USB Passthrough Version 2
Video System Configuration
Step-by-step Setup Guide
December 9, 2021

In order to use USB Passthrough – with any tested capture device – it is required to manually configure some of the web interface settings for the video endpoint. This document will give you step-by-step instructions. The Version 2 macro will not run if you leave these settings at "Auto".

Follow these instructions *after* you have installed the USB capture device according to the provided line drawings, and *before* you try running USB Passthrough for the first time.

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Important notes: The number of screens above refers to how many HDMI (DVI) outputs on the codec are actually in use.

If you have one HDMI output that is hooked up to an HDMI splitter that is driving 2, 3, or more screens, it is still a *Single Screen* video endpoint. Why? Because you are using *only one HDMI output*. Don't be confused by the total number of projectors or LCD screens in the room. Instead, count the number of HDMI video outputs (including DVI for SX80 and MX700/800) that are actually connected to something, right on the back of the codec.

Be sure to understand before you begin: Is your video device a Single Screen, Dual Screen, or Triple Screen endpoint? Count the number of video outputs that a) have wires connected, and b) do not have wires connected, in order to understand this.

You may need to reference the Administrator Guide for your endpoint to identify video outputs versus video inputs. We are concerned with *outputs*, not *inputs*. Ask for help if you need it.

Next, you must be able to log into the codec's web interface. This is required! Ask for help if you need it.
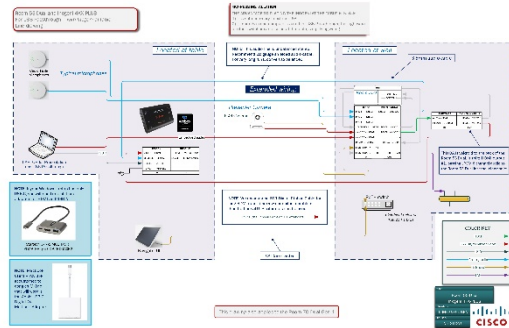
LINE DRAWINGS

For USB Passthrough – with INOGENI 4KX-PLUS at table

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PDF FILES LINKS:

- [Cisco Webex **Room Kit** and 4KX-PLUS - Line Drawings](#)
- [Cisco Webex **Room 55 Dual - 70 Dual Gen 1**-and 4KX-PLUS Line Drawings](#)
- [Cisco Webex **Room 55 Single** and 4KX-PLUS Line Drawings](#)
- [Cisco Webex **Room 70 G2 Dual** and 4KX-PLUS - Line Drawings](#)
- [Cisco Webex **Room 70 G2 Dual** and Lightware with 4KX-PLUS Line Drawings](#)
- [Cisco Webex **Room Kit** and 4KX-PLUS - Line Drawings](#)
- [Cisco Webex **Room Kit Plus** and 4KX-PLUS - Line Drawings](#)
- [Cisco Webex **Room Kit Pro** and 4KX-PLUS - Line Drawings](#)

Webex Devices Support

Macro and native	Macro only
• Webex Room Kit	• Cisco MX700
• Webex Room Kit Plus	• Cisco MX800
• Webex Room Kit Pro	• Cisco SX80
• Webex Room 55	
• Webex Room 70	
• Webex Room Panorama	

4KX-PLUS
For **multiple** displays

4K2USB3
For **one** display

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Room Kit, Room Kit Plus, Room 55 Single with Single Screen

Step 1: Configure the number of monitors in the web interface (Single)
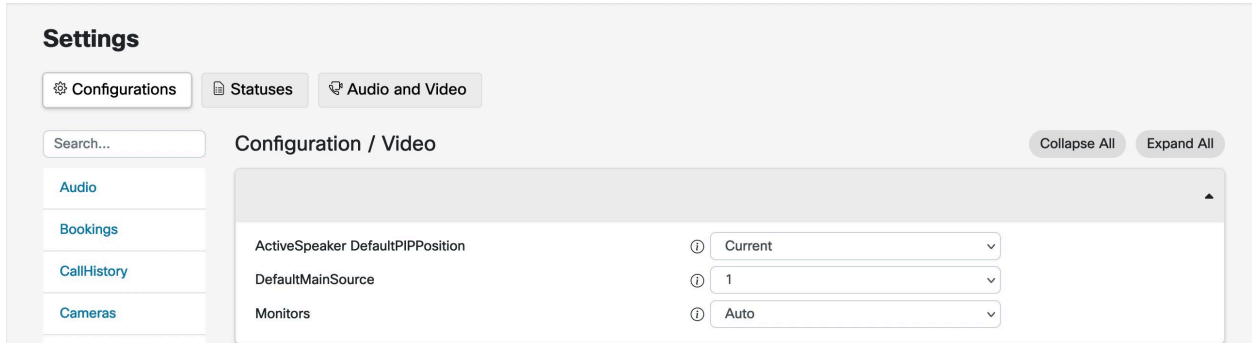

Figure 1: Default settings

By default, Video / Monitors is set for "Auto". **You must change this** setting to *Single*.
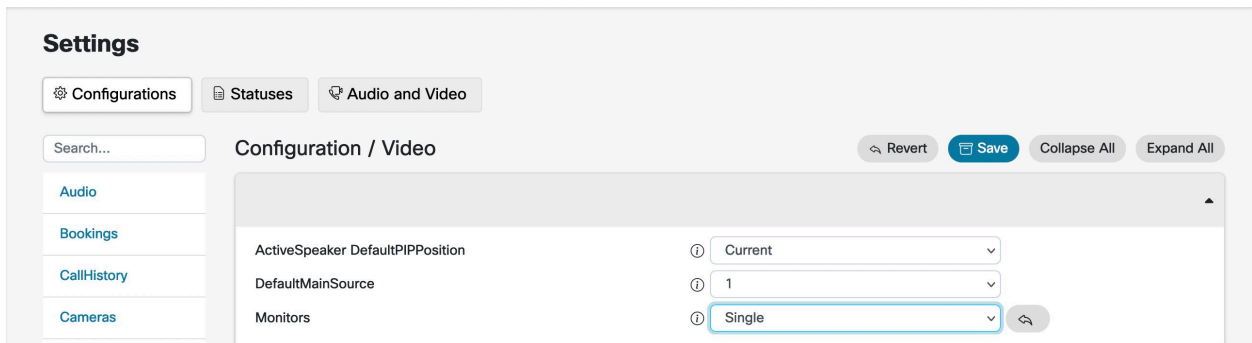

Figure 2: Change the setting to "Single"

As soon as you select *Single* from the drop-down list, the *Save* button will appear. Make sure to save the setting.
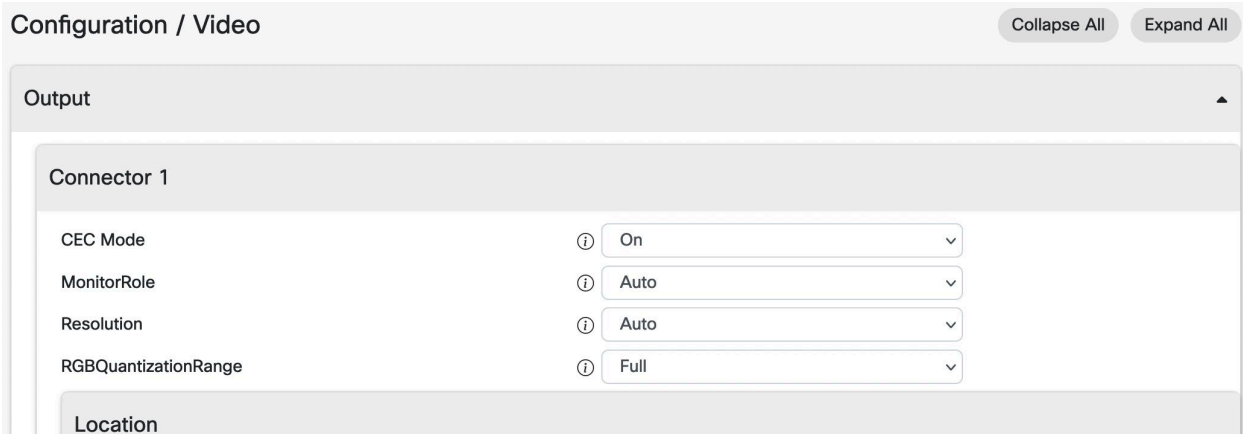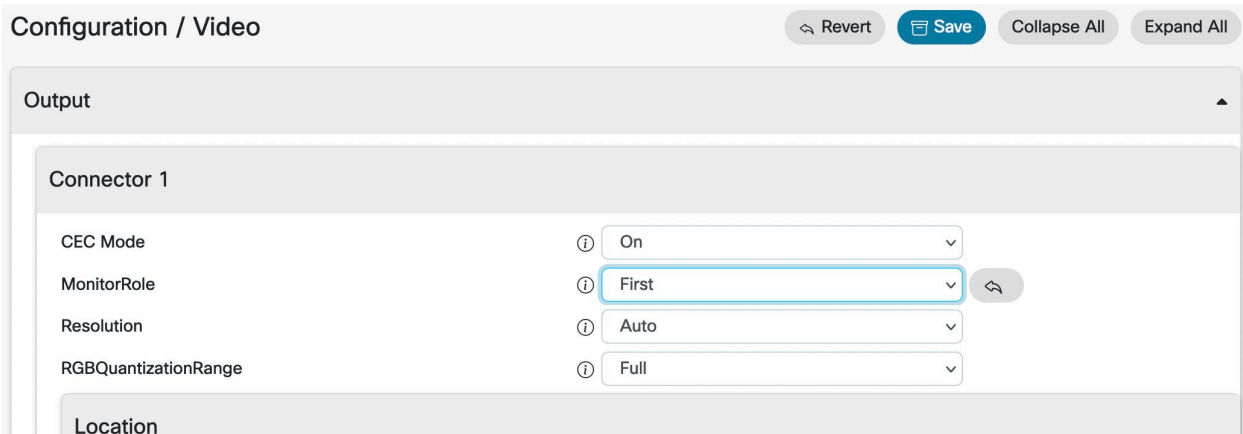
Step 2: Configure the Connector 1 MonitorRole in the web interface

Figure 3: MonitorRole default

In the Configuration Video menus – where you are already working – scroll way down to the **Output** section. For the Room Kit and Room Kit Plus, Output Connector 1 MonitorRole is set for "Auto". **You must change this** to *First*.

Figure 4: Change the setting to "First"

As soon as you select *First* from the drop-down list, the *Save* button will appear. Make sure to save the setting.

Room 55 Single – your web interface is different. You can skip Step 2 entirely.

Step 3: Set your Default Presentation Source

Below the Output section, you will see a Presentation section. For a Room Kit, you should select "2". But for a Room Kit Plus or a Room 55 you can choose "2" or "3". This number corresponds to the physical HDMI input that you are using for the laptop. Make sure to select the correct number. You will test this later, and you can change it at that time if it is not correct.
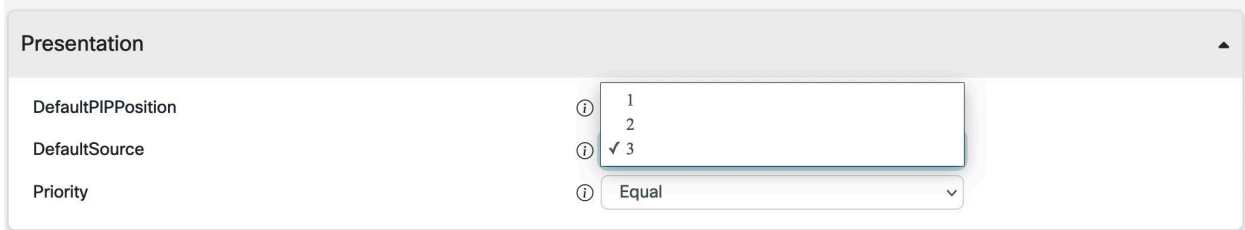
Figure 5: Default Presentation Source

Step 4: Name your Default Presentation Source

Click on this link to proceed.

Step 5: (Optional) Set your Selfview defaults

You can, if you wish, set the defaults that your system will use whenever you want to use Selfview. If you want to set this now, click on this link.

Step 6: Test your PC or Laptop Computer

Click on this link to proceed.

Room Kit, Room Kit Plus, Room 55 Single with Two Screens

Step 1: Configure the number of monitors in the web interface (Dual or DualPresentationOnly)
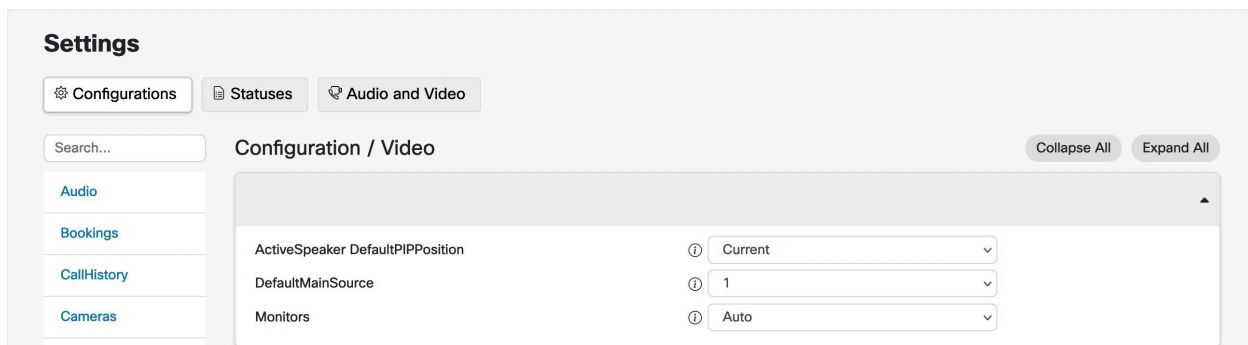
Figure 6: Default settings

By default, Video / Monitors is set for "Auto". **You must change this** setting to *Dual* or *DualPresentationOnly*.

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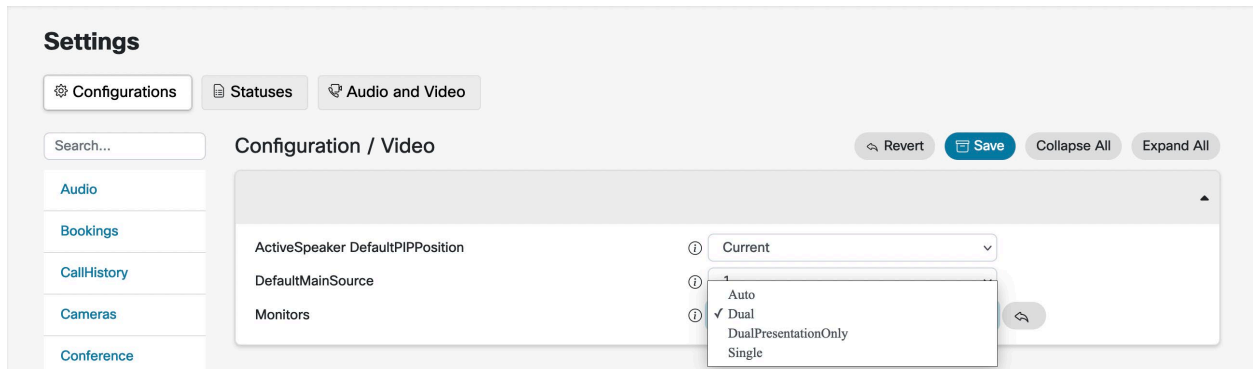
Figure 7: Change the setting to "Dual" or "DualPresentationOnly"

As soon as you select *Dual* or *DualPresentationOnly* from the drop-down list, the *Save* button will appear. Make sure to save the setting.

What is the difference between "Dual" and "DualPresentationOnly"? The short answer is that with "Dual", remote participants will appear across both screens until someone starts a presentation. With "DualPresentationOnly", video participants will appear only on the first screen. The other screen will show presentation, but will be blank if there is no presentation (although you can show Selfview).

For detailed information on screen layouts, visit this website:

https://help.webex.com/en-US/article/zp1dhab/Webex-Rooms-|-Video-Stream-Layouts

Step 2: Configure MonitorRoles in the web interface

Figure 8: MonitorRole defaults

In the Configuration Video menus – where you are already working – scroll way down to the Output section. For the Room Kit and Room Kit Plus, both Output Connector 1 and 2 MonitorRole is set for "Auto". **You must change this**.

Refer to Step 1. If you set *Monitors: Dual*, then use these settings:
Connector 1 MonitorRole: *First*
Connector 2 MonitorRole: *Second*

If you set Monitors: *DualPresentationOnly*, then use these settings:
Connector 1 MonitorRole: *First*
Connector 2 MonitorRole: *PresentationOnly*

Figure 9: MonitorRole settings for DualPresentationOnly

Be sure to save your settings.

Advanced Users: If you have a projector and an LCD screen, you might want to reverse MonitorRoles and have Connector 1 be *PresentationOnly*, with Connector 2 set for MonitorRole: *First*.

The point is – don't leave any of these settings at "Auto". You must set them manually.

Room 55 Single – your web interface is different. You cannot change the MonitorRole on Connector 1. It is permanently set for MonitorRole: First. However, you should set Connector 2 for the appropriate MonitorRole as described above.

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Step 3: Set your Default Presentation Source

Below the Output section, you will see a Presentation section. For a Room Kit, you should select "2". But for a Room Kit Plus or a Room 55 you can choose "2" or "3". This number corresponds to the physical HDMI input that you are using for the laptop. Make sure to select the correct number. You will test this later, and you can change it at that time if it is not correct.
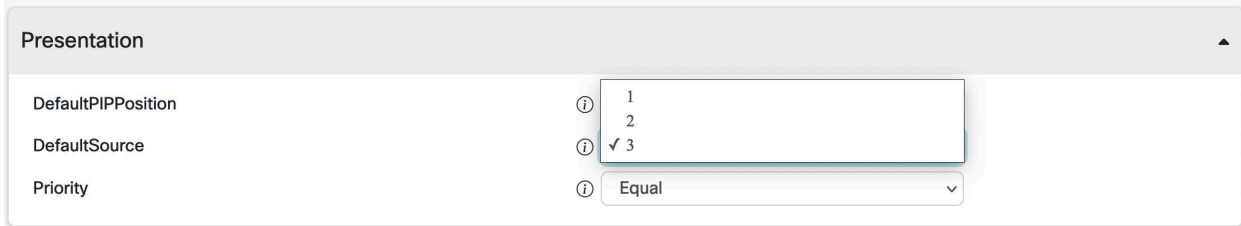

Figure 10: Default Presentation Source

Step 4: Name your Default Presentation Source
Click on this link to proceed.

Step 5: (Optional) Set your Selfview defaults
You can, if you wish, set the defaults that your system will use whenever you want to use Selfview. If you want to set this now, click on this link.

Step 6: Test your PC or Laptop Computer
Click on this link to proceed.

Room Kit Pro, SX80, MX800 Single with Single Screen

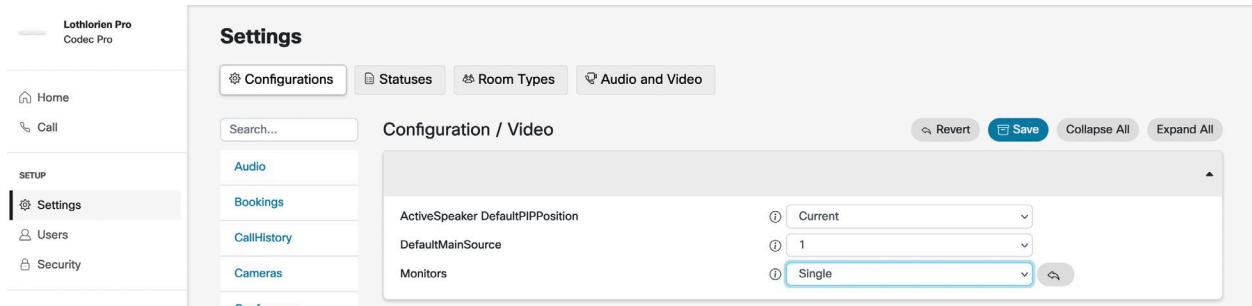**Step 1: Configure the number of monitors in the web interface (Single)**

Figure 11: Change the setting to "Single"

As soon as you select *Single* from the drop-down list, the *Save* button will appear. Make sure to save the setting.

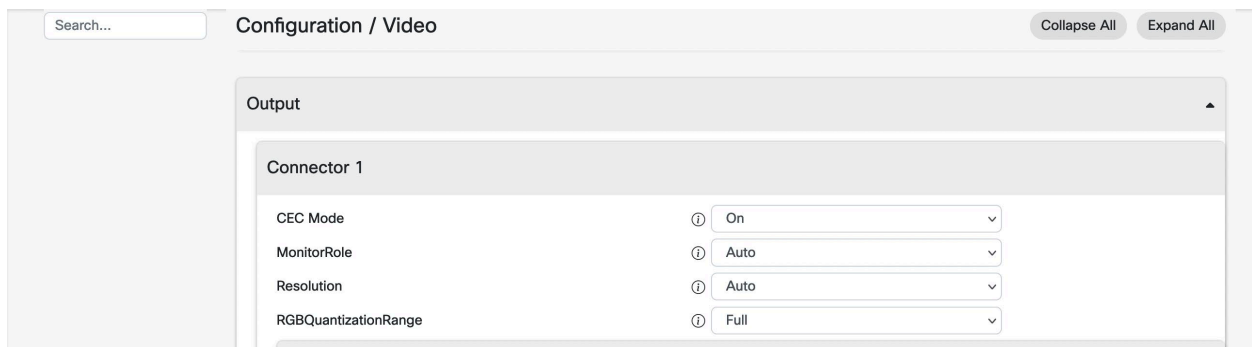**Step 2: Configure the Connector 1 MonitorRole in the web interface**

Figure 12: MonitorRole default

In the Configuration Video menus – where you are already working – scroll way down to the **Output** section. For the Room Kit and Room Kit Plus, Output Connector 1 MonitorRole is set for "Auto". **You must change this** to *First*.
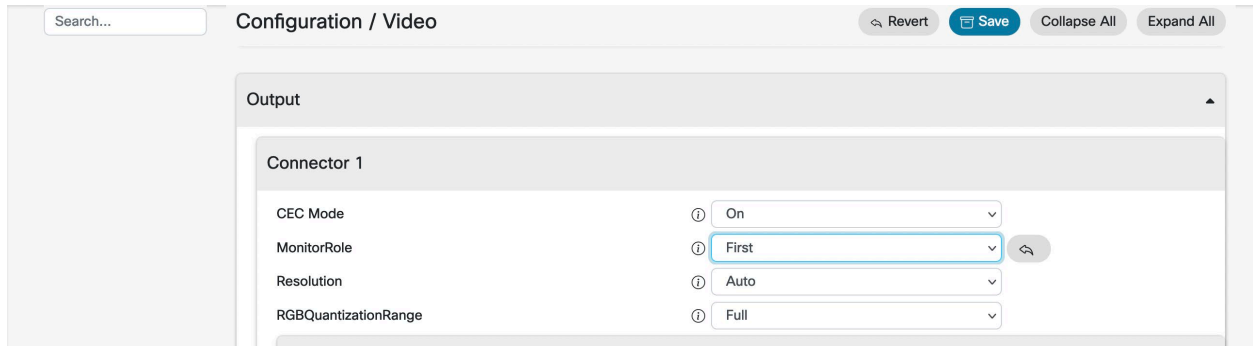
Figure 13: Change the setting to "First"

As soon as you select *First* from the drop-down list, the *Save* button will appear. Make sure to save the setting.

Step 3: Set your Default Presentation Source
Below the Output section, you will see a Presentation section. There will be 5 or 6 choices to set the Default Source. This number corresponds to the physical HDMI input that you are using for the laptop. Make sure to select the correct number; typically it will be 3, 4, or 5. You will test this later, and you can change it at that time if it is not correct.
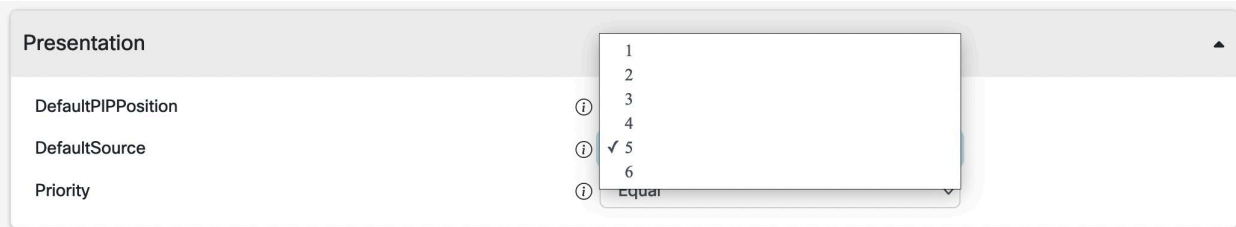
Figure 14: Default Presentation Source

Step 4: Name your Default Presentation Source
Click on this link to proceed.

Step 5: (Optional) Set your Selfview defaults
You can, if you wish, set the defaults that your system will use whenever you want to use Selfview. If you want to set this now, click on this link.

Step 6: Test your PC or Laptop Computer
Click on this link to proceed.

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Room Kit Pro, SX80, MX700, MX800 Dual with Two Screens

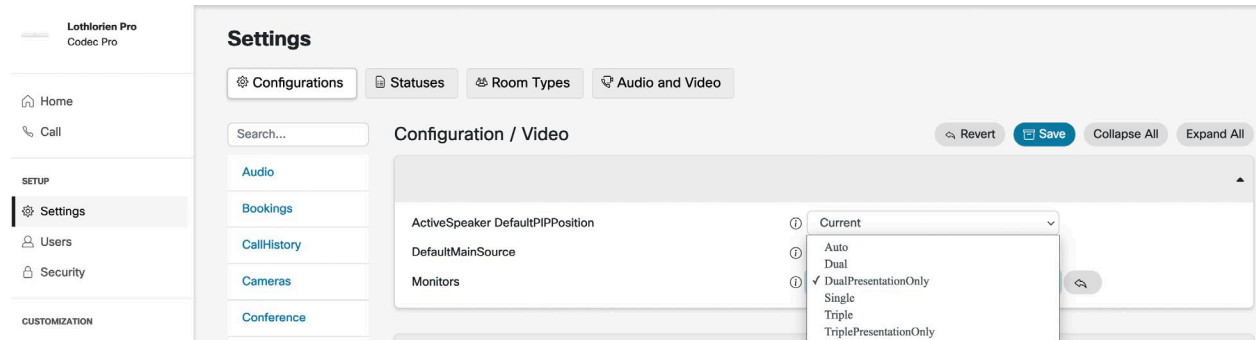**Step 1: Configure the number of monitors in the web interface (Dual or DualPresentationOnly)**

Figure 15: Change the setting to "Dual" or "DualPresentationOnly"

As soon as you select *Dual* or *DualPresentationOnly* from the drop-down list, the *Save* button will appear. Make sure to save the setting.

What is the difference between "Dual" and "DualPresentationOnly"? The short answer is that with "Dual", remote participants will appear across both screens until someone starts a presentation. With "DualPresentationOnly", video participants will appear only on the first screen. The other screen will show presentation, but will be blank if there is no presentation (although you can show Selfview).

For detailed information on screen layouts, visit this website:

https://help.webex.com/en-US/article/zp1dhab/Webex-Rooms-|-Video-Stream-Layouts

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Step 2: Configure MonitorRoles in the web interface

Figure 16: MonitorRole defaults

In the Configuration Video menus – where you are already working – scroll way down to the Output section. For the Room Kit Pro, SX80, and MX700/800, Output Connectors 1 and 2 MonitorRole are set for "Auto". **You must change these**.

Refer to Step 1. If you set *Monitors: Dual*, then use these settings:
Connector 1 MonitorRole: *First*
Connector 2 MonitorRole: *Second*

If you set Monitors: DualPresentationOnly, then use these settings:

Connector 1 MonitorRole: *First*

Connector 2 MonitorRole: *PresentationOnly*

Figure 17: MonitorRole settings for DualPresentationOnly

Be sure to save your settings.

Advanced Users: If you have a projector and an LCD screen, you might want to reverse MonitorRoles and have Connector 1 be *PresentationOnly*, with Connector 2 set for MonitorRole: *First*.

The point is – don't leave any of these settings at "Auto". You must set them manually.

Step 3: Set your Default Presentation Source

Below the Output section, you will see a Presentation section. There will be 5 or 6 choices to set the Default Source. This number corresponds to the physical HDMI input that you are using for the laptop. Make sure to select the correct number; typically it will be 3, 4, or 5. You will test this later, and you can change it at that time if it is not correct.
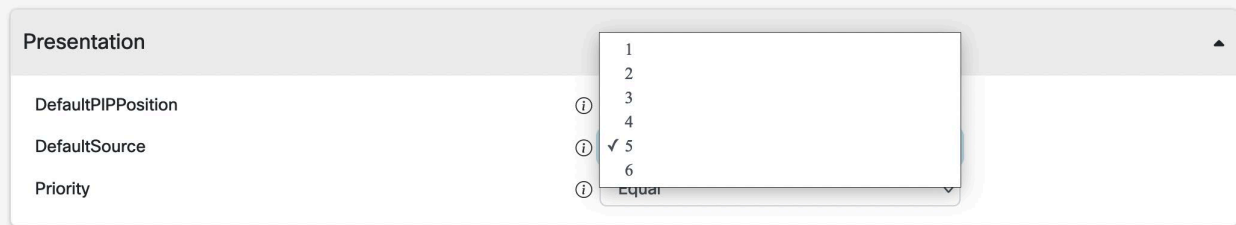

Figure 18: Default Presentation Source

Step 4: Name your Default Presentation Source

Click on this link to proceed.

Step 5: (Optional) Set your Selfview defaults

You can, if you wish, set the defaults that your system will use whenever you want to use Selfview. If you want to set this now, click on this link.

Step 6: Test your PC or Laptop Computer

Click on this link to proceed.

Room Kit Pro, SX80, MX700, MX800 Dual with Three Screens

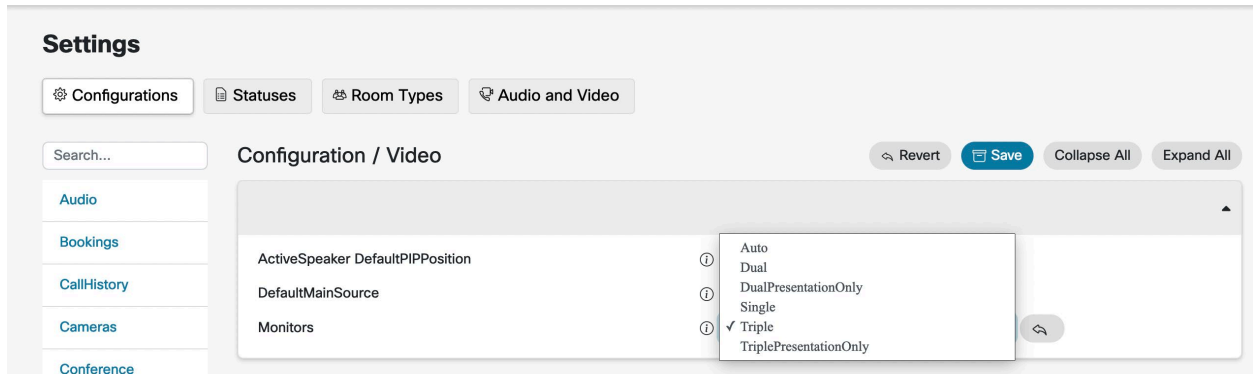**Step 1: Configure the number of monitors in the web interface (Triple or TriplePresentationOnly)**

Figure 19: Change the setting to "Triple" or "TriplePresentationOnly"

As soon as you select *Triple* or *TriplePresentationOnly* from the drop-down list, the *Save* button will appear. Make sure to save the setting.

What is the difference between "Triple" and "TriplePresentationOnly"? The short answer is "they aren't very different". In a video call, remote participants will be visible across the first two screens, and any shared presentation will be on the third screen. There may be some advanced scenarios where it will make a difference if you have the third screen set for PresentationOnly.

For detailed information on screen layouts, visit this website:

https://help.webex.com/en-US/article/zp1dhab/Webex-Rooms-|-Video-Stream-Layouts

Step 2: Configure MonitorRoles in the web interface

Figure 20: MonitorRole defaults

In the Configuration Video menus – where you are already working – scroll way down to the Output section. For the Room Kit Pro, SX80, and MX700/800, Output Connectors 1, 2 and 3 MonitorRole are set for "Auto". **You must change these**.

Refer to Step 1. If you set *Monitors: Triple*, then use these settings:

Connector 1 MonitorRole: *First*

Connector 2 MonitorRole: *Second*

Connector 2 MonitorRole: *Third*

If you set Monitors: *TriplePresentationOnly*, then use these settings:

Connector 1 MonitorRole: *First*

Connector 2 MonitorRole: *Second*

Connector 3 MonitorRole: *PresentationOnly*

Figure 21: MonitorRole settings for Triple

Be sure to save your settings.

Advanced Users: If you have a projector and two LCD screens, you might want to set the projector output for "*PresentationOnly*".

The point is – don't leave any of these settings at "Auto". You must set them manually.

Step 3: Set your Default Presentation Source

Below the Output section, you will see a Presentation section. There will be 5 or 6 choices to set the Default Source. This number corresponds to the physical HDMI input that you are using for the laptop. Make sure to select the correct number; typically it will be 3, 4, or 5. You will test this later, and you can change it at that time if it is not correct.

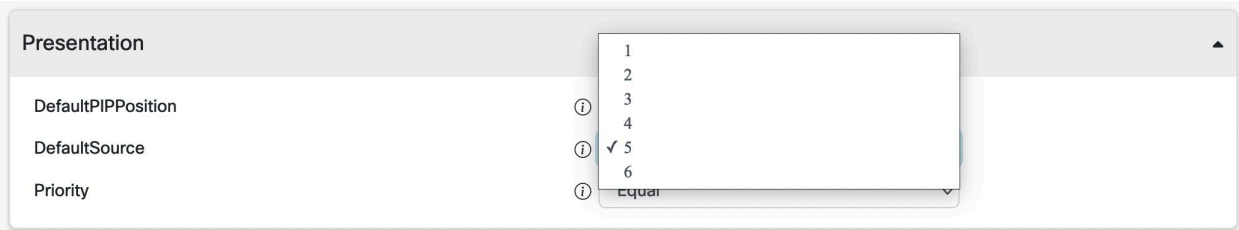Figure 22: Default Presentation Source

Step 4: Name your Default Presentation Source

Click on this link to proceed.

Step 5: (Optional) Set your Selfview defaults

You can, if you wish, set the defaults that your system will use whenever you want to use Selfview. If you want to set this now, click on this link.

Step 6: Test your PC or Laptop Computer

Click on this link to proceed.

All endpoints: Follow steps four, five, and six.

Step 4: Name your Default Presentation Source

Scroll back up in the web interface to the Configuration / Video / Input section. You will see Connector 1, Connector 2, and if you have an advanced codec, you will even see Connectors 3, 4, 5 and 6.
In the previous step you set your Default Presentation Source, with a number between 2 and 5. Go to the Connector number that matches your Default Presentation Source.

- Set "Input Source Type" to *PC*
- Type in a Name that will make it easy to find this source. This name will actually be used in the Share tray on the Navigator / Touch 10 interface, so it should be a name that makes sense. For example, you could name it "*Shared Laptop*" or "*USB Laptop*". Feel free to use your local language.
- Set PresentationSelection to either *Manual* or *OnConnect*.
- Other settings: Set Quality to *Sharpness*, and set Threshold60fps to *Never*.

Figure 23: Example settings for France

Step 5: (Optional) Set your Selfview defaults

Figure 24: Selfview defaults

These settings adjust how Selfview appears when you first activate it. If you know that you always want to see Selfview in a PIP on the Lower Left, for example, you can change it as follows:

Figure 25: Selfview defaults

As mentioned, this step is optional. Remember that during a call, you can use the Touch 10 / Navigator to move the Selfview image around, make it fullscreen, turn it on and off, etc. This section merely sets the default behavior. The word "Current" simply means to leave Selfview the way it was when you last used it.

Step 6: Test Your PC or Laptop for Presentation

This step is important. Do not run "USB Mode" yet.
- Make sure the computer or laptop you are using has the correct HDMI cable hooked up: this is the video cable used for Presentation. It may have HDMI extenders; there may be a video switcher in an advanced audiovisual integration, but it must connect into an HDMI input on the video endpoint you are using.
- If your computer has only a USB-C connection, you must use an adapter that has both HDMI and USB-A connections.

Figure 26: USB-C adapter for Windows laptops

NOTE: MacBook users – you are accustomed to dongles ☺ One that will work is the Apple USB-C Digital AV Multiport Adapter
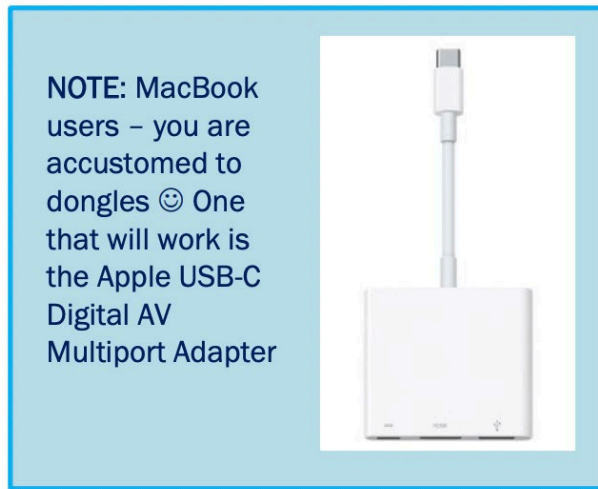
Figure 27: USB-C adapter for Macbook laptops

- Remember Step 3 "Set your default presentation source"? This is where you test to make sure you have this setting correct, and this is where you test for both video and audio.
- Using the Touch 10 or Navigator, select the "Share" or "Share screen" button, and then select the presentation source you just named.
- You should see your computer screen mirrored on the big screen(s). It should match exactly what you see on your laptop or computer screen; it should *not* be an extended desktop or second screen.
    - If necessary, adjust your computer settings so that what you see on the big screen mirrors what you see on your computer.
- Test audio. Play a video clip with music, or use a music app. It is important to verify that the audio from your computer is being sent to the video codec. You should hear the sound from whichever speaker system your Room Kit / SX80 / MX is using. For example, if you are using a Room Kit, you should hear the sound from the speaker bar. If you have a Quad Camera, you should hear the sound from the Quad Camera speakers. If you have an external sound system, you should hear the sound from those speakers. *The sound source should be the same as when you are in a regular video call.*

When you have verified that you can see and hear your computer, using a standard presentation cable, you have completed the video system setup. You can now proceed with testing USB Passthrough.