

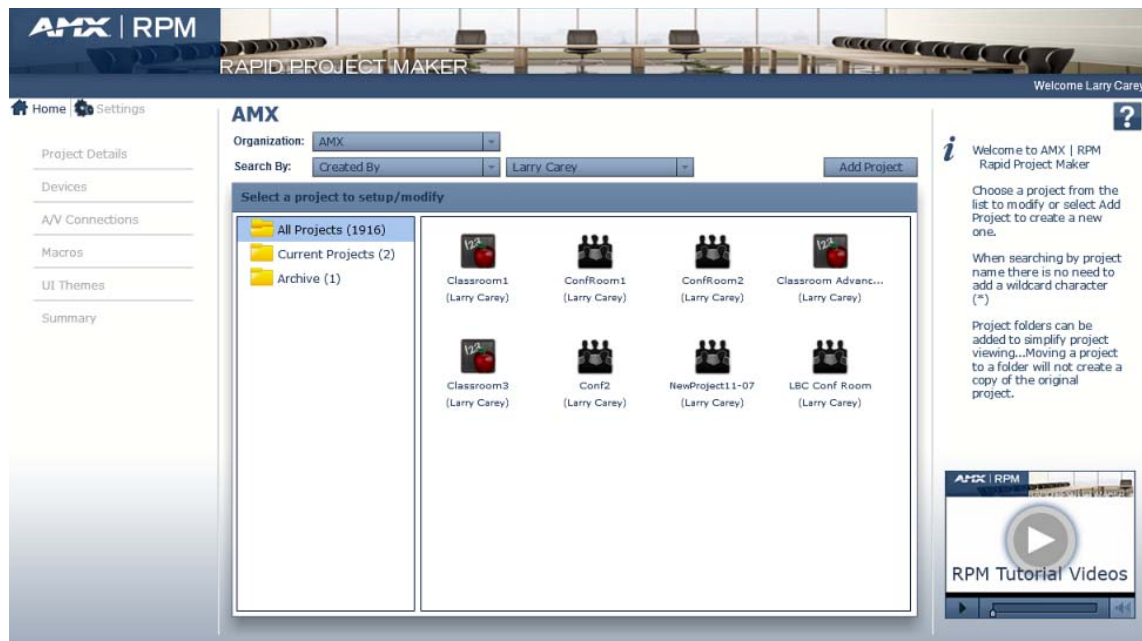


# Instruction Manual

# RPM

## Rapid Project Maker (NSS-RPM)

v2.3



## **AMX DOMESTIC CHANNEL PARTNER and END CUSTOMER LIMITED WARRANTY, DISCLAIMER AND LICENSE**

(Excerpt from CHANNEL PARTNER TERMS AND CONDITIONS Versions 11.17.2011 with updates for previous version 8.25.2010 [sections 6.1 (a), (b) and (f)])

### **Definitions**

"End Customer" means an authorized end customer with direct in warranty privileges from AMX. Within this limited warranty, disclaimer and license document, "End Customer" shall have the same meaning as "Channel Partner" with the noted exceptions of Sections 6.5 through 6.9 which are not applicable or available to End Customer's directly from AMX. Offerings described in Sections 6.5 through 6.9 are available to End Customer only through their selected authorized AMX Channel Partner.

### **6. LIMITED WARRANTY; RETURN, REPAIR AND REPLACEMENT**

6.1 AMX warrants the Products to be free of material defects in materials and workmanship under normal use for three (3) years from the Shipping Date (or such other period as may be specified below), subject to the following limitations and exceptions ("Limited Warranty"). For any Product, "Warranty Period" means the period during which the Limited Warranty is in effect, as set forth herein.

- (a) LCD and LED panels are warranted for three (3) years from the Shipping Date, except for the display and touch overlay components, which are warranted for a period of one (1) year from the Shipping Date.
- (b) Disk drive mechanisms, pan/tilt heads and external power supplies are warranted for a period of one (1) year from the Shipping Date.
- (c) AMX lighting Products are warranted to switch on and off any load that is properly connected to our lighting Products, as long as the AMX lighting Products are under warranty. AMX also warrants the control of dimmable loads that are properly connected to our lighting Products. The dimming performance or quality thereof is not warranted, due to the random combinations of dimmers, lamps and ballasts or transformers.
- (d) AMX software and firmware included in the Products is warranted for a period of ninety (90) days from the Shipping Date.
- (e) Batteries and incandescent lamps are not covered under the Limited Warranty.
- (f) The Warranty Period for AMX AutoPatch EPICA, Enova DGX, Modula, Modula Series 4, Modula Cat Pro Series and 8Y-3000 Product models will continue for the original installation until five (5) years after the issuance of a PDN with respect to termination of the applicable Product model. However, if the Product is moved from its original installation to a different installation, the Warranty Period will automatically become three (3) years from the Shipping Date and, if more than three (3) years have elapsed since the Shipping Date, the Warranty Period will automatically expire.

DLI-6293353v1

**Note:** Refer to [www.amx.com](http://www.amx.com) to view/download the latest complete AMX Warranty and Return Policies.

# Table of Contents

|                                                                         |           |
|-------------------------------------------------------------------------|-----------|
| <b>RPM - Rapid Project Maker .....</b>                                  | <b>1</b>  |
| Overview .....                                                          | 1         |
| Supported Web Browsers.....                                             | 1         |
| RPM System Limitations .....                                            | 1         |
| Supported Devices .....                                                 | 2         |
| Notes on Devices .....                                                  | 2         |
| Supported AMX Controllers, Touch Panels and Accessories .....           | 3         |
| AMX Controllers .....                                                   | 3         |
| AMX Touch Panels .....                                                  | 3         |
| RMS Scheduling Touch Panels .....                                       | 3         |
| AMX Digital Switchers .....                                             | 3         |
| AMX Keypads .....                                                       | 3         |
| AMX Accessories .....                                                   | 4         |
| Supported Controlled Devices.....                                       | 4         |
| RPM System Types.....                                                   | 6         |
| Classroom.....                                                          | 6         |
| Conference .....                                                        | 6         |
| Dual Room.....                                                          | 6         |
| Custom .....                                                            | 6         |
| RPM and RMS Enterprise .....                                            | 7         |
| Related AMX Software - RPMLoader .....                                  | 7         |
| RPM Video Library at <a href="http://www.amx.com">www.amx.com</a> ..... | 7         |
| <b>Using RPM (Rapid Project Maker) .....</b>                            | <b>9</b>  |
| Quick Start Instructions .....                                          | 9         |
| Accessing the RPM Web Application .....                                 | 9         |
| Creating a New RPM Project .....                                        | 11        |
| RPM Configuration Report .....                                          | 16        |
| Opening an Existing RPM Project .....                                   | 17        |
| Organizing Your RPM Projects.....                                       | 18        |
| Creating a New Projects Folder .....                                    | 19        |
| Adding Projects To Folders (via Drag-and-Drop).....                     | 20        |
| Renaming Custom Folders.....                                            | 20        |
| Deleting (Custom) Project Folders .....                                 | 21        |
| <b>Appendix - Working With Macros .....</b>                             | <b>23</b> |
| Overview .....                                                          | 23        |
| Editing Existing Macros .....                                           | 23        |
| Adding Macro Items to a Macro .....                                     | 24        |
| Touch Panel Usage .....                                                 | 25        |

|                                  |    |
|----------------------------------|----|
| Macro By Panels .....            | 25 |
| Creating a New Macro .....       | 26 |
| Deleting Macro Items .....       | 28 |
| Lighting Scenes and Macros ..... | 28 |

# RPM - Rapid Project Maker

## Overview

*Design, configure and deploy AMX systems in less than an hour with Rapid Project Maker (RPM).*

RPM is a cloud-based configuration tool that allows AV technicians or IT professionals to easily configure an AMX system by using a step-by-step approach. RPM simplifies more than just the configuration - it is a comprehensive tool designed to help throughout the process, from start to finish. With no programming required, the user can configure the project, create a user interface and generate step-by-step instructions on how to install the system.

Users can store their projects on AMX.com, allowing installers to access and manage them from anywhere.

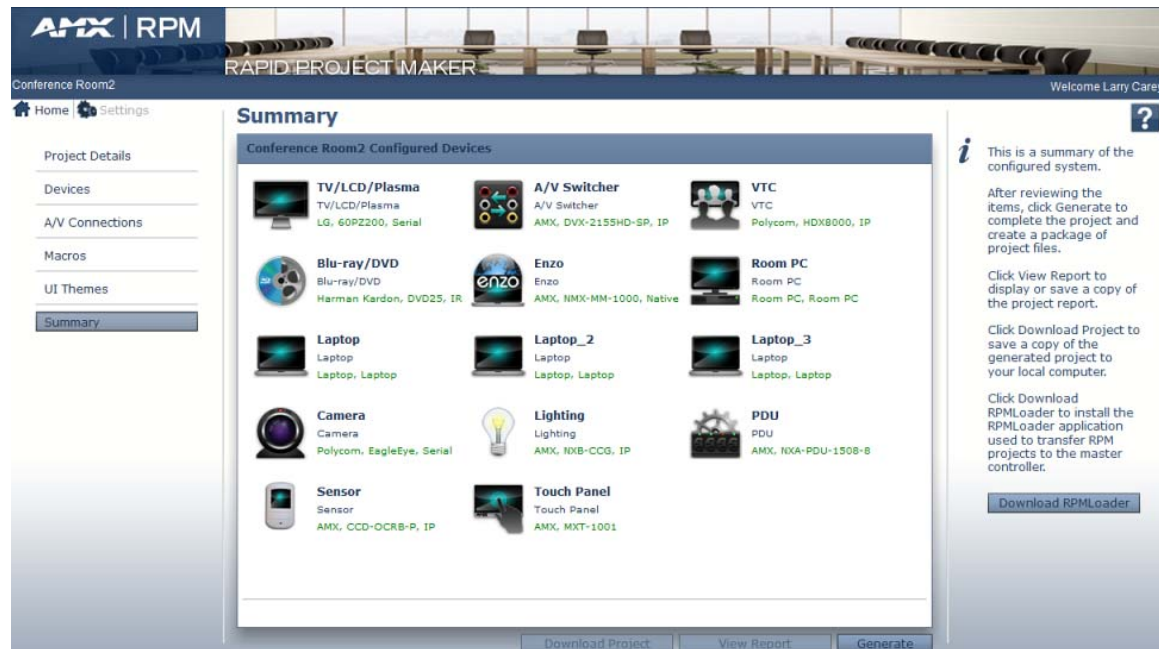


FIG. 1 RPM - Example Summary Page

## Supported Web Browsers

RPM is supported on the following web browsers:

| Supported Web Browsers           |                                |
|----------------------------------|--------------------------------|
| Windows                          | Macintosh/Apple                |
| Internet Explorer v8 (or higher) | Safari v4 (or higher)          |
| Google Chrome v9 (or higher)     | Google Chrome v9 (or higher)   |
| Mozilla Firefox v3 (or higher)   | Mozilla Firefox v3 (or higher) |

## RPM System Limitations

RPM is intended to assist in the creation of small to medium-sized control systems with a single NetLinX Controller and a limited number of controlled devices.

The fundamental limitation of any RPM system is simply the device types and specific numbers of devices supported in the RPM user interface. Systems that require more complex design (including multiple controllers, custom device control and extensive custom touch panel design) may not be appropriate for RPM.

## Supported Devices

| RPM - Supported Devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      |                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------|
| Device Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Max Supported                        | Control Method                            |
| AMX A/V Switcher (up to 18 x 12)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1                                    | IP, RS232                                 |
| ATC /Mixer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1                                    | IP, RS232** (see Notes)                   |
| Auxiliary Sources                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 6                                    | User Interface                            |
| Blu-ray/DVD Players                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2                                    | IP, RS232, IR* (see Notes)                |
| Cable, Satellite tuners                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2                                    | IP, RS232, IR* (see Notes)                |
| Camera                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4                                    | IP, RS232, IR* (see Notes)                |
| DVRs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2                                    | IP, RS232, IR* (see Notes)                |
| Document Cameras                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2                                    | IP, RS232, IR* (see Notes)                |
| ENZO™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2                                    | Native                                    |
| Encoder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2                                    | Native                                    |
| Keypads (Massio***, Metreau & Novara)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4                                    | IP, AxLink                                |
| Laptops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 6                                    | User Interface                            |
| Lighting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1                                    | IP, RS232                                 |
| PDU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1                                    | AxLink                                    |
| Preview Monitor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4                                    | n/a (uncontrolled device)                 |
| Room PCs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2                                    | User Interface                            |
| Scheduling Panels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4                                    | User Interface                            |
| Sensors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4                                    | ClearConnect, I/O                         |
| Shades/Blinds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2                                    | Up to 3 x relay ports (open, close, stop) |
| TV/LCD/Plasma                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4                                    | IP, RS232                                 |
| Touch Panels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4                                    | User Interface                            |
| VCR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2                                    | IP, RS232, IR* (see Notes)                |
| VTC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1 for single room<br>2 for Dual Room | IP, RS232                                 |
| Video Projectors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4                                    | IP, RS232                                 |
| <b>Notes:</b><br><i>* IR controlled devices do not provide feedback.</i><br><i>** The ATC (Audio Conference/Mixer) device type requires a configuration file that must be transferred to the device in order to support RPM functionality. A link to this configuration file is provided in the RPM project report (only if an Audio Conference/Mixer device is included in your RPM project). Refer to the device manufacturer's documentation for instructions on downloading a file to the device.</i><br><i>*** Massio Virtual Keypads are configured via the NetLinX Master's web configuration pages. Refer to the Massio ControlPads and Keypads Instruction Manual for details.</i> |                                      |                                           |

### Notes on Devices

RPM supports up to a total of four Display devices (Preview Monitor, TV/LCD/Plasma, Video Projector) in any combination. If more than four Display devices are selected, RPM will prompt you that the maximum number has been exceeded.

## Supported AMX Controllers, Touch Panels and Accessories

RPM supports the following AMX Controllers and Touch Panels:

### AMX Controllers

|                                                                                                                                                                                                |                                                                                                                                                                       |                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <ul style="list-style-type: none"> <li>DVX-3256HD-SP/T</li> <li>DVX-3255HD-SP/T</li> <li>DVX-3250HD-SP/T</li> <li>DVX-3156HD-SP/T</li> <li>DVX-3155HD-SP/T</li> <li>DVX-3150HD-SP/T</li> </ul> | <ul style="list-style-type: none"> <li>DVX-2255HD-SP/T</li> <li>DVX-2250HD-SP/T</li> <li>DVX-2210HD-SP/T</li> <li>DVX-2155HD-SP/T</li> <li>DVX-2150HD-SP/T</li> </ul> | Master Firmware version: 4.3 (or higher)     |
| <ul style="list-style-type: none"> <li>DVX-2100HD-SP/T</li> </ul>                                                                                                                              |                                                                                                                                                                       | Master Firmware version: 4.1 (or higher)     |
| <ul style="list-style-type: none"> <li>MCP-106</li> <li>MCP-108</li> </ul>                                                                                                                     |                                                                                                                                                                       | Master Firmware version: v1.3.31 (or higher) |
| <ul style="list-style-type: none"> <li>NI-4100</li> <li>NI-3101-SIG</li> <li>NI-3100</li> </ul>                                                                                                | <ul style="list-style-type: none"> <li>NI-2100</li> <li>NI-900 (64MB)</li> <li>NI-700 (64MB)</li> </ul>                                                               | Master Firmware version: 3.6 (or higher)     |
| <ul style="list-style-type: none"> <li>NX-4200</li> <li>NX-3200</li> </ul>                                                                                                                     | <ul style="list-style-type: none"> <li>NX-2200</li> <li>NX-1200</li> </ul>                                                                                            | Master Firmware version: 1.2 (or higher)     |

### AMX Touch Panels

|                  |                 |              |             |           |
|------------------|-----------------|--------------|-------------|-----------|
| Wireless         |                 |              |             |           |
| • MVP-5150       | • MVP-5200i     | • MVP-9000i  |             |           |
| Tabletop         |                 |              |             |           |
| • MXT-2001-PAN   | • MXT-1901-PAN  | • MXT-1001   | • MXT-701   |           |
| • MXT-2000XL-PAN | • MXT-1900L-PAN | • MXT-1000   | • MXT-700   |           |
| • MST-1001       | • MST-701       | • MST-431    |             |           |
| • NXT-CV10       | • NXT-CV7       | • NXV-300    |             |           |
| Wall Mount       |                 |              |             |           |
| MXD-2001-PAN     | • MXD-1901-PAN  | • MXD-1001   | • MXD-701   |           |
| MXD-2000XL-PAN   | • MXD-1900L-PAN | • MXD-1000-L | • MXD-700-L | • MXD-430 |
| MSD-1001-L       | • MSD-701-L     | • MSD-431-L  |             |           |
| NXD-1000vi       | • NXD-700vi     | • NXD-500i   |             |           |

### RMS Scheduling Touch Panels

|                                                                                                 |                                                                                                    |                                                                                  |                                                                                             |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>MXD-430</li> <li>MXD-700-P</li> <li>MXD-700-L</li> </ul> | <ul style="list-style-type: none"> <li>MSD-431-L</li> <li>MSD-701-L</li> <li>MSD-1001-L</li> </ul> | <ul style="list-style-type: none"> <li>MXD-1000-P</li> <li>MXD-1000-L</li> </ul> | <ul style="list-style-type: none"> <li>MXD-1900L-PAN-P</li> <li>MXD-2000XL-PAN-P</li> </ul> |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|

### AMX Digital Switchers

|                                                                                             |
|---------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>SDX-810</li> <li>SDX-510</li> <li>SDX-410</li> </ul> |
|---------------------------------------------------------------------------------------------|

### AMX Keypads

|                                                                   |                                                                  |                                                                   |
|-------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>Ethernet Keypads</b>                                           |                                                                  |                                                                   |
| <ul style="list-style-type: none"> <li>MKP-108-BL/WH</li> </ul>   | <ul style="list-style-type: none"> <li>MKP-106P-BL/WH</li> </ul> | <ul style="list-style-type: none"> <li>MKP-106L-BL/WH</li> </ul>  |
| <ul style="list-style-type: none"> <li>MET-6NE-BL/WH</li> </ul>   | <ul style="list-style-type: none"> <li>MET-7E-BL/WH</li> </ul>   | <ul style="list-style-type: none"> <li>MET-13E-BL/WH</li> </ul>   |
| <ul style="list-style-type: none"> <li>MET-7X-BL/WH</li> </ul>    | <ul style="list-style-type: none"> <li>MET-13X-BL/WH</li> </ul>  | <ul style="list-style-type: none"> <li>CCD-W6BRL</li> </ul>       |
| <b>Metreau Series</b>                                             |                                                                  |                                                                   |
| <ul style="list-style-type: none"> <li>MET-6N-BL/LA/WH</li> </ul> | <ul style="list-style-type: none"> <li>MET-7-BL/LA/WH</li> </ul> | <ul style="list-style-type: none"> <li>MET-13-BL/LA/WH</li> </ul> |

|                                                                        |                                                                        |                                                                        |
|------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>Novara Series</b>                                                   |                                                                        |                                                                        |
| <ul style="list-style-type: none"> <li>SP-08-AX-EU-BL/WH</li> </ul>    | <ul style="list-style-type: none"> <li>SP-08-AX-UK-BA/BL/WH</li> </ul> | <ul style="list-style-type: none"> <li>SP-08-AX-US-BA/BL/WH</li> </ul> |
| <ul style="list-style-type: none"> <li>SP-16-AX-UK-BA/BL/WH</li> </ul> | <ul style="list-style-type: none"> <li>SP-16-AX-US-BA/BL/WH</li> </ul> |                                                                        |

## AMX Accessories

- |                                                                                                                                           |                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• EXB-IRS4</li> <li>• EXB-COM2</li> <li>• EXB-REL8</li> <li>• MXA-MP</li> <li>• MXA-MPL</li> </ul> | <ul style="list-style-type: none"> <li>• NXB-CCG</li> <li>• AVB-RX-DXLINK-HDMI</li> <li>• AVB-TX-MULTI-DXLINK</li> <li>• AVB-WP-TX-MULTI-DXLINK</li> <li>• CCD-OCRB-P</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Note:** One ICSLan device per type (EXB-COM2, EXB-IRS4, and EXB-REL8) can be used in a system.

## Supported Controlled Devices

RPM supports devices that have *RPM-compatible* modules.

To search for RPM-compatible devices at [www.amx.com](http://www.amx.com):

1. Go to [www.amx.com](http://www.amx.com) (Trade Site), and click on the **TECH CENTER** link at the top of the page (FIG. 2):

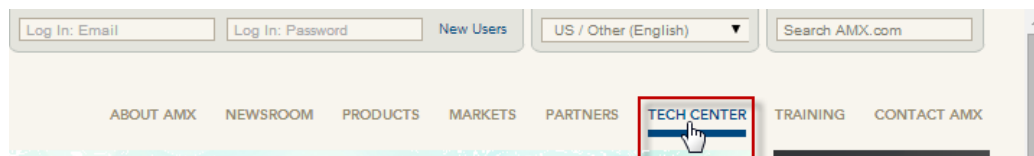


FIG. 2 [www.amx.com](http://www.amx.com) - TECH CENTER link

2. In the Navigation menu (left side of page), click on **Search Third Party Devices** (FIG. 3):



FIG. 3 [www.amx.com](http://www.amx.com) (Tech Center) - Search Third Party Devices

3. In the *Search Device Database* page, fill in the search criteria as desired and select **RPM Compatible** to filter the results to show only RPM-compatible Modules (FIG. 4):

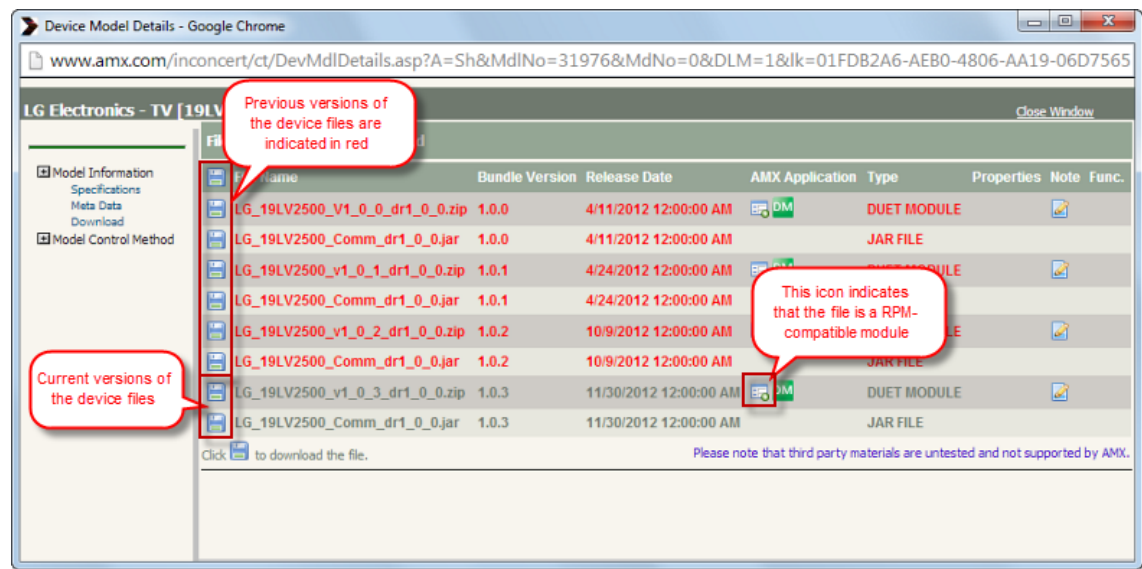
FIG. 4 Search InConcert Database with "RPM Compatible" option selected

4. Click **Search** to search the InConcert database for RPM-compatible modules, based on the search criteria. The results are displayed below the search fields (FIG. 5):

| 166 Model(s) found (Display 1 - 100) |             |                          |             |                    |
|--------------------------------------|-------------|--------------------------|-------------|--------------------|
| Manufacturer                         | Device Type | Model                    | Last Update | Files Available    |
| LG Electronics                       | TV          | <a href="#">19LD35</a>   | May 13 2010 | <a href="#">DM</a> |
| LG Electronics                       | TV          | <a href="#">19LH20</a>   | Apr 21 2010 | <a href="#">DM</a> |
| LG Electronics                       | TV          | <a href="#">19LU55</a>   | Apr 21 2010 | <a href="#">DM</a> |
| LG Electronics                       | TV          | <a href="#">19LV2500</a> | Nov 30 2012 | <a href="#">DM</a> |
| LG Electronics                       | TV          | <a href="#">20LS7D</a>   | Mar 23 2012 | <a href="#">DM</a> |

FIG. 5 InConcert Database - Search Results

5. Click the desired **Model** link to open the *Device Model Details* page for the selected device (FIG. 6):



**FIG. 6** InConcert Database - Device Model Details page

The *Device Model Details* page includes a listing of all files that are available to download for this device

- Previous versions of the device files are indicated in red; the current versions of the file are at the bottom of the list.
- Only RPM-compatible modules and RPM-Supported Devices with IR files are appropriate for use with RPM.
- The **RMS** icon in the *Device Model Details* page indicates whether the Duet module for this device is RPM-compatible.

6. Click the **Download** icon to download the selected file.

## RPM System Types

RPM supports the creation of four categories of Systems: *Classroom*, *Conference*, *Dual Room* and *Custom*. The System Type is selected in the *Project Details* page (the first page in the RPM web application - FIG. 7).



FIG. 7 System Type selection (Project Details page of the RPM web application)

Note that each System Type is represented with a different icon in the *Project Details* page. These icons are also used in the Projects View in the *Home* page.

### Classroom

*Classroom* systems provide three levels of AMX systems optimized for various sizes of classrooms: Standard Classroom, Enhanced Classroom and Lecture Theater.

### Conference

*Conference* systems provide three levels of AMX systems optimized for various sizes of conference rooms: Managed Huddle, Conference Room and Boardroom.

### Dual Room

Dual Room projects support device configuration for two distinct rooms. When *Dual Room Project* is selected as the System Type, RPM will prompt you to specify names for two rooms, and as each device is added to the system, specify the room to which the device will be added (FIG. 8):

#### Project Details page - Dual Room project

#### Sample Device Details page - Dual Room project

FIG. 8 Dual Room project - Room Usage selection

Dual Room systems have the following hardware requirements:

- Dual Room system require DVX-3250/3255/3256HD, DVX-3150/3155/3156HD, DVX-2210/2250/2255HD, or DVX-2150/2155 Controllers.  
*NX-Controllers, NI- Controllers, DVX-2100HD and MCP-106/108 Controllers are not supported for Dual Room systems.*
- Dual Room systems require the use of MXT-, MXD-, MST- or MSD touch panels.  
*NXT-, NXD- and MVP- panels are not supported for Dual Room systems.*

### Custom

The *Custom* system configuration only includes an AMX Controller and A/V Switcher by default.

## RPM and RMS Enterprise

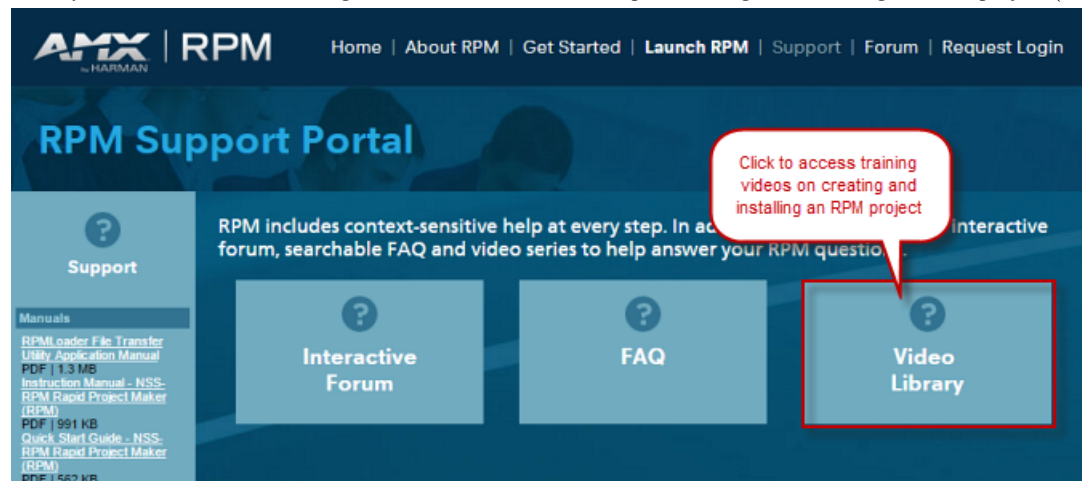
RMS Enterprise allows the equipment in the room(s) configured in RPM to be monitored for status, and also provides the ability to schedule the room(s) via RMS. Refer to "RPM and RMS Enterprise" (available to view/download on the RPM catalog page at [www.amx.com](http://www.amx.com) for details on how RPM devices and rooms interact with RMS.

## Related AMX Software - RPMLoader

*RPMLoader* is a stand-alone application that transfers RPM project files to a target AMX Controller. RPMLoader is installed on your PC via the **Download RPMLoader** command button in RPM (accessible via the *Summary* page). Refer to the RPMLoader on-line help and Operation/Reference Guide for details.

## RPM Video Library at [www.amx.com](http://www.amx.com)

Go to the [RPM Support Portal](#) on the RPM product page at [www.amx.com](http://www.amx.com) to access the *RPM Video Library*. The Video Library contains a series of training videos that describe each step of creating and installing an RPM project (FIG. 9):



**FIG. 9** RPM Support Portal



# Using RPM (Rapid Project Maker)

## Quick Start Instructions

There are several basic steps to creating a control system with RPM:

1. Open the RPM Web Application. The RPM web application is accessed via the AMX Services Home page at <https://my.amx.com>. See *Accessing the RPM Web Application*. below.
2. In the RPM Home Page, click **Add Project**. See the *Creating a New RPM Project* section on page 11 for details.
3. In the *Project Details* page, enter a Project Name, select a System Type, specify an AMX Controller and it's IP address, and select whether to use RMS Enterprise to monitor the system (see FIG. 14 on page 11).
4. Click **Next** to specify the devices to be included in this system in the *Select the Devices in your System* page (see FIG. 15 on page 12).
5. Click **Next** to proceed to the first of a series of *Device Configuration* pages. Each device that is included in the system is configured via it's own page. The pages and the options presented on these pages depend on the devices included in the system (see FIG. 16 on page 13).
6. When all devices have been configured, click **Next** to proceed to the *Audio/Video Connections* page. The options on this page allow you to specify the physical connections for the A/V devices in the system (see FIG. 18 on page 13).
7. Click **Next** to proceed to the *Macros* page. The options on this page allow you to add and edit system macros. See the *Appendix - Working With Macros* section on page 23 for details.
8. Click **Next** to proceed to the *UI Themes* page. The options on this page allow you to select a UI Theme for the touch panel(s) in this project, as well as select a logo image and background color for the RPM-generated panel pages (see FIG. 20 on page 14).
9. Click **Generate** to generate the RPM project.
10. Click **View Report** to open the RPM-generated *Project Report* (PDF) file. The Project Report provides an in-depth summary of the project/system, including illustrated Control Connections to assist in making the correct physical connections from the AMX Master to controlled devices in the system. See FIG. 23 on page 16
11. Click **Download Project** to download a copy of the generated RPM Project to your PC (as an \*.rpmx file).
12. Use the RPMLoader application (installed separately) to transfer the RPM Project file to the target AMX Controller.

## Accessing the RPM Web Application

RPM is part of the *AMX Services Portal* (at [www.amx.com](http://www.amx.com)). There are two ways to access the RPM web application: In the AMX TRADE SITE, Click on the **RPM** link to open the RPM Home page (FIG. 10), and click the **Launch RPM** link at the top of the page (FIG. 10):

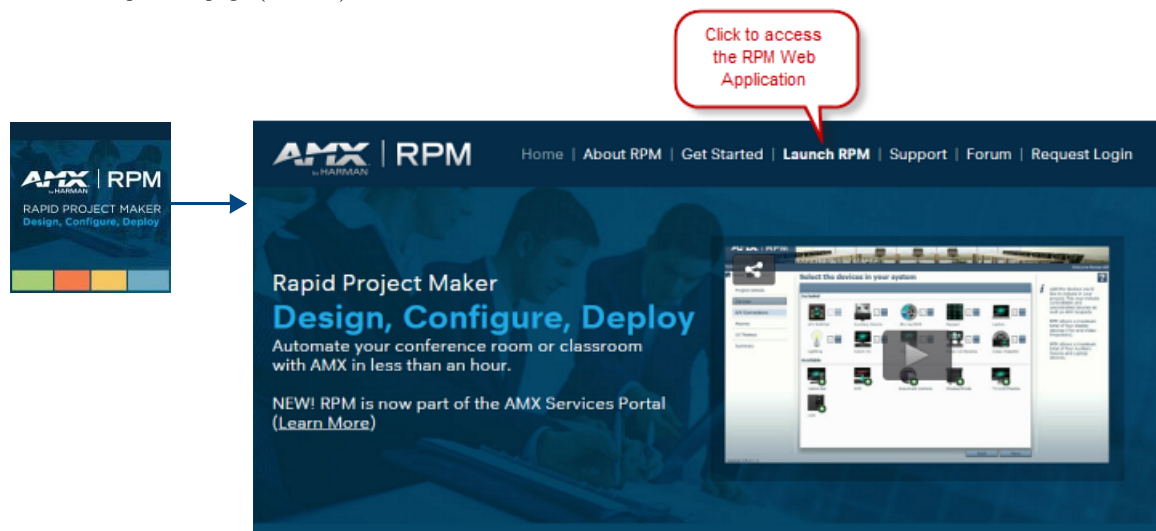


FIG. 10 RPM Home Page

Alternatively, click on the **CLOUD SERVICES** link to access the Cloud Services home page (FIG. 11), and click the **ACCESS RPM** link (FIG. 11):



**FIG. 11** RPM Cloud Services home page



NOTE

*All requests for RPM access should go through the AMX Sales Manager responsible for the account that is requesting access.*

Once you have successfully logged in, click the **ACCESS RPM** link (FIG. 12) to open the RPM Home page:



**FIG. 12** RPM - Home Page

## Creating a New RPM Project

1. To start a new RPM project, click **Add Project** in the upper-right corner of the Home page (FIG. 13):

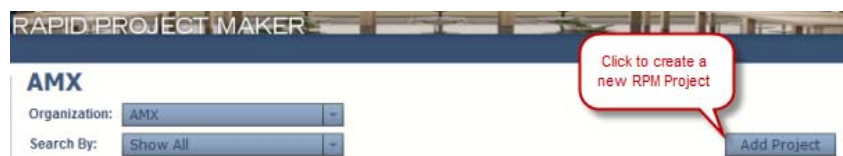


FIG. 13 Home Page - Add Project button

2. This opens the *Project Details* page for a new RPM Project. Use the options in this page to select a System Type, enter Project Details, and specify an AMX Controller and its IP address (FIG. 14):

 The screenshot shows the 'Project Details' page. At the top, there's a 'System Type' section with four categories: Classroom, Conference, Dual Room, and Custom. Each category has several sub-options with radio buttons. Below this is the 'Project Information' section with fields for Project Name, Project Description, Installed By, and Installer #, all marked with asterisks. There are also fields for Room Name, Room/Support #, AMX Controller (with a dropdown icon), IP Address/DNS Name, and Help Desk #. At the bottom is the 'RMS Information' section, which includes a checkbox for 'Monitor room using RMS (All Fields Required)', fields for Server URL, Username, and Password, and a dropdown for 'RMS Server' (set to '4.4'). A red callout bubble points to the 'RMS Server' dropdown with the text: 'Select the version of RMS Server used (only if the Monitor room using RMS option is selected)'. Another red callout bubble points to the AMX Controller dropdown icon with the text: 'Click this icon to open the NetLinx NX Controllers Comparison Chart, which provides a summary of features for each NX Series Controller'.

FIG. 14 Project Details page (New Project)

- Note that fields marked with asterisks are required fields. The application will prompt you to enter required information before proceeding to the next page.
- The AMX Controller's IP Address/DNS Name is *not* a required field. This allows you to enter this information later if necessary. However, if you know the Master's IP information it is recommended that you enter it here.
- See page 6 for descriptions of the four RPM System Types (*Classroom*, *Conference*, *Dual Room* and *Custom*).
- Click on the icon to the right of the AMX Controller to open the *Controllers Comparison Chart*. This PDF document presents a summary of the features available on each of the NetLinx NX Integrated Controllers (NX-1200, NX-2200, NX-3200 and NX-4200).
- The *RMS Information* options at the bottom of the page determine whether this project will be integrated into a RMS Enterprise (v4.1 or higher) system:  
Click **Monitor room using RMS** to include support files required for this RPM project be integrated into an existing RMS Enterprise system. By default, this option is not selected. When this option is selected, the following options are enabled, and input is required in order to proceed:

| RMS Information |                                                                                                                                                                        |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • Server URL:   | Enter the URL of the RMS Enterprise Server here. The URL must include a protocol prefix (such as "http://"). The program will alert you if the URL entered is invalid. |
| • Username:     | Enter the Username required by the RMS Enterprise Server.                                                                                                              |

| RMS Information (Cont.) |                                                                                                                                                                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • Password:             | Enter the Password required by the RMS Enterprise Server.                                                                                                                                                                             |
| • RMS Server:           | Select the RMS version that is running on the RMS Server: 4.3 or 4.4 (default = v4.4)                                                                                                                                                 |
| • Use RMS Scheduling    | Click to implement RMS Scheduling panels in the system. These panels are designed to provide scheduling-specific functionality, rather than a fully-functional touch panel. This field is only available if an NX master is selected. |

3. Click **Next** to proceed to the *Select the Devices in your System* page. Use the options in this page to review the devices currently included in the system, and add/remove devices from the system. Note that specific devices are pre-selected based on the System Type selected for this project (FIG. 15):

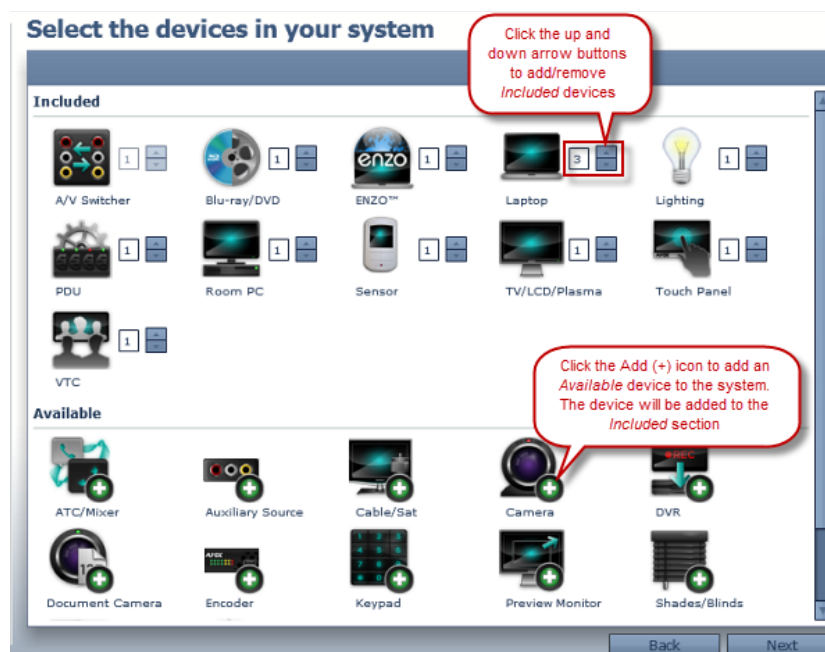


FIG. 15 Sample Device Selection page

- Devices in the **Included** section of this page are currently included in this system. The number of each device type is indicated for each device type. Click the Up and Down arrow buttons to increase or decrease the number of each device type included. Included devices that are not required for the system type can be removed by setting the number to zero - in this case the device will be removed from the *Included* section to the *Available* section. Note that certain devices are required, in which case the program will not allow the number to be adjusted.
  - Devices in the **Available** section of this page are not included in this system, but can be added via the Add (+) icon next to each device type. When a device type is added, it moved from the *Available* section to the *Included* section, at which point the number of that device type can be adjusted as necessary.
4. Click **Next** to proceed to the first *Device Details* page. Use the options on this page to configure each device. The pages and options presented are based on the devices included in the system. Click **Next** to save changes and proceed through each device in the system. An example Device Details page (for a G5 touch panel) is shown in FIG. 16:



FIG. 16 Sample Device Details page (G5 touch panel)

Note that as you proceed, progress is indicated at the top of each Device Details page (FIG. 17):

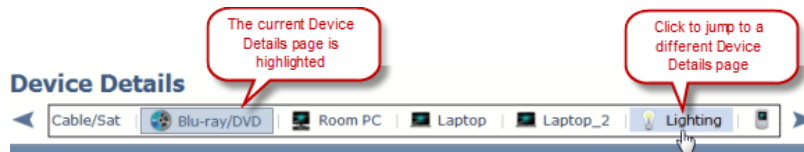


FIG. 17 Device Details - Progress Bar

- Click **Next** on the last *Device Details* page to proceed to the *Audio/Video Connections* page (FIG. 18). Use the options on this page to select source devices and their destination to route audio and video to the desired input or output on the A/V Switcher.

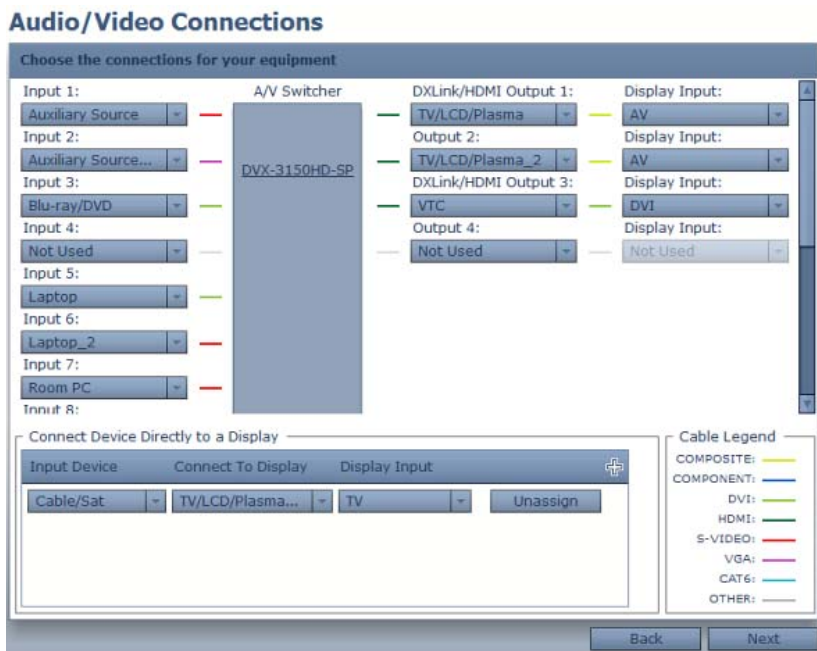


FIG. 18 Sample Audio/Video Connections page



You can bypass the A/V Switcher by using the "Connect Device Directly to a Display" options at the bottom of this page to specify an Input Device and a Display, and the Display Input to use for the connection.

6. Click **Next** to proceed to the *Macros* page (FIG. 19):



FIG. 19 Sample Macros page

Use the options on this page to edit the default macros in the project as well as create new macros if necessary. Refer to the *Appendix - Working With Macros* section on page 23 for details.

7. Click **Next** to proceed to the *UI Themes* page (FIG. 20):

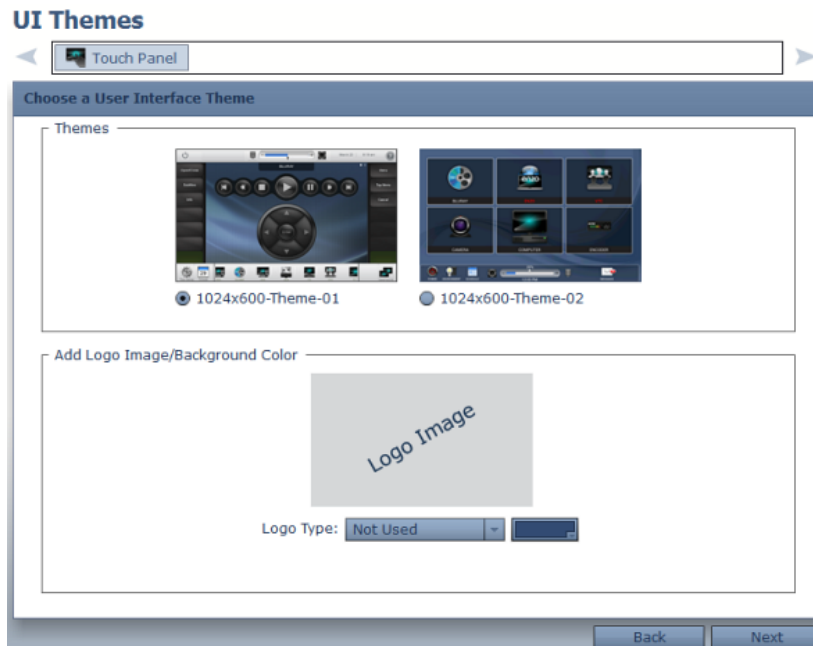
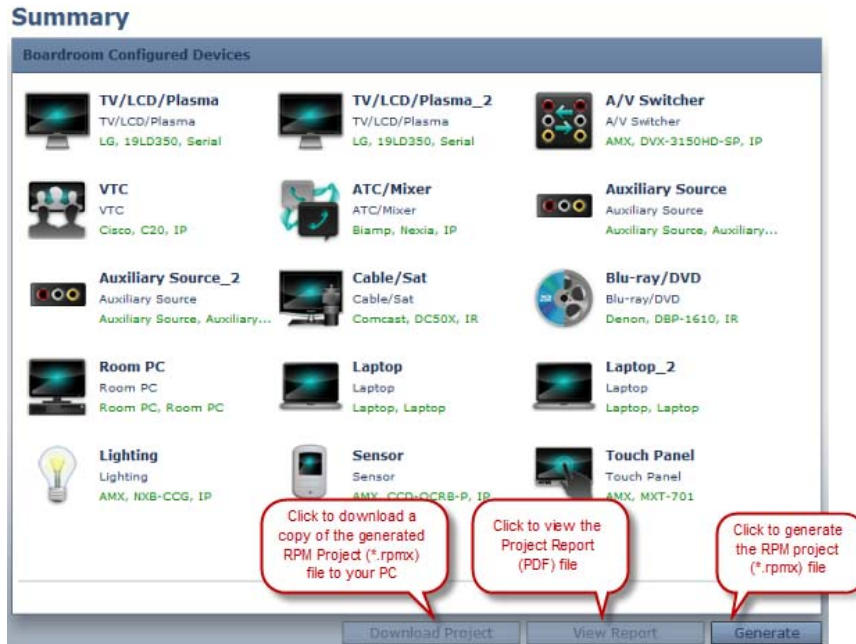


FIG. 20 Sample UI Themes page (indicating two Themes for a 1024x600 panel)

Use the options on this page select a UI Theme for each touch panel in this project, as well as select a logo image and background color for the RPM-generated panel pages.

Note that some panels provide more than one theme to choose from (as indicated in FIG. 20). Click to select the theme to use for the selected panel.

8. Click **Next** to proceed to the *Summary* page (FIG. 21). This page provide a summary of the current project. Review the information on this page before generating the project.



**FIG. 21** Sample Summary page

9. Use the command buttons along the bottom of the *Summary* page to generate the RPM project and transfer it to the target AMX Controller.

Note that initially, only the **Generate** command button is enabled - the *View Report* and *Download Project* buttons are enabled after the project has been generated:

- a. Click **Generate** to generate the RPM project.
  - b. Click **Download Project** to download the project to your PC.
  - c. Click **View Report** to download the project's Configuration Report to your PC. See the *RPM Configuration Report* section on page 16 for details.
10. Click **Download RPMLoader** on the right-side of the *Summary* page to install the *RPMLoader* application (FIG. 22). *RPMLoader* is a stand-alone application that transfers RPM project files to a target AMX Controller and devices.



FIG. 22 RPM Summary Page - Download RPMLoader command button

- Open the downloaded RPM project in the RPMLoader application and click **Start File Transfers** to transfer the RPM project files to the AMX Controller.



Refer to the RPMLoader online help for details on using the RPMLoader application.

## RPM Configuration Report

Click the **View Report** button along the bottom of the *Summary* page to download the *Configuration Report* for this project, in the form of a PDF file (FIG. 23).

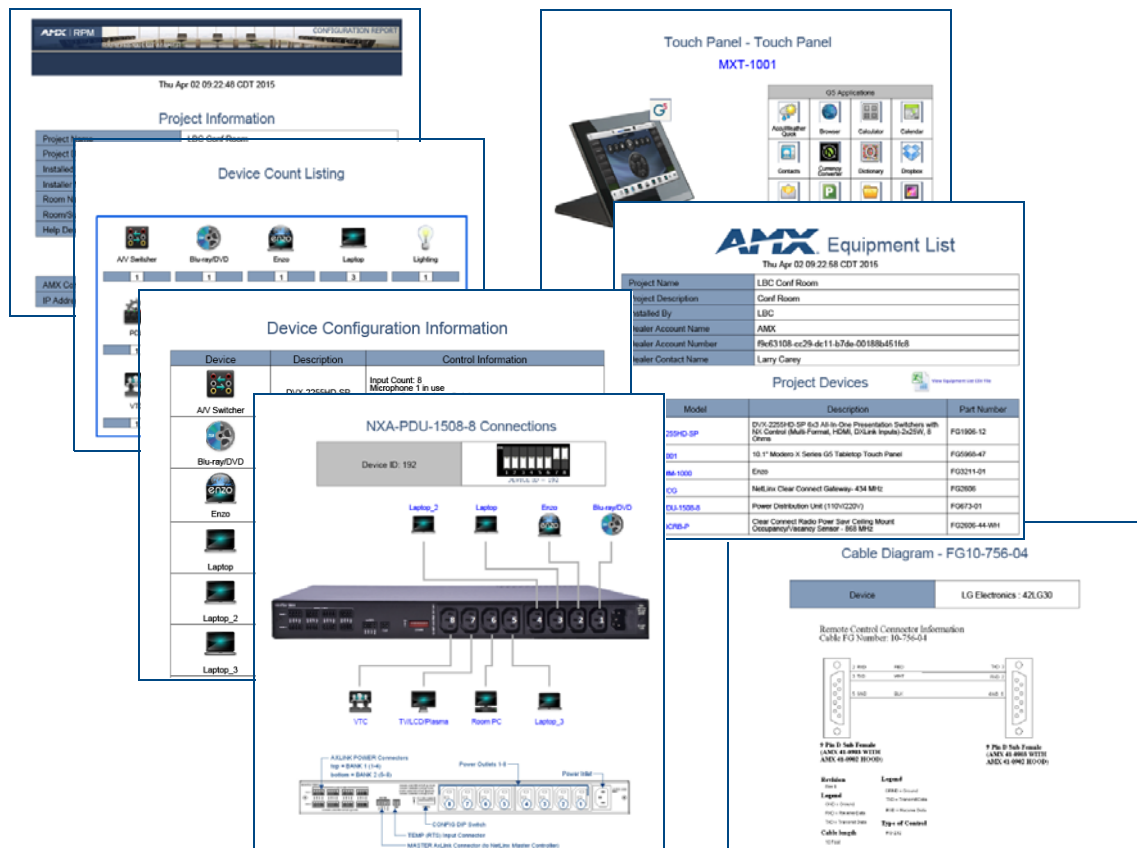


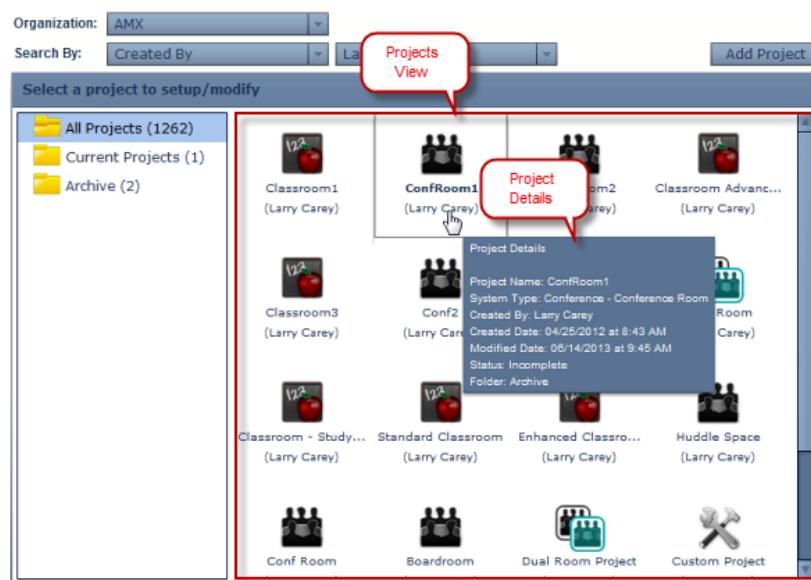
FIG. 23 Example RPM Configuration Report pages

The Configuration Report provides a comprehensive summary of the project, including sections on:

- **Project/Controller Information** - A summary of the Project and Controller information, including the IP Address/DNS Name of the Controller (if it was entered in the RPM UI).
- **Device Count Listing** - A summary of the device types, and the number of each type that is in the project.
- **Device Configuration Information** - A listing of each device with Control Information for each device in the project.
- **Device Connections** - A visual summary of the physical connections that must be made to connect the devices in the project. Use these pages to install the devices in the system.
- **Macros: Touch Panel Summary and Definitions** - A listing of the macros that will be displayed on the touch panel(s), and a definition of the items included in each Macro.
- **Device-Specific Configuration Information** - Depending on the devices included in the project, configuration information for specific devices (such as Touch Panels, ENZO, Sensors, etc.) is included.
- **Cable Diagrams**: Diagrams that provide detailed pin-out information for the connectors used in the project.
- **AMX Equipment List** - A summary of all AMX devices as well as recommended accessories, with FG numbers. This section also provides a listing of third-party devices in the project, with manufacturer and model information.

## Opening an Existing RPM Project

Once a RPM project has been started, it is added to the Projects View in the *Home* page (FIG. 24):



**FIG. 24** RPM Home Page - Projects View and Project Details



NOTE

Hover over any Project in the Project View window to view Project Details, including the Project Name, System Type, Created By (name), Created Date, Modified Date, Status, and Folder location.

Use the *Organization* and *Search By* drop-down menus to filter the view as desired:

1. Select an organization from the *Organization* drop-down. This filters the Projects view to only show projects associated with the selected organization name.
2. Select a search criteria from the *Search By* drop-down menu. This selection may invoke a secondary field. For example, if "Created Date" is selected under *Search By*, then several date-oriented options are presented in a secondary drop-down menu (FIG. 25):

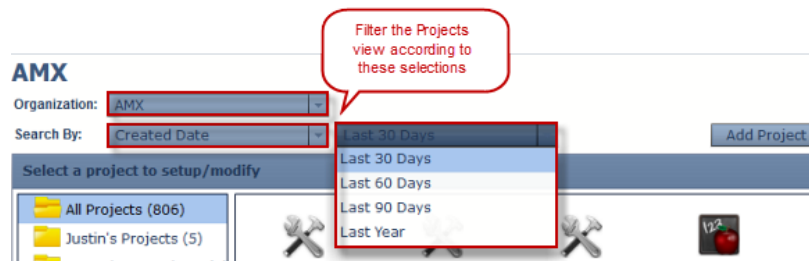


FIG. 25 Search By Drop-Down Menus

- Note that when searching by Project Name, there is no need to enter an asterisk as a wild-card character.
- Hover over any Project in the Project View window to view Project Details, including the Project Name, System Type, Created By (name), Created Date, Modified Date, Status, and Folder location.

## Organizing Your RPM Projects

Use the **Folders** view (the left pane of the Projects view) to create custom folders. Use custom folders to organize RPM projects according to your needs (FIG. 26):

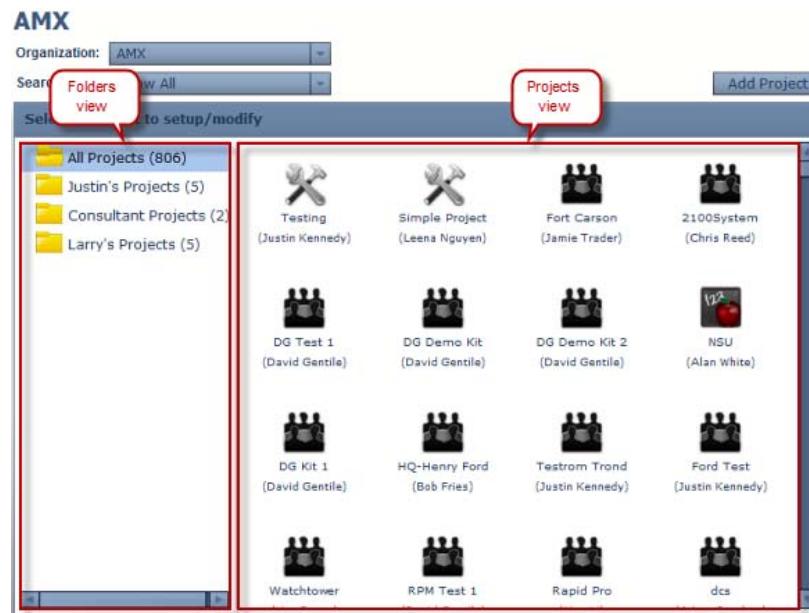


FIG. 26 Folders view / Projects view

- By default, the only folder in the *Folders* view is the **All Projects** folder. With this folder selected, all RPM projects are indicated in the *Projects* view. The **All Projects** folder cannot be renamed or deleted.
- Create new custom folders as desired to organize your Projects.
- Select a folder to show only that folder's Projects in the Project view.
- Use custom folders in conjunction with the *Organization* and *Search* view filters to quickly locate Projects.

## Creating a New Projects Folder

1. Right-click inside the folder view and select **New Folder** (FIG. 27):



FIG. 27 Folders View context menu

2. This creates an empty folder with a cursor prompt (FIG. 28):



FIG. 28 Folders View - Naming a new folder

3. Type a name and press **Enter** to create the folder. The example below (FIG. 29) shows that a new folder named "My New Projects" has been added:



FIG. 29 Folders View - Creating a New Folder

The number following the folder name indicates the number of Projects currently in each folder. Therefore, the new folder indicates zero (0) projects at this point.



NOTE

*If you do not specify a name for the new folder, it will automatically be named "New folder". Subsequent new (unnamed) folders will be named "New folder 2", "New folder 3", etc. These folders can be renamed later if desired (see Renaming Custom Folders on page 20).*

4. Create more folders as necessary (up to a maximum of 49) to organize your projects as desired.

## Adding Projects To Folders (via Drag-and-Drop)

1. Select the **All Projects** folder (or any other folder that contains a Project that you intend to add to the new folder) to populate the Projects view.  
Use the *Organization* and *Search By* fields to filter the Projects view as needed (see FIG. 25 on page 18).
2. Drag-and-drop a project from the Project View onto a folder to place a link to the selected Project in the target folder (FIG. 30):



FIG. 30 Moving a Project into a Folder via Drag-and-drop

- Note that as Projects are dragged into new folders, they are still also listed in the *All Projects* folder.
- Projects cannot be added to multiple custom folders.
- Each folder indicates the number of Projects that it contains (FIG. 31):

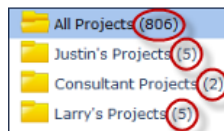


FIG. 31 Moving a Project into a Folder via Drag-and-drop

## Renaming Custom Folders

Custom folders can be renamed. The default *All Projects* folder cannot be renamed.

1. Right-click on the custom folder that you want to rename and select **Rename** from the context menu (FIG. 32):

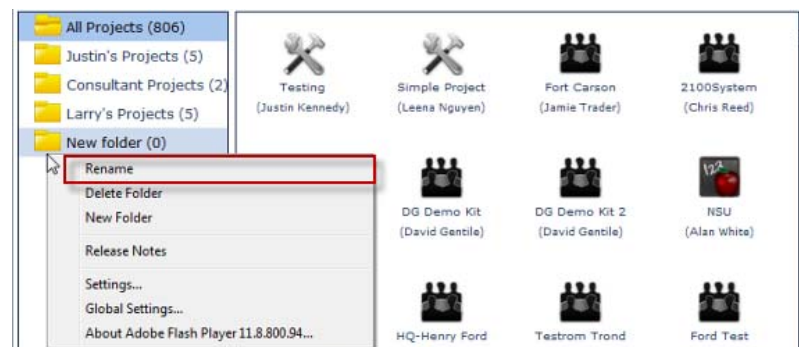


FIG. 32 Folders view context menu - Rename

2. Type the new name in the text field and press *Enter*.

## Deleting (Custom) Project Folders

Custom folders can be deleted, but the default *All Projects* folder cannot be deleted. Note that deleting a custom folder does not delete the Projects contained in the folder.

1. Right-click on the custom folder that you want to delete and select **Delete Folder** from the context menu (FIG. 32):

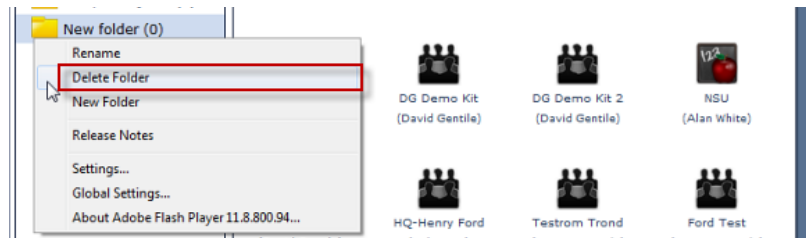


FIG. 33 Folders view context menu - Rename

2. RPM will prompt you to verify this action - click **OK** to proceed. (FIG. 34):



FIG. 34 Delete Folder prompt



# Appendix - Working With Macros

## Overview

A *Macro* is a set of sequential commands or device functions that are combined together, so that the user can initiate a series of events via a single button press. RPM supports the creation of macros, via options in the *Macros* page (FIG. 35):



FIG. 35 RPM - Macros page



NOTE

The example shown in FIG. 35 is for a Dual Room project (see "Room 1" and "Room 2".)

## Editing Existing Macros

Note that there are default macros indicated in the *Macros* window, based on the devices that are in the Project. These are included to provide templates for common macros. Click to edit the macros as described below:

1. Click **Macros** in the menu bar to open the *Macros* page.
2. Click on a macro to edit its properties in the *Macro Details* page. FIG. 36 shows a sample *Macro Details* page (for the ENZO macro):

## Macro Details

Room 1 - Enter Macro Details Information

Macro Name: \* Enzo Macro Icon: \* Enzo Touch Panel Navigation: Enzo

1 Select a Device: -- Select -- 2 Select a Function: -- Select -- 3 Add Macro Item: Add

Touch Panel Usage:  
☒ Touch Panel  
☒ Touch Panel\_1  
☐ Touch Panel\_2

Macro Items:

| Sequence | Macro Item                                      |
|----------|-------------------------------------------------|
| 1        | TV/LCD/Plasma:Power On                          |
| 2        | A/V Switcher:Switch Video-Enzo to TV/LCD/Plasma |
| 3        | TV/LCD/Plasma:Input-DTV(Antenna)                |
| 4        | A/V Switcher:Switch Audio-Enzo to Amp Out 1     |

Move Up Move Down Delete Item

Delete Cancel Save

FIG. 36 Macro Details page (ENZO macro selected)

Note that the current list of actions included in this macro are indicated in the *Macro Items* list. These are the actions that will be triggered by this macro, in the order indicated in the Sequence column.

### Adding Macro Items to a Macro

To add a Macro Item (or action) to this macro:

1. Under **Select a Device**, select a device that you want to add to the macro, from the drop-down list of devices in this project (FIG. 37):

1 Select a Device: -- Select -- 2 Select a Function: -- Select -- 3 Add Macro Item: Add

Touch Panel Usage:  
☒ Touch Panel  
☒ Touch Panel\_1  
☐ Touch Panel\_2

A/V Switcher  
 ATC/Mixer  
 Blu-ray/DVD  
 Blu-ray/DVD\_2  
 DVX-3156HD-SP  
 Document Camera

FIG. 37 Macro Details page - Select a Device



NOTE

The **Touch Panel Usage** window allows you to specify which touch panels in the Project will display this macro. The example shown above indicates that this project has three touch panels, and the selected macro will be displayed on the first two panels only. See *Touch Panel Usage* on page 25.

2. Under **Select a Function**, select the device function that you want to include in the macro (FIG. 38):

1 Select a Device: Blu-ray/DVD 2 Select a Function: -- Select -- 3 Add Macro Item: Add

Menu  
 Mute  
 Open Close  
 Pause  
 Play  
 Power

FIG. 38 Macro Details page - Select a Function

- Under **Add Macro Item**, click **Add** to add the Macro Item (Device and Device Function) to the bottom of the Macro Items list (FIG. 39):



**FIG. 39** Macro Details page - Macro Items list



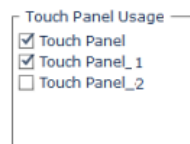
Macro items are listed sequentially in the order that they will occur when the macro is triggered. Use the **Move Up** and **Move Down** buttons to re-order the macro items as desired.

- Repeat steps 1-3 to add more items to the macro.
- Click **Save** to save your changes and return to the main *Macros* page.

### Touch Panel Usage

Under *Touch Panel Usage*, all input device(s) including touch panels, keypads and sensors present in this project are listed and selected, indicating that this macro will be accessible via the selected device(s) as a macro button. For example, FIG. 40 indicates that the project includes three touch panels:

- By default, all input devices are selected for *Touch Panel Usage*.
- De-select any input devices in this list that you do not want to access this macro.



**FIG. 40** Macro Details page - Touch Panel Usage selection

If your project has more than one touch panel, or one touch panel and at least one additional input device (i.e. sensor or keypad), then this option allows you to specify which input device will present this macro as a button. De-select any input device (s) that you do not want to present this macro.

If your Dual-Room project has more than one input device, assigned to each room, this option allows you to specify which input devices in each room will present this macro. De-select any device(s) that you do not want to present this macro.

### Macro By Panels

Click the **Macro by Panels** button on the *Macros* page (see FIG. 35 on page 23) to view a listing macros that are assigned to each a panel in the project (FIG. 41):

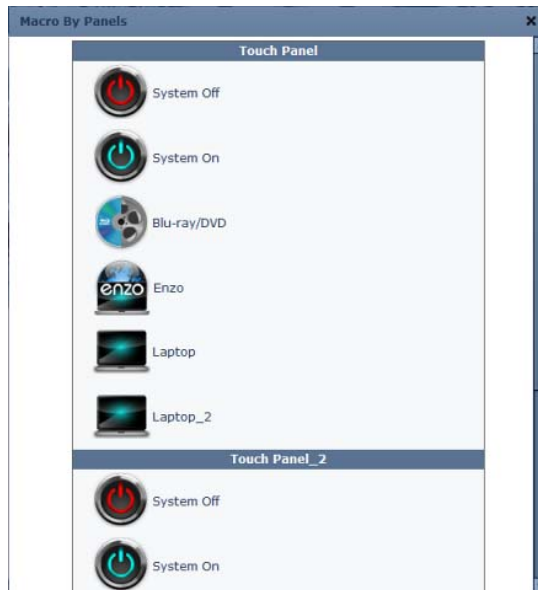


FIG. 41 Macro By Panels window

## Creating a New Macro

1. In the *Macros* page, click **Add Macro** to open the *Macro Details* page for a new macro (FIG. 42):

### Macro Details

Enter Macro Details Information

Macro Name: \*

Macro Icon: \* -- Select --

Touch Panel Navigation: Not Used

Primary A/V Source: Not Used

1 Select a Device: -- Select --

2 Select a Function: -- Select --

3 Add Macro Item: Add

Touch Panel Usage: ☒ Touch Panel

Macro Items:

| Sequence | Macro Item |
|----------|------------|
|          |            |
|          |            |
|          |            |
|          |            |
|          |            |

Move Up  
Move Down  
Delete Item

Delete Cancel Save

FIG. 42 Macro Details page - new macro

2. Under **Macro Name**, enter a name for the new macro.
3. Under **Macro Icon**, select an icon to associate with this macro. This icon will be included in this macro's button on the touch panel.
4. Under **Touch Panel Navigation**, select the touch panel page to which the button for this macro will be added.
5. Under **Primary A/V Source**, select the source for the A/V source to be used for this macro.

FIG. 43 Macro Details page - new Macro information



The *Primary A/V Source* option is only presented if the current system includes more than one display device.

6. Add macro items via the **Select a Device**, **Select a Function** and **Add Macro Item** options (FIG. 44):

FIG. 44 Macro Details page - new Macro Items settings

- Under *Select a Device*, select the device that you want to add to the macro, from a the drop-down list of devices in this project.
- Under *Select a Function*, select the device function that you want to include in the macro.
- Under *Add Macro Item*, click **Add** to add the macro item (Device and Device Function) to the *Macro Items* list (FIG. 45):

| Sequence | Macro Item   |
|----------|--------------|
| 1        | Lighting:20% |
|          |              |
|          |              |
|          |              |

FIG. 45 Macro Details page - new Macro Item added to Macro Items list

Repeat steps a - c to add more items to the *Macro Items* list, as necessary.

The example below shows that three more items were added to the *Macro Items* list (FIG. 46):

| Sequence | Macro Item              |
|----------|-------------------------|
| 1        | Lighting:20%            |
| 2        | TV/LCD/Plasma1:Power On |
| 3        | Blu-ray/DVD:Power On    |
| 4        | Shades/Blinds:Close     |

FIG. 46 Macro Details page - example Macro Items list

In this example, the macro (named "New Macro") will cause four actions to occur in the sequence they are listed: When the *New Macro* button is pressed, first the lights will dim to 20%, then the display will be powered on, then the Blu-ray player will be turned on, then the shades will be closed.

- Use the **Move Up** and **Move Down** button to re-order the macro items to change the sequence of events.
- Use the **Delete Item** button to delete a selected macro item from the list.

7. Under **Touch Panel Usage**, the input device(s) including touch panels, keypads and sensors present in this system are listed and selected, indicating that this macro will be accessible via the selected device(s) as a macro button. De-select any input devices in this list that you do not want to access this macro.

- If your project has more than one touch panel, or one touch panel and at least one additional input device (i.e. sensor or keypad), then this option allows you to specify which input device will present this macro as a button. De-select any input device(s) that you do not want to present this macro.

- If your Dual-Room project has more than one input device, assigned to each room, this option allows you to specify which input devices in each room will present this macro. De-select any device(s) that you do not want to present this macro.
  - By default, all input devices are selected for *Touch Panel Usage*.
8. Click **Save** to save the macro and return to the main *Macros* page. Note that the new macro is now indicated in the *Macros* window (FIG. 47):



**FIG. 47** Macros page - Example (Dim Lights) macro item added

Click on any macro to edit it's settings in the *Macro Details* page.

## Deleting Macro Items

1. Select an item in the *Macro Items* list (see FIG. 39).
2. Click **Delete Item**.
3. The program will prompt you to confirm this action.
4. Click **OK** to proceed.
5. Click **Save** to save your changes and return to the main *Macros* page.

## Lighting Scenes and Macros

RPM *Lighting Scenes* can be added to a new or existing macro. Refer to the *NXB-CCG NetLinx Clear Connect™ Gateway RPM Device Configuration Guide* for details.





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