Prosoniq MPEX2 Quickstart Guide



MPEX II GUIDE



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Prosoniq MPEX2 Quickstart Guide

Introduction

The **MPEX2** algorithm for **Pyramix Virtual Studio 4.1** has been developed together with the German based company **Prosoniq**, who are known for their high quality digital audio algorithms. MPEX stands for **M**inimum **P**erceived Loss Time Compression/**E**xpansion. Incorporating this technology into Pyramix Virtual Studio gives users the opportunity to adjust timing and pitch of their existing material with outstanding results and ease of use.

MPEX2 Time Scaling Algorithm

Time Scaling (also known as 'Time Stretching', 'Time Compression/Expansion' and 'Time Correction') is the process of changing a sound's length without changing its pitch. When transposing a sound by playing it back at a different speed, like when slowing down the playback speed of a tape recorder, it will play back at a different tempo but also at a different pitch. While this may be fine when tuning drum loops to match the speed of a recording it will make pitched sounds - like vocals - sound totally out of tune. Thus it is desired to provide a process that enables you to change duration and pitch of a recording independently from each other.

Multi-channel processing

Phase Coherent Processing

Important! The Prosoniq algorithm is able the preserve the phase between up to 8 channels. To ensured phase preservation, the audio media file to be Stretched, Compressed or Pitch changed must be a single file. I.e. all the channels must reside in the same file and not spread into multiple mono files as would be the case when **One file per track** is selected for recording.

Existing multi-channel source material

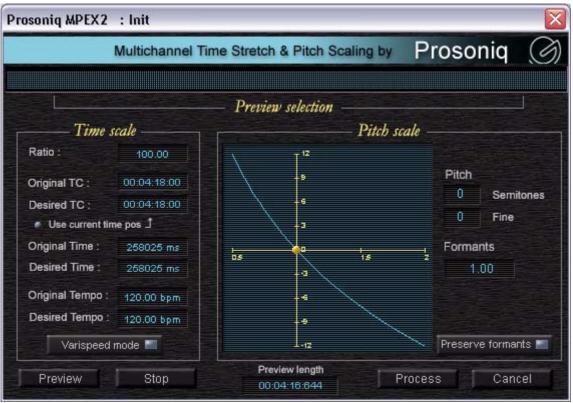
If the multi-track material you wish to process is not in a single file simply select the material and choose Project > Render to open the Render Window. Make sure <None> is selected in the Rendering Process box and that the One file per track box is NOT checked. If required, make other settings suitable for your needs and click the Render button.





Accessing MPEX2

Pyramix Virtual Studio gives you the opportunity to access MPEX2 from several strategic locations.



Main Prosoniq window

You can adjust the timing for sound-to-picture format matching, either during post-processing or for your entire project. You also have the choice of adjusting the length of clips in a very handy and accurate manner in the **Timeline**, directly in the **Media Management** Tab window using **Quick Convert** or applying pitch and time modifications to selected clips with the **Rendering** function.





Project Menu

Stretch/Pitch

Project > Stretch / Pitch opens this dialog:.

Stretch / Pitch				×
Multichannel Time Stretch & Pitch Sca	aling by	Pros	oniq	(\mathcal{A})
Stretch • 24 fps to 25 fps (4% time compression) • 25 fps to 24 fps (4.17% time expansion)	Origin Refe		00:32:39:2	
Pitch Pitch 24 fps to 25 fps (4% pitch reduction) 25 fps to 24 fps (4.17% pitch rise)				
Target Settings Use Original Files Media Folder Use Custom Media Folder			-	
Options Format PMF (Recommended) Consolidate Handles 1 [s		ettings		
			T Stretch	Cancel

Stretch adjusts the duration of your entire project from 25 fps to 24 fps, or from 24 fps to 25 fps. Alternatively, **Pitch** can be changed by the same percentages. This can be useful where material has already been stretched without pitch correction.





Render

Project > Render opens the **Render** window. Double clicking on **Prosoniq MPEX2** in the list opens this dialog:

	Multichannel T	ime Stretch	h & Pitch Scaling b	w Prosoniq
		— Previe	w selection —	
Time s	scale		Pitch	b scale
Ratio :	100.00		T 12	
Original TC :	00:04:18:00		- 9	Pitch
Desired TC :	00:04:18:00		-6	0 Semitones
 Use current tin 	ne pos Ĵ		↓ _3	0 Fine
Original Time :	258025 ms	05		Formants
Desired Time :	258025 ms	05	3	1.00
Original Tempo :	120.00 bpm			
Desired Tempo :	120.00 bpm			
Varispeed	mode 📰		L-12	Preserve formants 🔤
Preview	Stop		view length :04:16:644	Process Cancel

Main Prosoniq window

Time scale and Pitch scale can be manipulated in a number of ways.

- By entering a ratio
- By altering TimeCode values
- By altering tempo values
- By altering Pitch and Formant values
- By clicking and dragging the golden ball in the graphic display

When the **Preserve Formants** button is lit, movement of the golden ball is constrained to the blue curve.

Processing is limited to 8 channels in one operation





Edit Menu

Stretch



When a **Clip** or portion of a **Clip** is selected in the **Timeline**, choosing **Edit > Stretch** opens this dialog. Here, you can make choices about duration expansion / reduction. You may also indicate the desired stretched size by placing the play head at the intended position and the numbers will adjust accordingly in the pop-up dialog.





Media Management

Quick Convert

If a **Master Clip** is selected and **Convert > Quick Convert > Prosoniq MPEX2** is chosen, this dialog opens:

Prosoniq MPEX2			
New name	Indies - Bass		
C Add Suffix			
🔲 Keep Original File Format			
Properties	OK OK All Cancel		

MPEX2 Quick Convert dialog

Clciking on the Properties button opens this dialog:

Prosoniq MPEX2 Properties 🛛 🔀
Settings Stretch 24 fps to 25 fps (4% time compression) • 25 fps to 24 fps (4.17% time expansion)
Pitch © 24 fps to 25 fps (4% pitch reduction) © 25 fps to 24 fps (4.17% pitch rise)
OK Cancel Apply

MPEX2 Quick Convert Properties dialog

offering time or pitch scaling of plus or minus 4%, for time adjustments of 24 to 25 fps or 25 to 24 fps for sound-to-picture matching.





Surround Post-processing

Project > Surround Post-processing opens the Surround Post-processing window. Click on Prosoniq MPEX2 24/25 Time Stretcher in the list to select it, then clicking on Settings... opens this Properties dialog.

Prosoniq MPEX2 24/25 Time Stretcher Properties 🛛 🔀		
Settings		
Processing Mode		
24 fps to 25 fps (4% time compression)		
C 25 fps to 24 fps (4% time expansion)		
File Format	Word Length	
• PMF	C 32 bits (float)	
C BWF (Wave)	• 24 bits	
C AIFF	C 16 bits	
Options		
🗖 One File Per Track		
OK	Cancel Apply	

Simply choose the required time-stretch option, set the required output file parameters and click on **OK**.



Surround Post-processing dialog







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