

The DJ Mixtape

With Ableton Live

Course Guide

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Module 1 - Preparing Your Music

Creating a Folder & Tagging Files

Before you open up Ableton Live, it's best practice to create a folder for your mix and locate it somewhere which is easy to find on your hard drive.

Don't keep it on your desktop as Ableton doesn't like it. Ableton reads and creates data from the original file location, so keeping things organised is a good idea.

Once all your music files are in a folder, its time to run them through your key detection software. For this course I recommend using "Mixed in Key" but a number of different key detection software options are available online and I don't recommend buying Mixed In Key if you already own an alternative.

Let's run through the best practice for your key detection software.

For this process we will be using Mixed In Key but most key detection software will work on the same principle.

Alternatives include: Serato/ Traktor/ dj Pro/ Recordbox/ (I've probably missed some)

This software will analyse your tracks and tag the file name with the key of the track (this will be displayed as a number and a letter.) The track will also be given a tempo.

Step 1- Go to settings and select "Rename Files" and set the following preferences:

Rename Files

SHOULD MIXED IN KEY RENAME FILES AFTER PROCESSING?

- Do not rename files
- Automatically rename files after processing

WHAT IS YOUR NAMING PREFERENCE?

- "Original Filename - Key"
- "Original Filename - Key - Tempo" (our preferred option)
- "Key - Original Filename"
- "Key - Tempo - Original Filename"
- "Tempo - Key - Original Filename"

Step 2- In settings go to "Key Notation" and set the following preferences:

Key Notation

PRIMARY KEY NOTATION

- Camelot
Example: "11A"
- Flats
Example: "G_bm"
- Sharps
Example: "F_#m"

EXTRA KEY COLUMN

- None
- Flats
Example: "G_bm"
- Sharps
Example: "F_#m"

Step 3:

In settings go to Tempo and set the following preferences:

Tempo

TEMPO RANGE

Restrict displayed tempo to this range:

Values outside this range will be doubled or halved

LOWEST BPM

79



HIGHEST BPM

192



HOW MANY DECIMAL PLACES SHOULD MIXED IN KEY SHOW?

Round the result, do not show decimal places

Example: "128"

One decimal place

Example: "128.1"

Two decimal places

Example: "128.14"

Go to the Collection tab at the top of the page and click the plus button next to the side menu to create a new folder and name it.

You are now ready to import your music into your key detection software.

Locate the folder on your hard drive with your music in and drag it into the main screen on Mixed In Key.

Mixed In Key will then analyse your music files and rename them with the key and tempo information written into the file name.

This process should take a few minutes and once all the tracks say "complete" next to them, it has finished with the analysing process.

Highlight all of the tracks in the main window by pressing cmd and A. then drag them into your new folder.

Your music is now ready for importing into Ableton Live.

Creating a template

We are going to create a template for your mixes which you can use in order to save time at the beginning of each session.

Open up Ableton Live and hit the tab key to take you into the arrange view.

Delete any midi tracks by clicking on them and pressing delete. Also delete the auxiliary tracks to save screen space. We won't be using them on this course.

Next we are going to add some more audio tracks. click on the audio channel and press **cmd + T**.

This will create a new audio track. I like to create around 15 for my mix. we can add or delete later.

Next we are going to add some audio effects onto our master channel and keep them turned off for now.

Click on the master channel below the audio track so it's highlighted.

Go to audio effects in the left hand column. Find "compressor" and **double click**. The compressor effect unit should load into the bottom window.

Find the "Limiter" effect in the audio effects column and double click. this to make it appear in the window.

Click on the yellow circle next to the audio effect name to turn off the effect.. Do this to both effects.

Next navigate to Ableton's preferences by clicking "**live**" in the top left corner and then preferences.

Click file/ Folder in the left hand column.
Click save current set as default.

We are now ready to import our first track.

Importing:

Under "places" in the left hand column click "add new folder". A finder menu will appear.

Locate the folder with your music on and **click open**.

Your folder will now appear in "places".

Click on your folder name and the contents of the folder will appear in the column next to it.

Drag one of your tracks into track one in the main arrange page.

You have imported your first track and we're ready to move onto the warping stage.

Warping

Warping a track meaning altering the tempo in order for it to fit into our DJ set. During this process Ableton keeps the original pitch/ key of the track regardless of the tempo change. Some refer to this as time stretching.

Most tracks recorded on a computer based digital sequencer or a DAW like Ableton will have fairly precise and accurate timing. This means that minimal editing will be required during the warping process.

Older recordings made with drum machines or hardware sequencers and recorded onto tape, for example '70's and '80s disco, tend to need more attention when warping and can be a bit more time consuming.

It's also worth noting that music using a live drummer is quite challenging to warp because of the lack of consistency in tempo. However, warping live music is a skill which can be learnt like any other.

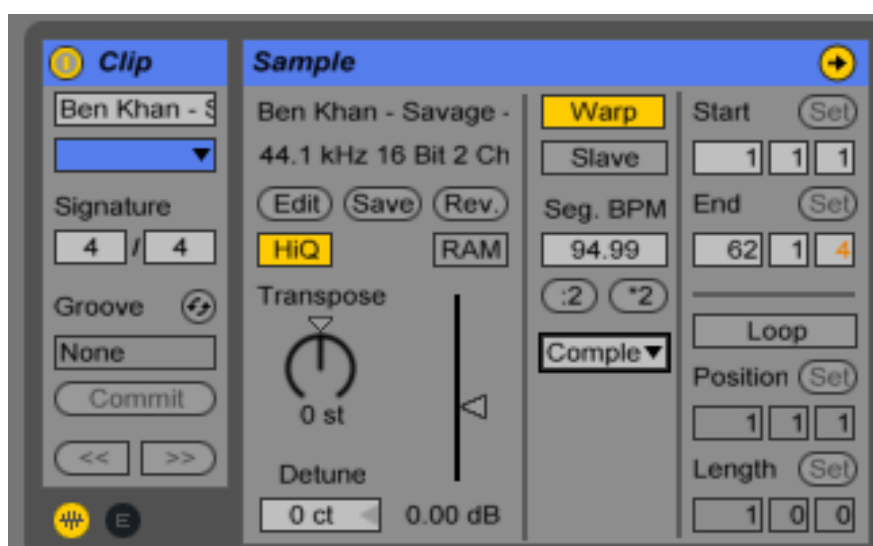
We're going to take a look at a modern digital production as well as an older disco track from the 80's.

Double click on the track clip in the arrange page and you will see the sample information in the screen below.

We need to make sure we set up the audio in order to get the best sound.

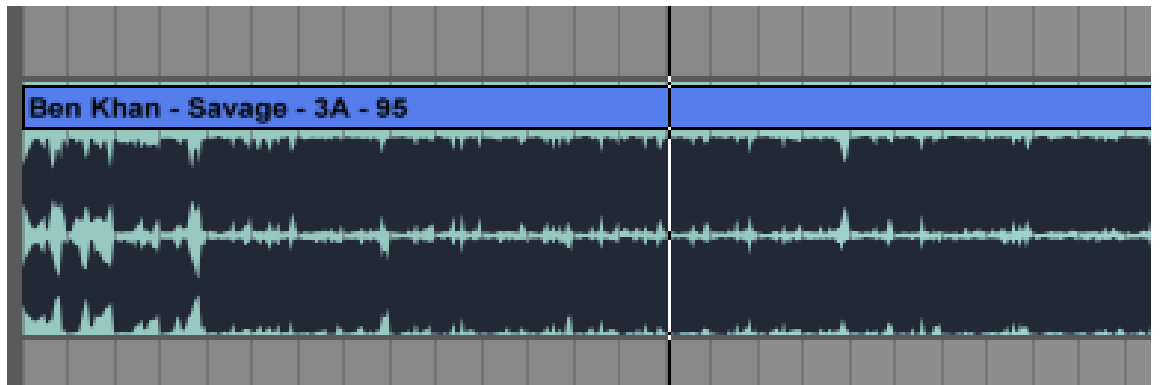
Make sure **warp** and **HiQ** are turned on for the best sound quality.

Change the box that says "beats" to "**complete**". This is the best option for long form music as it has a nice balance between transients and quality.



Let's look at the tempo for our DJ set which is located in the top left of the main screen.

Ableton should have matched the set tempo with the tempo of the track you imported. If this isn't the case then match the tempo manually to the track tempo (this should be tagged in your MP3)



The figure 95 refers to the BPM (tempo) of our first track.

Now we know that the tempo of Ableton is running at the same speed as our first track.

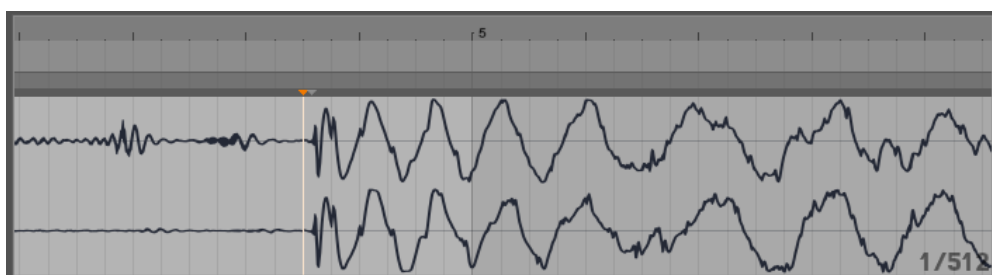
Now let's focus on the audio window at the bottom of the screen.

Hit play and listen to the intro.

We can hear that the beat starts at the beginning of the 5th bar. This would be a good place to start our warping from. (Don't worry, we'll include the beginning later).

Zoom into the 5th bar so you can see it up close by holding down the left mouse button and dragging down when you see the magnify symbol. (This symbol appears when you hover the mouse over the speaker/playback symbol above the waveform)

Play the track again to double check that we have identified the first kick drum of our track.



Remember- when trying to locate the best start point of a kick drum, if you let it breathe and give it some space, you'll maintain a better groove in your warping.

Hover over the transient marker and press control and left click your mouse. Then choose the option that says "**start 1.1.1 here**"

Now take a look at how accurately Ableton has warped the track.

Use the same process as before and zoom into bar 9.



We can see that the kick drum marker has fallen slightly out of time.

Drag the warp marker onto bar 9 and double click to fix the marker in place.

Zoom into bar 17 to check again for accuracy.

We can see that Ableton has done a good job at warping this so there's no need to edit anything.

Let's move further along the track to bar 33. Ableton has drifted very slightly so follow the earlier steps to correct.

Now go to bar 55 right at the end and repeat the same process.

As a rule of thumb, try to insert as fewer warper markers as possible whilst maintaining the overall accuracy of the track. This will make sure you maintain the original groove of the record.

Note- Its worth playing around with the "**warp from**" settings which you access by holding "**ctrl + left click**" on the transients, as some of them work best on different music styles and waveforms.

We now have a track which is successfully warped and ready for the mix.

MODULE 2- TRANSITIONS

In this module I'm going to cover a number of transition techniques in order to highlight how we can move between tracks through programming these transitions.

There are many different types of transition and some lend themselves more heavily to particular styles of music.

For example, Hip Hop mixing tends to be quite focussed on the drop, with little time spent with both tracks playing at the same time.

Deep house on the other hand, tends to rely more on lengthy transitions which match key and tempo.

Regardless of your style or genre, having a number of transition techniques at your disposal sparks creativity and will hopefully set your mix apart from the crowd.

Beat Matching

Since the invention of the manual pitch control on turntables, beat matching has become the cornerstone of maintaining a continuous, flowing soundtrack for the dancefloor.

The reason why Ableton is so popular among electronic music producers is that it's primary function is to process audio in order to manipulate tempo, whilst maintaining pitch.

In other words, you can change the tempo whilst keeping the original key of the track or sample.

In our first example, we are going to use 2 tracks which have an intro and outro comprising of just a rhythm section. (These kind of tracks are sometimes referred to as "DJ friendly".)

Lets take a look at our music folder and select 2 tracks which have a similar tempo and if possible have an introduction or an outro which consists of only a beat or rhythm section.

I'm using "Rock it - (extended mix)" by Ofenbach and "17 days (Zach Witness version)" by Prince.

The tempo of your tracks should be written in the name of the file since they have been processed by your key detection software.

Try to select 2 tracks which are no more than 5bpm apart.

Drag the first track into audio track 1 in Ableton and use the techniques from unit 2 to make sure the track is warped correctly.

Make sure the track clip starts on bar 1 in Ableton.

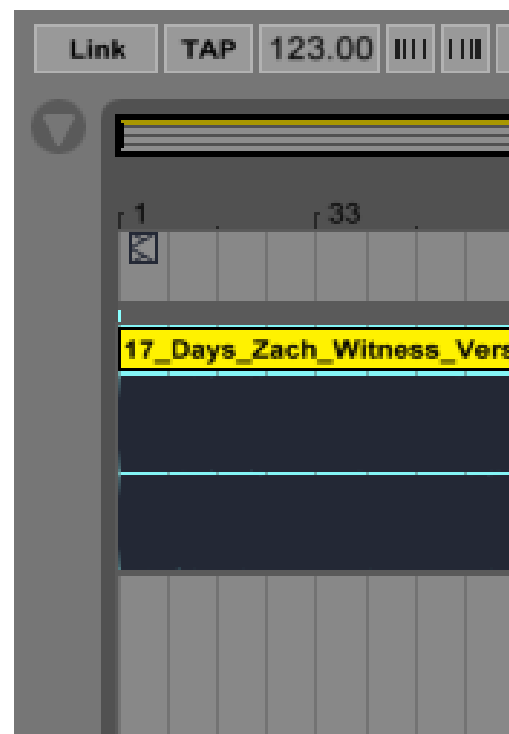
Hit the play button and make sure the first beat of the bar starts as you press play.

Most music forms that are in 4/4 time signatures will develop every 32 bars and therefore the arrangement of the track will change at these bars.

Let's move to bar 32 and see what happens.

In the case of this track the vocals are introduced.

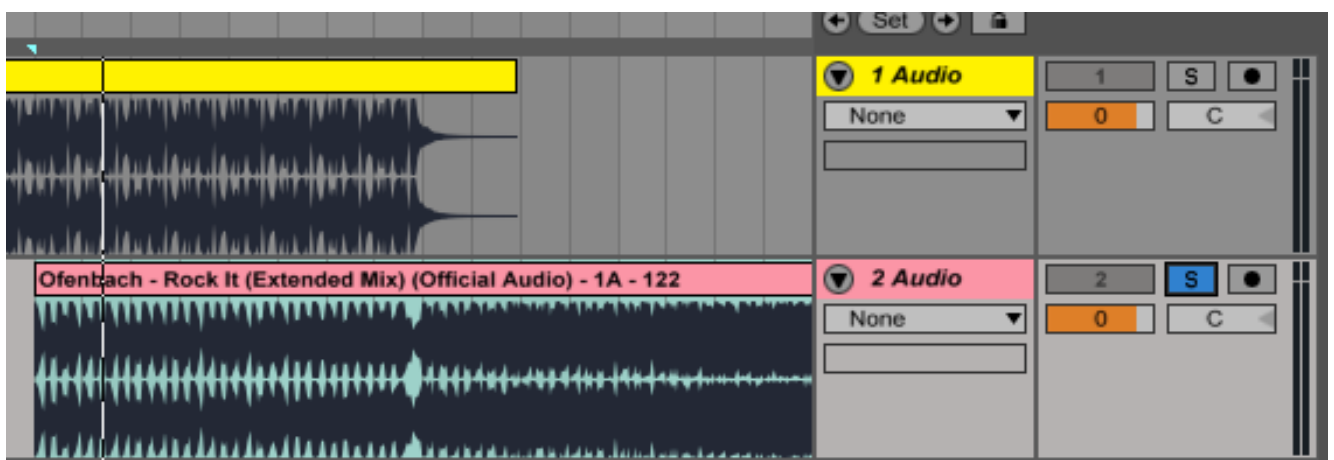
Let's move towards the end of the track and find where the rhythm section outro begins.



In the Prince track we're working with, the beat outro begins at bar 137.

Drag your 2nd track from your folder onto the arrange screen so that the beginning starts at bar 137.

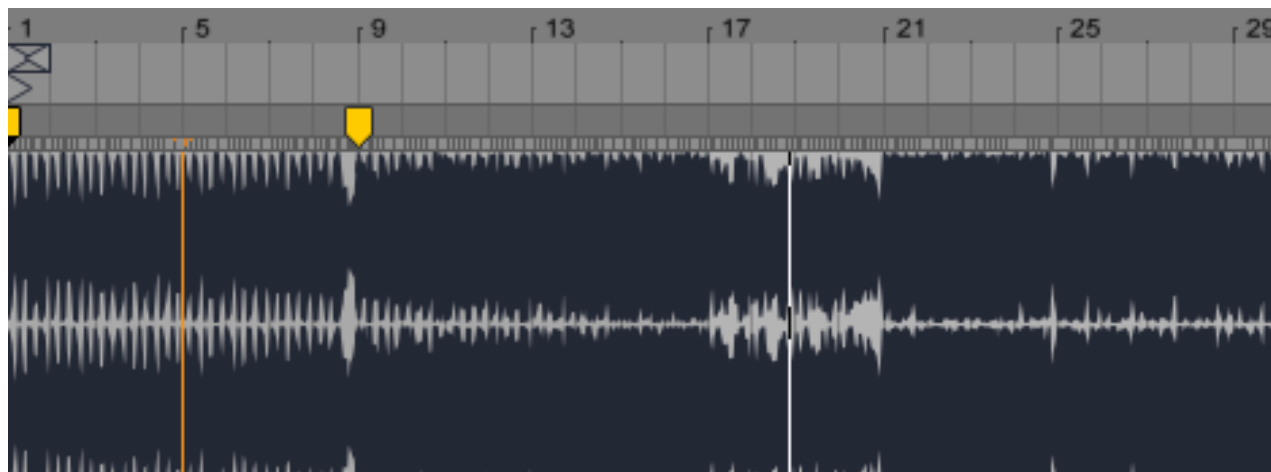
Hit the "S" button next to the track you are working on to solo it.



Repeat the same warping process with this track and then hit "S" again to unsolo it.

If the tracks are warped correctly then they should both beat match together. If you are hearing beats that sound like that are clashing then zoom in closer to the warp markers and see if there are any inconsistencies.

The track I am mixing in is very consistent and only needed a warp marker on bar 9



Next, experiment with the start position of the track you are mixing in. Sometimes bringing the track forward by 8 or 16 bars can add some more energy to the mix.

Harmonic Mixing

Mixing in key or tonal mixing means to match two tracks of the same or similar key together.

Don't worry, you don't need a background in musical theory to do this. However, some basic music theory and an understanding of your key detection software is enough to achieve this.

Before we dive in, let's go over the basics. It's useful to have a picture of the Camelot Wheel in front of you. (This is provided in the course resources.)

Every track in your collection has a key signature and this means that the track will contain a particular selection of notes. For example, a track in C major will contain some or all of the white notes on the keyboard. If you press every white note on a keyboard from C to C you get the scale of C major.

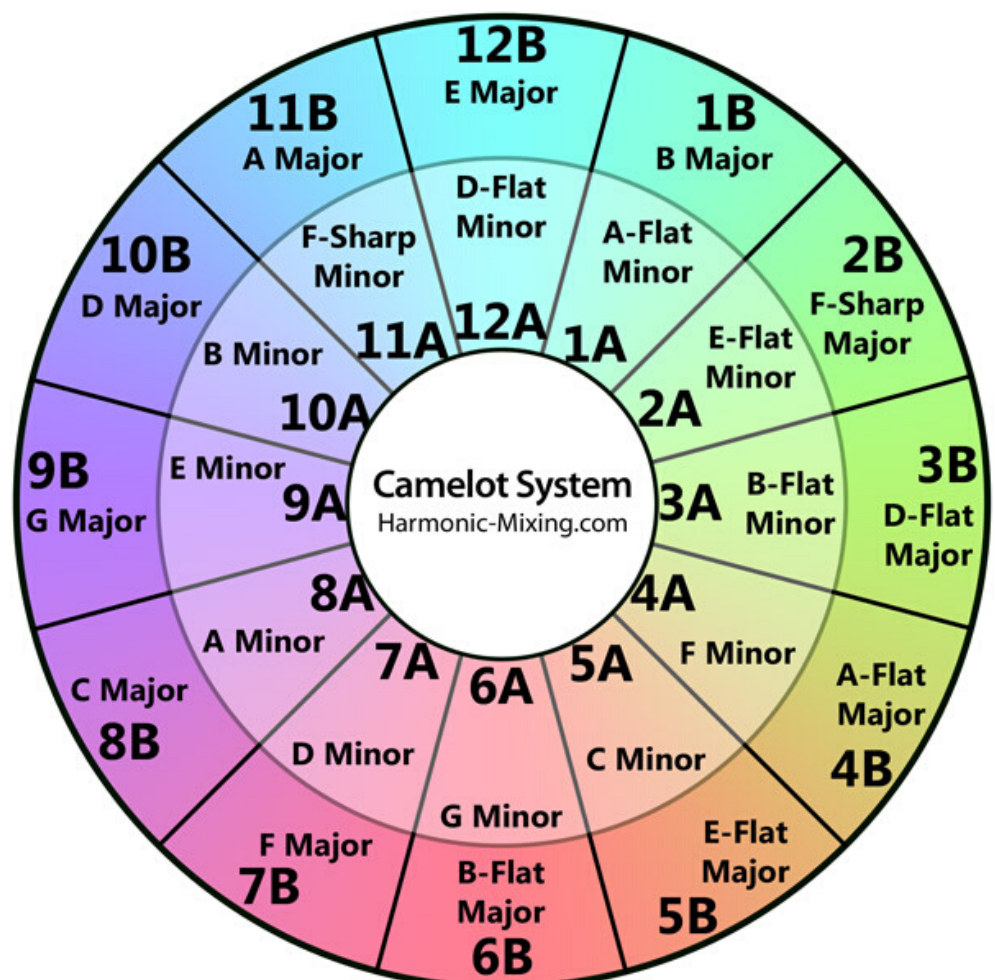
Other musical keys or scales will have a different set of notes in them which belong to that key.

You may have heard the term major and minor keys before. This just refers to the difference in the relationship between the notes in that type of scale.

Every major key will follow the same sequence between notes and this is the same with minor keys. The sequence or relationship in major or minor keys gives them a sad or happy sound.

Anyway, that's a really basic and short guide to music theory, but you don't really need to know any more than that to mix harmonically.

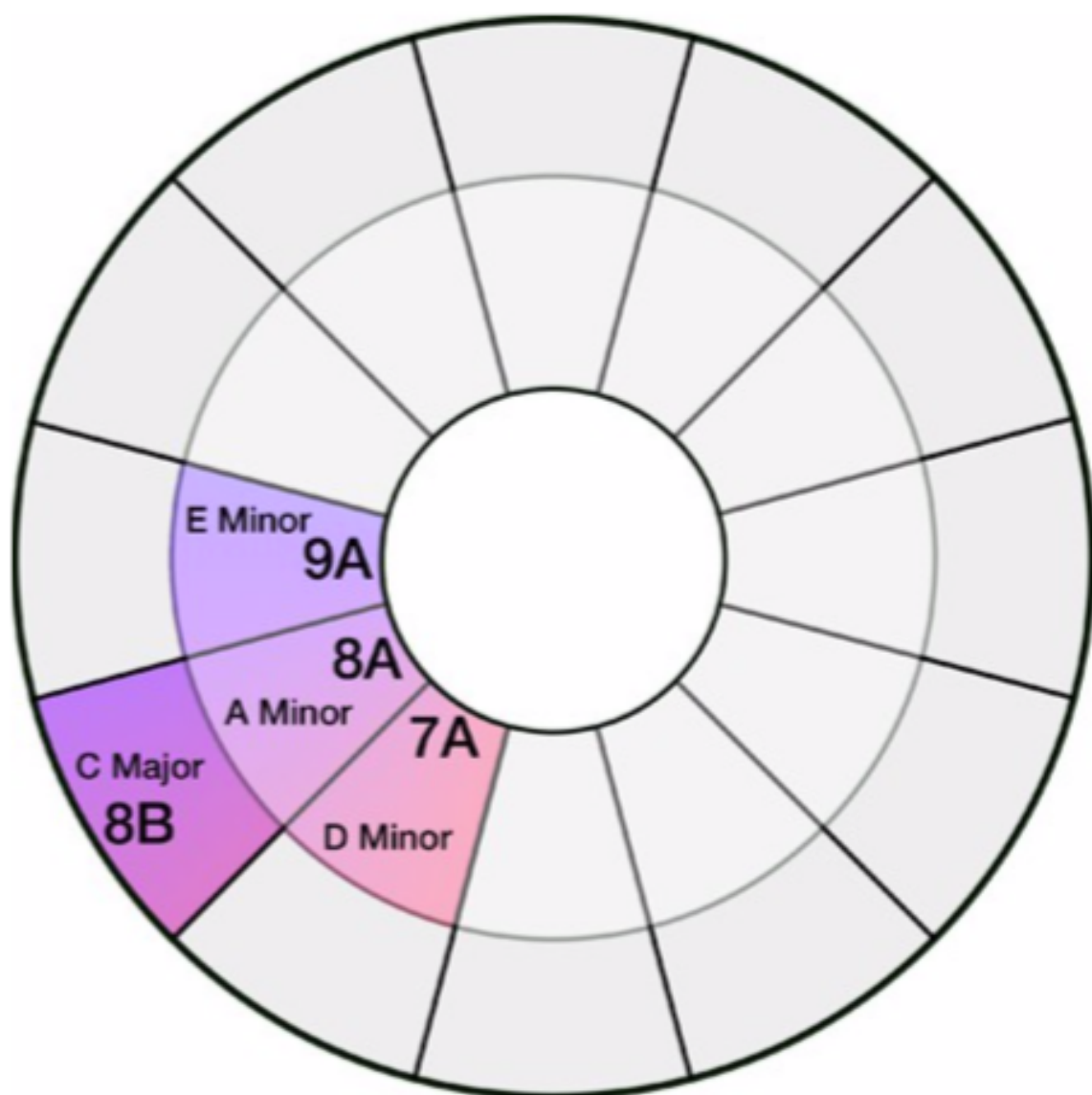
All you need to understand is how this is all related to the Camelot wheel.



When you process your music in your key detection software, it will assign a number and letter to each track. The number refers to the key of the song and the letter depicts if that song is in a minor or major scale. For example, we can see that a song in the key of A Minor is tagged as 8A.

All we need to understand now is how that figure relates to the rest of the music in our collection.

If you have a song in the key of A Minor (8A) and you want to select a track to mix out of it harmonically, you have a number of options. You can either choose a track which is also tagged 8A or you can step either side of this scale and choose 8B, 9A or 7A.



Tracks selected in 8A will give you the most perfect harmonic results and tracks one step away will give you near perfect results.

Let's choose 2 tracks from our mix folder and put this into practice. For this exercise I recommend choosing 2 tracks that share the same figure.

Drag your first track into Ableton and use the techniques from unit 2 to warp and position the track at the beginning of bar one. Listen to the track for a section you think may be nice to mix out of and drag your next track into audio channel two below your first track.

Solo and warp your second track. **Un-solo** and play both tracks at the same time. First check that the tracks are playing in time because it's much easier to check for matching keys once the tempos are synced.

Once you are confident that both tracks are in time, you can try positioning the second track in different places to see where the best matches take happen.

Delay and Reverb

Delay and reverb are both audio effects and can be used in collaboration with the other transition techniques listed or used as a technique on their own. Programming audio effects requires a technique that we call automation and this means to move or change something over a time period in your mix. For example, we might want to increase the level of reverb over a four bar period.

In Ableton, it is possible to automate most of the controls associated with an audio effect.

Automation in Ableton is shown as red lines which we can set manually to trigger changes in our audio effects.

In this demonstration we will use a track that has a vocal section which we will mix out of and a 2nd track with an instrumental intro. For this demo we are using "Rollercoaster" by Ivy Sole and "Blinded by the lights" by The Weekend.

Import your first track, warp it and find a section you think would be a good exit point. In our example we've chosen the vocal breakdown towards the end of the track "Rollercoaster".

Highlight the audio track which has the audio on it and go to **"Audio Effects"** - **"Ping Pong Delay"** and double click to insert effect.

In the audio channel dropdown box select **"Ping Pong Delay"** and then select "device on".

A red line will appear inside the track.
Hit the plus symbol to open a separate automation window below.



Double click on the red line to insert or remove markers in your automation line. In our demonstration we have created a **"Device on"** box starting just before and finishing just after where we intend the automation to happen.

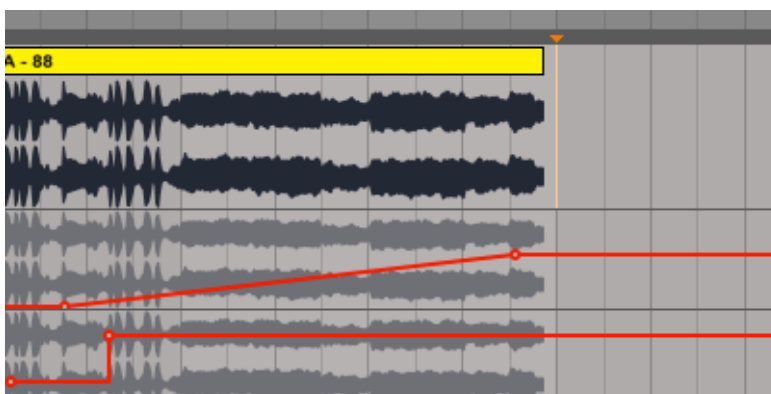


We do this to keep our automation under control and make sure things don't become messy when we progress into the arrangement stage.



Once you have turned on your automation for the Delay effect, click on the **"Wet/Dry"** option which is located in the same window as "device on".

Insert markers in order to programme a straight line pointing upwards throughout the intended mix period.



Playback the track and experiment with the amount of “**wet/dry**” you add to your mix as well as the **delay speed** on the effect unit itself, which is indicated by the 8 numbers below.

Button 1 will give you a quick delay time compared to 16.

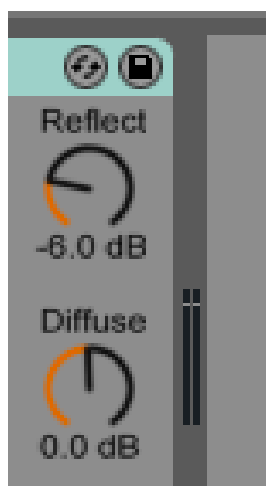
Once you are happy with the delay settings, import your 2nd track into audio channel 2 and warp it.

As we did with the transitions earlier, play around with the start position of the second track and find the best mixing point.

We are going to add a reverb effect unit onto our first track so highlight audio channel 1.



Double click on the reverb effect unit in the effects section.



For our demonstration we used the “cathedral” setting on our effect so click on the symbol which has 2 arrows inside a circle and choose “**cathedral**” from the menu in the effects bar.

Use the same process we went through for the delay effect and add a "device on" channel and a "wet/dry" channel.



Experiment with the automation levels until you are happy with the mix.

Cutting

Cutting is the art of transitioning cleanly between 2 tracks. It's commonly used as a Hip Hop mix technique but I often use it with various genres and tend to combine it with the delay and reverb transitions from the previous unit.

Use your file tags to select 2 tunes that are similar in tempo and key.

For the demo I have used "Krumm" by Evil Twin and I have selected a mix out point towards the end of the track.

Import the first track and warp. Listen through and select a potential mix out point.



Import your 2nd track, warp it and position in the correct place. (Remember to look at your bar markers at the top of the arrangement window and line your tracks up in the most user friendly way possible.

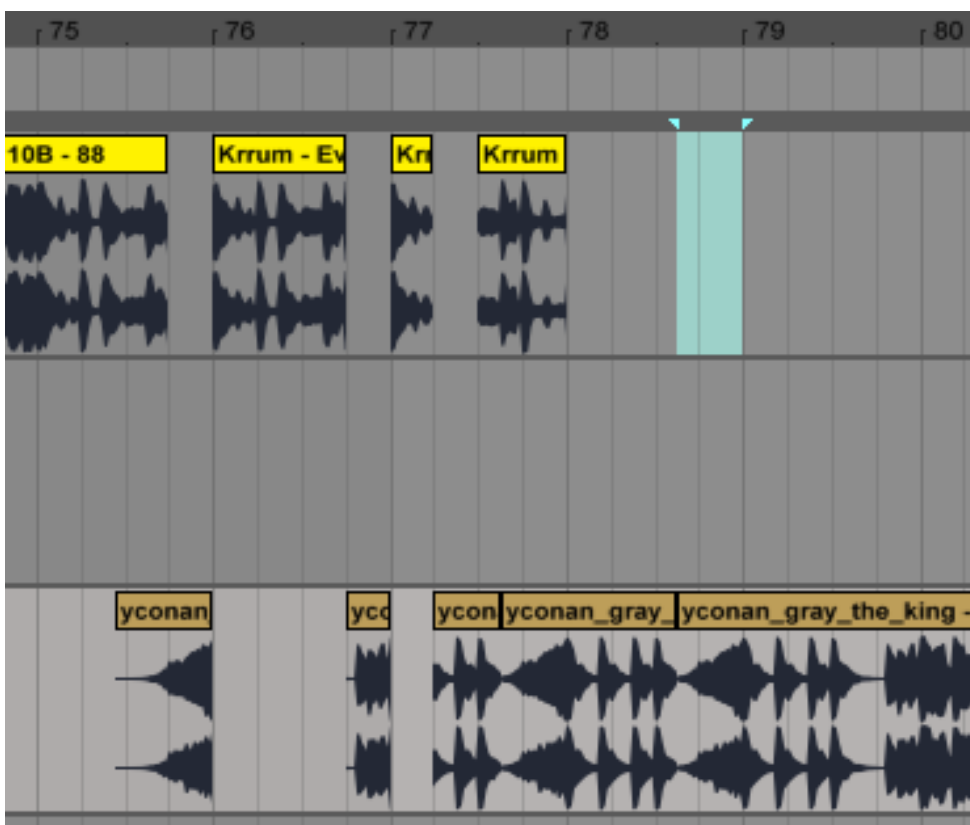
The best way to do this is to move the first kick drum of the first track onto a multiple of 8. for example bar 1, 9, or 17 ect.)

In our demo the exit point of the first track is at bar 75.

Lay the beginning of your second track over the end of the first track.

Add an additional empty track in between track 1 + 2 to give yourself space to edit.

Highlight parts you want to remove and delete them so that there are alternate samples playing to create a chopping effect.



This technique can sound quite clinical, so this is where you can use the delay and reverb techniques learnt in the previous unit to glue the sounds together.

Mash-Ups

Mash-Ups are 2 (or more) tracks that are played over the top of each other to create something new.

"2Many DJ's" brought this style of mixing back into the mainstream with the release of "Radio Soulwax Pt2" in 2002. As well as being released as tracks in their own right, mash-ups are often included in DJ mixes to add a personal touch in order to make them more unique.

More often than not, an instrumental track is matched with a vocal acappella and this is the approach we'll take in our demo.

It's important to find 2 tracks which are in the same key. For this demo we are using "remain Silent (Ray Mang Instrumental)" by the phenomenal Handclap Band and "All Stars Get Down (acappella)" by Todd Terry.

If you don't own any acapellas then try for source one at Beatport. Here you can search for tracks by key and tempo so you can find an acapella that fits with one of the tracks in your mix folder.

Drag your instrumental into the arrange page and warp.

Drag your acappella into audio channel 2.

Be aware that its much more difficult to warp a track that doesn't have a beat.

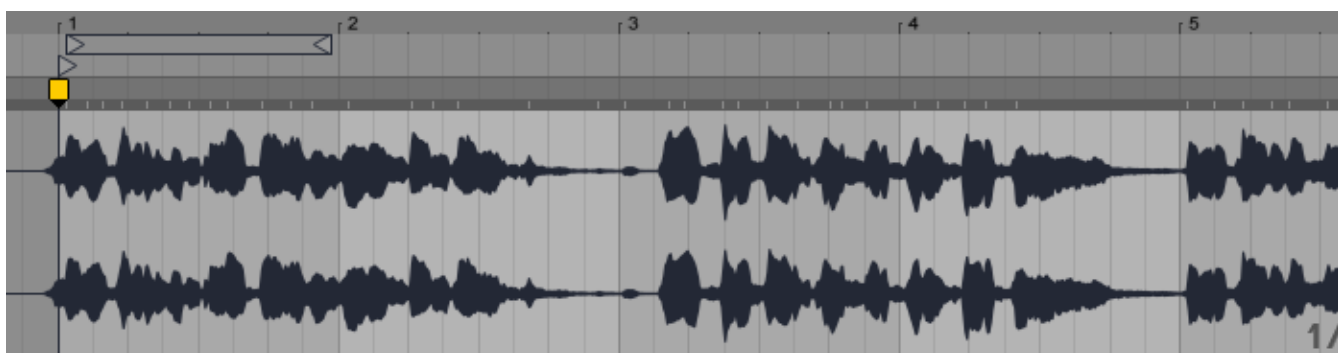
My tip is to listen to the vocal phrases where you think a new 8 bar section would start.

This might be the beginning of the verse or even the chorus.

The lyrics will often be repeated throughout the song so try to match the warping accordingly.

Once you have a the acapella warped then try it over the instrumental and check the timing.

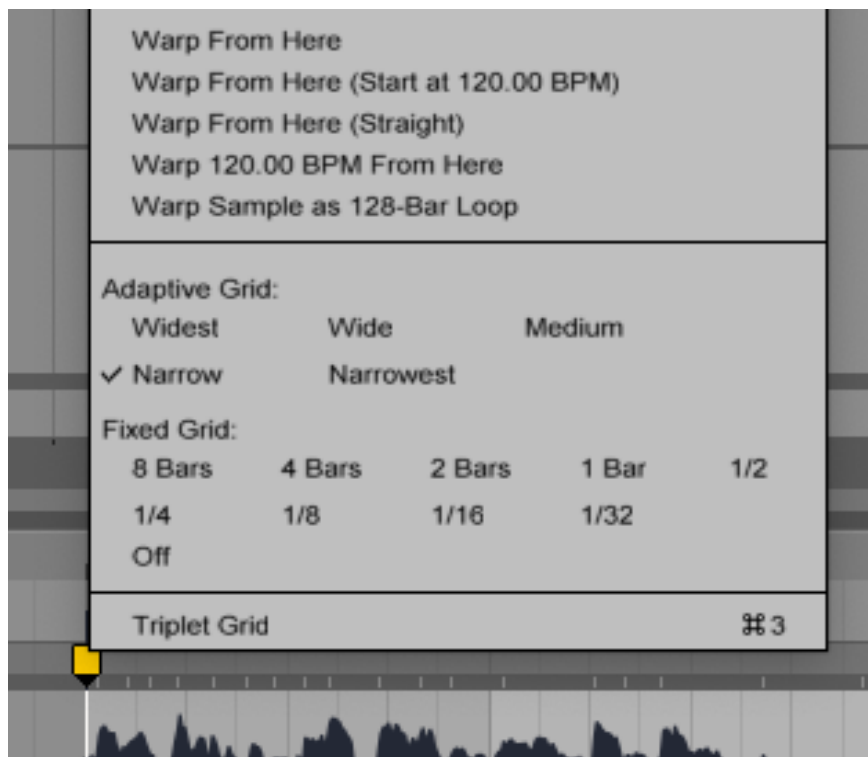
You may need to adjust the warping to fit.



We can see that the the vocal phrasing at the beginning of bar 1 and 5 is very similar so I have positioned the transient markers accordingly.

It's not an exact science but practicing with a number of different acapellas will improve your skill in this area.

Also remember to play around with the "**warp from**" settings which you can access by holding "**ctrl**" and clicking on the "**warp markers**".



Once you are fairly confident you have the acapella in time, try placing it over different sections of the instrumental to find bits that work well together.

If you find a section you want to extend, you need to highlight it on the arrange page by clicking and dragging the mouse over it.

(Remember, if you click and drag on the audio sections they will move, so find a section with no audio on it. To do this use a spare audio track below the 2 tracks you are extending.)



Press “edit” in the top window and select “duplicate time”.

You can also use this technique for parts of the mash-up you don’t want.

Follow the same process but this time click “edit” and select “delete time”.

Now we can start to use the skills we covered in the earlier transition types to bring our mash-up together.

For example, you can use the techniques from cutting in order to shorten parts of the track.

We can also use delay and reverb audio effects to add creativity and manipulate the 2 tracks to give them a different feel.

X-Fade - Using volume Automation

X-Fading is the technique of transitioning between 2 tracks using a volume fade.

In other words, as one track reduces in volume, the other increases to create a smooth and balanced transition.

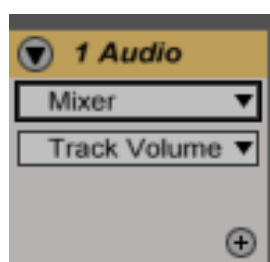
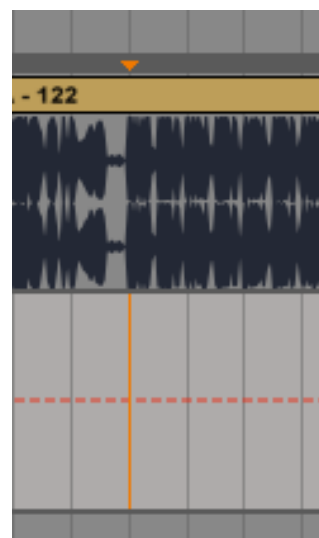
As in the previous units, select 2 tracks of a similar tempo and import then warp the first track.

Identify a point in the first track that you would like to mix out from and click the screen below to create a marker.

If you need to extend this mix-out point, highlight and press "**cmd**" + "**D**".

Then import your 2nd track, warp it and place on your initial marker at the beginning of the mix-out point.

Open the volume automation for both tracks.



Insert automation markers by double clicking on the red lines and make two lines with the 1st track fading down and the second fading up.

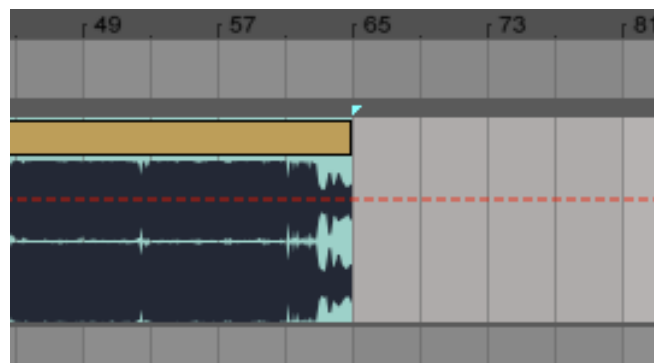


X-Fade - Using Ableton's Fade Tool

X-Fading with Ableton's built-in "**Fade**" tool is a useful technique to use and although similar transitions can be achieved through using volume automation, I find it often gives some quite interesting results.

Let's import a track into the arrange, warp it and find a mix-out point.

Drag the audio back to the mix-out point.



Do the same with track 2 but this time drag the audio to the mix-in point. This might be the beginning of the track or the first kick drum.

Now drag track 2 up onto audio channel 1 so that it starts at the point where the mix-out point of track 1 finishes.



Now select fades from the dropdown window below audio 1.

2 automation markers will appear at the mix point.

Drag the 1st automation marker to the right to create a x-fade.



Adjust it to find the best transition point.

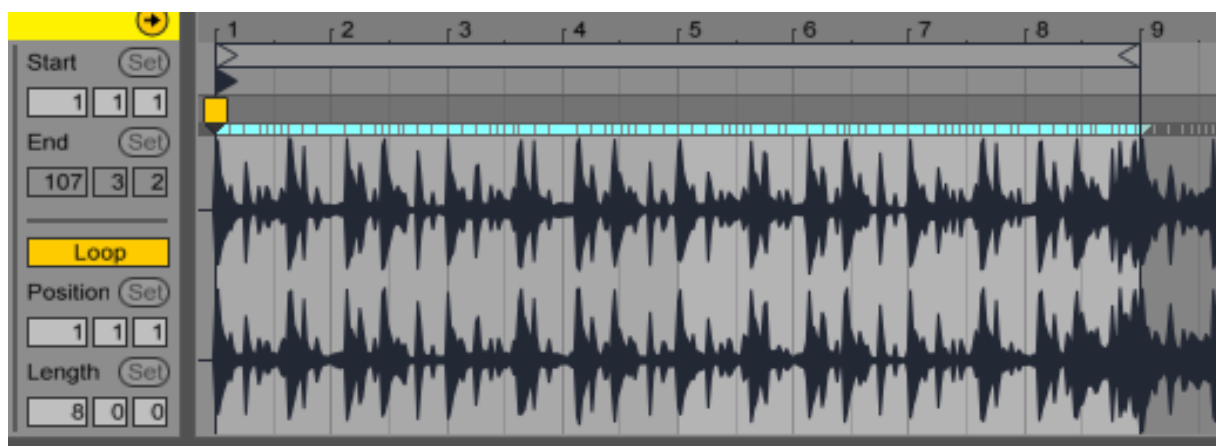
Raising or lowering the marker in the middle of the x-fade point will change the volume of the mix.

Next we are going to apply the x-fade in the other direction so set the audio back to the same position it was in before we set the x-fade automation.

This time we are going to move the 2nd automation marker to the left. However, we are trying to create a x-fade from before the start point of track 2 and there is no audio to fade in this direction.

This means we have to loop the start of the track in order to give Ableton something to fade.

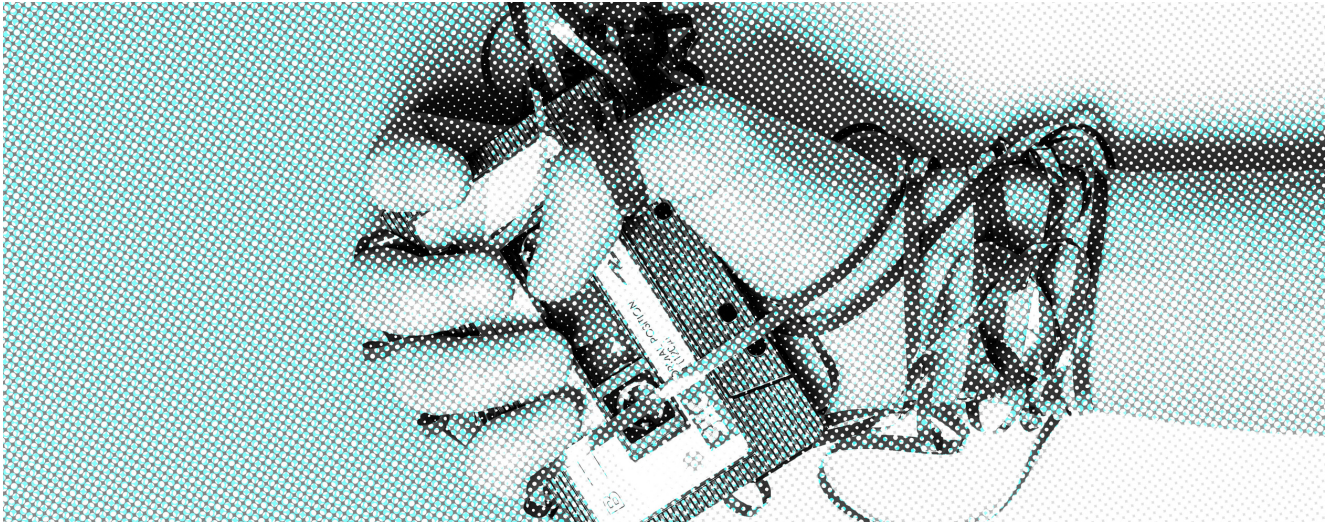
Double click on the audio section in the arrange and set up a loop of 9 bars in the audio window at the bottom of the screen (as shown below).



Next, drag the second x-fade marker to the left as far as it will go

This will x-fade the first 9 bars of the 2nd track.





Module 3- The Mixtape

In this module we are going to practice the transition techniques from Module 3 and introduce some additional one's whilst developing the audio editing skills necessary to programme our mixtape.

When programming or mix, it's important to consider how we want the music to progress. Most of the mixes I produce for clients are around 1 hour in length and I try to include varying tempos, key signatures and energy levels throughout. Like a good book, it should have chapters which come together to tell a story.

The first track you select for the mix needs to be distinct in some way. Maybe it has an emotive intro or it builds steadily to a crescendo. What makes a track distinctive is obviously quite a subjective matter and will depend heavily on your music style and what you are trying to achieve with your mix.

Consider the fact that there are thousands of D.J mixes circulating online. Will a mix that starts with a 2 minute drum intro make yours stand out?

Head to your track folder in your key detection software or if you are using Mixed In Key go to your folder on the left hand panel of the software.

Hit the tempo tab along the top of the window to display your tracks in order of tempo.

NAME	TEMPO ^
Sidestep - 6B - 96	96
stardew - 6B - 96	96
linkwood tears - 9...	96
De La Soul feat C...	97

Your first consideration when programming tracks in your mix should be tempo.

Although we will be looking at how to transition between tracks with different tempos in this module, it is important that we try to use tempo as much as possible when arranging our mix.

I use a rule whereby I don't (usually) warp a track more than 5 BPM from its original tempo. Doing so will make it sound a bit unnatural. However, if we have a track which is 120 BPM and set Ableton's tempo at 125 BPM we can then select a track which has a tempo of 130 BPM because each track is only being warped by 5 BPM. In theory, this gives us a BPM range of 10 between both tracks. (More on that later.)

Duplicating time and audio clips/ master tempo changes

I have selected "Hungboo" by Peggy Gou because it has a great intro and a slightly slower tempo, which means I can build the tempo up through the early part of the mix.

Import, warp and position your first track in Ableton.

In your Key detection software select the key of your first track, plus the Keys either side and in front. I'm working in 5A.

Your folder should now only show you tracks which match those keys.

I have chosen "Oh Devil" by electric guest for track 2, as it has a slightly higher tempo and similar feel to the previous track. It's also in the same key.



NAME	TEMPO	KEY RESULT
Hungboo (DJ-Kic...	95	5A
thats_my_proble...	96	5A
electric_guest_oh...	97	5A
Devil (20syl Remi...	100	5A
jgrrey_all_for_you...	101	5A
Feelin Right - 5A -...	102	5A

Warp and position this track and playback the audio. As always, you may need to experiment with warping and audio positioning to get the best results.

I'm quite happy with my mix but I have decided to use a cleaner part of the first track during my transition and extend it.

I have duplicated the transition point (as we did in Module 3, X-Fade) by highlighting the area and selecting "Edit"/ "Duplicate Time".

I have decided to take a less busy section from the introduction to place over the transition.

Highlight the area you want to use and hold down "**alt**" and drag the audio into its new position in the transition. This will copy the audio section over.



It's sounding much better but I want the audio to continue over the 2nd track so i'm going to duplicate the audio from track 1.

To do this, highlight the audio clip, then hold down "**cmd**" and press "**D**" on your keyboard.



I'm happy with the mix but I need to match Ableton's tempo with the tempo of our new track.

The 2nd track is only 2 BPM quicker than the original so i'm going to increase the tempo over a fairly short timeframe.

Head to the master channel at the bottom of the arrange page and select "**mixer**" then "**tempo**".

A red automation line will appear along the master channel and will be set to your main tempo in the top left of the screen.



Double click on the line to make a marker at the point you would like your tempo increase to start. Add another marker at the point you would like the tempo change to finish.



Increase the second marker to match the tempo of your 2nd tune. As you play back the audio you will see Ableton's master tempo change with the automation line.

Aligning your mix with Ableton's grid markers

My third track shares a similar title name and song lyric with the previous track. Doing this can create a nice flow between tracks and makes for a memorable transition. The transition itself is quite short and simple but I think its quite effective.

Before we import track 3 it's important to notice that the song structure of track 2 has fallen out of sync with the main Ableton grid system. This is because some tunes don't follow a 32 bar structure.

This doesn't necessarily mean that the tracks will sound out of time but I like to keep the arrangement view as organised as possible because it makes things easier when adding next tracks.

I like to keep the track positioning in line with the 4 bar markers (or higher 8/16/32 etc) on the arrangement page.

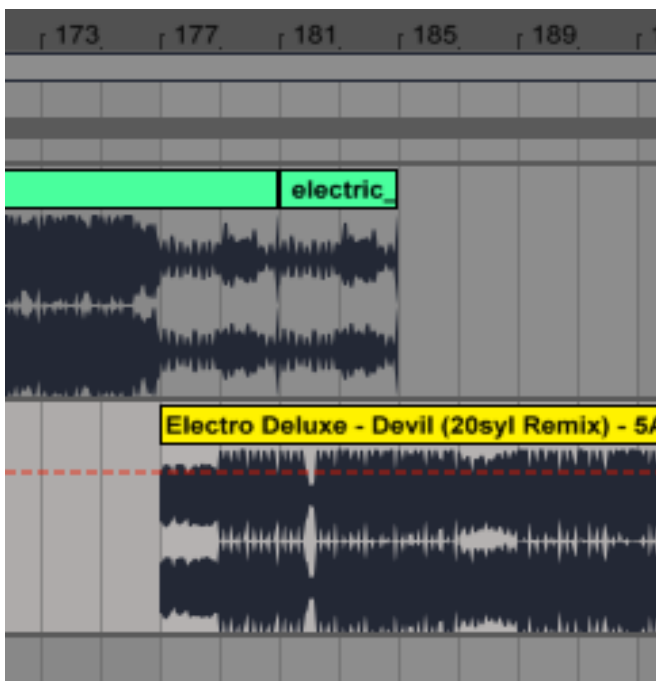
In the main arrange page zoom out until the bar markers show multiples of 4.



Click on the arrange page and press “cmd” “A” to select all.
Drag the audio so the start of track 2 is on a multiple of 4.

It's now much easier
to find a mix out point
in the 2nd track.

Insert your 3rd track,
warp it and move into
position.



Using Filters and E.Q

In this unit we're going to take a look at using Filters and E.Q's to aid our transition. This is a common technique used in live D.Jing whereby the bass, mid and treble knobs on the mixer are manipulated to compliment the mix.

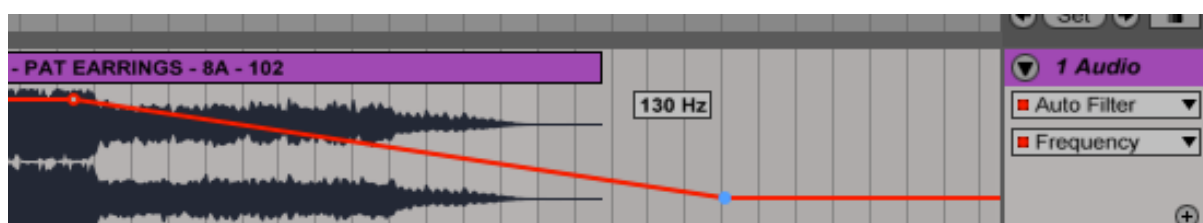
Find 2 tracks which work together in key and tempo and apply one of the techniques from module 2 to layer them and create a transition.

Add an "**Auto filter**" to your first track from the audio effects rack.



Select the effect unit in the automation window below the track mixer and select frequency.

Draw a downward curve from high to low over the transition point.



You will notice on playback that the high frequency in the track is gradually removed as it progresses.

Now we're gonna create a similar effect using our E.Q audio unit.

Insert an "**E.Q Eight**" audio effect on the second track and open up an automation line on the "**1 frequency A**" window.



On the audio effect itself, choose the downward arrow on filter number 1 as below.



Now programme an automation line going from low to high.



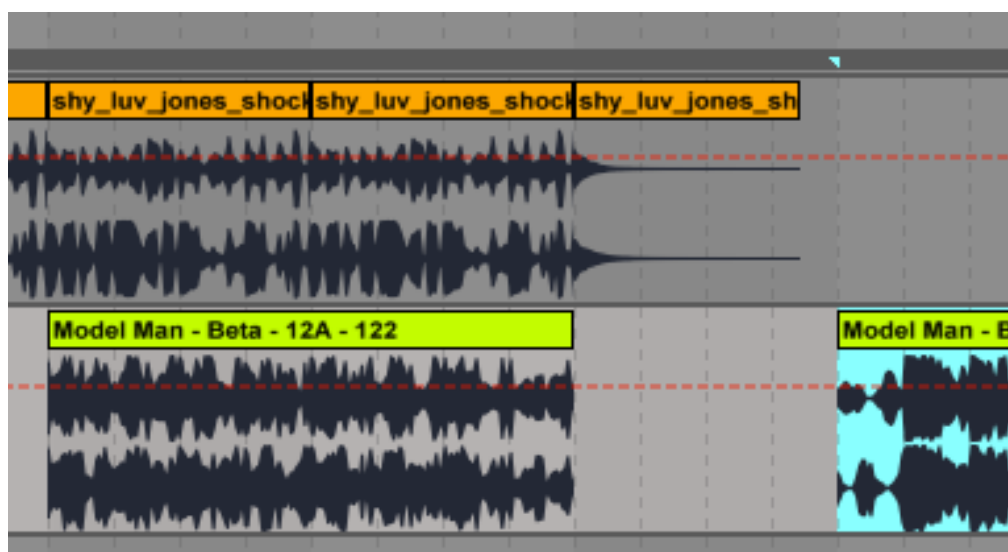
On playback, this will achieve the opposite result as our initial track by gradually removing the bass frequencies.

Creating a Loop Point for Transition

In this unit we are going to use a loop from a track to use as a transition point for the mix.

Try to find a track which includes a section that would suit looping. its usually best to find a 4 bar section which is quite sparse and doesn't include lots of different sounds. A drum beat or vocal section can work well.

Once you have highlighted the section, hold down "**alt**" and drag to the transition point..

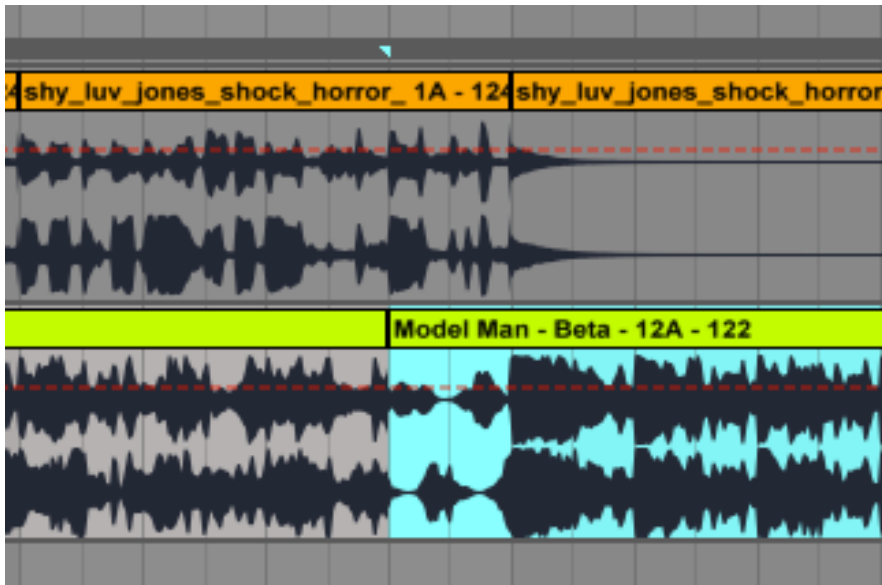


Double check that the warp markers are accurate for the loop section and in particular the start and end points of the loop.

Play back and see if your loop works as a transition. If not, try it over different section of the initial track to see if there's a part the works better. You may want to loop a section from both tracks to create a transition point.

N.B- If its still not working then you could try finding a different loop to use.

Once you have found a section that works, you need to drag the main track back in line with the end of the transition point.

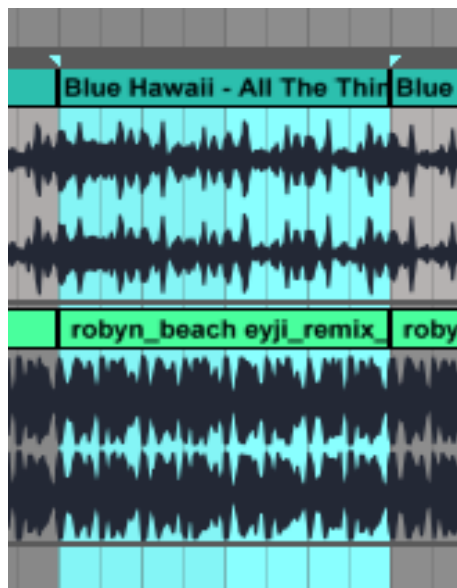


In my mix I moved the track to the end of the transition and scrolled the audio back to include the intro of my track.

Volume Automation & Extending Transition points

In this unit we are going to find a transition point which we are happy with and want to extend, so it lasts for a longer period. This could be because it suits the flow of the mix or its just a great mix and you want to show it off for a bit longer!

Find an earlier transition that you would like to extend and highlight the transition section.



Press “edit” from the top window and “**duplicate time**”. This will duplicate the loop and push back all of the audio to the right of the mix so nothing is displaced.

Next we’re going to make some adjustments to the volume levels with our automation.

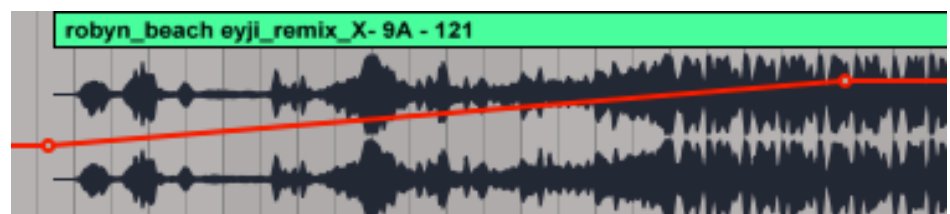
Go to the mixer on the top track and select volume.



A red automation line will appear. Inset two break points by clicking on the line and move them to create a downward line.



This will reduce the volume of the track so it fades out. You can repeat the process with the second track so that it fades in.



Non-Melodic Transitions & Re-Editing

In this unit we're going to take a look at transitioning between tracks which are not in the same key and we're also going to re-edit a track so we can reduce the length of it.

Firstly, you need to select a track which has a drum section on its own as the outro. This is going to be the transition section of the mix.

A drum section doesn't usually contain many tonal properties so tracks mixed on top it will often fit without any key clashes. This gives us a chance to break away from the Camelot Wheel and select a track that has a non-relative key signature.

Select a track which is at a similar tempo but a number of steps away on the Camelot Wheel.

Programme a beatmatch transition as we did in module 2.

If you extend the drums and leave enough distance between the 2 melodic sections of both the tracks, then the new melody often results in the feeling of a change of direction in the mix.

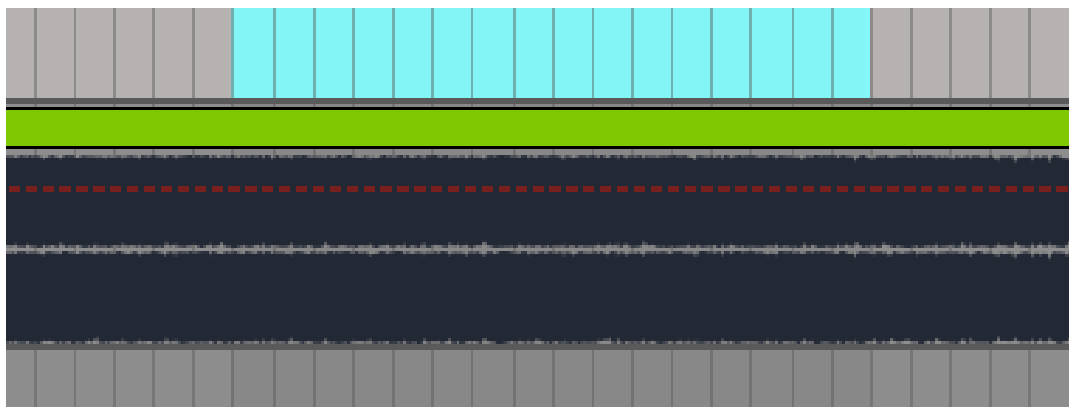
Next we're going to take a look at reducing the length of a track and essentially creating our own re-edit.

In my example, I have included a track that is around 6.5 minutes long and it doesn't suit the flow of my mix and therefore I want to reduce the length of it. However, I need to remove a section without making the arrangement of my track sound unnatural.

For this exercise, try to find a track that is over 5 mins in length and listen through to it to try and identify where the sections change. Or in other words, where are the key arrangement features?

Very often we can remove section in a track, whilst maintaining a natural sounding arrangement.

I have identified a section to remove in my track and I've highlighted it.



Use the "delete time" function to to remove the highlighted section.

You now need to use your critical listening skills to hear if the arrangement sounds natural. Sometimes you need to listen through to the whole track to understand if the new arrangement works or not.

Re-editing is a highly skilful process and takes a strong understanding of song structure to master well. However, great results can be achieved if you keep things simple and keep practicing.

Saving Your Work

Saving your work correctly on Ableton live means that you will not only be able to come back to a project and work on it at a later date, but you'll also be able to transfer it to other computers which have live installed.

Step 1:

Selecting "**File**" then "**save live set as**" will allow you to save your project information to a specific folder location on your computer.

Create a music folder on your computer and a sub folder with an Ableton Live folder inside. This will keep things organised. Save your project to that folder.

Step 2:

So far your project information has been saved so you can load up your work at a later date,. Ableton has stored the location of the audio samples on your computer.

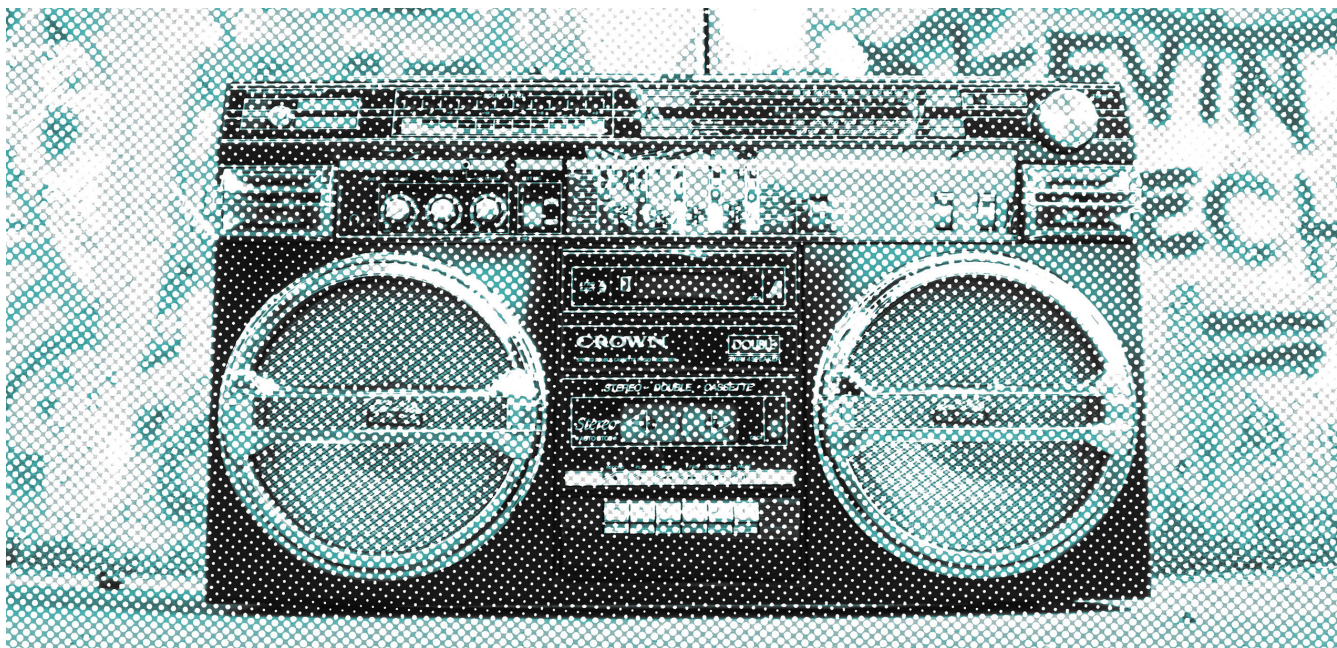
However, you will not be able to transfer your project to another computer as the actual audio files have not been saved.

Select **"file"** then **"collect all and save"**. Save to the same location as in step 1.

This will duplicate all of your audio files and locate them in your project folder.

You can now share this project folder with another computer that is running Ableton as all of the audio along with the sample information has been saved to that folder.

Module 4 - Editing Your Mix

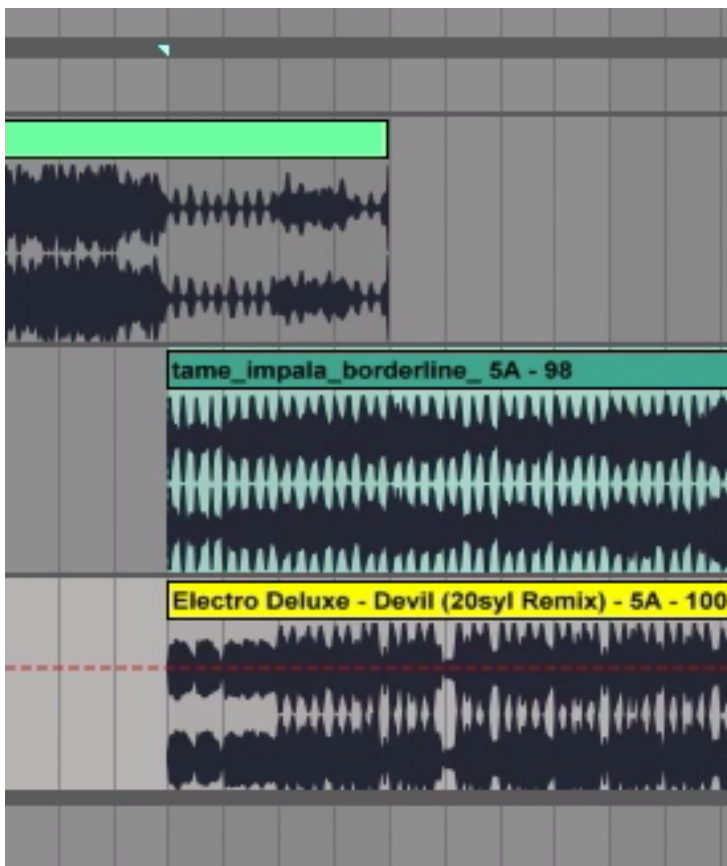


Once we have completed the 1st version of our mix, we need to listen through and check for any mixes or tracks that sound out of place. There may be a mix that clashes or a track that doesn't quite work.

This unit is going to look at replacing a track from the mix.

Replacing A Track In The Mix

Insert a blank audio channel above the track you want to remove and insert the track you want to replace it with in the new channel in the same position.



Go ahead and delete the channel that contains the track you don't want.

Try the new transition out.

If you're not happy with it, you may want to look for a different loop point in the track and try that out as the transition point.

You now need to find a "transition out" point in the track you have just added. This could be a breakdown in the track or a drum instrumental at the end.

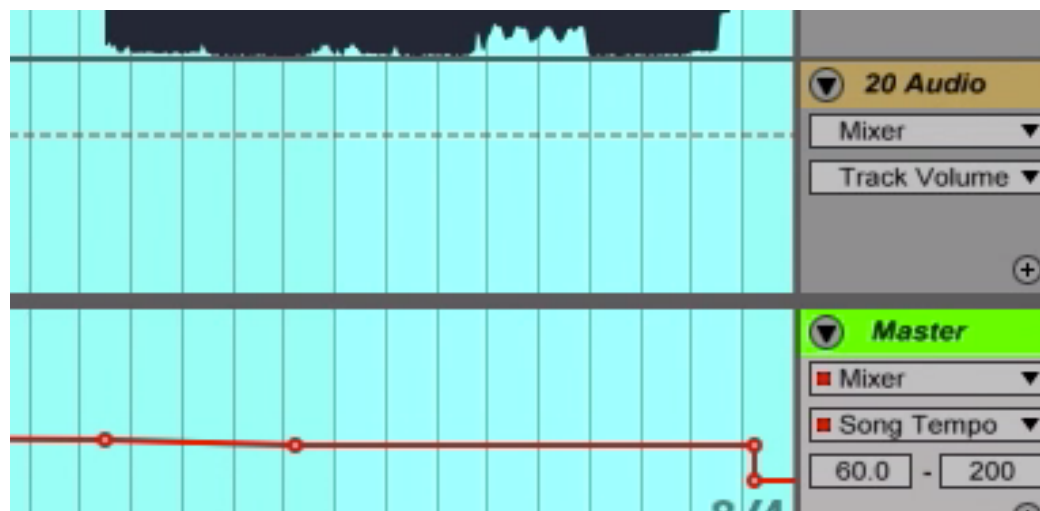


In order to keep our mix in tact, we need to highlight the remaining part of it in order to move everything over to the transition point.

Highlight a section to the left of the track you need to move. Then hold down shift and click on the mast channel below.

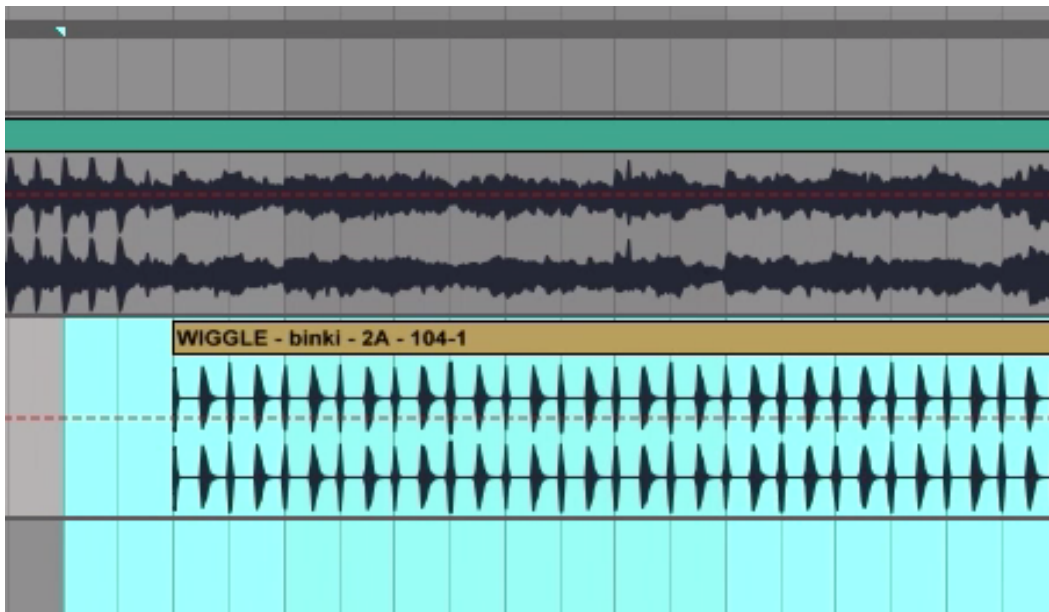


Let go of the mouse and scroll to the end of the mix and hold down shift and click the mouse in the master channel.



This will highlight the section of the mix you want to move, including all of the mix automation.

Next move the audio so that the track lines up in the correct transition area.

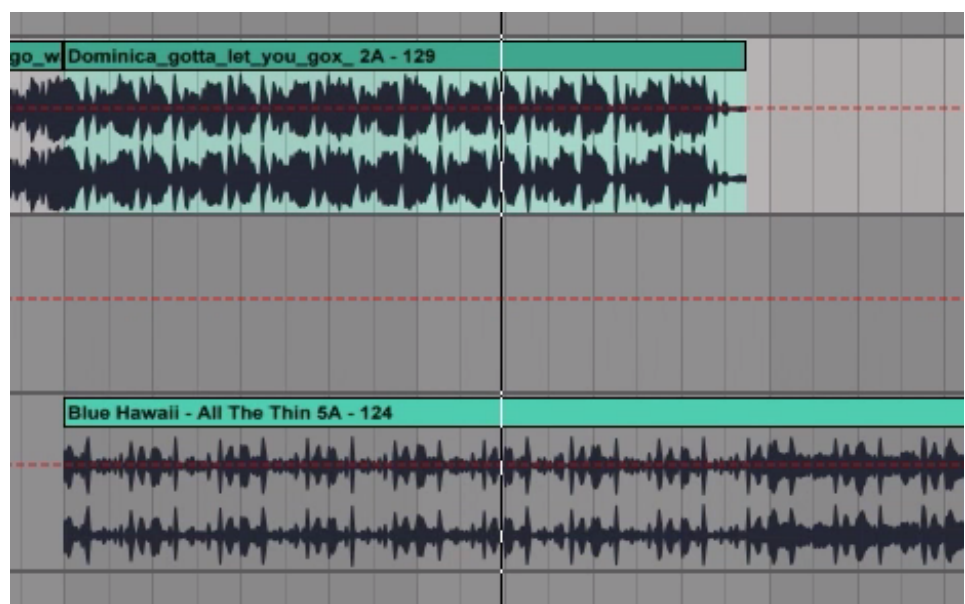


The mix will remain in tact and you should have successfully replaced a track in your mix.

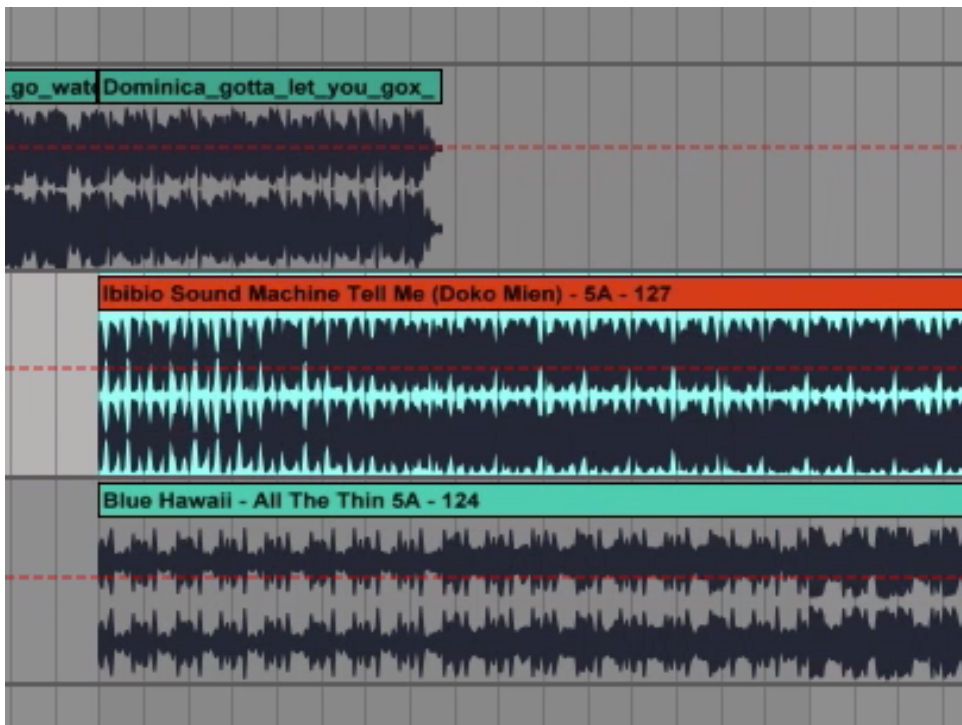
Adding A Track To The Mix

A Similar principle applies to this practice whereby we are moving sections of audio to accommodate a new track.

Find a section in your mix that would fit your new track and insert a blank audio channel.



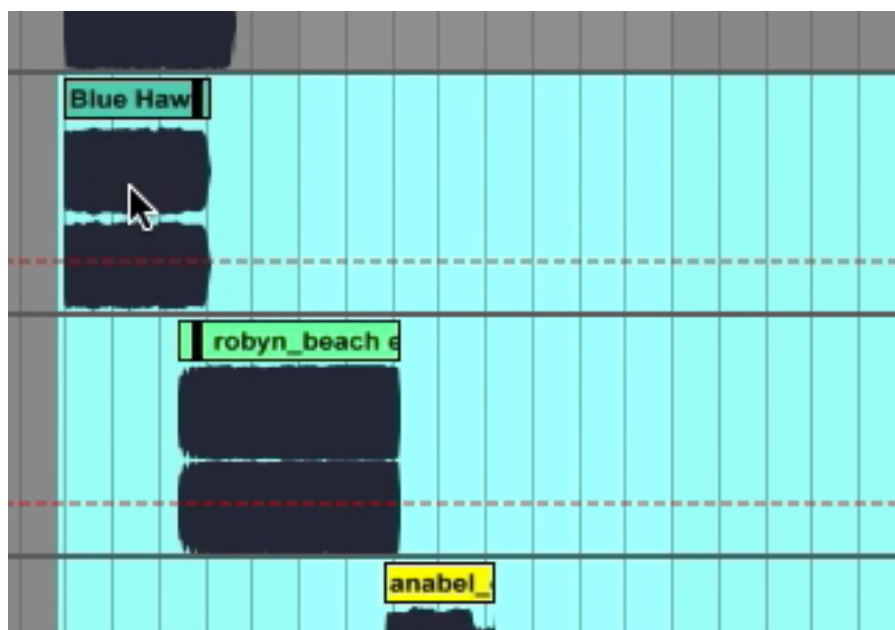
Drag the new track into the new audio channel and position it in the same place as the bottom track in the transition.



Mute the bottom track and playback to check if you are happy with the new transition.

Once you are happy with the new track, select everything below and to the right hand side of it in the mix. Use the technique from the previous unit to do this.

Highlight a mixup point in the track that has just been inserted and drag the remaining part of the mix in line with the new transition point.



Moving A Section in the mix

This unit focusses on moving a section in the mix and is a useful technique for maintaining the grouping of certain tracks and mixes whilst changing the overall structure of the mix.

For example, you may want to use a section towards the middle of the mix as the beginning part.

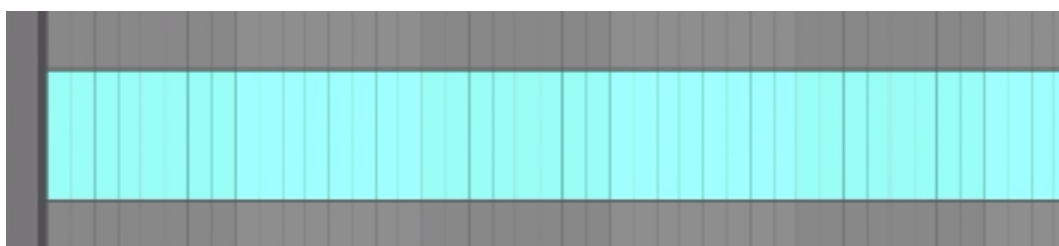
In my example I use take the 2nd has of the mix and use it as the beginning.

I've highlighted everything from track 1 up to track 10 using the track selection technique from the earlier 2 units.

Drag everything
past the last
track in the mix.



Next, highlight the blank space at the beginning of the mix by clicking on the point before the first track, holding "**shift**" and clicking the screen in the arrange page right at the beginning of bar 1 on the timing grid.

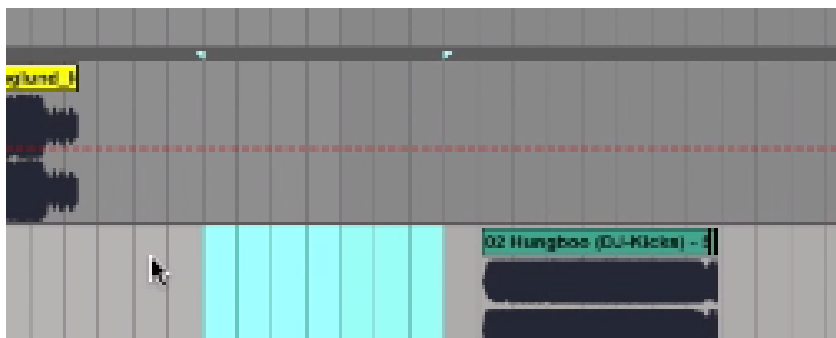


Then select "edit" and "delete time".

The space will disappear and track 11 will now be the 1st track in the mix.

Now we need to create a transition between the 2 section in the middle of the mix.

Audio channel 1 will now be the halfway point in the mix so drag audio channel 11 up to meet channel 1.



Highlight the space in between the 2 tracks and select "edit" and "delete time"

Alter the "song tempo" automation to create a smooth transition .

Using delay and reverb in the mix can bridge the transition if the songs are in a different tempo.

Removing Inappropriate Lyrics

It may not be appropriate for your mix to contain cuss or swear words so this unit will explain how to remove these in order to get a "radio friendly" version of your mixtape.

Locate the track with the swear word and highlight the part of the audio where the word is.



Move the highlighted audio by dragging left and then back to its original place. this will create a new audio clip.



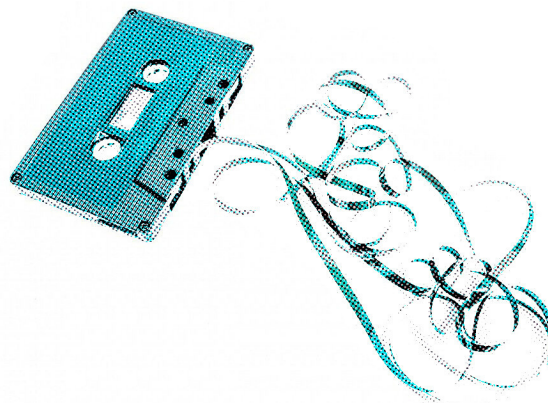
Click the "Rev" button on the sample information.

The audio may take a few seconds to process and will reverse the selected audio clip.



Scroll the audio left and right either side of the highlighted area to increase or reduce the reversed section.

Module 5 - Volume Levels & Mastering



Compressor & Limiter

In the 1st module we set up a compressor and limiter in our mix template.

If you don't have these set up then go to the audio effects panel and drag a compressor and limiter onto your master channel.



These effects are going to add an element of control over our mix. However, all of the music you have used in your mix will have been mastered already in the studio so we are not going to over apply these effects.

On the compressor we need to see a tiny flick on the GR meter when our tracks are playing.

Adjust the "Thresh" level to achieve this. Use the image above to set your compressor parameters.

The same applies for the limiter. A small flicker on the main meter is required.

Volume Levels

Focus on the volume levels in the audio channels because in this unit we are going to balance the levels of our individual tracks so they all sit nicely in the mix.

Play through each of then tracks in the mix and make sure none of them are pushing your channel volume into the red whilst getting as much volume out of them as possible. Use the orange volume bar to adjust.



Remember, if you have automated the track volume you will need to adjust it by highlighting the track in the arrange and dragging the automation up and down.

We're now ready to balance the volume levels on our mix and for this we use the "outside In" technique.

Play your first track and then play your last track and adjust the volume levels so they are the same.

Then play your second track and your second from last track and do the same.

Follow this process until you arrive in the middle. Hopefully your tracks will be at the same volume level.

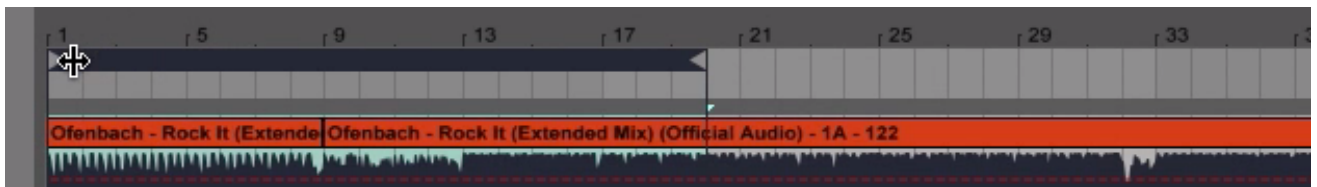
If they are not then you need to work back out using the reverse process.

It's important to repeat this process until all levels are the same.

Bouncing down your mix

In order to bounce our mix down (export it) we need to select the section we want to export.

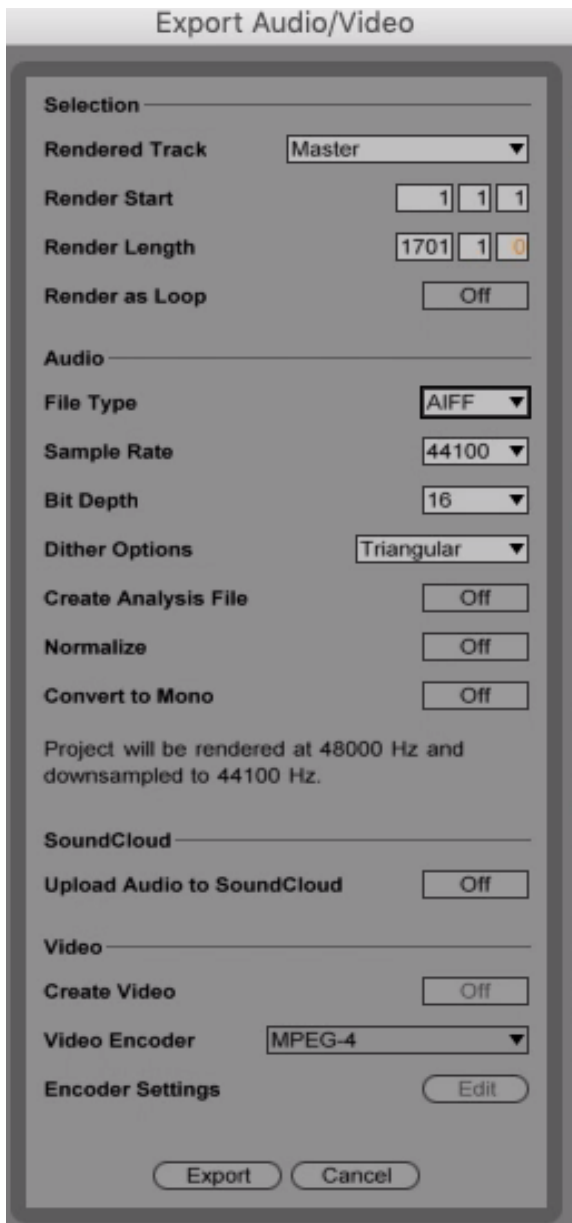
Use the locators at the top of the screen to select the entire mix area.



Then select **"file"** and **"export audio"**.

You will then see a screen with some export settings on it.

The settings selected in the image below work well, but make sure you select your file type. (Ableton 10 will also give you the option to bounce in MP3.)



Click export and you will have an option of where to locate the file.

Select the folder location which we created in the "saving" unit earlier in the course.

You Should now have a final version of your mix located in your mix folder.

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