** part, a SSID can be selected and a static IP address can be defined
  - ▪ In **Wired LAN**, it is possible to select DHCP mode to retrieve automatically an IP address or to define a static IP address. Note that it is mandatory to define a gateway and DNS address even if there is no in the network otherwise the device will not be fully configured in network Part
  - ▪ Proxy settings can be configured, a host name or an IP address can be defined and a port. Bypass proxy addresses can be configured

b) <u>Wi-Fi Direct</u>: this option can generate a hotspot WI-FI from the BRAVIA (the source of this hotspot is hosted in the led bar of the BRAVIA)
  - o Enable or disable Wi-Fi direct
  - o Wi-Fi Direct settings (interface to show the SSID name and the Password, not possible to change the password)
  - o Advanced: Show the device list/delete and band settings (Auto/Auto (2.4Ghz band)/Auto (5GHz band)/Manual (channel 1 to 40 selection)

WI-FI direct can be activated when using TEOS Connect to create a "visitor" mirroring access

1.4. Configure IP control

You can control the Monitor from an external service via IP control.
IP control is using a standard RJ45 connection, the procedure to use it is briefly explained in this page.

1) Go to Pro mode (refer to section 2.1)
2) Go to [Settings] > [Network] & Internet > [Home Network Setup]
   - a. Select IP Control
   - b. Set Authentication to "None" or "normal and pre-shared key" if you want to have a password in this link
   - c. Set Simple IP control to "On"
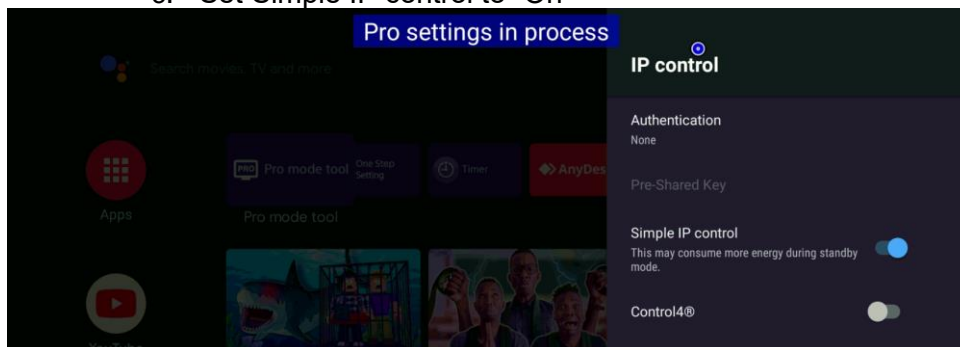
For TEOS usage, this options always need to be activated.

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1.5. Configure developer mode

Developer options and ADB (Android Debugger) Is used in our case to be able to retrieve snapshots BRAVIA, Install/update apps and retrieve logs.

1. Go to Settings> System > About> Build
   - Press 7 times in build option, developer mode will be unlocked
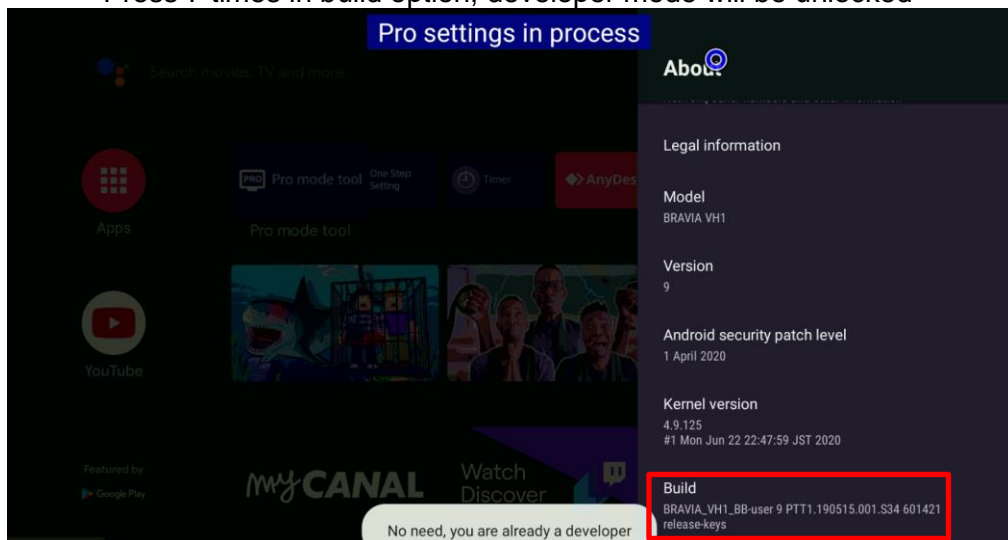
2. Go back to Settings > Developer mode and enable ADB debugging and "stay awake" option
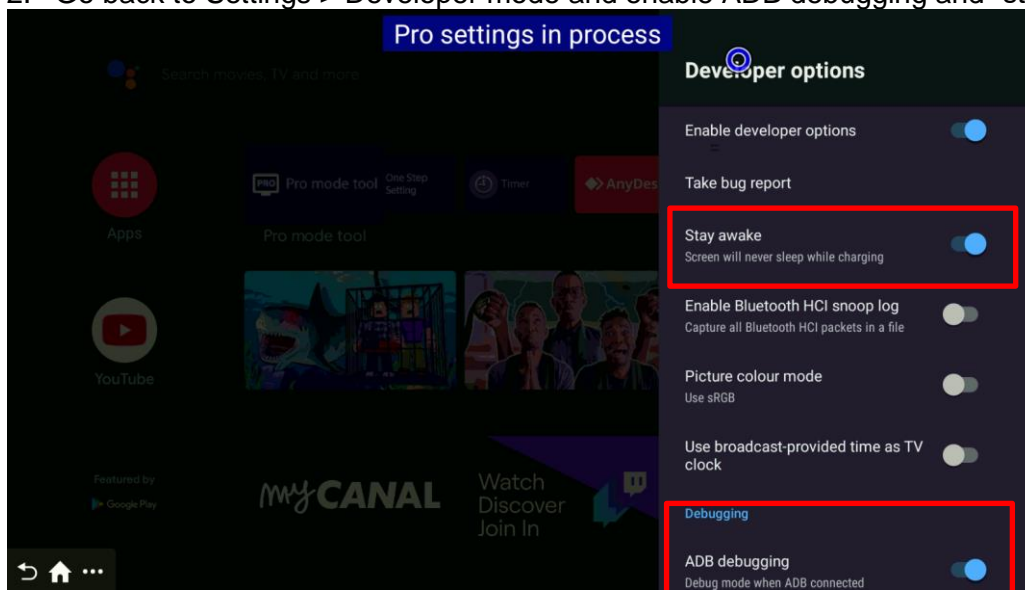
1.6. Configure time

This section explains how to configure date & time based on environment.
1. Manual setup (selecting date & time, not recommended)
2. Network time (when device Is connected to Internet, he can retrieve date & time from Internet)
3. In pro mode NTP (IP address or a server name where the device will synchronize date & time)

1. Manual & network time (if there is electrical power cut, the BRAVIA will lose time)
   a. Go to [settings] > System > [date & time]

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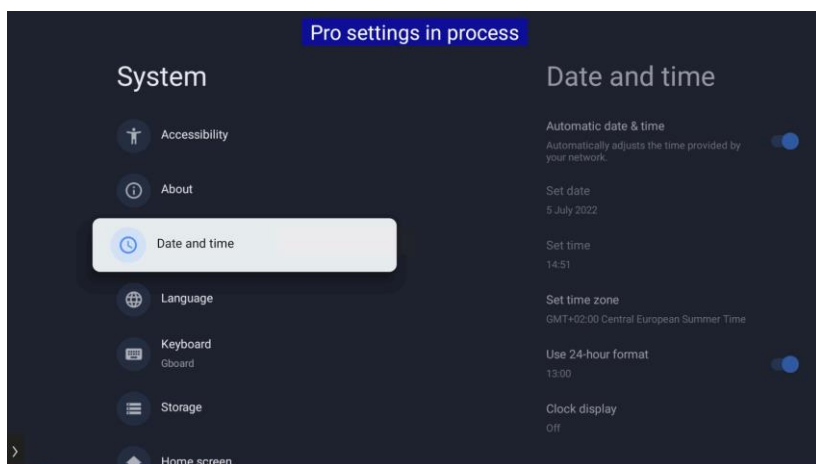
   b. Go to date & time. By default, <u>the BRAVIA will try to get network time (using internet access)</u>, manual configuration can be done, by selecting "off" on the network time

If devices will be connected to internet, select network time configuration.

 2. <u>NTP configuration (If device Is not connected to Internet)</u>
   • Go to [settings] > [pro mode settings]. Go to NTP server, you can put an IP address or host name of the NTP server where the BRAVIA will synchronize. The synchronization of the BRAVIA will be done each time the BRAVIA will power on.
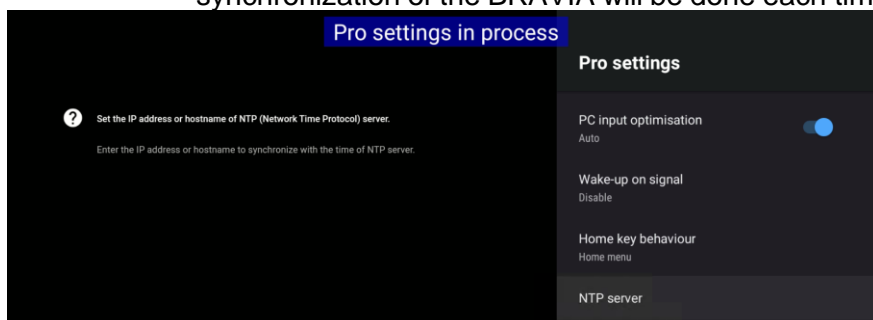
1.7.   Disable automatic firmware upgrade
1. Go to Help (button directly in the remote) >Automatic Software download, turn it to "Off"

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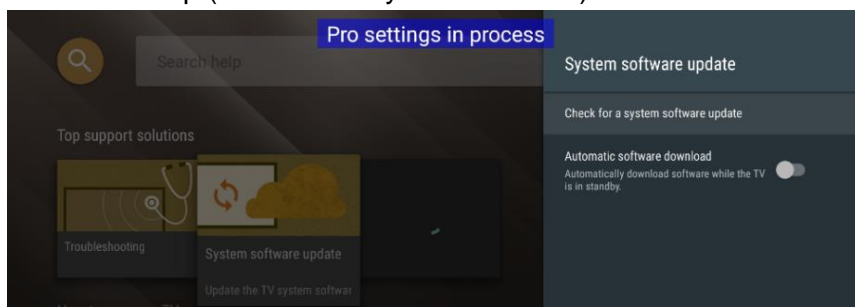
1.8. Pro settings configurations

This section explains all the options that need to be set-up for TEOS functionality for Android 8 models, apk installation can be done via Pro settings. With Android 7, the apk installation can only be done via Google Play. You can find below the procedure for Android 8 models:

1. **Enable remote firmware upgrade in pro services & Web control UI**
   – Activate "Remote firmware update Service"
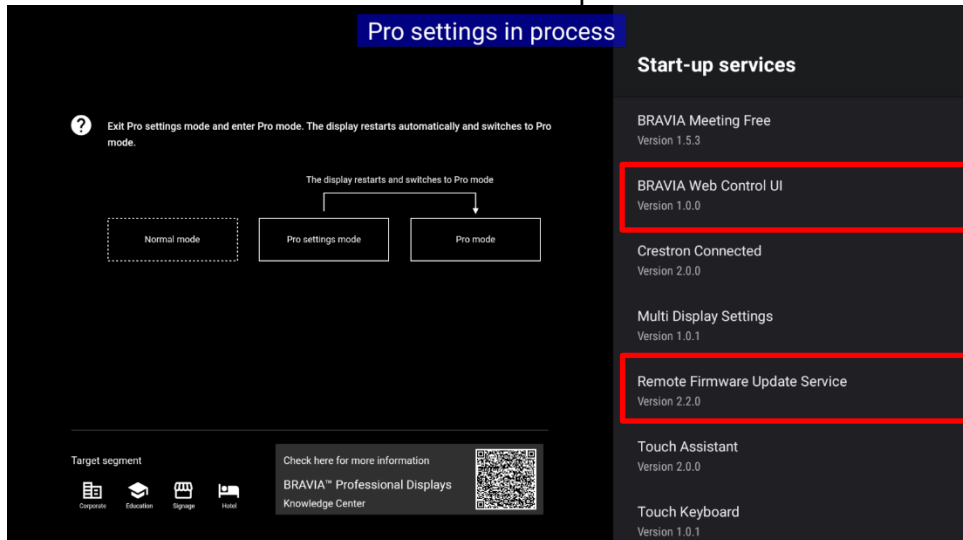
Web control UI will allow you to configure your BRAVIA remotely with access to pro settings etc. More details on: https://pro-bravia.sony.net/guides/startup_services/bravia_web_control_ui/

   a) Activate "Remote firmware update Service" (useful for TEOS firmware upgrade management for example)
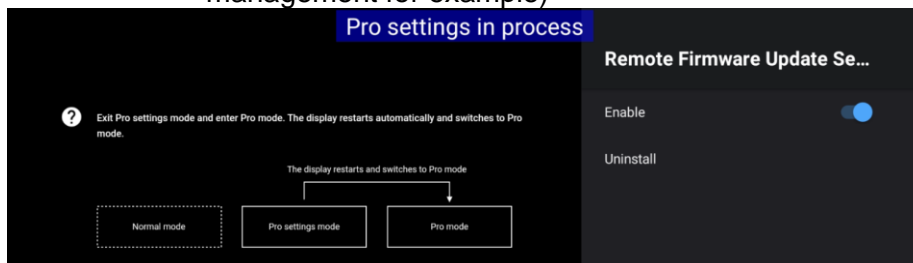
When activating "remote firmware update service" an automatic message appears to make the installation of the app, follow the installation points and reboot the device.

   b) Activate "BRAVIA Web UI" (useful for the management of the BRAVIA pro settings remotely)
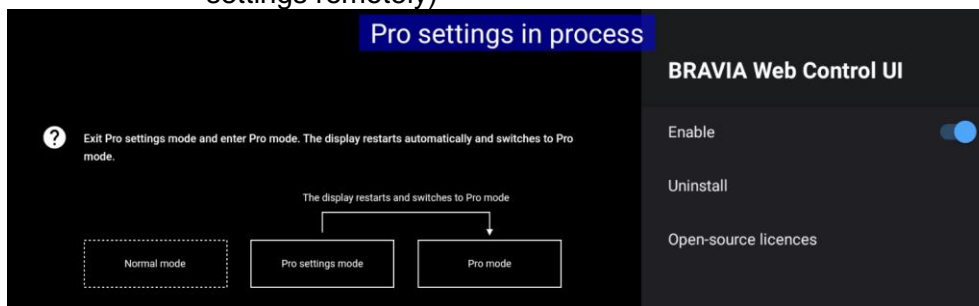
Define the password by default under "Admin password" a password for the BRAVIA Web UI

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access, **password to add by default is Sony1234**
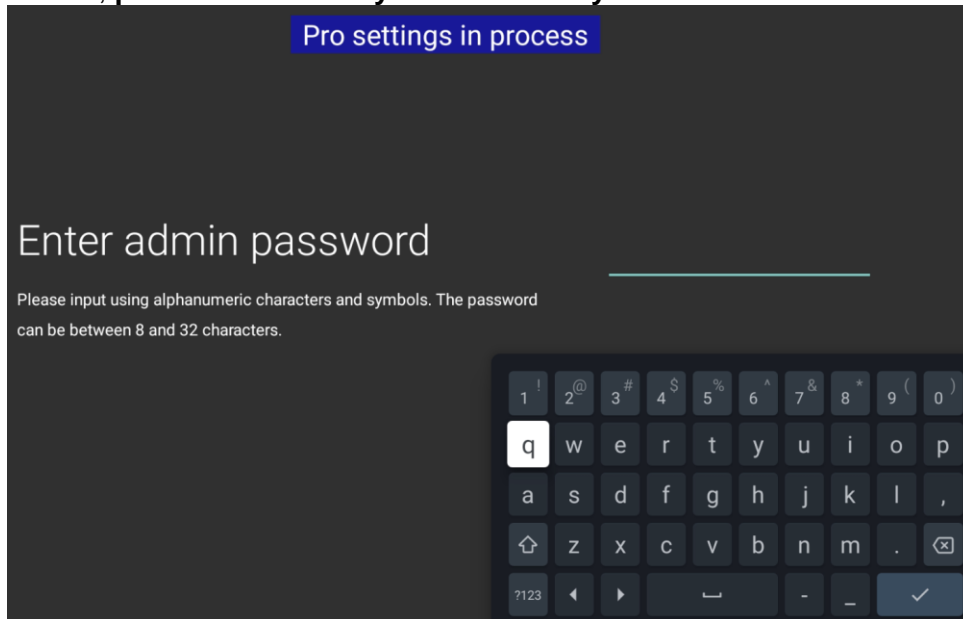
2. **Install TEOS apps (Install apk)**
   - Insert your USB drive with yourapp.apk on it
   - "Install APK" option in the BRAVIA pro setting menu will appear
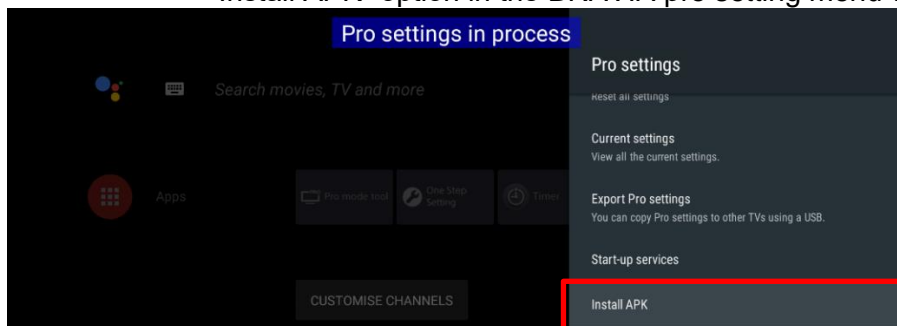
   - Install your TEOS apps based on your need

3. **Enable Installed apps**
   - Go to Home Pro Settings > apps and enable the Installed apps
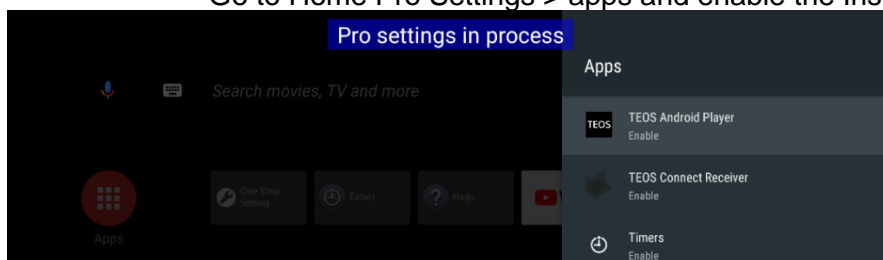
4. **Enable developer options (go to [pro settings]> [developer options])**
   - Enable Power State Control by app and Web Apps installation

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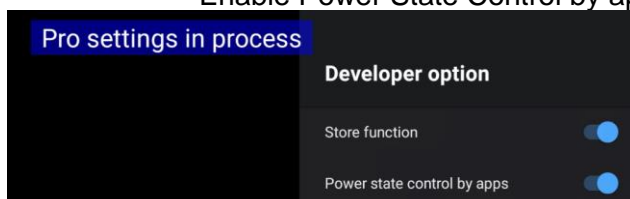
5. **Enable pro mode**
   – This option Is activated at the end of all configurations.
     Please follow the next section and you the mode you want to use with TEOS before starting pro mode
   – Go to [pro settings] > [start pro mode])
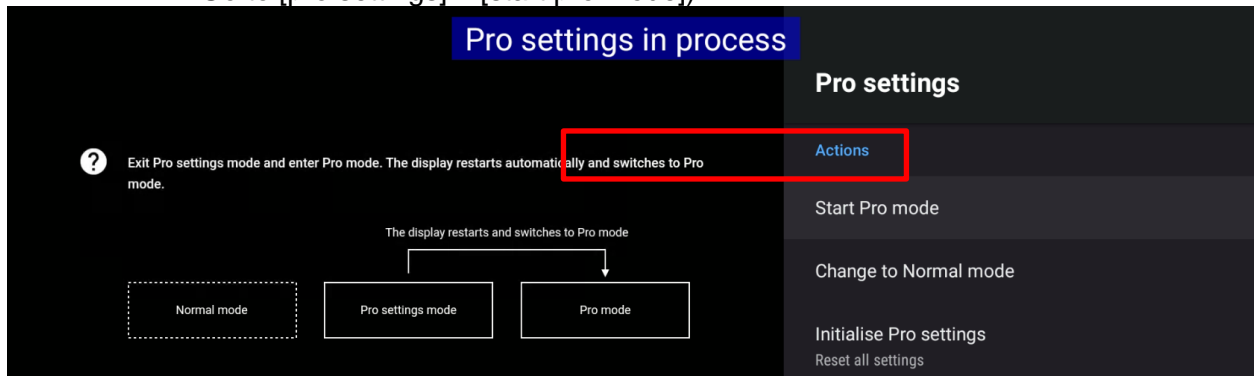
Select "start pro mode", the BRAVIA will reboot and apply the configuration

3. BRAVIA installation & configuration with TEOS

After finishing the common BRAVIA configuration, you can follow the next sections. We will specify below, the final configuration of BRAVIA based on the usage you want to have with TEOS.

3.1. BRAVIA for simple IP control with TEOS

TEOS Manage not only enables users to monitor all their devices, viewing their live status, but also offers control of them manually, or via automated scheduling. Below, you can find the procedure to configure this workflow:

3.1.1. Configuration on BRAVIA
   – **Follow the configuration of the section 2 until 2.8 section** (pro settings configurations). In pro settings configuration, activate the Remote firmware update service, configure the NTP server and "start pro mode".
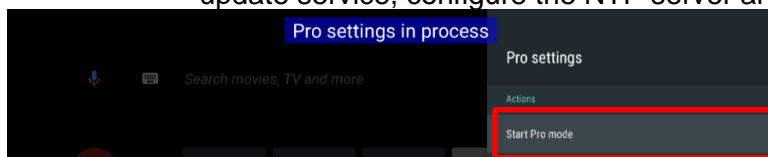
3.1.2. Configuration in TEOS Manage
   – On TEOS website go to Administration and Device Management.
   – There are 3 possibilities to add devices into TEOS: Import devices via excel, device auto-discovery, or add it manually (explained later in this document)
   – Press "add device" and:
     1) Insert 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) Select "Entry license" as license type
     7) Add the device in a device group (create before a group in site configuration)
     8) Press **save**

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Note: If the device Is not reachable via network, or you don't have license for It, you will get a message on top of this tab. If the device Is connected and the configuration done, you must be able to see It in green in both power status and behavior status.

By pressing to the virtual remote, TEOS will do a first adb request to your BRAVIA. **BRAVIA will after ask to allow the connection (debugging), for a security measure** which needs to be done when the ADB connection is setup for the first time, you need to authorize the RSA key from the TEOS server, once this is accepted and saved into the local configuration file the connection can be setup at any time when the display is online.

You will have to accept the connection by Manage for TEOS to be able to see the snapshot from the screen.

Edit   Delete   Execute command   Update screen
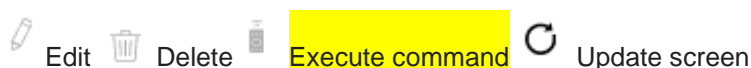
When trying to install a new App in TEOS via Site Management > Service management, and in the device press test ADB, TEOS is doing the same request to the device.

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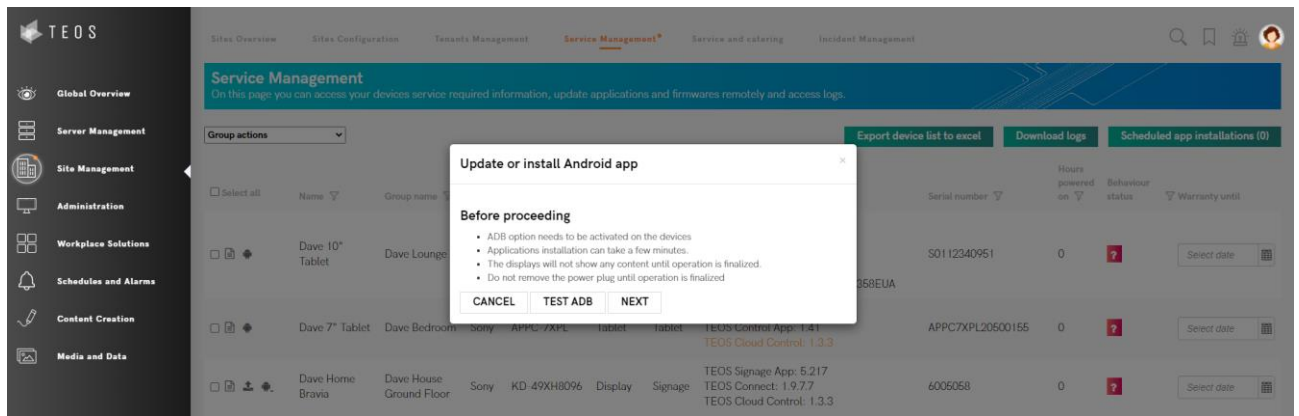
To allow this ADB debugging you have 2 options:
1. Most simple one is by using the real device remote
2. The second one if you IP Control is ON is by using the enter button + right arrow + enter button
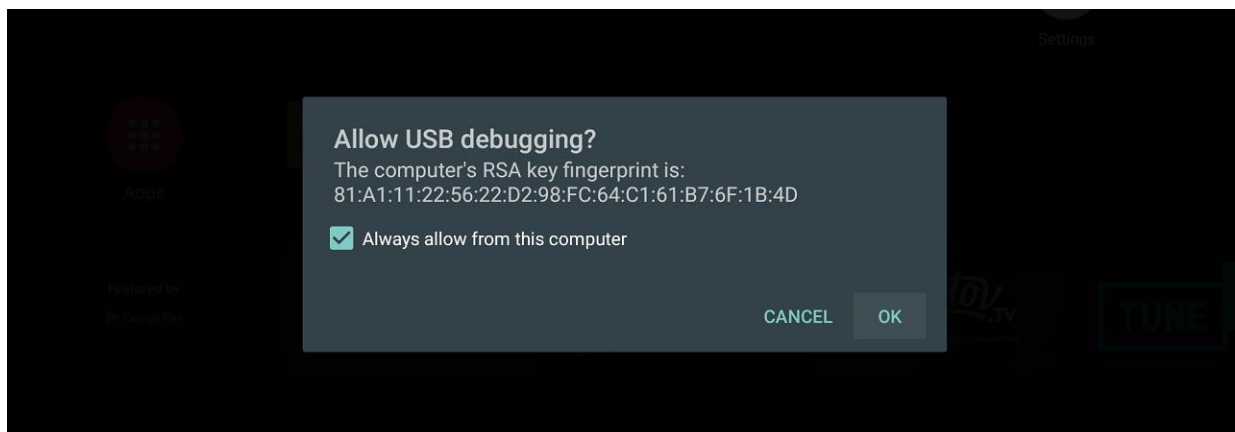
As soon as it is allowed, you will be able to see the interface of the device into your virtual remote or in service management, you can test again adb and see it "online".
If the operation failed, a deep reboot (pressing the reboot button of the virtual remote) and opening again the virtual remote will request again for adb connection.

4.1 When using TEOS on Cloud (from version 3.0)

Go to your Manage for **TEOS CLOUD Interface** > Administration > Device management.
We will add in this case manually a device to the cloud, for that press on the drop-down button on "Connecting cloud-controlled devices" to see the password **automatically regenerated every 1 hour** to insert in the device
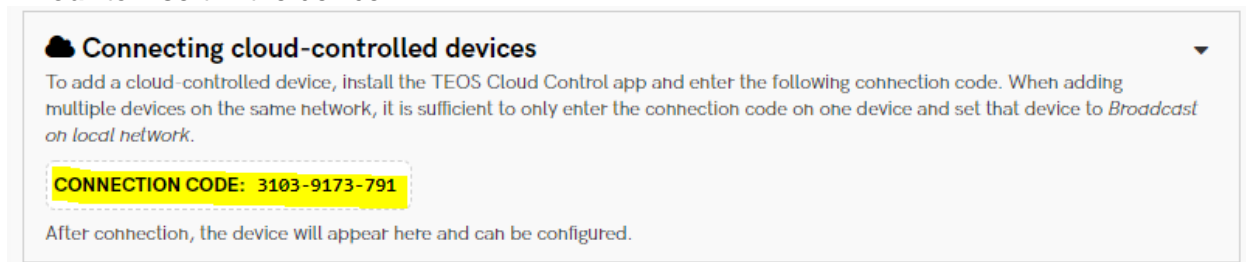
Now from the device, make sure it is connected to the internet. Open the app Cloud Control for TEOS (version 1.4.2 minimum) and insert the password, press connect.

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The device will then connect automatically to your cloud account without any additional action.
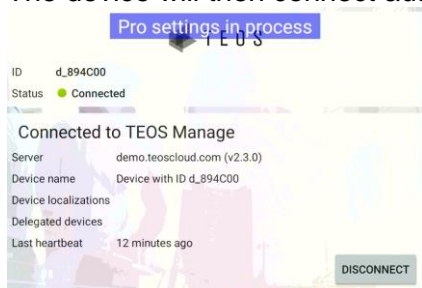
The ID shown in the device will appear in the AV device list after a refresh of the page and will be shown and this end of it.
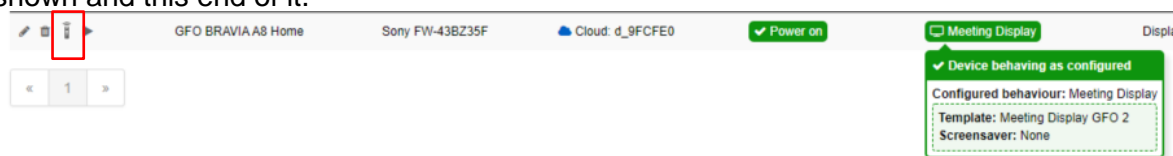
You can then setup it by clicking on the edit button:

a) Insert the room or device name
b) Select "display" as device type
c) Select Sony as device brand
d) **Model will be automatically field**
e) Select the license type
f) Add the device into a device group (create before a group in site configuration)
g) Press **save**

Make sure your BRAVIA is linked to the device group (meeting room type).

3.2.   BRAVIA with TEOS Signage in a meeting room

TEOS Signage is an app developed for our BRAVIA as a step up from the Meeting room option, offering the possibility to send Signage content and display visual Alarm content.
You can find below the procedure to configure you BRAVIA for that usage

3.2.1. Configuration on BRAVIA

– **Follow the configuration of the section 2 until 2.8 section** (pro settings configurations). In pro settings configuration, just activate the Remote firmware update service, configure the NTP server.
– **Install TEOS Android Player.apk in pro settings**
  o Insert your USB drive with TEOS Android Player.apk on it
  o "Install APK" option in the BRAVIA pro setting menu will appear

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o Install TEOS Android Player App

- **Enable TEOS Android Player app in pro settings**
  o Go to Home Pro Settings > apps and **enable** the TEOS Android Player app
- **Install BRAVIA Meeting pkg:** Plug the USB key with BRAVIA meeting 1.0.3 application. An automatic message will appear, you can download the pkg HERE.
  o MRA 1.0.3 file (extapp_installer.pkg) must be in the root of your USB stick.
  o Agree the license and install the application.
  o The app asks for reboot, validate. The monitor reboots in pro mode.

3.2.2. Configuration in TEOS Manage
- For the Integration Into TEOS, you can follow the procedure on Section 3.2 or 3.3.
- For this usage, license type must be signage (TEM-ALXY)
- To configure Alarms into TEOS and display it in you BRAVIA, you must go in and in alarm menu. Select "Add alarm".
  o Insert the name of the alarm
  o Select the signage content to display when the alarm Is started
  o Select targeted group of devices that will show the alarm
  o Add the alarm to a quick menu (in the main upper bar off TEOS)
  o Allow Interactive control (from a URL to start the alarm and stop the alarm)

By sending the URL or pressing on the play button in alarm quick menu, the TEOS Android App will appear in foreground of what the display is showing.

3.3.   BRAVIA for Signage with app TEOS Signage player

TEOS Signage is an app developed for our BRAVIA which allows you to send content directly to a BRAVIA via the network, save the content into the BRAVIA and play it until there is an update of newly created c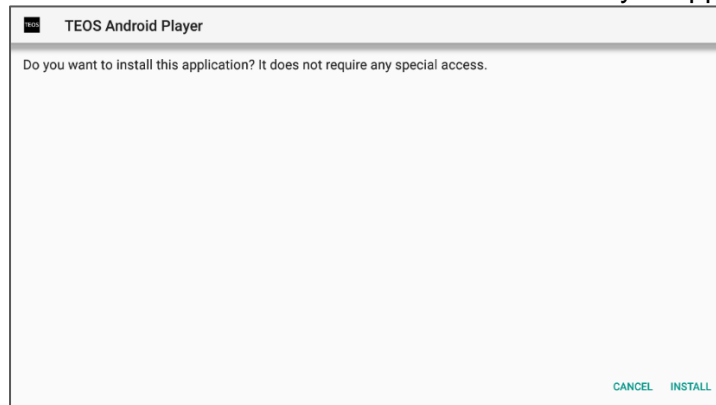ontent. Content can be scheduled from the TEOS Web Interface. You can find below the procedure to configure you BRAVIA for that usage.
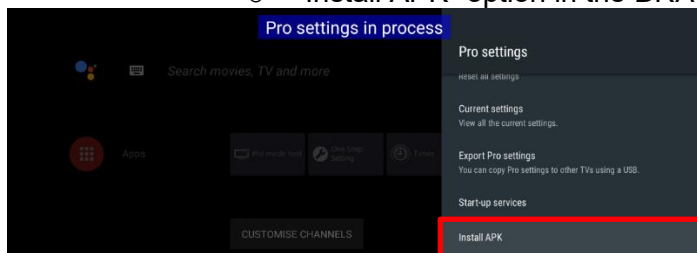
3.3.1. Configuration on BRAVIA
- **Follow the configuration of the section 2 until 2.8 section** (pro settings configurations). In pro settings configuration, just activate the Remote firmware

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update service, configure the NTP server.

- **Install TEOS Android Player.apk in pro settings**
  - o Insert your USB drive with TEOS Android Player.apk on it
  - o "Install APK" option in the BRAVIA pro setting menu will appear


  - o Install TEOS Android Player App

- **Enable TEOS Android Player app in pro settings**
  - o Go to Home Pro Settings > apps and **enable** the TEOS Android Player app

3.3.2. Configuration in TEOS Manage
- First, you need to add the device into TEOS website 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 (explained in this document)
- Press "add device" and:
9) Insert name of the device
10) Select "display" as device type
11) Select Sony as device brand
12) Model will be automatically field
13) Insert the IP address of the device
14) Select "signage" as license type (min license requested: TEM-DS10)
15) Add the device in a device group (create before a group in site configuration)
16) Press **save**
- We will explain how to display scheduled signage content based on the demo content already available in the TEOS Platform. Content creation is explained in another document.
- Go to and content schedule. Select in the agenda when you want to show content, when double clicking our doing right click "new schedule".
- o Select device or device group
- o Define a name for the Signage content
- o Define start time and end time
  - o In content: select Signage content and select your signage content
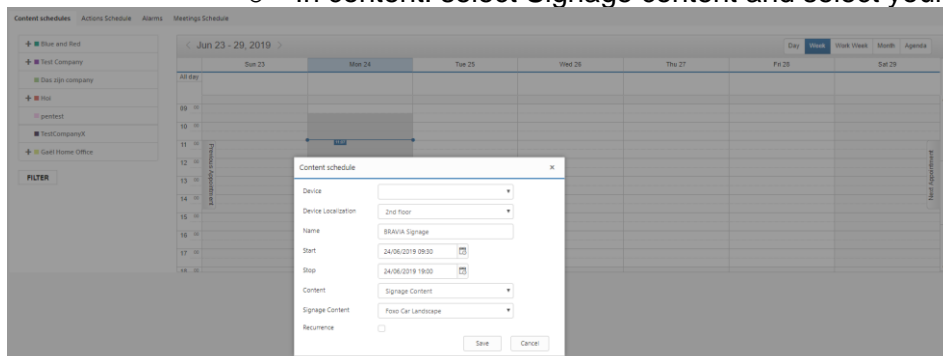
Go to administration , device management and select the device and hit the **update screen** button

 . The BRAVIA should update the screen with your BRAVIA Meeting configuration.

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