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Using an NPX Paging Station as a message player

The NPX Paging Stations are a convenient way to add paging features to a Tesira system. All available NPX models come with built in AVB and Dante capabilities to integrate with a media network of choice in the Tesira system.

This article explains how to trigger messages that are stored in the NPX paging station from an external device such as a logic input, event scheduler or wall panel control.

The article further explains how to make the message repeat when triggered by a logic signal, for example, from a building alarm system.

NPX message system overview

All NPX paging stations have the capability of storing 50 minutes of message recording split between 10 messages as required.

Messages stored in an NPX paging station are associated with a page code which is normally triggered from the NPX paging station itself.

It is however possible to also recall a page code via a preset in the Tesira software, this preset can then be recalled in many ways for example a physical logic input to the Tesira, the Tesira event scheduler or a wall panel control such as TEC-X.

The following procedure details how to upload messages into the NPX and then how to include them in a preset

Uploading messages into an NPX

Once the Tesira system is complete, including an NPX device you can upload messages into the NPX itself. Note that each NPX in a system has 10 independent message storage slots which share a total storage time of 50 minutes. Messages must be associated to a page code in the Tesira design.

To upload a message into an NPX, firstly discover the available NPX devices by opening Device Maintenance and then Remote Devices. The available NPX devices will then be listed. Select the required NPX device and click on the 'Manage Paging Station' button. This opens the Paging Maintenance dialog with ten slots each for Recordings and Preambles. By default all the slots are disabled. Audio files can be uploaded by clicking the up arrow which opens a standard Windows 'Open' Dialog. Alternately, audio can be recorded directly from the NPX device by selecting a slot and following on screen instructions.

In case there are existing recordings (previously uploaded or recorded on device) or preambles, those can be

downloaded and saved to PC by clicking the down arrow icon and can also be deleted by clicking the trash can icon.

Paging	Maintenance			×
Host Na npxg1	Host Name: Description: npxg1100-04493916 NPX			
Serial N	lumber:	Firmware Revision:		
Reco	ordings Preambles	1.0.0.0		
ID 🔺	Name	Dur	ation	
	Sheep - ewe animals112):03 🔶	🕈 📋
	Raining-sound):10 🔶	🕈 📋
	call_to_arms):12 🔶	🕈 📋
	code blue room 305):02 🔶	🕈 📋
	store closing2):10 🔶	🕈 📋
	god-save-the-queen		1:14 🔶	🕈 📋
):10 🔶	†
	Biamp audio logo2):03 🔶	†
	Biamp audio logo):03 🔶	†
10	emergency message voice	00):02 🔶	•
-				ОК

Adding a message to a Page Code

Once the required messages have been uploaded into the NPX they need to be associated to a page code, this is done by opening the 'Paging and Zone Control' block in the Tesira System design.

You can add a new page code which includes the required message slot in the NPX. This is done by:

- · Click 'Add New'
- Give the page code a label if required ('New Message' in the example below)
- Define which zone the message should be played in the zones column ('1 and 2' in the example below)
- · Add a preamble if required ('No Preamble' in the example below')
- Define the message to be played ('recording slot 6' in the example below)

					- ×
Pa	ge Codes				
					Delete
		New Message	No Preamble 🔻	Recorded - Slot 6 🛛 👻	Delete
					Add New

The new page code must now be uploaded to the NPX, this is done by:

- · Opening the 'NPX Paging Station' block when connected to the Tesira
- Selecting the new page code (006 in the below example)

👌 NPX	G1100 Paging Station		– ×
Page Co	odes Audio Filters Compressor		
Page	Label		Enabled
	Page 1		
	Page 2		V
			2
		Recorded - Slot 2	V
	Page 5	Recorded - Slot 10	V
	New Message	Recorded - Slot 6	V
			Check All

The above page code can then be triggered from the NPX via page code 006

Note that when a page code which includes a message is triggered, it will play the message in the assigned slot of the NPX that it is triggered from. It is therefore possible that different NPX devices have different recordings in their message slots.

Triggering a Page Code message from a Preset

To add a page code to a preset the 'Select Block Attributes' function is used. The following procedure can be followed:

- Right click on the the NPX paging station in the Tesira design
- · Select 'Create New Preset' from the context menu

NPX G1100 Paging Statio	
	Edit Text
2 Zones	Edit Block Parameters
	Edit Port Properties
· · · · · · · · · · · · · · · · · · ·	Connect Audio Shift+Righ
01 Logic Input	Connect Logic Shift+U
	Attach Inline Ctrl+
DI OR Ga 🕅	Cut
ĭ	Сору
	Paste
1 Channel DI NOT Gat	Delete
1	Copy DSP Data Ctrl+0
	Paste DSP Data Ctrl+
	DSP Resources
	Duplicate Ctrl+I
01 Preset Button - 2	Create Custom Block
	Select All
	Order
	Center In View
· · · · · · · · · · · · · · · · · · ·	Create New Preset
· · · · · · · · · · · · · · · · · · ·	Add To Preset - Preset1002
B	Preset Manager

- The NPX will be added to a new preset which can be renamed as required ('NPX 1 message 6' in the example below) in the preset manager
- In the 'Preset Manager' select the preset and right click on the required 'Paging Station' object code in the lower selected DSP blocks list
- Select 'Select Block Attributes' from the context menu



- The following control dialog is then displayed
- You can now select the NPX Paging Station block parameters which you require to be recalled by this preset
- Note that a 'Special Recall Grid' is also available at the top of the control dialog, this is where you can select the page code that you would like to be played when this preset is recalled ('006 New Message' in the example below). Note that only page codes that include a message are displayed.

Select Block Attributes -	NPX G1100 Paging Station	×			
Special Recall Gri	Special Recall Grid				
Attribute	1 Page Code				
Recall Page Code					
	000 - Unassigned				
	003 - Page 3				
	005 - Page 5				
	006 - New Message				
Common					
Attribute	1				
MicLevel					
Mic Level Min					
Mic Level Max					
Playback Level					
Playback Level Min					
Playback Level Max					
Page Out Level					
Page Out Level Min					
Page Out Level Max	× 🗾 🔽				
Select All Clear All	OK Cancel				

This preset can now be recalled from many sources including the preset manager, a preset block in the Tesira software and therefore a logic input, event scheduler or wall mount control panel.

Triggering and repeating a Page Code message from a logic input

It is often required that a message be repeated when triggered by a logic input, for example an emergency message triggered by a logic signal from a building fire alarm system.

Firstly, in the below example we are assuming that the logic signal from the fire alarm system is a dry contact which is closed in the alarm situation. This contact is connected between logic input 1 and ground on a Tesira Forte in this example.

The logic input signal in the Tesira design is fed via a Logic Pulse block which, when the is set to produce a 1 second pulse every 3 seconds when indefinite mode is enabled. The OFF time delay of three seconds is equal to the length of the message recording so needs to be adjusted to match the message length or how often the message should be played. For example it may be required to play the message and then wait 5 seconds before repeating.

The output of the Logic Pulse block recalls a preset (named 'play message' in this example') which:

- · Activates the page code which plays the message from the NPX into the zones defined in the page code
- Changes the Logic Pulse block to 'indefinite' mode ON (so that the output pulses every 3 seconds, thus repeating the message playback)
- Mutes the BGM source feeding the paging zone output (so that the BGM source is not heard momentarily when the message re starts)



When the logic signal from the fire alarm turns off a second preset (named stop message in this example) is recalled which:-

- Turns off the 'indefinite' mode inside the Logic Pulse block, meaning that the message will not be played again
- · Unmutes the BGM source feeding the paging block

Note that if the logic input turns off part way through the playback of a message, the message will play through to it's end and then stop.

The above example Tesira design file can be downloaded here

It should be noted that Tesira and NPX are not life safety regulation compliant devices so this should not be used where such compliance is required

Triggering a Page Code message from the Tesira Event Scheduler

Once you have the required page code messages available in the NPX and presets in place to recall them it is possible to use the Tesira event scheduler system to recall them according to the date, day and time. The following procedure should be used:

• Add an event scheduler block to your design which has the required presets present, you will see the following block and control dialog



- Enable the 'Web Gui' access to the presets which you require to be available to the end user in the event scheduler web gui
- You now to access the Tesira Web Gui, To allow this the 'Enable HTTPS(+SSH)' option must be enabled in device maintenance, network settings for the Tesira device

Network Settings	×
Control Network AVB Settings MAC Add	
Host Name	
Host Name:	Current Host Name:
	TesiraForte02310792
DNS Configuration	
Primary DNS Server:	Current Primary DNS Server:
0 • 0 • 0 • 0	0.0.0.0
Alternate DNS Server:	Current Alternate DNS Server:
0 • 0 • 0 • 0	0.0.0.0
Domain:	Current Domain:
Enable Multicast DNS	
Services	
Enable Telnet 🛛 Enable SSH	✓ Enable HTTPS(+SSH)
Interface IP Configurations	
Inabled	Interface ID: control 🔹
Obtain an IP Address Automatically	
Use the Following IP Address	
IP Address:	Current IP Address:
	192.168.0.147
Net Mask:	Current Net Mask:
Default Cateway	255, 255, 255, 0
Default Gateway.	192.168.0.1 (Active)
Interface Status	

Also note the current IP address of the Tesira as you will use this to access the web app from a browser window:

- You will also want to check that the Tesira real time clock settings so that it is synchronized to internet time, this can be found in the network settings, date/time settings
- Using a web browser, enter the IP address of the Tesira (192.168.0.147 in the above example), you will be asked to enter a user name and password (the default user name is admin and the password is the serial number of the Tesira (02310792 in the above example)). The following web interface will appear:

+ asiliar ()	Last Lodated 2001-07-01 101	AM GWT Daylight Time	Variable:			
< July 2021	2				Day Haak	Month
Gan	Man	Tue	Viac	Thu	Pri	Gar
		- 10	ы	- 11	200	
14	05	te.	07	50	55	
11	12	18	14	15	9	
	10	228 	21	22		1
2		7	23	29		

When you click on the 'Add Event' button the following window will appear:

D EVENT					
				Current Syster 2021-07-01 1	m Time: 0:23 AM GMT Daylight Time
Event Info Event Name					
Event Name					
Event Preset					
Select					-
Single Da Start Date	ily 🔿 V	/eekly Month	lly		
2021-07-01		10:22 AM	G		
				CANCEL	SAVE
				_	

Here you can set the date, time and repeat settings for the required preset to be recalled which will trigger the associated page code and message playback. Further details of the event scheduler nd real time clock can be found <u>here</u>.

Triggering a Page Code message from a TEC-X wall control

Once you have the required page code messages available in the NPX and the presets in place to recall them it is possible to a use a TEC-X wall panel to recall them when a button is pressed. Full details of how to connect and setup a TEC-X with a Tesira system can be found <u>here</u>.

Buttons on the TEC-X can easily be assigned to recall a preset in the Tesira system which is programmed to recall a page code which includes a message. In s way the message can be played manually from the TEC-X wall panel.