Integrating a SMART Board Display with Mira Connect™

SMART Board 6000 series can be controlled with Mira Connect™, Aveo Systems'® smart control appliance.

This integration guide provides detailed steps for configuring Mira Connect (using Mira Portal) to control the SMART Board Display.

Mira Connect communicates and controls the SMART Board Display over RS-232 (requires a Global Caché IP2SL IP to serial interface).

Figure 1: The Mira Connect AV control system controls thousands of devices, including SMART Board Displays.

Functionality Supported

Mira Connect supports switching video inputs, powering on/off the display, and volume control.

Models Supported

SMART Board 6000 series and other models that use the same API.

Integration Steps

To integrate a SMART Board Display with Mira Connect, follow these steps:

Step 1. Add a room to Mira Portal

To get started, create an organization, site, and room in Mira Portal if you don't already have a room. Follow the tutorial for creating a room after creating a Mira Portal account. IF you don't already have an account you'll need to create one. There is no cost to create a Mira Portal account.

Next, pair a Mira Connect to the room or use the *Preview Mira Connect in a web browser* feature.

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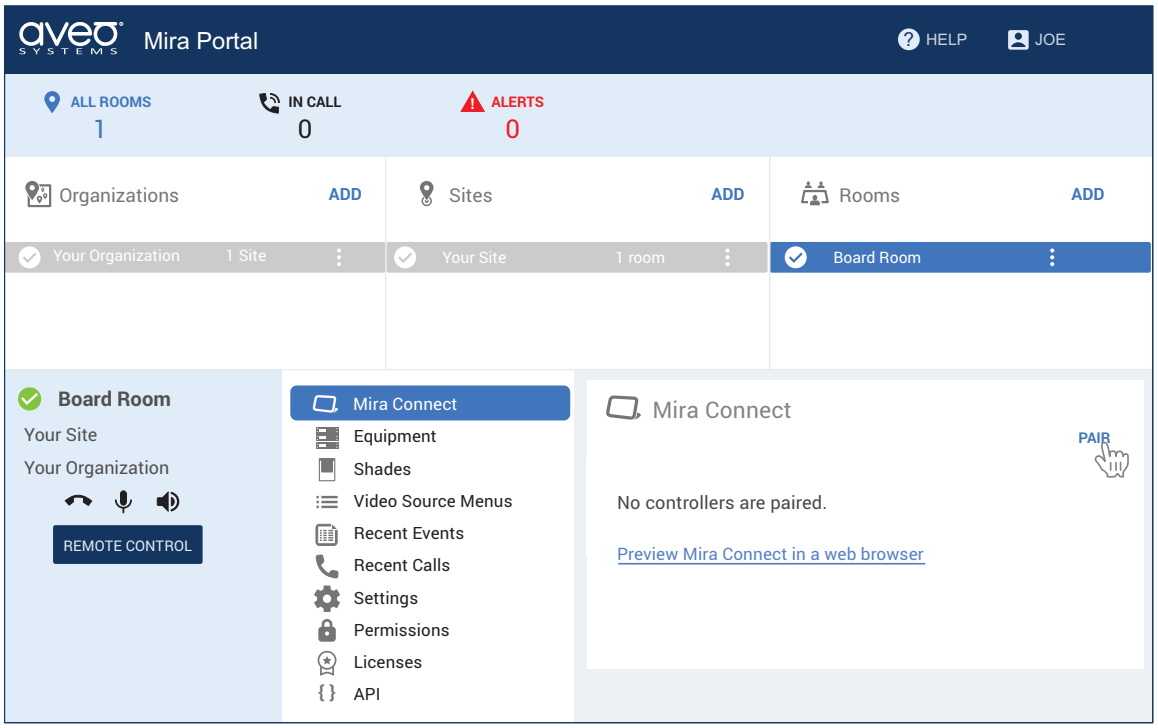

Figure 2: Create an organization, site, and room in Mira Portal and then pair the Mira Connect to the room.

Step 2. Pair Mira Connect to the room

If you have a Mira Connect appliance, connect it to the network and power it up. Mira Connect appliances can use a PoE network connection. *Mira Connect requires WAN access to pair with the room in Mira Portal*.

The *Preview Mira Connect in a web browser* feature opens a new browser tab and creates an interactive demo of the user interface before you have a Mira Connect or any equipment. The preview feature uses Mira Connect's built-in equipment emulators to create an interactive user experience before any equipment is purchased.

To pair a Mira Connect control system to your room:

- For Mira Connect appliances, select your language, network (wired or wireless), and then Mira Connect will show a pairing code. Enter the pairing code into Mira Portal to associate the Mira Connect with the room in Mira Portal.
- If you are using Mira Connect software, follow the instructions in the Mira Connect Software Quick Install Guide to install the Mira Connect software and get a pairing code.

The following figures show the pairing steps when using Mira Connect appliances.

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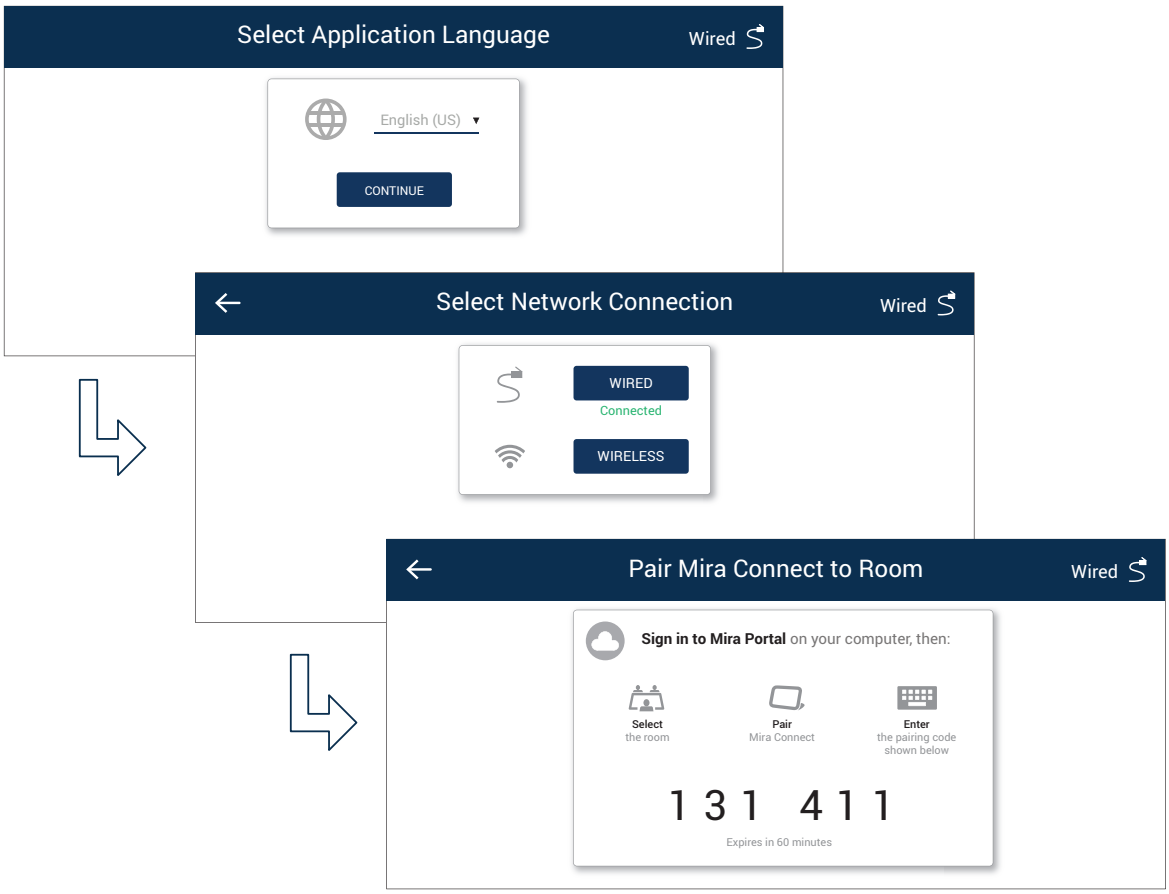

Figure 3: Select the language, select the network connection, and receive a pairing code.

Step 3. Add the SMART Board Display

To integrate a SMART Board Display with Mira Connect enter the IP address of the Global Caché IP2SL. Do not add the Global Caché IP2SL device separately, just use its IP address as the IP address of the SMART Board Display.

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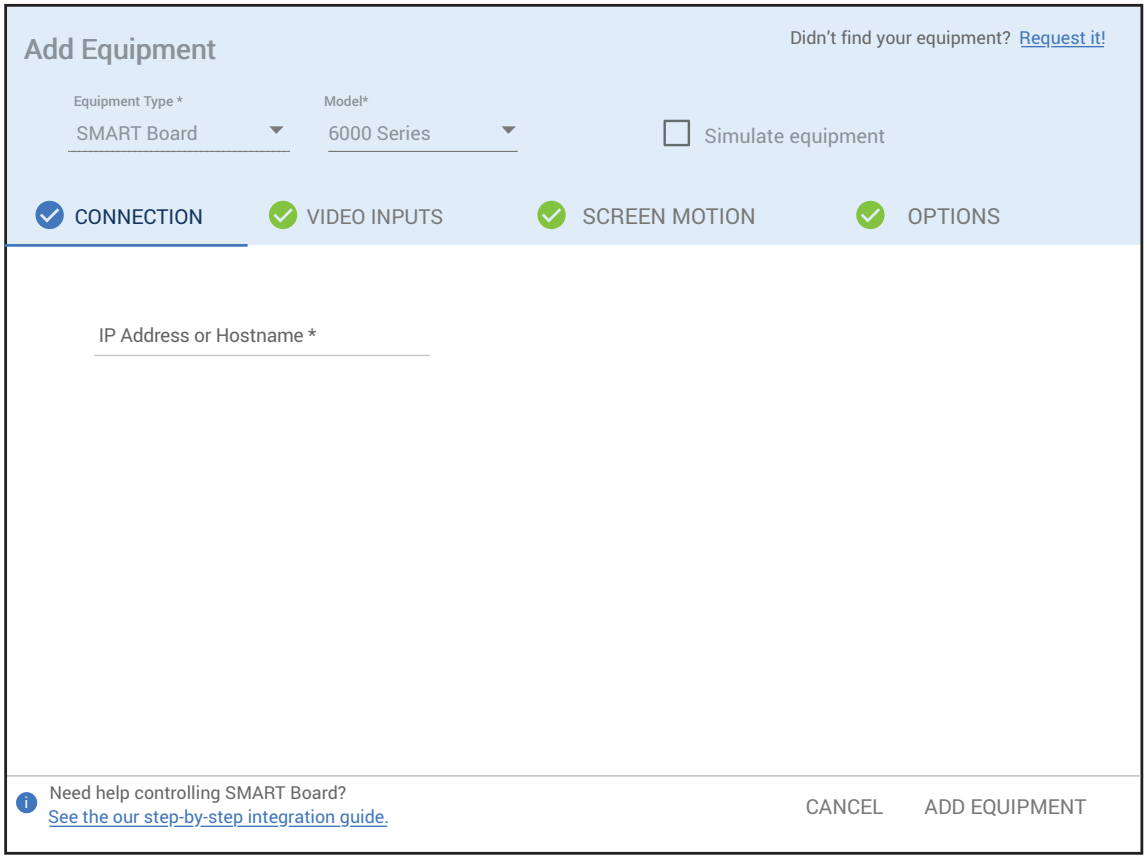

Figure 4: Enter the IP address of the Global Caché IP2SL.

Mira Connect will connect to the device through the Global Caché IP2SL. If the IP address is correct, the equipment will show 'connected'. Otherwise a 'connection failed' message will appear. See the Global Caché Integration Guide for more information on configuring the Global Caché IP2SL.

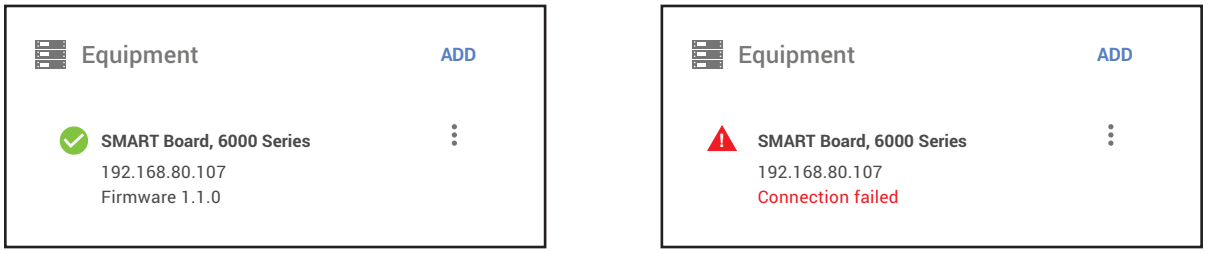

Figure 5: When Mira Connect can communicate with the device, a green check mark is visible, otherwise a red triangle indicates Mira Connect could not successfully communicate with the device.

Step 4. Configure the video inputs

To specify which video inputs are used on the SMART Board Display, select Edit from the device's menu, select the Video Inputs tab and enable an input, select an icon, and enter text labels for the desired inputs. This will create a display menu as shown

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in the following figure.

An optional display name may be entered which is useful if you have multiple displays in a room.

A display card and menu will not appear on Mira Connect until you have enabled at least one input on the display.

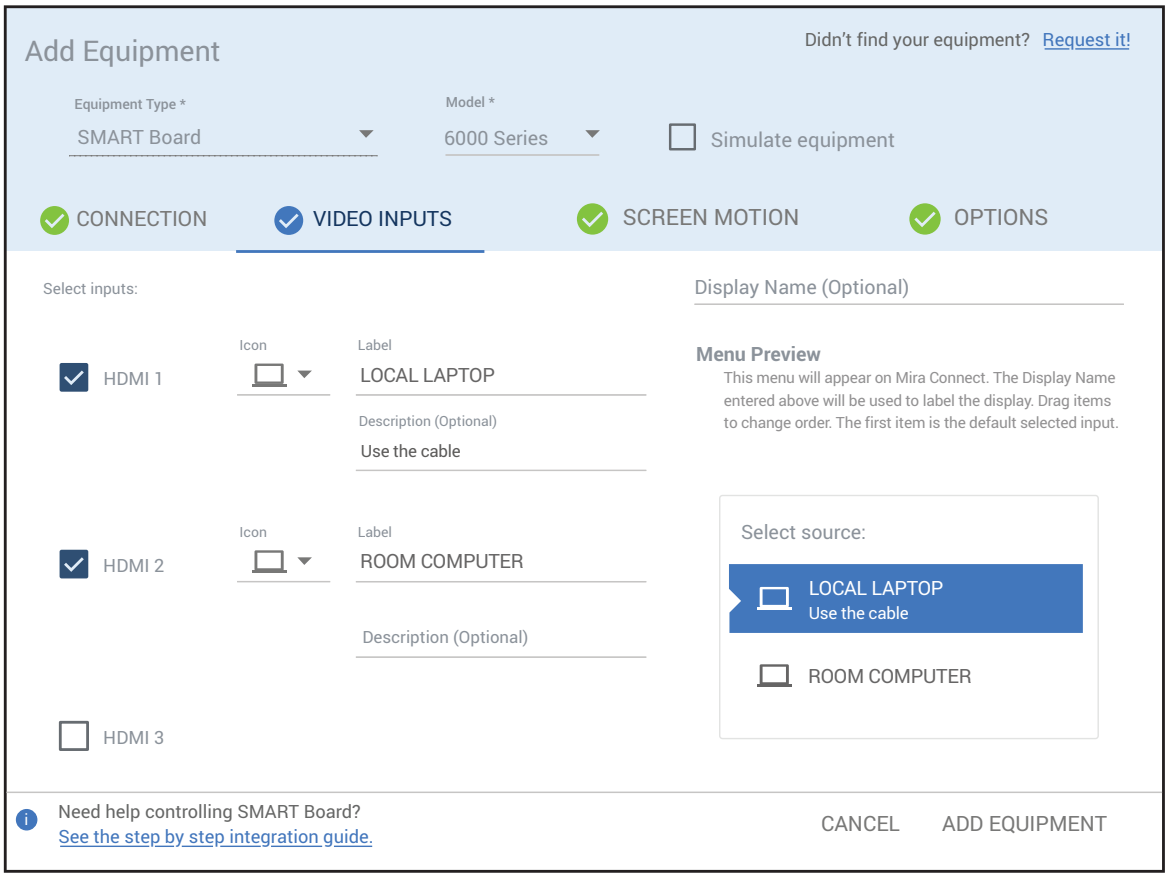

Figure 6: Enable the desired inputs on the SMART Board Display.

If connecting the output from a video switcher or cable TV tuner to an input on the SMART Board Display, click the link 'Use Sources Connected to Other Equipment…' and select where the source comes from.

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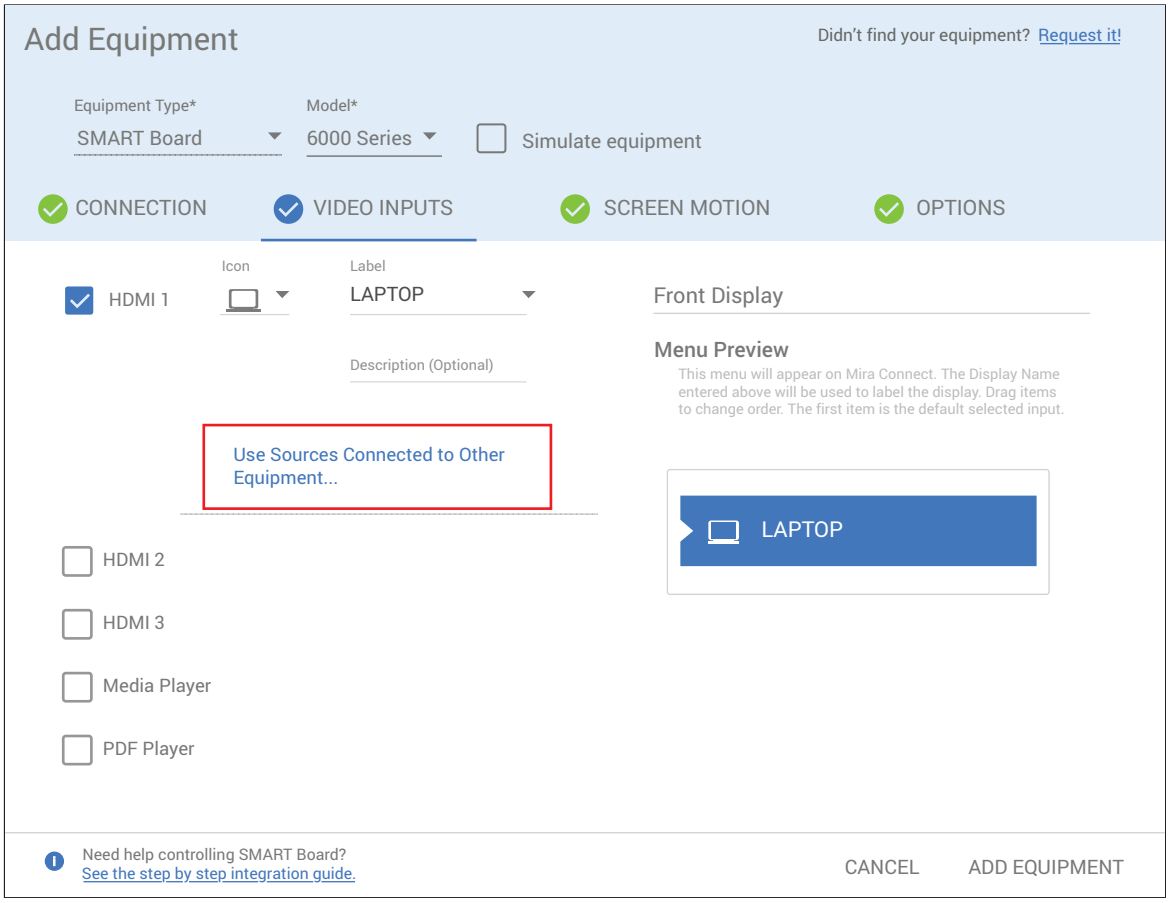

Figure 7: To use a source from another device to an input, click the 'Use Sources Connected to Other Equipment…' link.

Step 5. Add other Equipment to Room

In addition to the SMART Board Display, Mira Connect can control displays, video switchers, VISCA cameras, lighting, shades, TV tuners, recorder/streamers, and more. See our short training videos or integration guides for other equipment.

You may also customize the background image, logo, and colors by editing the visual theme at the Mira Portal site level. See the Mira Connect finishing touches guide for more details.

Control Interface

- When using the Global Caché IP2SL interface for serial control, see the Global Caché Integration Guide for how to configure the Global Caché IP2SL. Ensure the baud-rate on the Global Caché IP2SL (defaults to 19,200 bps) matches the baud-rate configured on the SMART Board Display.
- The default RS-232 settings for a SMART Board Display is 19,200 baud, no parity, 8 data bits, one stop bit, and no flow control.
- Use a straight through RS-232 cable as shown in the following figure(s).

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- Mira Connect uses a network connection with TCP to port 4999 through the Global Caché IP2SL for serial control. To ensure the SMART Board Display's IP address doesn't change over time, set a static IP address on the device by browsing into the device and configuring the network settings.

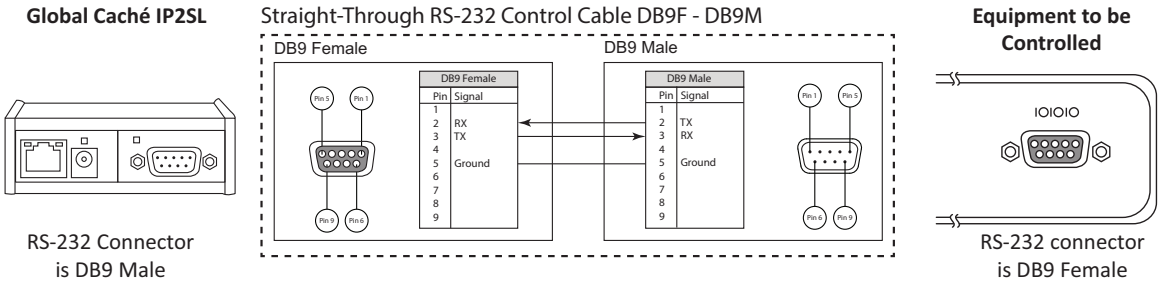

Figure 8: Use a straight through to connect the Global Caché IP2SL to the SMART Board Display.

Version Tested

Tested with a SMART Board 6000 series display with firmware v1.0.1.8.

Troubleshooting RS-232

- If Mira Connect cannot connect to the SMART Board Display, ensure the IP address is correct for the Global Caché IP2SL interface.
- Ensure the baud-rate for the Global Caché IP2SL is set to 19,200 bps. See our Global Caché integration guide for more information on how to configure the baud-rate, set a static IP address, and more.
- Ensure the cable is pinned out as described in this guide. Most RS-232 connection issues are either baud-rate related or are resolved by reversing the transmit and receive pins on the RS-232 cable. See our RS-232 best practices for best practices when using RS-232.
- For more information on how to troubleshoot RS-232 connections, see our RS-232 troubleshooting article.

For more information please contact our Sales Department at sales@aveosystems.com.

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DS-11043-001, Version: August 12, 2023

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