Contents

General Sessions
Get our perspective on the state of the industry and our plans for the year ahead

Master Sales Associates (MSA)
Learn how to position the best Commercial solutions for your customers

Masters Technology Architects (MTA)
Learn how to create complete, easy-to-use (and support) Commercial solutions

Master Certified Programmers (MCP)
Learn how to use Crestron programming tools to create custom solutions

*Please note: Course abstracts are subject to change*
General Sessions

MGS-100

Crestron Solutions for the Industry

General Session, 90 minutes

Audience: Required for all

Gain insight and thought leadership on our industry from opening thoughts with Sean Wargo, Sr. Director, Market Intelligence for AVIXA, as he shares data analytics and trends for our industry.

Our headline session follows as we discuss “The Vanguard of Change” within our industry. Hear from Crestron’s top executives as they engage in a discussion on where they see industry growth, change and opportunities in 2023 and beyond.

Featured guests include:

- Dan Feldstein, CEO and President
- Brad Hintze, Executive VP, Global Marketing
- Sam Kennedy, Sr. Director, Product Marketing
- Stijn Ooms, Director, Product Strategy AV & Digital Workplace
- Richard Sasson, Global Director Pro Community

MGS-400

Crestron Future Vision

General Session, 90 minutes

Audience: Required for all

In this live and exclusive Masters event, expect to hear and see news about the next year at Crestron; up-and-coming products, updates, services, and more! Featuring our leadership team, this session will provide detailed insights and information about what you will see released within the next twelve months.

We will conclude the event with a recap of this year’s Masters event and introduce our newly leveled-up Masters Certified Programmers.

HACK

Annual Masters’ Hackathon

General Session, 2 hours

Audience: Open to all attendees

What have Toine and Chris cooked up for you to challenge in 2023? Attend to win in this year’s version of a intricately curated and possibly diabolical series of tasks designed to extend your mind to its limits. Make the annual Masters Hackathon your high point of the week!
Master Sales Associates (MSA)

Special Session

Modern Work Summit

2 days

Audience: MSA required

This summit will discuss ideas to enable modern work and tackle important trends including:

• Scaling video conferencing across the business
• Ensuring equitable meetings through intelligent audio and video
• Enabling productive in-person meetings
• Scaling room operations

• ‘Modern Work’ includes enterprises embracing hybrid modalities, colleges and universities embracing hybrid and hyflex learning
• Hear from partners including Jabra, NETGEAR, Sennheiser, Shure, and Sony about data and insights for enabling modern work

Learn more at modernworksummit.com

MSA-120

Sales Partner Sessions

Class, 3 hours

Audience: MSA required

In this double length session, we welcome our strategic alliance partners to provide insight to how effective partnership can bring effective and ongoing success.
Masters Technology Architects (MTA)

LEVEL 200

MGE-211

Understanding USB

Class, 90 minutes
Audience: MTA elective

Modern smart spaces require integration with USB devices. From conference rooms to lecture capture, this course is designed to provide you with the knowledge needed to successfully design AV systems with those devices. Learn how USB works today and how it’s evolving for the future.

MWK-212

Commercial Design Workshop

Lab, 90 minutes
Audience: MTA elective

Just because you can doesn’t mean you should. This hands-on lab will take the concepts we have explored at Masters and put them to practical use. Students will be given design requirements and divided into groups. The groups will share their designs and discuss why those choices were made. This course is sure to provide some new and interesting ways to solve modern design requirements for commercial spaces.

MNE-211

Network Design for Commercial & Residential Projects

Class, 90 minutes
Audience: MTA elective

What makes an efficient network on a realistic budget? In all installations, whether commercial or residential, the network is the core backbone of the project. Learn the best practices and architectures of your automation and streaming AV network, and how to ensure its security.

MBE-241

Crestron Intelligent Video: Design Certification Workshop

Lab, 6 hours (two 3-hour sessions)
Audience: MTA elective

This extensive workshop is the final step in preparation for the Intelligent Video Design Certification Exam, after completion of the online self-paced video series*. It will offer an in-depth overview of Automate VX camera design. Delve deeper into the designs your end users require that you want to implement but may not be sure which products and solutions will best suit their needs. Do you have some design questions that the prior course material did not answer for you? Participate in conversations with a panel of Crestron Technical Instructors, Marketing, and Design personnel to deepen your knowledge and better prepare you for the Design Certification Exam.

*Course participants will be provided a comprehensive list of prerequisite videos to review prior to the Masters class.

MFX-213

Advanced UC Audio Solutions

Class, 90 minutes
Audience: MTA elective

In this session, we will talk through all the aspects of designing a high-quality audio-conferencing environment. We will explore the requirements of those spaces, the equipment we recommend, and how to best configure all the components to provide the optimal experience. This session will offer a deep dive into the Crestron Flex C-Series systems and highlight recommended software and hardware components to build the best audio solution for Teams and Zoom conferencing.
MNE-212
**Networked AV featuring NVX & NAX**
Class, 90 minutes  
**Audience:** MTA elective

This interactive course will highlight Crestron AV-over-IP solutions, NVX, NAX & NUX, and discuss methods to ensure the successful implementation of these products in any environment. Starting with the back end of network technology we will explore the standards and protocols behind content delivery and designs that will make your project stand out from the crowd.

MCS-311
**XiO Cloud Advanced Features**
Class, 90 minutes  
**Audience:** MTA elective

This course will cover the topics of 3rd party device monitoring, API data collection, account user levels, service providers, and more. Learn how to expand your XiO Cloud deployments beyond the most used features and find out how that helps with your ROI.

MFX-312
**Crestron Zoom Flex Portfolio Advanced Features**
Class, 90 minutes  
**Audience:** MTA elective

Crestron is expanding the Zoom portfolio to reach new customers with new solutions. Get an insider look at the latest offerings and ways to leverage them for your customers.

MFX-311
**Crestron Teams Flex Portfolio Advanced Features**
Class, 90 minutes  
**Audience:** MTA elective

New applications, new updates and new devices are coming at a blistering pace receive a comprehensive update of all the options to create the best Microsoft Teams solution with Crestron.
Masters Certified Programmers (MCP)

LEVEL 400

MEP-411

Using the XiO Cloud API
Class, 90 minutes
Audience: MCP elective

Leverage the XiO Cloud API to expand the vision of your real estate to other applications and projects by accessing device status data directly from XiO Cloud®. The course includes programming examples and hands-on activities.

MNE-412

Network Security for Programmers
Class, 90 minutes
Audience: MCP elective

Our customers are more security conscious than ever. How do we as professionals meet their evolving needs and expectations? Learn more as we pull back the curtains on Crestron’s Security Team at work and listen in on the questions that they are asked every day.

MSP-421

Advanced SIMPL on Crestron VC-4
Lab, 3 hours
Audience: MCP elective

There is still a lot you can do with Crestron’s programming languages, especially considering that the SIMPL languages are now supported on the Crestron Virtual Control platform. Take a deep dive into some of the more advanced functionalities and capabilities of SIMPL Windows and SIMPL+ in this VC-4 lab environment.

MSS-421

Programming a REST API in C# for Crestron
Lab, 3 hours
Audience: MCP elective

Learn how to implement Crestron Web Services (CWS) with Crestron Virtual Control to create an easy to use web interface and custom REST API for sending and retrieving custom commands, settings, and data for your C# for Crestron Programs.

MSS-431

Intermediate C# for Crestron
Lab, 4½ hours
Audience: MCP elective

Continue your training with these intermediate tips, tricks, and constructs to bring your C# for Crestron projects up to the next level. We will be developing programming examples for the VC-4 platform using Visual Studio in a lab format.

MUX-424

Hands On with Crestron Construct
Lab, 3 hours
Audience: MCP elective

Learn all about Crestron’s new WYSIWYG UI Tool with Ara! We’re going to start with a quick overview of Crestron Construct’s UI and design, and how to navigate them quickly and easily. Bring your Mac or PC to follow along as we import an existing VTPro project into Crestron Construct. After that, we’ll create a brand-new UI Project from scratch that automatically adapts to different panel resolutions and orientations. All this, without having to know anything about HTML, CSS, and JavaScript.
### MVC-422
**VC-4 Under the Hood**

Class, 3 hours  
**Audience:** MCP elective

Explore the inner workings of Crestron Virtual Control Software, with this updated chapter in the Under the Hood series. You will learn all about the VC-4 architecture, as well as installation, security, configuration, programming, and troubleshooting. We will also talk about virtualization, configuring redundancy, and remote logging.

### MPG-512
**Debugging Code**

Class, 90 minutes  
**Audience:** MCP elective

Programs will always have a finite number of bugs preventing you from reaching your goals the first time you test them. Learn all the "pro tips" and tricks of debugging your code from industry professionals. We will explore generic techniques, and those specific to a variety of Crestron programming languages, from SIMPL Windows up to C#.

### MFX-511
**Extensibility for Microsoft Teams Rooms**

Class, 90 minutes  
**Audience:** MCP elective

Many have said there’s no place for Crestron programming in a Microsoft Teams Room. That couldn’t be farther from the truth - learn how you can leverage your skills to augment and enhance your solutions.

### MPG-516
**Implementing the DM-NVX API**

Class, 90 minutes  
**Audience:** MCP elective

Learn how to utilize the CresNEXT API with NVX to expand your control abilities. This 90 minute class will review how to connect, authenticate, and send and receive data from an NVX endpoint within a C# development environment.

### MMS-521
**Programming Using the Microsoft Graph API**

Class, 90 minutes  
**Audience:** MCP elective

Learn how to integrate Crestron with Microsoft Graph as the gateway to data and intelligence in Microsoft 365. It provides a unified programmability model that you can use to access the tremendous amount of data in Microsoft 365, Windows 10, Windows 11, and Enterprise Mobility + Security.

### MPG-523
**Creating C# Crestron Drivers**

Lab, 3 hours  
**Audience:** MCP elective

In this class, start with the C# driver template to create and share your own customized modular driver that can be used in AV Framework® and Crestron Home® Extensions. We will be describing how to develop and test the driver in this interactive lab setting.
LEVEL 600

MSS-641
Test Driven Development for Crestron
Lab, All day
Audience: MCP elective

Further your software design and implementation skills with Yuri and Toine. This immersive class will show you how to apply a testing-first approach to the entire Software Development Life Cycle of any AV project. This full-day class starts with how to write, read, and validate software requirements, and moves on to unit tests, automated integration/system testing, and user acceptance testing. Learn how to apply these philosophies and technologies in your day-to-day development practices, which will help you increase the quality and reliability of your projects, and reduce time debugging field issues.

MUX-631
Immersive HTML5 for Crestron
Lab, 4½ hours
Audience: MCP elective

This course is an advanced level look at the Crestron HTML5 library geared for developers who wish to create their own components using the Crestron provided JavaScript library APIs to send and receive joins to and from the control system. The techniques shown in this class are applicable whether the developers are working with the Crestron supplied shell template or other application frameworks such as Angular, React or Vue. Participants will develop primarily with JavaScript.

CSP ONLY

MCO-512
Independent CSP Programmer's Conference
Class, 90 minutes
Audience: Required for Crestron Service Providers

During this 90 minute session, hear from the CAB, Mark Pellegrino, Josh Stene, Tom Wright, Richard Sasson, and Jeff Hopkins about the latest opportunities and improvements within the CSP community. Find out more about the continuing expansion and cooperation of this CSP community with Crestron.

ABOUT LABS

Attending any programming labs will require that you bring a laptop meeting the minimum requirements to run all listed software. Ensure all systems are updated prior to attendance as onsite internet bandwidth may be limited.

*Access via WiFi