

Manual:

User's Guide

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1. Introduction

The Quadro's Streaming Hold Music feature allows the on-hold party to listen to the voice streamed by an external RTP streamer rather than the prerecorded voice stored on the Quadro. There is a possibility to play different streams for each extension, to play very long audio files as hold music, also allowing dynamically changing the content of hold music. Feature could be used for playing advertisements to callers while they are placed on hold.

The RTP streams can be generated by an application on a PC, which get the stream from any location (file, internet radio etc).

Epygi provides a free tool called **Epygi Media Streamer** (**EMS**), which allows streaming several sequences of audio files (MP3 and WAV) to a specified unicast or multicast IP address/port. The MP3 files should be in a fixed bit rate format. MP3 files in a variable bit rate format are not supported by EMS and may not load into the playlist or the voice quality might be degraded. The EMS is an application for PC, which can be easily and quickly configured.

Streaming Hold Music should be configured both on the Quadro and EMS. This guide provides step by step instructions how to install and configure the EMS and the Quadro for streaming hold music.

The Streaming Hold Music feature is compatible with the following Quadro devices beginning with the software version listed:

- Quadro2x, Quadro4x/16x, Quadro6L, Quadro4Li and QuadroM32x: SW-5.1.17
- QuadroM8L, QuadroM26x, QuadroM26xi and QuadroM12Li: SW-5.2.7
- QX1000: SW-5.2.12

2. References

For more details about Quadro's Streaming Hold Music feature, see the following references:

- Extension User's Manual
- Administrator's Manual

3. Installing EMS

The following are the requirements for EMS application:

- MS WindowsXP and MS Windows Vista
- TCP connection

Run the emssetup.exe file and follow the instructions. Upon finishing the setup the EMS application is now ready for configuring and use.

4. EMS Functionality

This application consists of a window which displays the created playlist and the RTP destinations.

- Playlist files pane indicates the list of audio files in the playlist.
- Description pane displays the characteristics of the selected audio file.
- RTP Destinations pane indicates the RTP destinations where the selected playlist should be played.

Please Note: If you wish to play different playlists on different RTP channels at the same time, several instances of EMS should be launched.

- Progress bar displays the progress of the selected audio file playing.
- Time elapsed (seconds) displays how long the selected playlist is already played on the RTP destination(s).
- Status bar indicates which file is playing in the playlist.

4.1. Toolbar

Following options are available in the toolbar:

- New playlist creates a new playlist.
- **Open playlist** opens the previously created playlist. When this option is selected, a window with existing playlist appears. Choose the preferred playlist to launch.
- Delete playlist deletes the previously created playlist. When this option is selected, a window with existing playlist appears. Choose the preferred playlist to delete.
- Move the file down moves the selected audio file down the pane.
- Move the file up moves the selected audio file up the pane.
- Add file to playlist adds audio files to the launched playlist. This option opens a window where
 the source file should be selected. In **Decode Options**, the destination stream **Format** (U-Law or
 A-Law) and the **Packetization Time** should be selected.
- Remove file from playlist removes the audio files from the launched playlist.
- Add RTP destination adds Quadro's IP address and the port number where the launched playlist will be played. This option opens a window where the IP address and the port number should be provided.

Please Note: The RTP destination defined here should be the Quadro's IP address where the RTP stream will be used for hold music or any other type of long-lasting music played to the party in the call. The RTP port number defined here should be configured in the **RTP Streaming Channels** page (see Telephony menu) in the Quadro's Web Management. Then the corresponding service (like hold music, call queue music, etc.) should be configured on the Quadro to use the RTP channel configured in the **RTP Streaming Channels** page.

- Remove RTP destination removes an RTP destination from the list.
- Start streaming starts the playlist streaming over the configured RTP destination(s).
- Stop streaming stops the playlist streaming.
- Convert file starts the audio file conversion.
- Volume adjustment allows controlling the volume of an audio file.

4.2. Menu options

Following menus are available:

- **Playlist** offers to create a new playlist, launch or delete an existing playlist, move the selected audio files up/down the pane. **Exit** option in this menu is used to quit the application.
- View allows you to show or hide the Toolbar and the Status bar.
- **Streaming** offers options to add/remove file to/from playlist, add or delete an RTP destination, start and stop the streaming. **Loop Mode** enables the playlist to be played in the loop, i.e. once the last audio file is played, the streaming will automatically start over the first audio file in the playlist.
- **Tools** offers options to convert an audio file and adjust volume of an audio file.
- Help opens an online help and the About window.

For details about options in the EMS application menus, see chapter **Toolbar**.

5. Configuring EMS

The following step-by-step instructions describe how to configure the EMS for streaming hold music:

1. Run EMS. The main window for EMS will open.

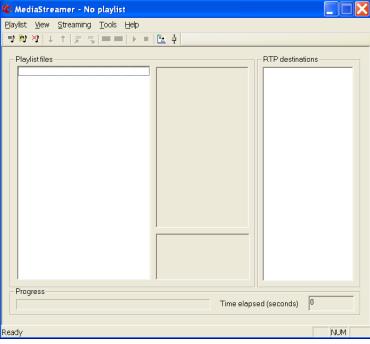


Figure 1: EMS main window

Add a playlist by selecting the New Playlist menu or using Toolbars.

Please Note: EMS stores the Playlists for users that have no admin rights.

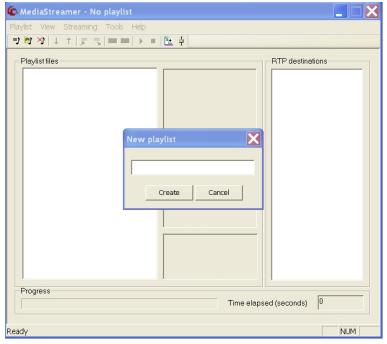


Figure 2: Creating a Playlist

3. Add file(s) to the created playlist. Use menu **Streaming** to add files to playlist or use Toolbars.

Please Note: The added file should be in MP3 or WAV format.

4. The newly added audio file will appear in the left playlist files window. You may add as much files as you need.

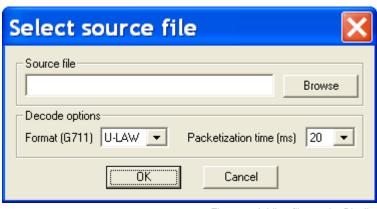


Figure 3: Adding files to the Playlist

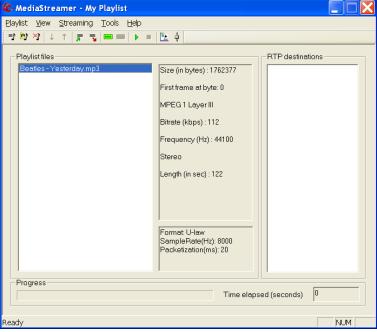


Figure 4: Adding files to the Playlist

Use the Add RTP destination menu or Toolbars to add the destination Quadro to the list.



Figure 5: Adding RTP Destination

Choose the Start Streaming menu or use toolbars to start the streaming for the audio file.

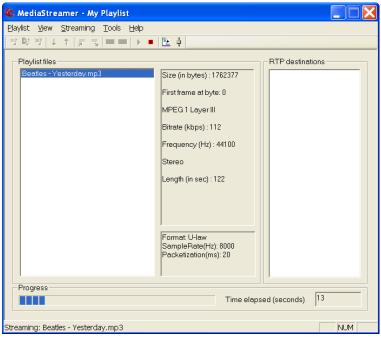


Figure 6: Streaming progress

 Use the Tools→Convert menu or toolbars to start the conversion of an audio file.

Please Note: EMS supports MP3 and WAV file media format conversion to 8000 Hz, mono, mu-law and saving to corresponding WAV formatted file which may be used as custom system message for Quadro.

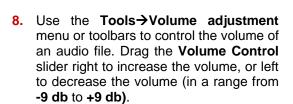




Figure 7: Conversion progress

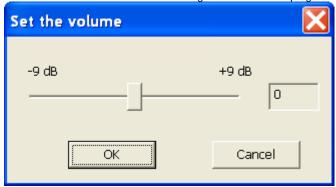


Figure 8: Volume adjustment

6. Configuring Quadro for streaming music on hold

Once EMS has been successfully installed and configured, go to the **Telephony > RTP Streaming Channels** on the Quadro. This will open the **RTP Streaming Channels** page (Figure 9).

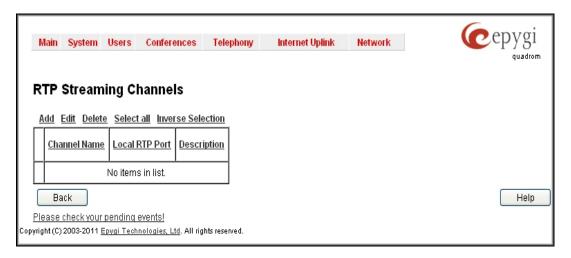


Figure 9: Configuring RTP Streaming Channels

Add functional link in this page will open the RTP Streaming Channels - Add Entry page where the RTP Channel Name and Port Number can be configured (Figure 10).

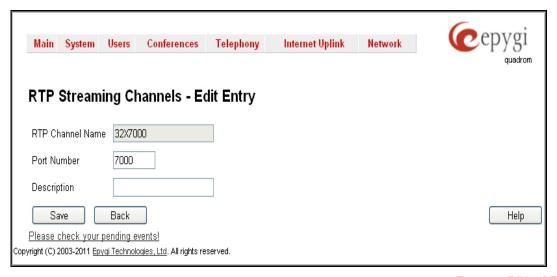


Figure 10: Editing RTP Streaming Channels

After saving, the newly created RTP channel will appear in the RTP Streaming Channels table (Figure 11).

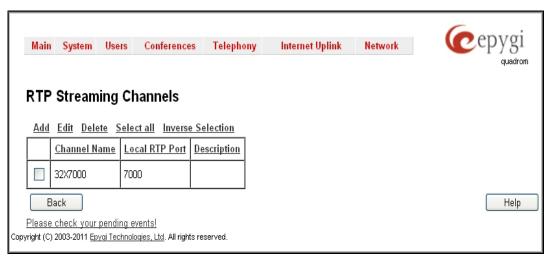


Figure 11: Configuring RTP streaming channels

Now the music on hold should be defined for each extension. To do that, go to **Supplementary Services Basic services General Settings** for the extension on the Quadro and select **Hold Music Settings** (Figure 12).

Select the RTP Channel option, choose the channel and save.

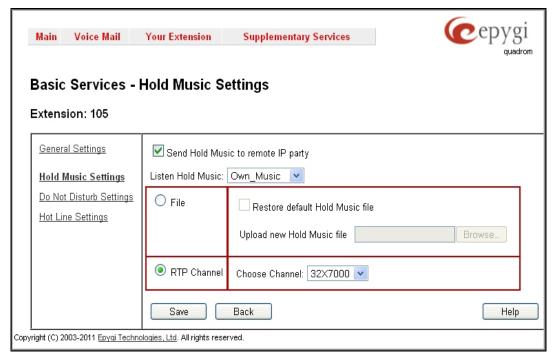


Figure 12: Extension Hold Settings

Please Note: If the extension is set to use external streaming channel for its hold music, users should ensure that the stream is always present. If the stream is absent by some reason, the party being on hold will listen silence.

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