Acid Pro
A Guide for the beginner, by Alex C for Boot Camp Clique

1 Where can I get Acid or Acid Pro?

That's an excellent question, and if you've not got Acid yet – one you should most definitely be asking! A quick Google search for "acid pro" will give you a few sites, and most importantly www.sonicfoundry.com which is the company who used to make Acid. Since they were taken over by Sony however, you're not going to get far with that link.

Where you should really go is to http://www.sonymediasoftware.com where you can click on 'software' and then 'ACID' - taking you to precisely the right place. Sony are now the company which manufacture and develop Acid, and at the time of writing this article they are on version 6. Acid Pro 6.

Now, Sony will let you download a free trial, to get your fix, but you should really take the plunge and purchase this masterpiece. If you're serious about music production – and in particular bootlegs and mash-ups, then it's worth forking out the $374.96 that they're charging on the site. Following that, you can relax in the knowledge that you own a monster package for making your tunes.


2 OK, it's installed. What now?

After all the downloading, purchasing and installing gubbins – which you should be able to work out yourself (after all this isn't a lesson on downloading software or installing such stuff) we can move on to the intro.

Acid is primarily a piece of 'sequencing' software. It will let you add a number of audio tracks to a timeline and will play and export them as a single audio file. It can be used to play more than one track at a time – hence the attraction for bootleggers, and it can also be used to 'beatmatch' an audio track. Beatmatching is where you use a particular technique to determine the 'tempo' of a piece of audio. It can then be placed alongside other pieces of audio which have been beatmatched and all audio will play in time. You will also find that Acid can handle mixing very well. With multiple channels for volume and other effects – it's perfect for numerous applications.

3 The Interface – where stuff is.

When you open Acid, you are presented with an interface that looks like the image below. What I will attempt to do here is list all the relevant buttons and areas – so that you can refer to this and use it as an effective orientation. I'm using Acid Pro 5 for this – but it will be similar with most versions.
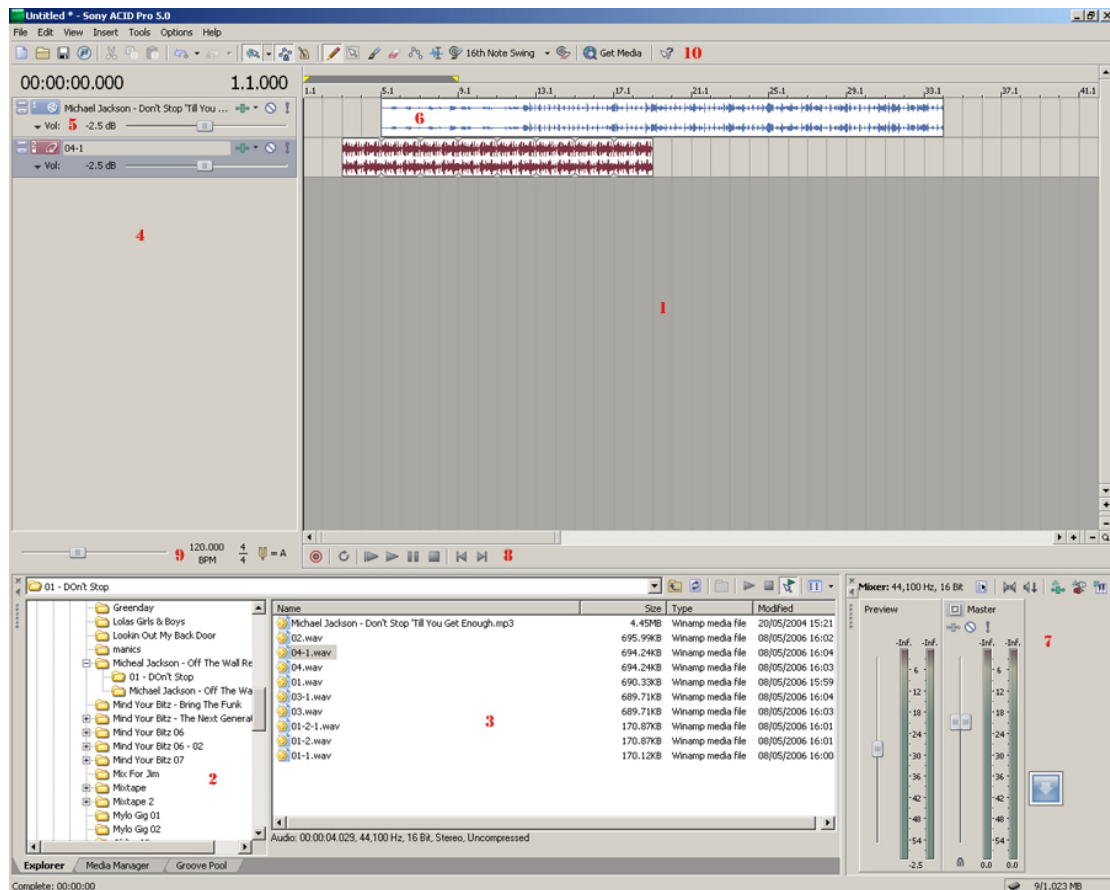
1 – This is the main timeline. It scrolls left and right and will go on (to the right) for as long as you require. Each of the lines represents a measurement, although if you zoom in and out (with your mouse wheel – or the zoom buttons at the bottom left of the window) you will see they change accordingly – so this is more of a grid system to help you line up your samples and tracks.

2 – This is your folder browser – you can view all the relevant files on your drives and PC from here – and when you select a folder, it's contents are displayed in number 3.

3 – This is the folder view window. From here you can drag and drop audio files on to the timeline and other areas accordingly. It also has similar functions to that of windows explorer – renaming, moving, copying etc if need be. When you select an audio track or sample in this window you can have it play automatically – and if it's beatmatched you can have it play in time etc.

4 – This is the area for each tracks details. When you drag an audio track on to the timeline (or this space) you get a bar that runs in line with that particular tracks space. You can copy and paste tracks in this area as well as delete them.

5 – This is the track details area. It gives you a volume slider (that can be assigned to 'pan' or other effects). It has an effects (or equaliser) button, a mute button and a solo button. It also has a rounded rectangle with an icon in it. This icon will tell you whether the track is beatmatched, a loop or a 'one-shot'. Double-clicking this icon will give you even more information on the track – we can detail this later.

6 – This is the audio track. It appears on the timeline in the tracks' space when you drag out the audio. This is when you have the 'pencil' tool (pretty much default) selected – and draw the track on to the timeline. You will see how this works when you use it practically. This

audio track displays a rough guide to the wave-form which will help you line things up and see where the track is louder or quieter etc.

7 – This area holds your volume and levels info. It will show you how loud your mix is and also how loud your previews are playing in comparison. There is also a 'project properties' button here – where you can set a few general settings.

8 – This is your main timeline controls. Record, loop, play from start, play, pause, stop, go to start and go to end. Most of these speak for themselves. The record button I won't be covering as I've never used it! The loop button relates to the blue bar at the top of your main timeline area – it's draggable and means you can hit play and loop a section while testing different samples in the folder window.

9 – This area also provides some general controls. The main slider and numerical display is the project tempo – this is how fast or slow it is. As a very rough guide I've detailed some average BPMs (beats per minute) below...

Trip Hop 70 – 80
Hip Hop 80 – 100
Pop etc 90 – 120
Easy House & Big Beat 110 – 130
Dance & Breaks – 130 150
Faster Techno & Hard House 140 – 160
Drum & Bass 170 – 180

120 bpm is the default.

10 – This is your standard menu bar that sits below the 'File' etc options you'll see on most applications. It has things like new, open, save, publish and so on. It is also where you can select the pencil tool if you don't have it. Pencil tool, rubber and the select tool too.

4 Putting something in: Adding sound.

OK, so we should probably try and put something in. A good place to start would be an mp3 or wav file. I'm assuming you have some of these already (if not, then at least some samples) and that you know where they are on your PC.

So browse and find them in your folder views then when you have them – drag one on to the timeline. Now, it depends on what length the track is – as to what will happen here.

If it's a short sample it will treat it as a loop. This means that it will automatically try and set it as a loop to the bpm you have on the project. This can be a good thing if you're using drum loops or something that is looped well – but is a pain if it's a short speech snippet. I'll explain how to fix this in a moment.

If the sample is a long sample it will bring up a dialogue box asking you if you wish to beatmatch the sample. If it is an entire track – then chances are you probably will want to beatmatch it. I'll go on to explain the beatmatching process in the next section. For now, let's treat it as if you don't want to beatmatch it – perhaps it's a long ambient sound and you want it to play through.

Pressing cancel on the beatmatch option or dragging in the right length sample will be treated as a one-shot. This means the track is played once at its own tempo – regardless of your project tempo. You can have it play as many times as you wish – but you have to drag out each instance – as opposed to a loop which you can drag out continuously.

- Changing loops to one shots and more

OK, so you've dragged in a sample that you want to be a one-shot – but it's decided to put it in as a loop. To fix this you should double click on the track's icon (the coloured rounded rectangle with an icon in it). This will bring up the track properties box which will look like the image below.
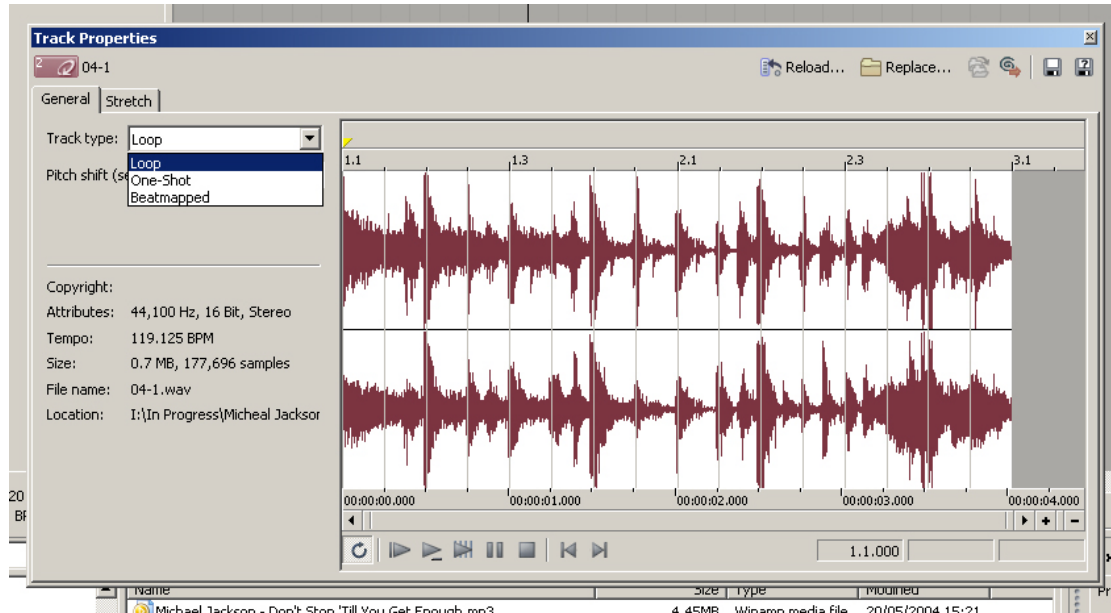
Use the dropdown menu displayed to change your track to the desired type – then close the dialogue.

5 Getting down to business: Putting it all together.

This is the part that may require some sense, musical knowledge and a good ear. If you're tone-deaf, and have no clue with regard to song structure, key or any sort of musical theory then don't be surprised when your tracks come out sounding awful. Acid Pro can facilitate your audio production, but it can't make your production for you – it's just a tool, not a generator.

OK, so you know how to add tracks to the mix. I guess I should mention that to remove them, you can either click on the sample you've dragged out and hit the delete key – or you can delete the whole track by hitting the track icon and pressing delete. This also applies to the copy-paste stuff too.

So you're looking to build up your first bootleg? – I'll assume you're a mash-up producer, but very similar principal applies to those making sample-based original work (if that is even possible) I won't be covering any sort of midi-input at this stage. Firstly because it's not as important, but secondly – because I've yet to get to grips with it myself.

I guess the format for bootlegs is generally 2 tracks working together to create something new. This can be an instrumental and an acapella, or perhaps 2 instrumentals, or really any sort of combination you see fit. It's your work after all.

It's a case of dragging beats and samples on to the timeline, ordering them as you wish – then playing it back to see how it sounds. It then becomes a trial and error process, with probable input from other samples through your folder view.

- Beatmatching

This is, as mentioned before the process of determining the tempo (speed) and bpm (beats per minute) of a track, so that when you beatmatch two tracks and run them back to back – they play in time (or at least at the same tempo) if you've done everything correctly.

If you want to beatmatch a track – then you can drag it into the main timeline. If it is a long enough sample or tune – the beatmatch dialogue will appear automatically and as if you want to beatmatch the track. This way you can press yes and get on with it.

If you need to beatmatch from a track that isn't long enough, or perhaps you didn't want to beatmatch it before – you can double click the track icon and bring up the track properties box – then from here select "Beatmatched" from the drop down box. You can then click the 'stretch' tab and then the "Beatmapper Wizard" button. This will bring up the dialogue for you.

OK, once in the dialogue you are presented with the sample and you are asked to specify the downbeat of the track.
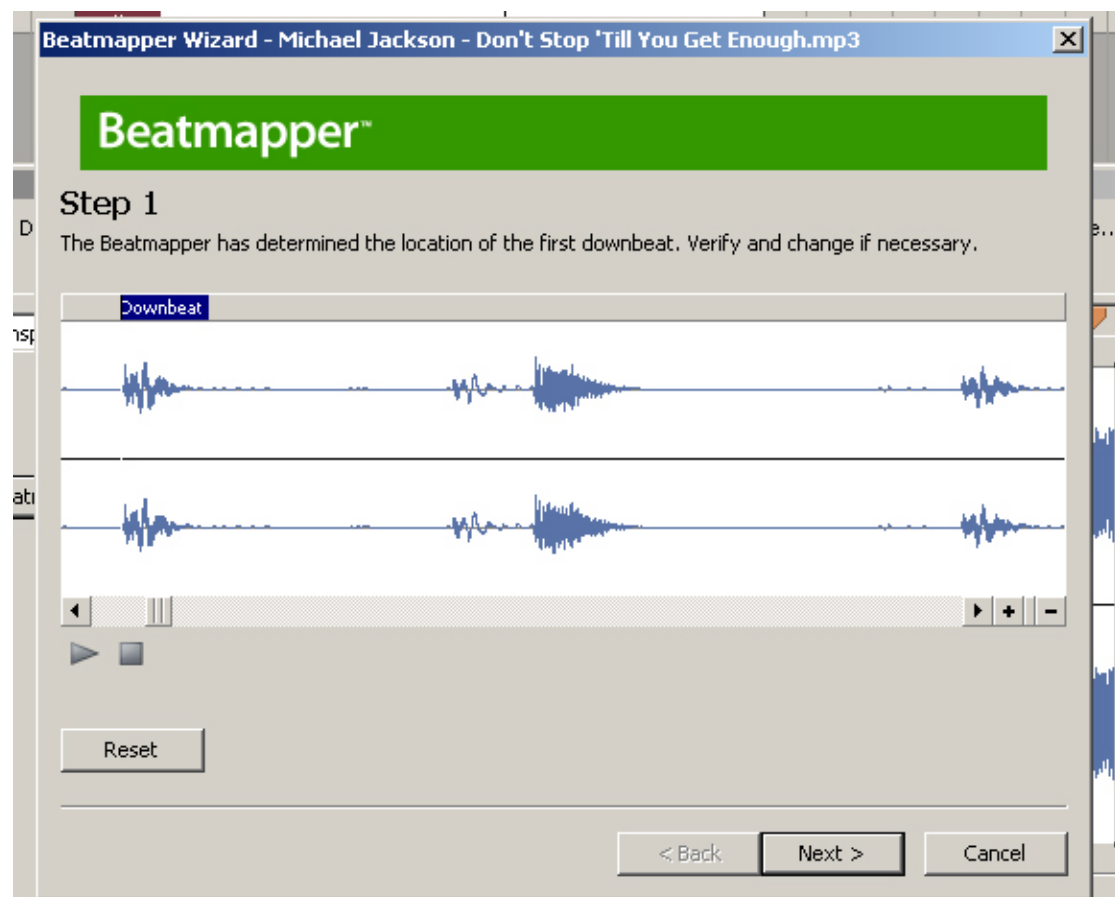
The downbeat is the first beat of the first bar. In most cases this is the first of 4 beats in a bar. Most dance tracks have four beats in succession, and the track is made on multiples of four. If you count a track, you can often count all the way through but only using numbers 1 – 4 in order.

Acid can get this downbeat detection wrong on tracks – especially if there is an intro, or any sort of sound before the first beat. As a result you should always check it's right. Press play and find out where the marker plays from. If it's wrong – adjust it so that it's on the first beat. Don't worry if you loose the intro, as you can deal with this when the track is beatmatched.

Once you've selected the downbeat press next, and Acid will try and estimate a single loop, or bar of 4 beats. You can drag either end of this (although if the downbeat's right just the right end will do) highlighted bar to properly line up the lines with the beats in the bar.
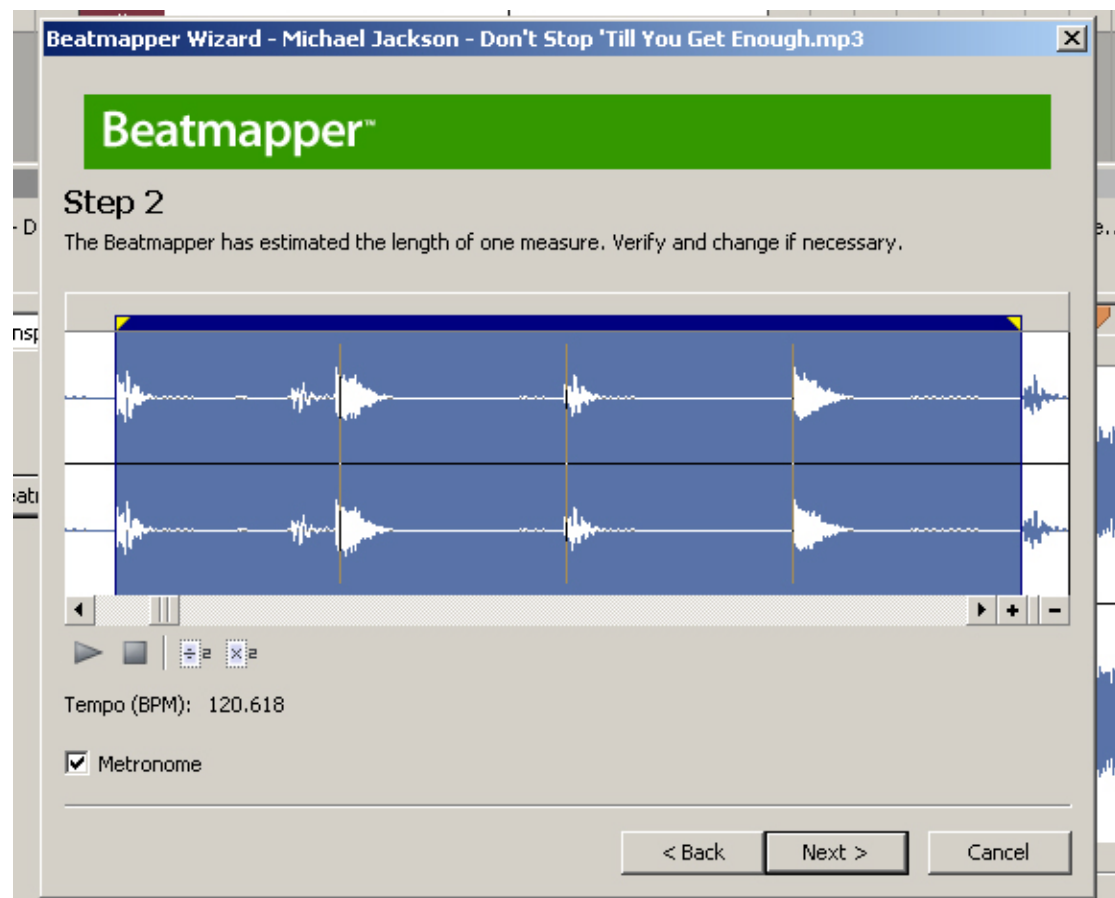
If you press play to preview, you will hear a tick-tock sound of the metronome – this is what you should line up with the beat to make sure it all fits.

Once you have done this press next and you will be asked to check it all fits with the rest of the tune. This is where you can find out how well the single bar you just finalised is projected along the length of the entire song.

image

You use the slider or arrows at the bottom to move along the entire track and find out if every bar is in time. Often the bars will go slightly out of sync, and it's just a case of draggin one end of the particular bar to the right place – this will effect the rest of the track to a degree but should keep it all in time more accurately.

You will get used to this process and also find that some tunes just can't be beatmatched very well – then your enjoyable task is cutting it all up in another program like Soundforge into more manageable pieces that can be looped or beatmatched more accurately.

Anyway – back to this. You finalise the entire track (or as much as you feel necessary) and then press next. You are presented with the finished screen and three tick-boxes.
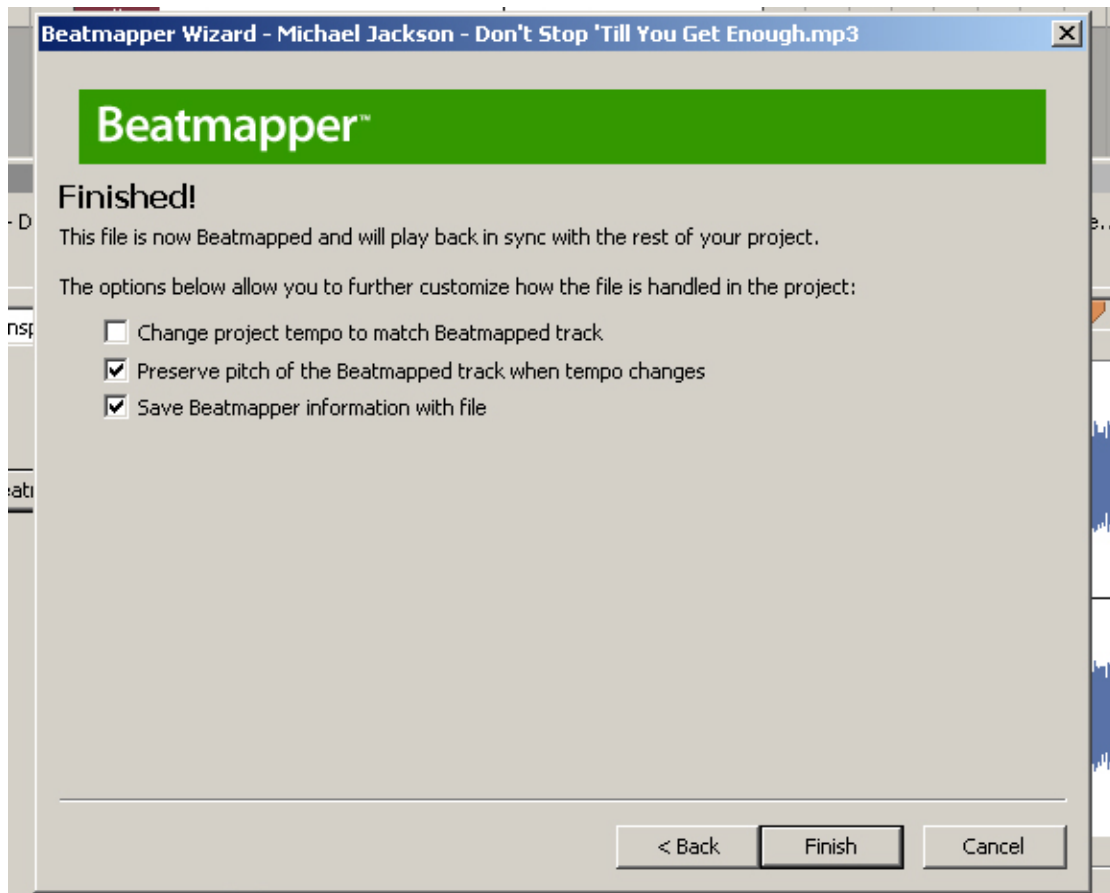
The first box is "change project tempo to match beatmapped track" – this will take the tempo of the track you have just beatmatched (or beatmapped as they say), and apply it to the project – so the project tempo will become the same as the beatmapped track. If I'm working to a specific tempo or have already beatmatched other tracks – I leave this unchecked.

The second box is "preserve pitch…" this will keep the sounds in the track the same whether it is slowed down or sped up. The alternative is hearing the sounds get lower as you slow the track and higher pitched as you speed it up – which is no use if you are wanting to set the key to match something else. So check this box.

The final box is "save beatmapper information with file" this just means that the information on the beatmapping you've just done can be applied to other projects if you want to drag the same file into another project – perfect! So check this box.

OK, now you're done – you can drag the track out and with a bit of luck it will be in time with the loops and other beatmapped tracks you want to put in to the timeline!

The other thing worth mentioning here is any part of the intro you've chopped off. If there were sounds before the first beat that you want to get back – then when you've dragged your sound out – you can go to the start of the sample and drag the edge the other way to reveal the pre-first-beat sounds. The rest will stay in time and you'll have your intro.

Bear in mind if you do this, then if you want to move the whole sample/track about – it may go out of time, as the intro will snap to the grid on the timeline and you will have to delete it and drag it out again in the right place. You'll get the hang of this after it's been done a couple of times.

- Volume levels and envelopes

Every track has a volume level – this applies to the whole track and is just a single setting. You can also apply a volume envelope to the track to fade things in and out. To do this you can do a couple of things.

Right click the track and go to insert/remove envelope – then 'volume'. OR use the menu at the top to hit Insert > Envelopes > Volume. OR finally you could just hit "[shift] & [V]". These three techniques will also remove the envelope if the need arises.
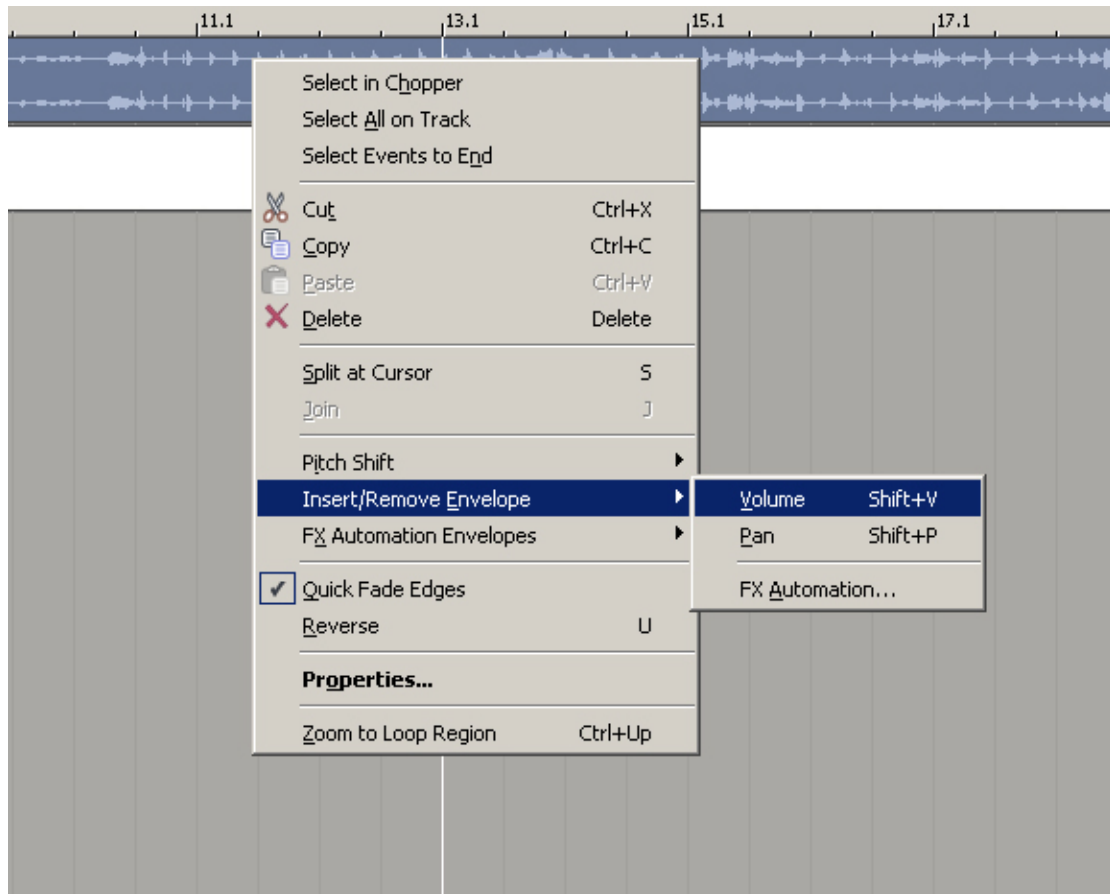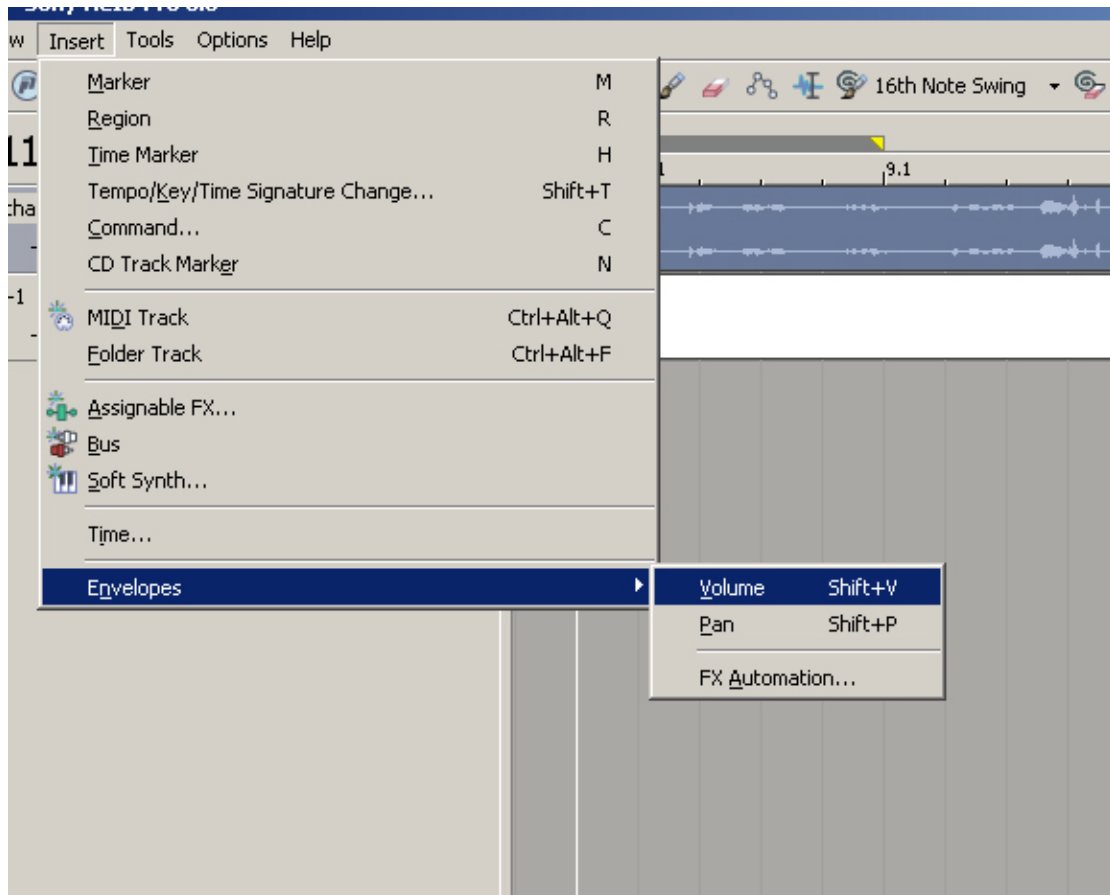
When you do this you'll get a blue line across your audio track. This is the volume level. The default (around the middle) is 0dB (zero decibels) Which means the envelope makes no difference to the track volume.

Now, to create a fade you have to double click on the line where you want it to start or end. This will add a small box to the line which you can move about. If you move it up, the volume increases, if you move it down the volume decreases. TO have a fade you need 2 boxes – so double click to add another then you can move one to the top and one to the bottom to produce a fade effect.
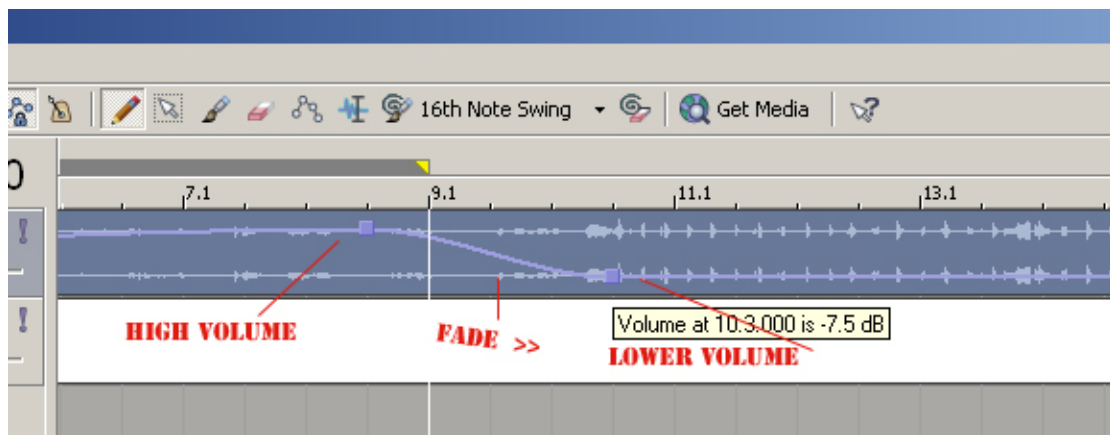

As a last note on this – if you remove an envelope from a track after putting in fades and these key-points (the boxes) then you will loose them all and have to re-do them if you put the envelope back in.

- Keys and pitch.

The key of a track is it's 'base note' If you don't have any musical knowledge, then you should know that all music (or at least most) is created in a specific key. All notes have a key and there are the letters A to G to denote these keys.

A piano for instance has a number of keys. They run from A to G all the way up or down. This diagram details that.
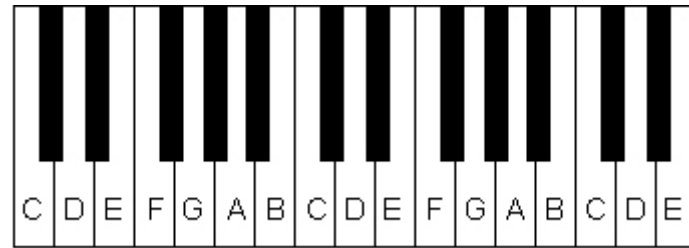

The black keys are 'semi-tones' the white keys are tones, or notes. Semi-tones are referred to as 'sharp' or 'flat' for example, the black note on the diagram to the left of the keyboard can be referred to as C-sharp or D-flat. The black notes are sharp to the note below them or flat to the note above them. The next note from the left would be D-sharp or E-flat. The other thing to note here is that 'sharp' is known by the '#' symbol and 'flat' is known by the 'b' symbol.

Although this isn't too important – it will explain a few things in a moment.

So every tune will have a note that harmonises with the rest of the tune. A note that is the root note for the track. It's difficult to explain this to somebody with no musical knowledge so if you want to learn more about the whole key explanation thing, then it would be wise to search for some basic music theory somewhere.

OK, so you have 2 tracks lined up and playing at the same time, but they don't go well together, so you might be able to fix this. If the vocals perhaps sound a bit out of tune on your acapella and perhaps if they were a bit higher they'd work – then you can open the track properties (double click the rounded box/icon for that track) and try to fix this.

In the 'stretch' tab you will see another dropdown box that has the letters A to G as mentioned above with corresponding sharps and flats too. This means that you can make your sounds higher or lower with this method. By selecting one of these and then going back to see how it sounds you can match two tracks.
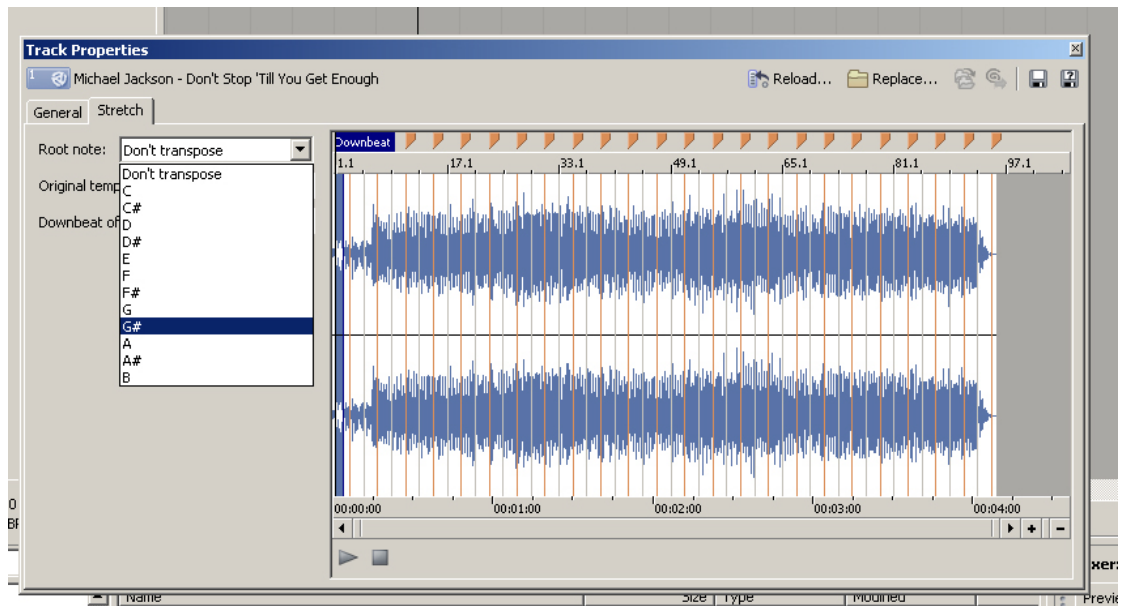
Now, merely making both tracks have the letter G won't do anything – it will just pitch them both up. You have to make relative changes, because although the key letters will change the track – they only relate directly to that one track, as opposed to the other tracks too.

This can be a difficult part to master, so it's worth a bit of trial and error to get you orientated with it all.

For more accurate adjustments to this you'll see a pitch shift (semitones) box in the track properties – here you can have up to 3 decimal places on pitch shift. 1.000 = a single semitone, and 12.000 will equal an 'octave' which is 8 notes. G (through A) to G. you can also use negative numbers here to express a pitch down.

6 Getting something out: Saving and rendering.

So you've constructed your masterpiece, and want to make sure the world can hear it. First you need to render it.

What I would do is make sure all your volume levels are ok – make sure it's the same volume at the end as at the start of the mix etc. Basically just check it through to make sure it sounds ok.

Now, you can save it. Now, File>Save will let you save the Acid file – which holds info about the project – and this will also save a backup of the acid file alongside it. This is for recovery purposes if Acid crashes.

This however won't get you an mp3 at the end. What you need to do for that is use the File>Render As... option. A box will come up asking for a filename and then you have a few options for rendering the file – you can chose mp3, wav and various other formats. Mp3 is the most common as you probably know already and as far as bit-rates go – that's a whole other discussion. Generally you should render a wav (windows – not the scott-studios one) file for a master copy (although this will take up more space on your hard-disk) and also render an mp3 file for sending to people on the internet or posting on websites etc. The wav can be used to make more copies and also to write CDs.

So there you have it – a beginner's guide to Acid.

All the best...

Tutorial written by Alex C / Grafyte
For Boot Camp Clique – www.bootcampclique.com
Where you can find more articles, guides, tutorials and resources

Alex's bootlegs can be found at www.grafyte.deneo.co.uk
His hip hop production at www.grafytestudios.co.uk/foremost/
His remixes at www.grafyte.deneo.co.uk/shiftyvincent/
His web design services at www.grafytestudios.co.uk
And his personal portfolio at http://alex.grafytestudios.co.uk

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