

SBX Tutorial: Music On Hold

This guide is to aid in your understanding of how to set up a simple Music On Hold (MOH) application on your SBX unit using XMUCOM+ administration software. The following is a step by step guide to creating a MOH configuration using XMUCOM+ software, then transferring that configuration to the SBX unit.

For this example we will have three messages cross-fading with an external background music source which would need to be connected to the 'AUDIO IN' connector on the back of the SBX unit. You could also use a music file stored within the SBX itself.

In this guide we give you an example MOH configuration as a teaching aid. It can easily be modified and adapted for your place of work.

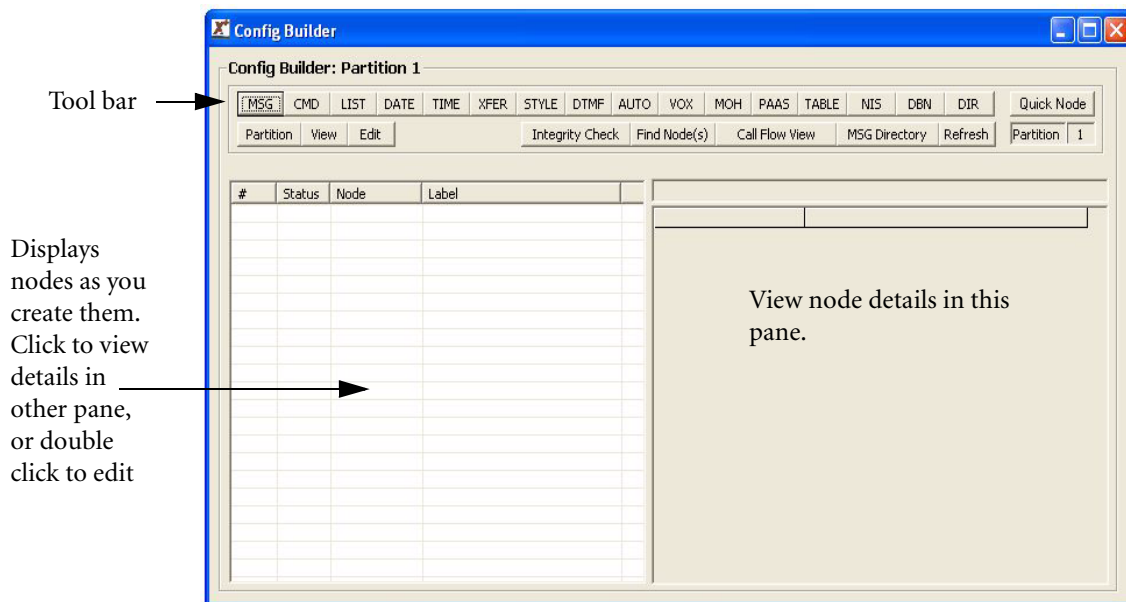
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Create a MOH Application

First double click the XMUCOM+ icon on your desktop or select XMUCOM+ from your Windows Start menu. Then click

- ◆ File, New, SBX Configuration.



This window is divided into two large panes and a tool bar. The tool bar across the top has a number of buttons (MSG, CMD, LIST etc.) which are referred to as 'nodes.' These nodes are used in various combinations to create a 'configuration.' The configuration is sent to the SBX along with audio files (.wav files) and is the program that instructs the SBX how to handle calls and what the call flow will be.

To create a node for the configuration you simply click on the relevant button in the tool bar and the node will appear in the left hand pane. The details of that node will appear in the right hand pane. When you have multiple nodes in the left hand pane, you can click on any one to view its details in the right hand pane, or double click on one to edit those details.

First we will create and label the promotional messages used for the MOH application. Click the MSG button in the tool bar of the Config Builder window three (3) times to create three Message nodes. Double click on MSG node one (1) in the left hand pane to

open the MSG Node Editor window and edit the attributes of that message. Use the scroll buttons at the top of the MSG node editor window to edit MSG node two and three.

- ◆ Msg 1 - Promotional message 1
- ◆ Msg 2 - Promotional message 2
- ◆ Msg 3 - Promotional message 3

Edit and label Msg Nodes

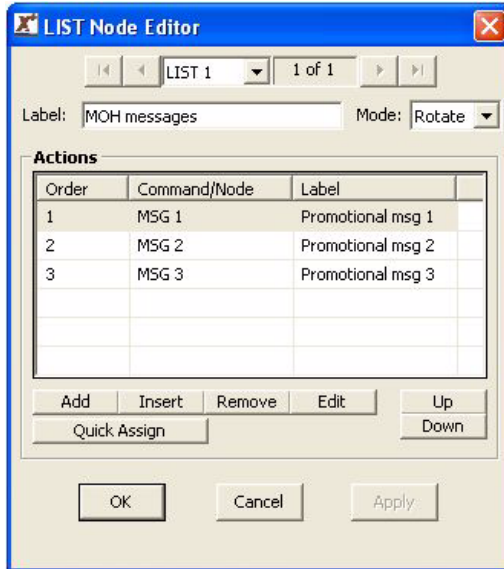
Next we'll 'map' the message nodes to the audio files which should be stored on your hard drive or network. To do this simply click on the box to the right of the "File Name" field in the MSG Node Editor window, then browse to where the audio file for that message is stored. Select the .wav file and click 'open.'

The screenshot shows the 'MSG Node Editor' window. At the top, there are navigation buttons and a dropdown menu showing 'MSG 1' and '1 of 1'. Below that, the 'Label' field is 'Main menu main greeting' and 'Max_Length(sec)' is '0'. There are two groups of radio buttons: 'State' with 'On' selected and 'Off' unselected; and 'DTMF' with 'Ignore' selected and 'Interrupt' unselected. A checkbox for 'Backup to Flash Memory' is checked. Below these are fields for 'Access Code', 'File Name' (containing 'P01M001.wav' and a browse button), 'Directory', and 'Comment'. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

Note: If you do not have the audio files on your computer, you can record the messages directly onto the SBX via the remote telephone access port or using Message Manager. You can also use the handset & front panel.

Create a List Node

In order for the messages to be played out in rotation we need to create a List node containing those messages and set to 'Rotate' mode. Click the LIST button in the Config Builder window and edit as shown below.



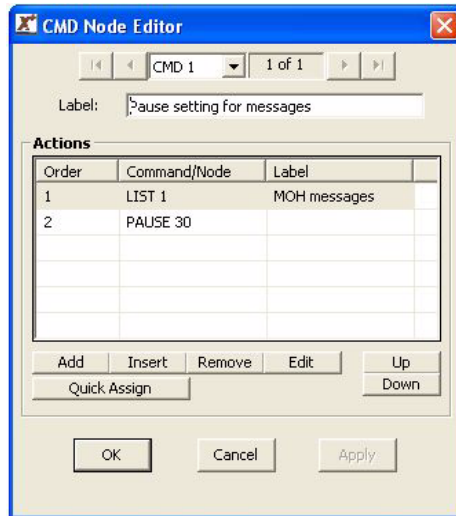
Note: The labels shown in the example screen shots in this guide will not appear on your screen until after the configuration has been completed and saved.

Note: When you reference a node that hasn't been created yet, XMUCOM+ will offer to create it for you. You can accept this option and edit the node later, or decline and create it manually when you are ready.

Create a Command Node

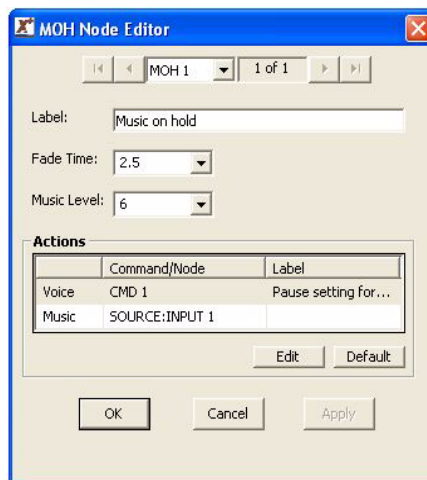
The Command node tells the SBX what actions to take when certain conditions are true. In this application the Command node is used in conjunction with the List node and a Pause command. This tells the SBX to access the List node, then wait 30 seconds (or whatever is suitable for your application) then access it again.

To create the Command node, click on the CMD button on the tool bar of the Config Builder window, then edit the node as shown below.



Create MOH Node

The SBX needs to know how to deliver the Music and Messages. To do this we will create a MOH node. Click on the MOH button on the config Builder and edit to create the following. For the 'Music' choice in the Action table for this node, we have used "INPUT 1" which tells the SBX to look to that port for the music source. You could select an internally stored MSG node instead to provide the music.



Card Configuration

We have now created the call flow, and we need to tell the SBX which of its lines to run this configuration on. Here we are going to use Line 9 (MOH) which is 'AUDIO OUT 1' on the back of the SBX. At the top of your XMUCOM+ screen, click on Configuration, XMU+ Card/SBX Line Configuration. The following window will open.

Line	Line Type	Partition	Starting Node	Volume	Mode	NIS Option	EWT Option	Impedance	Soft Stop	Label
1	Hybrid	Partition 1	MSG 1	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
2	Hybrid	Partition 1	MSG 2	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
3	Hybrid	Partition 1	MSG 3	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
4	Hybrid	Partition 1	MSG 4	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
5	Hybrid	Partition 1	MSG 5	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
6	Hybrid	Partition 1	MSG 6	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
7	Hybrid	Partition 1	MSG 7	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
8	Hybrid	Partition 1	MSG 8	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
9	MOH	Partition 1	MOH 1	6 (-15...	MOH	N/A	N/A	N/A	N/A	
11	MOH	Partition 1	MOH 2	6 (-15...	MOH	N/A	N/A	N/A	N/A	

Default values: 8 Hybrid Lines 2 MOH Lines

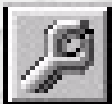
Buttons: OK, Cancel, Apply, Restore Default

Next configure this window as shown in the screen-shot below. Here I have set all other lines to 'Empty', you can of course run other configurations on these lines. Now click OK.

Line	Line Type	Partition	Starting Node	Volume	Mode	NIS Option	EWT Option	Impedance	Soft Stop	Label
1	Hybrid	Partition 1	EMPTY	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
2	Hybrid	Partition 1	EMPTY	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
3	Hybrid	Partition 1	EMPTY	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
4	Hybrid	Partition 1	EMPTY	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
5	Hybrid	Partition 1	EMPTY	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
6	Hybrid	Partition 1	EMPTY	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
7	Hybrid	Partition 1	EMPTY	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
8	Hybrid	Partition 1	EMPTY	High	R=1	Disabled	Disabled	Use Countr...	Disabled	
9	MOH	Partition 1	MOH 1	6 (-15...	MOH	N/A	N/A	N/A	N/A	
11	MOH	Partition 1	EMPTY	6 (-15...	MOH	N/A	N/A	N/A	N/A	

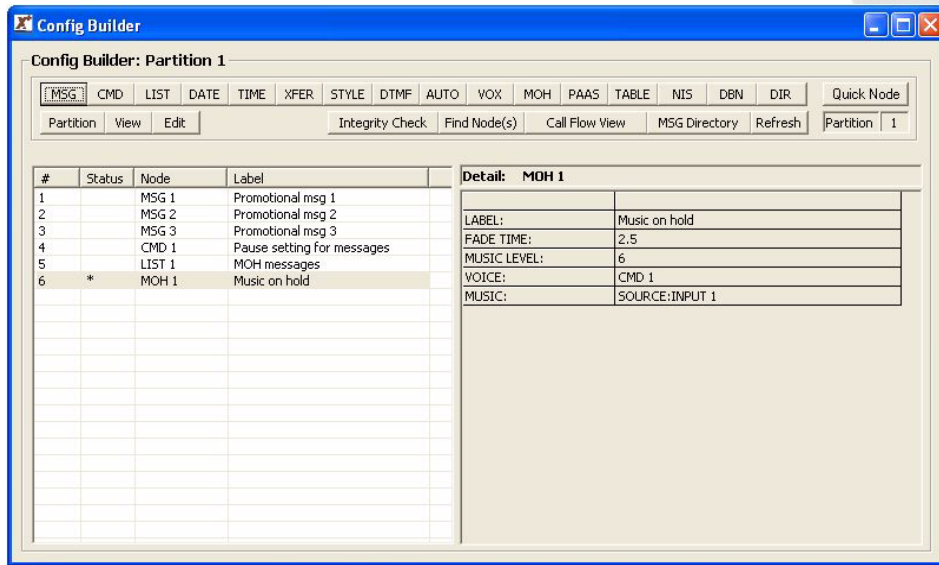
Default values: 8 Hybrid Lines 2 MOH Lines

Buttons: OK, Cancel, Apply, Restore Default



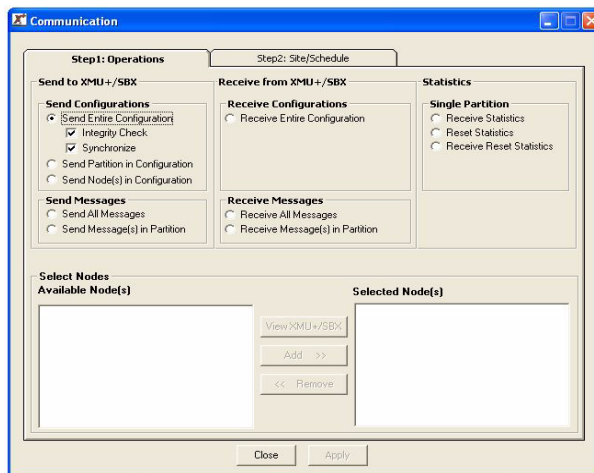
Note: If the Config Builder window should disappear from view, simply click on the Configuration Builder button near the top of your XMUCOM+ window

We have now created all the nodes and your Config Builder should look like this.



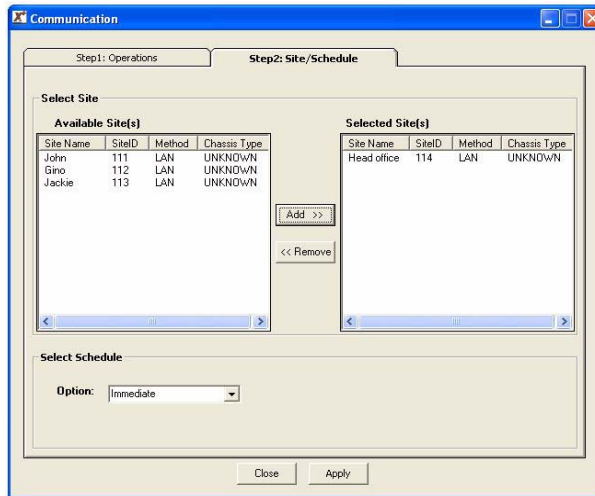
Send the Configuration to the SBX

All that's left is to send the configuration and the messages to the SBX. First save the configuration on your hard drive or network using File, Save as. Now from the menu bar at the top of your XMUCOM+ screen, click on Communication, Communicate, the following window will open.



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In the screen shot above you can see we have selected “Send entire Configuration.” Next we need to tell XMUCOM+ where to send it. Click on the “Step 2: Site/Schedule” tab to show the following screen.



Next highlight the site you wish to send the configuration to by clicking on it. Then click the add button. Now click the Apply button and XMUCOM+ will send the configuration to the selected SBX site. Finally you'll need to repeat the last two steps, but instead of “Send Entire Configuration,” you now need to select “Send All Messages.”

Your SBX is now configured to deliver music and messages to your telephone system.