

## DELIVERING THE PERFECT MEETING: AN OVERVIEW OF AMX'S PRODUCTS

This document describes the products in AMX's room solutions. To provide context, the document begins with an overview of AV technology's role in the workplace, the typical problems with room AV, and the solutions that AMX delivers to overcome these problems.



If you'd like to skip the background material and jump straight to the product descriptions, [click here](#) or jump directly to page 6.

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## *The importance of AV technology in the workplace*

Over the past decade, conference room and classroom AV equipment has evolved from a “nice to have” item to an absolute necessity. This is because AV equipment addresses three of today’s most critical business trends: The shift to video and other rich content, the need to bridge distances and the need to manage and maintain resources online.



Area	What’s changed?
<b>Rich Content</b>	It used to be all about PowerPoint, a laptop and a projector. Now it’s about audio, video, web conferencing, real-time information, tablets, smartphones and LCD displays. Collaboration has become richer – and more complex.
<b>Bridging Distance</b>	Meetings used to take place in a meeting room. Now they span great distances and rely on technology like video conferencing and web conferencing to deliver rich content to a wide variety of end user devices anywhere in the world.
<b>Manage Resources Online</b>	Employees need online tools to schedule rooms and check availability so they don’t waste their time looking for an available meeting space. IT organizations need to monitor and maintain online assets in real time to reduce troubleshooting and service calls.

The role of AV equipment in the conference room or classroom is to seamlessly manage all these disparate AV devices so that the meeting content – whatever its source - is delivered to the room’s displays and projectors at an optimal level of audio and video quality. To do this requires a complex system managed by an intuitive user interface that can simplify the user’s interaction with the technology and “automate” the tasks that take place in the meeting room. With the push of a button or press of an icon, a user can initiate a video conference, control the audio volume, adjust the lighting, turn off and on a video player, and perform a host of other functions. That’s the essence behind conference room automation and the AMX products make it happen.

## *Problems in the typical meeting room*

In order to manage this dynamic new world of richer content, distance and optimization, companies and educational institutions have turned to AV solutions. The problem is that these AV systems are often difficult to operate and maintain, leading to poor user experiences and lost productivity in meetings. A key cause of this less than stellar performance is the fact that many room AV systems are cobbled together from different components from different manufacturers, leading to an unruly system that's full of bugs. In addition, many AV systems lack the ability to be maintained and monitored over the network, leading to difficulties with maintenance and support. This is a major issue for IT support teams who are accustomed to supporting IT assets proactively and from a central hub.

### **Meeting Room Technology Problems: Are they Really a Big Deal?**

<b><i>How widespread are meeting room technology problems?</i></b>	<b>What are some examples of meeting room technology problems?</b>
<p><i>Industry Week estimates that the cost of wasted time in meetings exceeds \$37 billion per year.</i></p> <p><i>20% of all meetings run late due to technology issues.</i></p> <p><i>The average IT Tech solves 447 conference room technology issues per year.</i></p> <p><i>One Fortune 50 company estimates losses of \$75 million+ due to unproductive meetings.</i></p>	<ul style="list-style-type: none"> <li>Users don't know how to connect their laptop, iPad or other device to the system.</li> <li>Users can't get their content (PowerPoint, video) to play on the screen or display.</li> <li>The system takes too long to power up.</li> <li>The system is too complicated to use.</li> <li>The IT organization can't monitor and maintain the AV system in real time.</li> <li>The audio / video quality is poor.</li> </ul>

## ***What we do: The AMX solution***

AMX’s objective is to help customers achieve the ***Perfect Meeting***, thereby eliminating the lost productivity that plagues the modern meeting room or classroom. To do this, AMX focuses on two central elements where competing solutions have failed to deliver:

1. Ensuring a great user experience by providing a simple but powerful user interface, a quick and easy way to configure and set up the equipment, and a solution that’s reliable and feature-rich.
2. Providing the capability to centrally monitor and manage AV technology over the IT network.

In essence, AMX’s focus is to provide a perfect meeting environment for those who use the equipment and the IT organization that supports it – hence our objective of delivering AV for an IT world. In doing this, AMX is able to deliver a low overall Total Cost of Ownership (TCO), thanks to substantial savings in programming and maintenance costs combined with higher levels of overall productivity.

## ***The AMX Standard Collaboration Environments***

In 30+ years of business, AMX has designed and delivered every conceivable type and size of conference room and classroom in over 180 countries. In order to provide a starting point, AMX has identified and designed a small set of typical rooms that represent at least 80% of the rooms we see around the world. We refer to these as “Standard Collaboration Environments,” three of the most common being *Huddle Spaces*, *Standard Conference Rooms* and *Boardrooms*. Our objective is to use one of these room types as a baseline for helping a customer specify the ideal conference room or classroom configuration for their needs.



## Summary of AMX Standard Collaboration Environments


















**Huddle Space**



**Conference Room**



**Boardroom**

Room Type	Size	Description	Capabilities
<b>Huddle Space</b>	~100ft <sup>2</sup> (~10m <sup>2</sup> )	The perfect collaboration space for small groups to review content, conduct a webinar, or gather on short notice to get the day-to-day work done. Perfect for project meetings, webinars, and when people need privacy.	 PRESENT  WEBINAR  ENERGY MGMT
<b>Standard Conference Room</b>	~300ft <sup>2</sup> (~30m <sup>2</sup> )	The place for team meetings, client meetings and other gatherings that require a multimedia experience including access to real-time information, control of a video conferencing system and video from multiple sources.	 PRESENT  VIDEO CONFERENCE  AUDIO CONFERENCE  WATCH MOVIE  WEBINAR  ENERGY MGMT
<b>Boardroom</b>	~400ft <sup>2</sup> (~40m <sup>2</sup> )	Where companies hold important management, board and client meetings and wish to showcase an elegant look and feel while leveraging a high level of technology that can manage a wide variety of devices.	 PRESENT  VIDEO CONFERENCE  AUDIO CONFERENCE  WATCH MOVIE  WEBINAR  ENERGY MGMT

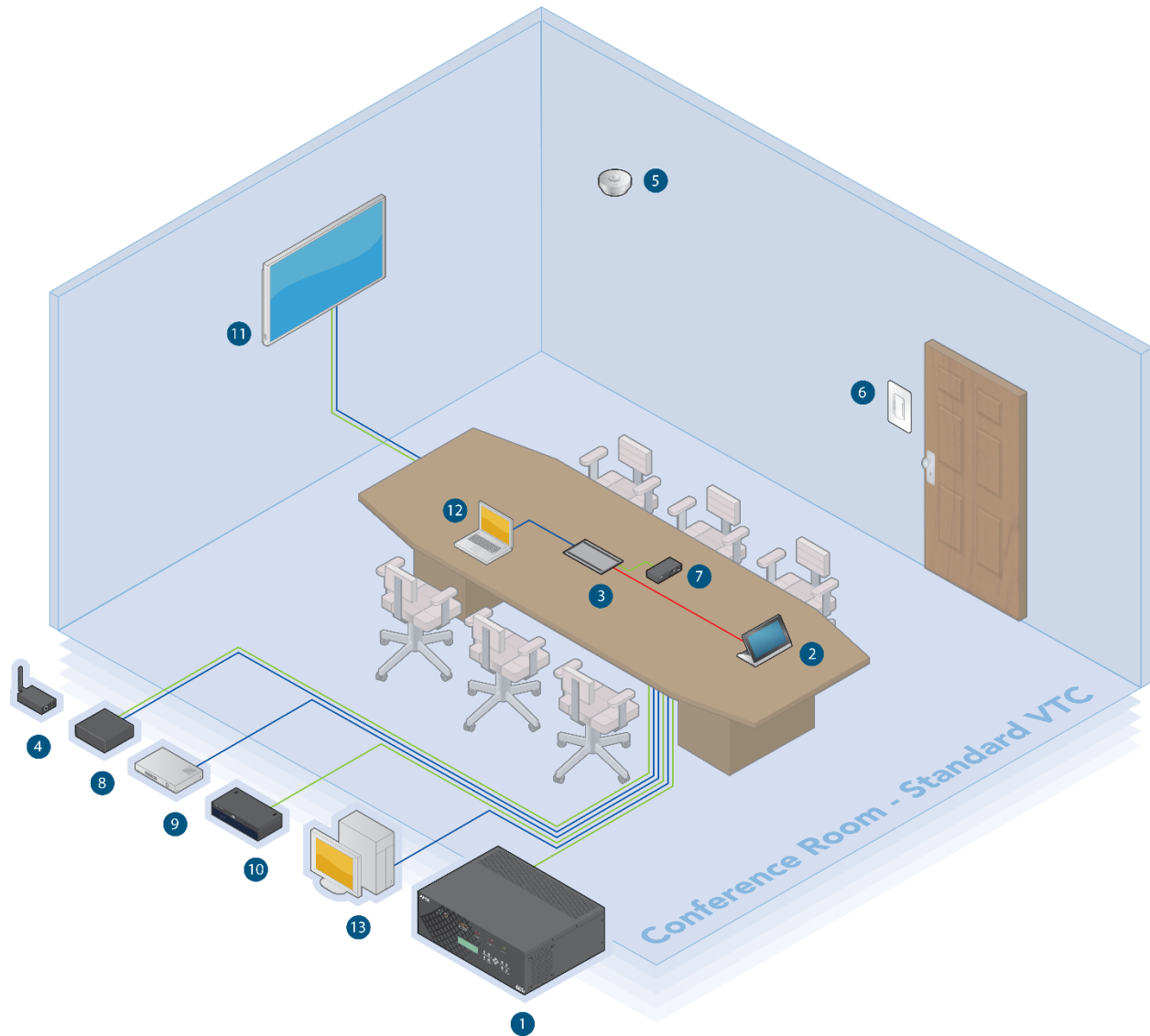
## *AMX Products: An Overview*

A complete AMX conference room automation solution consists of a mixture of AMX hardware, AMX software and products from third parties. Third party products include video conferencing and audio conferencing systems, DVD and Blu-Ray players, LCD displays, projectors, laptops and room PCs. These products are controlled by an AMX system that's composed of products in three broad categories:

1. **The Room Solution:** This is the equipment that manages the entire meeting experience, including the user interface, the behind-the-scenes switching and control, and the connection points to the system.
  - a. **User Interface:** The user interface is typically located on the conference table and enables meeting participants to control the room environment by pushing buttons or icons, thereby simplifying the meeting experience and eliminating the need for a stack of remotes.
  - b. **Switching and Control** – The controller or switcher is typically installed in an equipment rack, credenza or other out of the way place. It's job is to manage all the audio and video content being fed from various source devices (video conferencing systems, DVD players, laptops) to various output devices (LCD displays, projectors).
  - c. **Device Connectivity and Access to Content** – These products allow meeting participants to access content, either by connecting their device via a cable or USB port or accessing files from the web or cloud. Some of these products also allow participants to charge or power their devices directly from the table.
  - d. **Environmental Control** – Many conference rooms include sensor technologies that control lighting and other systems based on the room's occupancy.
2. **Configuration Software:** AMX's Rapid Project Maker (RPM) allows you to configure or set up a complete AMX conference room in less than an hour, with no costly programming.
3. **Management Software:** AMX's Resource Management Suite (RMS) allows you to monitor, maintain and troubleshoot all your AV assets from a central location.

The following diagram demonstrates how these various products interact in a typical conference room configuration.

## Typical AMX Conference Room Configuration



### AMX Hardware & Software

1. Controller: All-in-One Presentation Switcher, NetLinx Controller or ControlPad
2. User Interface: Control Panel or Keypad
3. HydraPort Architectural Connectivity Solution
- 4, 5 & 6: Lighting Controls & Occupancy Sensors.
7. Enzo Meeting Presentation System
  - Rapid Project Maker (RPM) Software
  - Resource Management Suite (RMS) Software

### Non-AMX Hardware

8. Video Conferencing System
9. Cable Box
10. Blu-Ray Player
11. LCD Display
12. Laptop
13. Room PC

## AMX products / Room Solution / User Interface

The User Interface is a critical component of a successful conference room automation solution, since it's where participants interact with the technology and control the meeting.

In a Huddle Space, the typical User Interface is a **Metreau Keypad** or **Novara ControlPad**. A keypad consists of 6, 7 or 13 buttons, which are individually programmed to perform certain functions such as "Lights Off," "Room PC", "DVD" or "System On/Off." In most cases, the keypad is installed directly in a HydraPort which is mounted in the conference table, making it easy for meeting participants to access the buttons during the meeting.



**Metreau 7-Button Keypad**

In larger, more technology-rich conference room and boardroom applications, meeting participants manage the technology via a dedicated control panel located on the conference table. With AMX control panels, attendees press individual icons to control specific devices.

The **Modero S-Series** is the ideal solution for those who want a great looking, economical control panel that's not skimping on features. AMX designed the S-Series to be infinitely flexible, making it ideal as a scheduling or room control panel.

The Modero S-Series comes in a wide variety of sizes and configurations to meet the needs of any conference room, boardroom, classroom or auditorium. Each model is packed with valuable capabilities including:



**Modero S-Series Control Panels**



- **Sleek Industrial Design** – the styling is complementary to the Modero X-Series, so you can use Modero S and Modero X and maintain a consistent look throughout the installation
- **Amazing Versatility** – the S-Series is perfect as a table top control panel for room control, or as a scheduling panel you can mount outside the room on the wall or glass.
- **Elegant Room Availability Indicator Bars** – easily glance down the hall to see if meeting spaces are occupied. Lights on each side of the panel show red when occupied, green when vacant.
- **SmoothTouch™ Display** – unique AMX design provides an elegant and responsive user experience that supports single-touch gesturing
- **Generous, Secure Mounting Options** – mount your Modero S panel anywhere while discouraging theft. Options include glass / multi-surface mount, single or double gang box mount and secured lectern / table mount.

While the S-Series is perfect for typical huddle spaces and conference rooms, the **Modero X® Series** is a family of premium interfaces designed specifically for dedicated room control in spaces like boardrooms and high end conference rooms. These next-generation control panels are built for a great user experience, offering edge-to-edge capacitive touch glass with amazingly smooth gesturing and responsiveness. These panels feature advanced technology that empowers users to operate AV equipment seamlessly, while providing the ultimate in audio and video quality.



**Modero X-Series Control Panels**

The Modero X's distinctive appearance will enhance even the most sophisticated meeting facilities. With a lightning fast processor, brilliant graphics and enhanced capabilities, the Modero X Series is the control panel that delivers more. It even connects to the web and runs apps!

- **Intuitive, Gesture-Based Interface** – replace that pile of remotes with a single, integrated interface, with buttons arranged according to how things actually get done in meetings.
- **Elegant Industrial Design**– create the perfect first impression in your next meeting with the unparalleled aluminum unibody design and brilliant capacitive, edge-to-edge glass.
- **A Control Panel for Any Need** – portrait or landscape, small or large, wall mount or table mount. Modero X® Series comes in a wide variety of sizes and configurations to meet the needs of any conference room, boardroom, classroom or auditorium.
- **Integrated App Platform** – easily integrate new features just like adding new apps to your smartphone. With Modero X, your investment is future-proof.
- **Pre-Loaded Apps** – you're ready for the perfect meeting with pre-loaded apps such as Skype, Calendar, Contacts, Web Browser, PDF Viewer and much more.



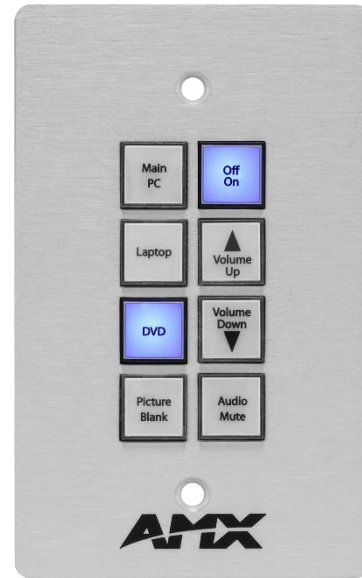
**Modero X Series Control Panel with Integrated App Platform**

## *AMX products / Room Solution / Switching and Control*

Controlling or automating conference room presentation content requires a device that can easily manage and switch between a wide range of audio and video inputs and outputs. For small rooms (Huddle Spaces), this functionality can be achieved via a **Novara Control Pad** or **NetLinx NI-700 Controller**.

A ControlPad includes 8 or 16 buttons that can be configured to control typical tasks like switching from one device to another, controlling volume and muting audio, all with the simple press of a button. A ControlPad is typically mounted on the wall near the door or conference table.

For Huddle Spaces with more complex requirements (Managed Huddle Spaces), AMX offers its popular NI-700 NetLinx Integrated Controller. The NI-700 is geared to meet the specific control and automation needs of a single room environment in which both price and functionality are the driving requirements. The NI-700 is configured to control a limited number of video players, projectors, lights, thermostats, and other electronic equipment. The NI-700 includes an ultra-fast processor to minimize delays in switching between devices. It also includes an Ethernet



**Novara ControlPad**

port, two Serial ports and multiple IR and I/O ports for connecting multiple device types to the system.



**NI-700 Controller**

The challenge of managing conference room technology increases exponentially for mid-size to large conference rooms and boardrooms. These types of rooms

typically include highly complex technologies like video conferencing systems, Blu-Ray players, multiple presentation screens, cable boxes and Apple TV, which in turn require a sophisticated system to control them. In these cases, AMX deploys the award-winning **Enova DVX All-In-One Presentation Switchers**, which consolidate a wide range of AV functionality (controller, AV matrix switcher, scaler, analog to digital signal converter, twisted pair transmitter and amplifier with built-in professional grade audio processing) into a single chassis.

The Enova DVX comes in a variety of sizes and configurations and is applicable for virtually any collaborative space, from small to large, simple to complex. The DVX includes exclusive AMX technologies like SmartScale® and InstaGate Pro®, which are designed to ensure that the video and other content you're watching during your meeting is of the absolute highest resolution and clarity regardless of where it's being displayed, or where it's coming from.



**Enova DVX All-In-One  
Presentation Switcher**

The DVX offers a long list of competitive advantages, including:

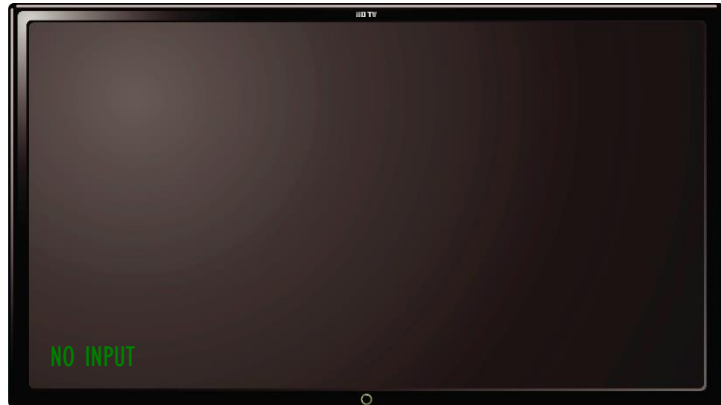
- **Lowest Total Cost of Ownership** – The single chassis leads to lower costs for maintenance, troubleshooting and support, as well as intelligent energy utilization that lowers energy costs.
- **IT-Friendly** – Manage and monitor the DVX in real-time over your IT network with AMX's RMS software. Additionally, all devices connected to the DVX like video conferencing systems and LCD displays become network visible as well.
- **Unbeatable dependability and functionality** – A single small chassis eliminates redundant cabling and reduces points of failure, ensuring that your meeting facilities are always up and ready.
- **Perfect audio and video** – The DVX automatically ensures that video from any source is optimally scaled to the display or projector for a perfect image, while audio processing ensures optimal sound quality throughout.
- **Easy to maintain** – The single-chassis DVX accommodates easy training, sparing and troubleshooting.
- **Delivers a consistently awesome experience** – Standardizing on this product in all your rooms leads to significant savings and improved user adoption.
- **Simple, Cost-Effective Configuration** – With AMX's Rapid Project Maker (RPM) Software, you can easily and reliably configure a complete AMX conference room in less than an hour without complex programming, saving thousands of dollars in a typical AV installation.

## *AMX products / Room Solution / Connectivity & Content*

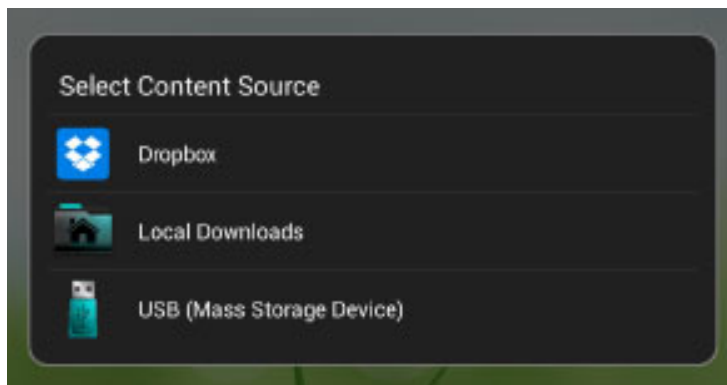
### Enzo Media Manager

How many times have you attended a meeting where somebody struggles with a room PC, cable connection or other issue while the room's display remains blank?

Indeed, the first challenge most meeting attendees face is getting the presenter's content delivered to the room's display. While this sounds like a simple proposition, it has historically been the primary reason why over 20% of meetings start late.



To make it quick and easy to access presentation content, AMX offers the revolutionary Enzo activity-based presentation system. Enzo is a flexible platform for meeting rooms that provides Instant On, Instant Access to Content, Instant Meeting Start and Instant Sharing.



**Enzo, the most efficient way to access and share content in a meeting room**

Enzo makes it easy to instantly access and share information with others in the meeting, and can access content from USB, the cloud, the web or Dropbox. Enzo also comes with a built-in web browser, enabling meeting participants to access content in real-time. And unlike a PC, Enzo doesn't require long boot times, lengthy security updates or complex login procedures.

Enzo is invaluable during the meeting as well. One of the most commonly asked questions in a meeting is "Can I get a copy of your presentation?" With Enzo, sharing documents is easy. You can email directly from Enzo without logging into your email service, or you can generate a QR code that attendees can scan and access your documents in Dropbox. A short URL is also generated for those without a QR code reader or who are attending the meeting remotely.



**AMX's Enzo**

And how about when the meeting is finished? Many people don't think about the risk of downloading a document to a PC - we do it all the time. But if you download a document to share in a meeting, it may be saved to that room PC for anyone to discover after you've left the room. Enzo removes this risk by purging all downloaded documents and cached files when you exit an Enzo session.

## HydraPort Cable Connection System



**HydraPort Flush-Mount Connectivity Solution**

AMX's HydraPort Architectural Connectivity Solution provides a simple way to connect AV control, network and power at the conference table. With space for 6 to 16 modules, the HydraPort allows you to connect mobile devices at your desk, lectern or table using the most beautiful connectivity system ever developed.

This sleek solution supports pass-through connectors for audio, video, Ethernet, USB and power plus control. The modular assembly makes it easy to change connections as needs evolve, and makes HydraPort® future proof for connection types that have yet to be developed. The elegant, flush-mount design in the HPX 600, 900 and 1200 conveniently opens in both directions providing a clean, unobtrusive look. In the HPX-1600 Retractable Connectivity Solution, the entire unit retracts into and out of the table with a gentle touch.



**HydraPort Retractable Connectivity Solution**

## AMX Products / Environmental Control

### Lutron® Clear Connect™ Lighting Control

Lighting sensors are a great idea, as they save money by powering off the lighting system (and other equipment) when the room is unoccupied.

With Lutron Clear Connect, you can add lighting control to virtually any location without pulling wires. The AMX Clear Connect Wireless Gateway seamlessly connects AMX controllers with Lutron's

Clear Connect Dimmers, Switches, Occupancy/Vacancy Sensors and Keypads to provide complete control over the room's lighting. This allows you to create the ideal ambiance for any meeting at the touch of a button, and delivers substantial energy savings by automatically dimming or turning off lights when the room is not occupied.



**Lutron Clear Connect Dimmer, Sensor and Lighting Gateway**

## *AMX Products / Configuration Software*

Many conference room AV systems require several hours of custom programming, which can consume over 50% of a project's budget. With AMX's Rapid Project Maker (RPM) software, you can configure a conference room AV system in less than an hour, with no programming required. RPM is a cloud-based configuration tool that allows you to easily configure an AMX system by using a step-by-step wizard-based approach. With RPM, automating a conference room is:



- **Simple** – No programming or sophisticated technical knowledge required.
- **Fast** – Set up a complete system in an hour or less that works perfectly from the start.
- **Affordable** – RPM is free and eliminates expensive programming and integration costs.
- **Rock-Solid** – RPM system designs and code are tested and backed by AMX.
- **Easy to duplicate** – Projects are saved to the AMX Cloud and can be duplicated to any number of similar rooms.

## *AMX Products / Management Software*

RMS Enterprise is cloud-based or scalable client/server-based software application for IT and AV managers that provides remote management capabilities for AV assets and building systems. The software features a user-friendly dashboard making it easy to centralize the management and monitoring of AV equipment, lights, HVAC and other building functions, allowing end users to proactively maintain AV devices and ensure meeting room uptime.



- **Commercial Flexibility** – Purchase as a subscription-based cloud service or as a one-time client/server-based software fee. It's your choice.
- **Widget-Based GUI** - Includes a fully customizable dashboard layout for each secure user, including visual bar graphs, user-defined status and notifications, and Hotlists.
- **Enterprise Architecture** - Provides large scale management for users, roles, and tracking user activities including an audit trail of who performed each activity and when it was completed. The server software supports authentication, encryption and protection from cross-site scripting to prevent security threats.
- **Energy Management Features** - Track and display information on energy usage for monitored assets. Optimize energy utilization by placing equipment in standby mode.



## Products in typical conference room configurations

	Huddle Space <i>(Small Room with Minimal Technology)</i>	Conference Room <i>(Corporate conference room)</i>	Boardroom <i>(Corporate boardroom)</i>
<p><b>Room Control System:</b> “Brain” of the system that controls and manages the room’s audio and video inputs and outputs</p>	<p>NI-700 Controller or Novara ControlPad</p> 	<p>Enova DVX All-In-One Presentation Switcher</p> 	<p>Enova DVX All-In-One Presentation Switcher</p> 
<p><b>User Interface:</b> Where meeting participants control the room technology</p>	<p>Metreau Keypad</p> 	<p>Modero S or X-Series 10” Control Panel</p> 	<p>Modero X-Series 19” Control Panel</p> 
<p><b>Connectivity Solution:</b> Where participants connect their devices to the system and access content</p>	<p>9-Module HydraPort</p>  <p>Enzo</p> 	<p>9-Module HydraPort</p>  <p>Enzo</p> 	<p>9-Module HydraPort</p>  <p>Enzo</p> 
<p><b>AMX Software</b></p>	<p><b>Rapid Project Maker (RPM):</b> Configure / set up an AMX room in an hour or less with no programming.</p> <p><b>Resource Management Suite (RMS):</b> Remotely monitor and maintain your AV assets.</p>		

## *What next? If you need a deeper dive*

Here's where you can go to find in-depth technical material on all AMX products.

<b>Novara ControlPad</b>	<a href="http://www.amx.com/products/CP-1008-US.asp">http://www.amx.com/products/CP-1008-US.asp</a>
<b>NI-700 Controller</b>	<a href="http://www.amx.com/products/NI-700.asp">http://www.amx.com/products/NI-700.asp</a>
<b>Enova DVX All-In-One Presentation Switcher</b>	<a href="http://www.amx.com/enova/">http://www.amx.com/enova/</a>
<b>Metreau Keypad</b>	<a href="http://www.amx.com/products/MET-7.asp">http://www.amx.com/products/MET-7.asp</a>
<b>Modero S Series Control Panel</b>	<a href="http://www.amx.com/products/MST-701.asp">http://www.amx.com/products/MST-701.asp</a>
<b>Modero X Series Control Panel</b>	<a href="http://www.amx.com/products/MXT-1001.asp">http://www.amx.com/products/MXT-1001.asp</a>
<b>Enzo</b>	<a href="http://amx.com/enzo/">http://amx.com/enzo/</a>
<b>HydraPort Cable Connection System</b>	<a href="http://www.amx.com/products/HPX-900.asp">http://www.amx.com/products/HPX-900.asp</a>
<b>Lutron Clear Connect Lighting Control</b>	<a href="http://www.amx.com/products/categoryLightingControls.asp">http://www.amx.com/products/categoryLightingControls.asp</a>
<b>Rapid Project Maker (RPM)</b>	<a href="http://www.amx.com/products/NSS-RPM.asp">http://www.amx.com/products/NSS-RPM.asp</a>
<b>Resource Management Suite (RMS)</b>	<a href="http://www.amx.com/rms/">http://www.amx.com/rms/</a>

You can always contact an AMX Solutions Advisor to help guide you through the AV selection process. Just click on the "CONTACT ADVISOR" link on amx.com.