Metronome EXP Pro

Thank you for using Metronome EXP Pro! The team at Expmuse created Metronome EXP Pro because we wanted a set of tools to help us become better musicians. As such Metronome EXP Pro has a wide range of features designed to aid technique development on a number of different levels, with the ultimate goal of helping us all make real progress as players. These features include a sophisticated sequencer for creating backing tracks, meter, polymeter and meter series construction windows, a fully featured speed trainer and much more. Despite it's wide range of functionality it's still particularly easy to use. We really hope you will both enjoy using it as well as letting it help advance your playing to new heights!

www.expmuse.com

System Requirements

Metronome EXP Pro runs on Windows XP, Vista, Windows 7, Windows 8 or later. Metronome EXP Pro will not run on Windows 95, 98, Me or 2000.

Installation

After purchasing Metronome EXP Pro you should have received a confirmation email with a download link for your new software. There should also have been a file called Licence.bin attached to the confirmation message. This file is required for Metronome EXP Pro to run. If for any reason you didn't receive this email confirmation message, or if there was no file attached please send an email explaining what happened to:

support@expmuse.com

If you click the link in the confirmation email message you will be taken to a webpage where you can download your new software. There are 2 versions available, both contained in zip files. A zip file is simply a compressed archive (to allow for faster downloads) which all supported versions of Windows can readily open. Download the appropriate zip file for your operating system. If you are running a 32-bit version of Windows you will need to download MetronomeExpPro32.zip. Alternatively, if you are running a 64-bit version of Windows download MetronomeExpPro64.zip. If you are unsure, simply download MetronomeExpPro32.zip as this will run on all the supported versions of Windows.

Once downloaded, unzip the archive. You will then need to copy the licence file (MetExpPro.lic) sent with your confirmation email into the folder containing the items you just unzipped.

Please note that Metronome EXP Pro will not run without a valid licence file.

Once the software has been downloaded, the file unzipped and the licence file copied in you can then run the software. Metronome EXP Pro requires no formal installation, and makes absolutely no changes to your system. All metronome settings are stored in a local file. This file is read when starting Metronome EXP Pro, and re-created when closing it down. Note that this file is identical for both versions of Metronome EXP Pro. That is, a file created by the 32-bit version of Metronome EXP can be read by the 64-bit one, and vice versa.

Running Metronome EXP Pro From A USB Flash Drive

Due to Metronome EXP Pro requiring no installation and storing all settings locally it can readily be run from a USB flash drive. The beauty of this is it means Metronome EXP Pro can be run anywhere there is a computer available without having to install anything on the actual machine*.

To run it from a USB flash drive copy the files unpacked from the zip archive, including the Presets folder, to the drive along with your licence file (MetExpPro.lic). If you are using a language other than English for the interface you will need to copy the Lang folder to the drive as well. If you are using audio files as a sound source move a copy of the files to the drive and then check the paths under the Audio Files tab in Options to make sure the audio files are load correctly.

Plug the USB drive into any PC running a supported version of Windows, navigate to the drive under My Computer then run the application by double clicking on the executable (either MetExp32.exe or MetExp64.exe).

* Please note you won't be able to run the 64 bit version of Metronome EXP Pro on a 32-bit version of Windows.

Uninstalling Metronome EXP Pro

To uninstall Metronome EXP Pro simply delete the files extracted from the downloaded zip file.

Why Practice With A Metronome?

1. To Develop Your Ability To Play In Time

Listen to a piece of contemporary music and tap your foot to the beat. Now have a think about how you were able to determine where the beat was. What thought processes were involved? Did you perform some sort of quick mental analysis of the music, or try and calculate where the beat should fall based on the number of notes you heard? How did you do it?

The beat is the basic time unit of music, the underlying pulse that determines the tempo. It serves as the reference point for all the other rhythms that occur in the music. We are able to determine where the beat is in music not via any thought process but by simply feeling it. The ability to play in time is based entirely upon the strength of a musician's intuitive feeling for the beat. This internal clock or rhythm is one of the things we are interested in developing via practice with a metronome. So, how do we develop it?

Music is a totally immersive experience. That is, it affects us on every level: mentally, physically, emotionally and spiritually. The rhythmic aspect of music primarily affects us on a physical or bodily level. Consider this: a lot of people will tap their foot when listening to music. More often than not this is a response and not something they made a conscious decision to do. It is simply an outward physical manifestation of the effect that the music's rhythm is having on their bodies. This relationship between rhythm and physical body movement can actually be used to develop our internal rhythm. How? By making some deliberate physical movement, such as tapping our foot, while playing in time to a clearly defined beat. A metronome supplies the 'clearly defined beat'. The key things here are:

The movement is deliberate. That is, it isn't a response; we consciously make the effort to move our bodies in time to the beat.

The movement can't be a small one. For instance just wiggling our big toe up and down won't have the effect we are after. Larger body movements in time with the beat have more effect than smaller ones. Rocking our whole body backwards and forwards while tapping our foot will have more effect than simply tapping our foot alone.

The primary focus is on trying to feel the beat. This is the most important part of the exercise. We aren't trying to use the metronome as some externally imposed time source that we simply respond to. Instead we want to improve our ability to feel the beat.

Self consciousness will work against what we are trying to achieve. Any such inward inhibition will prevent us from being free enough to make the required movements as well as stopping us from really feeling the beat.

Practicing with a metronome has received some criticism. A metronome

provides a fixed, rigid pulse. However in music the beat is often not regular, such as in passages marked as accelerando or rallentando, or when using rubato for expressive purposes. Critics feel that practicing with a metronome creates a slavish adherence to the rigid beat the metronome produces rather than fostering a musician's internal rhythm so that it can ebb and flow with the music. However such 'slavish adherence to the rigid beat the metronome produces' only occurs when:

The metronome is used as an externally imposed time source, with no attempt made by the musician to feel the pulse. As stated, the primary focus must be on feeling the beat.

The musician's ability to feel the beat is still too weak. An under developed internal rhythm will cause a musician to unyieldingly cling to the beat. The stronger that internal clock the more comfortable the musician feels being expressive with time. Similarly, playing complex syncopations won't present any issues.

What critics ignore is if a musician struggles to play in consistent time or has a tendency to speed up or slow down in specific passages they won't cope with any tempo fluctuations that occur in any musically relevant fashion either. Practicing with a metronome is by far the best tool to develop this ability. Even when timing issues aren't present a stronger internal clock will free the musician to play with greater rhythmic expressiveness and, assuming the rest of their technique is in place, to abandon themselves to the music entirely.

2. To Promote Evenness And Accuracy In Rapid Musical Passages

Most pieces of music have parts that are more difficult than others. This is compounded if the beat has some complex subdivision. One of the best ways to master these passages is to practice with a metronome set to a tempo considerably slower than that indicated by the music, one that makes the passage feel easy to play. The aim with the slower tempo is to ensure each run through the passage is played identically to all others. Playing difficult passages at faster tempos early on in the learning process can markedly slow learning, as the passage will rarely be played exactly the same way twice. Our brains learn via this kind of exact repetition: if no 2 repeats are the same it will take much longer for the brain to get a clear picture concerning what we are trying to accomplish. Practicing too quickly like this is analogous to being asked to remember all the items laid out for display on a table, but with the twist that each time you look some items have been replaced with others. It then becomes particularly difficult to get a clear picture concerning exactly what is on the table. The memorisation process subsequently gets considerably more complicated!

Practicing with the metronome set to the same subdivision as the passage is a great way to ensure each note gets its correct time value. The fixed tempo of the metronome will prevent fingers running away in parts that are slightly easier, and will expose slow-downs due to technical difficulties in other parts.

3. For General Technique Development

When practicing technical drills a metronome provides an objective way to measure improvement. If we can play something cleanly at 120 beats per minute today that yesterday we could only manage at 115 bpm we have a tangible improvement.

As well later in the learning process attempting to play at tempos faster than we have used before can help develop abandon. Abandon refers to that state of consciousness where we completely let go and simply trust our technique to do things for us. Obviously a considerable amount of regular practice must precede this. Abandon is a prerequisite in technically difficult music. Attempting to consciously control finger movement in extremely difficult pieces will render them unplayable, regardless of the quantity and quality of practice involved.

Using Metronome EXP Pro

Figure 1. The main window:
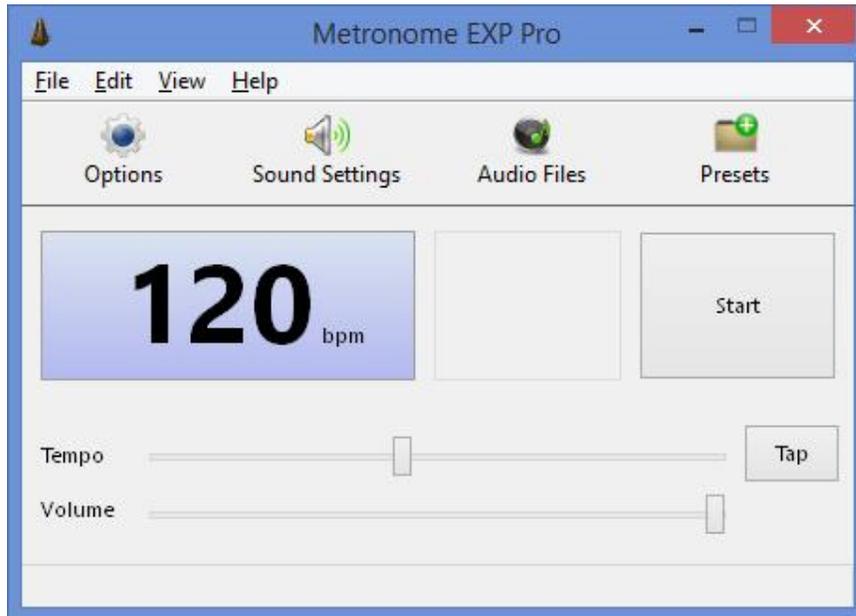
Setting The Tempo For the Metronome

The tempo can be changed by any one of the following means:

1. Move the Tempo slider to the left or right.

2. Type in the required tempo using the numeric keys at the top of your keyboard.

3. Using the left mouse button click 3 times on the Tap Tempo button (to the right of the Tempo slider). The Tap Tempo button averages the time between the last 3 clicks and uses this to calculate the new number of beats per minute.

4. Clicking the plus (+) or minus (-) keys on the keypad (the right most part of the keyboard). These keys will increment or decrement the tempo by exactly one beat per minute. Holding the Ctrl or Shift keys down while doing this will double the amount. Hold both these keys down and the amount is doubled again.

5. Clicking the arrow keys on your keyboard will also increment or decrement the tempo by exactly one beat per minute. Again, holding down the Ctrl and/or the Shift keys will modify how much the tempo is changed.

6. Clicking the Page Up or Page Down buttons will increase or decrease the tempo by 10 beats per minute. As before, holding down the Ctrl and/or

the Shift keys will modify the amount.

When the change the tempo the Beats Per Minute display (showing 120 bpm in the Figure 1 above) will update to show the new tempo.

Setting The Overall Volume For the Metronome

To set the global volume, move the Volume slider to the left or right. Note that each of the 14 instrument voices has it's own individual volume, set under the Sound Setup tab under Settings (more on this later).

Running the Metronome

The metronome can be started and stopped by:

1. Clicking the Start button on the main window

2. Pressing the 's' key on your keyboard

3. Pressing the Enter key on your keyboard

4. Pressing the spacebar on your keyboard

When the metronome is started the text on the Start button changes to 'Stop'. Stopping the metronome changes the text back to Start.

Switching To Full Screen Mode

To switch to and from full screen mode select 'Full Screen' from the View menu or click the F11 key on your keyboard. When in full screen mode clicking the Esc key on your keyboard will also return you to standard screen mode.

Figure 2. Full screen mode:

Metronome Settings

Clicking the Options button on the toolbar or the Options item under the Edit menu opens the Options window. Using this window we can set the beat type, enable the Visual Beat Indicator and set up the Speed Trainer.

Figure 3. The Options window:
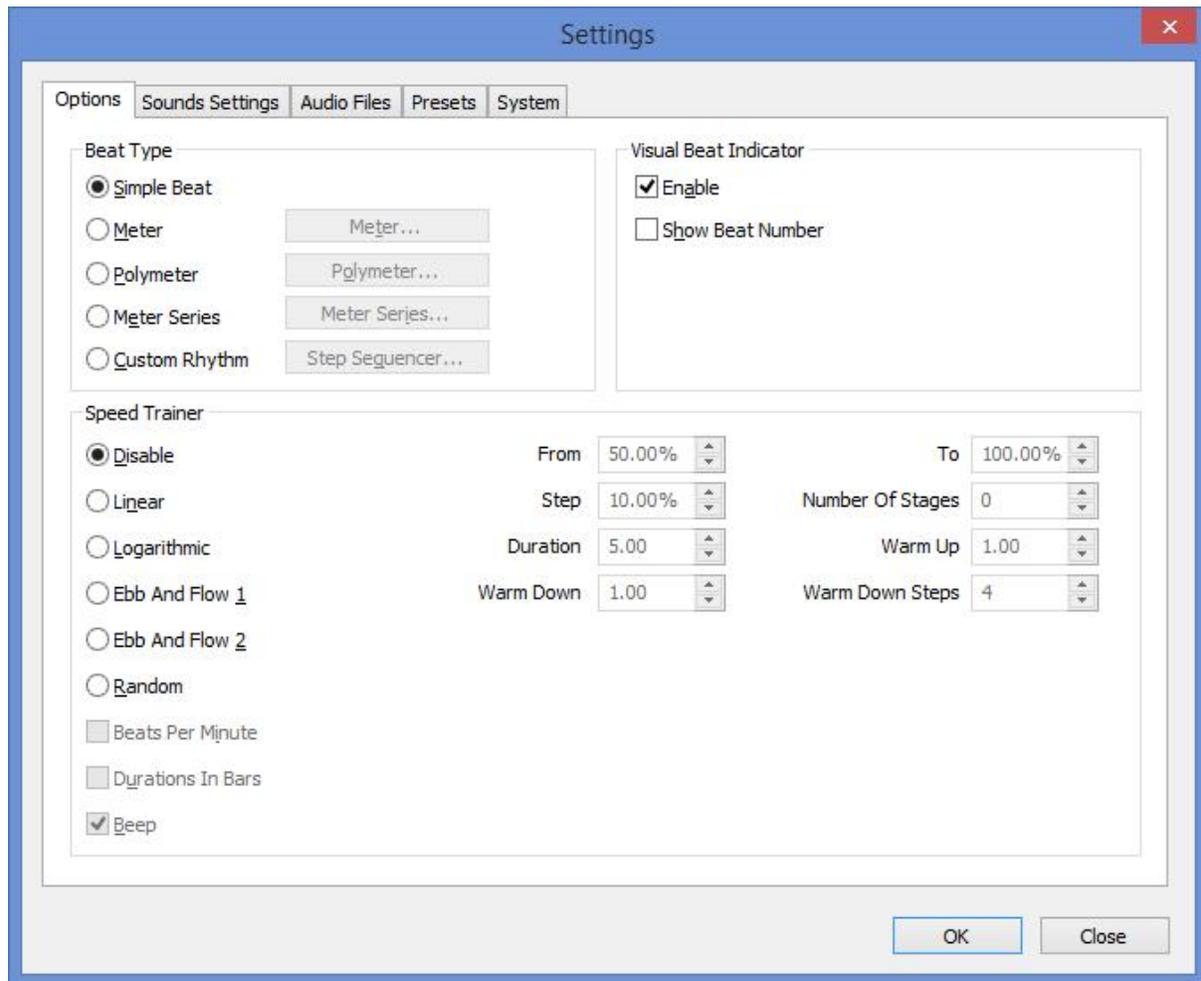
The Beat Type

Metronome EXP Pro can play a range of beat types, from a simple click to complex drum patterns. Each Beat Type uses a range of sounds, the settings for which are defined under the Sound Settings tab of the Settings window. The Beat Types are:

1. **Simple**. The metronome will play a simple non-accented beat using sound one.

2. **Meter**. The metronome will play a standard musical bar, defined via the Meter window discussed later in the manual. Sound 1 is used for

accented beats, sound 2 for sub-accents and sound 3 for 'regular' (non accented) beats. Two independent beat subdivisions can also be defined as part of the meter, with these using sounds 4 and 5 respectively.

3. **Polymeter**. The metronome will play 2 meters, either simultaneously or in alternation, defined using the Polymeter window also discussed later in this manual. Sounds 1, 2 and 3 are used for the first meter and sounds 4, 5 and 6 for the second.

4. **Meter Series**. The metronome will play up to 6 meters in series, using sounds 1 to 4 for the first, third and fifth meters, and sounds 5 to 8 for meters 2, 4 and 6.

5. **Custom Rhythm**. The metronome will play the beat pattern and, optionally, the chord sequence defined in the Step Sequencer window. The number of bars, the number of beats in each bar, the beat subdivision, what chords are to be played and exactly when everything is to be played is all defined as part of the sequence created. See the Step Sequencer section in this manual for more information.

The Visual Beat Indicator

To the right of the Beats Per Minute display on the main window is a grey rectangle. If the Visual Beat Indicator is enabled when the metronome is run an icon will flash on and off in time with the beat within this rectangle. The colour and size of the icon is set on the Sound Settings tab in the Settings window. To enable the Visual Beat Indicator select 'Enable' in the Visual Beat Indicator section of the Options window.

The Visual Beat indicator can also display the current beat number while the metronome is playing. Select 'Show Beat Number' in the Visual Beat Indicator section of the Options window to switch this setting on.

The Speed Trainer

The Speed Trainer is a powerful tool designed to help you progressively increase the speed with which you can play musical passages. When enabled it causes the metronome tempo to programmatically increase in a stepwise fashion.

Figure 4. The Options window with Speed Trainer enabled:
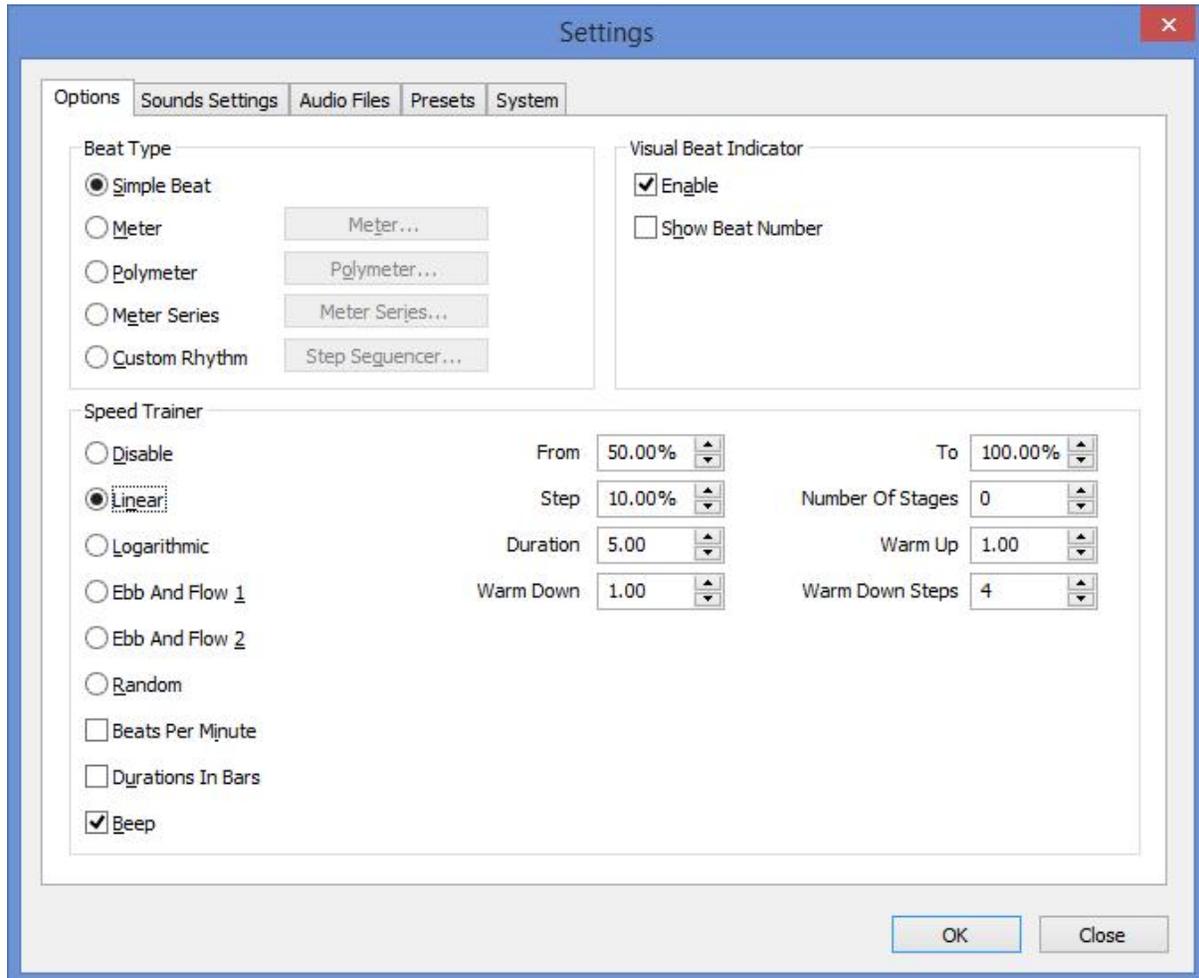
The settings for the Speed Trainer are:

Disable. When selected this switches the Speed Trainer off.

Linear. The Speed Trainer will increase speed in a direct linear fashion. That is, the change in tempo from one stage of the speed training session to the next is exactly the same for all stages.

Logarithmic. When operating in Logarithmic mode the Speed Trainer will make larger tempo increases earlier on in the session, and progressively smaller changes as it continues. Smaller tempo changes as you approach the maximum will feel less noticeable, placing less stress on your neuro-muscular

system and greatly increasing the chances of reaching the maximum tempo with a minimum number of playing errors.

Ebb And Flow 1. The Ebb and Flow 1 strategy causes the Speed Trainer to follow each speed increase with a slight decrease, so that the tempo effectively 'ebbs and flows'.

Ebb And Flow 2. This is a variation on the Ebb and Flow theme. Here every *second* speed increase is followed by a return to the previous tempo. That is, the Speed Trainer will go through 2 speed increase stages followed by one speed decrease, 2 steps forward, one step back.

Random. The Random mode, as it's name suggests, causes the Speed Trainer to randomly change speed as it heads towards the final tempo. This mode uses the 'Step' setting to divide the training session into phases, with each phase having a range of tempos each stage can randomly switch between. When the durations are set in minutes the number of stages used in the entire training session is determined by the 'Number Of Stages' setting.

Beats Per Minute. The From and To values for the Speed Trainer are normally set as a percentage of the current metronome tempo. The Beats Per Minute option changes these fields so they hold the exact tempo, in beats per minute, that you want the Speed Trainer to start and end on.

Duration In Bars. The Duration, Warm Up and Warm Down values indicate the length of time the Speed Trainer spends in each phase of the speed training session. Normally these values are in minutes. However if the Duration In Bars option is selected these values will be set in bars.

Beep. When enabled means the Speed Trainer will use Sound 12 to signal when the warm up is complete, as well as signalling every tempo change in the session.

From. If the Beats Per Minute option isn't selected, this sets the percentage of the current tempo that the Speed Trainer should start at. For instance, if the metronome tempo was set to 120 beats per minute and the From value was set to 50% the Speed Trainer would start at 60 beats per minute. If the Beats Per Minute option is selected this sets the exact tempo, in beats per minute, the Speed Trainer will start at.

To. Similarly, this sets either the percentage of the current tempo, or the actual tempo, that the Speed Trainer should stop at. Which value it has depends on whether the Beats Per Minute option is selected.

If identical settings are used for the From and To values the speed trainer will create a timed session that runs at one tempo.

Step. When using any mode except 'Random' Step sets the size of the tempo changes made as a percentage of the difference between the From and To

values. In simple terms, larger values result in bigger tempo changes during each stage of the training session, smaller values mean smaller tempo changes.

The 'Random' speed trainer mode uses the step amount to set both the number of phases as well as the range between which the beats per minute will lie for each phase. For instance, if set to 100% there will be just one phase, with every stage of the training session randomly running between the start and end tempos. If set to 25% the session will be divided into 4 phases, with the beats per minute (bpm) for each phase set as follows:

- Phase 1: Between the start bpm and the start bpm + 25%
- Phase 2: Between the start bpm + 25% and the start bpm + 50%
- Phase 3: Between the start bpm + 50% and the start bpm + 75%
- Phase 4: Between the start bpm + 75% and the final bpm

Number Of Stages. When using the Random speed trainer mode this sets the total number of stages to use for the training session. For instance if set to 8 the session will start on the initial tempo then change the number of beats per minute 7 times, finishing on the final tempo.

Note that if both the 'Number of Stages' and 'Step' settings are set to low values the actual number of stages may be higher. This is because the session is divided into phases, and there must always be at least as many stages as there are phases.

This setting has no effect if a mode other than Random is being used.

Duration. If the Duration In Bars option is off this is the total time, in minutes, the speed training session should run for, not including the Warm Up and Warm Down. If the Duration In Bars option is selected this is the number of bars each individual stage of the speed training session will run for.

Warm Up. The length of time the Speed Trainer should run at the minimum tempo before starting the Speed Training session. Setting this to 0 means no warm up. If the Duration In Bars option is off this is set in minutes. If the Duration In Bars option is selected it is set in bars.

Warm Down. The length of time that the Speed Trainer should take to return to the start tempo. Like the Warm Up, setting this to zero means no warm down. If the Duration In Bars option is off this is set in minutes. If the Duration In Bars option is selected it is set in bars, and should be at least as many as the number of warm down steps.

Warm Down Steps. Sets the number of steps the Speed Trainer will take to return to the starting tempo at the conclusion of the speed training session.

The Speed Trainer Stage Display

When in use the Speed Trainer will display the name and the time remaining for the current stage of the training session. In standard mode this is displayed in the title bar at the top of the main application window. For instance, in Figure 5 below notice the title bar has 'Metronome EXP Pro – Warmup 01:54' displayed, meaning the Speed Trainer has one minute and 54 seconds remaining in the warm up stage.

Figure 5. The Speed Trainer in the warm up stage:
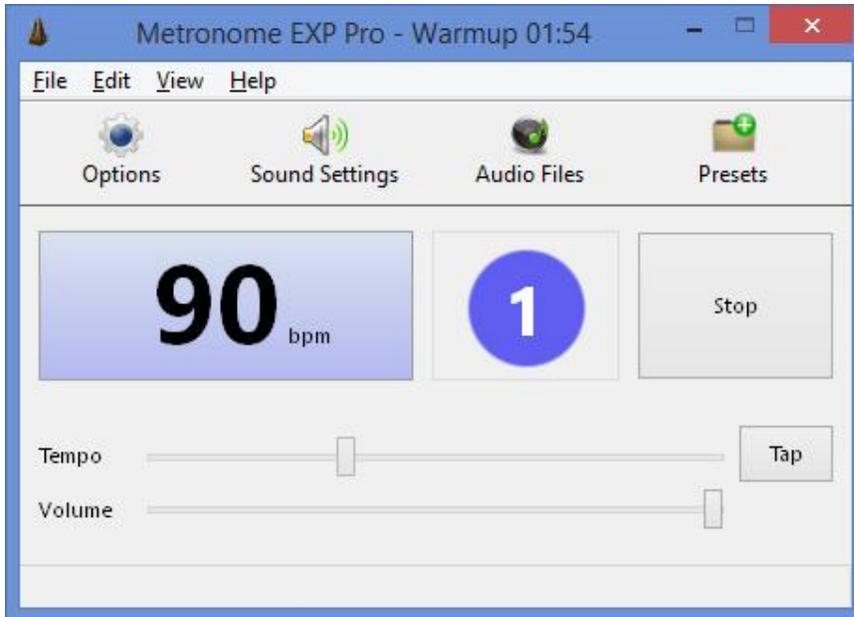
In full screen mode the Speed Trainer stage is displayed below the Visual Beat Indicator (the large black part of the window displaying the beat). In Figure 6 below we can see that there is 4 minutes and 54 seconds remaining in the training stage for the session

Figure 6. The Speed Trainer in the training stage (in full screen mode):
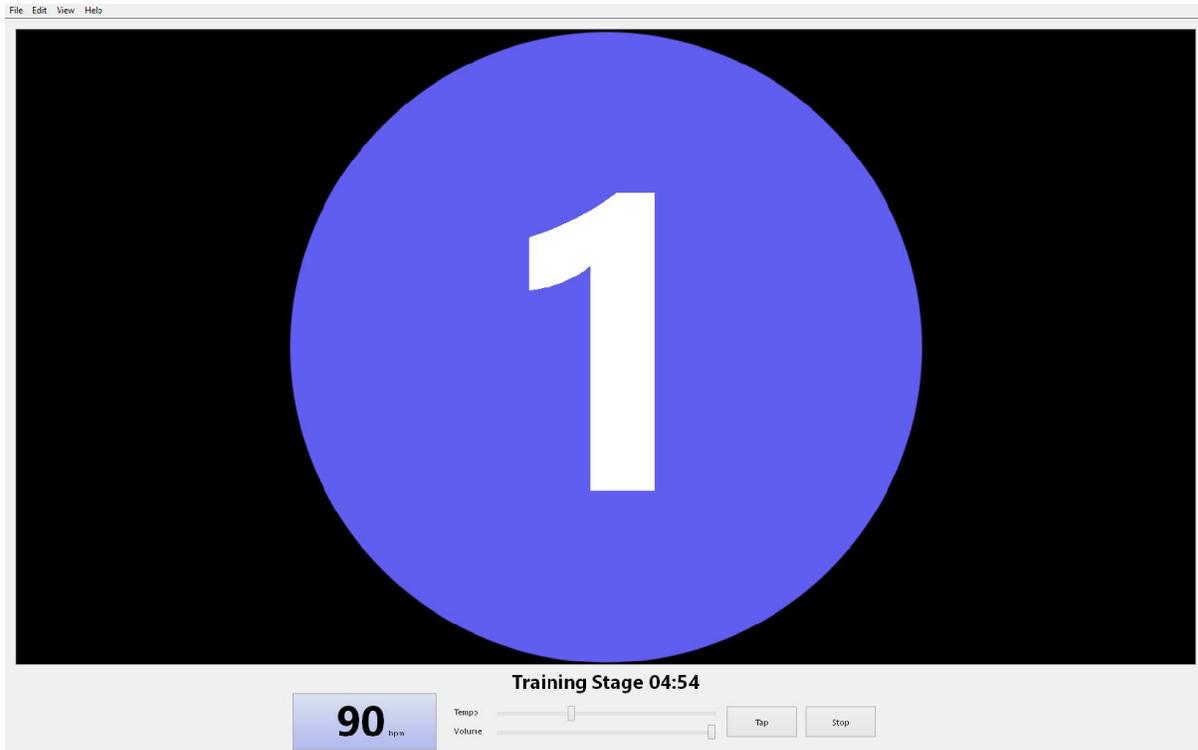
Stopping The Speed Trainer

Clicking the Stop button on the main window stops the Speed Trainer.

Pausing The Speed Trainer During A Speed Training Session

Speed Training sessions can be paused or resumed by clicking the space bar on your keyboard.

Hindrances To Playing Quickly

One of the primary goals of the speed trainer is to increase our ability to play fast musical passages effortlessly. As such we need to take a look at the 2 biggest hindrances to being able to play quickly. Namely:

An inefficient technique. That is, one where there is finger, hand or arm movement that doesn't directly contribute to playing the note with the desired tone. For instance, playing a fast scalar passage with fingers that move several centimetres away from the keys after playing. The only part of the movement that creates the note is the half centimetre one that depresses the actual key or string. Any movement beyond this is essentially superfluous (assuming no special tone or attack is required).

Excessive muscle tension. There should sufficient muscular effort to play the note but absolutely no more. Excessive muscle tension in the hands and arms greatly restricts a fingers ability to move quickly. Imagine if we took a series of rubber bands and placed them around the ends of each pair of fingers. This would certainly make it a lot more difficult to play! However any muscular tension in the hands or arms beyond that required to actually play the note effectively does the same thing, as every finger movement is constrained by a tight muscle somewhere.

Based on the above one of the keys to getting the best out of the Speed Trainer is to start it at a tempo that you find almost too easy. Then focus on making every aspect of your playing technique feel completely effortless. So much so that if there were any less effort on your part the notes wouldn't be articulated correctly. As well, check that you are making the smallest possible finger and hand movements. It's vital that you keep in mind that the way you practice will be the way you will learn something and play it. This appears to state the obvious, but if you tend to play, for example, with more tension than is actually required unless you actively work on this in practice it will never change. Your brain doesn't discern, and has no idea about intentions. It will learn exactly what you continue to repeat, including the levels of tension involved.

Using a warm up can also greatly improve results. There is a branch of science called Motor Control and Learning, which studies how people acquire skill. Scientists in this field have demonstrated a phenomenon they term 'Warm-up decrement'. This is the decrease in playing performance that occurs in the first few minutes of practice, as compared to the end of the previous practice session. By using a warm up in your speed training session you are making sure your neuromuscular system is primed for best performance.

Sound Settings

Clicking the Sound Settings button on the toolbar or the Sound Settings item under the Edit menu opens the Sound Settings window. Metronome EXP Pro uses up to 12 voices to play rhythms, and 2 voices for chord sequences. For each voice the instrument used, it's volume and the size and colour for the voice's visual beat indicator can be selected.

Figure 7. The Sound Settings window:
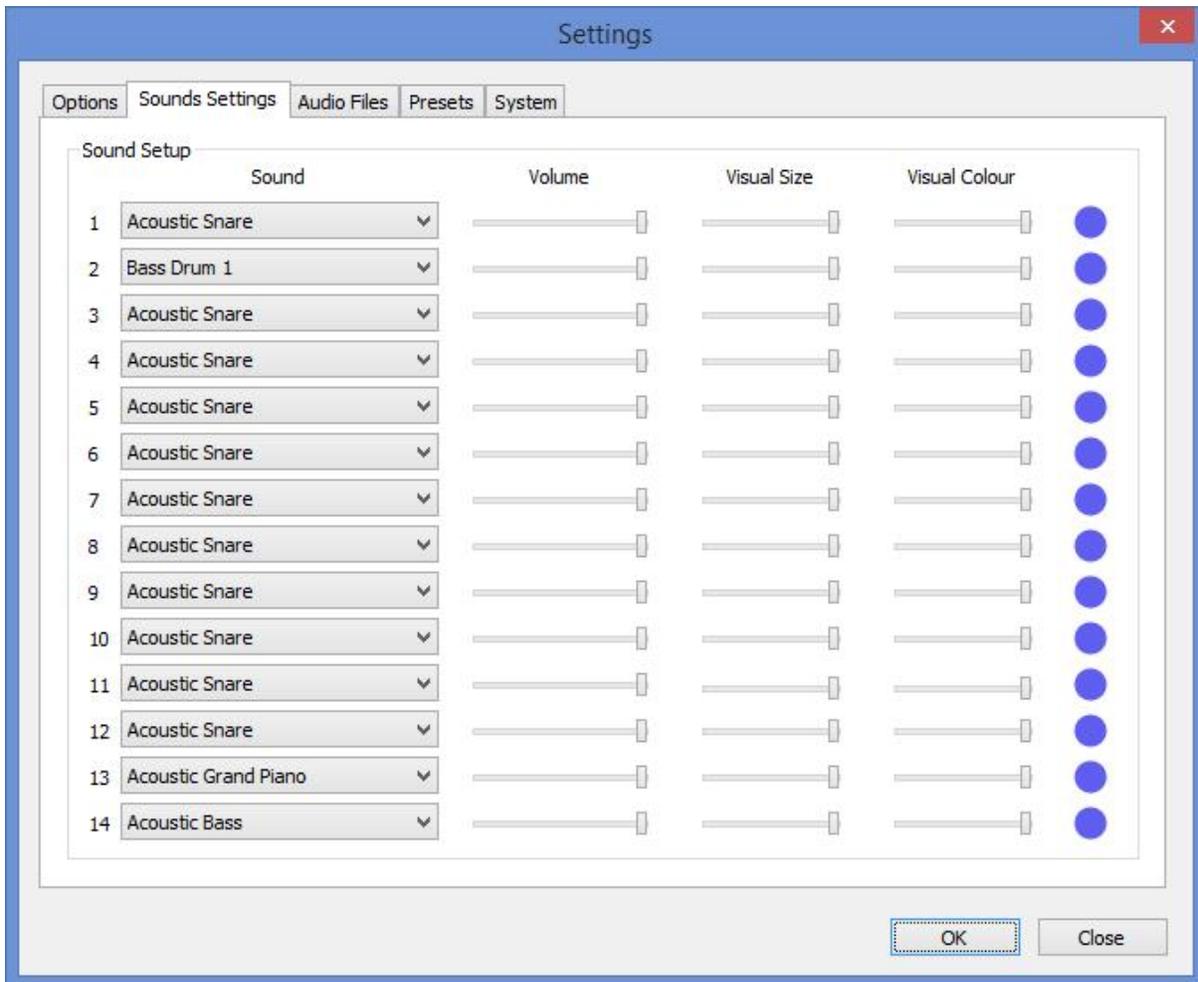
To choose a sound, click on the Sound drop down list for the voice and make your selection.

Figure 8. Selecting a sound in the Sound Settings window:
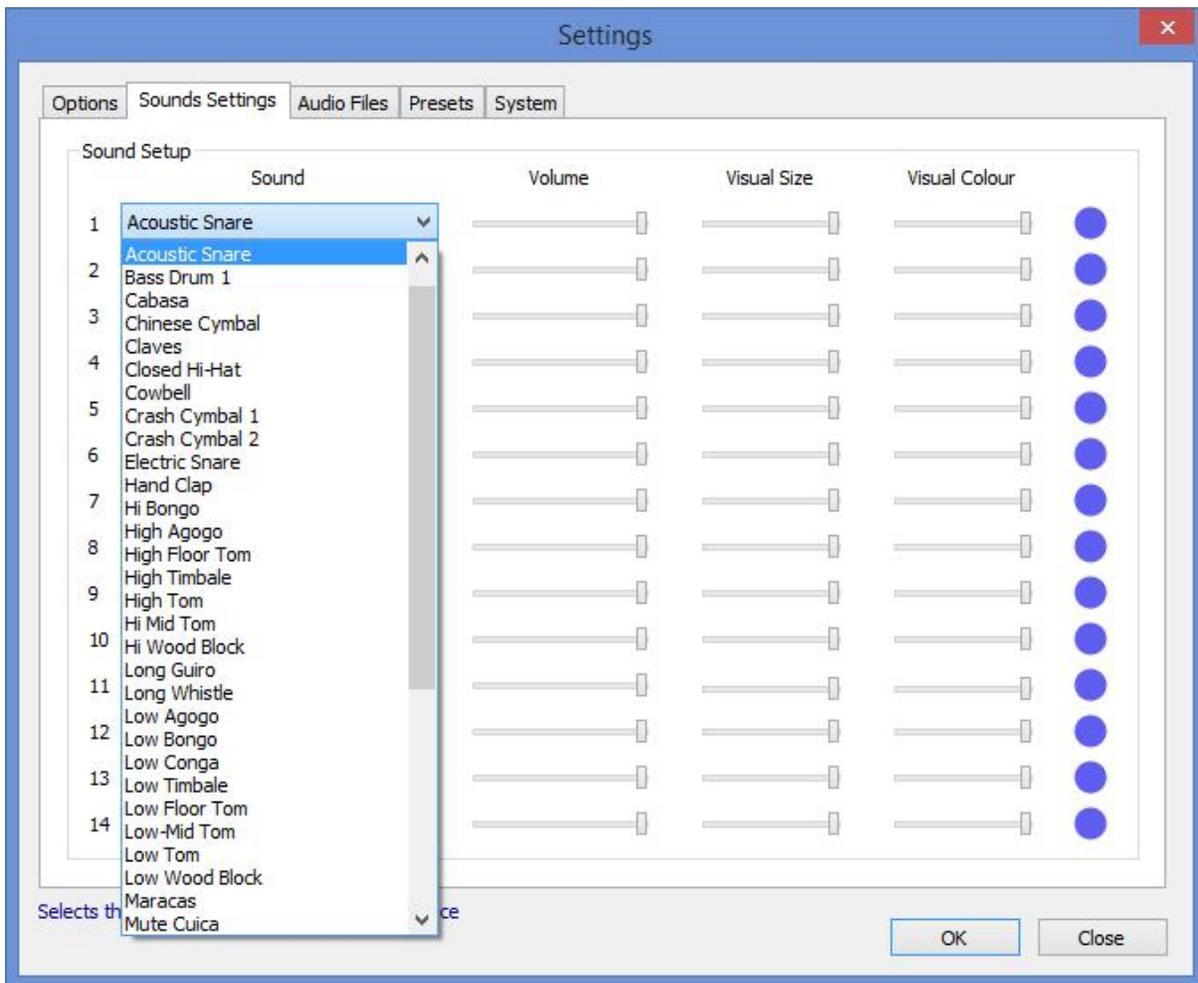
To set the other values move the respective slider to the left or right.

Figure 9. Selecting the size to use for the Visual Beat Indicator:
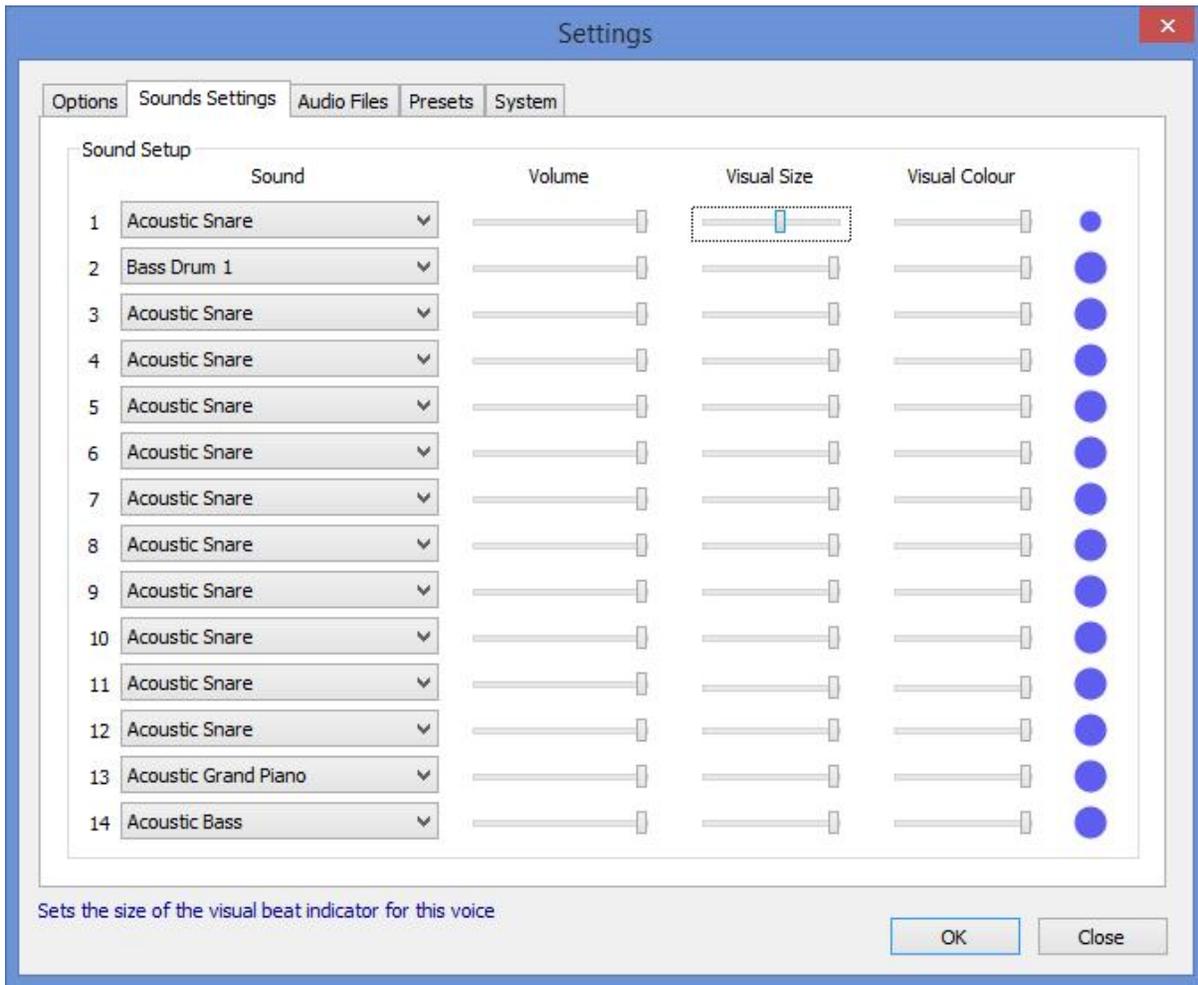
Figure 10. Selecting the colour to use for the Visual Beat Indicator:
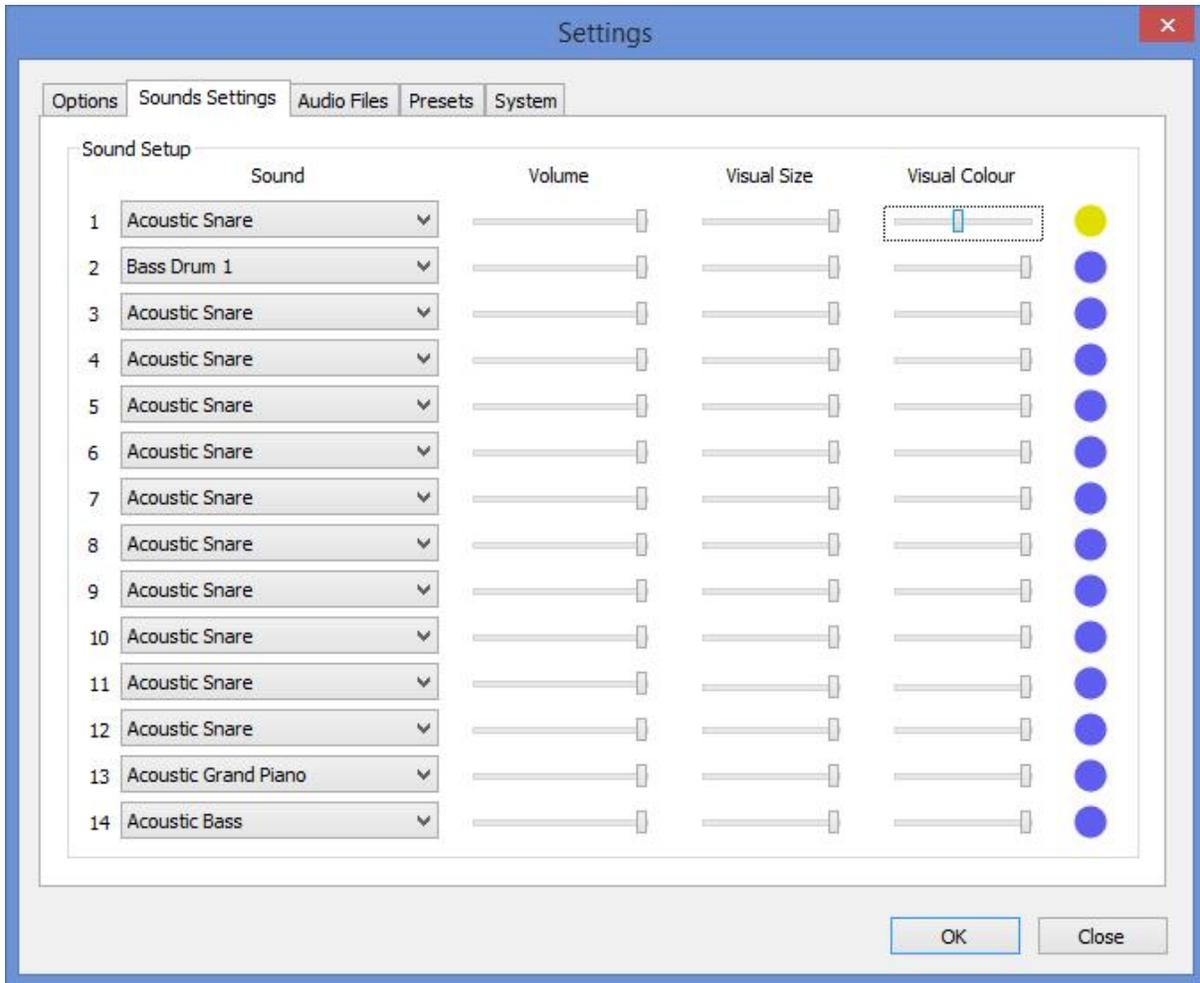
Audio Files

Clicking the Audio Files button on the toolbar or the Audio Files item under the Edit menu opens the Audio Files window. By default Metronome EXP Pro uses Midi as its percussion sound source. However if you have a set of 44.1 kHz 16 bit .wav files that you would prefer to use then load the files in the Audio Files tab, then select 'Audio Files' as the Percussion Sound Source under the System tab. Once this is done the names of the .wav files will be loaded in the Sound Settings window ready for you to make your selection.

Figure 11. The Audio Files window:
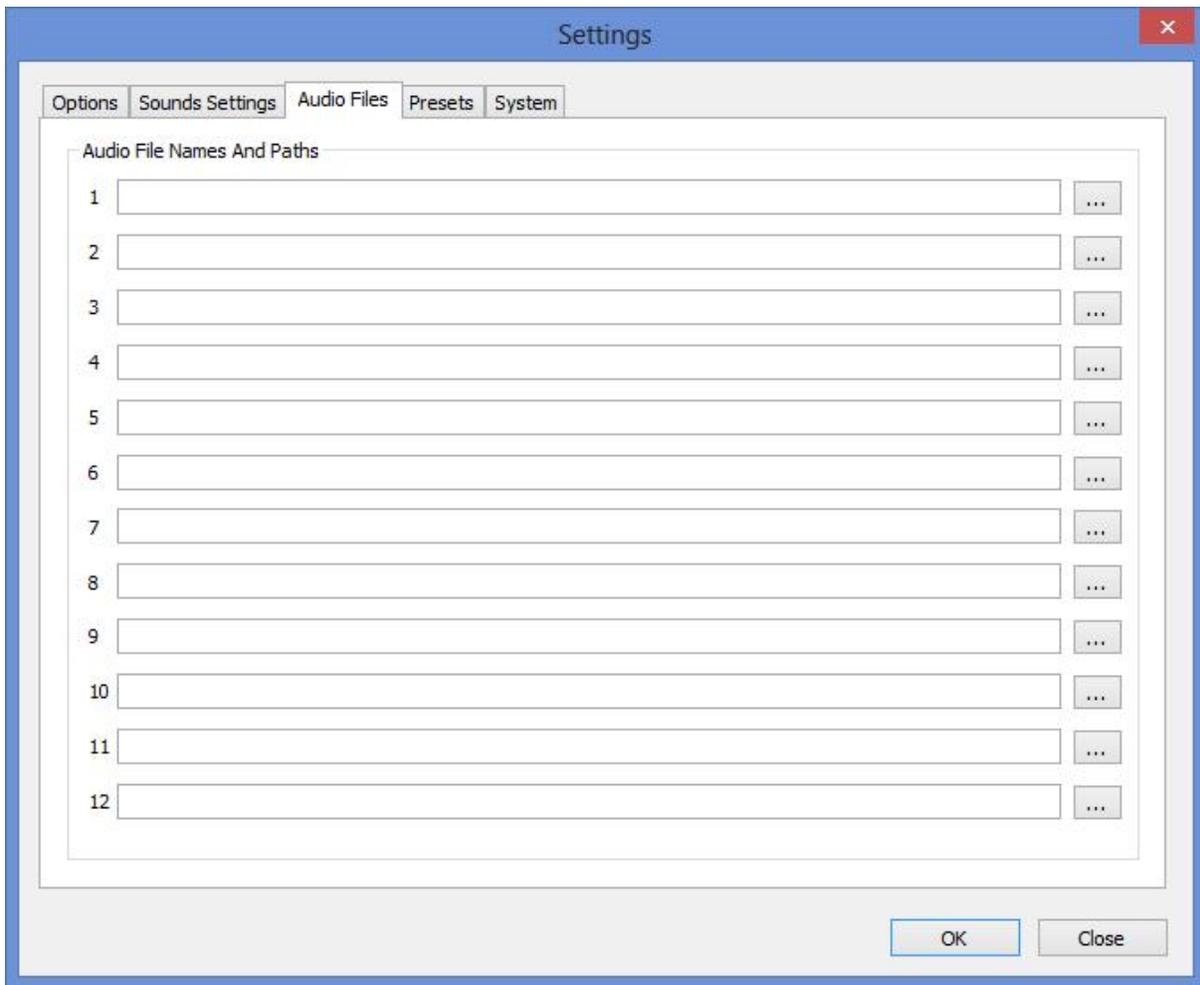
To load a file click the button to the right of the text box with the 3 dots displayed on it. This will open a window where you can select an audio file.

Figure 12. The Open File window:
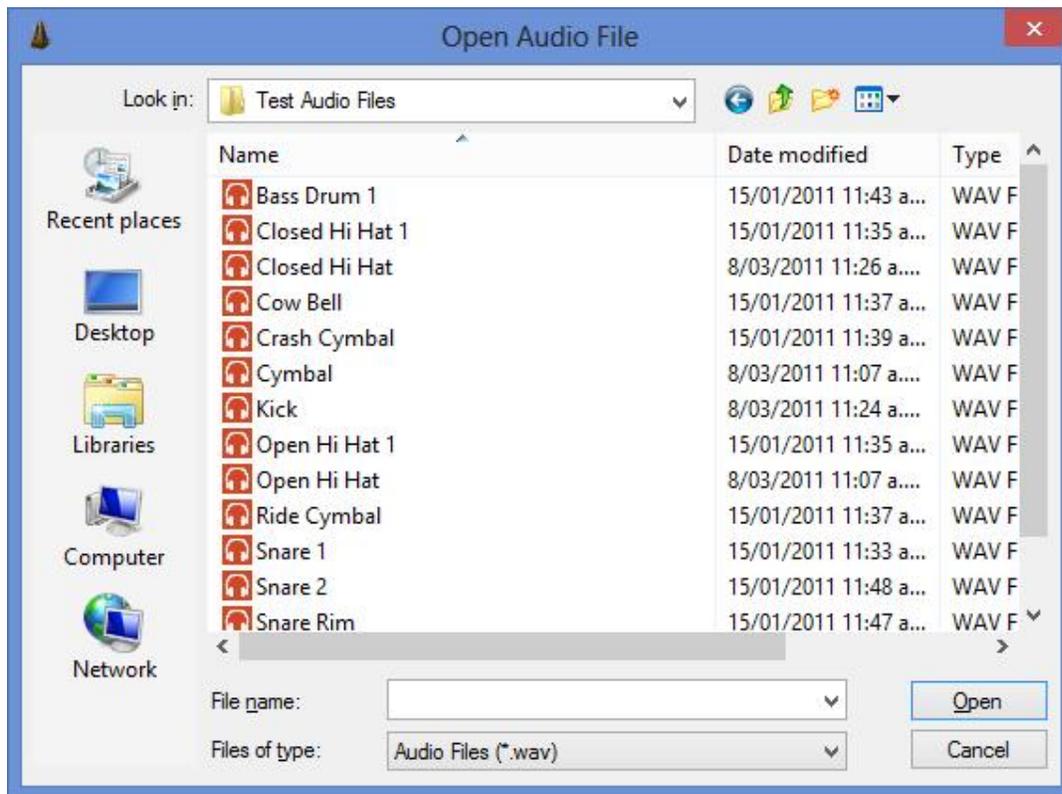
Note that after you have loaded your files you will need to set 'Audio Files' as the Percussion Sound Source on the System tab and then go to the Sound Settings tab and select which file to use for each instrument voice.

If you have audio files that aren't 44.1 kHz 16-bit .wav files download the freeware audio editor Audacity from:

http://audacity.sourceforge.net/

and use this to convert the files to the required format.

Presets

Clicking the Presets button on the toolbar or the Presets item under the Edit menu opens the Presets window. Presets are a way of saving all metronome settings (including the tempo and global volume from the main window) for later recall.

Figure 13. The Presets window:
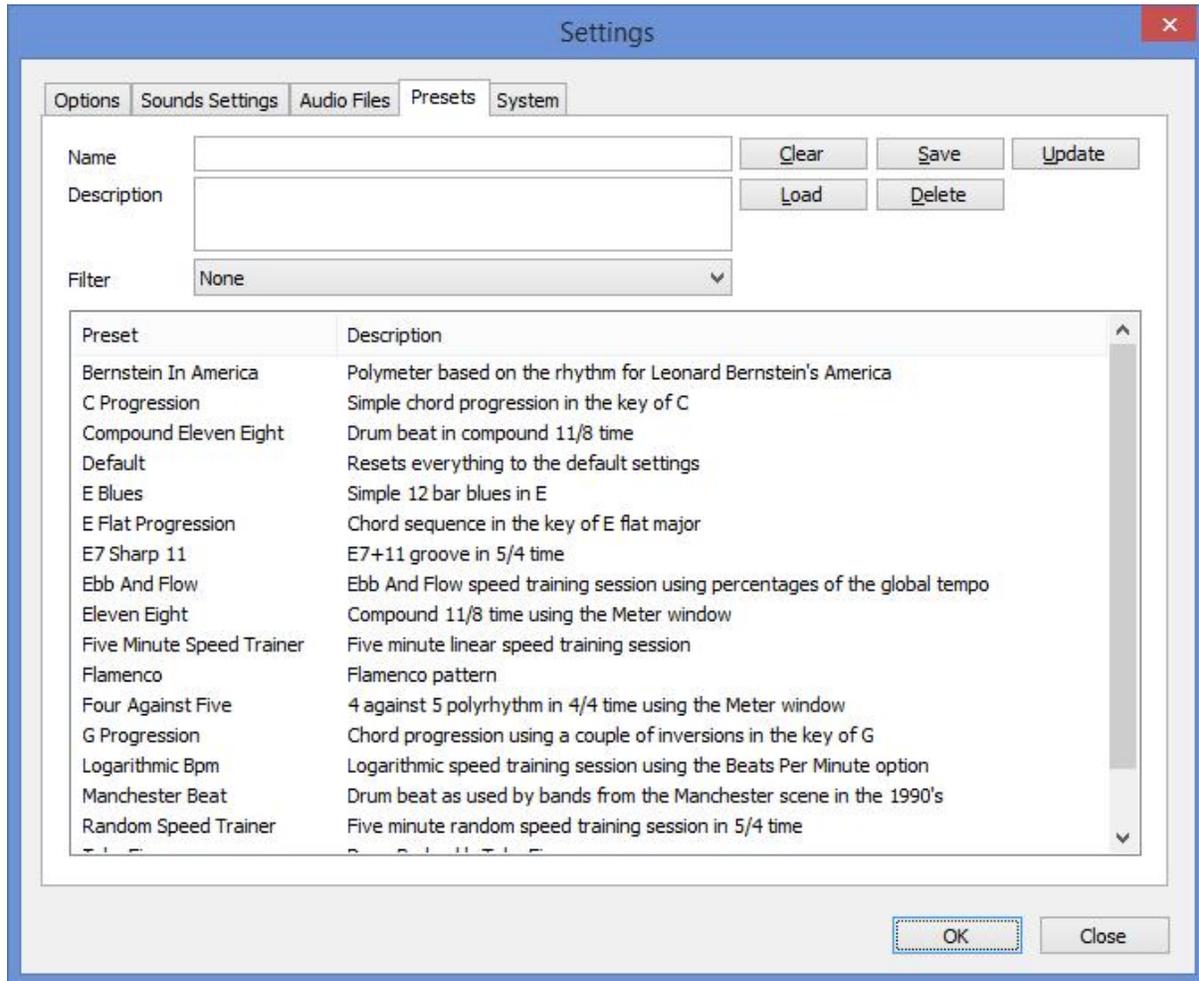
Creating A Preset

To save all current settings enter a name for the preset and a brief description then click the Save button. If a preset already exists with the given name a message box will appear asking if you want to overwrite this preset, or cancel.

Updating A Preset

To save all the current settings to an existing preset select it from the list and then click the Update button. A new name or description for the preset can optionally be entered if these need to be changed.

Loading A Preset

To load a preset either double click it in the list or select it from the list and then click the Load button.

Deleting A Preset

To delete a preset select it from the list, then click the Delete button.

Filtering Displayed Presets

The preset list can be filtered so that it only displays presets of a particular type. To apply a filter, select the type from the filter list. For instance, to display only those presets that use the speed trainer select 'Speed Trainer' as the filter.

Figure 14. The Presets window with the list of filters displayed:
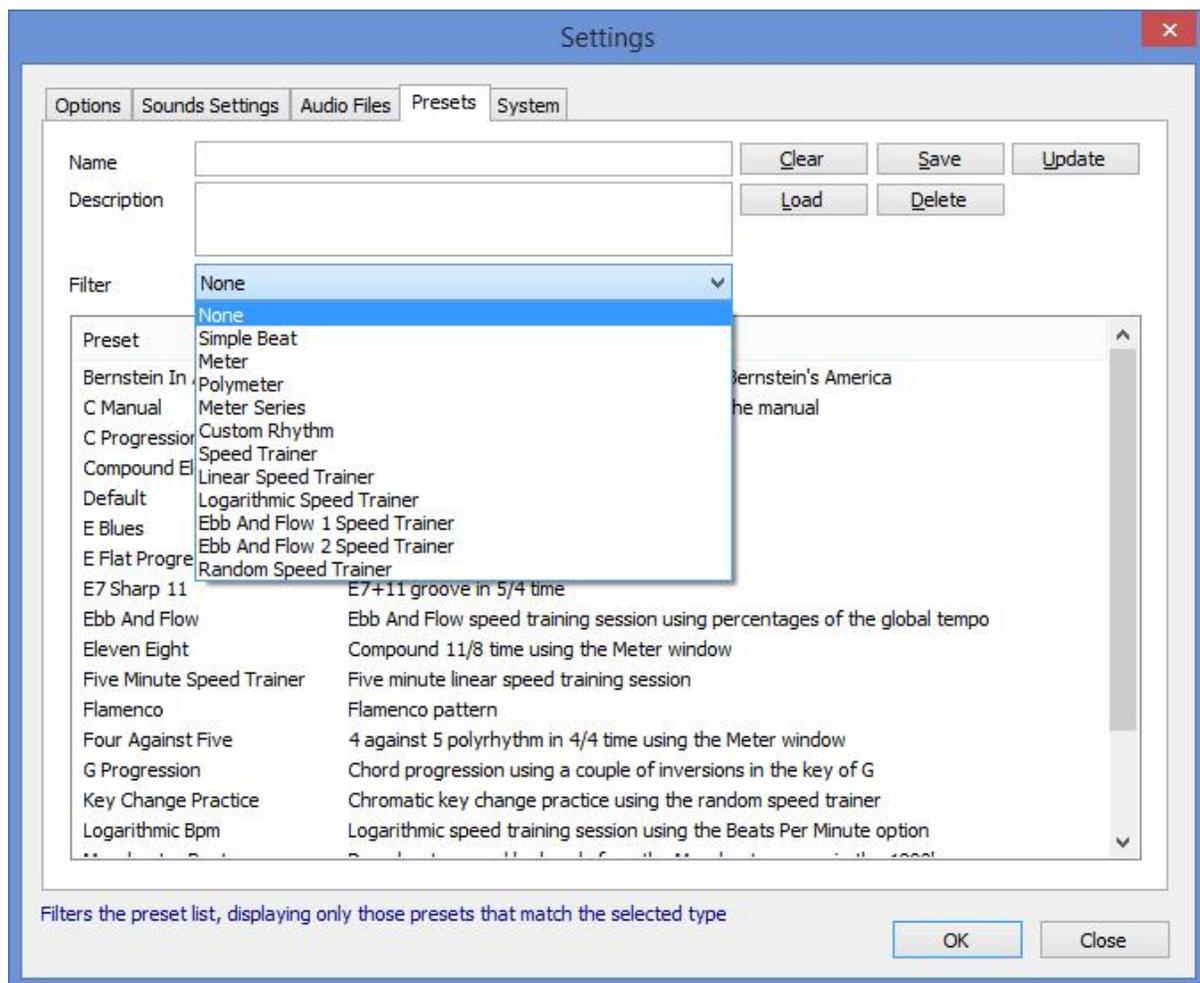
The filter list contains 12 items. The first, 'None' means apply no filter: display all presets. The next 5 will filter the presets based on their beat type. That is, whether they use a Simple Beat, Meter, Polymeter, Meter Series or Custom

Rhythm. The seventh filter, 'Speed Trainer', selects all presets that have the speed trainer enabled, regardless of the type of speed trainer used. The remaining filters select presets based on the specific speed training mode indicated.

Displaying Preset Information

Double clicking an item in the list while holding down the Ctrl key will load the name and description for the preset into the text boxes.

Exchanging Presets

Metronome EXP Pro stores presets in individual files within the Presets folder. The Presets folder is located in the same directory as the metronome itself. The name of each file correlates directly with the name of the preset it contains. For instance, if you had a preset called 'Blues in E' the preset file would be called 'Blues in E.pst' *. The preset files are tiny, generally around 2 kilobytes, and as such can readily exchanged with students or friends via instant messaging applications (eg. Skype) or email.

* The file extension ('.pst') may or may not be visible depending on your Windows folder settings.

A Note To Music Teachers

The ability to exchange presets was partially designed with teachers in mind. Each lesson, or series of lessons, can have an accompanying preset that your students use to practice with for a given period of time. Presets could optionally be graded according to difficulty, giving students something to aspire to, as well as providing teachers with an objective way to measure progress.

System

Selecting System from the Edit menu opens the System window. Here we can select what devices to use for Audio and Midi output, the sound source to use for percussion instruments as well as other system related options.

Figure 15. The System window:
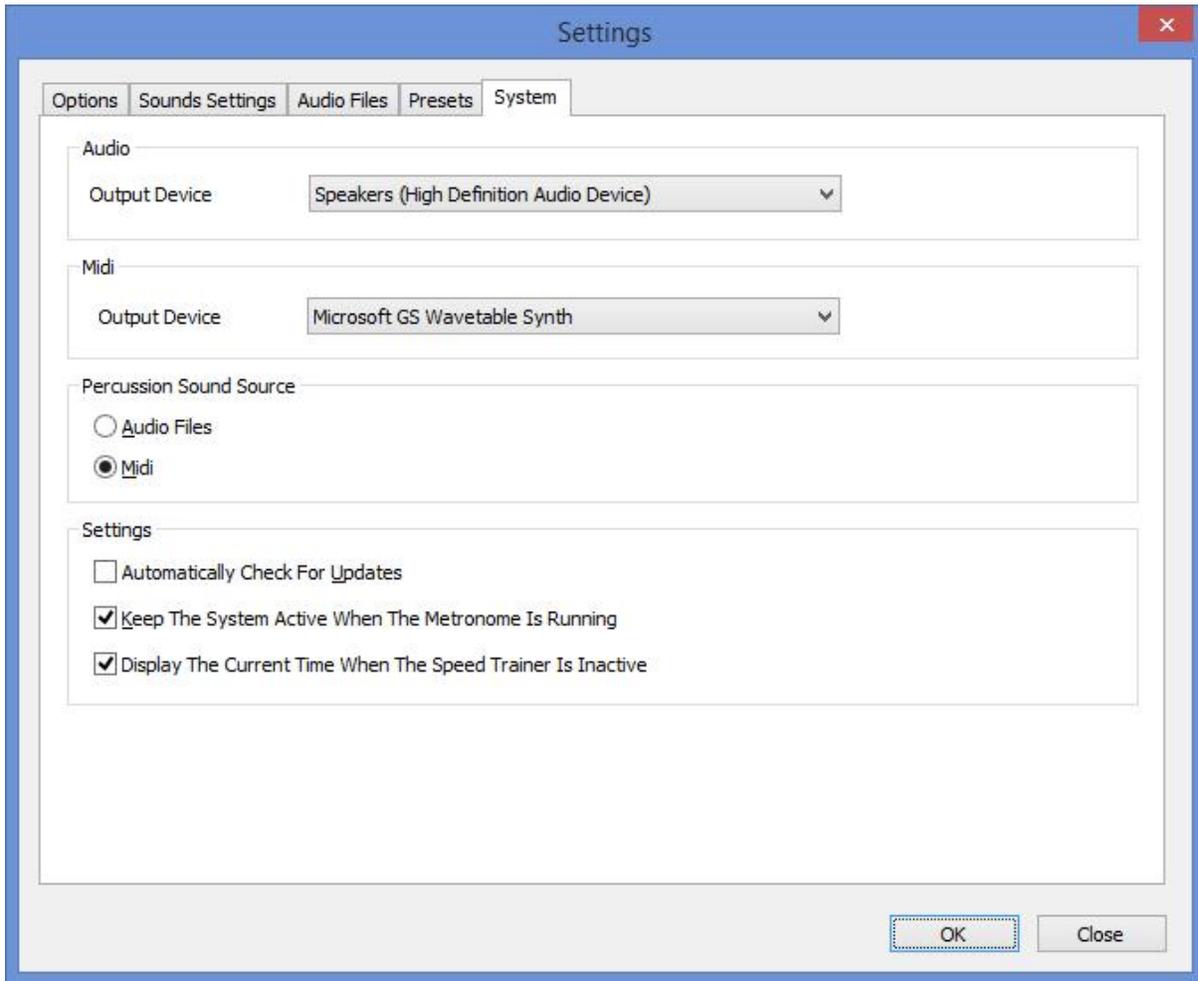
Audio

Using the drop down list select the device to use for audio output. Note that this will only be used if Audio Files has been selected as the Percussion Sound Source. The instruments used to play chord sequences will always use midi as their sound source.

Midi

Using the drop down list select the device to use for Midi output.

Percussion Sound Source

The metronome can use either Midi or audio files (16 bit 44.1khz .wav files) as the sound source for percussion instruments. If you don't know what any of this means don't worry - just leave this set on Midi. The metronome will then use sounds built directly into Windows for sound generation.

Automatically Check For Updates

When the 'Automatically Check For Updates' is selected the metronome will connect to the Expmuse website on start up to see if any updates for Metronome EXP Pro are available. If so it will give you the option to download and install them. See the Updates section later in this manual for more information.

Keep The System Active When The Metronome Is Running

When this option is selected the metronome will prevent the system from displaying the screen saver, entering sleep or turning off the display while the metronome is running. Note that this setting has no effect on the screen saver on Windows Vista and later if password protection is enabled by policy.

Display The Current Time When The Speed Trainer Is Inactive

When this option is selected the metronome will display the current time when the speed trainer isn't being used. When in standard mode the time will be displayed in the title bar. When running in full screen mode the clock will appear just beneath the visual beat indicator.

So, why have a clock in a metronome? It's not uncommon to want to practice a particular technique for a set period of time. This could be accomplished by switching on the speed trainer and using identical settings for the 'From' and 'To' values, creating a timed session that runs at one tempo. However it's easier to simply have a clock available and use this to time the various parts of your practice schedule.

Latency Issues

When creating custom rhythms with audio files as the percussion sound source and Microsoft's GS Wavetable Synth as the midi output device you may notice a lag between the time a drum beat is played and when a chord or bass line is heard. This is because the driver for Microsoft's GS Wavetable Synth can take anything from 10 to over 100 milliseconds, depending on the system, to produce audio output. If using audio files as your percussion sound source we recommend using an alternative midi output device if one is available on your system. If one isn't available a workaround is to install Virtual Midi Synth and use this as the midi output device. To do this:

1. Download Virtual Midi Synth from:

http://coolsoft.altervista.org/en/virtualmidisynth

2. Download one of the free sound fonts listed on the same page:

http://coolsoft.altervista.org/en/virtualmidisynth#soundfonts

3. Install Virtual Midi Synth

4. Open Virtual Midi Synth, select the Soundfonts tab and add the sound font just downloaded to the synth.

5. In the advanced options tab, reduce the additional output buffer. You may need to experiment with the settings here.

6. In Metronome EXP Pro select Virtual Midi Synth as the midi output device.

The Meter Window

Selecting Meter as the Beat Type under Options and then clicking the 'Meter...' button opens the Meter window. Here we can quickly create anything from a simple time signature to an irregular meter utilising polyrhythms.

Figure 16. The Meter window:
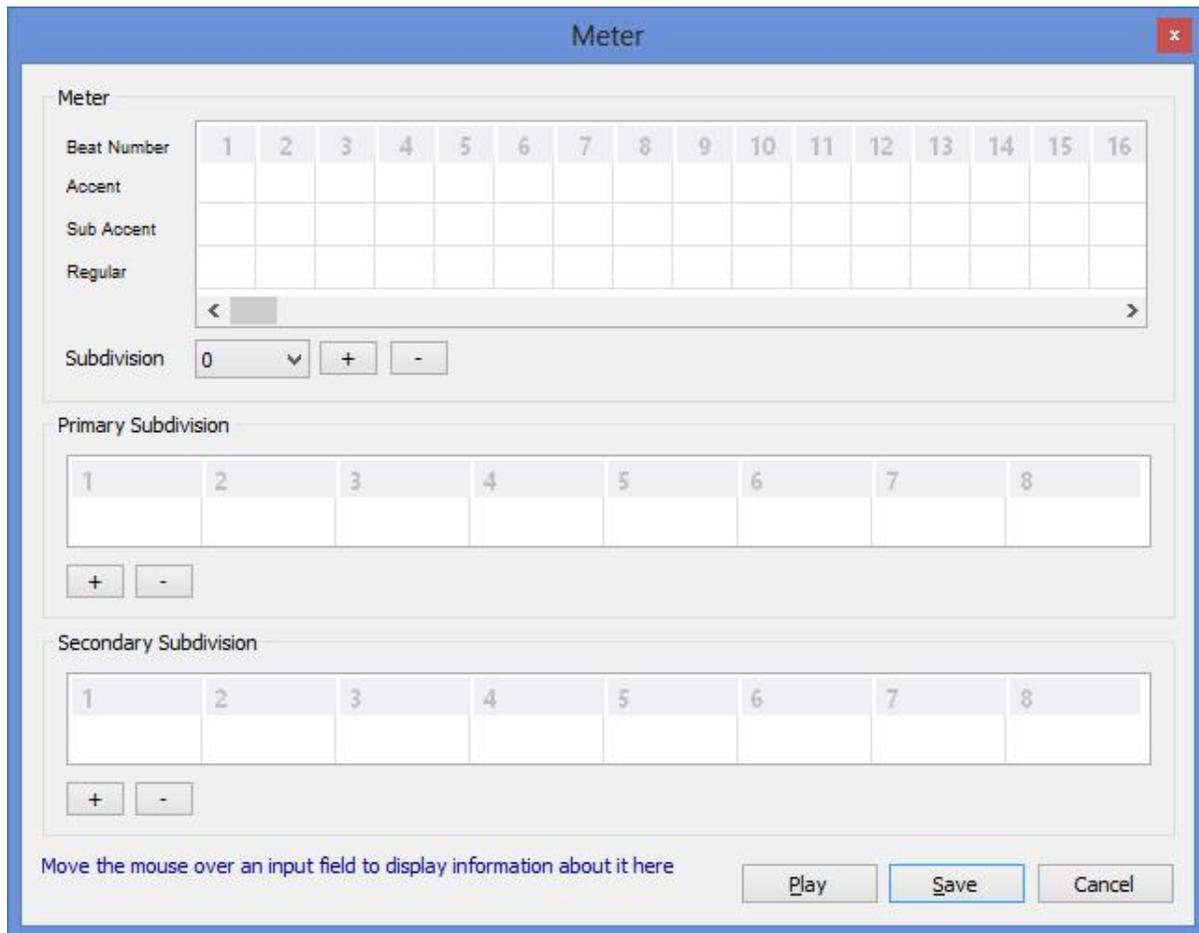
There are 3 sections in the Meter window: Meter, Primary Subdivision and Secondary Subdivision. The first of these, the Meter section, is at the top of the window. This is where the actual time signature we would like the metronome to play is defined. In Figure 16 above we can see that the main part of the Meter section consists of a grid with a series of beat numbers at the top. The Meter section uses Sound 1 for accents, Sound 2 for sub accents and Sound 3 for regular beats.

Creating a meter involves activating the number of beats required, and then entering the actual beats we want played on the grid. For instance, to create a simple time signature with 4 beats in every bar we activate the first 4 beats in the grid by either:

1. Clicking on the number 4 at the top of the grid

2. Pressing the '+' button below the grid 4 times

3. Moving the mouse over the numbers at the top while holding the left mouse button down, stopping on the 4.

When we do this the Meter window should look like Figure 17 below.

Figure 17. The Meter window with 4 beats activated:
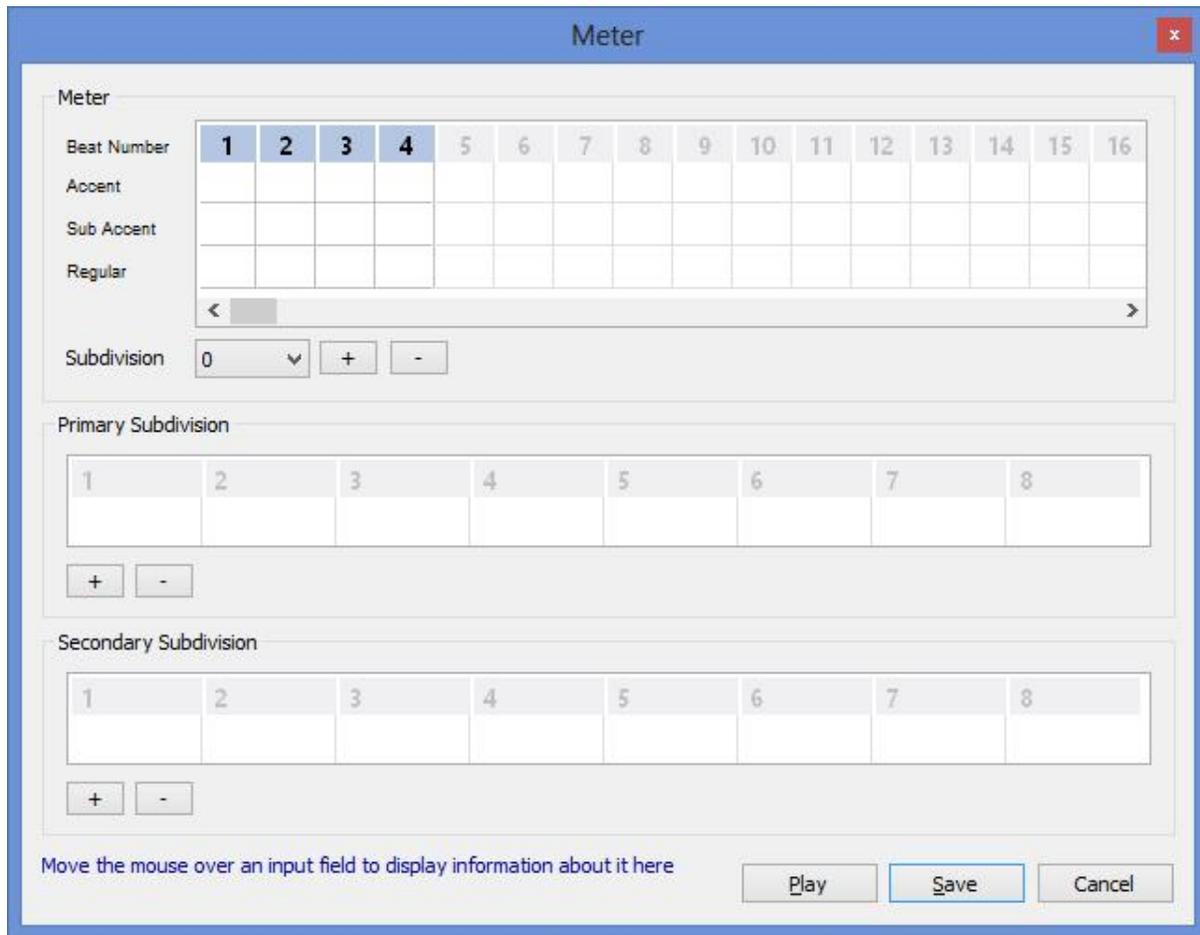
Then we add the actual beats by clicking in the either the Accent, Sub Accent or Regular parts of the grid for each beat. For instance if we added an accent on beat one, with regular beats for the rest of the bar we would end up with Figure 18.

Figure 18. The Meter window with a 4 beats per bar time signature entered:
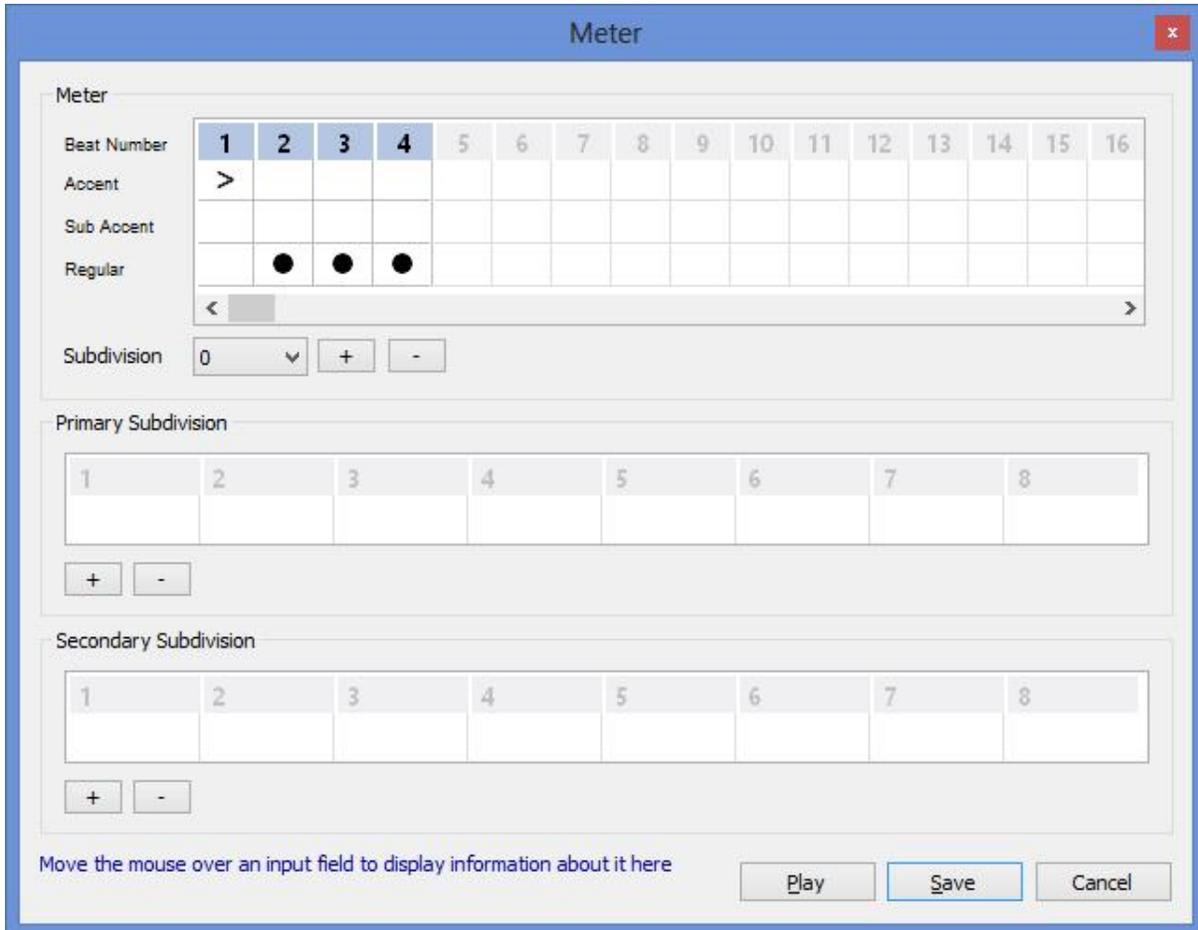
However we can go further than this. We can add a subdivision to the meter by selecting a value from the Subdivision drop down list just below and to the left of the grid. We can then place accents somewhere in between beats. For instance in Figure 19 the subdivision has been set to 2, causing the grid for each beat to be divided into 2 segments, each representing a subdivision. Sub accents have been placed on the second half of each beat.

Figure 19. The Meter window with the subdivision set to 2
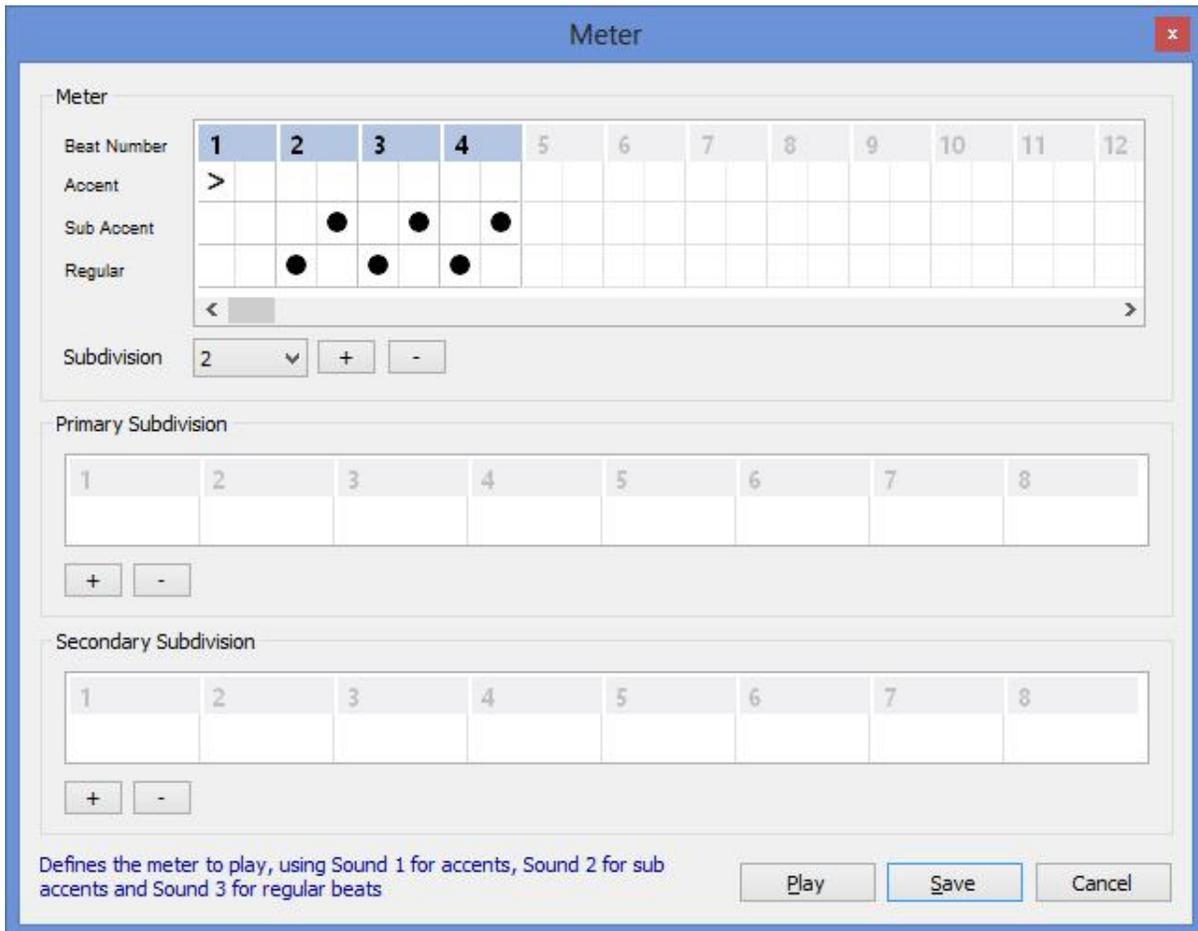
Individual segments in the final beat can be removed allowing for the creation of irregular meters. For instance in Figure 20 the Meter window is set to play compound 11/8 time. This has been done by setting the subdivision to 3, and then clicking the '-' button to remove the last active segment. Alternatively we could simply have clicked in the coloured area at the top of the last active segment to deactivate it.

Figure 20. The Meter window with the final beat set to a different subdivision
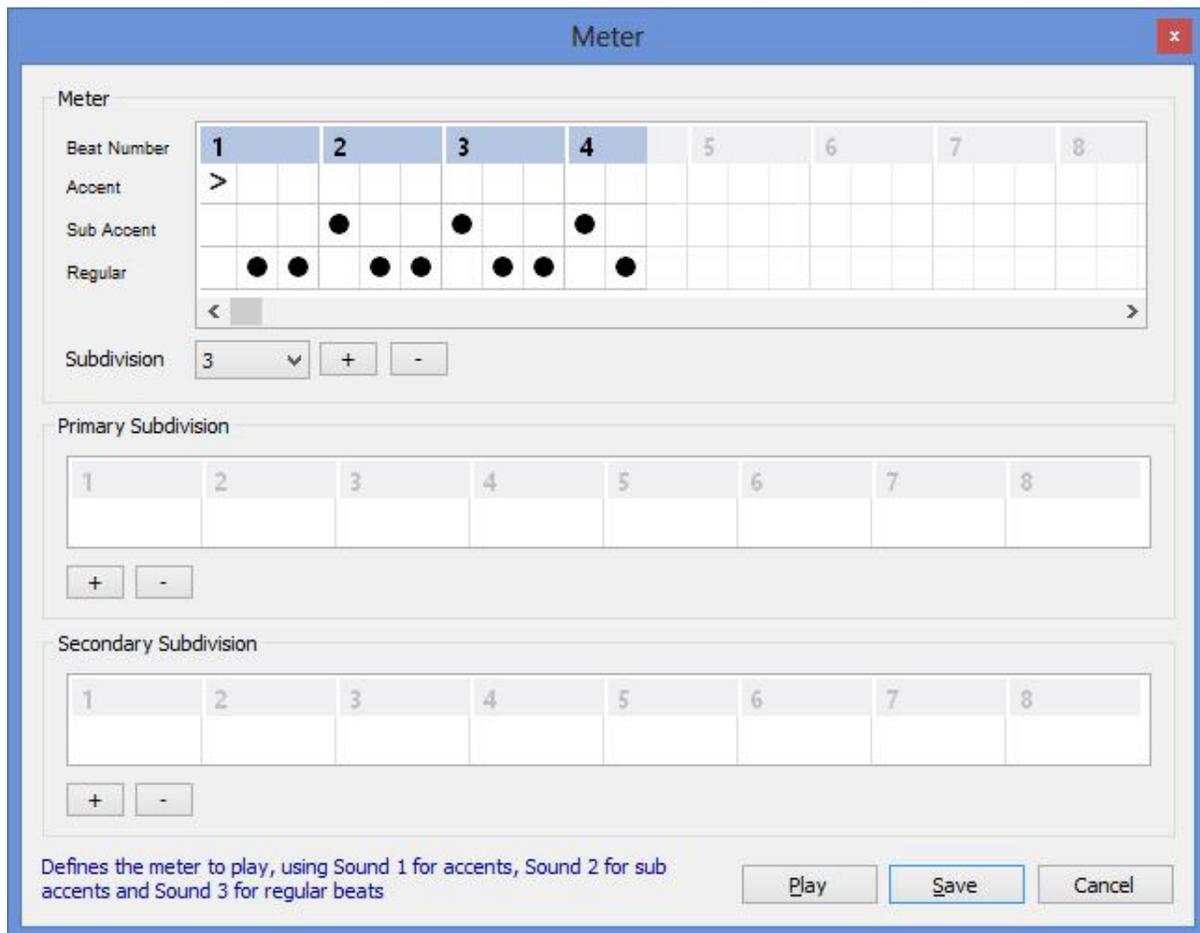
Adding Subdivisions To The Meter

The Meter section at the top of the Meter window allows us to place accents in various parts of the beat by subdividing the beat. However sometimes we want to add a subdivision that is played identically for every beat in the bar. This is where the Primary and Secondary Subdivision sections come into play. These sections function in a similar fashion to the Meter section. That is, we activate the number of subdivisions we want, and then click in the grid to add the subdivisions we actually want played.

For instance, in Figure 21 the Meter section is set to play 4/4 time, with the Primary Subdivision set to 3.

Figure 21. The Meter window with the Primary Subdivision set to 3
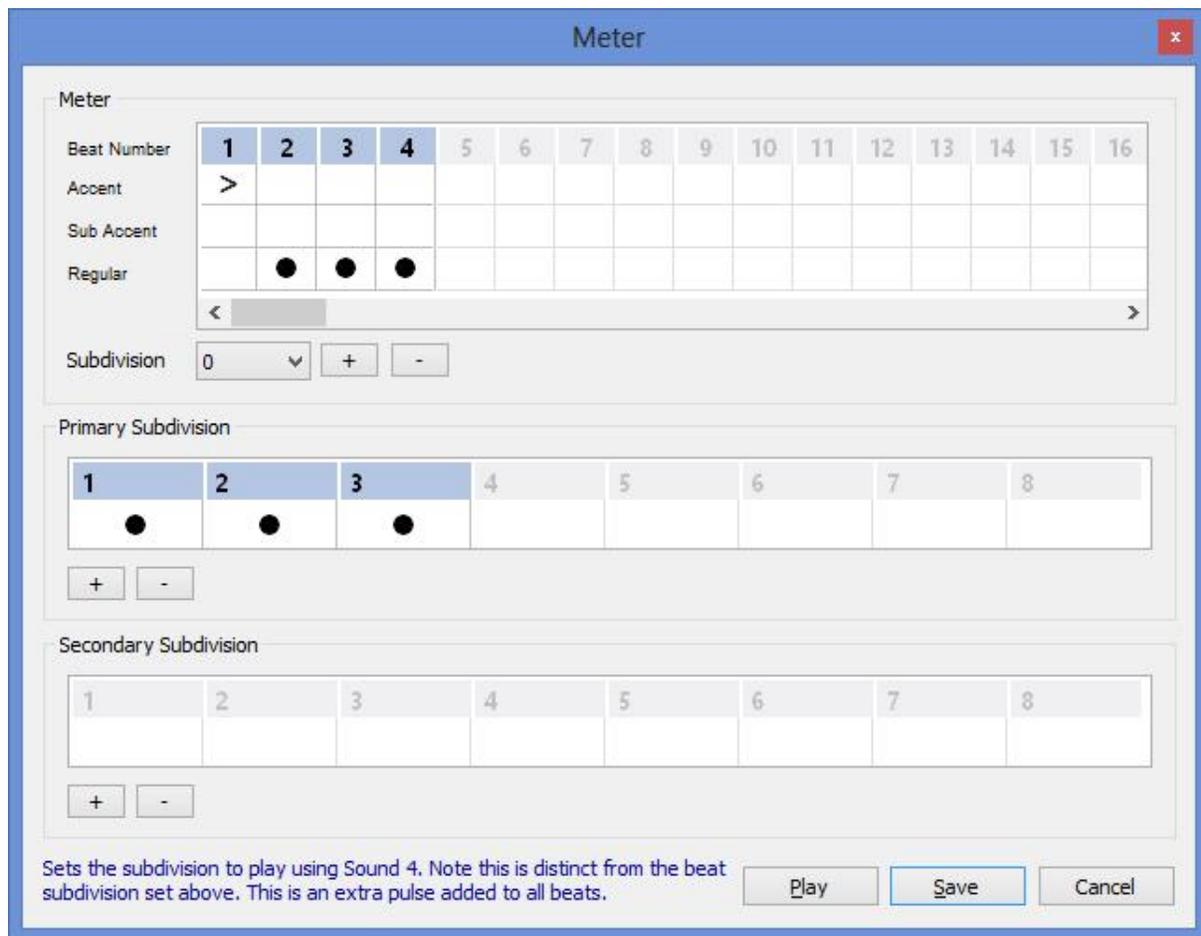
In Figure 22 we have the Meter section dividing the beat into 2, with the Primary Subdivision set to 3. Note that the Primary Subdivision is only playing the first and third subdivisions here, the second has been dropped.

Figure 22. The Meter window with both the Meter subdivision and Primary Subdivision active
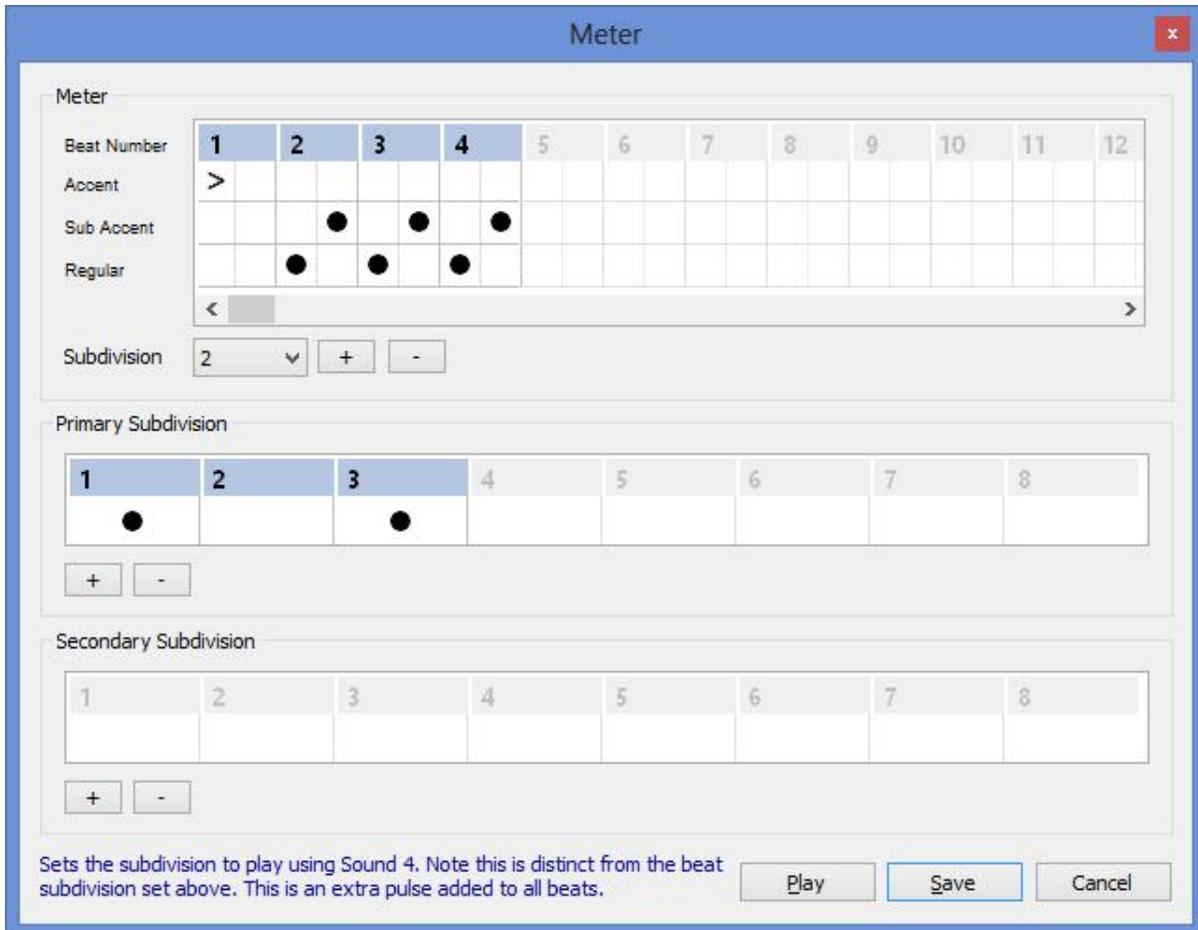
The Secondary Subdivision section works identically to the Primary Subdivision. Using the 2 together allows us to create polyrhythms. For instance, in Figure 23 the Primary Subdivision is set to 3, and the Secondary Subdivision is set to 5, with only the first, third and fifth subdivisions actually being played.

Figure 23. Using a Primary and Secondary subdivision:
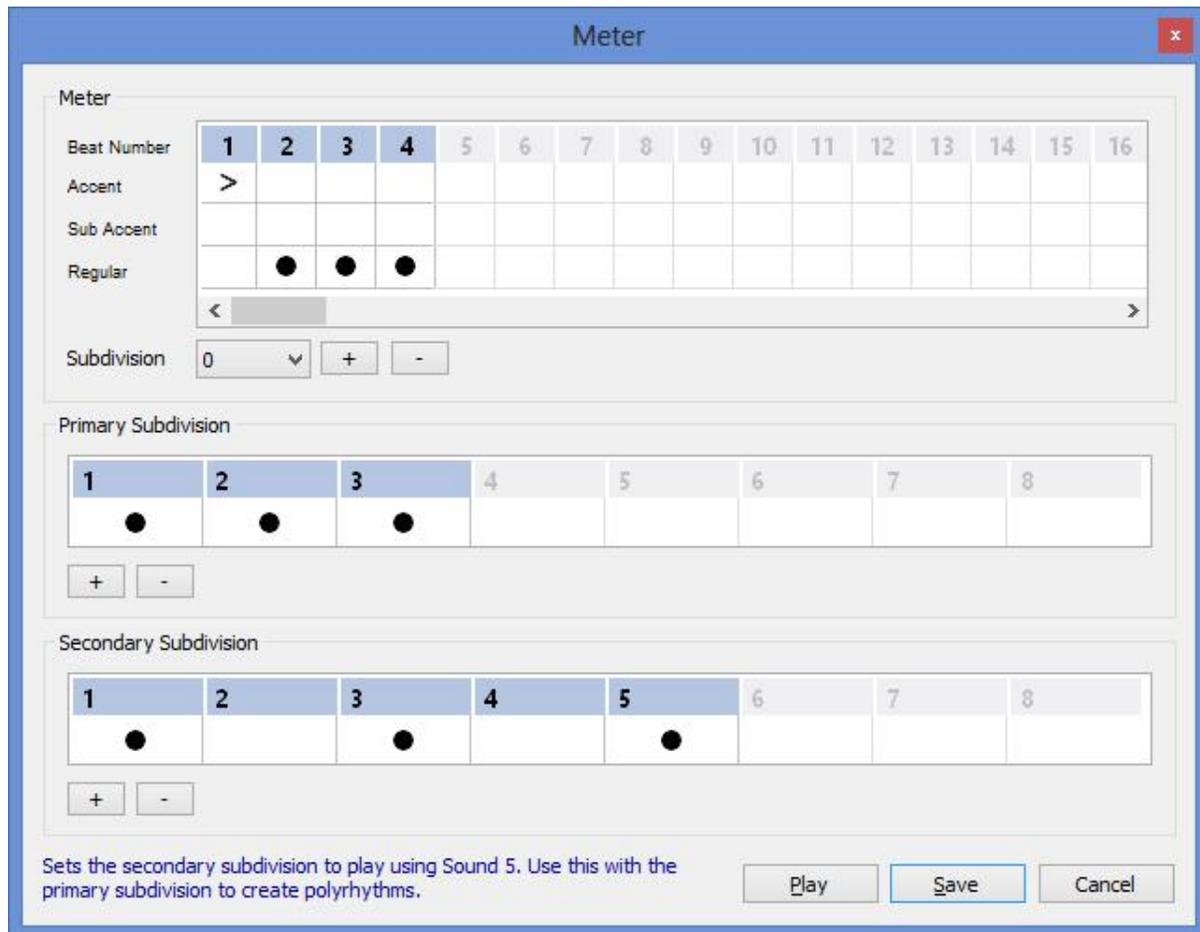
Auditioning A Meter

To hear what a meter sounds like before saving it click the 'Play' button.

Changing The Tempo

To increase the tempo for the meter, click the up arrow on your keyboard. Conversely to decrease the tempo, click the down arrow. The new tempo will be displayed at the bottom left of the window.

Changing The Volume

To increase the volume for the meter, click the right arrow on your keyboard.

Conversely to decrease the volume, click the left arrow. The new volume will be displayed at the bottom left of the window.

Changing Instrument Settings

Right clicking on either the Accent, Sub Accent or Regular rows in the control, or on one of the Subdivision controls, will display the Instrument Settings window seen in Figure 24.

Figure 24. The Instrument Settings window:
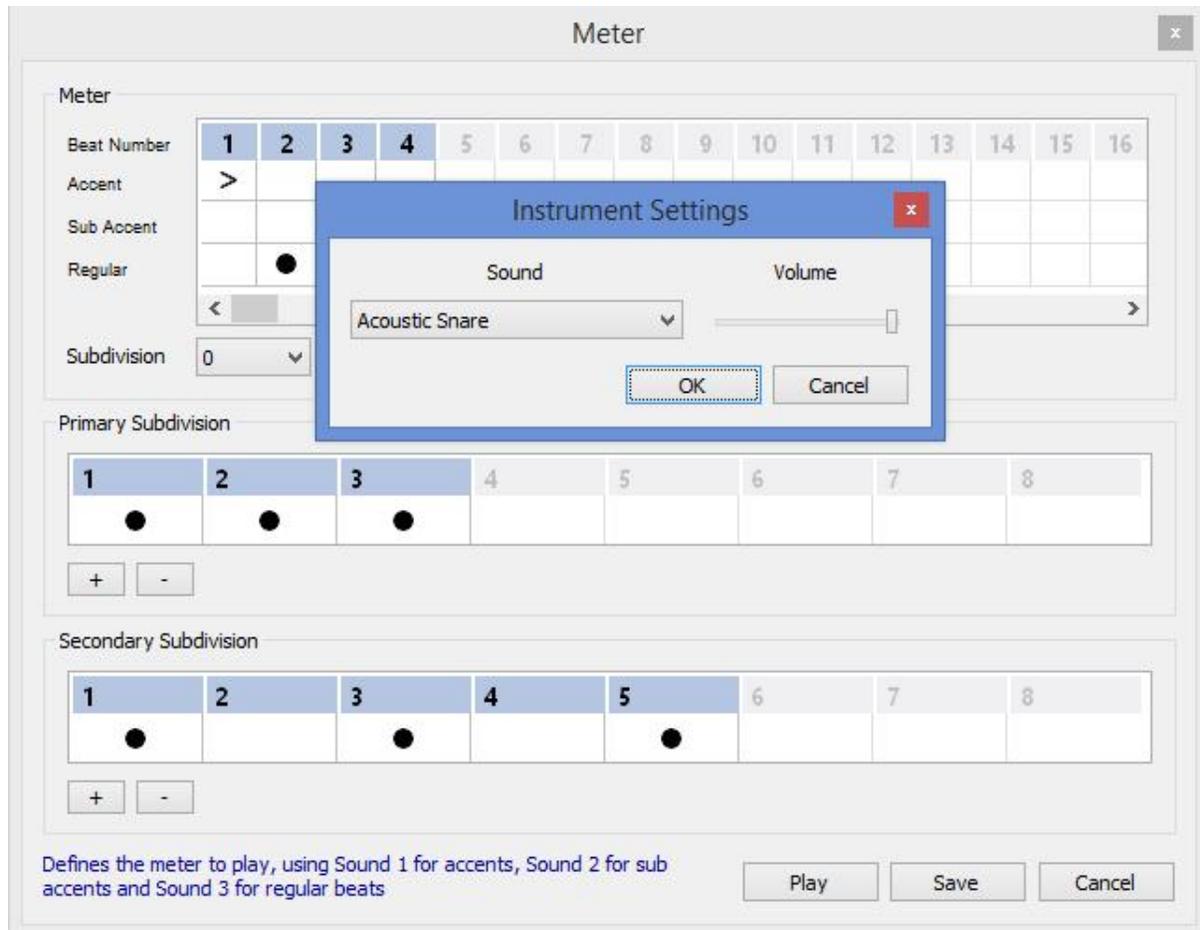
When this window opens it will display the current settings. To change the sound used select an instrument from the list. To decrease the volume for an instrument, move the volume slider to the left. To increase it, move the slider to the right.

Saving A Meter

To save a meter, click the 'Save' button.

The Polymeter Window

Selecting Polymeter as the Beat Type under Options and then clicking the 'Polymeter…' button will open the Polymeter window. The Polymeter window has 2 Meter sections, allowing us to define 2 meters that can be played either simultaneously or in alternation. Both sections work identically to that found in the Meter window (see the previous section in this manual).

Figure 25. The Polymeter window:
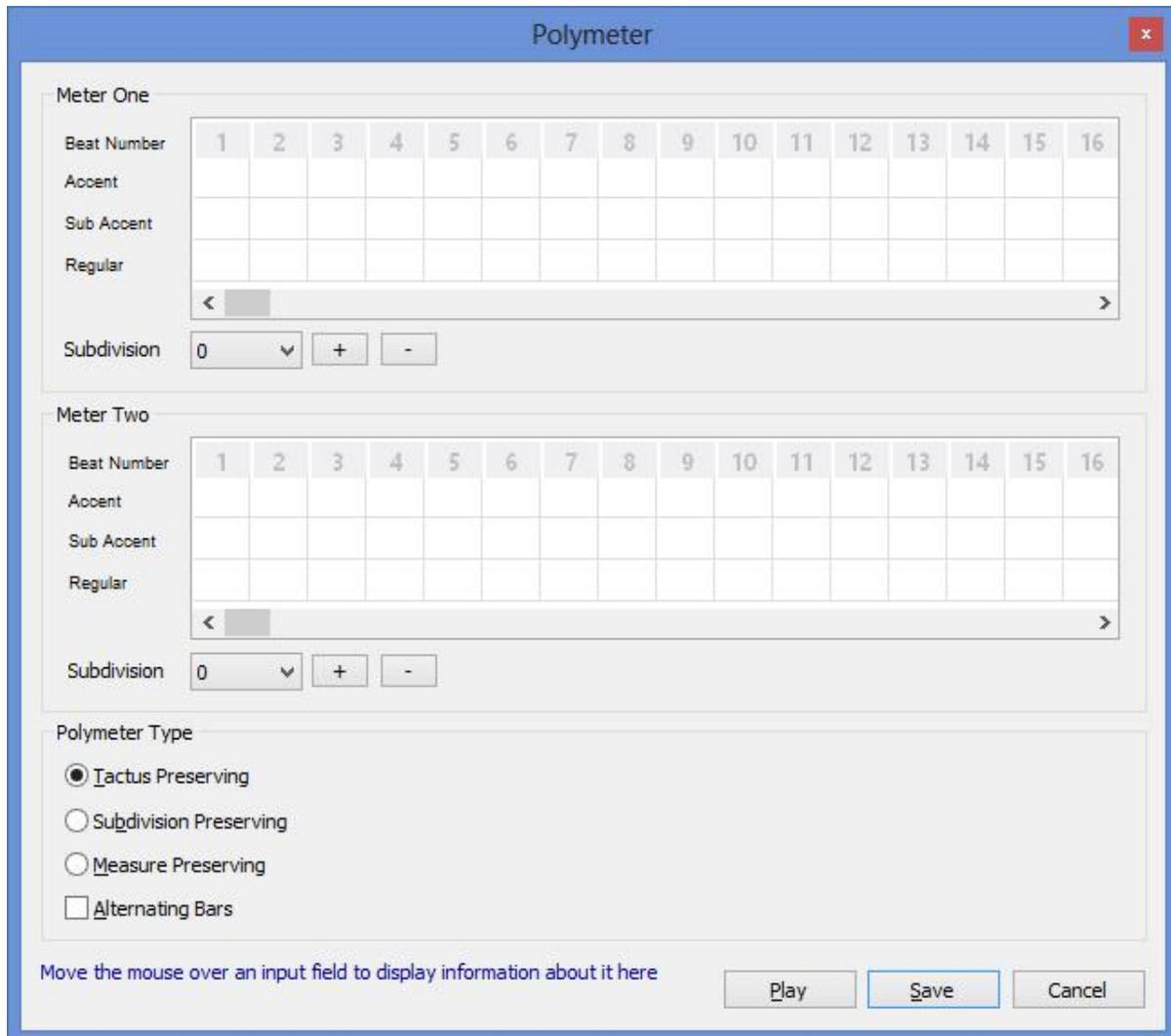
The Polymeter window defines a number of polymeter types. These are:

1. **Tactus Preserving Polymeter**. The beat is preserved, with the 2 measures taking different lengths of time to complete a bar. Since the beat is the same, the various meters will eventually agree. For instance, 4 measures of 3/4 = 3 measures of 4/4.

2. **Subdivision Preserving Polymeter**. The subdivision is preserved, with the 2 measures taking different lengths of time to complete a bar.

3. **Measure Preserving Polymeter**. The 2 meters take exactly the same length of time to complete one bar. This is essentially a polyrhythm.

If the 'Alternating Bars' option is selected the meters will be played in alternation. That is, one bar of the first meter will be followed by one bar of the second, and so on. If this option isn't selected the 2 meters will play simultaneously.

Figure 26. The Polymeter window with 2 meters defined:
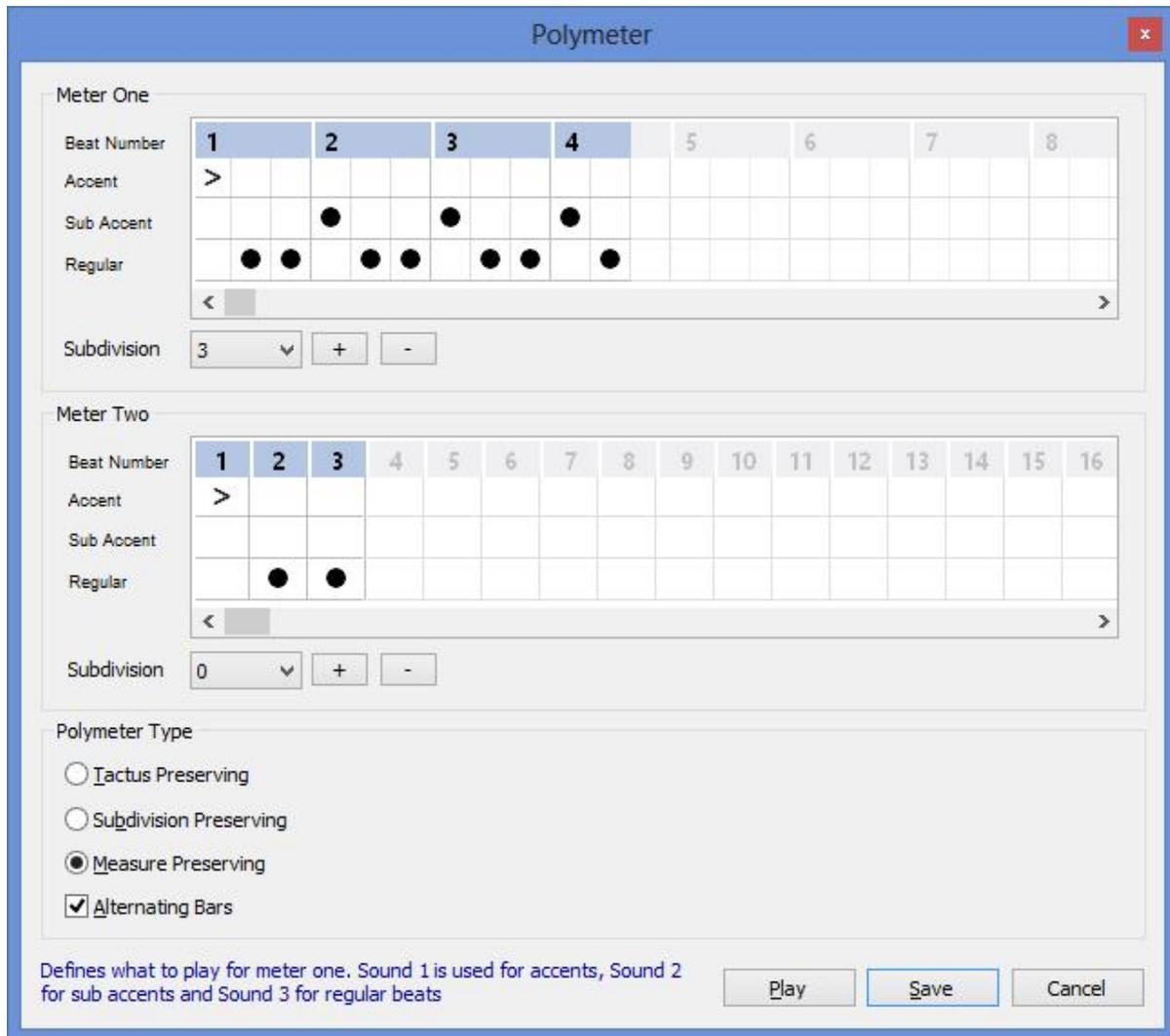
Auditioning A Meter

To hear what a polymeter sounds like before saving it click the 'Play' button.

Changing The Tempo

To increase the tempo for the polymeter, click the up arrow on your keyboard. Conversely to decrease the tempo, click the down arrow. The new tempo will be displayed at the bottom left of the window.

Changing The Volume

To increase the volume for the polymeter, click the right arrow on your keyboard. Conversely to decrease the volume, click the left arrow. The new volume will be displayed at the bottom left of the window.

Changing Instrument Settings

To change the sounds used for any part of either meter right click on the respective row. This will display the Instrument Settings window. When this window opens it will display the current settings. To change the sound used select an instrument from the list. To decrease the volume for an instrument, move the volume slider to the left. To increase it, move the slider to the right.

Figure 27. The Instrument Settings window:
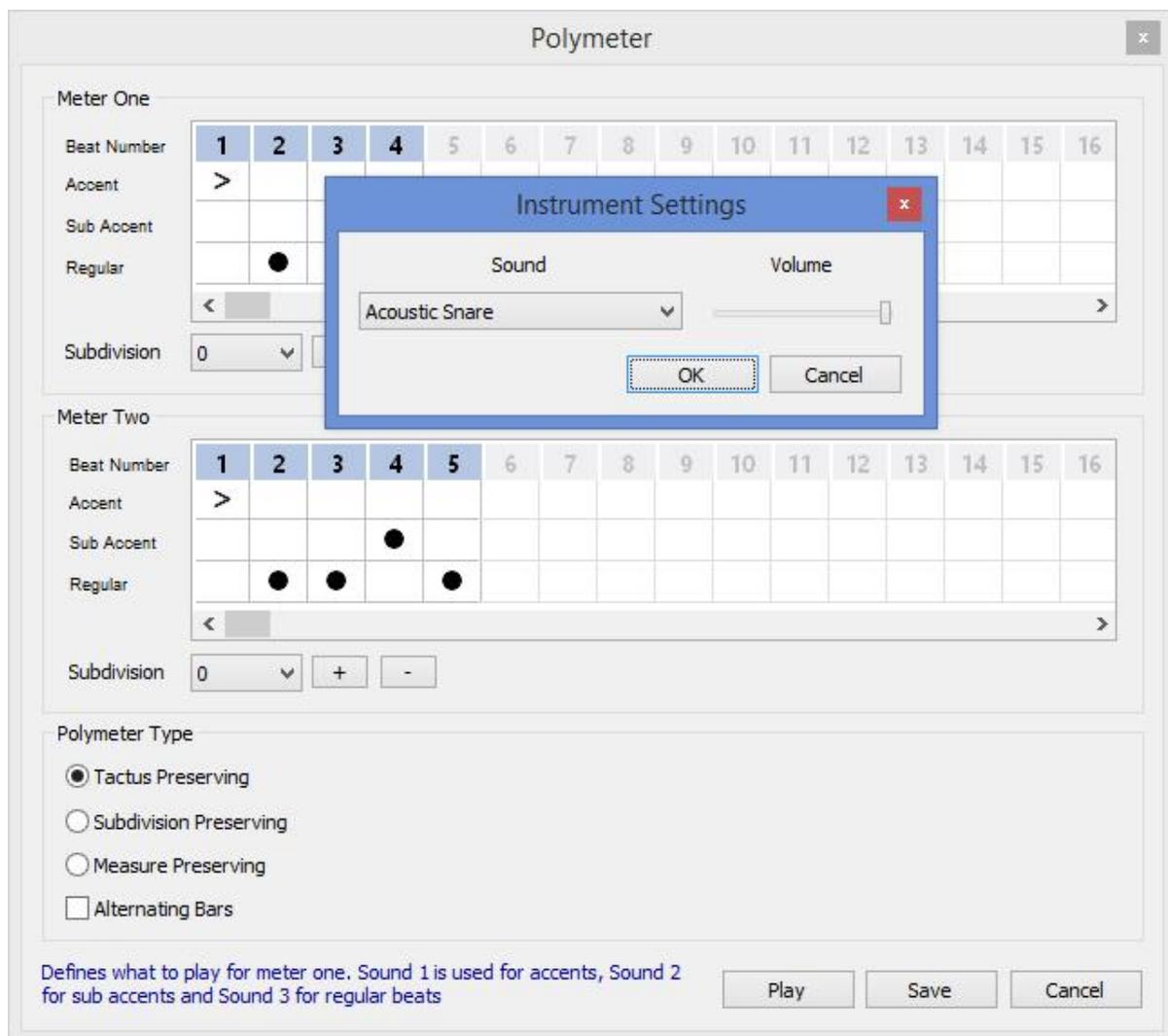
Saving A Polymeter

To save a polymeter, click the 'Save' button.

Polymeter Visual Beat Indicator Display

When running in standard mode the Visual Beat Indicator will display meter one for all polymeter types except when Alternating Bars is selected. When this option is enabled the Visual Beat Indicator will display meter one and meter two in alternation.

However when running in Full Screen mode meter one is displayed on the left of the screen, with meter 2 on the right.

Figure 28. Visual Beat Indicator display when using polymeters in full screen mode
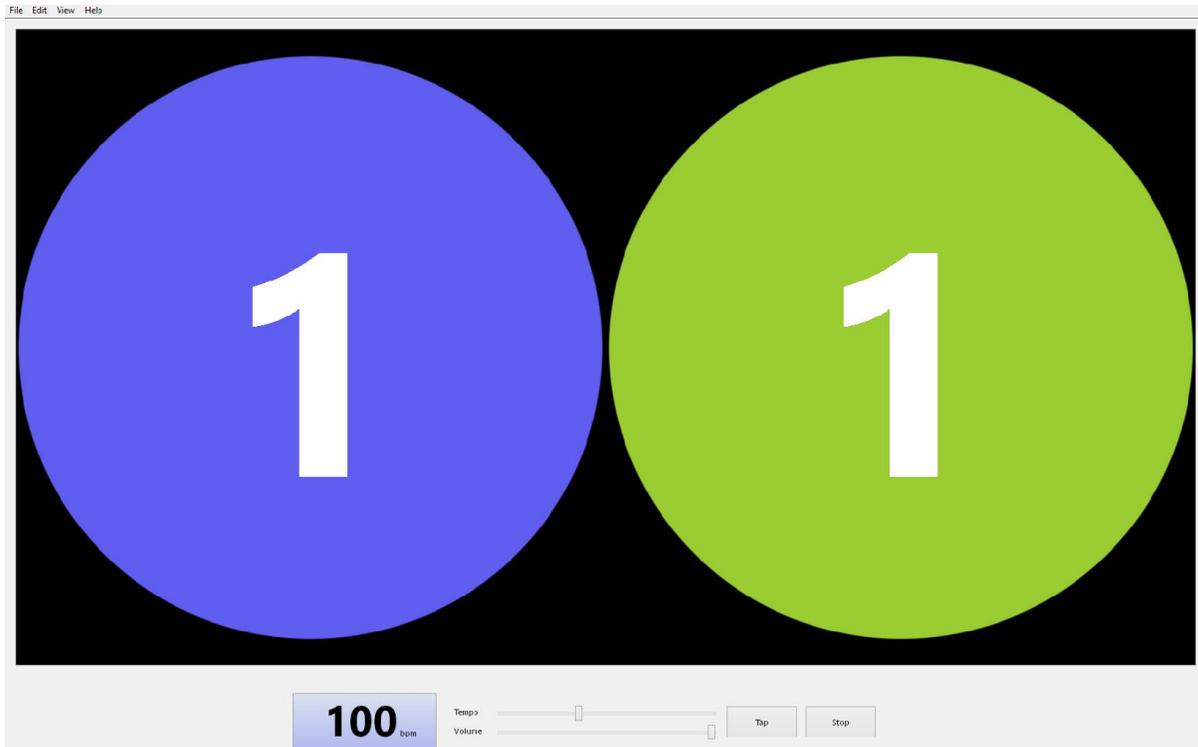
The Meter Series Window

Selecting Meter Series as the Beat Type under Options and then clicking the 'Meter Series...' button will open the Meter Series window. The Meter Series window has 6 tabs, labelled Meter One through to Meter Six. Using the controls we can define up to 6 time signatures to be played in sequence. We can also set how many bars each meter should be played for before moving on to the next meter in the series. The controls on each meter tab work identically to those found in the Meter window (see the Meter Window section in this manual).

Figure 29. The Meter Series window:
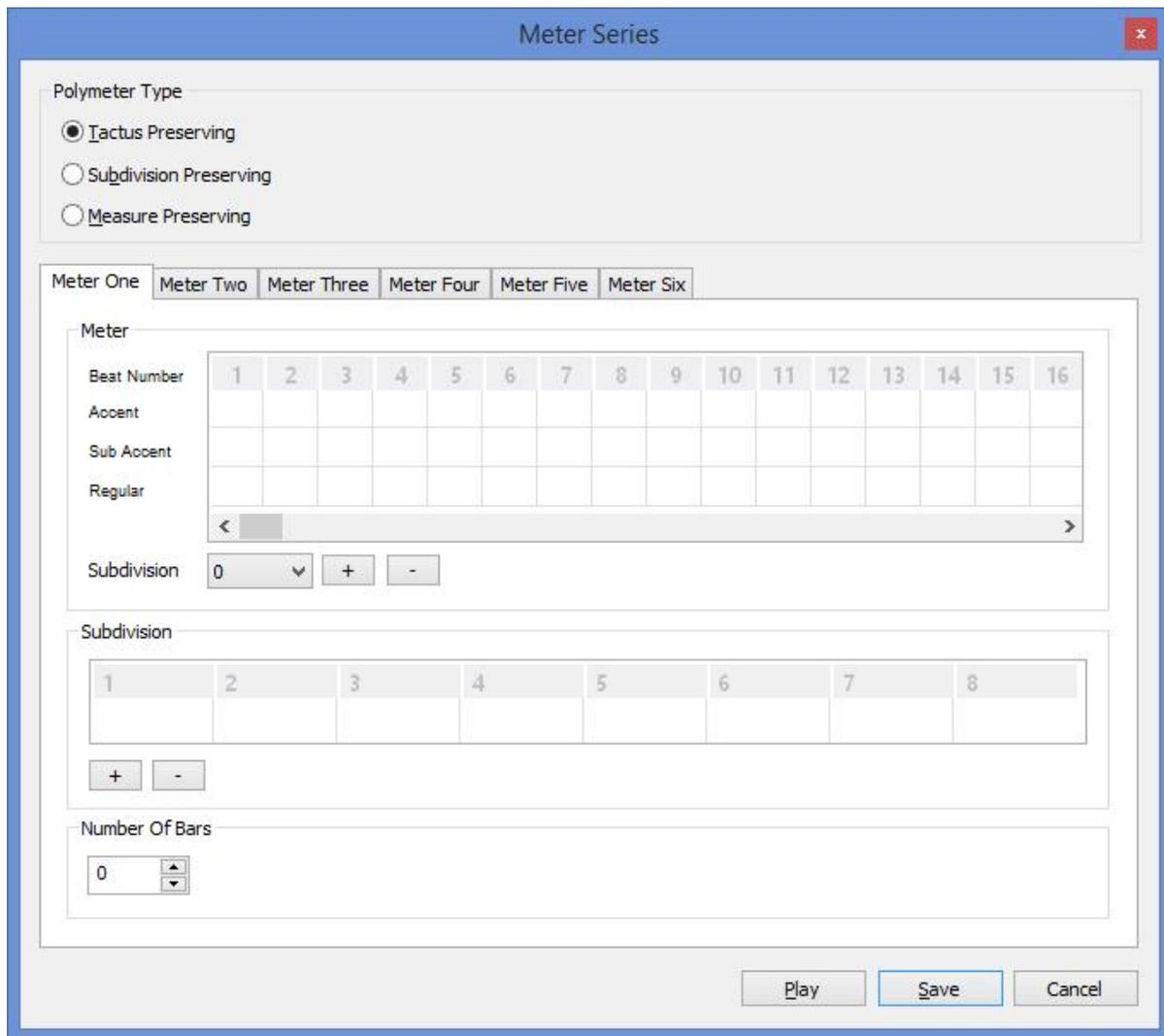
Like the Polymeter Window the Meter Series defines a number of polymeter types. These are:

1. **Tactus Preserving Polymeter**. The beat is preserved, with the meters taking different lengths of time to complete a bar.

2. **Subdivision Preserving Polymeter**. The subdivision is preserved, with the meters taking different lengths of time to complete a bar. Note that if a meter has different subdivisions defined in the meter and subdivision controls the effective subdivision will be the product of these 2 values. For instance, if the meter subdivision is set to 3, with the subdivision control having 2 active divisions the subdivision actually used for the meter will be 6.

3. **Measure Preserving Polymeter**. The meters take exactly the same length of time to complete one bar. Please note that a measure preserving series with complex subdivisions can potentially exhaust system resources. If this happens a message box will appear advising you to decrease the number of subdivisions used.

Figure 30. The Meter Series window with a meter defined:
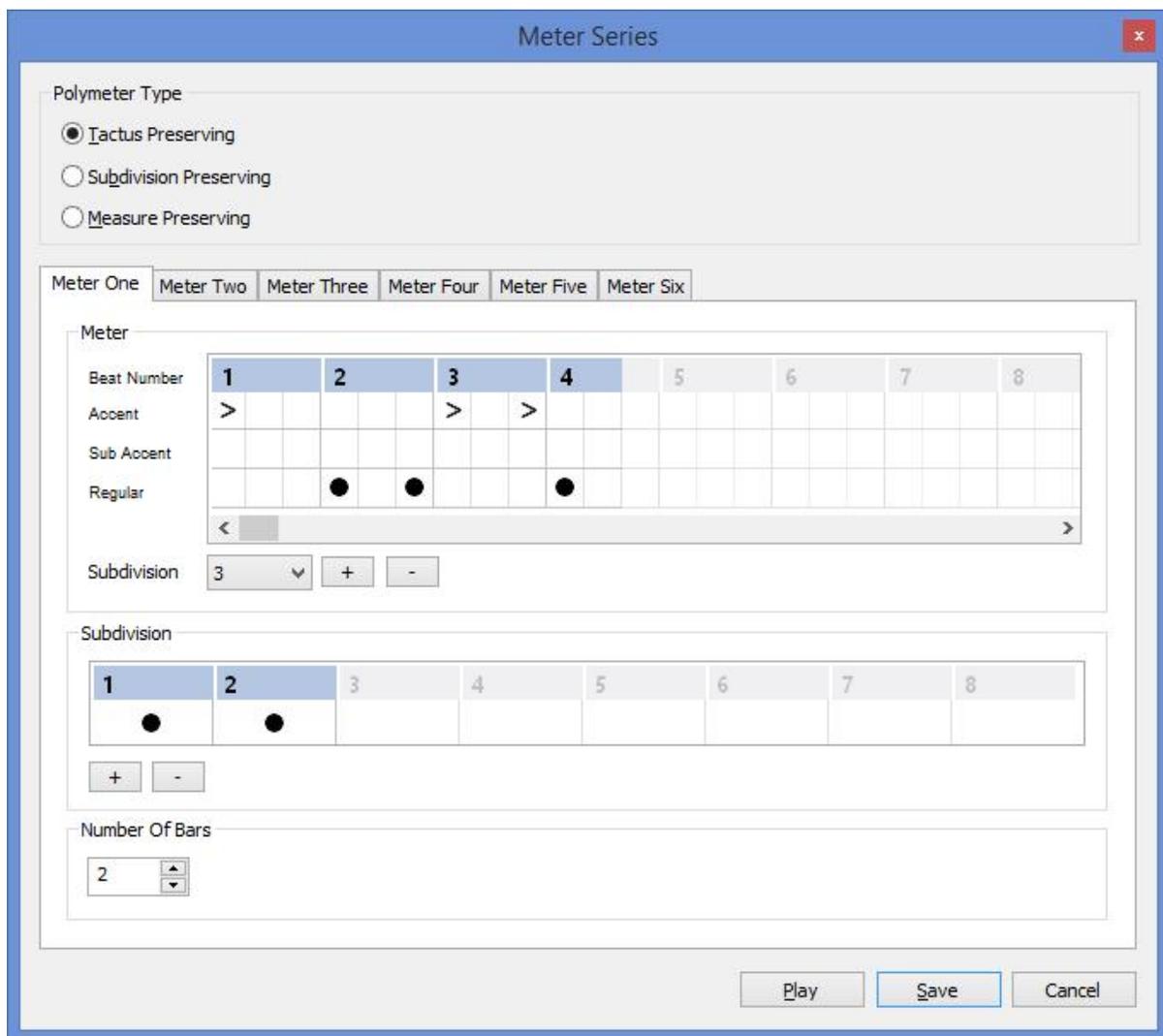
Setting The Number Of Bars

As well as defining the beat pattern for a particular meter the Meter Series window allows us to set how many bars of the meter should be played before moving to the next meter in the series. Clicking the up arrow to the right of the 'Number Of Bars' text box will increment the number of bars to be played. Clicking the down will decrement it. If the number of bars is set to zero the meter won't be played at all.

Auditioning A Meter

To hear what a meter series sounds like before saving it click the 'Play' button.

Changing The Tempo

To increase the tempo for the meter series, click the up arrow on your keyboard. Conversely to decrease the tempo, click the down arrow. The new tempo will be displayed at the bottom left of the window.

Changing The Volume

To increase the volume for the meter series, click the right arrow on your keyboard. Conversely to decrease the volume, click the left arrow. The new volume will be displayed at the bottom left of the window.

Changing Instrument Settings

To change the sounds used for any part of either meter right click on the respective row. This will display the Instrument Settings window. When this window opens it will display the current settings. To change the sound used select an instrument from the list. To decrease the volume for an instrument, move the volume slider to the left. To increase it, move the slider to the right.

Figure 31. The Instrument Settings window:
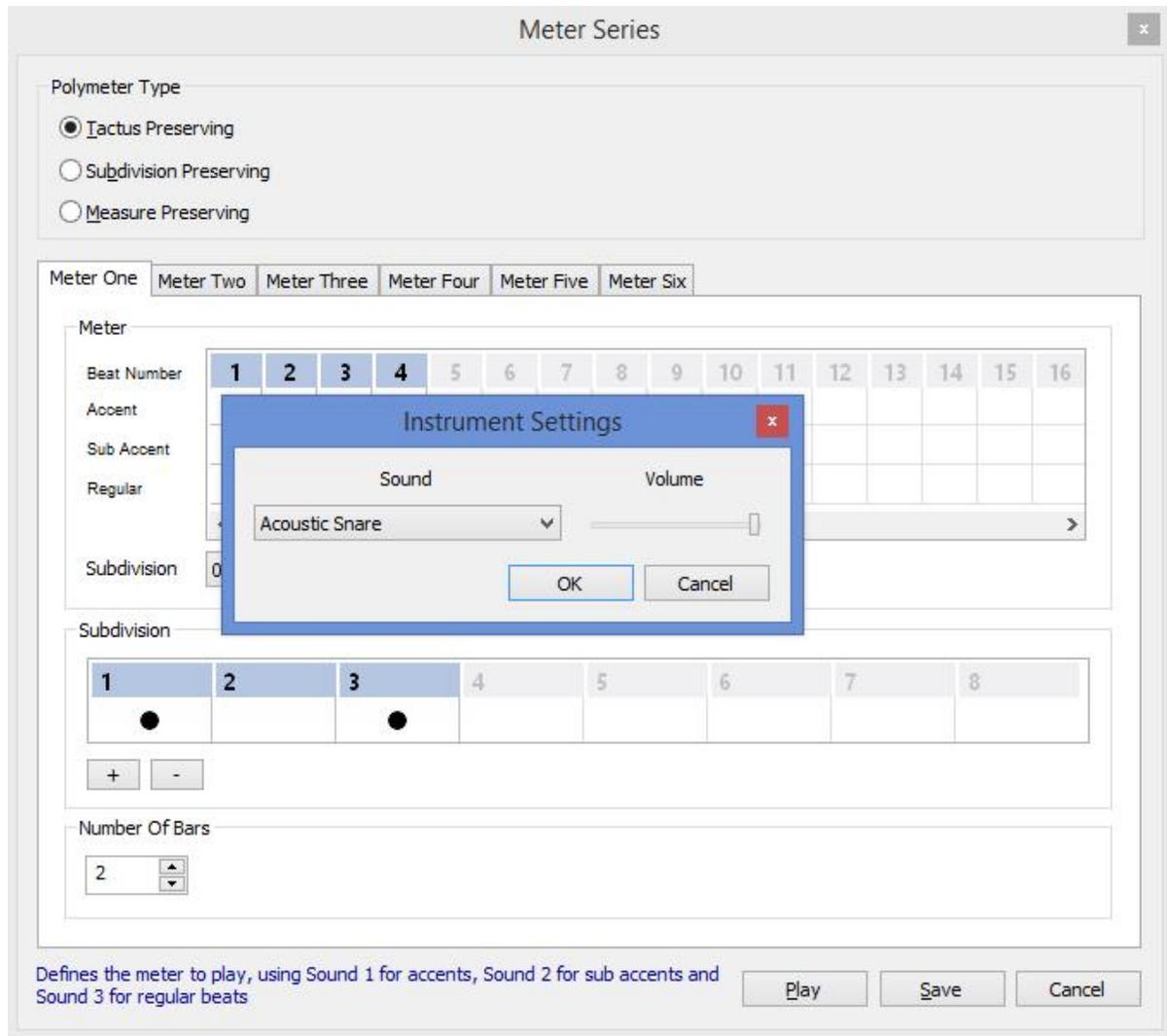
Saving The Meter Series

To save a meter series, click the 'Save' button.

The Step Sequencer

Metronome EXP Pro has a sophisticated step sequencer for the creation of drum patterns as well as simple backing band sequences.

To open the Step Sequencer go to the View menu and select Step Sequencer. Alternatively to Options tab under Settings, select Custom Measure as the Beat Type and then click the Step Sequencer button.

Figure 32. The Step Sequencer window:
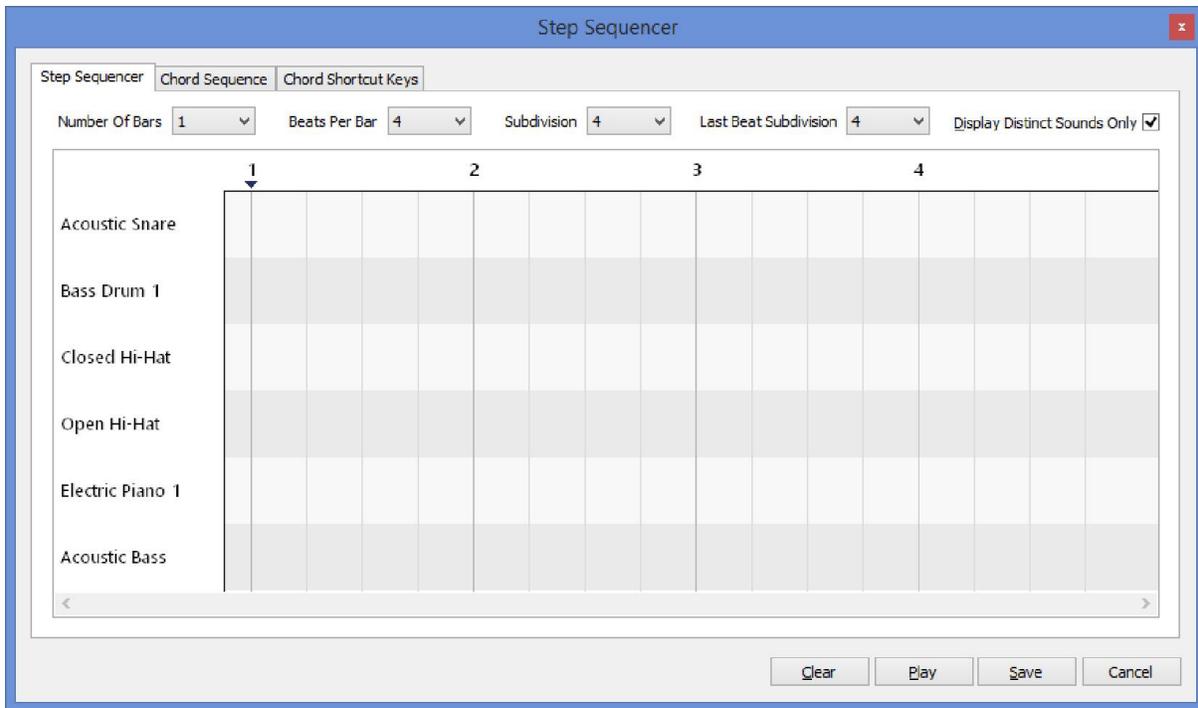
The Step Sequencer window displays a click-able grid. On the left hand side is the list of available instrument voices, taken from the Sound Settings tab under Settings. When the Display Distinct Sounds Only option is selected the Step Sequencer window will hide duplicate instruments. When this option is switched off all 14 voices from the Sound Settings window will be displayed. Notice the 7 extra rows labelled 'Acoustic Snare' in Figure 30 below:

Figure 33. The Step Sequencer window with all voices displayed:
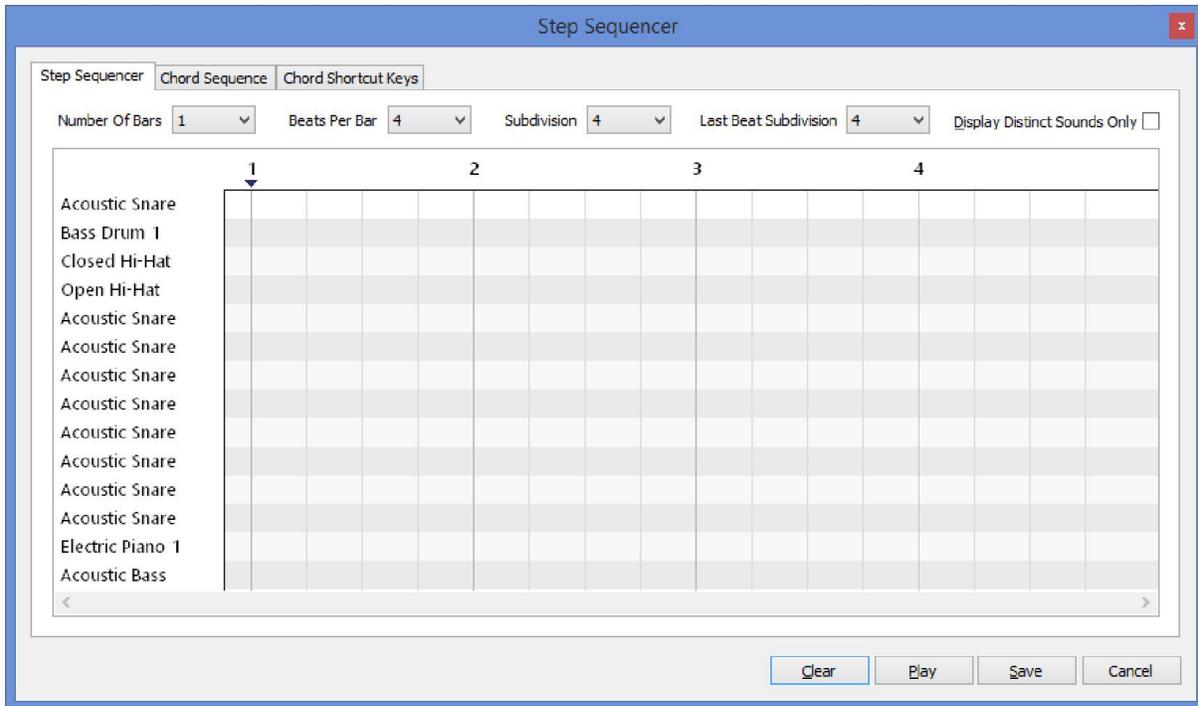
At the top of the Step Sequencer grid are the beat numbers. As we can see in Figure 30 vertical lines are displayed for each beat and beat subdivision. When creating sequences with more than one bar the Step Sequencer will display the bar number followed by a period and then the beat number.

Figure 34. The Step Sequencer window with bar and beat numbers displayed:
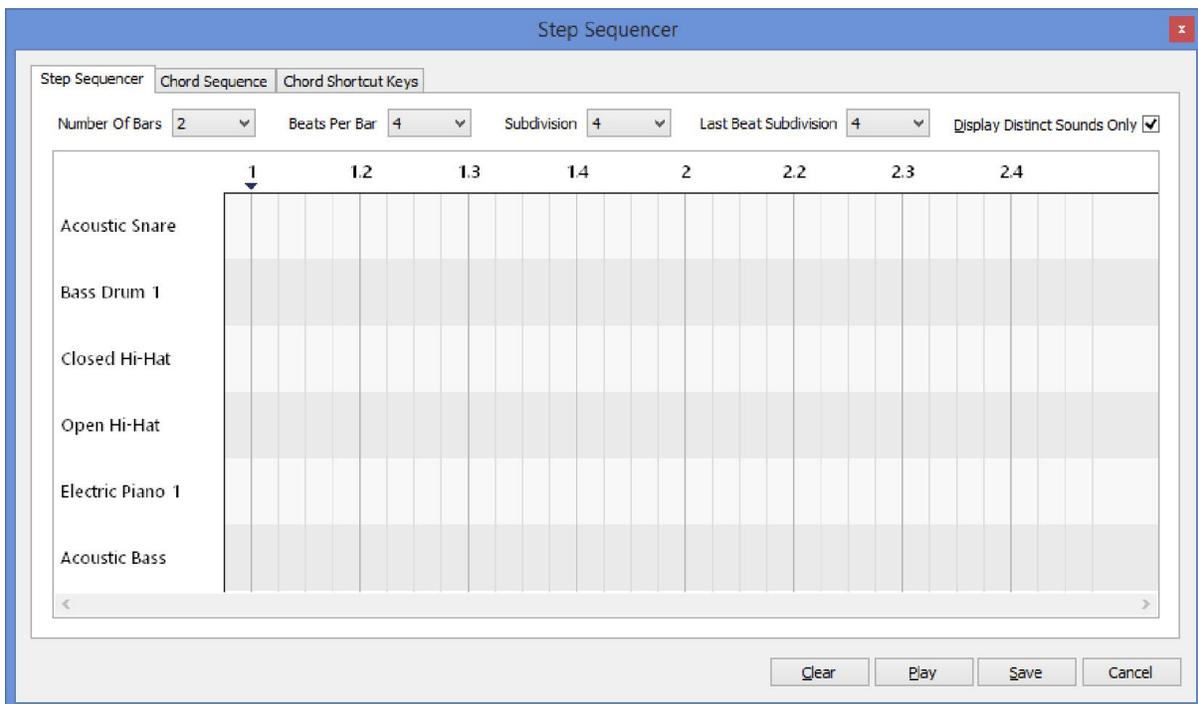
Setting the Grid Size

The number of elements in the grid can be changed using the drop down lists above it. The number of bars, the number of beats per bar as well as the subdivision used for the beat can all be modified. Changing the beat subdivision will move any existing notes on the grid. Please note that this action cannot be undone.

Figure 35. Setting the number of bars in the Step Sequencer window:
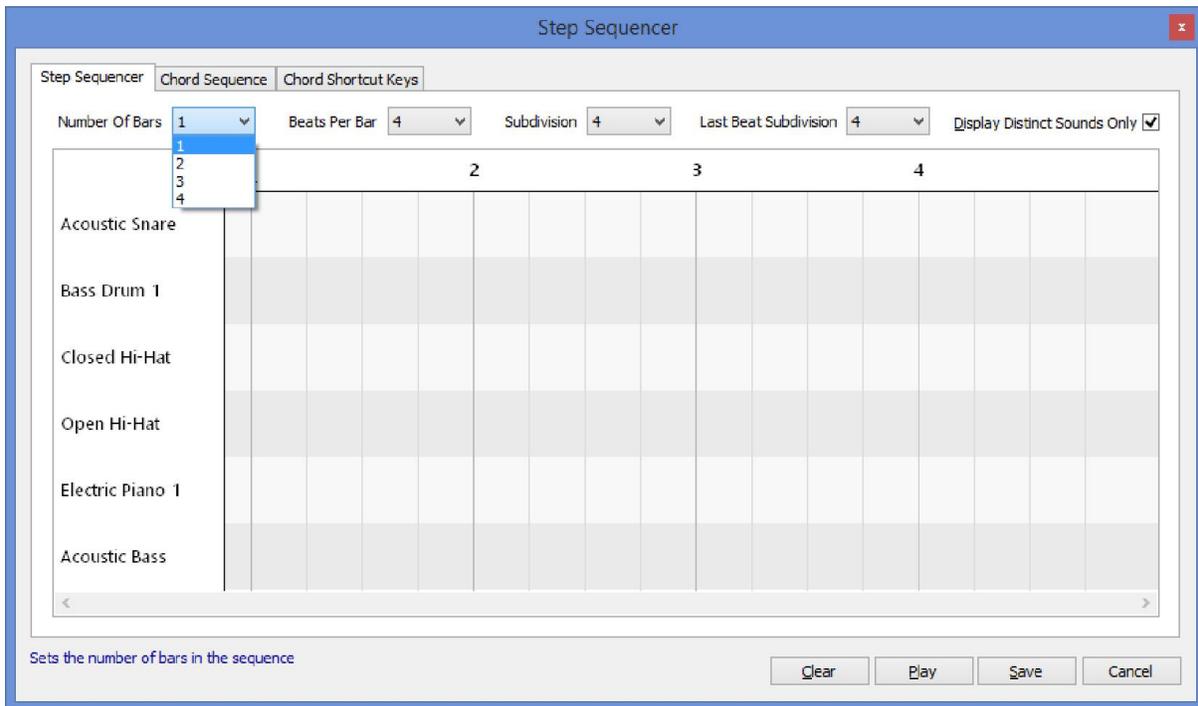
Figure 36. Setting the number of beats per bar in the Step Sequencer window:
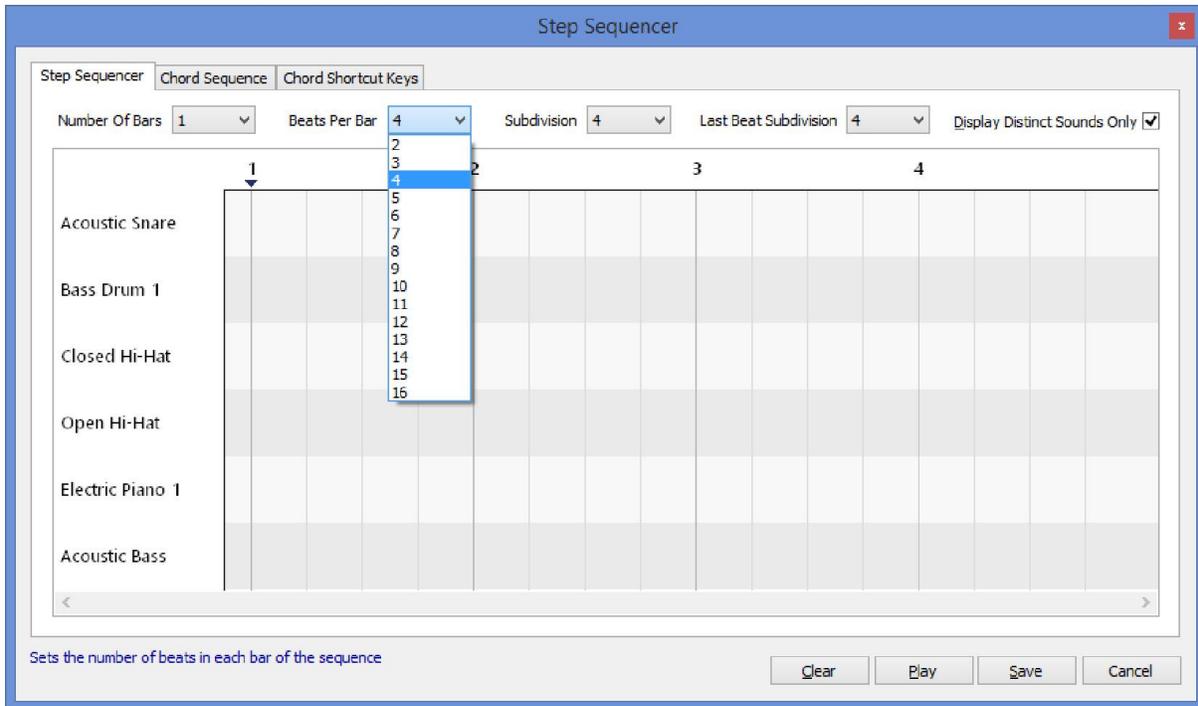
Figure 37. Setting the beat subdivision in the Step Sequencer window:
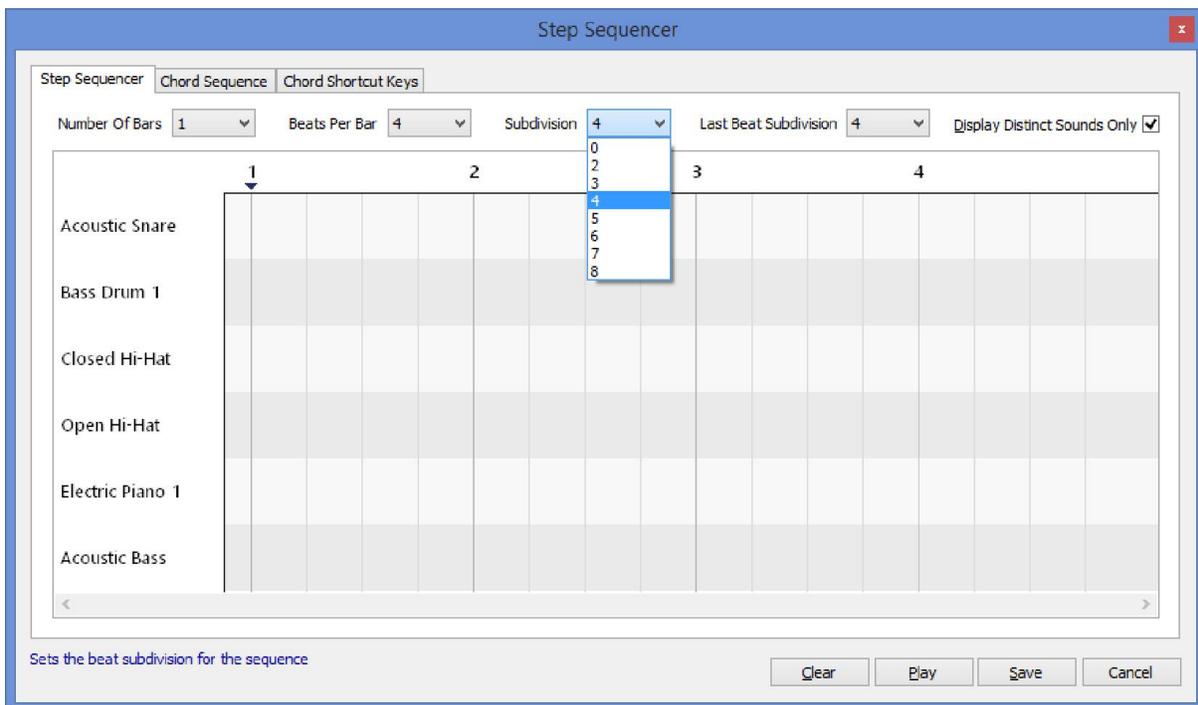
The Last Beat Subdivision drop down list gives you the option of setting a different subdivision for the final beat of each bar. This allows us to create irregular meters such as compound 11/8 time.

Adding Notes

Adding a note is simply a matter of clicking with the left mouse button somewhere on the grid. For instance, to add a Snare Drum hit on beat 2 we would left mouse click at the intersection of the Acoustic Snare horizontal band and the vertical line for beat 2. Notes are displayed using the colour selected for the instrument under the Sound Settings tab.

Figure 38. The Step Sequencer window with a single note added:
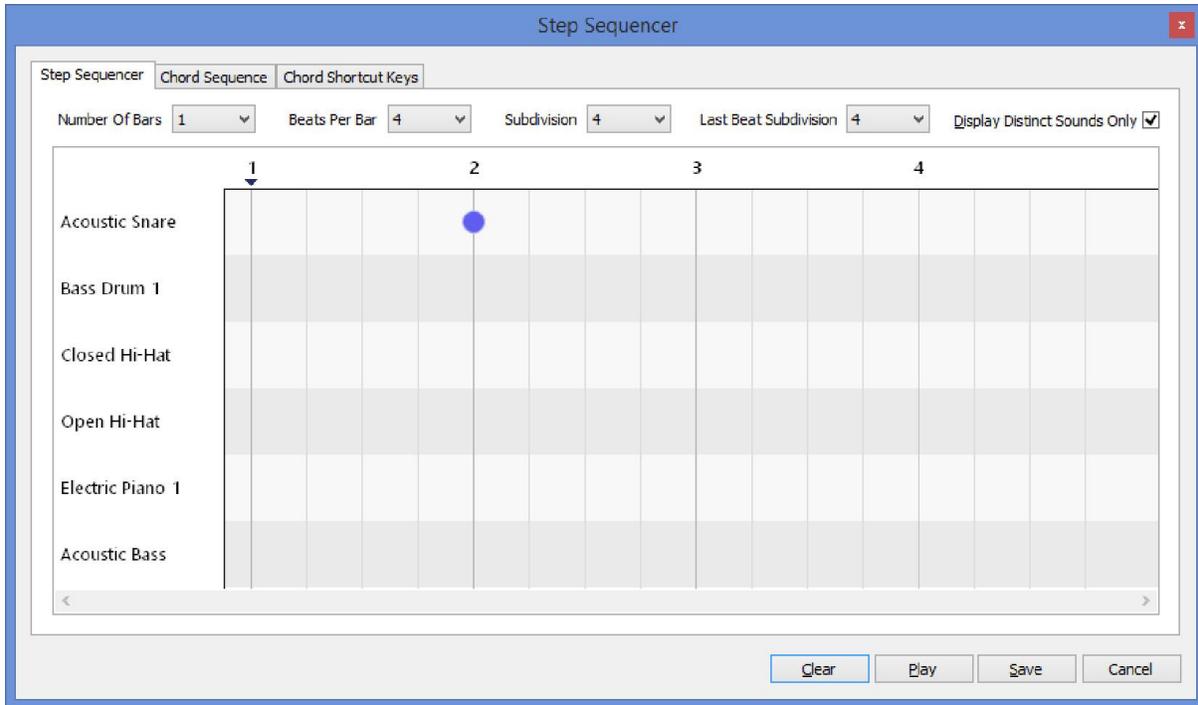
To remove a note, simply click it again.

Selecting An Instrument

Clicking on the name of an instrument will select that band of the grid.

Figure 39. The Step Sequencer window with the Closed Hi-Hat selected:

Auditioning Sequences

Clicking the Play button will cause the sequence to begin playing. Playback will start from the location of the Position Cursor. The Position Cursor is the small black triangle you can see underneath beat one in Figure 36 above. To move the position cursor, simply click above one of the beat or subdivision lines in the area between the top of the grid and the beat numbers.

Changing The Tempo

To increase the tempo for the sequence, with the Step Sequencer tab selected click the up arrow on your keyboard. Conversely to decrease the tempo, click the down arrow. The new tempo will be displayed at the bottom left of the window.

Changing The Volume

To increase the volume for the sequence, with the Step Sequencer tab selected click the right arrow on your keyboard. Conversely to decrease the volume, click the left arrow. The new volume will be displayed at the bottom left of the window.

Changing Instrument Settings

Right clicking on the band for an instrument, or on the name of the instrument itself on the left of the Step Sequencer window, will display the Instrument Settings window.

Figure 40. The Step Sequencer window with the Instrument Settings window open:
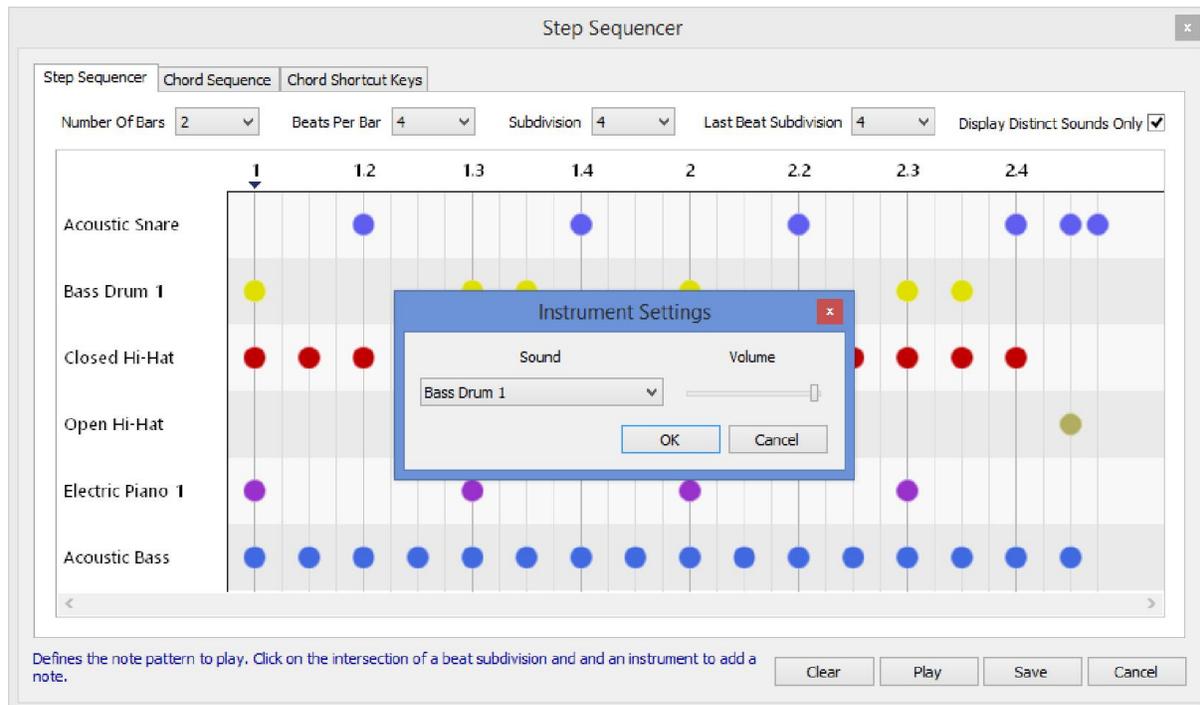
When this window opens it will display the current settings. To change the sound used simply select an instrument from the list. To decrease the volume for an instrument, move the volume slider to the left. To increase it, move the slider to the right.

Clearing Sequences

To clear the entire sequence, that is, both the sequence as well as the chord progression, click the Clear button at the bottom of the window. Note that you will need to click Ctrl+Z in both the Step Sequencer and Chord Sequence windows to undo this.

Editing Functions In The Step Sequencer

The following standard editing functions are supported:

Table 1: Editing actions

Action	Key Combination
Cut	Ctrl+C
Paste	Ctrl+P
Delete	Delete
Select All	Ctrl+A
Undo	Ctrl+Z
Redo	Ctrl+Y

Ctrl+C means hold the Ctrl key down and then press the 'C' key on your keyboard.

As well the editing actions listed above single notes and selections* can simply be dragged and dropped. For a single note click on the note and then while still holding the left mouse button down move the note to its new position. For selections, once the selection has been made click on one of the notes in the selection and drag the group to the new position.

When pasting notes the point at which the notes will be pasted depends on the location of the Position Cursor. The Position Cursor is the small black triangle you can see underneath beat one in Figure 37 above. To move the position cursor, simply click above one of the vertical lines in the thin area between the top of the grid and the beat numbers.

* Selections are made by holding down the left mouse button while moving it over the grid. See Figure 38 below.

Figure 41. Selecting items using the mouse:
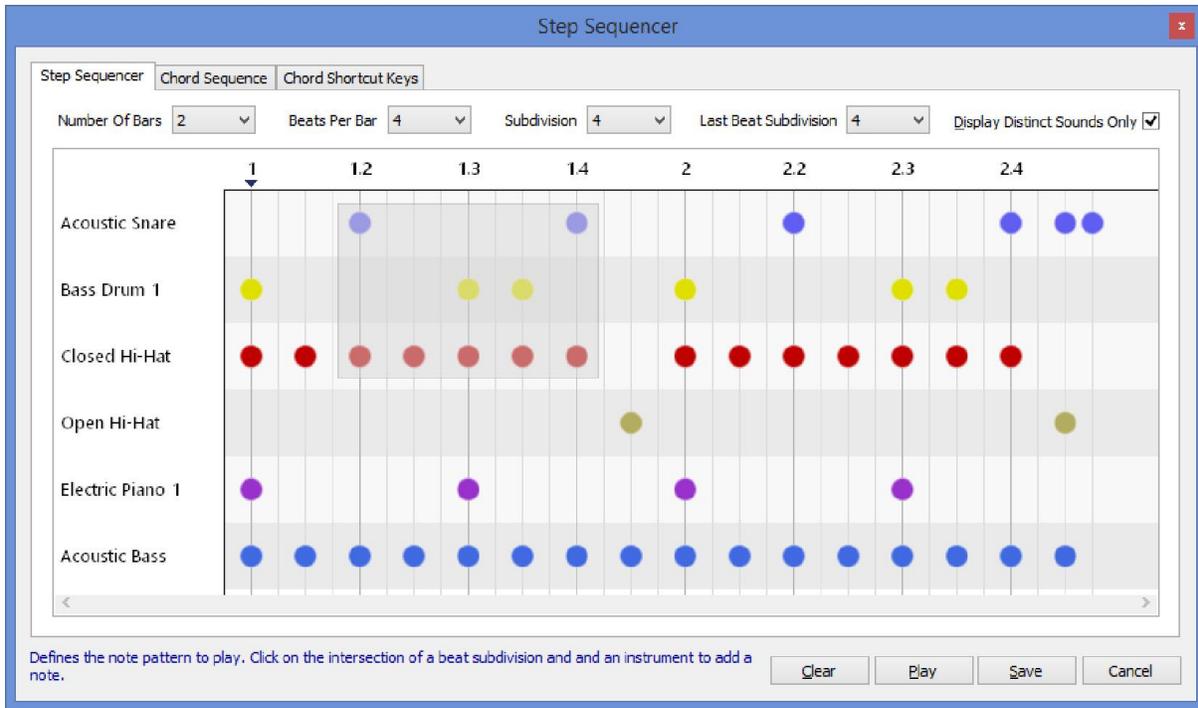
Figure 42. Selected items in the Step Sequencer window:

Defining Chord Sequences

Selecting the Chord Sequence tab in the Step Sequencer displays the Chord Sequence window. Here we can define an optional chord sequence to be played as part of the sequence. The Chord Sequence window recognises a vast range of chord types, from standard major and minor chords to altered chords and inversions. A maximum of 256 chords can be added to a sequence.

Figure 43. The Chord Sequence window:
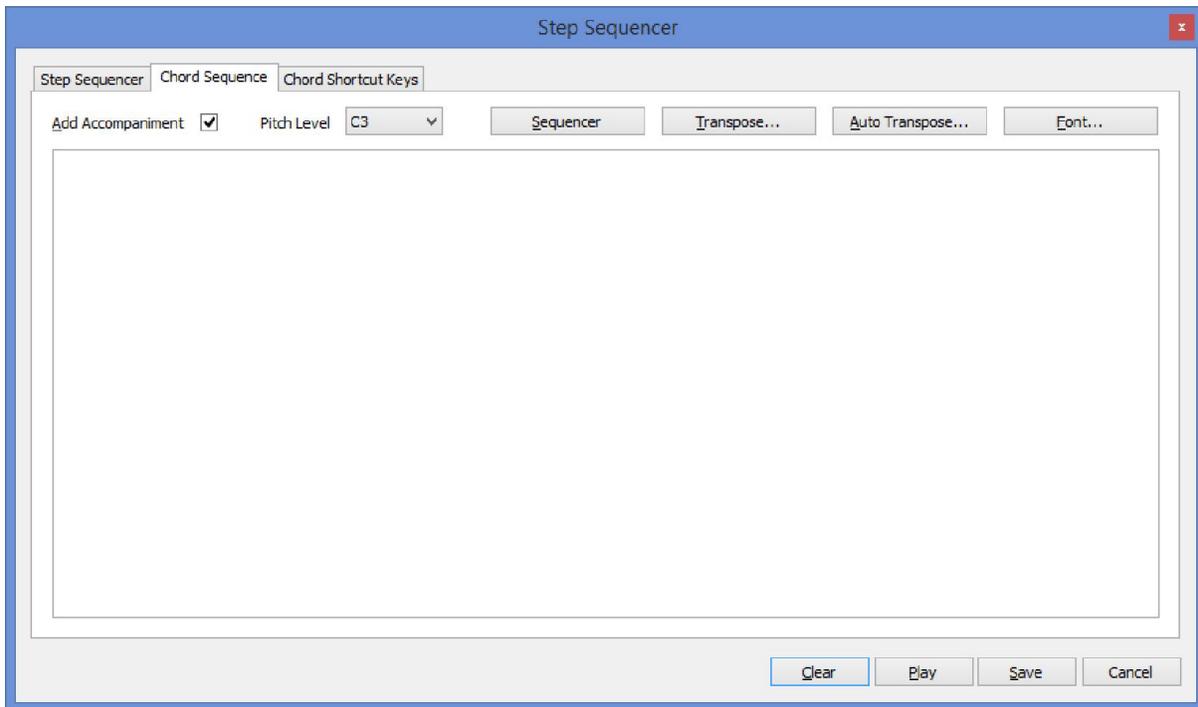
Chord Types

Table 2 shows the chord types recognised by Metronome EXP Pro along with the symbols used to represent them in the Chord Sequence window.

Table 2: Chord types

Chord Type	Symbol	Example
Major		C, F#, Eb
Minor	m	Cm
Augmented	aug, +	Caug, C+
Diminished	dim, o	Cdim, Co
Suspended *	sus	Csus
Fifth	5	C5
Octave	oct	Coct
Major 6	maj6	Cmaj6
Minor 6	m6	Cm6
Six / Nine	6/9	C6/9
Major 7	maj7	Cmaj7
Minor 7	m7	Cm7
Minor Major 7	m+7	Cm+7
Dominant 7	7	C7
Augmented 7	aug7, +7	Caug7, C+7
Diminished 7	dim7, o7	Cdim7, Co7
Major 9	maj9	Cmaj9
Minor 9	m9	Cm9
Dominant 9	9	C9
Augmented 9	aug9, +9	Caug9, C+9
Add 9	add9	Cadd9
Minor Add 9	madd9	Cmadd9
Major 11	maj11	Cmaj11
Minor 11	m11	Cm11
Dominant 11	11	C11
Augmented 11	aug11, +11	Caug11, C+11
Major 13	maj13	Cmaj13
Minor 13	m13	Cm13
Dominant 13	13	13
Augmented 13	aug13, +13	Caug13, C+13
Altered **	alt	Calt

* Metronome EXP Pro treats 'sus' as a suffix that can be appended to most chord types. For instance, to create a C dominant 7 suspended chord enter the following:

```
C7sus
```

** There are many possible definitions for altered chords. Metronome EXP Pro

treats them as a dominant 7th with a sharpened 5th and 9th.
In addition to the chord types from Table 2 Metronome EXP Pro recognises the alterations in table 3.

Table 3: Chord alterations

Chord Alteration	Symbol	Examples
No third	(no3)	Cmaj7(no3), G6(no3)
Sharp 4	+4	C7+4
Sharp 5	+5	C7+5
Flat 5	-5	C7-5
Flat 6	-6	Cm-6
Sharp 9	+9	C7+9
Flat 9	-9	C7-9
Sharp 11	+11	C7+11

More than one of the symbols from Table 3 can be appended to a chord. For instance, to create an E flat dominant 7 with a flattened fifth, sharpened ninth and no third we would type in the following:

```
Eb7-5+9(no3)
```

Inversions

Chord inversions are created by following the chord name with a forward slash and bass note. For instance, to create a D dominant 7 suspended chord with an F# in the bass enter:

```
D7sus/F#
```

Comments

Any line starting with a @ symbol in the Chord Sequence window is treated as a comment. That is, text used to identify or explain something about the sequence. This is useful for creating notes about your chord sequences for future reference.

Bar Lines

The vertical line (|) represents a bar line. To create a 2 bar sequence with one chord in each bar we could type something like:

```
Cmaj7 | Dm7
```

Repeating Chords

The forward slash (/) symbol is used to repeat the previous chord.

Entering A Chord Sequence

Entering a chord sequence then involves simply typing in the chords we would like the sequencer to play. For instance in Figure 41 the following sequence has been entered:

```
@ Simple chord sequence in the key of C major
Cmaj7 / | Dm7sus Dmadd9 | Fmaj7+4 / | G7sus G9(no3)
```

The first line is a comment. The second line holds the actual sequence. The first bar has plays C major 7 twice. The second bar has a D minor 7 suspended chord followed by D minor add 9. The next bar plays F major 7 with an added sharpened 4th and then repeats it. Finally the last bar has a G dominant 7 suspended chord followed by a G dominant 9 with no third.

Figure 44. The Chord Sequence window with a simple chord sequence entered
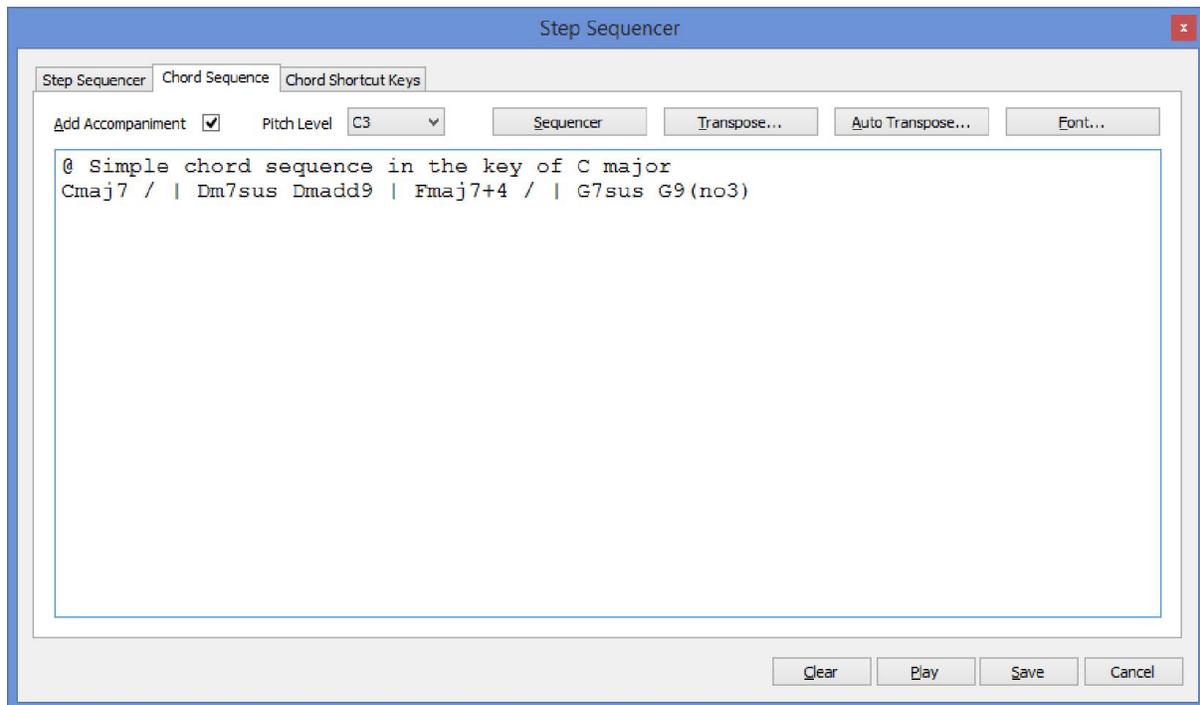
Adding Where The Chords Are Played To the Step Sequencer

Once we have defined our chord sequence we make sure the 'Add Accompaniment' option is selected, then click the 'Sequencer' button. This adds where the chords are played to the Step Sequencer window. If we click the Step Sequencer tab to change to the sequencer window we will see something like Figure 42. Notice the 4 purple coloured circles in the row for the Electric Piano 1 instrument, corresponding to the 2 chords per bar we defined in our chord sequence. Note too that the Acoustic Bass is set to play a regular eighth note pattern.

Figure 45. The Step Sequencer window with the chords and bass line added

The number of bars in the chord sequence doesn't need to match the number of bars in the Step Sequencer window. For instance, we could have a simple one bar pattern in the Step Sequencer window with a 16 bar chord sequence. However what does need to match is the number of chords played in each corresponding bar. If we have a one bar pattern with 2 chords in the Step Sequencer each and every bar in the chord sequence *must* contain exactly 2 chords. If the Step Sequencer has, for example, a 2 bar pattern with 1 chord played in the first bar and 3 chords played in the second, the bars in the chord sequence must alternate between one and 3 chords respectively.

Where the chords are played within the bar can be edited in the Step Sequencer. Clicking the 'Sequencer' button in the Chord Sequence window places the chords on the beat. A more rhythmic feel can be created by dragging the chords to the left or right in the Step Sequencer window, moving them off the beat.

The bass plays the root note of the chord. Every aspect of the bass line can be edited freely in the Step Sequencer window. That is, where the bass is played, as well as the number of times it gets played.

Maximum Number Of Chords In A Sequence

A chord sequence can contain a maximum of 256 chords.

Transposing Chord Sequences

Clicking the 'Transpose' button in the Chord Sequence window opens the Transpose window. This can be used to transpose either all or the selected part of a chord sequence from one key to another, or up or down a set number of semitones.

Figure 46. The Transpose window

The various transposition options are:

Transpose. This can be set to 'All Chords' to transpose the entire sequence, or 'Selected Chords' to only transpose the chords currently selected in the Chord Sequence window.

Semitones. This transposes the sequence the number of semitones entered in the text box to the right. Select + or - from the drop down list to either add or subtract the semitones from each chord.

From Key. Selecting this option means the chords will be transposed from the key selected in the first drop down list to the key selected in the 'To Key' list.

Auto Transposition

Clicking the 'Auto Transpose' button in the Chord Sequence window opens the Auto Transpose window. This can be used to programmatically transpose the chord sequence while it is playing.

Figure 47. The Auto Transpose window
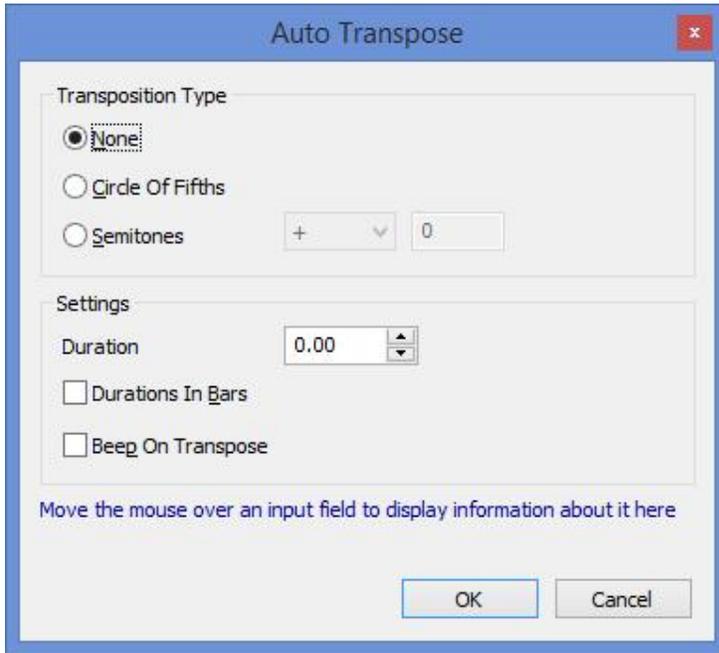
The transposition options are:

Transposition Type. There are 2 ways the chord sequence can be transposed:

1. Circle Of Fifths. Each transposition will shift the sequence up a perfect fifth.

2. Semitones. This transposes the sequence the number of semitones entered in the text box to the right. Select + or - from the drop down list to either add or subtract the semitones each transposition.

Duration. If the Duration In Bars option is off this is the time, in minutes, the sequence will stay in one key before being transposed. If the Duration In Bars option is selected this is the number of bars it will stay in one key.

Duration In Bars. If selected means the duration will be set in bars rather than minutes.

Beep On Transpose. When enabled means Sound 11 will be played each time the sequence is transposed.

Chord Shortcut Keys

Selecting the Chord Shortcut Keys tab in the Step Sequencer displays the Chord Shortcut Keys window. By defining a series of shortcut keys for commonly used chords we can greatly speed up chord entry in the Chord Sequence window. Instead of having to enter the full symbol for a particular chord type (for instance, maj7sus) we can simply type the shortcut key(s) and have the chord symbol entered programmatically.

Chord shortcuts are defined globally. That is, they aren't part of any particular preset, and once defined are available all the time for all chord sequences.

Figure 48. The Chord Shortcut Keys window:
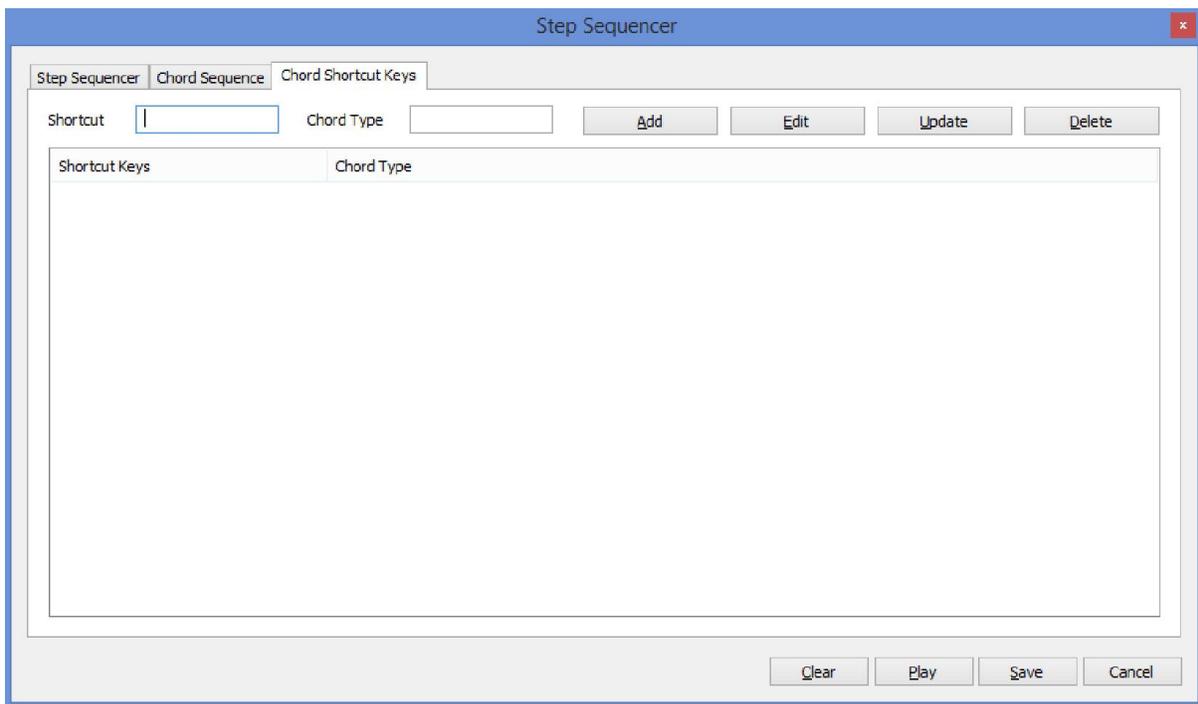
Creating Chord Shortcuts

With the cursor located in the Shortcut text box we press the keys we want to use for the shortcut. We then enter the chord type this represents in the Chord Type text box. For instance, in Figure 46 below the key '1' has been entered as the shortcut, with 'maj7' as the chord type.

Figure 49. Creating a chord shortcut:
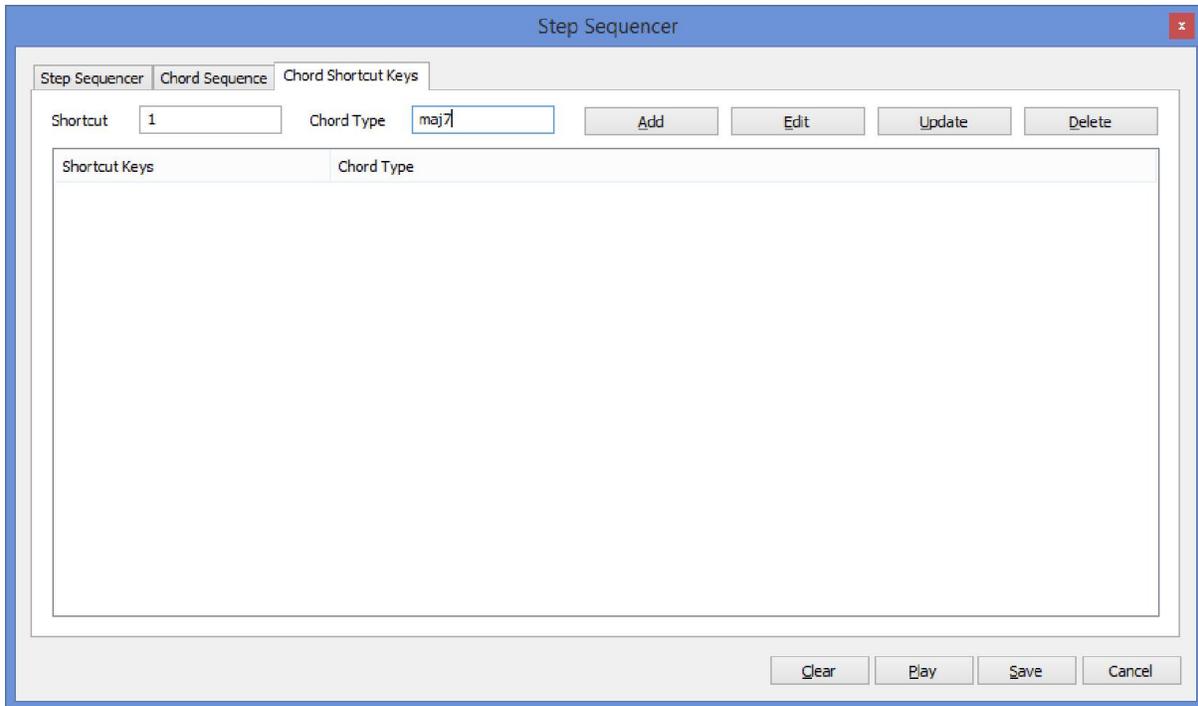
Pressing the 'Add' button adds the shortcut to the list.

Figure 50. The new shortcut added to the list:
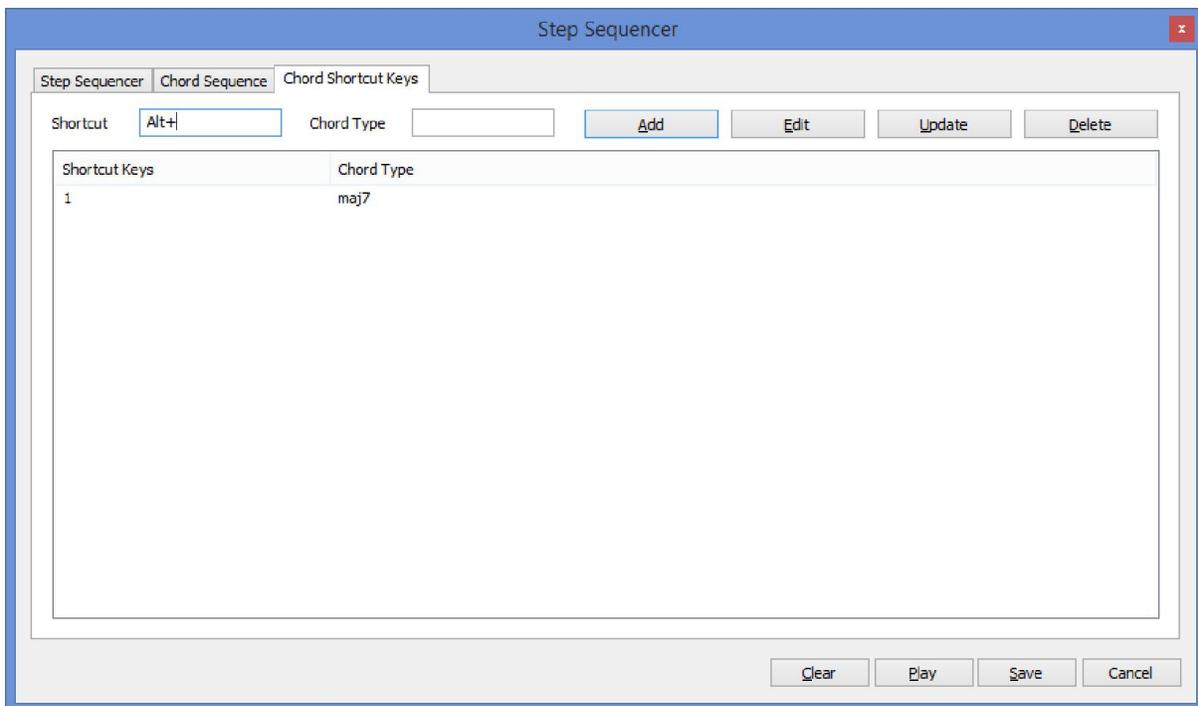
Now when creating chord sequences instead of typing 'maj7' we can simply hit the '1' key and 'maj7' will then be entered automatically.

Standard keys alone as well as in combination with control keys (Alt, Ctrl and Shift) can be used for shortcuts. For instance in Figure 48 the second shortcut uses the Alt key in combination with the number 1.

Figure 51. Alt key used in a shortcut
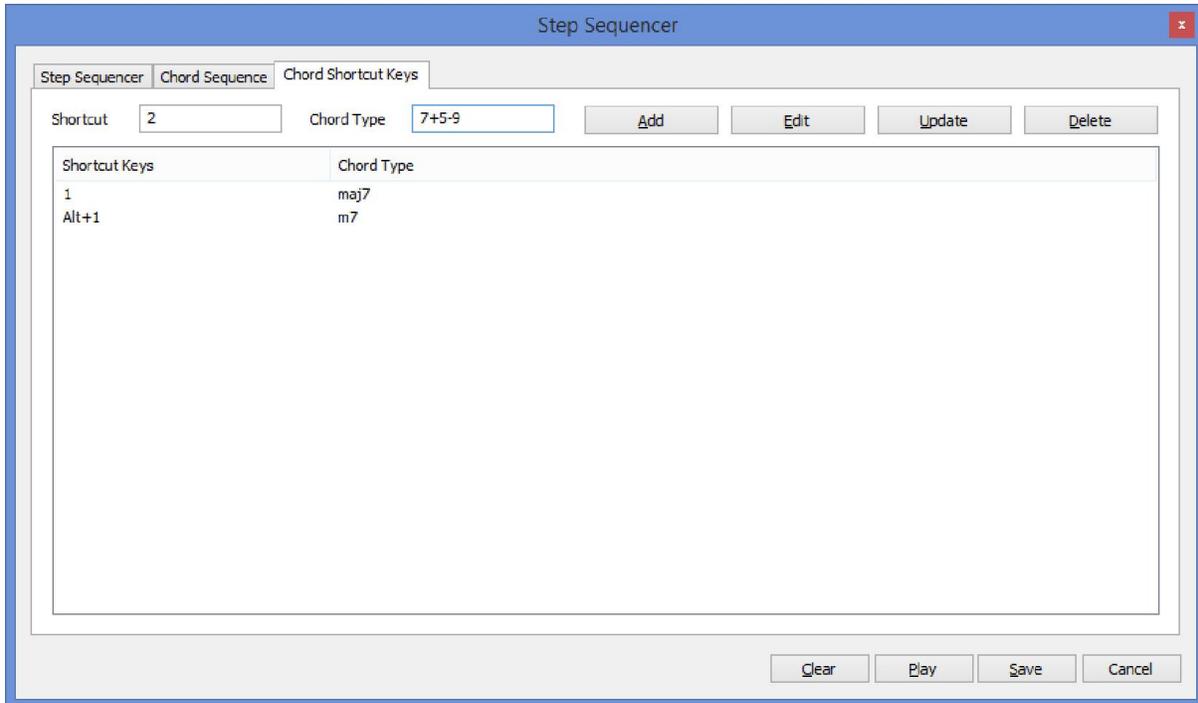
To create a shortcut that uses control keys make sure the cursor is in the Shortcut text box and then simply type the key combination. Metronome EXP Pro will detect which keys are being depressed and display the corresponding text.

Editing Shortcut Keys

To edit a shortcut select the item from the list and then click the 'Edit' button. The shortcut key(s) and the chord type will then be loaded into their respective text boxes at the top of the window, ready for editing. Make the required changes and then click the 'Update' button to save the changes back to the list.

Deleting Shortcut Keys

To delete a shortcut select the item from the list and then click the 'Delete' button.

Checking For Updates To Metronome EXP Pro

Occasionally updates to Metronome EXP Pro may be released. These might add an enhancement to one of the software features or simply fix an issue noted in use. Metronome EXP Pro can programmatically connect to www.expmuse.com and check for updates, optionally downloading and installing them if one is available.

To check for an update we select 'Check For Updates' from the Help menu. When we do this the Metronome EXP Pro Update window will appear.

Figure 52. The Metronome EXP Pro Update window:

If an update is available the Update window will display something along the lines of Figure 50.

Figure 53. The Update window when a new version is available:

If we select 'Yes' Metronome EXP Pro will download and install the update, then restart. While the update is being downloaded the Update window will display the current update status.

Figure 54. Downloading the latest version of Metronome EXP Pro
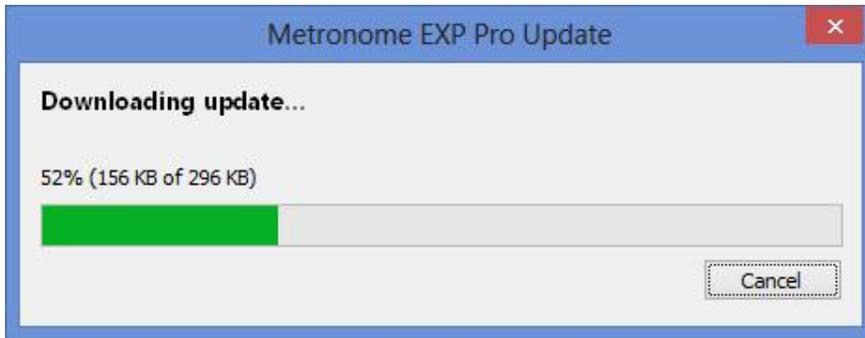
If your current version is the latest the Update window will display something that looks like Figure 52.

Figure 55. The Metronome EXP Pro Update window when the application is up to date

Automatically Checking For Updates

In the Settings window on the System tab there is an option named 'Automatically Check For Updates'. Selecting this causes Metronome EXP Pro to check online for updates when the program is started up.

Colour Table Editor

The Visual Beat Indicator uses coloured circles to display beats, with the colour used for a particular sound being selected via a slider in the Sound Settings window. This slider will select colour one in its leftmost position, and colour 14 at its rightmost. If you would like to customise the colours displayed by the slider go to the Edit menu and select 'Colour Table Editor'.

Figure 56. The Colour Table Editor:
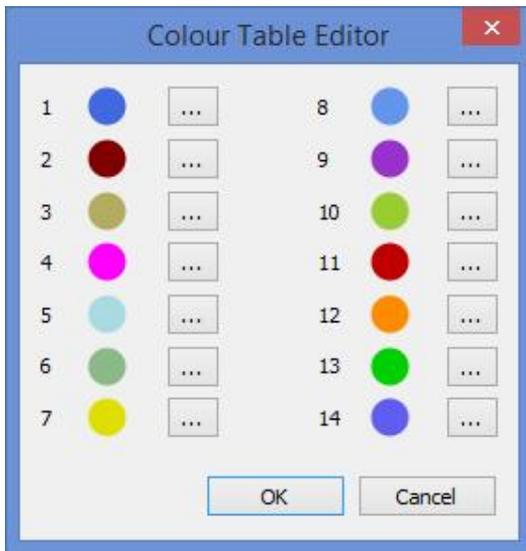
To change a colour click the button labelled '…' to the right of the coloured circle. This will open a window where you can select the new colour.

Figure 57. The Colour window:
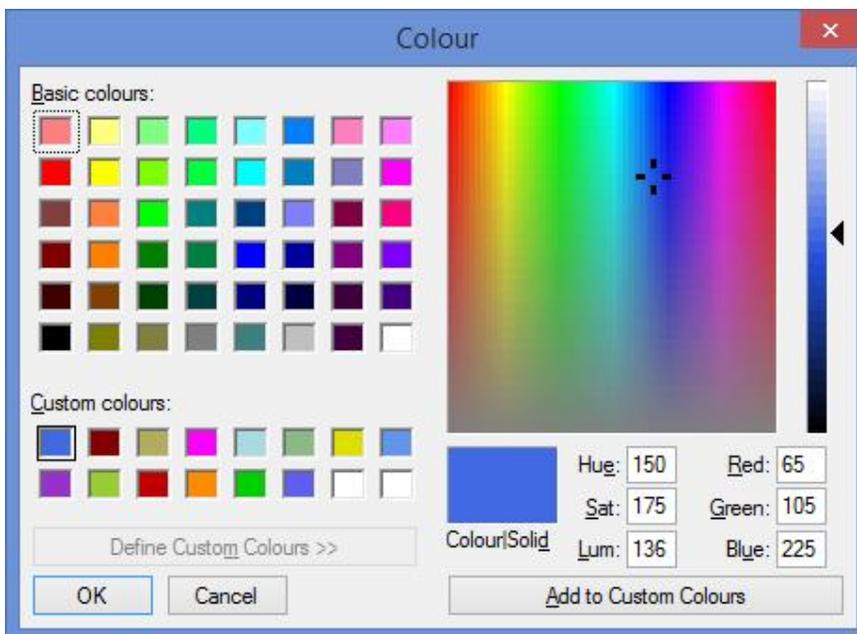
Language

Open the Language window by clicking Language under the File menu.

Figure 58. The Language window:

Select the required language from the drop down list and then click Ok. All user interface elements will then be displayed in the selected language.

Metronome EXP Pro supports multiple languages via simple text files. These files are stored in the Lang folder, with each file containing the translation for a single language. If a translation for your language doesn't exist please consider making a file for it. Details concerning how to do this are in the Language Files section of this manual.

Please note that if English is your native language you can safely delete the Lang folder and its contents. This folder and the files contained within it are only required for languages other than English.

Users whose native language isn't English can safely delete all language files *except* the one that contains the translation for their language.

Language Files

Metronome EXP Pro supports multiple languages via UTF-8 text files. These are located in a folder called Lang in the same directory as the program. To create a file for a language that isn't currently supported use the following steps:

Copy the sample translation file (en.lng.sample) and rename it using a 2 letter abbreviation for the actual language, with .lng as the file extension. For instance, a French translation file could be called fr.lng. A Spanish translation file could be called es.lng.

The first lines you should edit are the ones starting with # Author and # Author Email. Here you can enter information about yourself. The email address is entirely optional, but does mean users can get in touch about any changes they may feel are appropriate. Please do not remove the # signs. These tell the file parser that these lines contain extra information not required for the actual translation.

Edit the # Update History to note the date the file was created. If you are editing an existing file add a new line detailing what changes you made. All lines must start with the # sign for the reason noted above.

Edit the line reading: LangEnglish = English. Replace the word 'English' on the right hand side with the name of the language in English. For instance: LangEnglish = Bulgarian.

Edit the line reading: Language = English. Replace the word 'English' on the right hand side with the name of the language in the actual language itself. For instance: Language = Български

The rest of the file is divided into sections. Each section consists of a section header, such as [Menu], and a series of key-value pairs in the form: 0001 = &File. Do not edit the headers, these are required by the parser. However what you do need to change are the values for the key-value pairs. For instance, for the line: 0001 = &File you would translate the word 'File' into your language. Don't edit the key (0001 in this case) as this is required by the parser. The & symbol is required. Windows uses this to place an underscore underneath that letter to indicate that this is the key the user should press as a shortcut.

Once you have translated the file make sure you save it in UTF-8 form. Then run Metronome EXP Pro and open the Language window. Select your language from the drop down list and check if all the text elements in the user interface have been translated correctly. If the file doesn't appear in the drop down list in the Language window check that you have saved it in UTF-8 form with the .lng file extension in the Lang folder. If the file does appear but the user interface language doesn't change when you select it look for a file called MetExp.log in the same folder as the application. This will detail any issues the parser found while reading your file.

If everything works as anticipated please email your .lng file to
support@expmuse.com and we'll add it as part of the download. Thank you for
taking the time to do this, it really is very much appreciated.

Command Line Interface

Metronome EXP Pro has a command line interface so that users wanting to create desktop links to the software can control how it starts. The currently available flags are listed in table 4.

Table 4: Command Line Interface Flags

Flag	Function
-s	Automatically start the metronome on application startup
-m	Minimise the metronome on application startup
-f	Switch to fullscreen mode on application startup
-x	Close the program at the end of a speed training session

Support

If you think you have found a problem with Metronome EXP Pro you can get in touch with ExpMuse support by either clicking 'Technical Support' under the Help menu or by sending an email message manually to:

support@expmuse.com

Please send as much information as you can, including your operating system version (eg. Windows XP Sp3), your MetExp.conf file, and the exact steps that need to be taken to reproduce the problem. For example, lets suppose the Beats Per Minute display showed the wrong value under certain circumstances. Emailing information like the following would help us fix the issue much more quickly:

```
Operating System: Windows 7 Home Premium
Issue: The BPM display shows the wrong value after moving the
tempo slider

Steps to Reproduce the Issue:

Open Metronome EXP Pro.
Load a preset. The issue only occurs after loading any preset.
Hold down the Ctrl key while moving the Tempo slider to the left.
Release the Ctrl key.
The BPM display jumps to a different value.

Attached: MetExp.conf (file)
```

Please note that the above doesn't actually happen, it's just by way of example!

When an internal issue occurs Metronome EXP Pro creates a file called MetExp.log in the same folder as the program itself. If this file exists, please send this along with all the other information.

Thanks for taking the time to do this, it really is very much appreciated.

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