wePresent

WiCS-2100

User's Manual

Version: 09

Table of Contents

1 Overview

WiCS-2100 is an advanced wireless presentation system which optimizes the collaborative experience with more intuitive solutions. Among its outstanding features, the most distinguished ones are auto layout, enhanced cross-platform capability and advanced OSD control.

WiCS-2100 Feature Highlights:

Icon	Feature	Description
	MirrorOp (Sender)	MirrorOp Sender for Windows, Mac and Chrome ♦ Win: Windows 7/8/10 ♦ Mac: macOS 10.9 and above ♦ Chrome OS
	MirrorOp Presenter	High-quality presentation (Word, Excel, PowerPoint, PDF, Photo, Camera, Web Browser) via Android and iOS devices.
	MirrorOp Receiver (the SidePad Function)	Control the projecting PC or Mac via iOS or Android devices
	WebSlides	Broadcast slides to the audience (multiple login devices) via WiFi and web browser. ♦ Audience can save the projecting slides for taking notes. ♦ Access to WebSlides can be secured with a password.
	Auto Layout	Automatic arrangement of (up to 4) projected device screens in the display layout.
	AirPlay/ Google Cast Support	Device screens can be projected to the display directly via AirPlay or Google Cast.
	One to Many Distribution	Project the screen to up to four receiver devices at the same time. **(Please refer to MirrorOp Sender User's Manual.)**
	Moderator Preview & Control/Conference Control/Student Monitor	♦ The moderator can control who is projecting via OSD (on-screen display), web browser and MirrorOp Sender UI (User Interface). ♦ Thumbnail preview of all (up to 32) login senders' device screens is available on OSD and MirrorOp

		Sender UI.
	Remote Control/UMT (Universal Multi-Touch)	(Driverless) remote/touch control through network. [Support USB HID touch devices compatible with Windows 7/8/10]
	Plug & Show	You can create your own USB Plug & Show token (USB drive). Just plug the token into your PC/Mac, and a presentation can be started in seconds (no software installation is required).

Basic Features:

- WiFi 802.11 a/b/g/n/ac (switchable dual-band; 2.4GHz or 5GHz)
- Power over Ethernet
- Wireless screen/audio projection
- Support up to 32 concurrent login users
- Remote control
- Multi-touch support (UMT) - support USB HID touch devices compatible with Windows 7/8/10
- Multi-touch support (UoIP) - support USB HID touch devices compatible with Windows 7/8/10
- Extended desktop support for both Windows and Mac
- Web management (including the software download and device settings)
- Customizable standby screen: replace the entire standby screen image with any image of your choice)
- Provide session security login and WiFi WPA PSK/WPA2 PSK to protect presentation contents and maintain office network security
- HDMI video output
- Support the AP (Access Point)/Station/AP & Station mode
- Support SSDP discovery protocol

2 Package Contents

- wePresent WiCS-2100 (Base Unit)
- Power Adapter (DC +12V, 2A)

  [Manufacturer: Asian Power Devices Inc./Model: WA-24Q12R]
- Wall-Mount Kit
- Quick Start Guide
- Warranty Card
- CE DoC and Warning Statement

3 Physical Details

- ## Front

Standby Button and LED Indicator
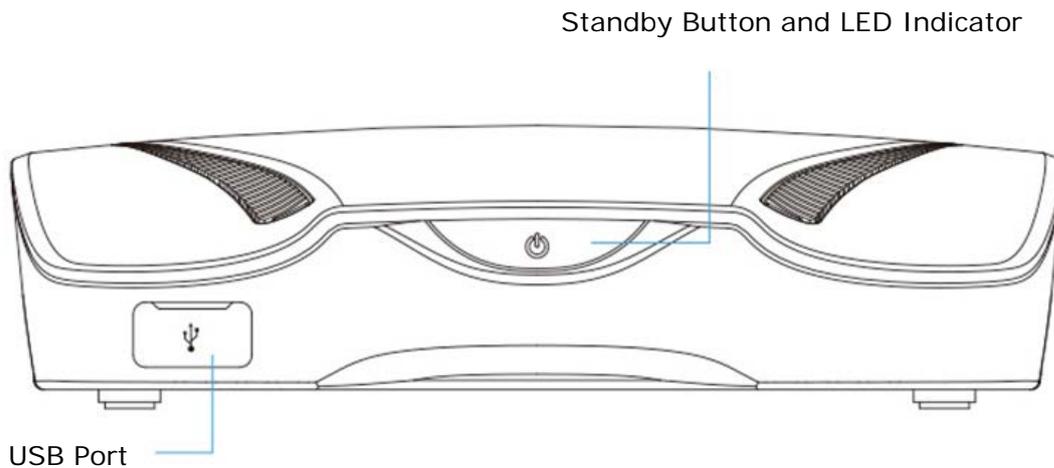
USB Port

	Description
Standby Button and LED Indicator	Standby button: press the button to enter the standby mode LED indicator: red – system loading; blue – system ready; breathing blue – standby mode
USB Port (Front)	USB host 2.0 port for USB thumb drive/mouse/keyboard/touch device

- **Rear**

Reset Button

Ethernet
Port

Power Jack

USB Port

HDMI
Port
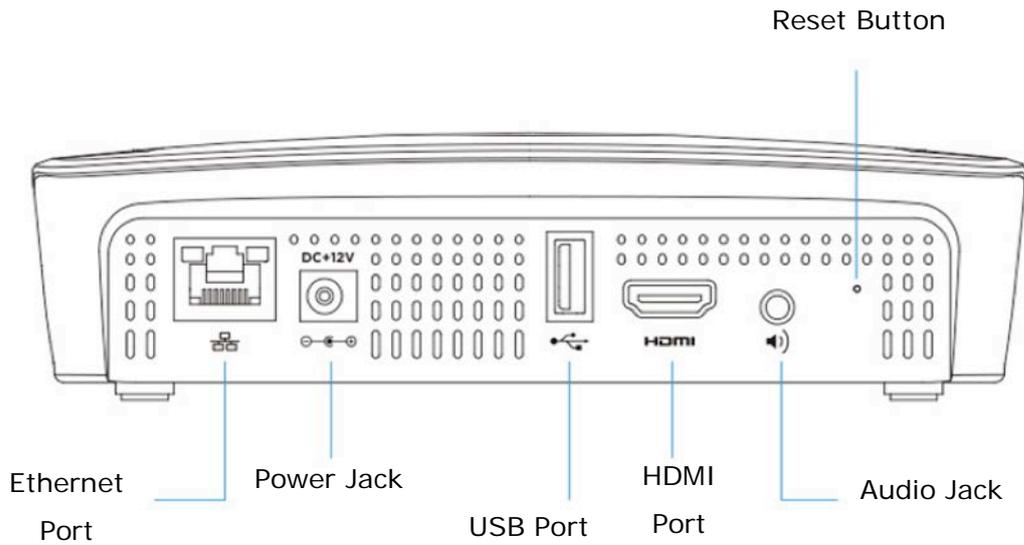
Audio Jack

	Description
USB Port (Rear)	USB host 2.0 port for USB thumb drive/mouse/keyboard/touch device
Ethernet Port	10/100/1000M RJ-45 port For PoE (Power over Ethernet)
HDMI Port	Standard-A, HDMI 1.4b output
Audio Jack	3.5mm audio jack, stereo analog output
Power Jack	DC 12V in
Reset Button	Power on the WiCS-2100, and long press the reset button for 8~10 seconds until the WiCS-2100 reboots.

Note:

(a) The function of the ITE (Information Technology Equipment) being investigated to IEC 60950-1 is considered not likely to require connection to an Ethernet network with outside plant routing, including campus environment; and

(b) The installation instructions clearly state that the ITE is to be connected only to PoE networks without routing to the outside plant.

4 What You (Might) Need

- Projector/display with HDMI interface (Required)
- Ethernet cable (Required if you want to disable the WiFi of the WiCS-2100)
- Windows or Mac computer
- Apple iPhone, iPad or iPod touch
- Android phone or tablet

- Speaker
- USB mouse/keyboard
- USB HID touch screen/IWB device

5 Hardware Installation

1) Connect the WiCS-2100 to the projector/display through the HDMI port and turn on the projector/display power.

2) Connect the power adapter to the WiCS-2100 to turn on the device. The system is ready when the LED indicator turns blue.
   * The default standby screen as shown below will be displayed when the system is ready.

3) If you disable the WiFi of the WiCS-2100, you need to connect the device to an existing IT network through an Ethernet cable.

4) Insert the speaker cable to the WiCS-2100 audio jack for enhanced audio output.

5) Attach the USB mouse/keyboard/touch screen to the WiCS-2100 front/rear USB port for OSD (On-Screen Display) control or remote control.
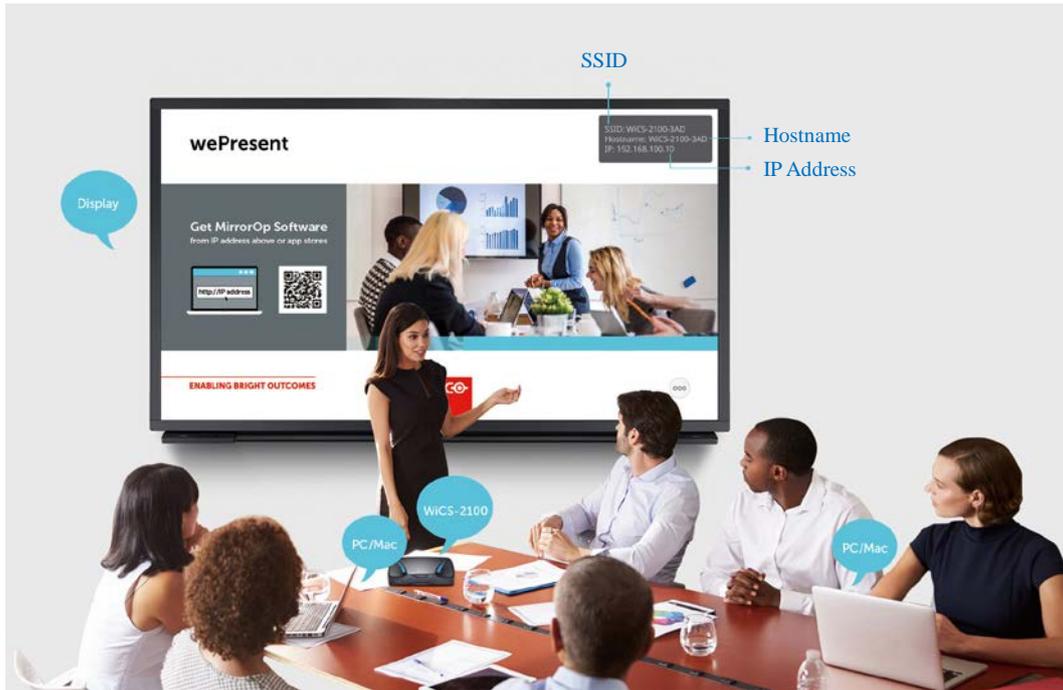
6 Download the MirrorOp (Sender) App

- Windows Phone/Windows RT not supported by MirrorOp

1) Make sure your PC/Mac is WiFi-enabled, and connect your PC/Mac to the WiCS-2100 through WiFi. You can find the WiFi network name (SSID) of your WiCS-2100 device on the standby screen of the projector/display. [Default SSID is WiCS-2100-xxx (xxx are the last three characters of the MAC ID shown on the bottom of the WiCS-2100)]

| Windows | Mac |

2) Open the browser of your computer, and enter the IP address or the device hostname in the address bar (URL bar) of the browser. You can find the IP address and hostname on the standby screen of the projector/display. [Default IP address is 192.168.100.10; default hostname is WiCS-2100-xxx (xxx are the last three characters of the MAC ID shown on the bottom of the WiCS-2100)]

3) You can see the "Home" page as below. Click "Portable Software" or "Installer" to download the portable version or installed version of the MirrorOp (Sender) app for Windows (Windows 7/8/10) or Mac (macOS 10.9 and above). [Please disable the "Smart Screen Filter" on the IE browser; otherwise you might not be able to download the app.]

Note:

The difference between the portable version and installed version of the MirrorOp Sender app lies in the following:

(a)   The installed version of the MirrorOp Sender app supports the **UoIP (USB over IP) and SidePad** features of the connected WiCS-2100 device, but the portable version does not. **[These differences only apply to Windows users.]**

- The UoIP feature of the WiCS-2100 allows users to remotely control the projecting PC from the display using "special" hand gestures. (Special hand gestures are used in some game apps and interactive whiteboard apps.)
- Please be aware that UoIP needs to be enabled in the settings of the MirrorOp Sender app before you use this function. **[MirrorOp Sender ->   ⚙   -> Preferences -> Advanced -> (Remote USB Support) -> Simulate as local USB]**

(b)   **The portable version of the MirrorOp Sender app can locate and connect to the target WiCS-2100 device automatically (if your PC/Mac and the WiCS-2100 are on the same intranet).** Guest users are recommended to download the portable version as they can start a presentation without any application installation or device discovery.

(c)   Internal users are suggested to download the installed version of MirrorOp Sender if there are a number of WiCS-2100 devices deployed on their company/school networks and they need to connect to different WiCS-2100 devices from time to time. If they use the portable version, the MirrorOp Sender app will automatically locate the original WiCS-2100 device (via which the MirrorOp Sender app was downloaded) and they may need to search for their target device manually.

4)   If you have installed the MirrorOp Sender app on your computer, you can click "Device Profile" to download an MOP file. The downloaded MOP file provides a quick way to connect to a predefined receiver. A user can double click on the MOP file, and it will connect to the predefined WiCS-2100 device automatically.

7 Standby Screen of the Projector/Display

The following information will be shown on the standby screen of the projector/display: (a) software download instructions; (b) code (login code/passcode) [if there is one (the login code is not required by default)]; (c) (device) hostname; (d) SSID (WiFi network name) **[Default hostname/SSID is WiCS-2100-xxx (xxx are the last three characters of the MAC ID shown on the bottom of the WiCS-2100 device)]**; (e) IP (address)
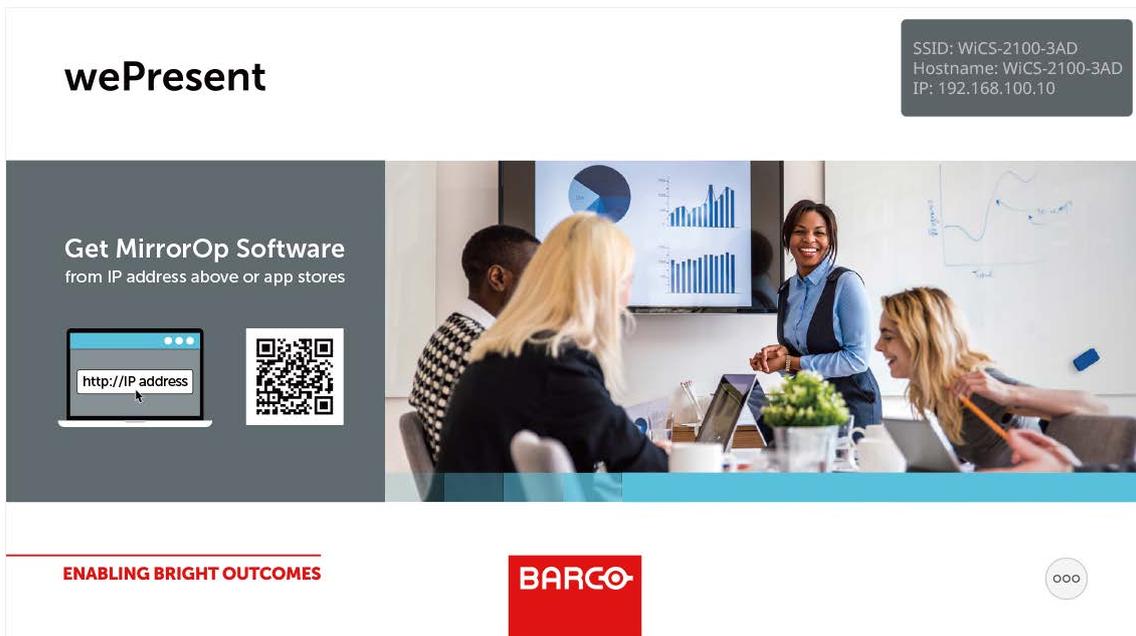
8 Main Button and Toolbar

8.1 Main Button, User-List Button and Toolbar in the Standby Mode

1) You can see a main button (⬮) on the lower right corner of the standby screen. Click on it, and you will see a toolbar as shown below.

Button	Description
⬇	Create a Plug & Show token (USB drive): copy the Plug & Show MirrorOp application (portable software) for Windows and Mac to the attached USB drive.*
🔒	Disable or enable moderation/conference control
📝	Whiteboard
⬚	Touchscreen Calibration: This option will be visible only if you long press the main button (⬮).** Use your finger to accurately touch the dots as they appear.

* Just insert the Plug & Show token (USB drive) into your PC/Mac, and a presentation can be started in seconds (no software installation is required).

** You may need to long press the main button (⬮) with a mouse, as the touchscreen may not respond to touch correctly before it is calibrated.

2) When any user logs in, you will see the user-list button 👤 located beside the main button. Click 👤 to enter the user list. The user list shows device names and device screens of all (up to 32) login users in thumbnail view.

3) Right above the user list, you will see the following icons:

Open/Close User List	Disconnect ALL Users	Stop All Projection	Next Page of User List	Previous Page of User List
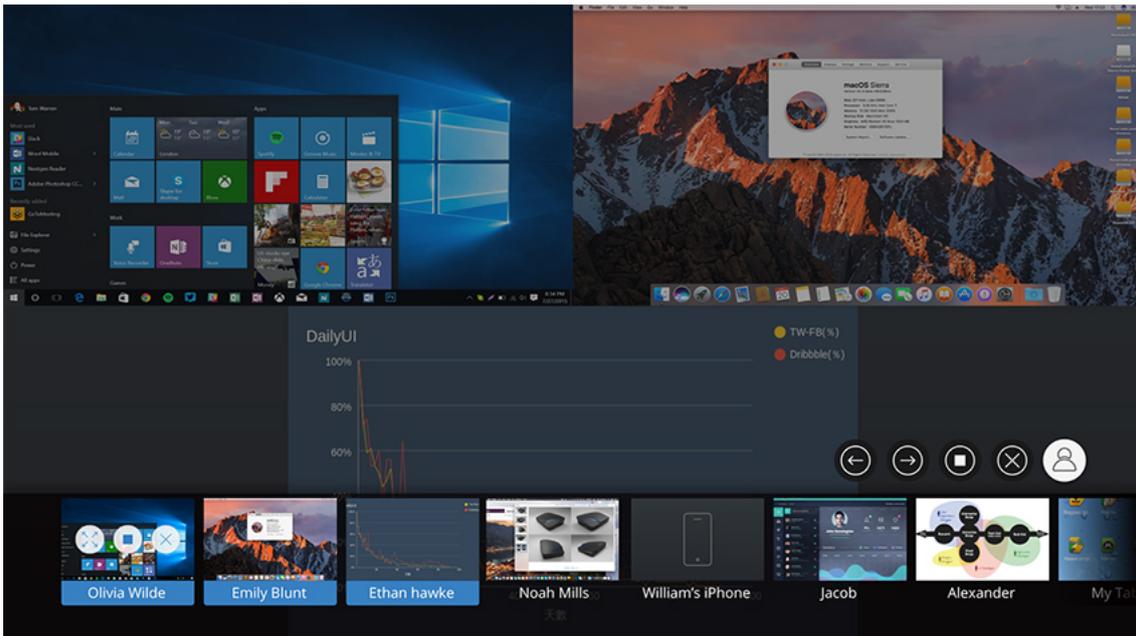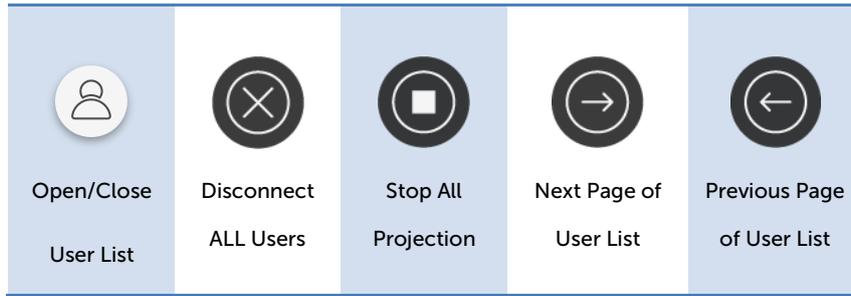
4) On each device thumbnail, you will see the following icons:

One device screen projected				
	Full Screen	Stop	Project	Disconnect

Multiple device screens projected					
	Auto Layout	Full Screen	Stop	Project	Disconnect
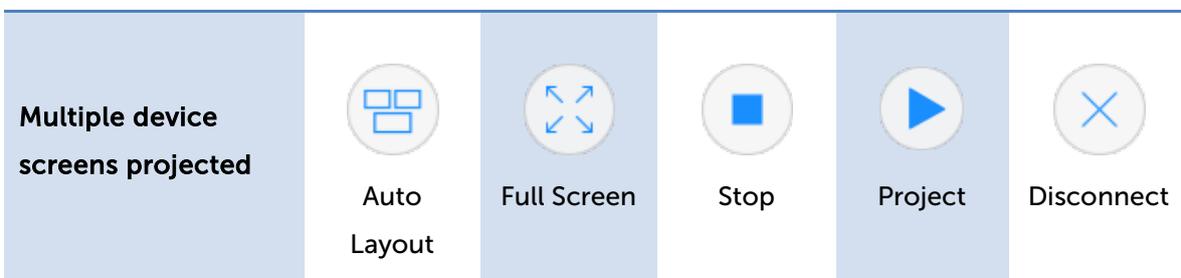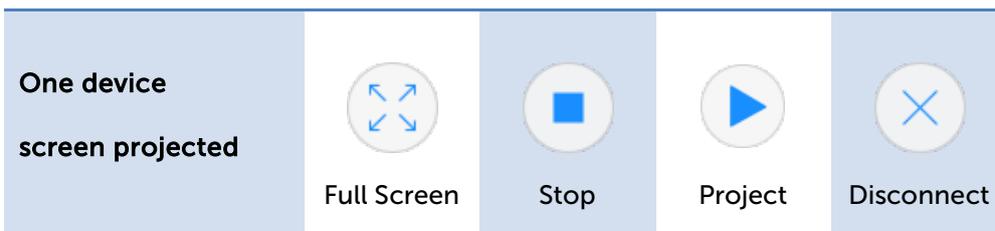
8.2 Toolbar in the Whiteboard Mode

Click on the ![icon] button to enter the whiteboard mode. You will see the following icons:

Marker Color	Marker Size	Eraser	Clear	Save Annotations*	Open File**	Exit

* Save annotations (the current image) as a JPG file to the attached USB drive. (You need to insert the USB drive into the Base Unit first.)

** Open a file from the attached USB drive.

8.3 Toolbar in the Projection Mode

When any user projects his/her device screen, the system will enter the projection mode. You will then see the following icons:

	Disable or enable moderation/conference control
	Save annotations as a JPG file to the attached USB drive (*You need to insert the USB drive into the Base Unit first.)
	Clear
	Eraser
	Marker (red, yellow, green, blue): to annotate in an opaque color
	Highlighter (yellow): to annotate in a semi-transpaernt color
	Remote control (Remotely control the projecting computer from the display)
	Pointer
	Whiteboard

8.4 Auto Layout

"Auto Layout" enables automatic arrangement of (up to 4) projected device screens in the display layout. This function is available when multiple device screens are projected to the display. Click the "auto layout" button ⊞, and the display layout will change automatically according to the number of projected device screens.

	1 device screen projected	2 device screens projected	3 device screens projected	4 device screens projected
Auto Layout	1	1 2	1 2 3	1 2 3 4

8.5 Remote Control/Remote Touch Control (UMT)

WiCS-2100 supports remote control, including remote touch control (UMT). Users can remotely control the projecting computer from the display via a mouse, keyboard or touch screen.

Note:

● The UMT (universal multi-touch) function can only support USB HID touch devices compatible with Windows 7/8/10. Therefore, when the operating system of the sender device is macOS, touch events on the projector/display screen are translated into mouse events on the screen of the sender device. [Please be aware that Windows 7 can only provide limited multi-touch capability for specific applications.]

● Each USB port on the WiCS-2100 device can supply up to 5V/0.5A power. Additional power supply is required if the attached HID device needs more power.

9 Web Management

9.1 Home Page

1) Make sure your PC/Mac is WiFi-enabled, and connect your PC/Mac to the WiCS-2100 device through WiFi. You can find the SSID (WiFi network name) of the WiCS-2100 on the standby screen of the projector/display. **[Default SSID is WiCS-2100-xxx (xxx are the last three characters of the MAC ID shown on the bottom of the WiCS-2100 device)]**

Windows   Mac

2) Open the browser of your PC/Mac, and enter the IP address or hostname of the WiCS-2100 in the address bar (URL bar) of the browser. You can find the IP address and host name on the standby screen of the projector/display. **[Default IP address is 192.168.100.10; default host name is WiCS-2100-xxx (xxx are the last three characters of the MAC ID shown on the bottom of the WiCS-2100 device).]**

   Note:
   If you want to enter the hostname in the URL bar, please put "https://" before the hostname, such as https://WiCS-2100-3AD.

3) You can see the "Home" page as below.
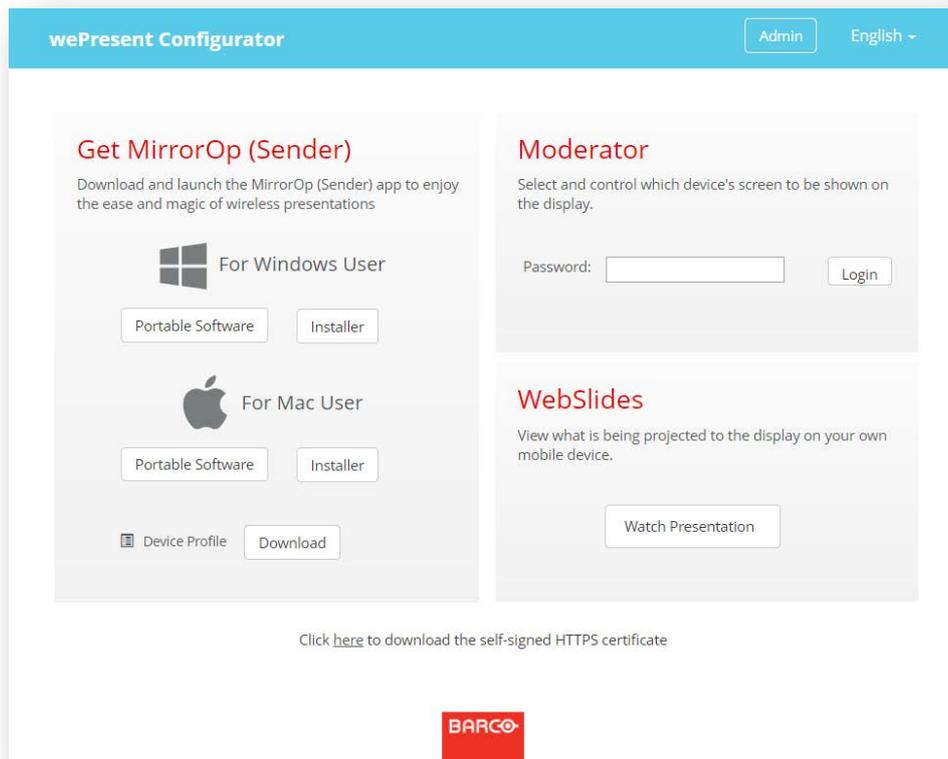
9.1.1 Get MirrorOp (Sender)

Please refer to **"6. Download the MirrorOp (Sender) app"**.

9.1.2 Moderator

1) Enter the password and then click "Login". **(Default password: moderator)**
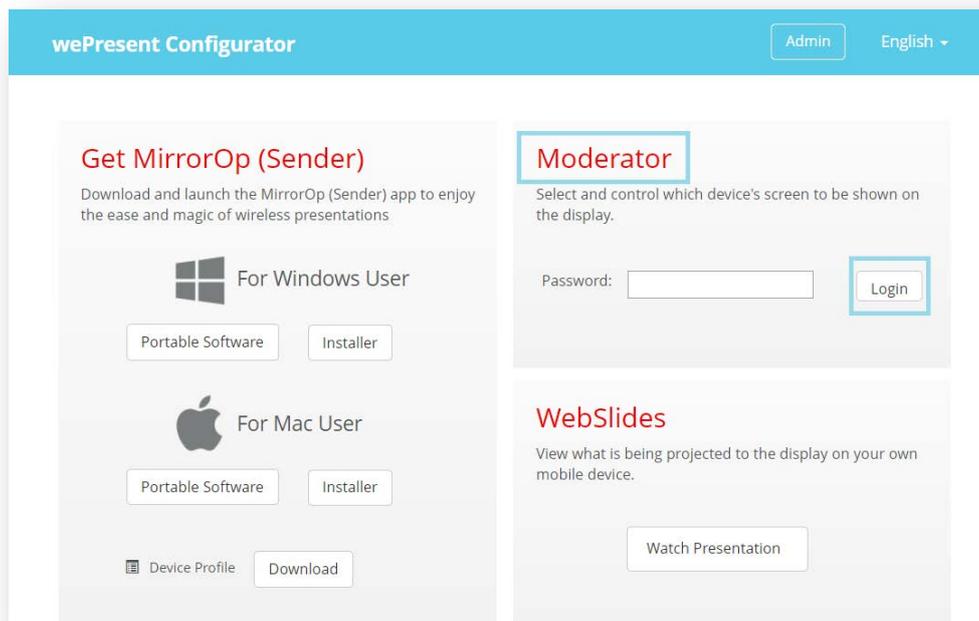
2) After login, you can see a user-list which indicates all the users connected to the WiCS-2100.

3) There are two columns: "Name" and "Play Control".

4) Play Control: (a) ▶ (project); (b) ⤢ / ▭ (full screen/auto layout); (c) ■ (stop); (d) ⊖ (disconnect).

5) Uncheck the "Allow control from this page only", and the web page moderator control will be disabled. Either users can project their screens to the WiCS-2100 freely, or the moderator control can be done via the on-screen user list.

6) Click "Show Login Code", and the login code (passcode) will be shown.

9.1.3 WebSlides

1) Click the "Watch Presentation" button to enter the WebSlides page. **(No password is required by default. Type the password if you have set one.)**
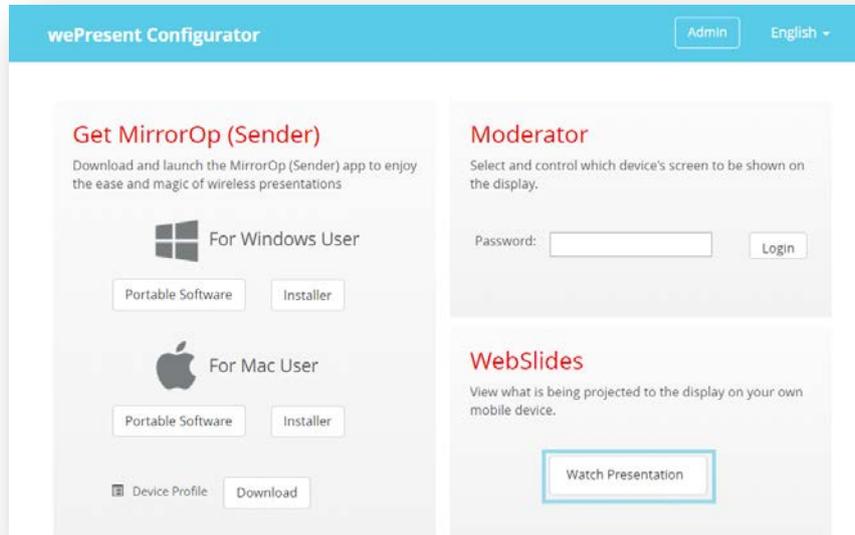
2) You can start to capture the current projecting screen.
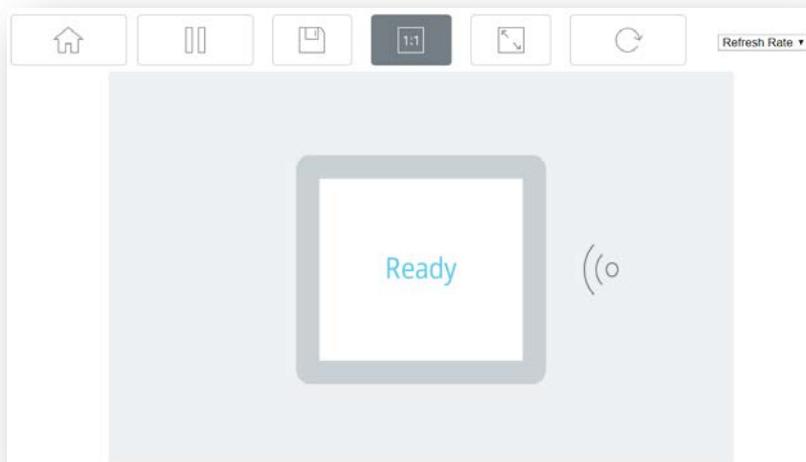
3) Please refer to **"13. Launch WebSlides"** for more information.

9.1.4 HTTPS self-signed certificate

1) When you enter the IP address or hostname of the WiCS-2100 in the URL bar of the browser, you will get a security warning message as shown below. If you want to avoid HTTPS security warnings like this, you can install a HTTPS self-signed certificate on your
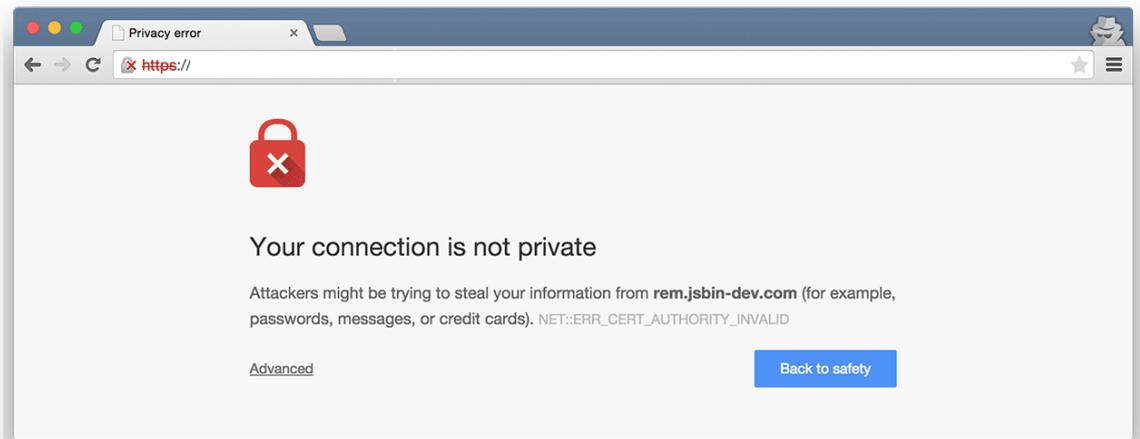
computer.

2) How to install the HTTPS self-signed certificate on your computer:

Below are the detailed instructions on how to install the certificate for the Chrome/IE/Edge browser on Windows. To see the instructions on how to install the certificate for the Safari/Chrome browser on macOS or for the Firefox browser, please go to https://www.barco.com/support/knowledge-base/kb8277

a) Download the self-signed certificate file from the Home page of wePresent Configurator.
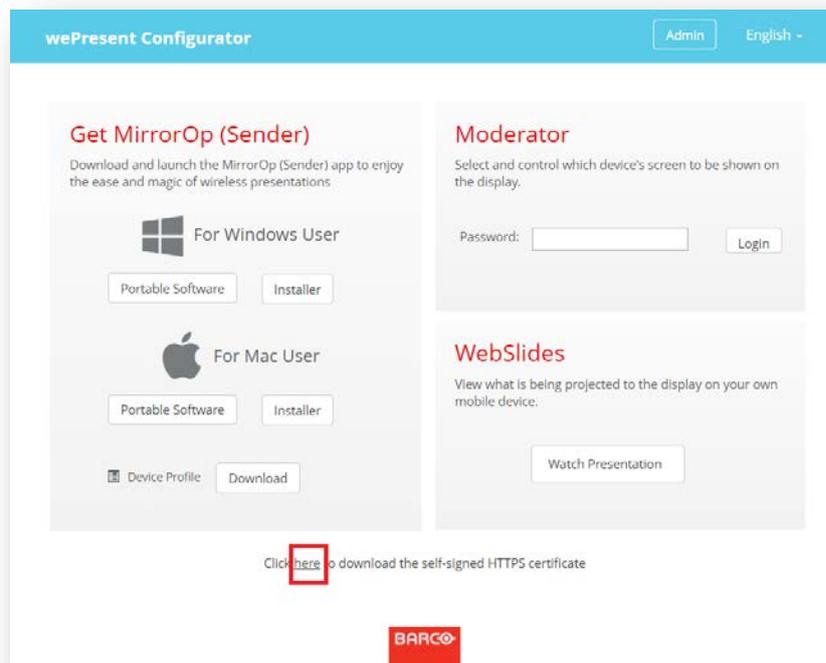
b) The file name is : wePresent_HTTPS_Certificate.der.

c) Double click the *.der file in your computer.

d) Follow the on-screen instructions to proceed.
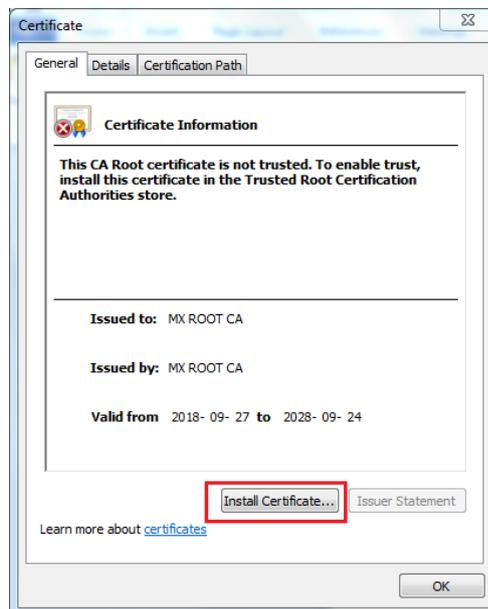
e) Please note that you should **check the option "Place all certificates in the following store" (and click "Browse")**, instead of the option "Automatically select the certificate store based on the type of certificate".
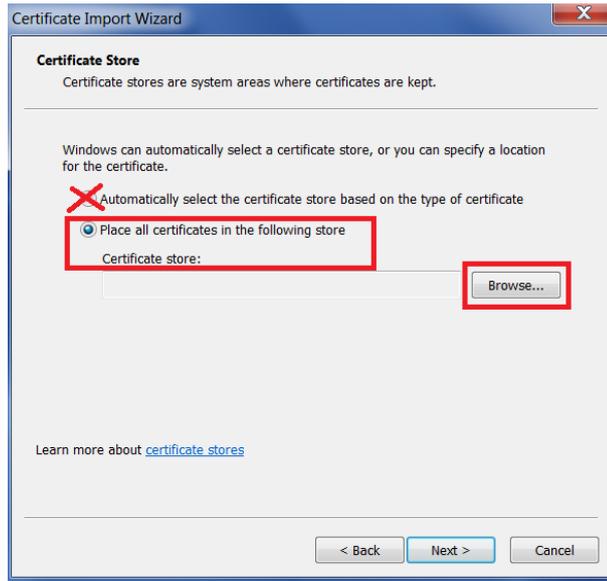
f) Make sure that you select **"Trusted Root Certification Authorities"** as the certificate store.
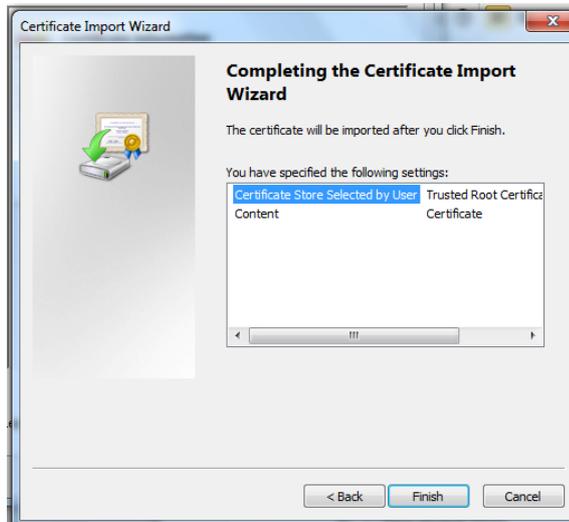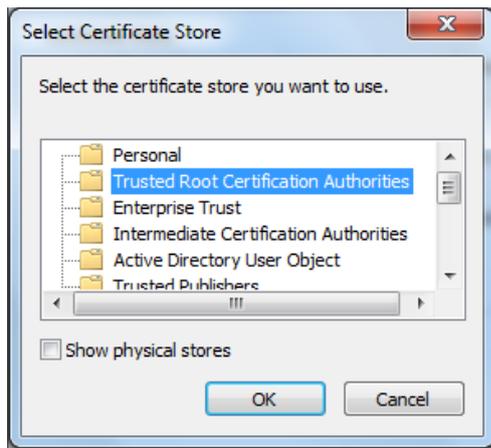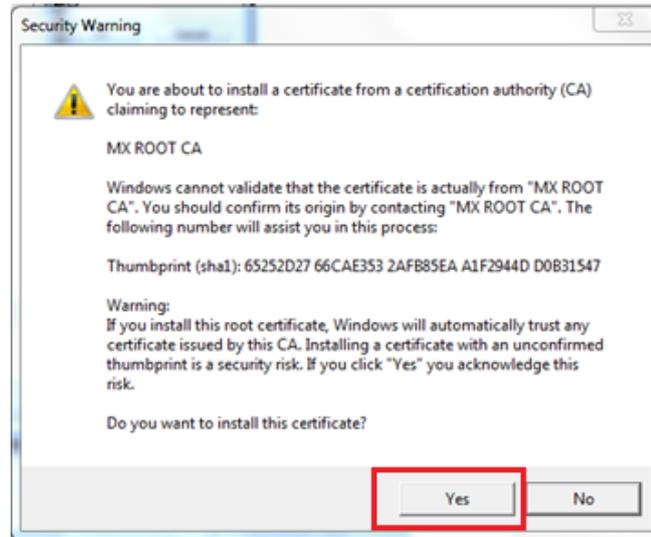
g) After the installation is complete, **please close and restart your browser**. The HTTPS security warnings will not appear (for WiCS-2100 v1.5 and later versions).

h) **Please note that you only need to install the certificate once for all WiCS-2100 devices.**

9.2 Admin Page (wePresent Configurator)

1) Click the "Admin" button on the upper-right corner of the Home page.
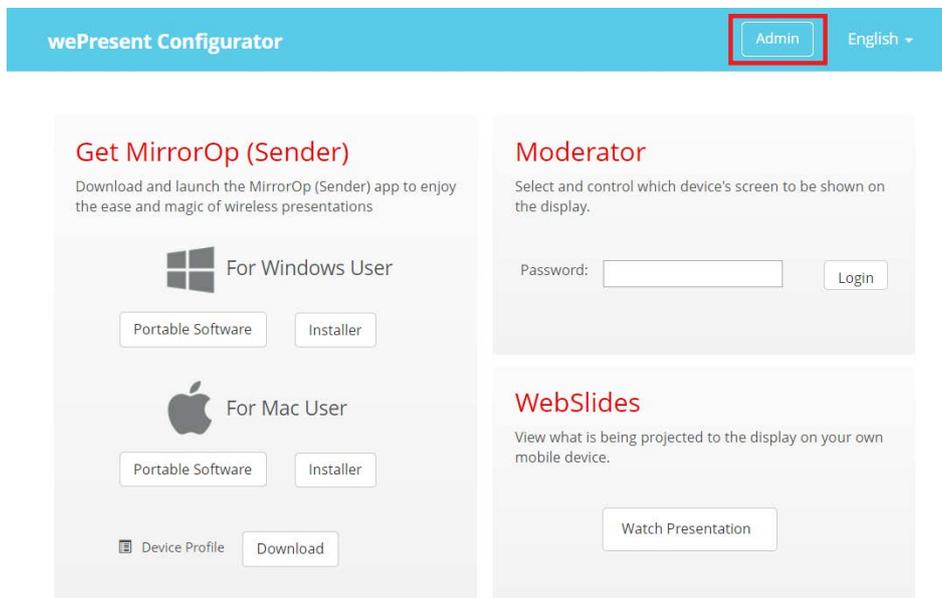
2) Enter the password and click "Log in" to log into the "Admin" (wePresent Configurator) page. **(Default password: admin)**

9.2.1 Personalization & Display

WiCS-2100 allows users to set up a custom standby screen image (wallpaper), SSID, hostname, login code (passcode), etc., in order to meet their personal and unique needs.

9.2.1.1 Wallpaper (Standby Screen Image)

1) In addition to the default wallpaper, you can add a maximum of 3 custom wallpapers in jpeg format.
2) Click on "Choose image" to browse and select the image file you want to upload.

3) If you want to delete the image file you uploaded, just click the button.

**Click "Save changes" to apply your new settings.
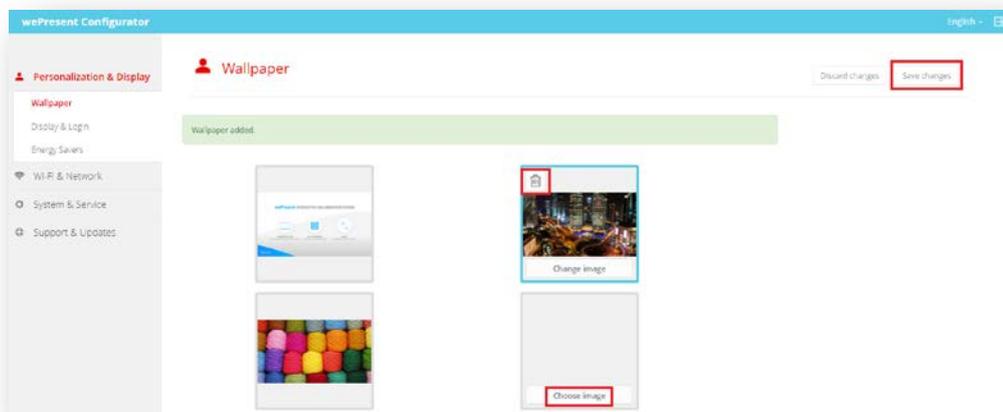
9.2.1.2 Display & Login

< Display >
● <u>Resolution</u> – Auto Detect/720p (1280x720)/1080p (1920x1080)/1200p (1920x1200) [The default value is "Auto Detect".]

< Login >
● <u>Login Code Option</u> – Disable/Random/Fixed [The default value is "Disable".] If you select "Fixed", you can set up your own login code (passcode).

Note: If a login code is set on the WiCS-2100 device, you will be asked for a passcode/password when projecting via MirrorOp or AirPlay. Please enter the same login code in the passcode/password dialog box. (No passcode/password is required when projecting via Google Cast.)

● <u>Connection Information</u> – Enable/Disable [The default value is "Enable".] "Connection Information" refers to the overlay information on the login code (passcode), SSID, hostname and IP address of the WiCS-2100. The overlay information will pop up (on the upper-left corner of the display) if a user connects to the WiCS-2100 when the WiCS-2100 is already in projection mode.
● <u>Display Timeout</u> – "Display Timeout" refers to how long the "Connection Information" will be shown on the display. [The default value is 10 (seconds).] You can set the value between 0 and 300 (seconds).

**Click "Save changes" to apply your new settings.
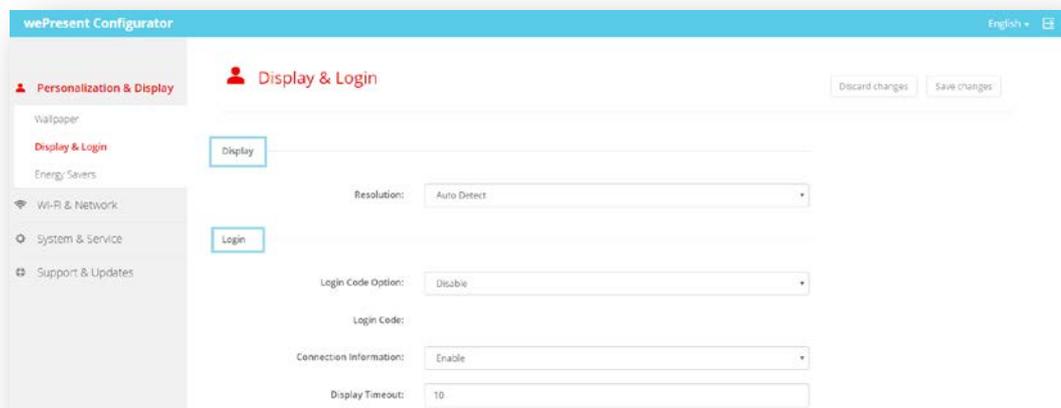
9.2.1.3 Energy Savers

1) If there is no user connection detected during the idle timeout period (the value should be at least "1" minute), the Base Unit will enter the selected standby mode.
2) The default value of the idle timeout period is "0" minute, which means neither the "ECO standby" mode nor the "Deep standby" mode is set by default.
3) In the "ECO standby" mode, only the display is off and the WiFi/network functions can still work. The Base Unit will wake up when a user connects.
4) In the "Deep standby" mode, the WiFi/network functions and the display are all off. The Base Unit will wake up only when the standby button on the Base Unit is pressed.

**Click "Save changes" to apply your new settings.
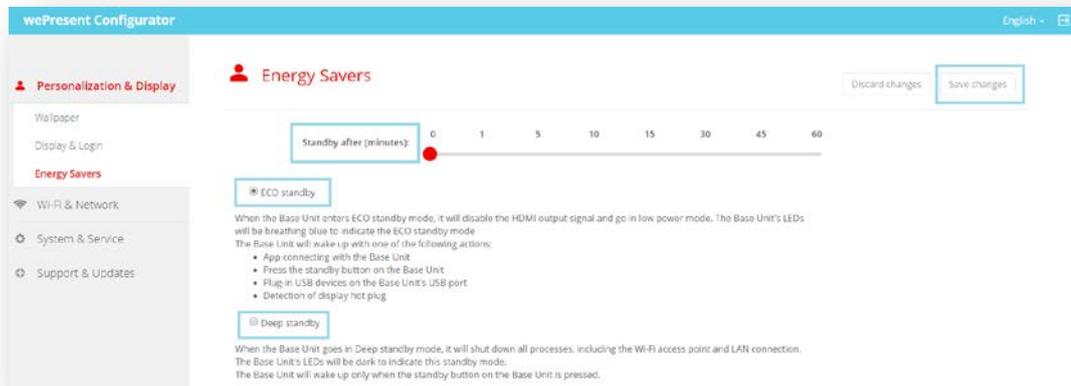
9.2.2 Wi-Fi & Network

WiCS-2100 can act as a dual band wireless access point, at 2.4GHz or 5GHz, enabling the broadcast of an additional wireless SSID signal on either bandwidth.

9.2.2.1 Wi-Fi Settings

You can select "AP Mode (Enable WiFi)", "Station Mode (Enable Station)" or both of them. **[The default value is "AP Mode (Enable WiFi)".]**

< AP Mode >
- SSID - You can change the default SSID. [The maximum length is 32 bytes.]
- Band – You can select "2.4GHz" or "5GHz". [The default value is "5GHz".]
- (802.11) Mode – The default value is "A/N/AC" (for 5GHz).
- Bandwidth – You can select "20MHz", "40MHz" or "80MHz". [The default value is

"20MHz".]

- Channel - The default value is "Auto" (you can also choose to set a fixed channel). The "Auto" option means that after the WiCS-2100 device is powered on, the system will scan all the wireless channels and select a clear channel automatically.

- Encryption - The default value is "None". [You can also choose any of the following: WPA-PSK, WPA/WPA2-PSK.]

- Encryption Key - If the "Encryption" function is enabled, you have to set the "Key" value according to the encryption mode you selected (you shall input the key of the external AP). If the length of the key entered is too short or long, a warning message will pop up.

- Broadcast - The default value is "Enable". [You can select "Disable" to hide your SSID].
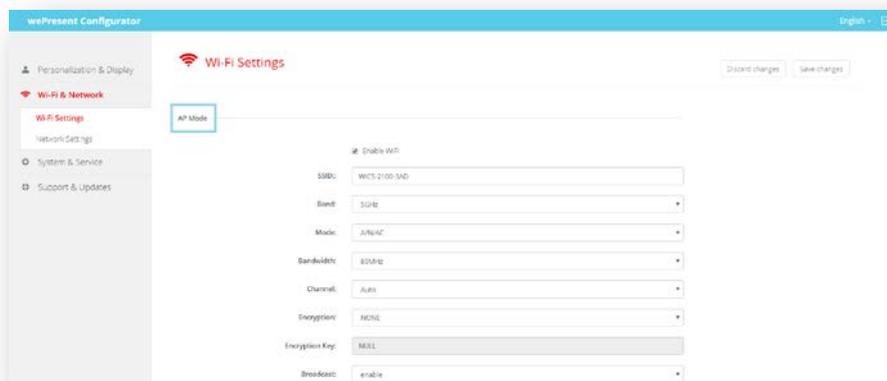
< Station Mode >

- If you check the checkbox of "Enable Station", you can set the values in the following fields: "Remote AP SSID", "Encryption", and "Encryption Key".

Note:

- You do not need to enable the Station Mode unless you want to connect to an external AP/an existing IT network (your company or school network). Once you enable the Station Mode, you will be required to enter the SSID of the external AP you want to connect to (in the field of "Remote AP SSID").
- The Encryption and Key information must be consistent to the existing AP configuration.

< AP & Station Mode >

If you check both "Enable WiFi" and "Enable Station", the "AP & Station Mode" is enabled.

**Click "Save changes" to apply your new settings.

9.2.2.2 Network Settings

< Operation Mode >
- You can choose "NAT Mode" or "Bridge Mode". [The default setting is "NAT Mode".]

< Hostname >
- You can set up a hostname for your WiCS-2100 device to distinguish it in the network. **[The default value is WiCS-2100-xxx (xxx are the last three characters of the MAC ID shown on the bottom of the WiCS-2100 device).]**

  Note:
  · **The hostname can only contain the characters A through Z, a through z, 0 through 9, and hyphen (-). All characters must be written without any space in between.**
  · **The hostname cannot start or end with a hyphen (-).**

< WAN IP (Auto if not checked) >
- The checkbox is unchecked by default.
- If you want to set a fixed WAN IP (a fixed device IP), you should enter the following values in the given fields: "IP address", "Subnet mask", "Default gateway" and "DNS server".
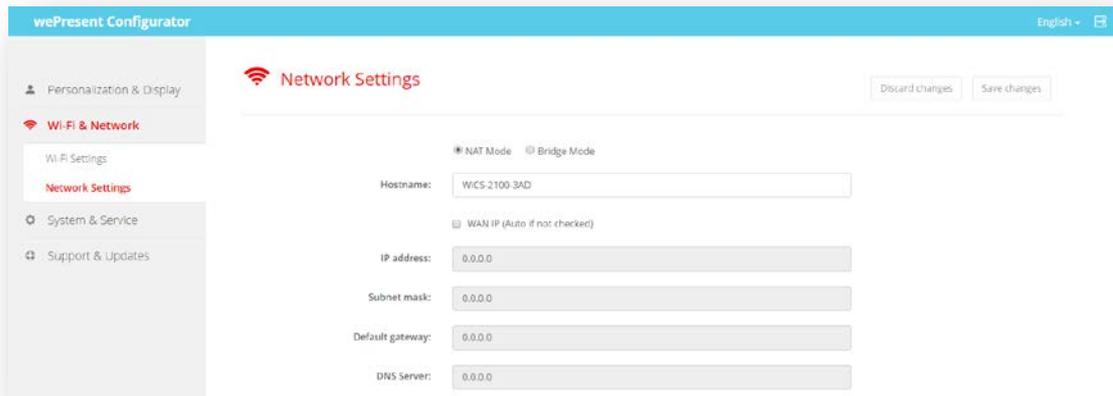
< DHCP Server >

- When the WiCS-2100 device is connected to a LAN that already has a DHCP server present, the WiCS-2100 device takes an IP address assigned to it by the server.

  ◆ **Host IP address:** The IP address of the WiCS-2100 Base Unit
  ◆ **Start IP:** The start IP address of the DHCP Server
  ◆ **End IP:** The end IP address of the DHCP Server
  ◆ **Subnet Mask:** The default value is 255.255.255.0
  ◆ **DNS Server:** The default value is 192.168.100.10

< Gatekeeper >

- Gatekeeper is designed for ensuring the office/school network security within the WiCS-2100 wireless presentation system.
  ◆ **All Pass**: Users connected to the WiCS-2100 can freely access all office/school networks and internet via the Ethernet cable or AP & Station mode.
  ◆ **All Block**: Users connected to the WiCS-2100 can only use the office/school network for presentation without internet or intranet access.
  ◆ **Internet Only**: Only port 80/443 is allowed for internet connection. Users connected to the WiCS-2100 can use the network for presentation and browsing web pages. However, users are prevented from accessing the office/school intranet.

< Enable wired 802.1X EAP authentication >

● The wired 802.1X EAP authentication is a port-based access control to enhance security in a wired network environment.

Note:
If you are unable to connect to the WiCS-2100 after you enable this option, there should be some error in your settings. To be able to connect to the WiCS-2100 again, you need to reset the WiCS-2100 to factory defaults (a hardware reset is required).

● Two EAP authentication methods are supported by the WiCS-2100 - PEAP and TLS:

♦ If you select the PEAP method, you have to enter an identity and a password.

♦ If you select the TLS method, you have to upload two certificates (user certificate and CA certificate) and a private key. You also need to enter a password (a passphrase) for the private key if required.

Note:

To activate 802.1X EAP-TLS authentication, you need to ensure that "start dates" of the user certificate and CA certificate are prior to May 1, 2019. Our advice is that you use the "-startdate" parameter to create the user certificate and CA certificate with start dates before May 1, 2019.

9.2.3 System & Service

WiCS-2100 allows users to project device screens not only via the MirrorOp apps but also directly via AirPlay/Google Cast. Besides, WiCS-2100 features the "WebSlides" function, enabling audience to view and save slides of the current presentation on their own devices.

9.2.3.1 System Information

The following information about your WiCS-2100 wireless presentation system will be shown on this page: (a) model name; (b) SSID; (c) hostname; (d) firmware version; (e) MAC address; (f) wireless MAC address.
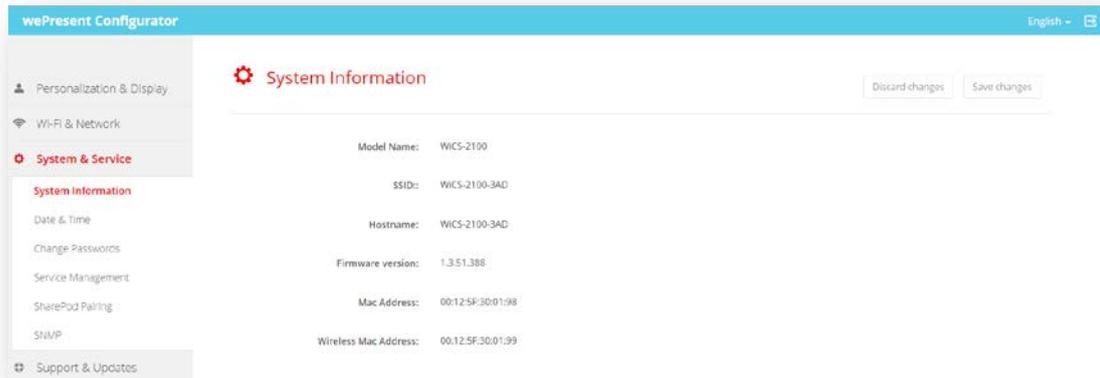
9.2.3.2 Date & Time

1) Current time: The current time according to the selected time zone is shown.

2) Time zone: You can select a time zone.

3) NTP server: You can enter an NTP server. [The default value is pool.ntp.org]

**Click "Save changes" to apply your new settings.

9.2.3.3 Change Passwords

< Enter Configurator/Moderator Password >

- You can change the passwords for "wePresent Configurator" (the "Admin" page) and "Moderator" by entering the old and new passwords in the given fields.

< WebSlides Setup >

- Access Password Control: You can select "Disable", "Same as Login Code" or "Fixed". [The default value is "Disable".]

- Access Password: If you choose "Fixed" for "Access Password Control", you need to set

an access password.

**Click "Save changes" to apply your new settings.

9.2.3.4 Service Management

< Base Unit >

● <u>Enable thumbnails for user list</u> – This refers to enabling the on-screen user list to show device screens of all login users in thumbnail view. [The checkbox is checked by default.]

● <u>Enable PresentSense for quick connection</u> – This refers to enabling the PresentSense function for your sender device (Mac/mobile device) to quickly detect and connect to the nearest wePresent unit. [The checkbox is checked by default.]

< Mobile Devices >

● <u>Streaming via Google Cast</u> – Check the checkbox to enable this function. [The checkbox is checked by default.]

● <u>Streaming via iOS mirroring</u> – Check the checkbox to enable this function. [The checkbox is checked by default.]

Note:

• **If a login code is set on the WiCS-2100 device, you will be asked for a password when you use AirPlay ("Streaming via iOS mirroring") on Mac or iOS devices. Please enter the same login code in the AirPlay password dialog box. (No passcode/password is required when projecting via Google Cast.)**

• **AirPlay and Chromecast (Google Cast) protocols do not support the moderator functions. After moderation (conference control/student monitor) is enabled,**

**users' attempts to connect to the WiCS-2100 via AirPlay or Google Cast will be
rejected. Thus, if you want to use AirPlay or Google Cast, you need to connect
your sender device to the WiCS-2100 before moderation is enabled. However,
once stopped, AirPlay/Google Cast projection cannot be restarted in the
moderation mode.**

< Management >

● <u>Enable REST API</u> – Check the checkbox to enable this function. [The checkbox is
checked by default.]

● <u>Enable SNMP</u> – Check the checkbox to enable this function. [The checkbox is checked
by default.]

**Click "Save changes" to apply your new settings.
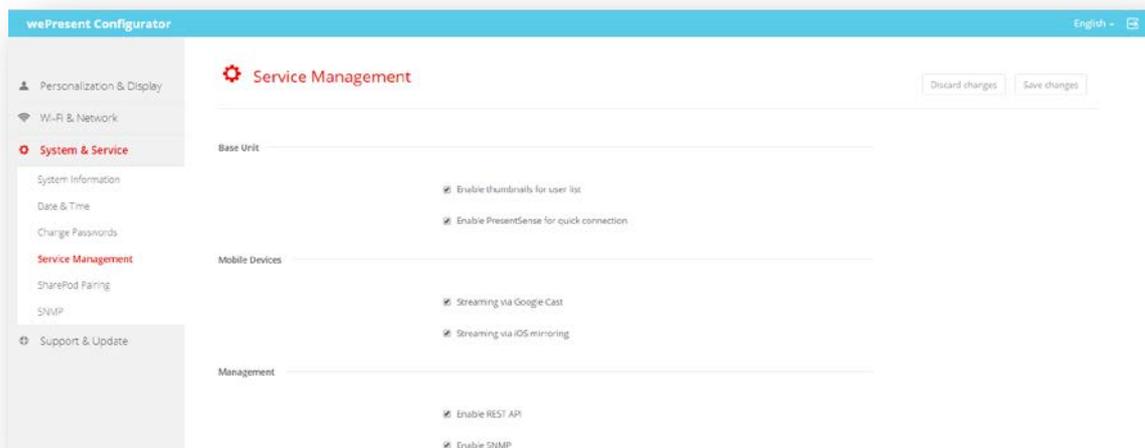
9.2.3.5 SharePod Pairing

● Choose "Apply wePresent's WiFi settings" or "Apply the following WiFi settings".

● <u>SSID</u>: If you choose "Apply the following WiFi settings, manually enter the SSID to
which the SharePod should connect.

● <u>Encryption</u>: The default setting is "NONE". If you have entered the SSID (to which the
SharePod should connect) manually, you can also choose "WPA-PSK" or "WPA/WPA2
PSK".)

● <u>Encryption Key</u>: If the "Encryption" function is enabled, you have to set a key value
according to the encryption mode you selected.
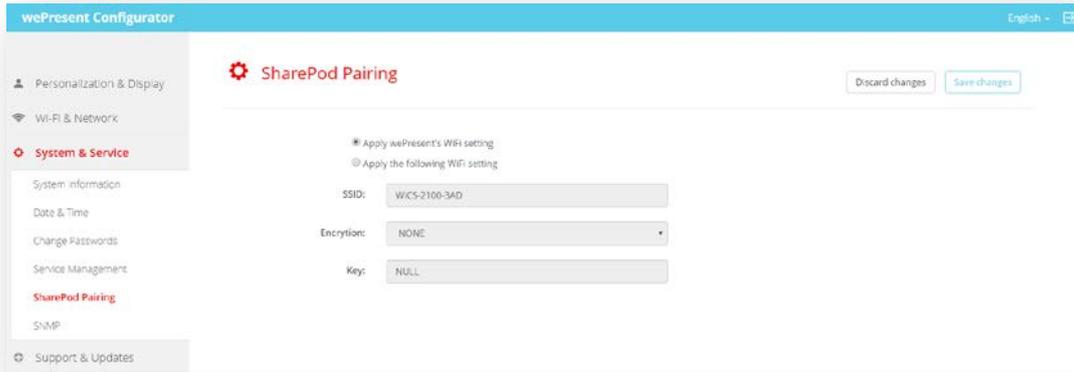
9.2.3.6 SNMP

< SNMP v3 >

- <u>Username</u>: You can configure the user name to manage this device via SNMP. [Default username: admin]
- <u>Auth Password (MD5)</u>: You can configure the Auth password. [Default password: Authadmin]
- <u>Priv Password (DES)</u>: You can configure the Priv password. [Default password: Privadmin]
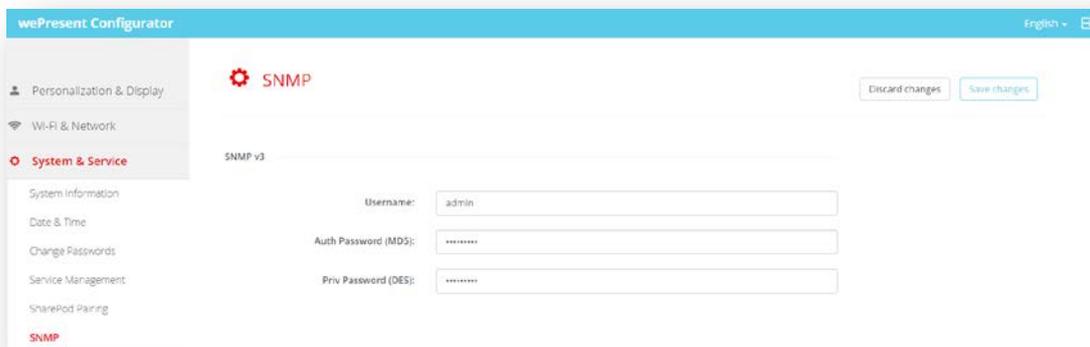
Note: You can download the SNMP MIB file from
   https://www.barco.com/en/support/wepresent-wics-2100/drivers

9.2.4 Support & Updates

wePresent releases a new firmware for WiCS-2100 from time to time. You can make manual firmware updates or request automatic firmware updates. You can also choose to reset your WiCS-2100 device to factory default settings.

9.2.4.1 Firmware Updates

< Automatic Firmware Updates >

- Click on "Check now for updates" to check immediately if new firmware versions are available.
- To use a schedule, check the checkbox in front of "Check on schedule" and select the desired time slot (when the Base Unit is not in use).

< Manual Firmware Updates >

- Click on "Upload firmware" to browse and select the file you want to upload.
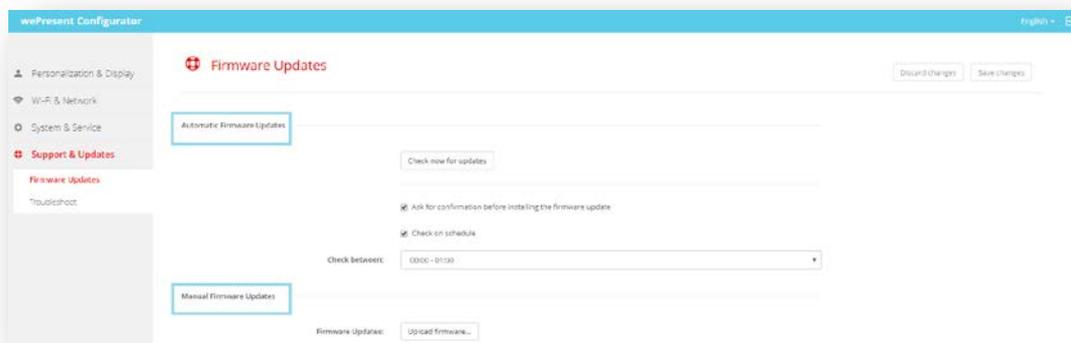
9.2.4.2 Troubleshoot

1) Factory Defaults: Click "Reset to factory defaults", and then your WiCS-2100 device will be restored to factory default settings.
2) Reboot Base Unit: Click "Reboot", and your WiCS-2100 device will be rebooted.
3) Logging: To create a debug log, check the checkbox in front of "Enable debug logging".
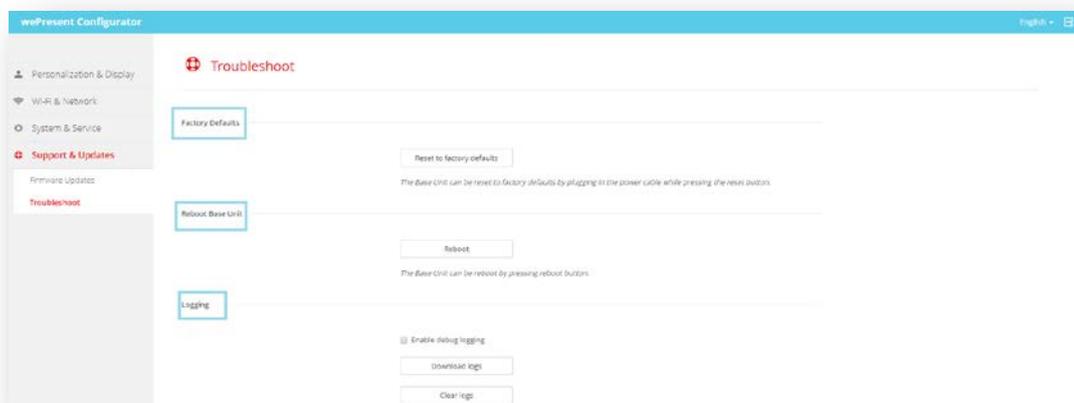
9.2.5 Log out of Admin Page

Click the ⬚ icon on the upper-right corner of the screen, and then you can log out of the

Admin page/wePresent Configurator.
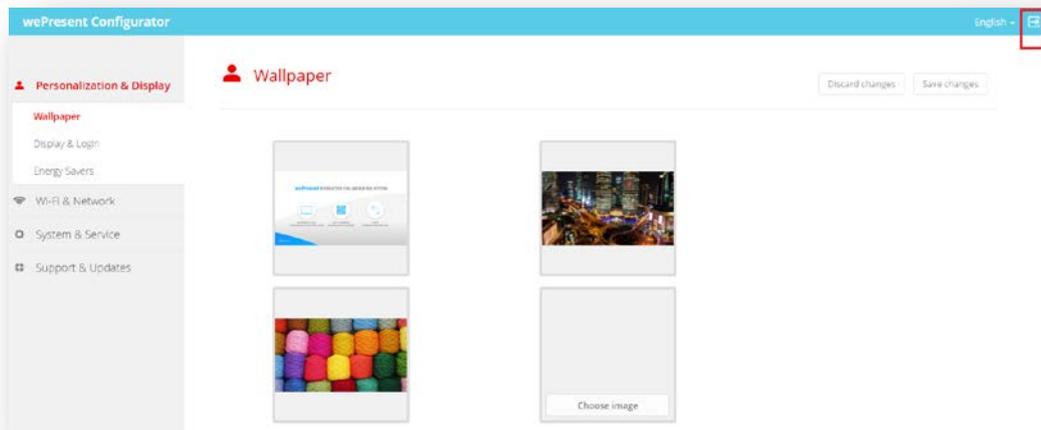
10 Using MirrorOp (Sender) to Start Projection

10.1 Start the MirrorOp application

1) After the MirrorOp app download is complete, launch the app and it will locate/search for the WiCS-2100 device automatically. (If not, you can click [icon] or input the hostname/IP in the text box to connect to the device.) Select the WiCS-2100 device you want to use and click "Connect".
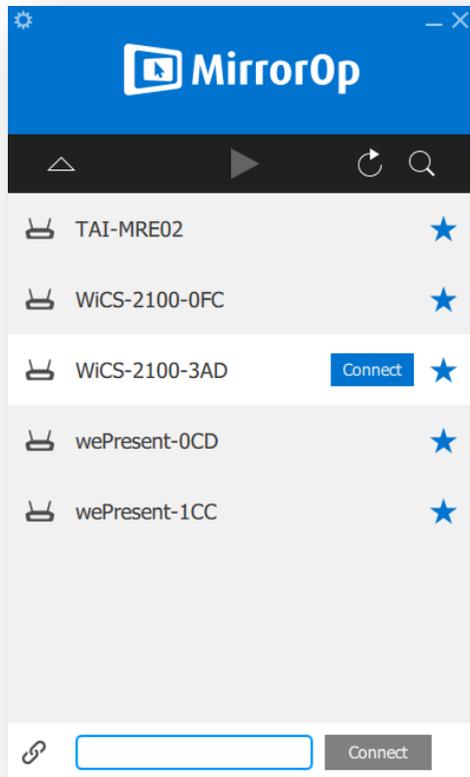
2) You will see the user interface of MirrorOp as shown below. Click [icon] and start sharing your screen.
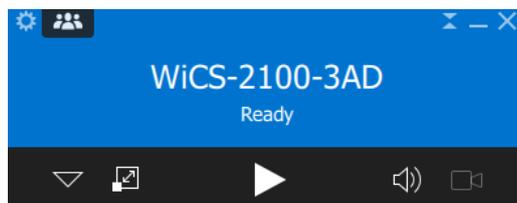
10.2 Main User Interface of MirrorOp (Sender)

Student Monitor   Collapse/Expand the Info Panel   Minimize the User Interface

Preferences Settings

Exit/Close the Application

Expand/Collapse Device List

Auto Layout/ Full Screen   Start/Stop Projection   Mute/Unmute (audio output)
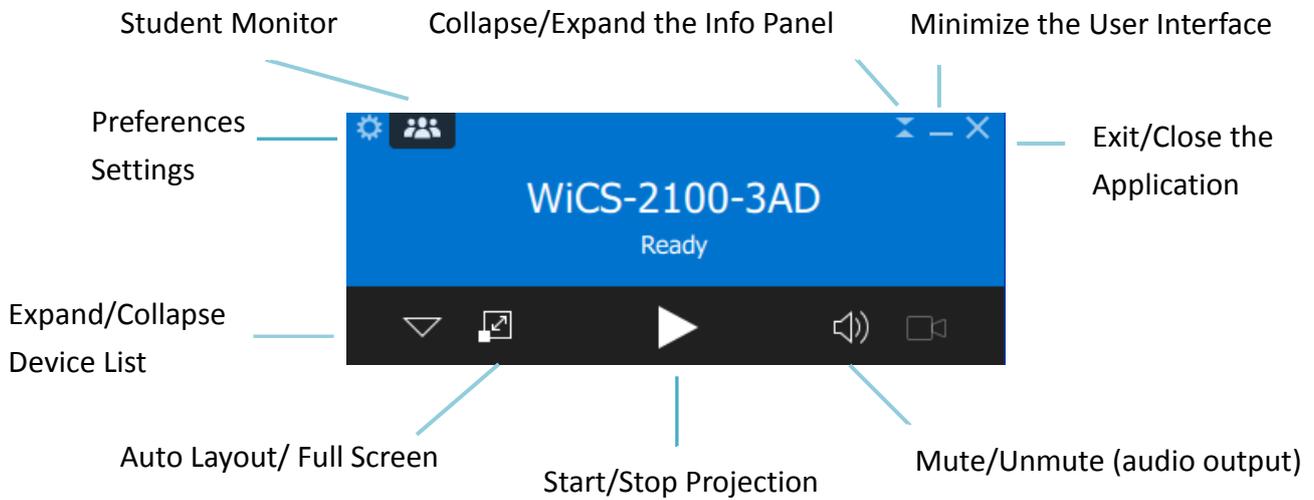
10.3 A Complete User's Guide on MirrorOp (Sender)

1) For a complete user's manual on MirrorOp (Sender), click the "Settings" icon ⚙ on the upper-left corner of the info panel. Then, click "About" in the menu bar.
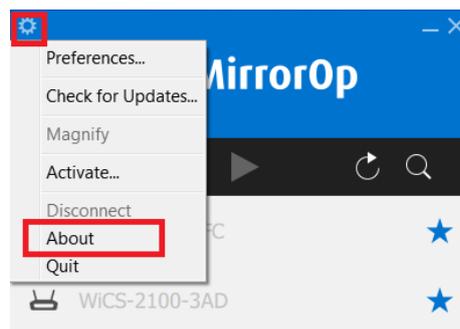
2) Click "Get Help" on the lower-right corner of the screen, and then you can view the "MirrorOp User's Manual".

Note: You can also download the User's Manual for MirrorOp (Sender)
from https://www.barco.com/en/product/wepresent-wics-2100.

11 Moderator Preview & Control

Moderator actions can be performed in various ways. **In particular, WiCS-2100 supports a new feature called "Student Monitor", which is moderation via MirrorOp Sender UI.** "Student Monitor", designed especially for the education, allows teachers to easily stay in control of the class while encouraging student interaction and collaboration to the greatest extent possible.

Plaese note that AirPlay and Chromecast (Google Cast) protocols do not support the moderator functions. After moderation (conference control/student monitor) is enabled, users' attempts to connect to the WiCS-2100 via AirPlay or Google Cast will be rejected. Thus, **if you want to use AirPlay or Google Cast, you need to connect your sender device to the WiCS-2100 before moderation is enabled. However, once stopped, AirPlay/Google Cast projection cannot be restarted in the moderation mode.**

11.1 On-Screen Moderation:

Moderator preview & control can be done directly on the display. Once senders are connected to the WiCS-2100, the moderator can view the thumbnails of senders' device screens right on the display. Besides, the moderator can execute the control actions by simply clicking the icons on each thumbnail. **(Please refer to the section "8. Main Button and Toolbar".)**

11.2 Web-Based Moderation:

Moderator control is one of the functions you can perform through the web admin page. However, thumbnail preview is not available for the web-based moderator. **(Please refer to the section "9.1.2 Moderator".)**

11.3 "Student Monitor" (Moderation via MirrorOp Sender UI):

"Student Monitor" enables moderator preview and control from a Windows/Mac sender (teacher). With this feature, monitoring and moderation can be done directly via the MirrorOp Sender UI (User Interface) on a teacher's Mac/Windows computer. In

other words, through the MirrorOp Sender UI, a teacher can use his/her Mac/Windows computer to preview and control all students' device screens before they are projected to the display. **As moderation and monitoring can be performed with ease and without interfering too much in student group activities, "Student Monitor" is a great tool for creating a dynamic but orderly classroom.**

Below is the detailed information about "Student Monitor":

1) **Moderator/Teacher Login:**

A crowd icon [icon] will appear on the upper-left corner of the MirrorOp Sender Info Panel after your sender device is connected to the WiCS-2100. Click the icon and enter the password **(default password: moderator)** to log into **"Student Monitor"**. Once you have logged in, the white crowd icon will turn blue.
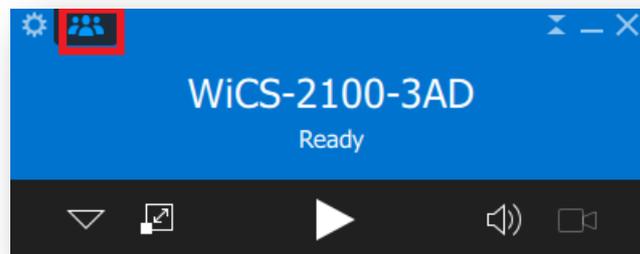
2) **Moderator/Teacher Preview and Control:**

After logging into "Student Monitor", you will see the thumbnails of connected senders' device screens in the moderator window. This gives you a preview of what to expect. In addition to the thumbnail preview, you can perform the control functions by clicking the following buttons.

- <u>Thumbnail Control</u>:

Project	Stop	Full Screen	Auto Layout	Disconnect
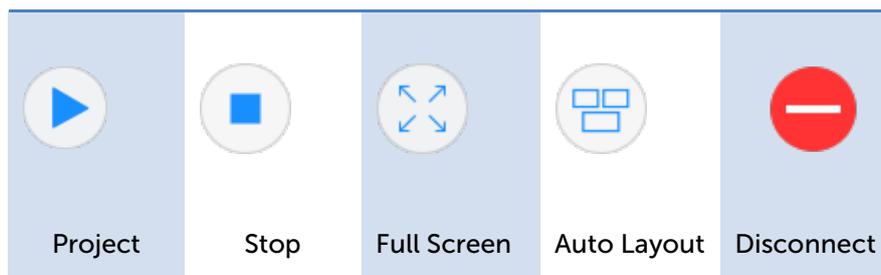
- Disconnect All:

  Click the "Disconnect All" button on the upper-right corner of the moderator window, and you will disconnect all users except yourself (moderator/teacher) from the WiCS-2100.

- Connection Info:

  Click [i] on the upper-left corner of the moderator window, and you will see the IP address of the receiver device (WiCS-2100). In order for others to connect to the WiCS-2100 when it is in the projection mode, just click on [Show Connection Info], and all the connection information, including login code (if there is one), SSID, hostname, IP address of the WiCS-2100, will be shown on the display.

3) **Moderator/Teacher Logout:**

   If you want to log out of "Student Monitor", just click on [LOGOUT] or simply close the moderator window.
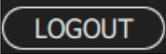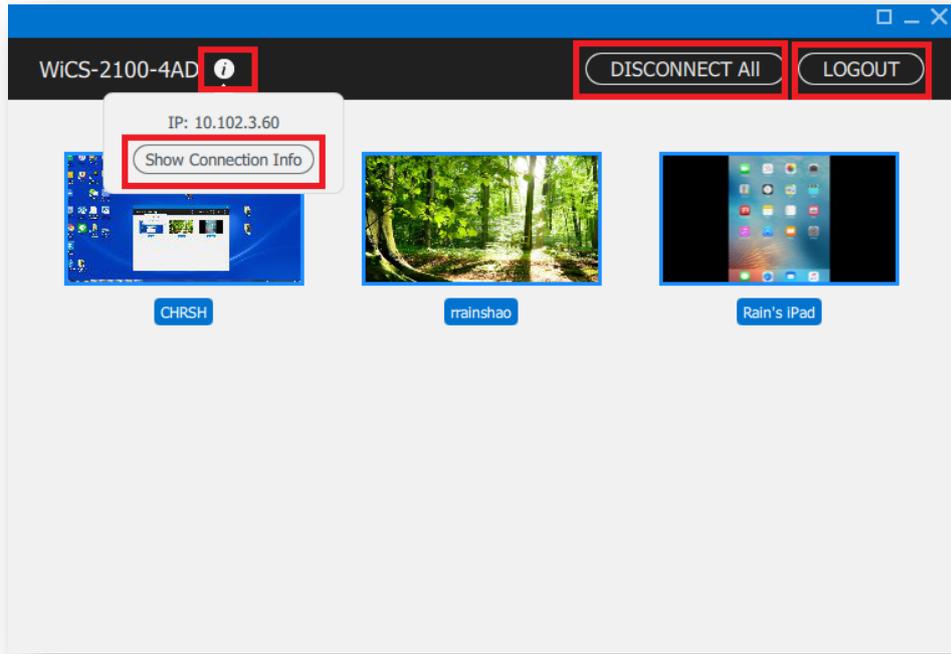
12 Use the SidePad Function with MirrorOp Receiver

1) **Introduction:** SidePad is a feature that allows controlling the presenting PC/Mac from an iOS/Android device running the MirrorOp Receiver app.

Display

HDMI/VGA Cable

Tablet/Smartphone

(Remote Control)

PC/Mac

(Projection)

WiCS-2100

(Projection)

2) How to use the SidePad function:

A. **PC/Mac with the MirrorOp (Sender) app installed**

- Click the "Settings" icon on the upper-left corner of the info panel.

  Then, click "Preferences" in the menu bar.
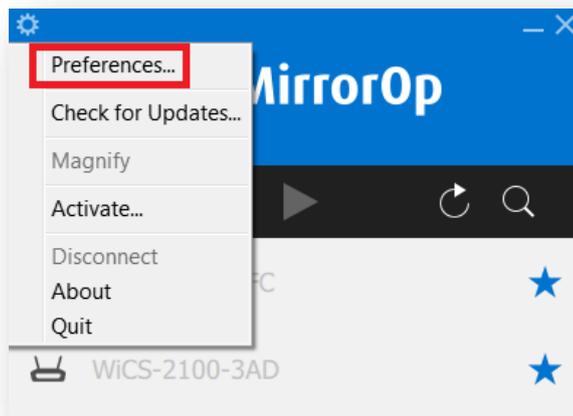
- Check "Allows controlling from tablets".
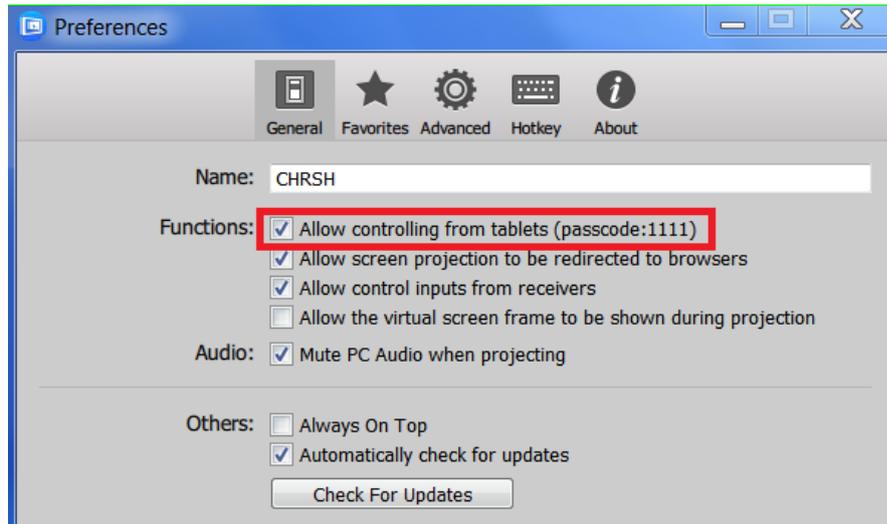
- Set the passcode. [Default passcode: 1111]
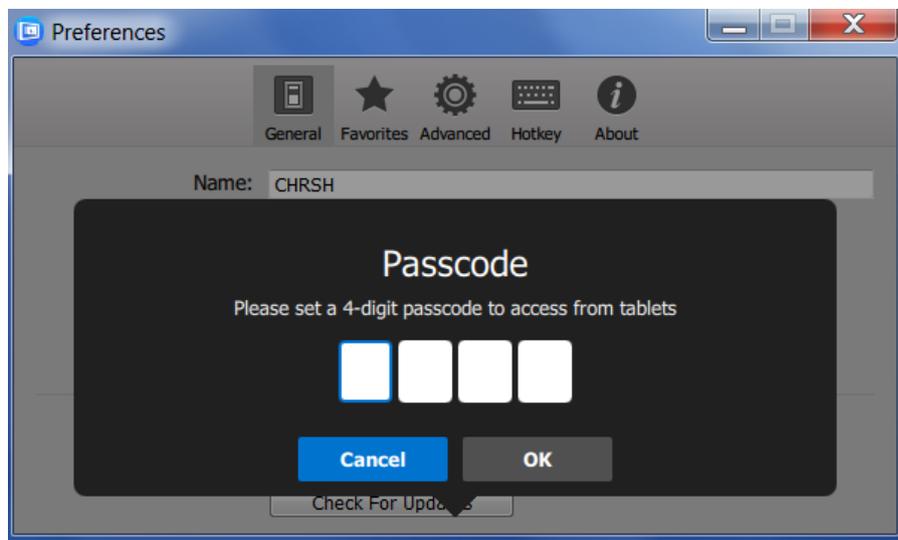
B. Tablet/Smartphone with the "MirrorOp Receiver" app installed

Android

- Install the "MirrorOp Receiver" app from the Google Play store.
- Open the "MirrorOp Receiver" app. Press the menu button on the upper-right corner of your Android device, and click "Settings".
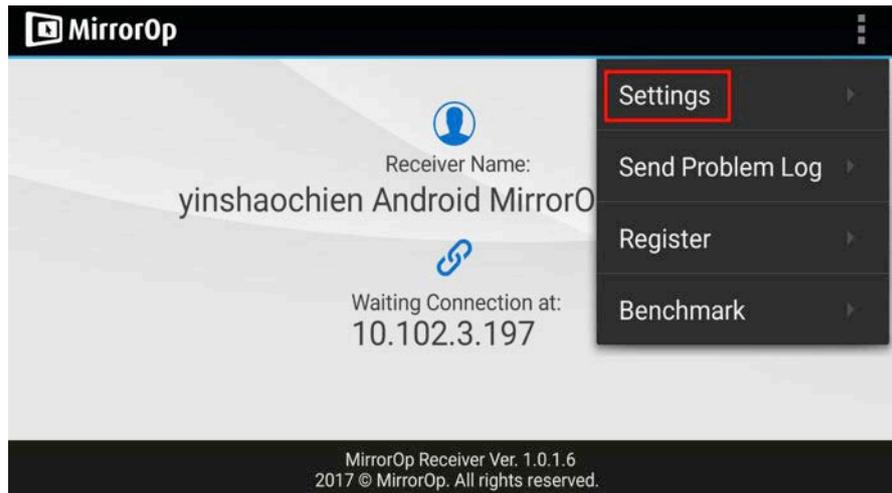
- Check "Search for senders on start".
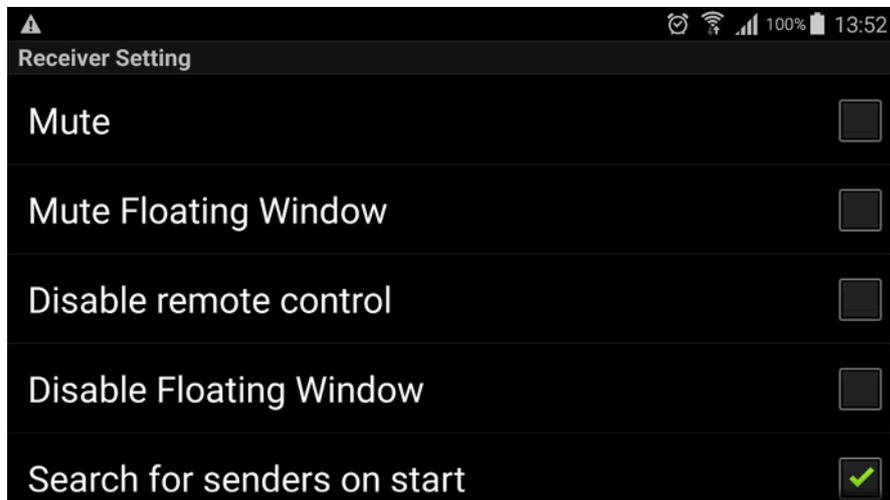
- Close MirrorOp Receiver and re-open it.
- You will see the name of the PC/Mac with the MirrorOp (Sender) app installed.
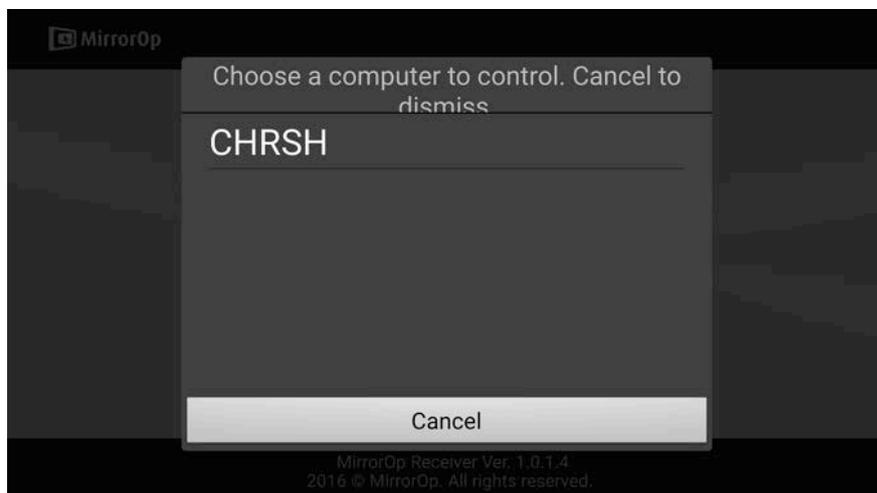
● Select which PC/Mac you want to control and enter the passcode you set earlier.
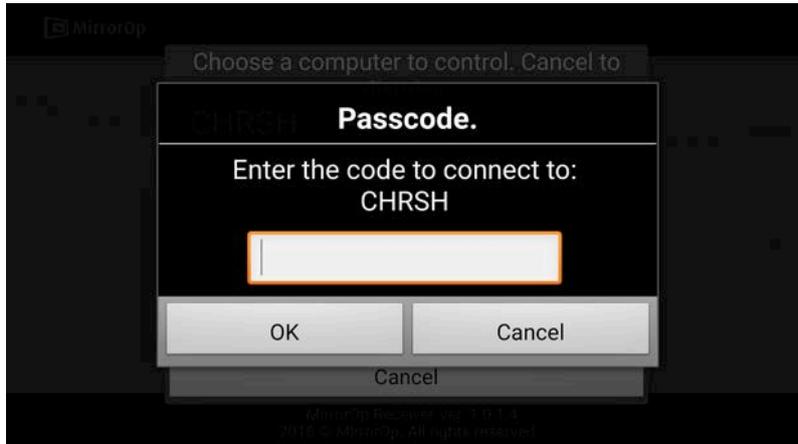
● Now you are able to remotely control the Mac/PC from your tablet/smartphone.

iOS

● Install the "MirrorOp Receiver" app from the Apple App Store.

● Go to "Settings" on your iOS device, and click "(MirrorOp) Receiver".
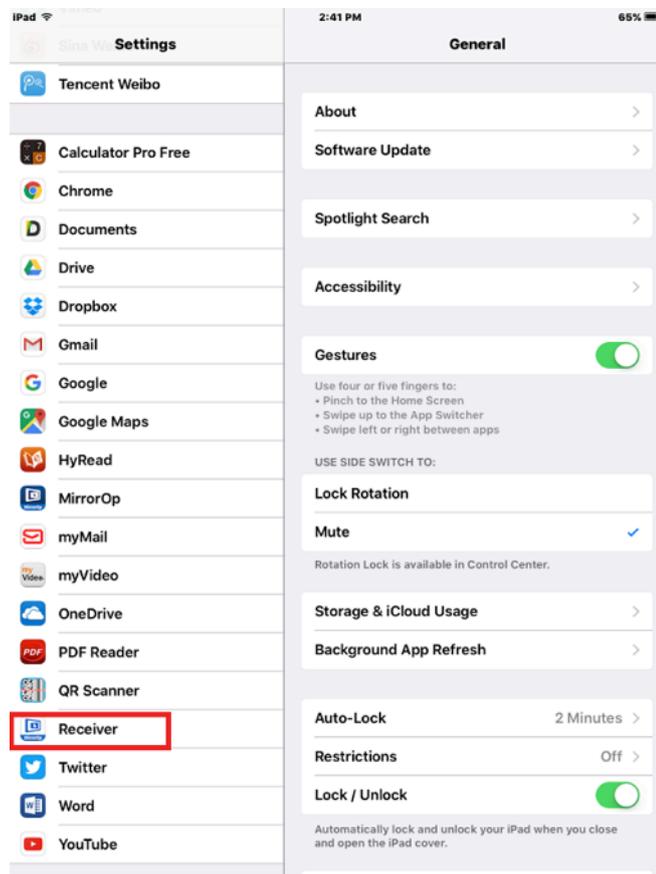
- Enable "Search for senders on start".
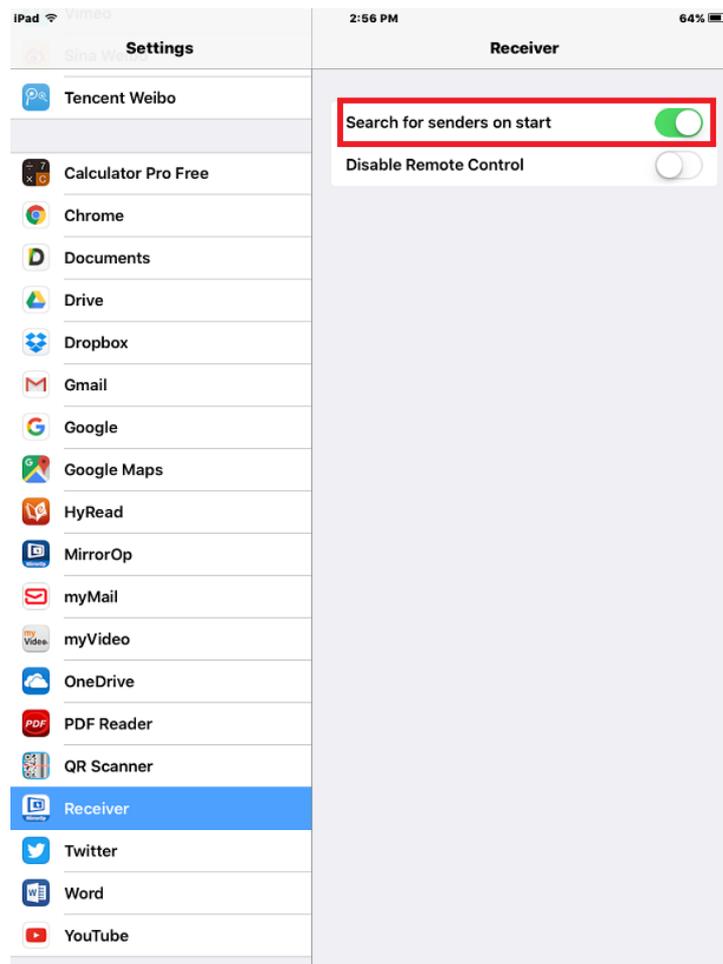
- Open the "MirrorOp Receiver" app.
- You will see the name of the PC/Mac with the MirrorOp (Sender) app installed.
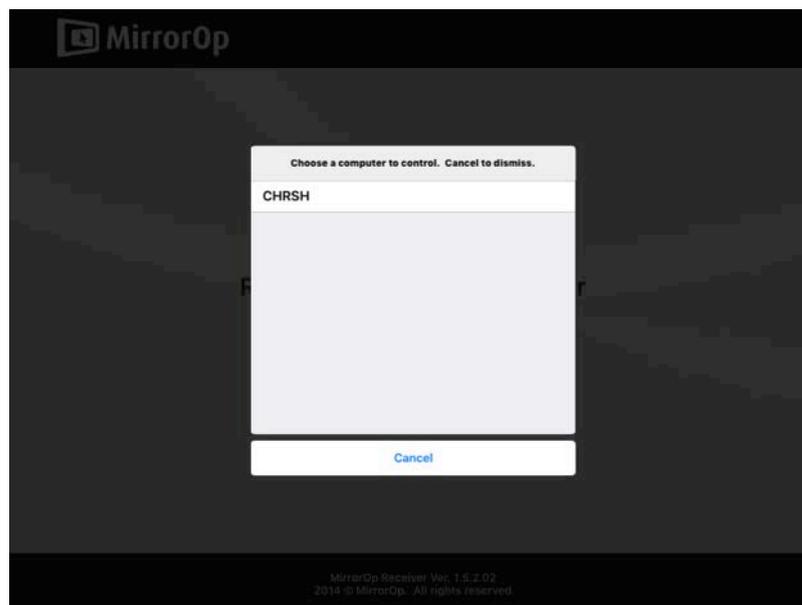
● Select which PC/Mac you want to control and enter the passcode you set
earlier.
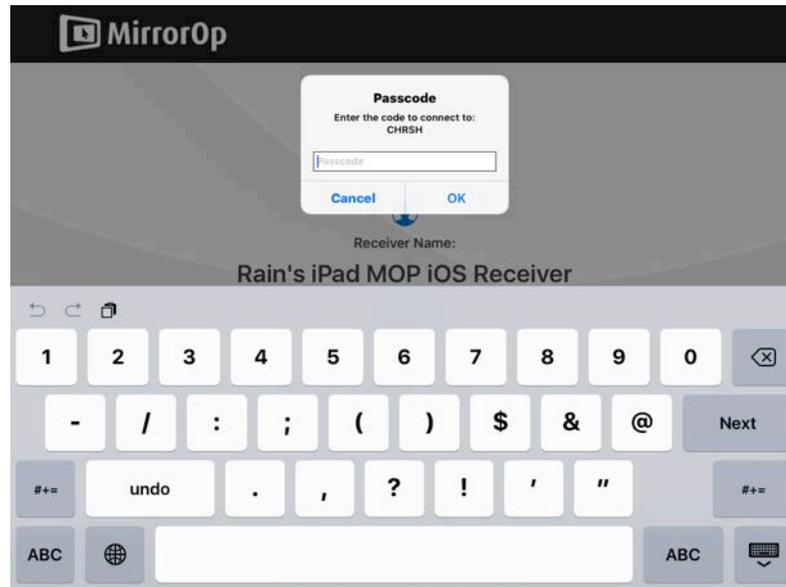
● Now you are able to remotely control the Mac/PC from your
iOS device.

13 Launch WebSlides

Introduction: The WebSlides function allows the presenter (PC/Mac with the MirrorOp Sender app installed) to broadcast the projecting screen/slides to the audience (multiple login devices) during a presentation, so that the audience can save the slides for note-taking later.
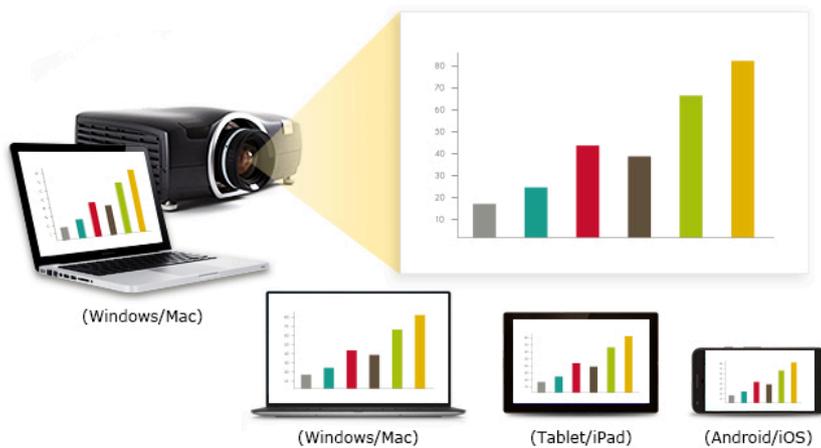
- Connect your mobile device to the WiCS-2100 via WiFi or LAN
- Open your web browser, and enter the IP address of the WiCS-2100
- View the presenting slides on your device…save the slides as JPG files for note-taking, annotation or others
- A new way of paper-less meeting

1) **Presenter (sender device):**
   - Your PC/Mac needs to connect to the WiCS-2100 device via WiFi or LAN.
   - You can decide whether an access password is required or not.
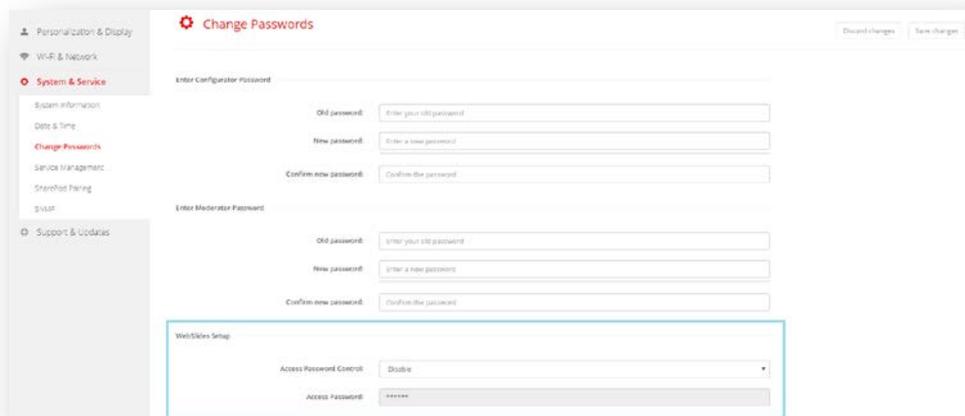
● Make sure the WebSlides function is enabled by the MirrorOp Sender app.
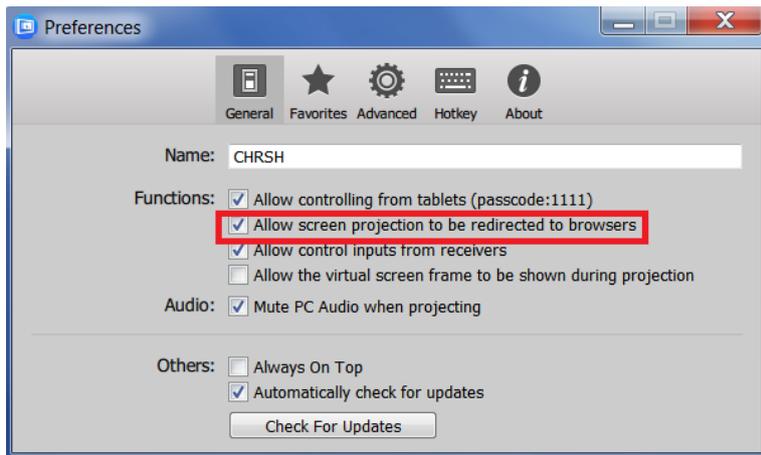
Note: Any Android/iOS device with the MirrorOp Presenter app instatlled can also operate as a sender device.

2) **Audience:**

● The audience also need to connect to the WiCS-2100 via WiFi or LAN.

● Open the browser of the audience's devices, and enter the IP address of the WiCS-2100 in the address bar of the browser. [Default address is 192.168.100.10]

● The below image (Home page) will appear on the audience's devices. (Type the password if required). Click "Watch Presentation" on the lower-right of the screen.
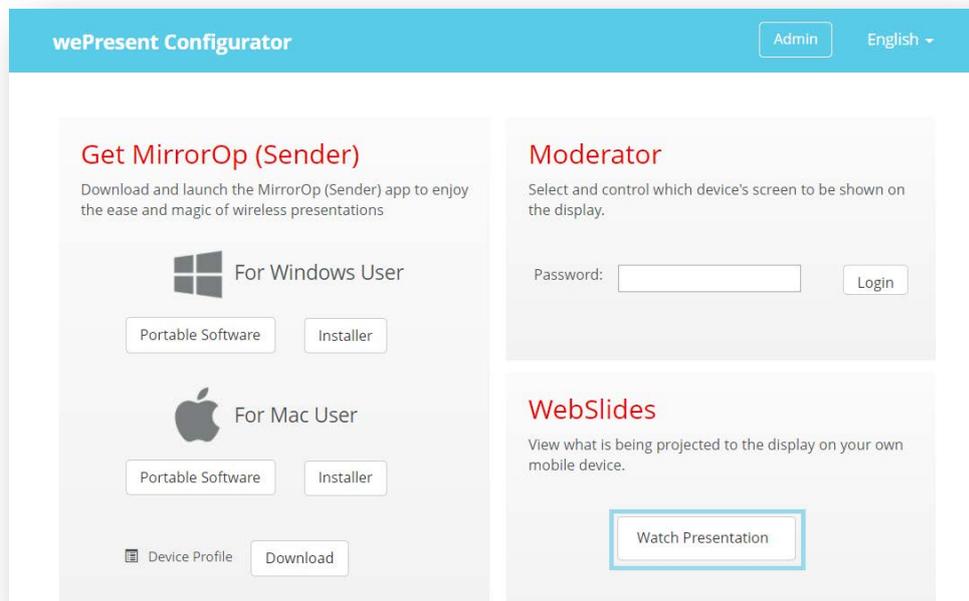
● The audience will see the below image on their devices. They can start viewing slides of the running presentation manually by clicking ↻ or automatically by setting the refresh rate at 2/5/10/30/90 seconds. (The default settings is Besides,

they can save the slides for note-taking later by clicking ⊡.
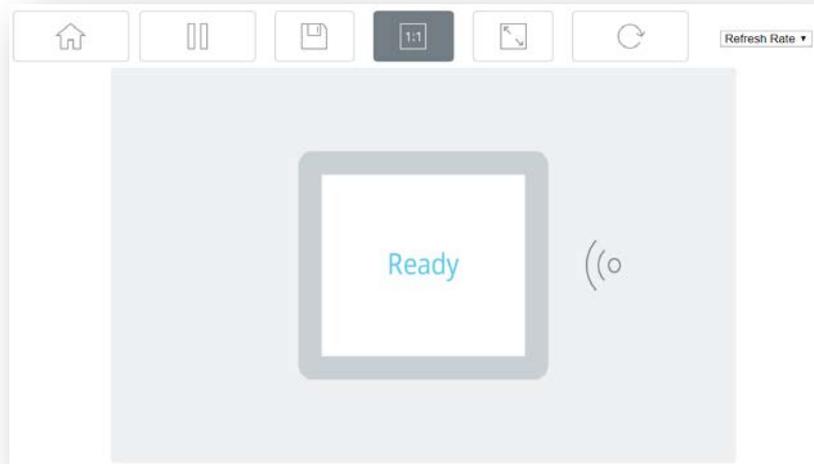
14 Wall-Mount Kit

1. Insert the two short screws ( ) into the two holes on the bottom of the WiCS-2100 device).

2. Install the mounting bracket on the wall with the four long screws ( ).

3. Secure the WiCS-2100 device to the mounting bracket.
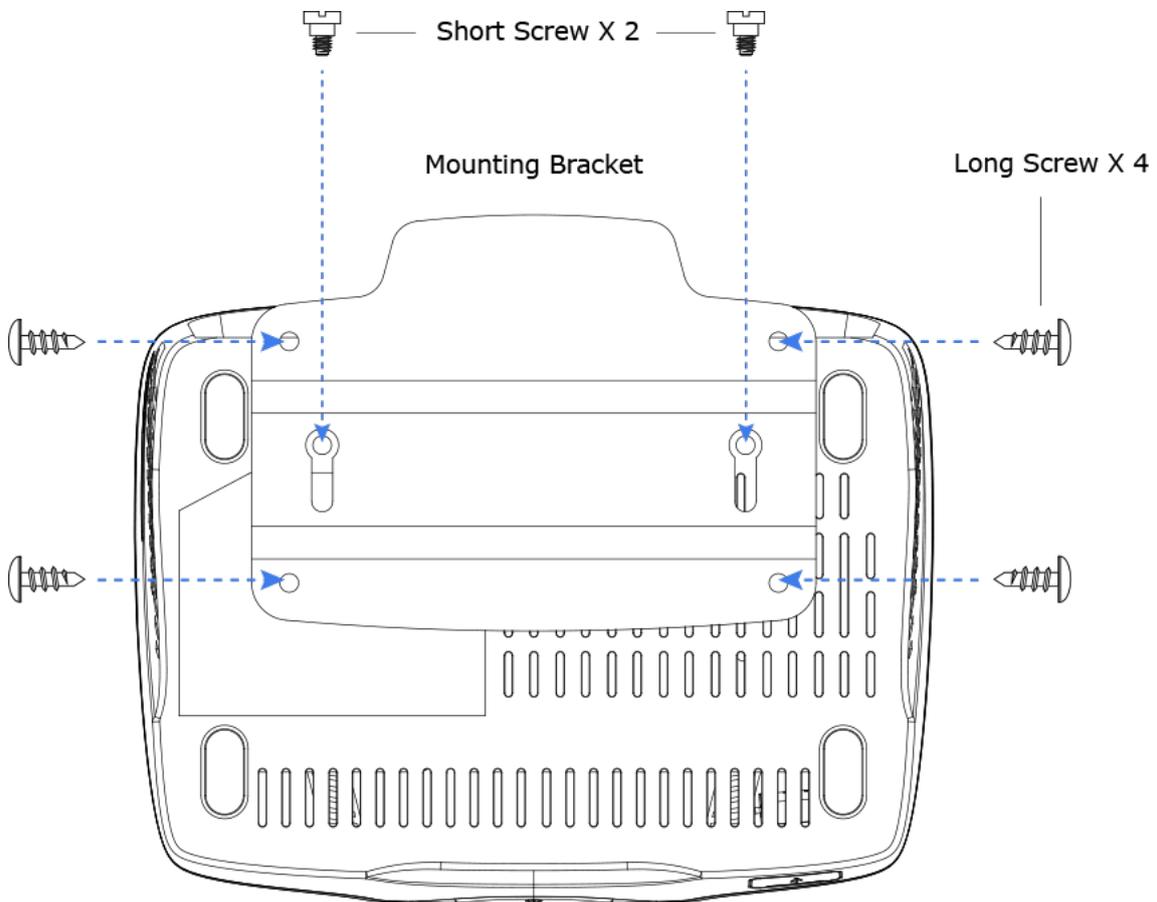
15 Frequently Asked Questions

Q: Why does the WiCS-2100 (set as an access point) not appear among the list of available WiFi networks on my computer/mobile device?

A: This may be because your computer/mobile device only supports 2.4GHz WiFi, not 5GHz WiFi. As the WiCS-2100 uses the 5GHz band by default, it does not appear among the list of available WiFi networks on your computer/mobile device. To fix this issue, you should go to the Admin page (wePresent Configurator) of the WiCS-2100 and change the "Band" setting from "5GHz" to "2.4GHz". **[Admin/wePresent Configrator -> WiFi & Network -> WiFi Settings -> AP Mode -> Band -> 2.4GHz]**

Q: Why can't I access the WiCS-2100 web UI (user interface) through a web browser?

A: This may be because your sender device (PC/Mac/mobile device) and the receiver device (WiCS-2100) are not on the same intranet. In order to troubleshoot this, you can try any of the following:

- Set the WiCS-2100 as an access point (AP), and connect your sender device to the WiCS-2100's WiFi.
- Connect your sender device to the WiCS-2100 via a router.
- Use an Ethernet cable to connect your sender device to the WiCS-2100.

Q: Why can't the MirrorOp app find the WiCS-2100 device?

A: This may be because your sender device ((PC/Mac/mobile device) and the receiver device (WiCS-2100) are not on the same subnet. In order to fix this issue, you can try any of the following:

- Set the WiCS-2100 as an access point (AP), and connect your sender device to the WiCS-2100's WiFi.
- Connect your sender device to the WiCS-2100 via a router, and make sure they get an IP address automatically (via DHCP from the router).
- Use an Ethernet cable to connect your sender device to the WiCS-2100.

To check if your sender device and the WiCS-2100 are on the same subnet, you can compare the IP address of the sender device with that of the WiCS-2100 (shown on the standby screen of the projector/display). They should be identical in the first three sections, and only differ in the last section. For example, the IP address of the sender device is 192.168.100.11 while that of the WiCS-2100 is 192.168.100.10.

If your sender device is a PC/Mac, you can also use the ping command to check the connection between your PC/Mac and the WiCS-2100.

Note:

WiCS-2100 supports device discovery across subnets via SSDP, but you need to configure your network environment to enable SSDP by ensuring all of the following:

(a)   UDP port 1900 is allowed in your firewall;

(b)   The multicast IP address 239.255.255.250 is whitelisted in your firewall;

(c)   IGMP (Internet Group Management Protocol) and PIM (Protocol Independent Multicast) are enabled in your network environment.

For assistance, please contact your IT administrator or network equipment supplier.

Q: What can I do if my network does not allow the sender and receiver devices to be on the same subnet?

A: This sometimes happens in the network configurations of schools or offices where you just cannot change the settings of the networks you can connect to. If the receiver device (WiCS-2100) is not on the same subnet as the sender device (PC/Mac/mobile device), you can manually enter the IP address of the receiver device in the "Input hostname or IP" field (on the user interface of MirrorOp) in a bid to locate the WiCS-2100.
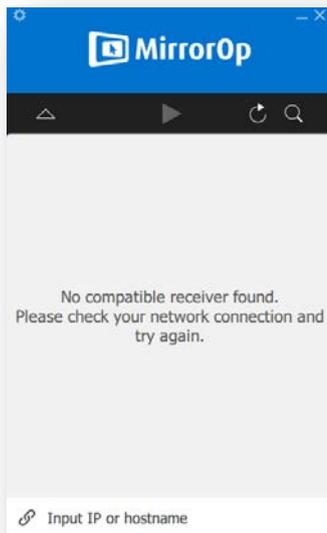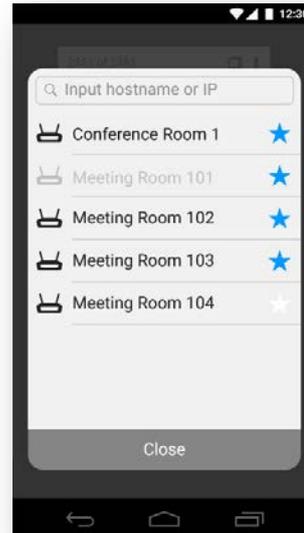
MirrorOp Sender   MirrorOp Presenter

Q: Why does the WiCS-2100 lag from time to time?

A: This may be caused by WiFi interference. Our advice is as follows:

- If there are multiple wireless APs deployed in your company/school network, it is recommended that your sender device (PC/Mac/mobile device) and the WiCS-2100 should connect to whichever AP has the strongest signal.

- If your sender device connects to the WiCS-2100's WiFi (the WiCS-2100 acts as an AP), make sure that your sender device is not too far away from the WiCS-2100 and avoid the physical interference (such as wall and other solid objects) in the wireless coverage.

- If multiple APs on your company/school network use the 2.4GHz band (note: the WiCS-2100 uses the 5GHz band by default), try your best to have them use different WiFi channels. Channel 1, 6, and 11 are recommended as they are the only non-overlapping channels in the 2.4GHz band.

Q: Why does the WiCS-2100 still lag when my sender device and the WiCS-2100 are connected via LAN?

A: This may be caused by insufficient bandwidth. A common scenario is that when you project a high-resolution photo/video from your computer to the display, a "yellow turtle" icon appears on your computer screen, which denotes lagging in performance.

You may try lowering your computer's resolution before starting the projection in order to fix this problem.

Q: Why does the display show "No DHCP Server"?

A: This happens when both of the following conditions are met: (a) The "Bridge" mode is enabled in "Network Settings"; (b) There is no DHCP server available on the network. Please note that the wePresent DHCP server will be disabled in the "Bridge" mode" and that the WiFi station mode cannot be activated in the "Bridge" mode. Therefore, if you want to enable the "Bridge" mode, you need to do both of the following: (a) Connect your WiCS-2100 device to your company/school network via an Ethernet cable; (b) Make sure that a DHCP server is available on the network to which your WiCS-2100 device is connected.

16 Disposal Information

Disposal of the product

(Waste Electrical and Electronic Equipment)

This symbol on the product indicates that, under the European Directive 2012/19/EU governing waste from electrical and electronic equipment, this product must not be disposed of with other municipal waste. Please dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.
For more information about recycling of this product, please contact your local city office or your municipal waste disposal service. For details, please visit the Barco website at: http://www.barco.com/en/AboutBarco/weee.

17 Open Source Software Used in WiCS-2100

The software in WiCS-2100 contains parts licensed under various Open Source licenses. Please refer to the list below for further information:

Name	Version	From	Licensing Terms	Modified / Used
Boost	1_57_0	http://www.boost.org/	Boost Software License 1.0 http://www.boost.org/users/license.html	Used
Crypto++	5.6.3	https://www.cryptopp.com/	Boost Software License 1.0 https://www.cryptopp.com/License.txt	Used
OpenSSL	1.0.2	https://www.openssl.org/	https://www.openssl.org/source/license.html	Used
JsonCpp	1.6.5	https://github.com/open-source-parsers/jsoncpp	MIT License https://github.com/open-source-parsers/jsoncpp/blob/master/LICENSE	Used
base64		https://github.com/ReneNyffenegger/cpp-base64	zlib	Used
TinyXML	2.4.0	http://www.grinninglizard.com/tinyxml/index.html		Used
mDNSResponder	625.41.2	https://opensource.apple.com/tarballs/mDNSResponder/	Apache License v2.0	Modified
Linux Kernel	3.4.5	Google	GPLv2	Modified