



SBS Radio

Peacesong Tapestries

Sound and Virtual Recording Studio

Instruction Manual

Part 1

Created by Peter Sych and Thomas Fitzgerald

August/September 2006



Welcome to SBS Radio Peacesong Tapestries Software.

This program has been created by Peter Sych in consultation with Dr Tom. The software was commissioned by SBS radio digital content unit directed by Anne Edwards.

Our intention of this freeware program is to enable an easy digital audio recording at the introductory level. With these features in mind, we were able create a music program with a host of interesting and educational features, simple to use with a minimal learning curve.

This program is not intended to replace or imitate sophisticated and more complex recording commercial software packages.

Nevertheless it is the true 16-track recording studio software and utilizes a track layering sound approach to multi track recording. This method is much easier to use than more complex traditional discrete/separated tracks recording.

The software is also designed for MIDI keyboard music recording utilizing the computer QWERTY keyboard for people who don't have an access to an external MIDI keyboard.

We sincerely hope you will enjoy using it, and you will have as much fun playing with it as we have had creating it.

Peter Sych and Thomas Fitzgerald.



Quick Start Guide

Part 1

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1. Preparing your Computer:

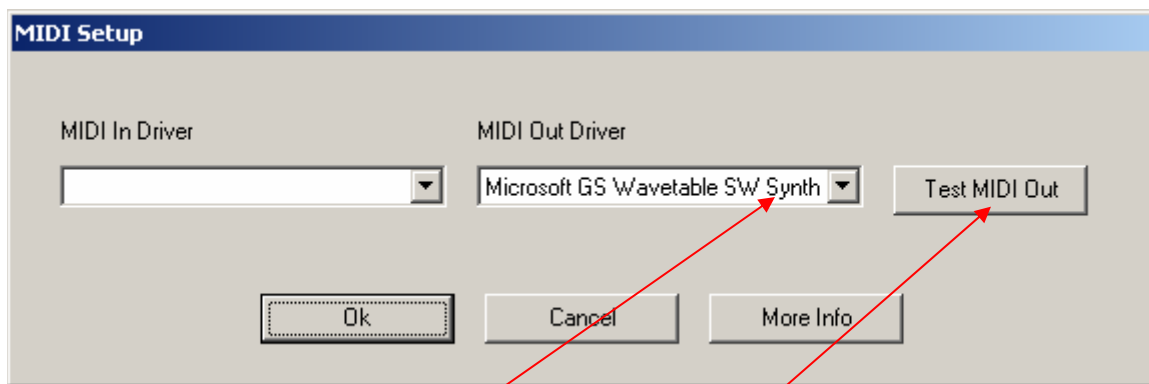
MIDI Setup

When the program opens for the very first time you will see the dialog box as shown:



Click “Ok” button.

MIDI Setup dialog automatically appears as shown:



Select your MIDI out driver from the selection box

Please note the MIDI Out drivers on your computer will probably have different names than shown above, as they will vary from one computer to the other. Select one of the names and press “Test MIDI Out” button.

You should hear a sound of a piano note coming out of your speakers when you press that button. If you cannot hear any sound from the speakers, try selecting another MIDI Out Driver and click on the “Test MIDI Out” button again.

If you have an electronic keyboard or some other MIDI device connected to the computer there will be a MIDI In driver shown in the “MIDI In Driver” box. In that case please to your soundcard or MIDI interface documentation for details. Otherwise the “MIDI In Driver” box will appear blank as shown above.

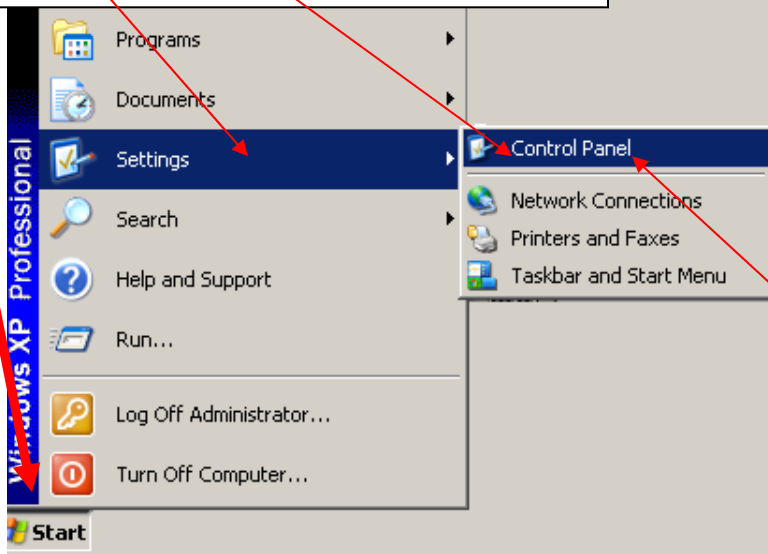
Press “Ok” to accept the MIDI settings.

Please note when this MIDI setup is completed, it is automatically saved and loaded next time you open the program. It will only appear when the software detects any changes in the MIDI setup you have just completed.

Setting up soundcard control

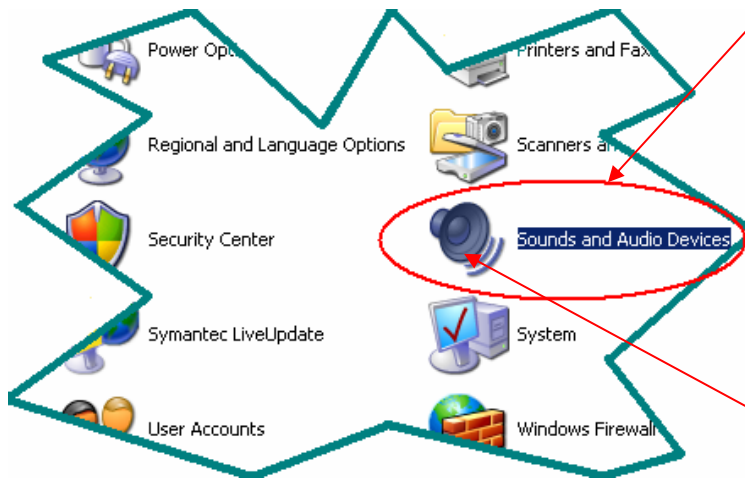
Step 1 – click Start button

Go to Settings, Control Panel

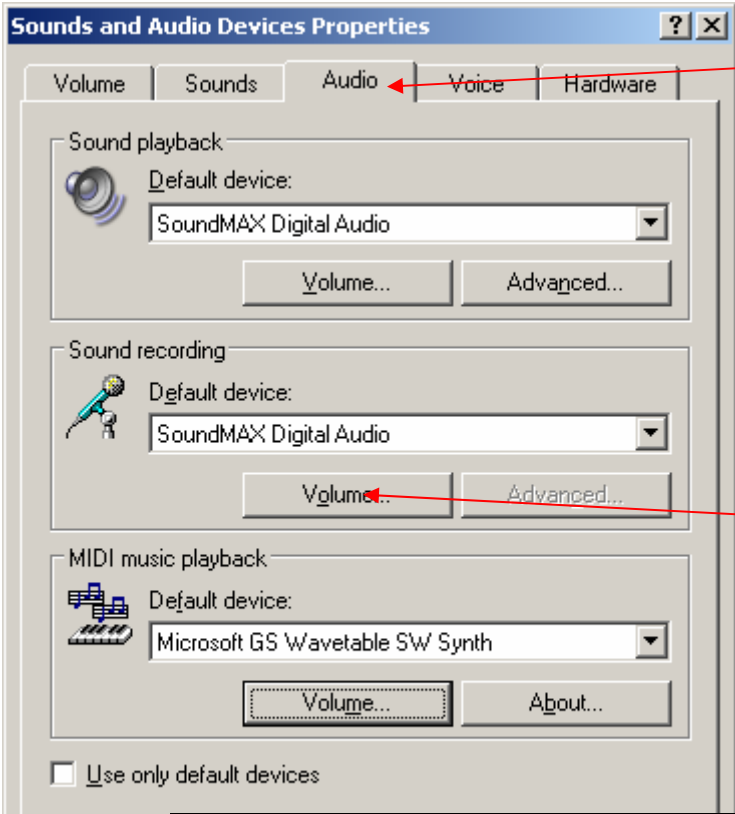


Step 2 -

Click here to open Control Panel and select Sound and Audio Devices Icon



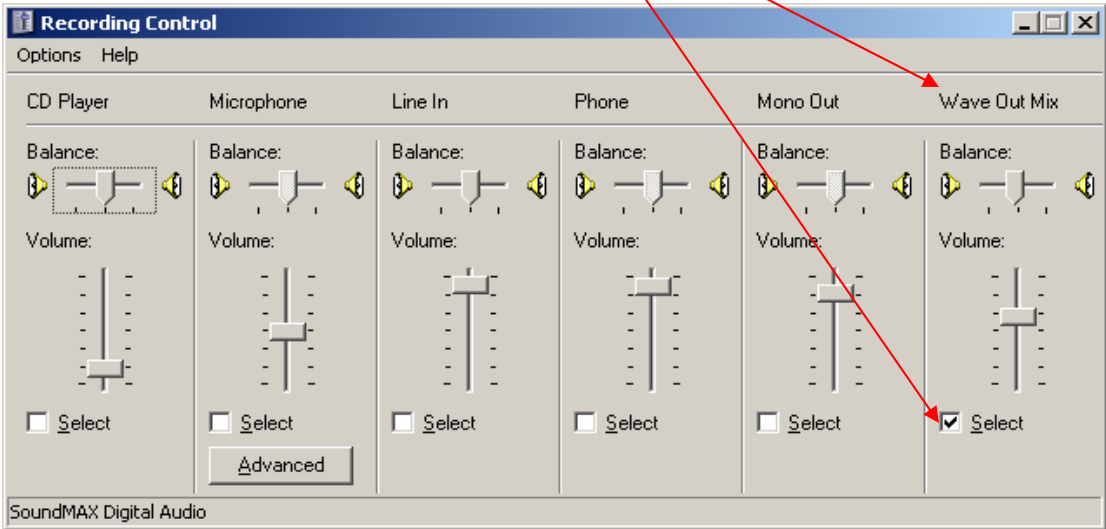
Step 3 – double click this icon to open Sounds and Audio Devices Properties.



Step 4 -
Click on Audio Tab

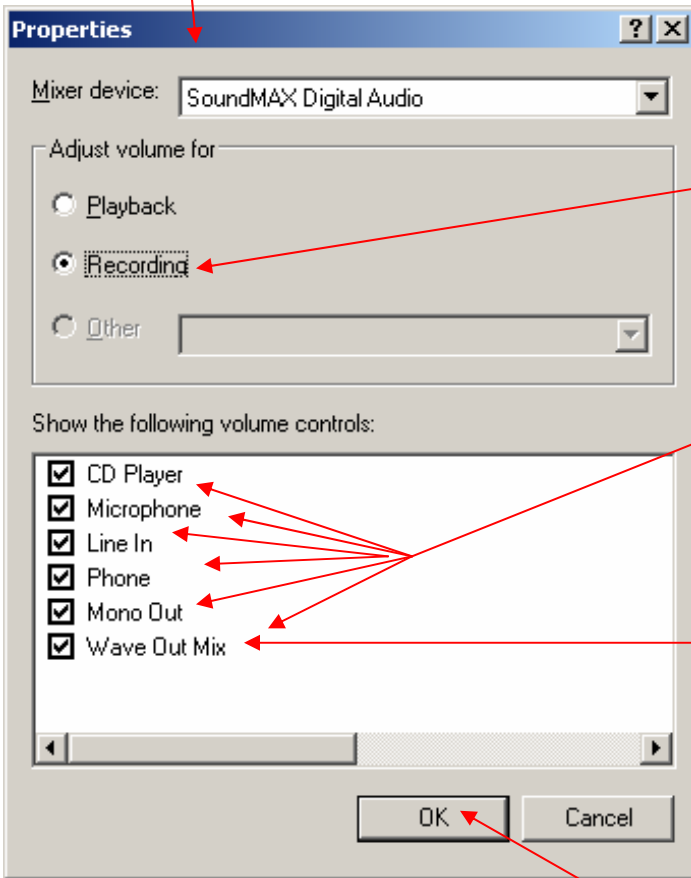
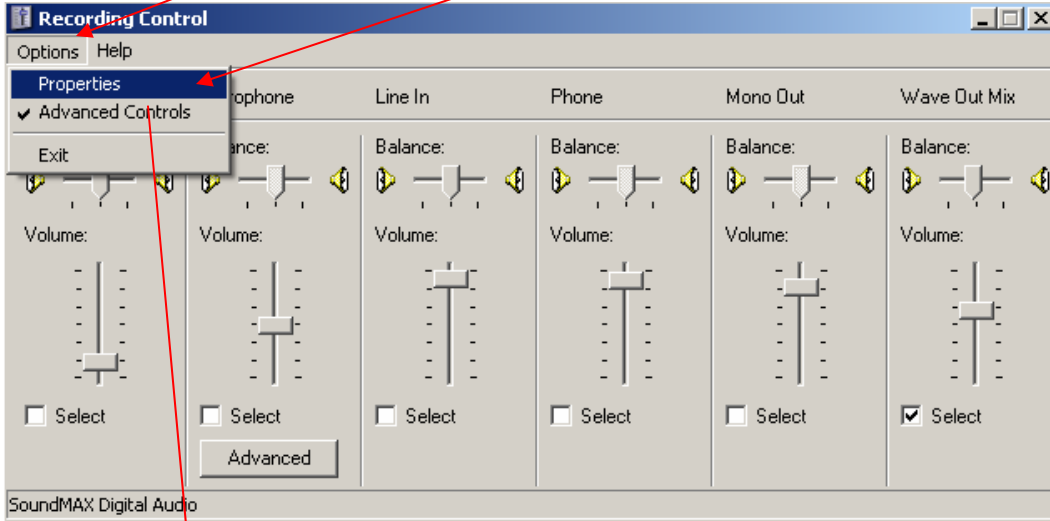
Step 5 -
Click on this button to open Recording Control window

Step 6 -
Please make sure the “Wave Out Mix” (or “What You Hear”) option is selected by ticking the box.



Please note: if your soundcard mixer does not look like the one above in Step 6 you will need to go to Step 7. Otherwise, you’re now ready to start using your recording studio.

Step 7 – click on Options and then click on Properties



Step 8 – make sure that the Recording option is selected.

Step 9 – click inside of each tick box

Please note: the names of your volume controls might be slightly different than shown in this picture. For example “Wave Out Mix” might be named “What You Hear”.

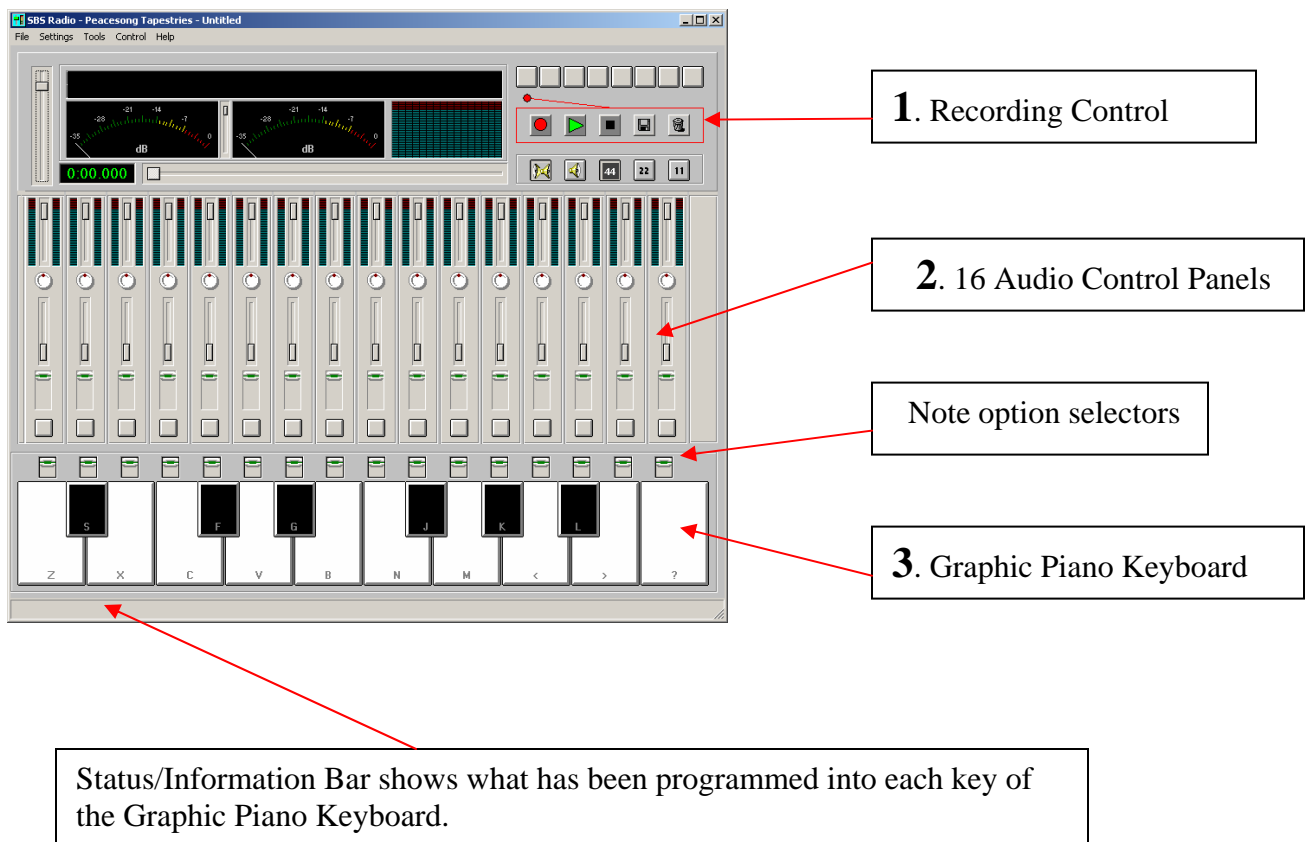
Step 10 – click “Ok” button to return to Recording Control and repeat **Step 6**.

2. An overview of the main screen

The main screen consists of 3 distinct parts:

1. Recording control with dB meters, a scope, a spectrum analyzer and a handful of buttons for recording, playback and saving.
2. 16 Audio Control Panels for selecting audio files, changing volume, panning, pitch and looping options.
3. Graphic Piano Keyboard used to play MIDI notes as well as controlling/triggering any loaded audio files.

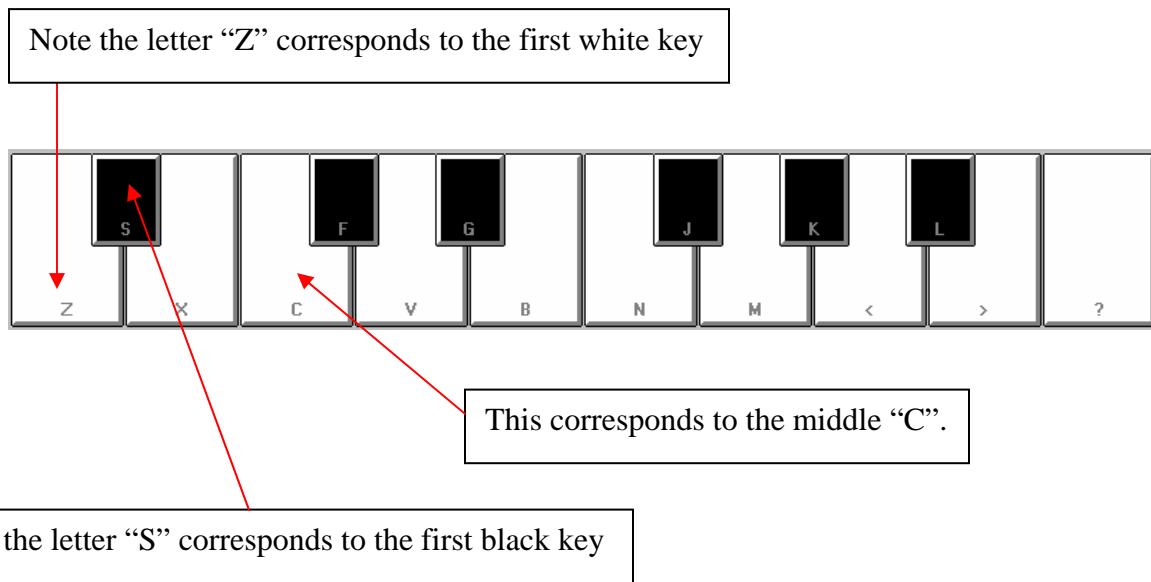
In addition, there are 16 note option selectors, one for each note located just above the Graphic Piano Keyboard.



How to play and change the MIDI sounds

There are over 100 sounds and sound effects built into the soundcard of your computer. You can easily access those sounds with this software.

You'll notice that the bottom part of the main screen of Peacesong Tapestries program shows the Graphic Piano Keyboard. You can click every one of those keys with the mouse to play the keyboard note by note or you can use the typing keyboard of the computer starting with the letter "Z".



When you open the program for the first time there will be a piano sound automatically loaded into this graphic piano keyboard. In addition to this you can choose and play many different sounds such as flute, an electric guitar, a trumpet or even sound of a helicopter or a bird. You can choose these new sounds (instruments) with just a few mouse clicks!

There are 2 different ways of changing the instrument:

1. Note by note (one note at the time)
2. Globally (all notes at the time)

The following section will explain why we have those 2 different ways and how to do it:

How to change the MIDI sound globally

Global change means that all keys on the graphic piano keyboard will play sound of the same instrument. This is useful when you want to play a piano melody, flute or trumpet for example. To make a global instrument change you have to open “Select MIDI Instrument” dialog window.



Step 1 - From the main menu bar left mouse click on “**Settings**”

Step 2 - Now click on the “**Global Instrument Change**”

Step 3 - Left mouse click on the instrument of your choice from the list here. You can also scroll down the list to select other instruments

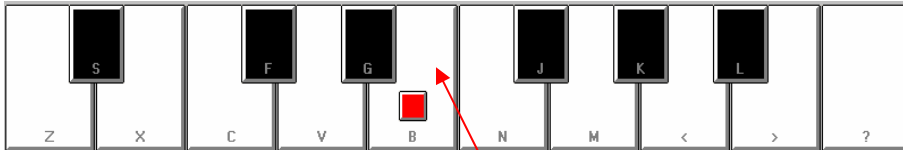
Step 4 - Left mouse click on the “**Select**” button to accept the new instrument. You can now play the new instrument on the graphic keyboard.

This will select a new MIDI Instrument for every note.

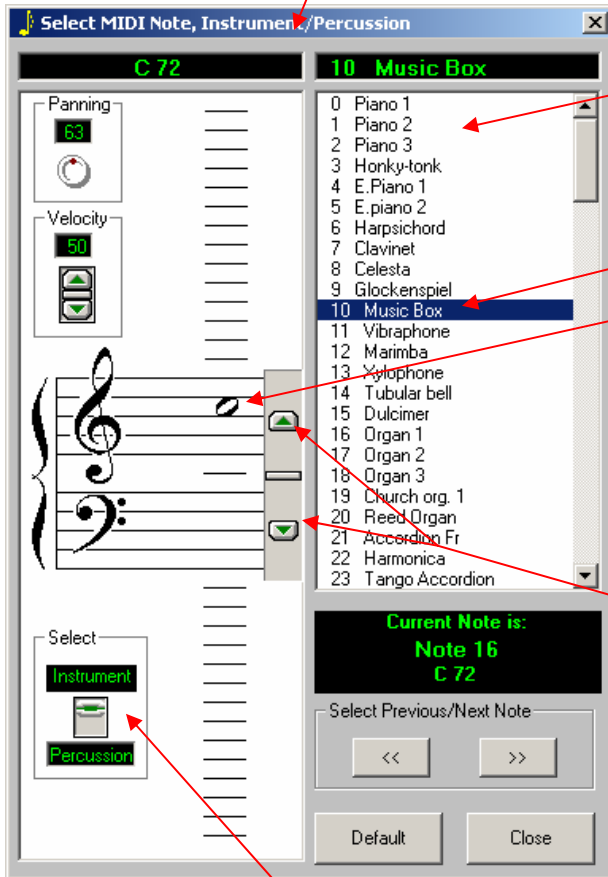
Choosing your MIDI sounds individually

How to load any new sound, any MIDI instrument, including percussion sounds, into the individual keys of the graphic piano keyboard.

This way we can assign a different MIDI sound to every key.



Step 1 - Right mouse click on any key to open editing window and notice a little red square marker appear on the key.
At the same time MIDI editing window appears.



Step 2 - You can choose any instrument from this list by clicking on it. You will notice it turns blue when you click as shown here.

Step 3 - You can ALSO choose to change the actual note (also called the pitch) of the selected instrument by using the mouse to **drag** the note up and down to change pitch diatonically (natural keys)

OR

Use the up and down buttons here to change pitch by semitones

Step 4 - You can ALSO choose to Select between MIDI note and MIDI Drum Instruments and turn the keyboard into a drum kit.

Loading and playing of audio files

In addition to the MIDI sounds, you can load any audio file - in wave or mp3 format, and play these sounds using a designated key on the graphic keyboard. This is done by left mouse clicking on the button located at the bottom of the audio panel - as shown below in Fig. 6

Fig. 1 – Click and drag the slider to Adjust volume of the audio file



Fig. 2 - Left and right volume indicators

Fig. 3 - Click and rotate the Panning knob to balance the sound between the left and right speakers.

Fig. 4 - Pitch control (bottom position restores original pitch)
Click and drag the slider to Adjust pitch of the audio file

Fig. 5 - Click and drag the slider to select the Loop option
There are four positions of the slider (See notes below)

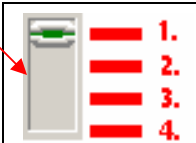
Fig. 6 - Click this button to load an audio file.
This opens the audio file selection dialog.



MIDI note selected.

Audio file selected.

Fig. 7 – Every Audio Panel has got a corresponding switch that automatically changes position when an audio file is selected. You can manually toggle between MIDI note and loaded audio file by dragging the switch up and down with the mouse.



IMPORTANT: notes for looping of audio files

Position 1. The file will play once. You can restart it any time by pressing the key again.

Position 2. The file will play once to its end without possibility of restarting.

Position 3. The file will play looping continuously as long as the key is depressed.

Position 4. The file will play looping continuously when the key is pressed; press the key again to stop it.

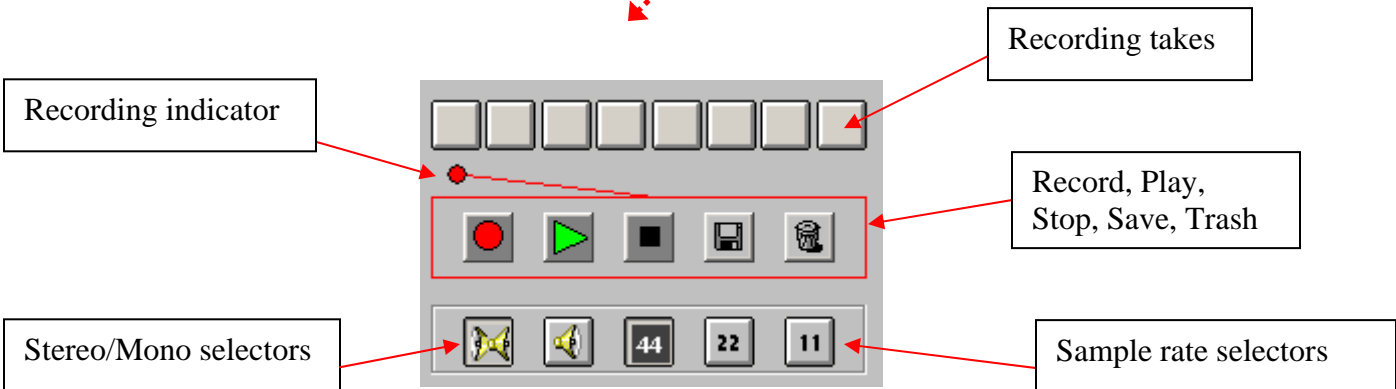
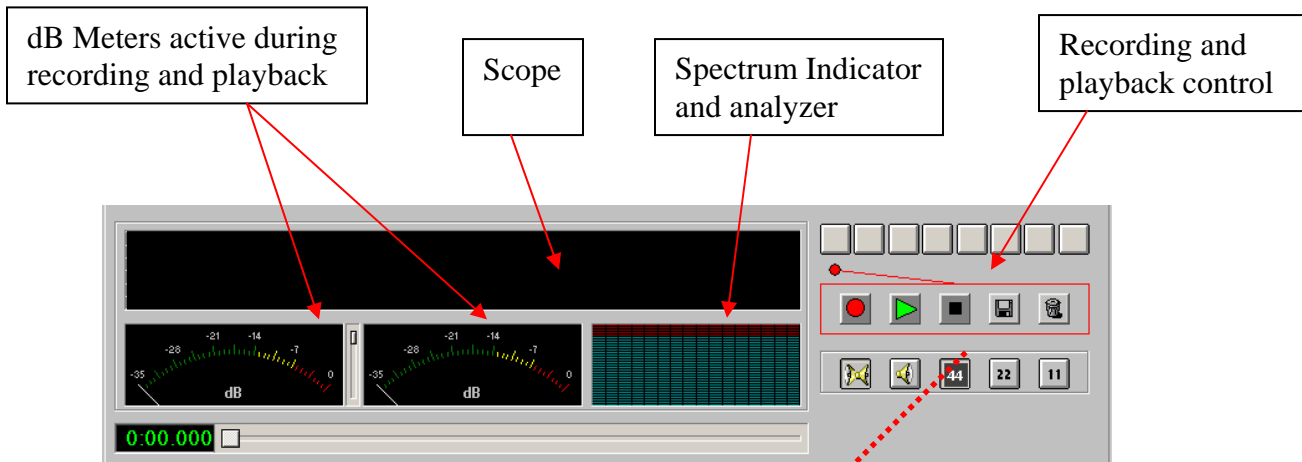
Once you have loaded some audio files, selected MIDI instruments or percussion sounds you're ready to do your first recording. The recording starts as soon as the Recording button is pressed.



You can also start the recording function by pressing Ctrl+R. You will notice the little needles of the dB Meters moving, the Scope will show the recorded waveform and the Spectrum Indicator will show the analysis of the sound. To finish the recording, press the Stop button.



To hear your recording, press the Play button.

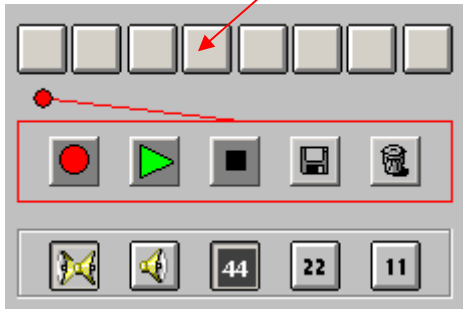


Live recording using the microphone

If you have a microphone you can plug it into the microphone port of your soundcard to record your own voice or an acoustic musical instrument. You can make a stand alone recording or you can mix it with MIDI and audio files at the same time.

Note: your microphone recording level can be adjusted in the Volume control of your soundcard. Please refer to the “Setting up your soundcard “ section described earlier in this manual.

You can record up to 8 individual recording takes at the time.
To select a recording take, click on one of the 8 buttons.



Once you have completed your recording, the button will have a small picture in green of music notes, indicating that the audio has been captured.



The recording take can be deleted without saving by pressing this button.

You can save the recorded material. To do that press the “Save” button. This opens standard “File Save” dialog.

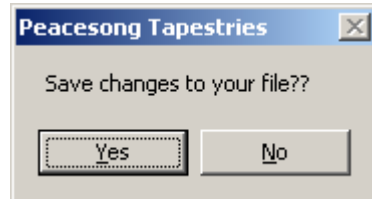
You can now load saved audio file into anyone of the 16 main Audio Panels for further work.

Opening example setup files

The Peacesong Tapestries Software comes with a handful of very simple examples of setup files. These files are provided as a base for making your own arrangements/setup and to get you started and demonstrate how useful setup files can be to your creative work.

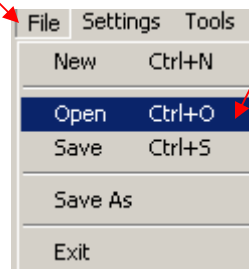
The easiest way to understand what the setup files are, is to open one, have a little play and experiment with it.

In the next few pictures just below, we have provided some step by step explanations, using “drum kit example 1.set” setup file as an example. Please note when you try to open an existing setup file the program will ask you if you want to save your work:

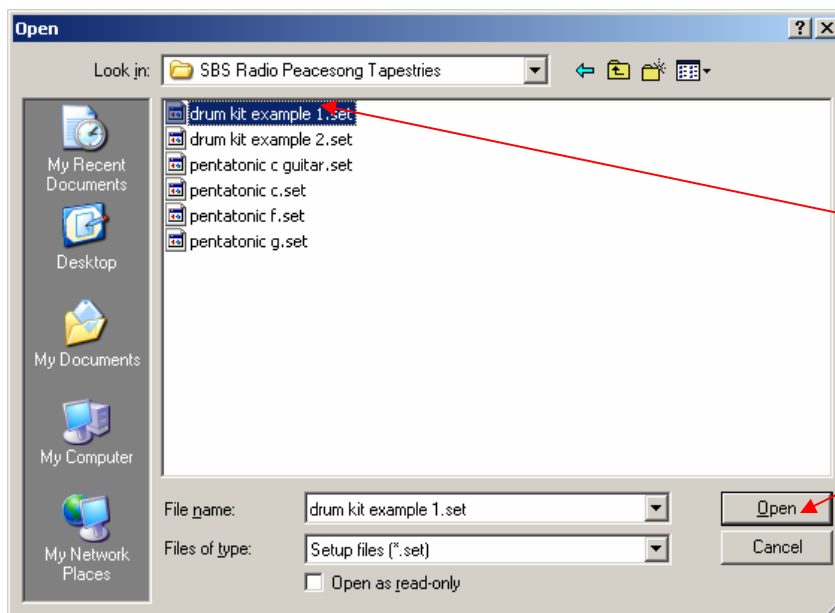


Click “Yes” if you want to save and follow the dialog windows on the screen. See the next section on saving for more details.

For the moment go to “**File**” Menu and click “**Open**” (or press **Ctrl+O**), see below:



The file selection window appears as shown:



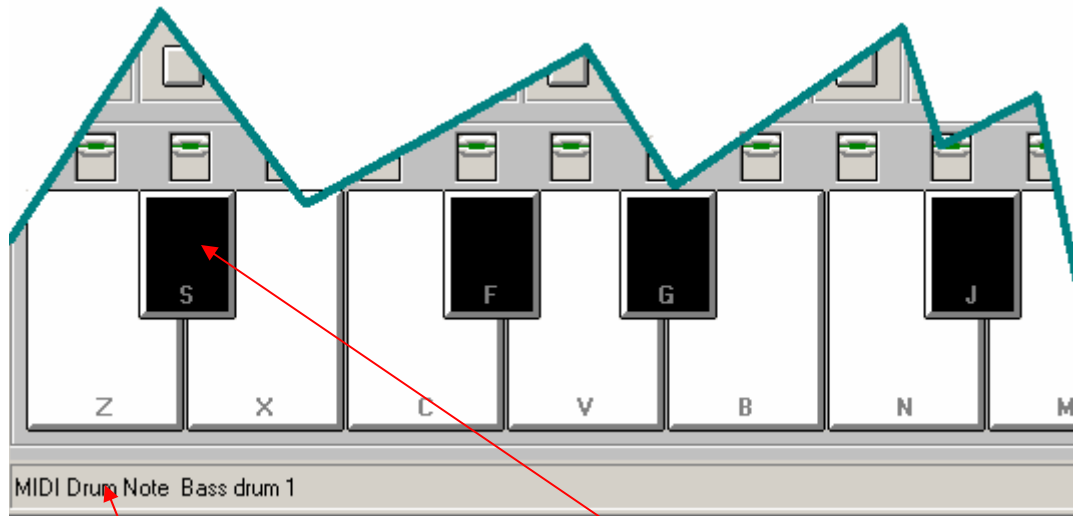
1. Click on the file “**Drum kit example 1.set**” to highlight it as shown

2. Click the “**Open**” button to load this file into the program (or press **Enter**).

Opening example setup files (continued...)

The selection window dialog disappears.

This picture shows just the bottom section of the program's main screen:



Move the mouse cursor over the first black key labeled “S” and note the Status Bar informs you that MIDI Drum Note Bass drum 1 is programmed into the this key.

The Status Bar will inform you what's been programmed into each note of the graphic keyboard when you move your mouse cursor over it (without clicking on the keys). Clicking on the keys, or holding the left mouse button down and dragging it over the graphic keyboard should produce the programmed sounds. Alternatively, you can use the computer keyboard (first 2 bottom rows of the keys) to play the sounds as well.

Changing the programmed sounds and loading audio files is very easy indeed and it is covered in detail earlier in the manual (“How to change the MIDI sound globally”, “Choosing your MIDI sounds individually” and “Loading and playing of audio files”).

Finally, when you're ready to save some setup files, don't forget to give them some meaningful and “colorful” names so you can readily identify your sound arrangements later.

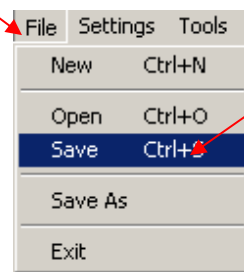
Saving your setup files

Once you have assigned some MIDI sounds and/or audio files to the graphic keyboard and you're happy with your arrangement you can save it as a setup file. In a way, it is like taking a snapshot of your arranged (programmed) sounds.

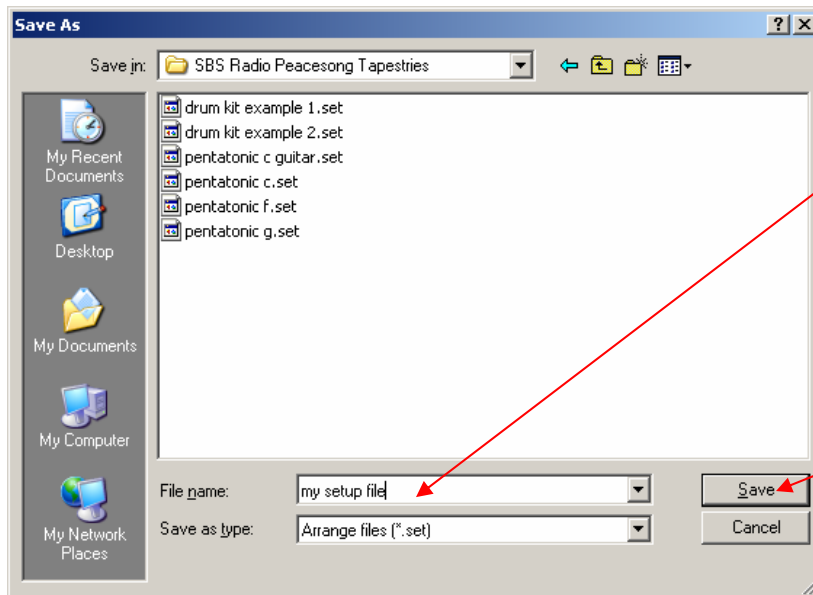
Setup file will contain all the necessary information about what MIDI sounds/instruments and audio files have been assigned to the graphic keyboard.

You can create as many setup files as you like, and recall them later as needed. Setup files are very small in size and do not occupy much disk space at all. You can create your own collection and arrangements of sound files and save them as individual and unique setups.

To save a Setup file click **"File"** from the main menu, then click **"Save"** (or press **Ctrl+S**).



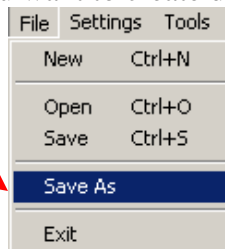
The file save window appears as shown:



1. Type the name of your file.
Note: There is **NO** need to type the extension "set" at the end of the file name, as the extension will be automatically added by the program.

2. Click "Save" button.

Tip: use **"Save As"** menu if you want to create different versions of the same setup.



Volume Control Settings and Adjustments

How to adjust soundcard volumes from within the Peacesong Tapestries program.

Controlling of the soundcard volume(s) without leaving the main screen of the program makes it easy to set the level of the sounds for recording or a live performance. The program includes a separate window that directly talks to the soundcard. This window can be accessed from **Settings** menu and choosing **Soundcard Volumes**. Alternatively, you can press **F9**. See below:



This menu item opens control window for soundcard volume adjustments.

Please note the order and names shown in the Volume Control list box might differ slightly, however the main layout should look very similar.

Generally speaking, “Volume Control” adjusts the overall level of the sounds coming out of the soundcard.

“Wave” controls the volume of digital audio files.

“SW Synth” adjusts MIDI main volume. In our case this adjusts the overall volume of the graphic keyboard.

“Microphone” sets the recording volume for the internal or external mike if connected.

To adjust every individual volume, select the volume item from the list and drag the slider up and down.

Tip: you can drag the slider up and down with the mouse while playing the graphic keyboard with the other hand. Observe the dB Meters and the Scope (see next page for detailed instructions).

Note: Select “SW Synth” from the list **first**.



Volume Control Settings and Adjustments (continued...)

Adjusting the volumes visually using VU/dB Meters and the Oscilloscope.



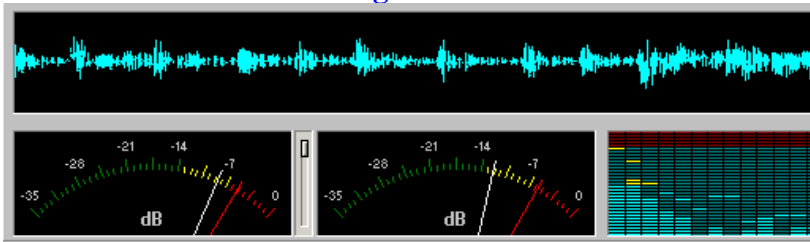
The best way to set/adjust volume levels is to do a test recording (which you probably won't choose to save and can be trashed straight afterwards).

Please note the white needles of the meters should deflect almost to the red section of the scales without staying there for all time.

The little red needles act as peak detectors that momentarily hold the highest volume value making it easier to read. If you notice the needles staying hard on the red section your sound level is too high and the clipping and distortion of the recorded sound will occur.

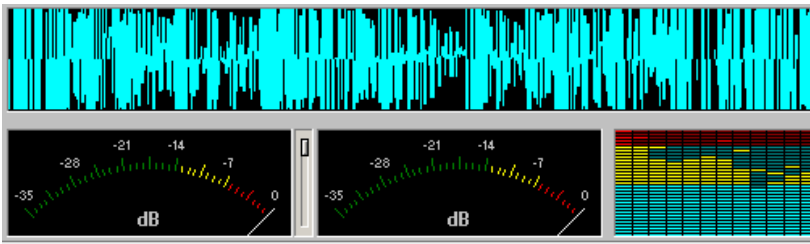
You can also observe the waveforms on the scope, where the peaks should just touch the top and bottom boundaries of its window during the loudest part of the recording.

This is good.



Note the waveform well within the lower and the upper boundaries of the scope window and meter needles staying just below the red section.

This is bad.



Note the waveform "hitting" the lower and upper boundaries of the scope window and the needles of the meters peaking right on the maximum value.



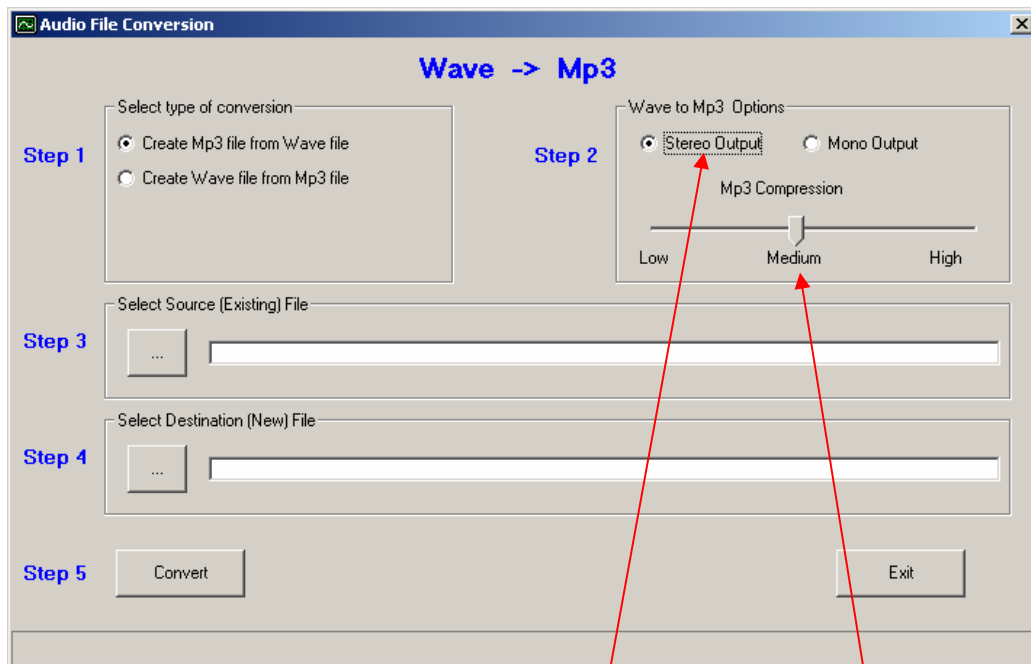
Converting audio files between wav and mp3.



In order to save your finished project you can choose to save the completed sound file as either a “wav” file or “mp3” file. The “mp3 file” format is the preferred file format for sending your music over the Internet – for example, if you want to email your music to someone. The “wav” file format is the preferred file format to use when you are going to burn the file to (a highest audio) quality CD.

The “mp3” file can be up to ten times smaller in size than a “wav” file, and consequently, “mp3” files take a lot less time to upload and download over the Internet.

To convert your “wav” files click on the “**Tools/Audio File Conversion**” from the main menu (see above). This action will bring up a new window, and follow the instructions on the screen (see below):



Note:

This audio file conversion process allows you to freely convert files between wav and mp3 formats. It also allows you to choose the rate of compression when you create a new mp3 file. Please note however, that even though the higher rate of compression results in a smaller file size, it is generally a good idea to leave the compression in the “medium” range. This is because the higher rate of compression might result in a loss of tonal quality. Most files will also be best saved as a “stereo” file format.



11. Sending your music over the Internet

You can send your music over the Internet as an “mp3” file. In order to do this you simply “attach” the file to your email and press “send”. The Peacesong Tapestries website will be a great place to start! Please send your email to:

sbs@peacesongs.info

You can also listen to a number of mp3’s created for “The Peacesong Tapestries” project, and share your music with the world. Many of these mp3 files will also become part of the weekly SBS Radio program broadcasts contributing to a more peaceful world.

