



COGNIO™

PLATFORM

Unboxing Guide



Getting started with the C20 smart processor and DesignOps software.

Welcome to Cognio Platform.

Next generation in AV and Control.



This guide will quickly overview a standard C20 smart processor and the DesignOps software to get you on your way to full deployment of your Cognio system. It will cover:

Introduction and initial connectivity setup:

- What's Included in the Box
- LED overview.
- C20 hardware and connections.
- Cabling the C20 for the first time.

DesignOps software:

- Get familiar with the environment and terminology.
- Initial network connection and discovery of the C20, pairing, and syncing.

Basic troubleshooting:

- Quick troubleshooting notes to do with this initial connection.
- Factory reset button.
- Serial number location.

Further resources:

- Guidance to the location of all Cognio resources.



Hardware Introduction.

Contents, LEDs, Power Supply, Hardware & Network Connections.



WHAT'S INCLUDED IN THE BOX

A Cognio C20 smart processor is shipped with the following:

1. C20 Smart processor.
2. External power supply adapter and US/EU cables.
3. Mounting hardware.
4. Quick Start Guide.

LED OVERVIEW

The front panel LEDs provide a visual indication of the device's network and system status. These will indicate whether the Control and Dante network ports have obtained DHCP or link-local IP addresses, lost connectivity, and are waiting for network assignment. They also indicate whether the C20 is updating firmware or experiencing a critical system fault. The top LED is Network 1, middle is Network 2, and bottom is USB.

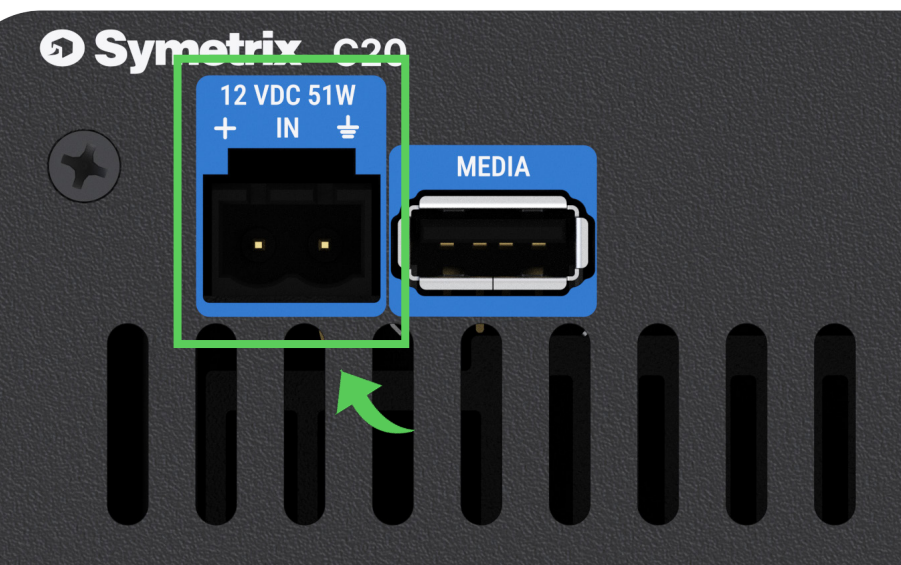
Specific color and activity translation can be found in the Design Ops Help > Documentation.



POWER SUPPLY

The power supply involves a 2-pin terminal connector that locks and unlocks to allow the wires to be inserted or removed. This decision was made to allow the connection more security as with traditional Symetrix 3-pin terminal connectors for audio or GPIO (list specific Symetrix hardware).

Important information about the power connection can be found in the Design Ops Help > Documentation.



Hardware Introduction.

Contents, LEDs, Power Supply, Hardware & Network Connections.

HARDWARE/NETWORK CONNECTIONS

All hardware and network connections are on the back of the C20 processor.

1. Power Supply Input 12 VDC 51 W.
2. Media USB port.
3. Network 1 – Control network port.
4. Network 2 – Dante audio network port.
5. Audio Bridge USB port.

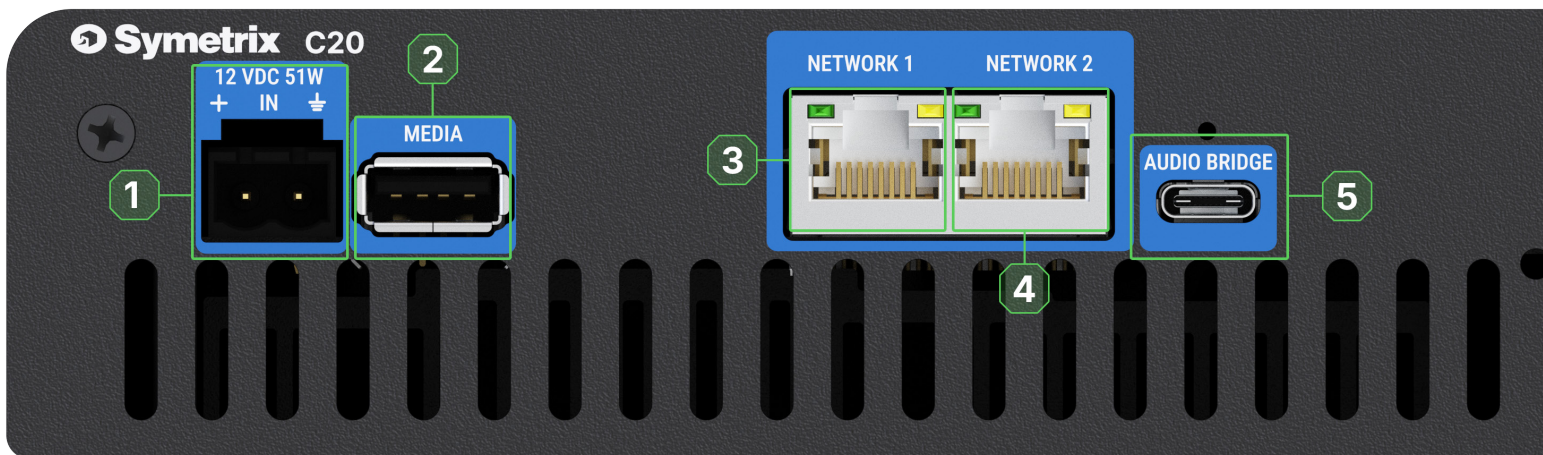
NETWORK 1 & NETWORK 2 PORTS

Network 1 is meant for the “Control” network and the Network 2 port is meant for Dante. These ports are configurable.

MEDIA & AUDIO BRIDGE USB

There are two USB ports on the back of the C20.

- USB-A Media port for media playback. Connect a USB storage device to play back audio files through the Cognio signal flow.
- USB-C port provides audio bridging between a connected laptop or PC and the AV system.



Blinking yellow:
Booting/searching for
network



Solid green:
Network found,
resolved DHCP



Solid blue:
Network not found,
resolve link local

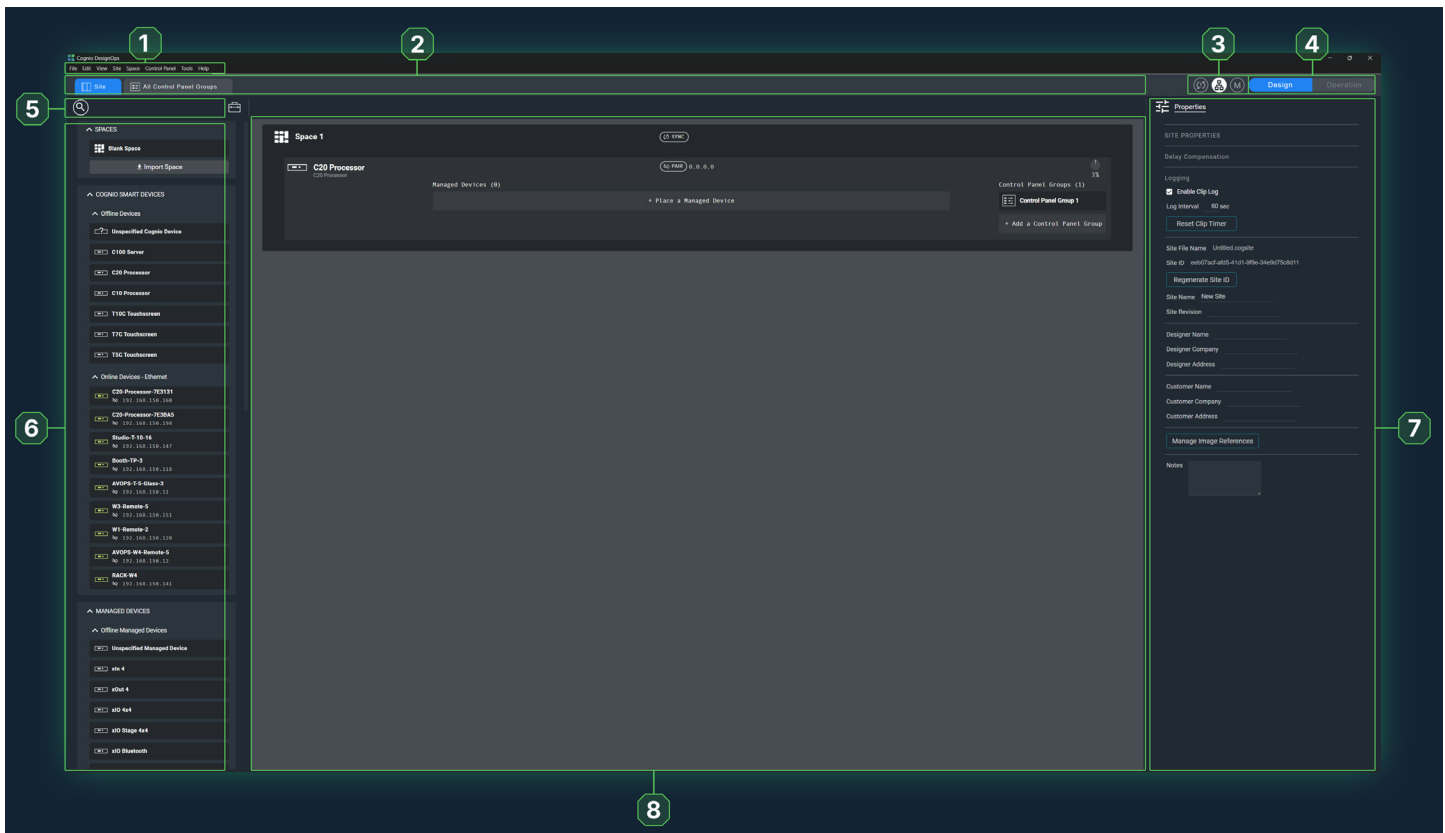


Solid red:
Network not found,
cannot resolve IP

DesignOps Software Tour.

Site View, Signal Flow View, Control Panel Group View.

Cognio DesignOps is the control software for Cognio systems and is operated from three main views (Site View, Signal Flow View, Control Panel Group View) and a variety of supporting manager views.

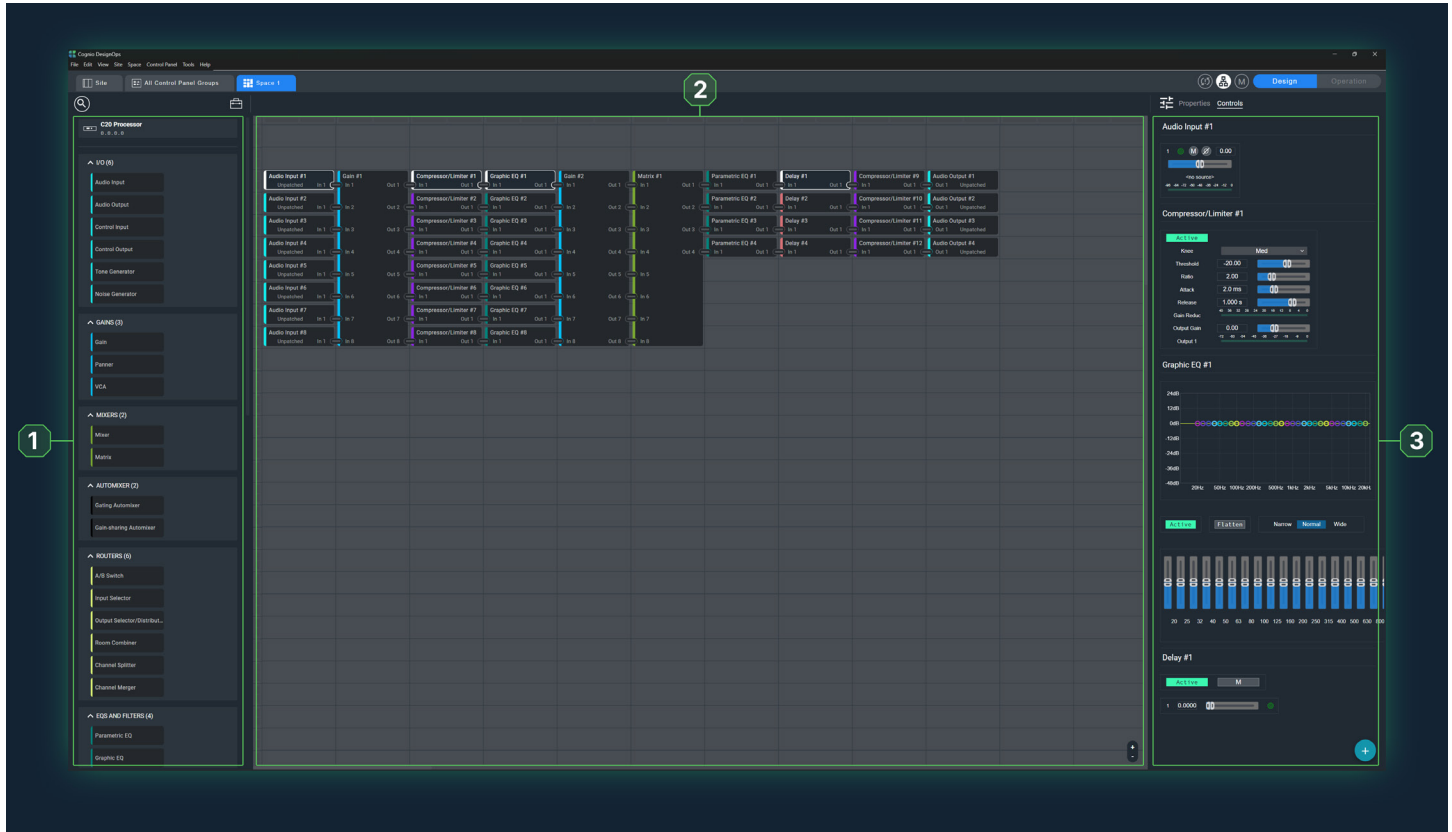


SITE VIEW - Used for Space, Smart Device and Managed Device setup. From this default main view, we can also see many of the common panels and settings that would be used.

- 1. Menu bar** – standard File, Edit, View type of menus and provides access to common commands, abilities, and windows.
- 2. Navigation bar** – provides access to the open view tabs including Site, Control Panel Groups, Spaces, Presets Manager, and more.
- 3. Global status** – provides status information and acts as actionable buttons including sync, network selections, and system mute.
- 4. Operating mode** – selects the mode of DesignOps. Design Mode is used for design and construction of the site file while Operation Mode puts a system into a semi-“live” state for signal flow validation as well as prevents fundamental changes to the system that could “break” it or cause the need to re-sync.
- 5. Search bar** – offers the function of searching in the currently viewed toolkit for a device, module, or information.
- 6. Toolkit panel** – contains all of the relevant objects and some information about the currently displayed space view.
- 7. Modification panel** - holds controls and parameters from design modules that are used to make adjustments to the system. Note the dynamic tabs at the top of this panel.
- 8. Spaces area** – a global, top-view of the all signal flow segments in the system. These spaces also contain control panel groups for control screens.

DesignOps Software Tour.

Site View, Signal Flow View, Control Panel Group View.

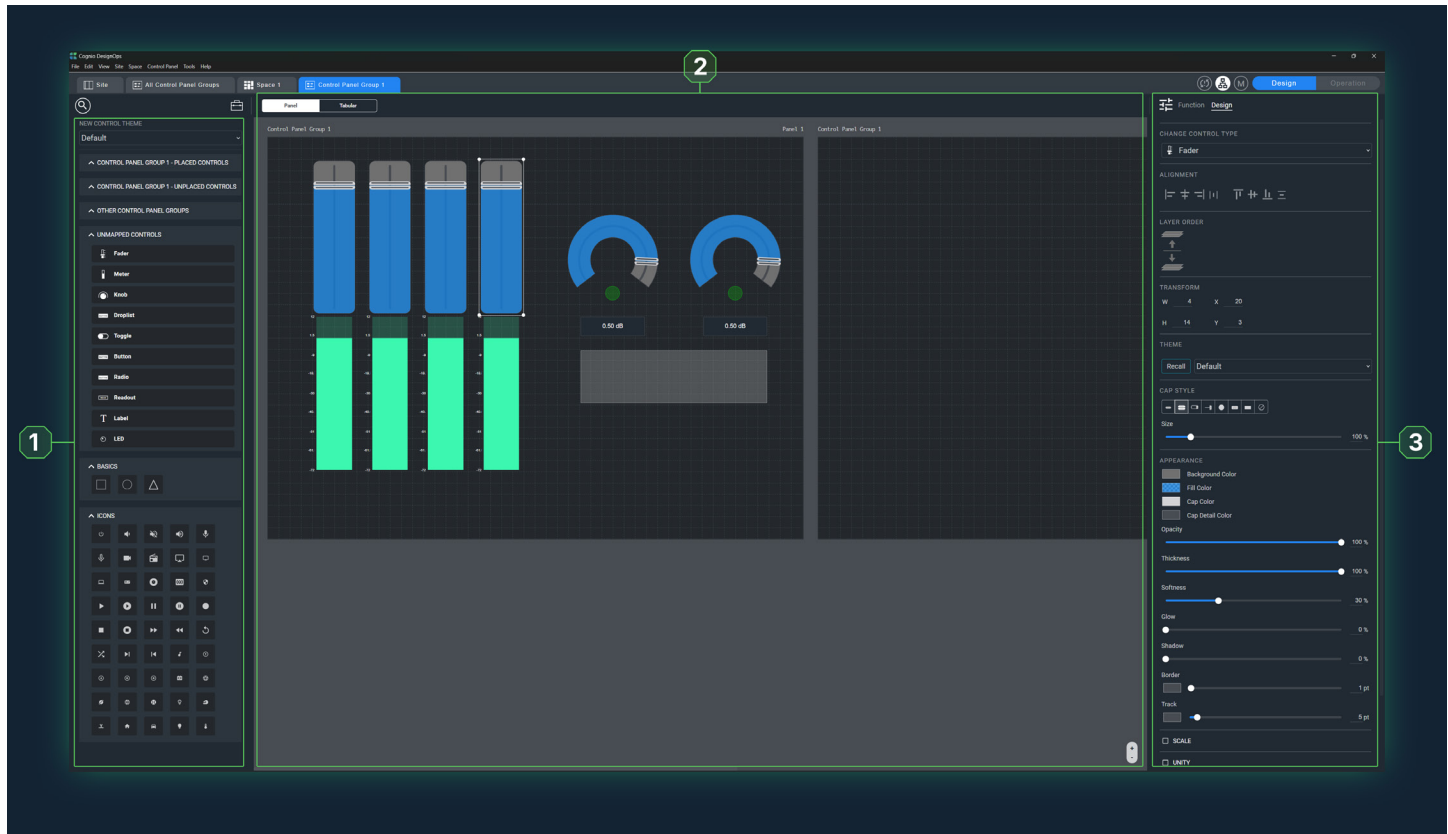


SIGNAL FLOW VIEW – Once a space has been added, this area is used for creating the DSP Signal Flow for each Space. Add and connect modules, configure their controls, and assign presets, link controls, and create Control Panel assignments.

- 1. Toolkit** – the Signal Flow View toolkit contains available modules that can be placed into the signal flow design.
- 2. Module work area** – modules can be placed in this area which represent all of the processing a given signal will pass through. Note the dynamic tabs at the top of this panel (Properties and Controls).
- 3. Modifier panel** – the dynamic modifier panel shows the available controls for the selected modules. This panel updates live when different modules are selected and will show live signal flow (metering).

DesignOps Software Tour.

Site View, Signal Flow View, Control Panel Group View.



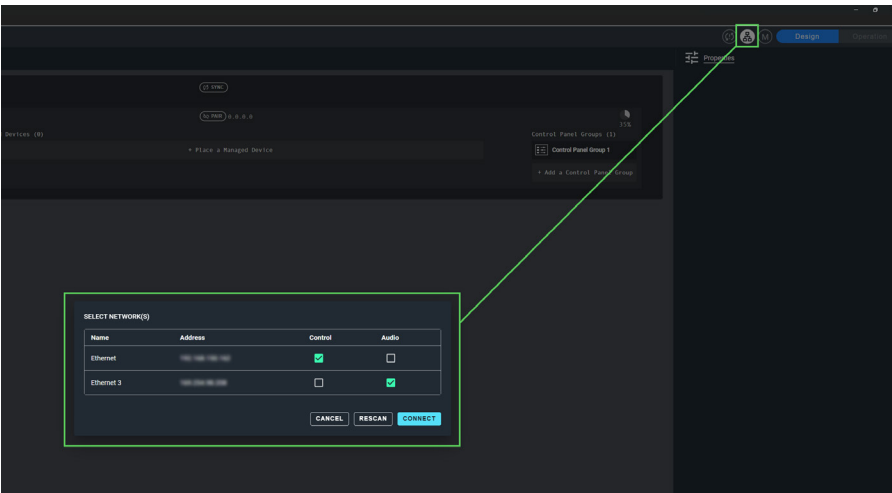
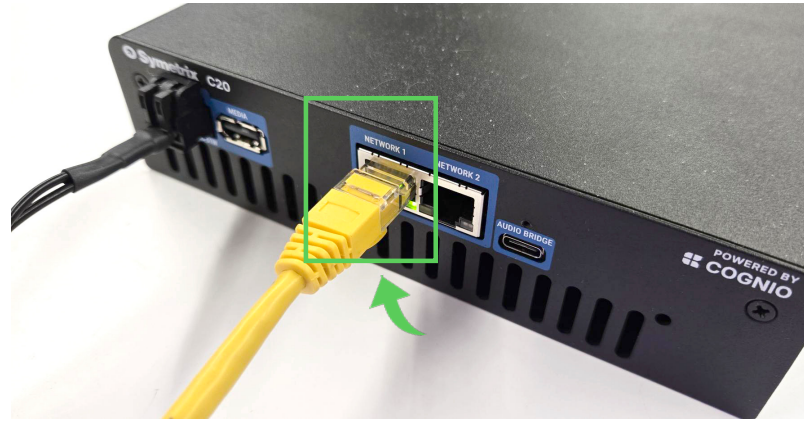
CONTROL PANEL GROUP VIEW – Is a workspace that allows for the design of Control Panels that users can interact with.

- 1. Toolkit** – The Control Panel Group view toolkit contains available un-linked controls and elements that can be placed into the control panel designs.
- 2. Design area** – the control panel design area contains a gallery of control panels included in the group and is where placement and sizing can be done for each.
- 3. Modifier panel** – the modifier panel contains all of the available customizations for a selected control. This panel dynamically updates based on the control selection. Note the dynamic tabs at the top of this panel (Function and Design).

Initial Connection with C20.

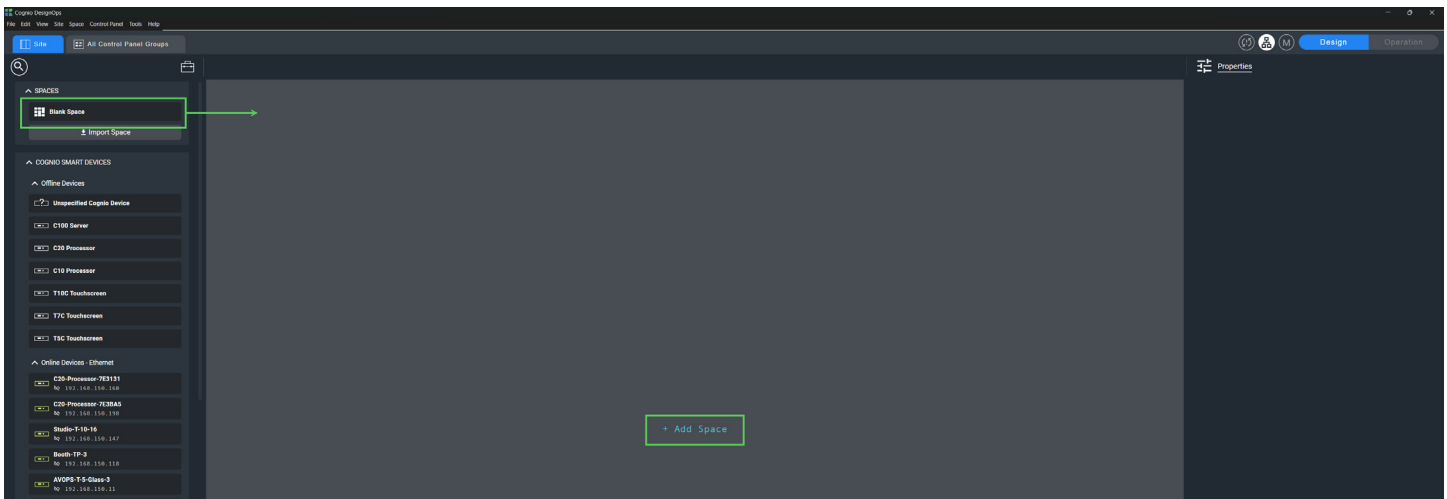
Pair, Synchronize, Push/Pull.

Now that there is some familiarity with the hardware and software environments, we can get connected to the C20 for the first time. Before powering on your C20 processor, connect **Network 1** to the appropriate network switch (or direct to PC if no network is involved). Once cabled, power on the C20 and give it a minute or two to fully boot and resolve IP addressing – blinking yellow, progressing to solid green or blue depending on DHCP availability.



STEP 1: It is important to ensure your PC has the proper networks selected for the NIC(s). Clicking the Network Selection button in the global controls will bring up a dialog allowing this selection – remember which network is Control and which is Dante. Check the appropriate boxes and click Connect.

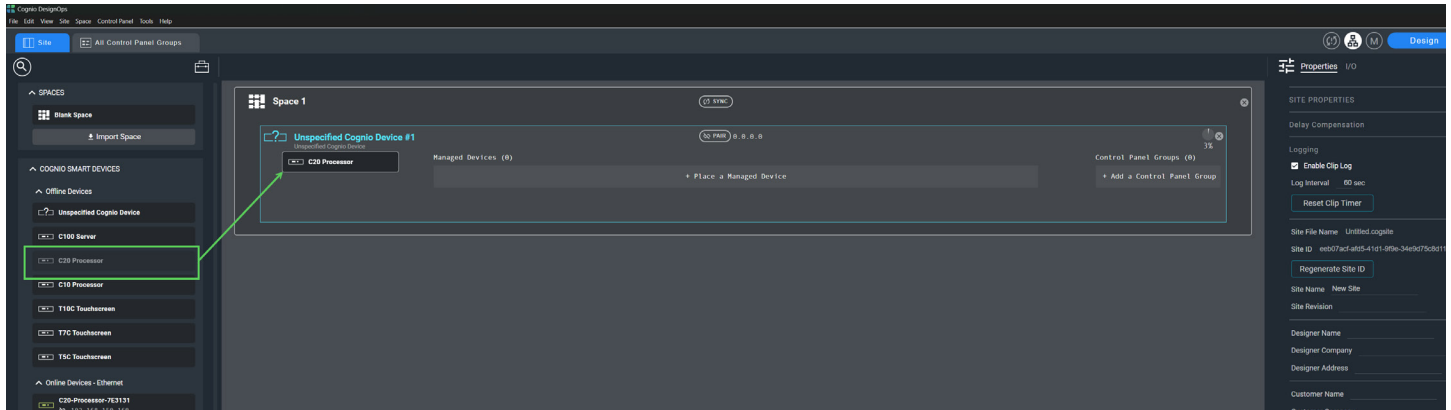
STEP 2: Once the appropriate networks have been selected, add a Space either by clicking Add a Space, or dragging a Blank Space in from the Toolkit while in the overall Site View.



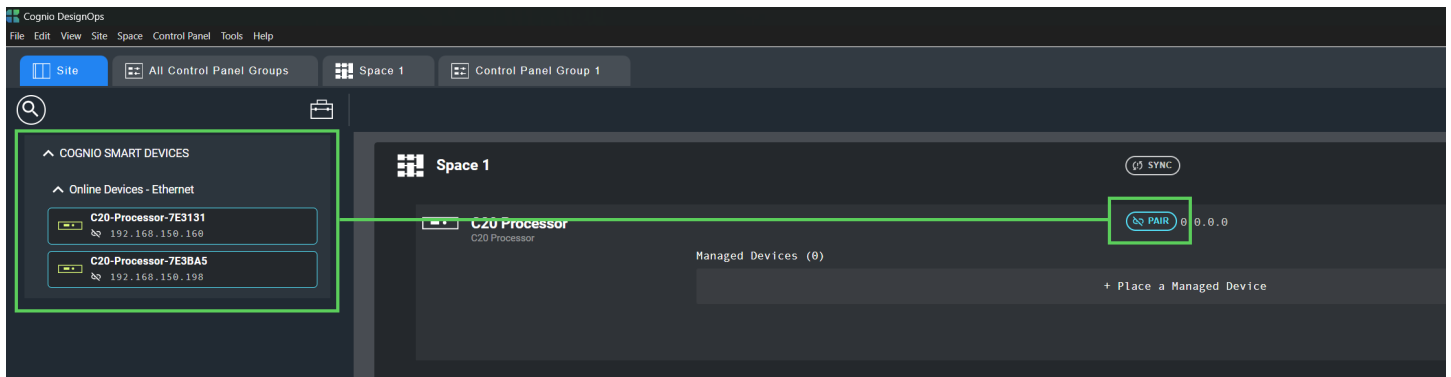
Initial Connection with C20.

Pair, Synchronize, Push/Pull.

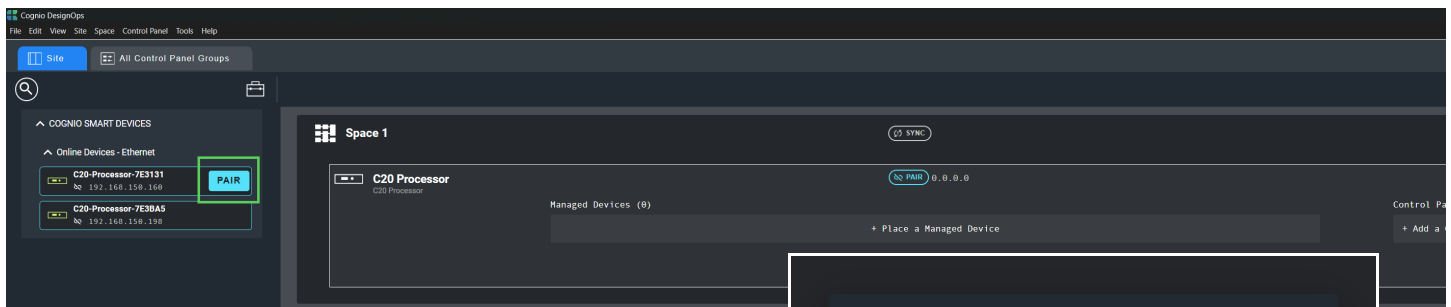
STEP 3: Drag a C20 device module into the Space.



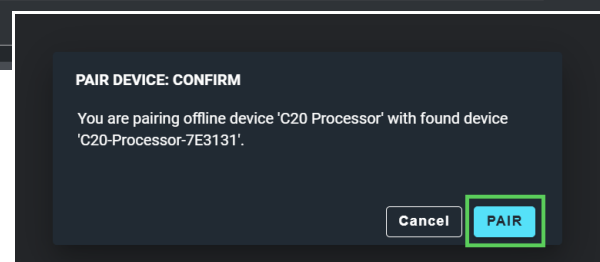
STEP 4: Now, click the Pair button at the top center of the C20. This will update the toolkit to offer a selection of all C20 devices that your PC and DesignOps can detect on this network.



STEP 5: Hover over the appropriate C20 device and click Pair.



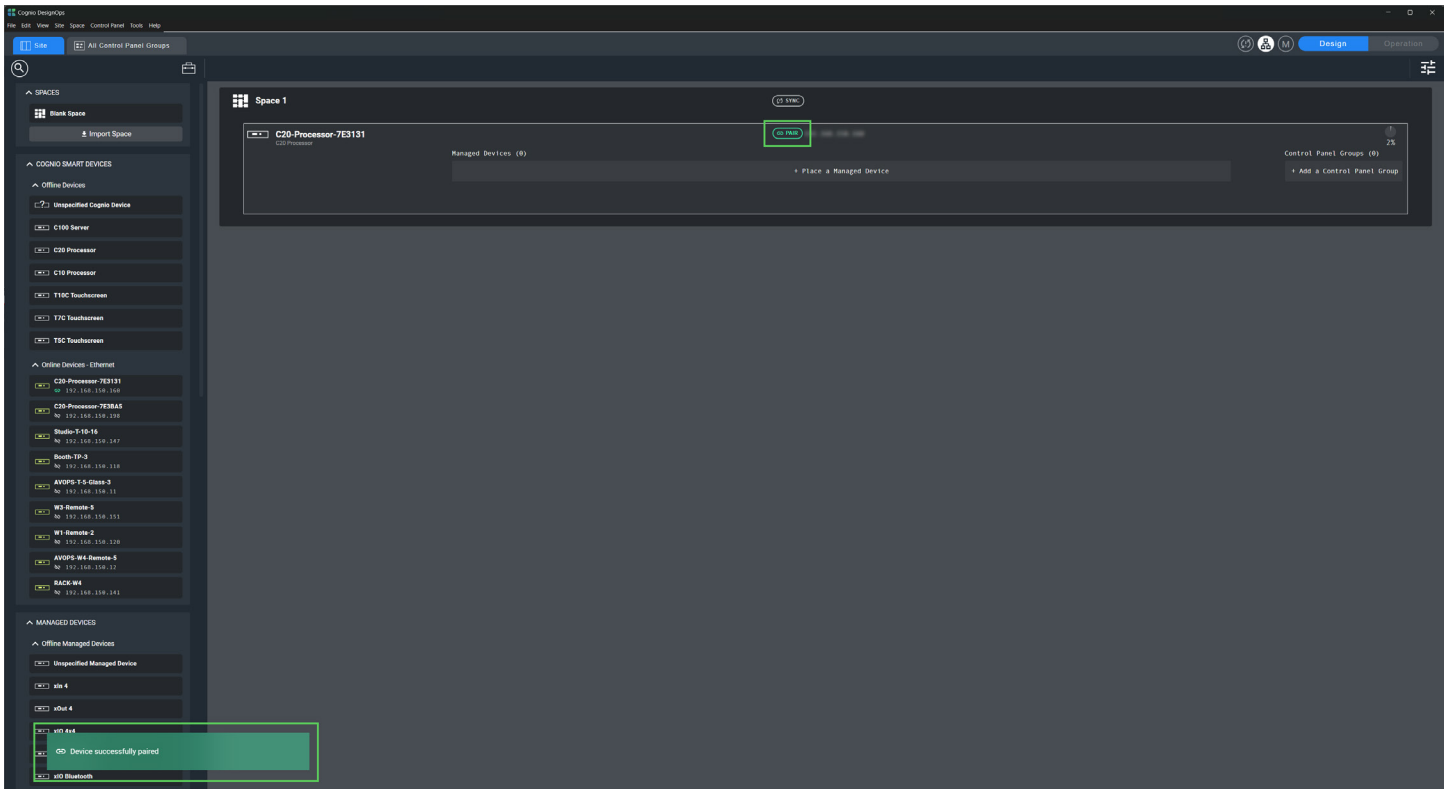
STEP 6: Confirm the action to pair with the device.



Initial Connection with C20.

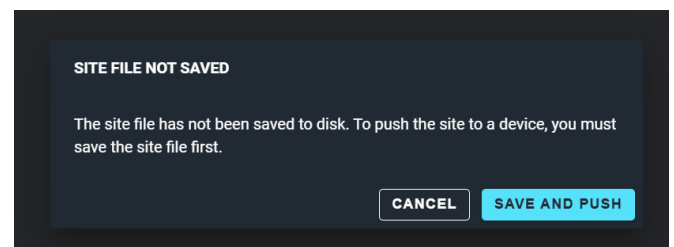
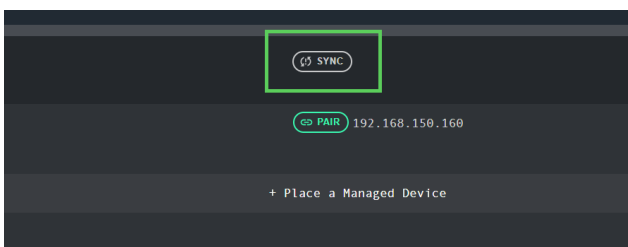
Pair, Synchronize, Push/Pull.

STEP 7: Upon successful pair, DesignOps will notify in the lower left corner and the Pair button will turn green and present an IP address just to the right. If the pair button turns Orange and does not turn green, the pair has been unsuccessful.



When all designing has been completed, or if you are connected to a C20 that has already been programmed and prefer to pull the programming, there are a couple of ways to synchronize DesignOps and the hardware.

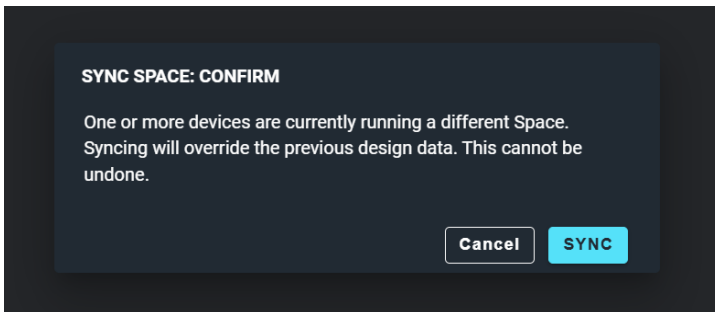
Clicking the Sync button in each space will synchronize *only that space*. As well, this action acts like a Push of programming; transferring configuration to the hardware.



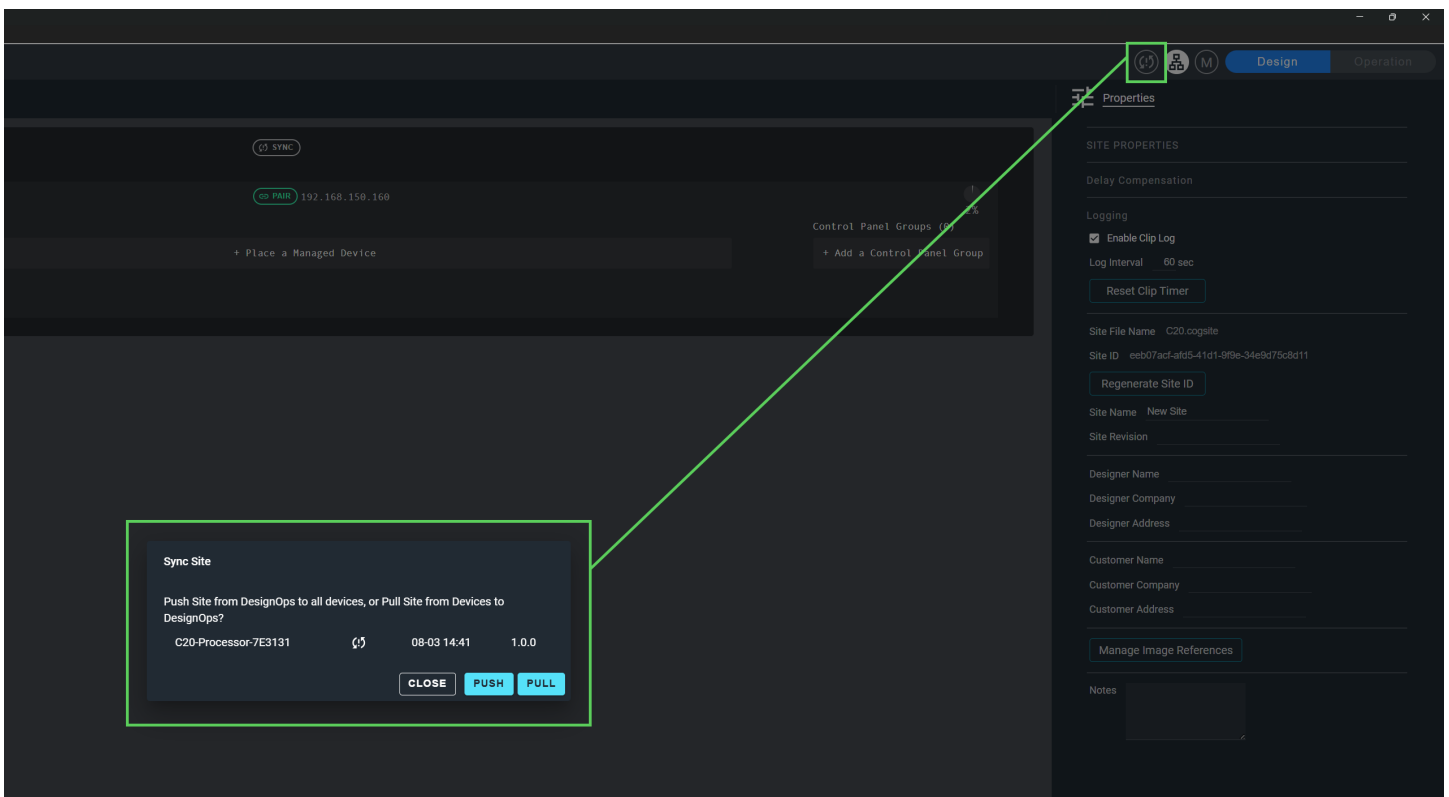
Initial Connection with C20.

Pair, Synchronize, Push/Pull.

If the device already has a design loaded to it, DesignOps will offer a warning before pushing.



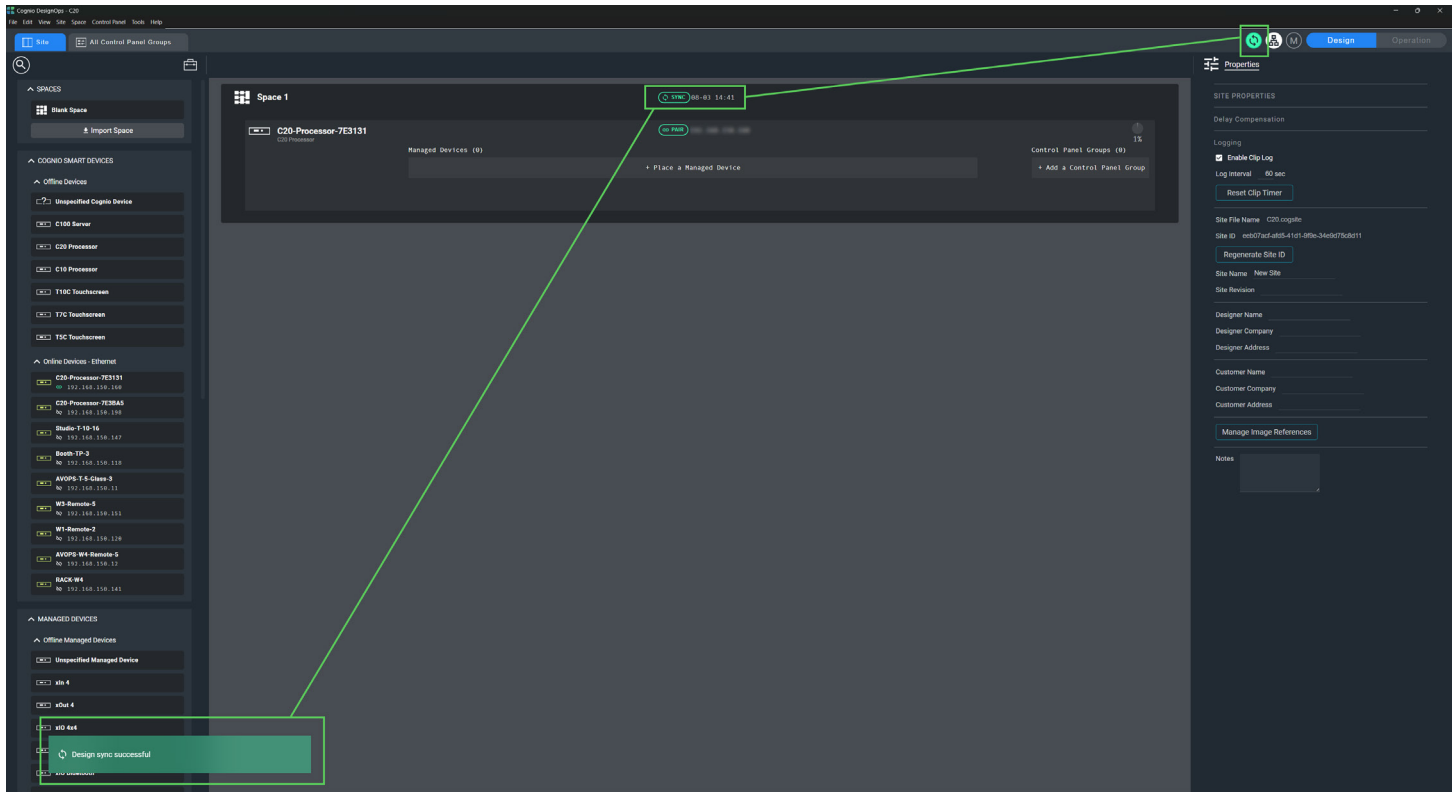
If you would like to synchronize the entire design globally or attempt to pull the current existing programming (transfer from the hardware), click the global sync button and then Push or Pull appropriately.



Initial Connection with C20.

Pair, Synchronize, Push/Pull.

Upon successful synchronization, DesignOps will confirm in the lower left corner as well as turn the Sync buttons green. If any fundamental programming (adding removing modules, for example) DesignOps will be desynchronized and the Sync buttons will return to white until re-synced.



Congratulations! You have successfully paired and synchronized Cognio with the C20 smart processor.

Troubleshooting & Resources.

Service and Maintain Symetrix Cognio Systems.

Cannot locate C20 on network:

Double-check your network selection and that your PC is properly communicating to the network. Your PC *must match* the IP address scheme and subnet mask of the C20 to properly communicate. Check your PC network settings for accidentally static IP addressing or other configuration that doesn't match the hardware configuration.

Some early-adopted C20 devices may hold onto IP addresses from prior network connections and simply need a power cycle to re-resolve to a DHCP server (if one is present). If no DHCP server is present, after a 20 sec timeout window, Cognio devices will self-resolve to a link-local 169.254.x.y configuration. See the LED activity reference sheet for more indication.

If using a network switch, managed or unmanaged, attempt a direct connection to the C20. This removes the variable of the switch/greater network influence. The C20 may need to be power cycled after switching ethernet cabling.

Double-check that network port (RJ45) link lights are illuminating and showing activity. If not, there could be an issue with the cable, the physical ports, or the hardware on either end.

Unit does not power on or no from LED activity:

If the C20 is not showing any front LED activity (no illumination at all), ensure the unit is receiving proper power from the power source – consider unplugging and re-plugging for secure connection. Voltage can be tested across the terminal pins with a voltmeter.

If power is properly provided and there is still not LED activity, there may be a boot issue. Contact Symetrix Support at support@symetrix.co.

Factory reset:

Factory reset is a viable tool in troubleshooting to attempt to return the C20 back to a factory setting. Some early-adopted C20 devices do not have the full capability of factory reset, however, this is the process:

Remove power from the C20.

Find the reset button behind the grill on the front of the unit; on the right side directly below the LED designation printing.

Push and hold the reset button and re-apply power, continuing to hold the button for 20 seconds.

Serial number:

The "80-..." serial number of the C20 is on a white sticker on the bottom of the unit and is the only location it exists. This number is not linked to MAC addresses at all and cannot be extracted through the software.

Troubleshooting & Resources.

Service and Maintain Symetrix Cognio Systems.

RESOURCES

We are constantly putting together new resources to help you self-serve and keep your processes efficient. Here are online resources:

Website: In the main navigation under Cognio > Support Documentation, you'll find a growing collection of articles, videos, and more all about Cognio Platform.

YouTube: Our [YouTube channel](#) has Cognio Platform specific playlists so you can get to the info you need as quick as possible.

Support Documentation: The DesignOps software has a link to the platform support documentation, the de facto user manual, under Help > Documentation. It can also be found on our website [here](#).

Support: If you need support beyond what this document provides, contact support@symetrix.co, your local [Dealer](#), or your regional **Field Application Engineer** for assistance.

Symetrix Field Application Engineering team is ready to assist with design programming, third-party control, some network configuration, and equipment specification. Reach out to them directly at fae@symetrix.co.