System Manager User Manual





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1) Introduction

The AUDAC System Manager is a software tool to manage all your AUDAC ethernet connected devices. AUDAC peripherals without internet connection can also be managed if they are connected to the AUDAC APC100 con–figuration and control unit. The tool is capable of discovering compatible devices and peripherals in your network and informing you of available firmware updates. Settings can be exported and imported enabling a backing up devices in your project. APM1xx can be configured without the need of all AUDAC devices it will control to be connected. This makes it easy to configure APM1xx together with ARU1xx or to do an off–site configuration of an APM1xx. The configuration of APM1xx has a lot more features than the default configuration options on the R2/M2 website. It will be possible to use all features of the APM1xx such as uploading custom messages, grouping buttons, trigger APM1xx events, The tool also includes an option to upload screensaver images to DW5066 wall panels.

2) Features

- Discover compatible Ethernet enabled AUDAC devices in your network (R2, MTX, RM523, ...)
- Discover compatible AUDAC peripherals connected to AUDAC devices or APC100 (APM, DW5066, ...)
- Automatically check AUDAC server for firmware updates
- 1 button firmware update for AUDAC devices and peripherals
- Export settings from AUDAC device to PC
- Import Settings from PC to AUDAC device
- Configure APM1xx
- Upload DW5066 screensaver
- Upload voicefiles to APM1xx

3) Compatible devices and peripherals

AUDAC Devices	Discover	Import / Export settings	Firmware update	Configure	Upload screensaver	Upload Voicefile
M2	Х	Х	Х			
R2	Х	Х	Х			
MTX48/88	Х	Х	Х			
RM/AMP523	Х	Х	Х			
APC100	Х		Х			
AUDAC Peripherals						
APM1xx	Х	Х	Х	Х		Х
ARU1xx	Х					
DW5066	Х		Х		Х	
MWX65	Х					
MPX48/88	Х		Х			

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4) System requirements

- Microsoft Windows XP / 7 / 8 in 32 bit or 64 bit
- Java 1.7 or higher
- USB connection
- Ethernet connection

5) Installation

Make sure that java is installed on your computer (version 1.7 or higher). The latest version can be downloaded from http://www.java.com.

The AUDAC system manager software can be downloaded from the product page on the AUDAC website (http:// www.audac.eu/Systemmanager) where a zip package including all the necessary files can be found. This package should be extracted to a location of your choice on your computer. After this has been done, the System Manager is ready to be used.

6) Using the first time

The AUDAC System Manager can be started by double clicking the 'AUDACSystemManager.exe' file in the extracted folder. When multiple network adapters are installed on your computer, a window will pop up whereby the desired network adapter can be selected. After selected, press 'OK'.

At every startup, the System Manager will start searching for the present device firmware available on your computer. No device firmware will be available at first startup. Because of this, an error message for every AUDAC device will be given. Subsequently, the System Manager will contact the AUDAC server and will try to download all the latest AUDAC firmwares. A 'New firmware found' message will be given for each AUDAC device type and all firmwares will be downloaded.

After all firmware versions are downloaded, it will start discovering all compatible network enabled AUDAC devices. The peripherals connected to the devices will not be discovered at this point. Now, the System Manager is ready for use.

The second time the AUDAC System manager is used, it will connect with the AUDAC server and will verify the available firmware versions with the ones available on your computer. If new versions are available, a message will be given and the new versions will be downloaded.

It will also check for new versions of the System Manager, and will ask for a download location for the new version.



7) Interface overview



1) Discover button: Press this button to discover all the connected ethernet compatible AUDAC devices. After firmware updates or address changes have been made, this button should be pressed.

2) Tools menu: This menu gives quick access to the APM1xx and DW5066 configuration menu, without discovering all the peripherals using the 'Discover peripherals' menu. When using this menu, the correct APM1xx or DW5066 address should be known.

3) Info menu: In this menu, all information about the 'AUDAC System Manager' can be found, such as software version, ...

4) Device list: All detected devices discovered by this tool are shown here. The buttons will show the device name and address. To get more detailed information about this device, click the corresponding button. Even the devices within another IP range (not accessible) will be shown here as 'unknown'. In this case, the IP settings need to be verified and adjusted within the same IP range. Contact your IT administrator for help, if required.

5) Peripherals window: When the 'Discover Peripherals' button on top of this window is pressed, all peripherals connected to the selected AUDAC device will be discovered. It will take about 1 minute to complete the discovery process. Once completed, all peripherals will be shown in the window and more information about these peripherals can be revealed by after moving your mouse over it. When clicking it, all possible tools will be shown.

If no direct connection (line) is shown between the device and the peripheral, this means that the peripheral is not directly connected, but connected through another device which is linked over fiber with the selected device.

6) Firmware window: All firmware versions which are downloaded on your computer are shown here. More information will be shown after clicking the 'Firmware info' button.

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7) Device info window: All details such as firmware and address information for the selected device will be shown here. The text 'Update available' will be shown when a more recent firmware is available on your computer, compared to the firmware on the selected device. If the 'Open Web Interface' button is pressed, the web interface of the selected device will be opened in your standard browser.

8) Update window: The established connections between the device and your computer are shown in this window. When pressing the 'Update' button, the update will start. If any additional connection between your computer and the device are required, a window will pop up.

9) Settings window: This window shows different buttons whereby the settings from the device can be exported to and imported from your computer. Restoring the settings to factory defaults is also possible.

8) Receiving System Manager updates

When the System Manager is started, the tool will connect automatically with the AUDAC server and search for updates. If there is an update available, a dialog box will be shown whereby the download folder can be se–lected. After a new version has been dowloaded, the .zip archive should be extracted and the new version can be started.

9) Receiving device updates

When the System Manager is started, the tool will connect automatically with the AUDAC server and search for updates. If an update is available, a message will be shown and the new firmware will be downloaded to your computer. The new firmware will be shown in the firmware window on the right side. Once firmware updates have been downloaded, they will be stored locally and your computer can be disconnected from the internet. This enables them to be used offline, taking your computer on site to an installation where no internet connec—tion is available, to update the devices with the latest firmware. Manual checking for available software updates is possible by clicking 'Search & download latest firmware to PC' button.

10) Getting information of available device firmware

Information regarding available device firmware can be retrieved by pressing the 'Firmware info' button. Hereby the firmware history, fixes and added device functionality will be shown. This way when encountering certain problems / limitations you can verify whether they are known and fixed in a firmware update.

11) Discovering AUDAC devices in your network

Compatible ethernet connected AUDAC devices will be automatically discovered when starting the System Manager. All discovered devices will be listed as buttons on top of the window. When a device button is pressed, information about the device is shown. At this stage, only (ethernet connected) devices will be discovered without connected accessories. These connected accessories (peripherals) should be discovered separately. When the tool is already running, the system can be discovered again by pressing the 'Discover' button. This is required after any firmware update is made to the connected devices, or any address changes have been made.



12) Discovering connected peripherals

Compatible peripherals connected to AUDAC devices can be discovered by pressing the 'Discover peripherals' button on top of the peripherals window. It is important that the correct device whereof the peripherals need to be discovered be selected first, before pressing the 'Discover peripherals' button. The procedure will take about 1 minute before the peripheral discovery is completed.

13) Exporting settings from device to computer

Settings can be exported from your device to your computer. This way, a copy of your project configuration can be made for duplication or backup purposes. First select the correct device, then press the 'Export to PC' button. A filename and location should be entered and the file will be stored. Default filename is the device address. All settings will be transferred to your computer.

14) Importing settings from computer to device

Settings saved on your computer (configurations which were previously saved) can be transferred again to a device. This way, system duplicates or backups (from previously made configurations) can be easily reloaded. First select the correct device, then press the 'Import to ... ' button. The storage location and filename should be selected and the corresponding file will be loaded. All settings will be transferred from your computer to the selected device.

NOTE: The device address (E.g: R001, M001) and IP address (E.g: 192.168.0.190) will not be changed when reloading device settings.

15) Restoring settings to factory default

Settings can be restored to factory default. First select the correct device and then press the 'Restore to de-faults' button.

NOTE: All settings except the device IP address (E.g: 192.168.0.190) will be restored to factory defaults.

16) Updating device firmware

Updating device firmware can be done with one click. First, the correct device should be selected and the 'Update' button be pressed. Then, the firmware available on your computer will be transferred to the corresponding device. For specific updates, a USB connection between your computer and the device will be required (depending on the device and type of update). If required, a request to establish a USB connection between the computer and the device will be given.

NOTE: After an update has been made, remove the USB connection (if connected), repower the device, wait for the device to be started and press the 'Discover' button again.



17) Setting the address of an APM1xx

The assignment of an APM1xx address is the first thing to be done when making an APM1xx configuration (when multiple APM1xx are connected on one system). This will determine the priority levels of the APM1xx in your system. The address is standard set to '001' (which has highest priority).

Assigning the address of an APM can be done in two ways:

A) Quick address assignment using the 'Tools' menu:

Select 'Tools' > 'APM' > 'Set APM address' and subsequently the device to which the APM1xx is con nected can be selected. Then select the desired APM1xx address and click 'Set address'. The address should be confirmed via the APM1xx itself by pressing the PTT button which is blinking.

This is a quick method for setting the address on multiple APM1xx's in a new project.

B) Address assignment using the 'Peripherals window':

When the APM1xx is discovered as a peripheral of a device, the address can be changed by select ing the APM icon in the 'Peripherals window'. A menu will pop up whereby 'Set address' should be selected.

This method can be used for changing the APM1xx address in an existing project.

NOTE: The address can be set if the APM1xx is connected to any M2, R2, MTX or APC100 in your setup.

18) Making a configuration for an APM1xx

A custom configuration for an APM1xx paging console can be made in two different ways:

A) Make or change the configuration of an APM1xx with a known address:

Select 'Tools' > 'APM' > 'Configuration' and then the device to which the APM1xx is connected can be selected. The next step is to select the address of the APM1xx and select 'New configuration' or 'Adjust configuration'.

B) Make or change the configuration of an APM1xx with an unknown address:

In existing projects, the APM1xx can be discovered as a peripheral of an AUDAC device. The configura tion can be made or changed by selecting the APM1xx icon in the peripheral window and the choice between 'New configuration' or 'Adjust configuration' can be made.

NOTE: The APM1xx configuration can be made if the APM1xx is connected to any M2, R2, MTX or APC100 in your setup.

19) The APM1xx configuration window

	Connected Devices	Layer 1	Lay	er 2	Layer 3	
1•	M001 M2 R010 R2 R029 R2 R030 R2 R011 R2	0 Play Message	1 No Function	2 No Function	3 No Function	
2•	Add not connected Device Type M2 Address 001 Add	No Function	No Function	No Function	No Function	
3•	Connection Priority	8 No Function	9 No Function	10 No Function	11 No Function	• 13
4•	Volumes Mic OdB V DingDong V -0dB V	12 No Function	13 No Function	14 No Function	15 No Function	
5•	Time server Virtual Buttons Device R011 VB00 No Function Configure	Select All	Deselect All		РТТ	
	Save to File Load from File Upload to APM	ne Events	Erase con	figuration	ок	

1) Connected devices table: This table shows all the connected devices which can be controlled using the APM1xx. It shows all R2's, M2's, MTX's which are discovered in your network, as well as ARU1xx's which are discovered through 'Discover peripherals'. If your required ARU is not shown here, make sure that the peripherals of the device it's connected to are discovered using 'Discover peripherals'.

2) Add not connected device window: If your device is not shown in the 'Connected devices' table if you are working off site on a configuration without having your APM1xx connected in the system you can manually add devices to the 'Connected devices' table by selecting the correct type and address and pressing the 'Add' button. This way, any configuration can be made on your APM1xx for controlling devices that it is not connected to. This is convenient when additional APM1xx's have to be added to an existing installation as the programming can be done in advance in the workshop.

3) Connection window: In this field, the device and the port to which the APM1xx will be connected must be selected. If the required device is not listed here, it should be added using the 'Add not connected device' window as described in point 2. The paging priority level should also be selected using the 'Priority' dropdown list. Priority level '1' will have the highest priority in your system.

4) Volumes window: The volume of announcement (microphone) and the chime volume can be set here. Both can be set at different levels (E.g. making the chime sounding louder to draw people's attention). Also different kinds of chime sounds can be selected or the chime sound can be disabled. A standard 'DingDong' chime sound is pre–programmed but multiple chime sounds can be uploaded in the peripherals window or 'Tools' menu.

NOTE: The volume settings are meant to make an offset between the microphone and chime volume (one louder than the other). If the microphone volume need be lower than the chime, leave the chime to 0 dB and lower the microphone level. If the microphone volume need be louder than the chime, leave the microphone level to 0 dB and lower the chime volume. The desired announcement volume for every individual zone has to be set in the R2 & M2 settings menu (web interface) and not in the APM1xx.



5) Time server window: The APM1xx is capable of triggering events at pre-programmed times or dates. In case this option is being used, a device with built-in real time clock (such as R2, M2 or APC100) needs to be connected in the same network for time synchronization. If this option is not being used, this field can remain blank.

6) Save to file : This button is used for saving the current APM1xx configuration to your computer. Note that the configuration which is currently displayed on your screen will be saved, not the configuration which is stored inside the APM1xx. When a configuration is loaded from an APM1xx (adjust configuration) and changes are made using the system manager, it will be saved as currently displayed on your computer and not as stored inside the APM1xx.

7) Load from file : This button is used for loading an APM1xx configuration from your computer (a saved file) to the System Manager. When this file is loaded into the System Manager, the file is still not uploaded to the APM1xx. The 'Upload to APM' button should be pressed to transfer the current configuration to the APM1xx. The loaded configuration can always be modified, before transferring to the APM1xx.

NOTE: Chimes are not loaded when pressing this button.

8) Upload to APM : When pressing the upload button, the currently displayed APM configuration will be transferred to the APM1xx. After making any new configuration or adjustment, or when loading an APM1xx con–figuration from a file, this button should be pressed to upload it to the APM1xx.

9) Configure virtual buttons : The APM1xx has the possibility for configuring up to 60 'virtual buttons' which can be configured in the same way as normal buttons. These virtual buttons can be grouped and triggered by a normal button. This allows you to program one virtual button to trigger a zone, while a second virtual button can be programmed to play a chime or announcement. Both of them can be triggered with one (physical) button on the APM1xx.

NOTE: When using virtual buttons in a group, the order of the programmed functions is important. A zone must be selected before a chime or announcement can be played in that particular zone.

10) Events button : APM1xx automatically triggered events can be programmed after pressing this button. These events can trigger normal buttons and/or virtual buttons.

11) Erase configuration : The complete configuration displayed on your screen will be erased after pressing this button. It does not erase the configuration which is stored inside the APM1xx.

NOTE: To erase the configuration inside the APM1xx, first press 'Erase configuration' and then the 'Upload to APM' buttons. By doing this, the erased configuation will be uploaded to the APM1xx.

12) OK button : After pressed this button, the APM configuration window will be closed. It will not change any configuration inside the APM1xx.

13) APM1xx button window : All the available APM1xx buttons are shown in this window with their current function. Press the button and a window pop up wherein the configuration can be changed.

NOTE: Layer 1 to layer 3 is only available when using an APM116

20) Uploading voice files to APM1xx

Uploading voice files to the APM1xx is only possible when it is connected to an APC100. Disconnect the APM1xx from the peripheral ports of your system and connect it to the databus of an APC100 in your network. Select the APC100 in the device list of the system manager and press 'Discover peripherals'. Select the APM1xx icon in the peripherals window and click 'Program sounds'. Now an overview is given of the current programmed voice file message in the APM1xx. Messages can be removed by ticking the delete checkboxes and pressing the 'Delete sound' button. New messages can be uploaded by clicking 'Upload sound'. The files should be 16–bit, 12 kHz mono wave format. A total of 600 seconds of audio can be spread over 30 messages. The available and occupied memory space will be shown.

21) Updating APM1xx firmware

Updating APM1xx firmware is only possible when the APM1xx is connected to an APC100. Disconnect the APM1xx from the peripheral ports of your system and connect it to the databus of an APC100 in your network. There are two ways to update the firmware of an APM1xx.

A) Update the firmware of an APM1xx with a known address:

Select 'Tools' > 'APM' > 'Update firmware', select the address of the APC100 to which the APM1xx is connected and select the address of the APM1xx which should be updated. After update, the APM1xx should be restarted and re-discovered.

B) Update the firmware of an APM1xx with unknown address:

In existing projects, the APM1xx can be discovered as a peripheral of an APC100 device. When the APM1xx is connected to the APC100, select the APC100 in the device list and press 'Discover peripher als'. Now, the firmware can be uploaded by selecting the APM1xx icon in the peripherals window. Click 'Firmware update' and then press update. After update, the APM1xx should be restarted and re—dis covered.

22) Updating screensaver to DW5066

Custom screensavers can be uploaded to the DW5066, enabling in standby to display a company logo or any other image on the LCD display. To upload these screensavers, select the device to which the corresponding wall panel is connected in the device list and press 'Discover peripherals'. After all peripheral devices are discovered, select the corresponding wallpanel in the peripherals window and click 'Screensaver upload'. The screensaver window will pop up and an image can be loaded by clicking 'Load picture'. The image position can be changed by dragging it into another position. The position can be centralized using the 'Center picture' button and the backrground color can be adjusted using the 'Background color' button. After all this has been done, the image can be uploaded by pressing the 'Upload' button.

NOTE: The image should be standard bitmap image (*.bmp) with a maximum size of 320 (x) x 240 (y) pixels. The maximum total size of the image is 31500 pixels (x * y size). If the image size exceeds above described maximum size, it needs to be downscaled with image editing software. Once the image has been uploaded, the screensaver must be enabled in the M2/R2 interface.

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23) Updating DW5066 firmware

Updating DW5066 firmware is only possible when the DW5066 is connected to an APC100. Disconnect the DW5066 from the peripheral ports of your system and connect it to the databus of an APC100 in your network. There are two different ways to update the firmware of an DW5066.

A) Update the firmware of an DW5066 with a known address:

Select 'Tools' > 'DW5066' > 'Update firmware'. The AUDAC master device (the device to which the DW5066 was connected) should be selected in the 'Master/T' dropdown list. Select 'M' for M2 and 'R' for R2. The correct address of the DW5066 should be selected in the 'Master/A' dropdown list. Afterwards, the APC100 address (to which the DW5066 is connected) and the known DW5066 address should be selected from the dropdown lists. Press the 'Update' button and the update process will start. After this is completed, the DW5066 should be restarted and re-discovered.

B) Update the firmware of an DW5066 with unknown address:

In existing projects, the DW5066 can be discovered as a peripheral of an APC100 device. When the DW5066 is connected to the APC100, select the APC100 in the device list and press 'Discover peripher als'. Now, the firmware can be uploaded by selecting the DW5066 icon in the peripherals window, click 'Firmware update' and then press update. After this is completed, the DW5066 should be restarted and re-discovered.

24) Step by step configuration examples

A) Configuration of a system including APM1xx & ARU1xx

1) Required hardware

APM1xx, ARU1xx, APC100 & 24 Volts power supply (Incl. with APC100)

2) Connecting

Connect the APM1xx and ARU1xx to the databus connections of the APC100, and power the APC100 using the 24 Volts power supply. (APM1xx and ARU1xx can be connected on the same (daisy-chain) or different databus connections)

Connect the APC100 to your local LAN network or directly to the network adapter of your computer.

3) Run the software and discover the available devices

Start the 'AUDAC System Manager application' and automatically it will start discovering all available devices in your network. After all devices are discovered, the APC100 will be shown in the 'Device list' at the top of the window. Select this one and click the 'Discover peripherals' button on top of the peripherals window. Now, all connected peripheral devices (APM1xx and ARU1xx in this case) will be shown in the peripherals window.

4) Start configuring your peripherals

Select the ARU1xx symbol in the peripherals window and press 'Set address'. The desired address for the ARU1xx can now be selected. The selected address doesn't matter if only one ARU1xx is connected, but should be unique when multiple ARU1xx's are connected. Afterwards, click the 'Set address' button and the LED on the ARU1xx will start blinking. Press the push–button on the ARU1xx to confirm acceptance of the address. The configuration for the ARU1xx is now finished.

The next step is to make the configuration for the APM1xx. You will return to the main screen where the APM1xx icon is shown in the peripheral window. Click the APM1xx icon, select the desired address and press 'Set address' button. The PTT button on the connected APM1xx will start blinking. Press the PTT button to confirm the acceptance of the address. The APM1xx address is now configured and the address configuration window can be closed by pressing 'OK'.

Select the APM1xx icon once again in the peripheral window, and press the 'New configuration' button. The APM1xx configuration window will be opened. Select the ARU1xx in the 'Connection' window (the 'Port' dropdown list will show 'Paging') and select the desired priority level (default is 1). Select the desired microphone volume (default is 0), desired chime volume (default is 1) and desired chime tone (can standard be selected between 'No chime' & 'DingDong').

If timed events are used, the correct time server should be selected in the 'Time server' window. The APC100 can be assigned as timeserver but note that it cannot be removed from the project once it is set as time server. If no timed events are used in your configuration, any device can be selected here and the APC100 can be removed after the configuration is completed.

5) Configure the button functions

Click any of the buttons to which a function needs to be assigned and a configuration window will pop up. The desired function for that button can be selected, for example 'Zone select', 'Play message',Other parameters such as device selection, zone selection, message selection, ... can be set according to the the desired function with the other dropdown lists. If the desired functions have been configured, the button configuration window can be closed by pressing 'OK'. All other buttons can be configured in the same way.

6) Upload and save your file

After all buttons have been configured, the configuration can be uploaded to the APM1xx by pressing the 'Upload to APM' button. The APM1xx will now control the ARU1xx as configured. The file can be saved to your computer for later use by pressing the 'Save to file' button.

B) Configuration of a system with 5 x APM1xx and 2 x M2

1) Required hardware

To make this configuration, the only required hardware are APM1xx's and the M2's. No APC100 is required. The configuration with the System Manager can be made through the M2's.

2) Configuration of the M2 addresses

An unique address should be assigned to every M2. The standard address (factory default) for both M2's is 'M001'. For one of them, the address can stay default, while the address should be changed for the other one (to 'M002' for example).

Connect one M2 to your network (keep the second one disconnected) and browse to the web interface (IP address 192.168.0.190). Once connected, go to the settings page and change the address ('M002' for example). Also the IP address in the network settings should change to another one which is unique in your network (eg 192.168.0.195). Afterwards, save the M2 settings on the settings page.

Now, both M2's have an unique device address ('M001' & 'M002') and IP address (192.168.0.190 & 192.168.0.195). The second M2 (with default settings) can now be connected to your network.



3) Run the software and discover the available devices

Start the 'AUDAC System Manager application' and automatically it will start discovering all available devices in your network. After all devices are discovered, both M2's will be shown in the 'Device list' on the top of the window.

4) Configuration of the APM1xx addresses

Now, an unique address should be assigned to every APM1xx. Connect the first APM1xx to one of the M2's and go to the 'Tools' > 'APM1xx' > 'Set address' menu. The APM1xx address selection window will now open. Select the address of the M2 to which the APM1xx is connected in the 'Master' dropdown list, select 'A005' as APM1xx address and press 'Set address'. The 'PTT' button on the APM1xx will start blinking now. Press the button to assign the address to the APM1xx.

Leave the 'Set APM address' window open and connect the second APM1xx to an M2 (The first APM1xx can stay connected). Select the address of the M2 to which the APMxx is connected in the 'Master' dropdown list as above, select the 'A004' as APM1xx address and press 'Set address'. The 'PTT' button on the APM1xx will start blinking. Press the button to assign the address to the APM1xx.

Repeat above actions until all APM1xx's are connected and have a unique address. Always start with the highes address and work your way down to address 'A001'.

At this point, all M2's are connected with their APM1xx's and each of them has an unique device and/or IP address.

5) Configure the APM1xx's

Select an M2 in the 'Device list' on top of the window and click 'Discover peripherals'. All APM1xx's connected to this M2 will be discovered and shown in the peripherals window.

Click the icon of the APM1xx to be configured and select 'New configuration'. The button functions for the selected APM1xx can now be configured as described earlier in this instruction manual. The configuration can be uploaded to the APM1xx by pressing the 'Upload to APM' button.

Repeat this action for all the connected APM1xx's in your system. When an APM1xx is connected to the second M2 in your system, the M2 should be selected from the 'Device list' on top of the window and the peripherals should be discovered as described above.

After completing all these steps, your project is finished and ready to be used.

