



White Paper

**COMPARING APPLES TO APPLES:
AMX® INTERFACES WITH APPLE®
PRODUCTS IN MANY WAYS**

APRIL 2010



AMX embraces the advantages of touch-based interfaces as an intuitive, natural method for system control and automation. Modero® Touch Panels are engineered specifically for control system integration and offer certain advantages like ease of integration, advanced wireless security and come in a variety of form factors proven to meet customer needs around the world.

AMX continues to be an advocate of open standards-based platforms that simplify technology integration, offer end users more interaction choices and expand automation technology awareness. We currently support the integration of most PCs, netbooks and tablets using browsers like Windows® Internet Explorer®, Mozilla® Firefox® and Apple Safari®. AMX also supports smart devices like cell phones that utilize Android™, Apple, Blackberry® and Windows Mobile® technologies; MP3 players and future devices that use web browsers and VNC or WiFi connectivity.

AMX interfaces with Apple in two distinct ways: Using Apple Products to Control AMX Systems and Using AMX Systems to Control Apple Products.



AMX® Interfaces with Apple® Products in Many Ways

The Apple iPad™ announcement has brought considerable attention to the subject of Apple and our ability to integrate AMX with Apple products. The iPad is another great example of a user interface that complements our user interface lines like Modero®, Metreau™, Mio™, Mio R-Series™ Remotes and Novara® ControlPads™. While AMX holds many customers will continue to request the functionality and convenience of a dedicated touch panel, we welcome smart devices, such as the iPad, that open up the home automation market to a broader audience.

Using Apple Products to Control your AMX System

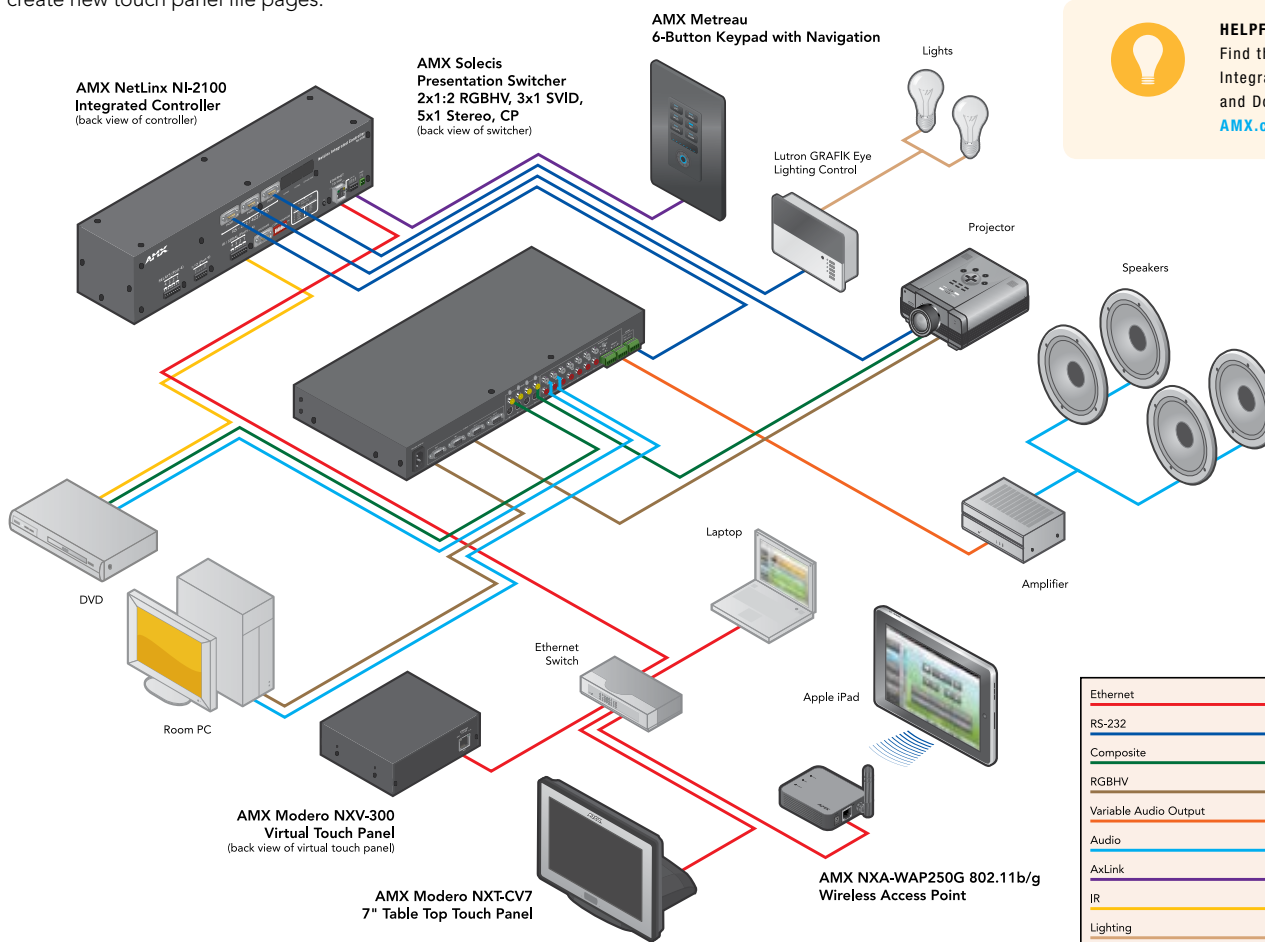
CUSTOM UI INTEGRATION

for Apple iPod Touch®, iPhone®, iPad™ and Mac® Computers

Use any Apple mobile device for simplified room control, convenient back-up in case a touch panel is inaccessible, cost-effective secondary control, or enhanced help desk support. Except for viewing the device in a browser window on any Apple UI device, the user interface looks and works like a Modero touch panel. Viewable in two resolutions, 800x480 and 480x272, this solution also lets you copy existing or create new touch panel file pages.



HELPFUL HINT
Find the complete Integration Steps, Files and Documentation at: AMX.com/UI



Ethernet	Red
RS-232	Blue
Composite	Green
RGBHV	Black
Variable Audio Output	Orange
Audio	Light Blue
AxLink	Purple
IR	Yellow
Lighting	Brown

INTEGRATION STEPS

1. Connect the AMX NXV-300 to your AMX system just as you would connect any touch panel (including the IP address assignment). Launch the web-based setup menu from your browser.
2. Use TPD4™ to generate a new or reuse an existing touch panel file. The NXV-300 supports 2 resolutions; 800x480 and 480x272. Both resolutions look good on Apple UI devices.
3. Transfer the touch panel file to the NXV-300.
4. Purchase and install a VNC application on your Apple UI device from the App Store at the Apple iTunes Store. While there are many VNC applications available, the iTelePort® VNC application (formerly Jaadu VNC) by iTelePort, LLC (\$24.99) specifically supports AMX Modero touch panels.
5. Launch the VNC application and direct it to the IP address assigned to the NXV-300 in Step 1. If you are using the iTelePort VNC application, select 'AMX Touch Interface' from the configuration menu. In a few seconds, your custom user interface will appear on the UI device.



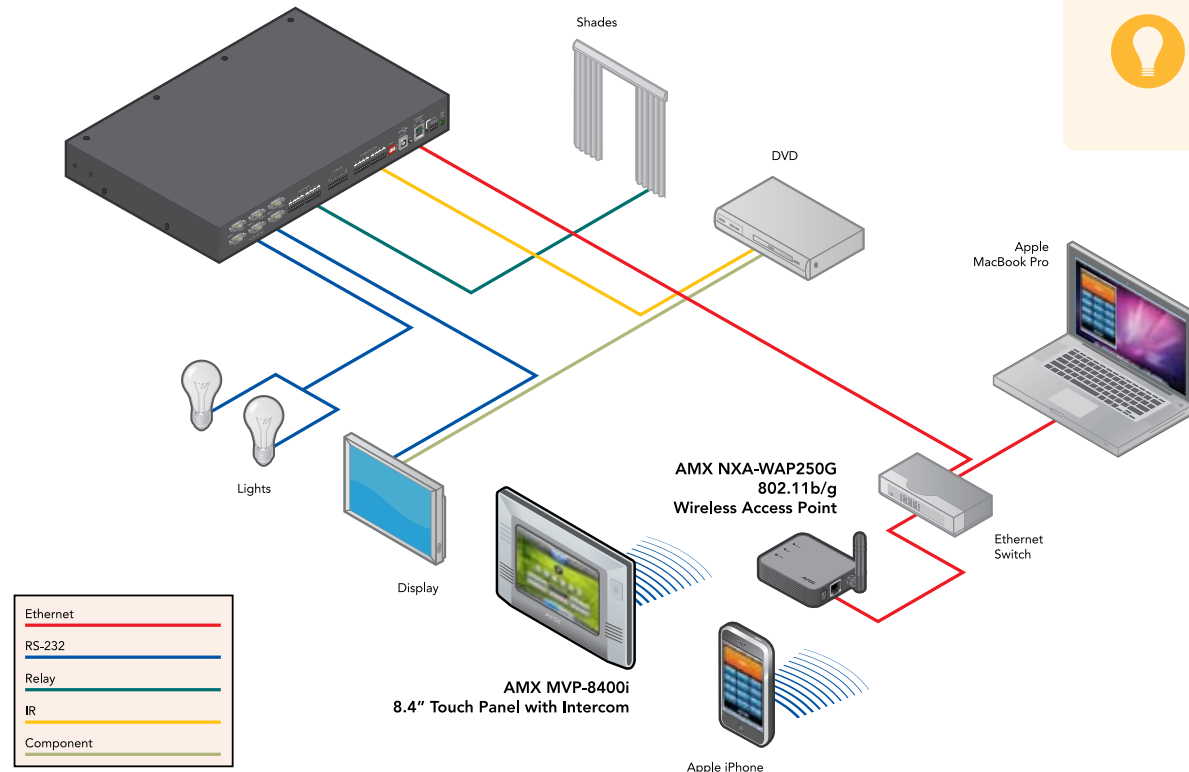
PREDESIGNED UI INTEGRATION

for Apple iPod Touch, iPhone, iPad and Mac Computers

Use any Apple UI device as a simple, secure web-based user interface with 12 standard buttons and a three line status display with AMX VirtualKeypad™. This is great for simplified room control because it works in an identical fashion to a physical keypad; uses NetLinX commands to label buttons, manage button feedback and display text; doesn't require additional software on client PC; doesn't require HTML pages to be downloaded to the NetLinX central controller.



AMX NetLinX NI-3101
Signature Series Integrated Controller
(back view of controller)



HELPFUL HINT

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INTEGRATION STEPS

1. Download VirtualKeypad from AMX.com under Customer Applications which includes a Duet™ module and NetLinX code for integration into the system code, and provides examples of how to utilize the various functions for VirtualKeypad.
2. Unzip the file and reveal two NetLinX workspace files: VirtualKeypad (desktop edition) and VirtualKeypadME (mobile edition).
3. Select the appropriate file and open it in NetLinX Studio. Copy and paste the content from the file into your NetLinX project file.
4. Use NetLinX Studio to program the functionality for each button respectively.
5. Compile and transfer the project to your NetLinX central controller.
6. Launch your browser from the UI device and enter the url for your central controller. In a few seconds, your user interface will appear on the UI device.



Controlling Apple Products with your AMX System

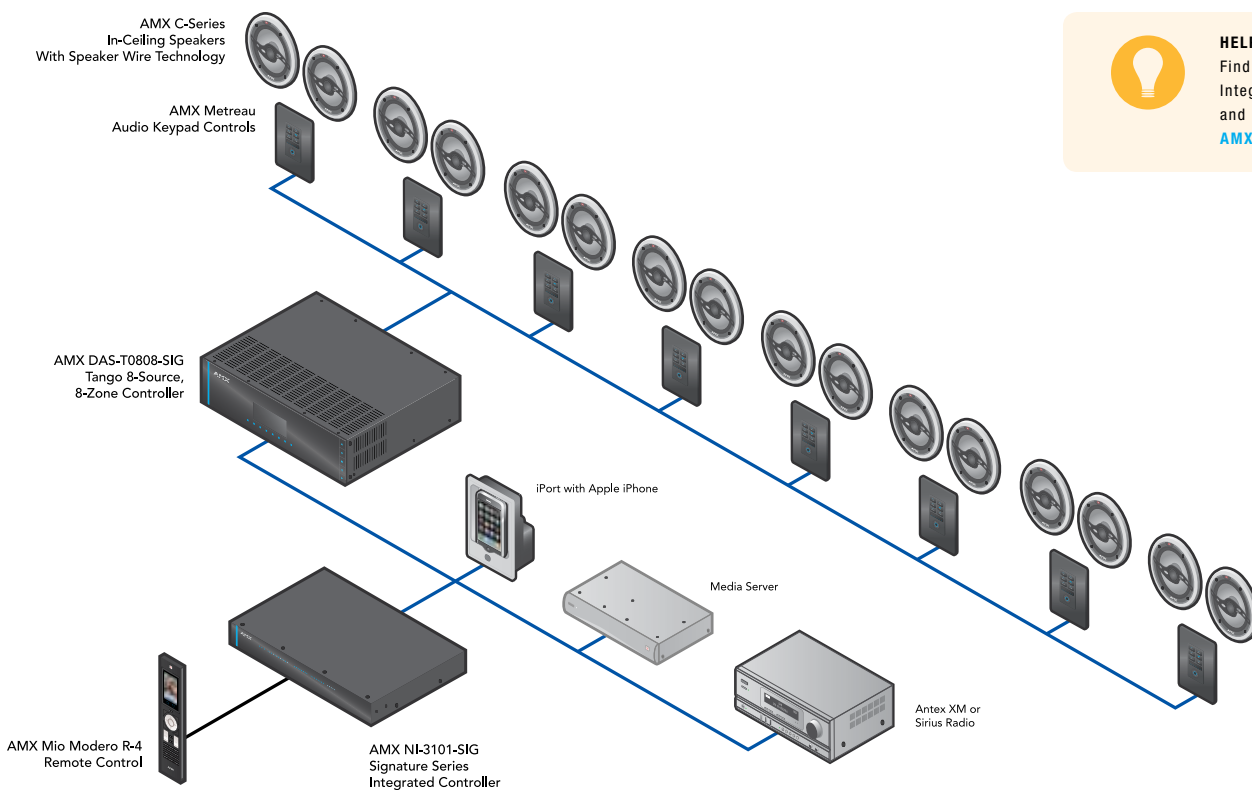
SONANCE® IPORT™ INTEGRATION

Integrate the Sonance iPort docking system to add control of an iPod® or iPod touch® to the whole-home entertainment system or seamlessly integrate into virtually any other environment, from hotel rooms to restaurants to business offices. The iPort provides charging, local audio distribution, and direct control access; includes IR support, allowing control of the iPod via IR remote (available separately); and adds integrated RS-232 for two-way communication from audio/video control devices, allowing for viewing of video and music playlist data over a wide range of compatible control systems.



HELPFUL HINT

Find the complete Integration Steps, Files and Documentation at: AMX.com/UI



INTEGRATION STEPS

1. Design and install the audio/video system including the iPort.
2. Connect your iPort to the NetLinx central controller via RS232 or Ethernet.
3. Download the Duet module from AMX.com and incorporate it into your NetLinx Studio project.
4. Program and design corresponding touch panel pages with the desired functionality – including control of the Apple device and metadata display.
5. Compile and transfer the project to your NetLinx central controller and touch panel(s).

APPLE TV® INTEGRATION

Autonomic1 Control's Apple TV Control Module for AMX

With the help of a module available from Autonomic Controls, Inc., an independent provider of custom integration solutions for digital media, now you can offer a ready-to-use solution for direct IP control of Apple TV devices, or iTunes running on a Mac or PC. The module allows AMX to interactively access digital media player's functionality and display feedback or those actions. Browse digital media collections, initiate playback, and manage the playback queue without having direct access to the device's onscreen display.

INTEGRATION STEPS

1. Purchase and install the Autonomic Controls Apple TV/iTunes control module (activation instructions are included with the module). http://www.autonomichome.com/products_appletv_AMX.php
2. Open the Autonomic Controls Apple TV Demo.apw and incorporate it into your NetLinx Studio project.
3. Compile the program and transfer the project to your NetLinx central controller.
4. Select one of the sample touch panel files included with the module by opening it in TPD4.
5. Transfer the touch panel file to your touch panel(s).
6. Pair your Apple TV or iTunes device by running the module and following the onscreen instructions on the touch panel.
7. Install the Autonomic Licensing Manager to your NetLinx central controller to generate a license key for use of the module.



HELPFUL HINT

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AMX Apps – All available at AMX.com/UI

G4 ComputerControl™

G4 Computer Control software provides customers the ability to experience the full functionality of any network connected computer directly on Modero® Touch Panels, Total Presentation Interfaces and TPDesign4 software. Simply connect any Windows (XP and 2000) or Macintosh (OS 10.2 or greater) PC to the control network, plug in the NXA-USBCC AMX Computer Control USB stick (FG070-602) and experience complete access to your PC directly on the Touch Panel.

i!Weather™

Access precise, timely weather updates at the touch of a button. Based on actual weather conditions, program your AMX control system to manage lighting, sprinklers, pool and spa equipment, as well as receive email notifications.

PictureFrame™

This PC-based software is designed to transform any Modero into a dynamic digital photo album. Without any special control system code or re-programming, end users can display personal images on the user interface. Family photos, favorite artwork and seasonal images can sequence through when the panel is not in use, providing a visually pleasing solution that complements a room's design. Intuitive menus transport images directly from a PC to the Modero panel. TPDesign4 software from AMX is used to define the types of images that will be displayed on the user interface.

TakeNote™

Demonstrate truly interactive presentations using AMX's TakeNote annotation application. Use your finger or a stylus to draw directly on the Modero® screen. The resulting annotations are displayed both on the Modero panel and the PC.

AMX UI Widgets

Design-independent, code-driven elements that add value to any user interface.

(Analog Clock, Calculator, Messenger, and Notepad)



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ABOUT AMX

AMX hardware and software solutions simplify the way people interact with technology. With the increasing number of technologies and operating platforms at work and home, AMX solves the complexity of managing this technology with reliable, consistent and scalable systems. Our award-winning products span control and automation, switching, distributed audio and video, and technology management. They are implemented worldwide in conference rooms, homes, classrooms, network operation / command centers, hotels, entertainment venues, broadcast facilities, among others.