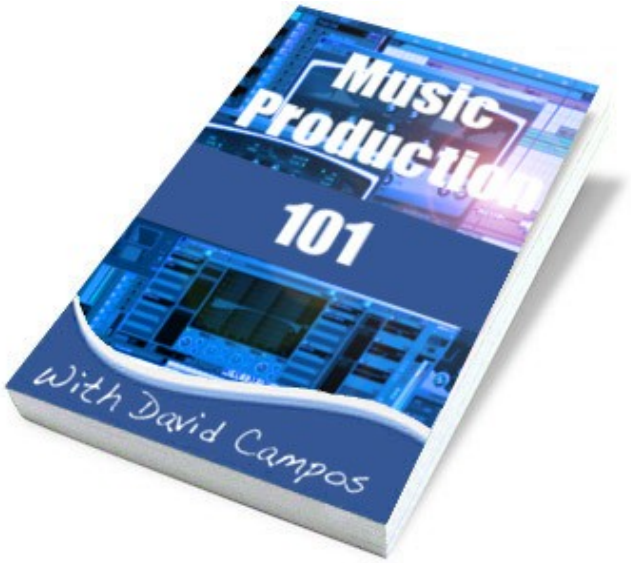
Music Production 101



With David Campos

Music Production 101™

The New Way To Easily Produce Music at Home or Anywhere

With David Campos

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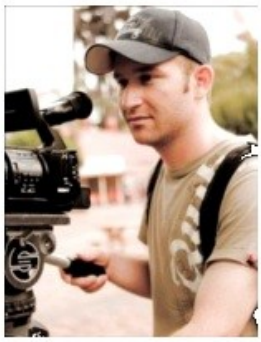
Praise From Music, Film & Advertising Industry People



"As a professional video editor, I have valued the expertise that David Campos has brought to various projects that we have worked on together over the years. I usually email him the Mpegs and David emails me the music tracks right back, I don't even have to leave my edit suite, which I find exceptionally convenient. This has also assisted in making those crucial, last minute changes before a commercial goes to broadcast.
***His knowledge of, and passion for music and music production is truly remarkable**."*

- Jason Boutelje (Video Editor)

*"In my sixteen years of shooting commercials, both in South Africa and internationally, on almost every occasion I have had the opportunity to choose the music composer, I have worked with David. Not only has he been immensely reliable with insane deadlines looming, but his versatility as a composer and musician is hard to beat. **I know of no one else who can consistently deliver everything from deep, thumping House to believable, sequenced classical orchestration** and all the genres in-between. To be honest, the reason I keep working with David is that I have yet to find a style of music he can't crack."*

- Jonathan Cohen (Film Director) www.Cinergy.tv

*"I've known David for almost a decade and have seen him in action in the studio many many times. His straight forward approach and attention to the details are a winning recipe and I'm confident to say that **with his help you are on the right track to understand the ins and outs of Music Production in this current age**."*

- Antonio Orrico (Session Guitarist/Music Producer)
www.RhythmGuitarZero2Hero.com

"I have directed several drama series' namely Jacobs Cross, Jozi-H, The Lab and Sokhulu and Partners (EMMY nominated in 2009) since then I have branched into commercials and getting wind in my sails. I have been fortunate to work with David Campos on a few of my projects and he has brought the magic and life to the pictures we created. ***A movie or a scene, is nothing without a powerful score, David has become my main man.****"*

- Thabang Moleya (Filmmaker / Director)

"I have worked with David Campos extensively on many projects and two platinum selling albums. I have also co-owned a record label with him. ***When it comes to music production he is your go to guy !****"*

- Kabelo Mabalane (Artist / Record Label owner)

http://en.wikipedia.org/wiki/Kabelo_Mabalane

"David Campos is by far the most professional person that I have ever worked with. He has such an approachable and open attitude that it is hard not to love working with the man. He has produced several projects for me over the years, and has always over delivered...with a smile! He gets the brief quickly and accurately, and interprets and expresses his talent in such a way that he is a complete asset to any creative process.
I would highly recommend working with this virtuous man.*"*

– *Daron Chatz (Film & Commercials Director)*
http://www.DaronChatz.co.za

“I’ve had the pleasure of working with David Campos for the past six years on some of our biggest Clients like Vodacom (Vodafone) and FNB and he is one of the most ,efficient , reliable, creative and flexible music composers I have worked with. He has a “Can do” attitude and has always been available at the drop of a hat to help me out on last minute jobs. I like the fact that we can easily brief him on the phone and leave him to work on his own and ***he always delivers to our expectations****.The most impressive thing is that even in the egotistical industry we are in, he is still humble and is always well mannered which is a trait many do not have.* ***If you want quality music productions and great service then David Campos is your Man****.”*

- Wakhile Sithole (TV Producer)
DRAFTFCB JHB (Advertising Agency)
http://www.DraftFCB.co.za

From Humble Beginnings To Successful Music Producer

I grew up in a simple home, some of my earliest memories are of my love for music. I used to love playing the piano, singing in the choir and whistling while walking to school. My Dad was a musician, he played the guitar and later went on to become a very successful music producer. This is how I came to grow up in old analogue studios. I can still remember those mammoth desks and dinosaur analogue reel to reel multitracks.

By the time I was a teenager I was already singing in sessions , composing and arranging music and it seemed logical to me to drop out of school and go for it full time. My father took me under his wing and taught me all the tricks and secrets of music production and the industry and I worked hard and diligently.

Computers were starting to come into music production and I loved computers. I had studied computer programming for fun and this was the perfect blend of my two great loves. So as computers slowly took over all of the functions of the electronic and analogue equipment in the recording studio so I started to come into my own and thrive.

By the time I was 21 I was married , had a kid and I decide it was time for me to go out on my own and start my own music production company. I didn't have any money or help from my Dad anymore and I had to think out of the box. I struggled a lot to get into the music business and gain credibility but eventually I succeeded.

I have seen the old ways and the new ways of doing things and I know the best parts of both. I have gone on to become a very successful music producer.

I have sold more than 1.5 million records so far, I have composed music for advertisements for TV, documentaries and albums that have gone to every country in the world. I have won many music awards including a New York Clio . I have decided to share some of the secrets that were passed down to me and some that I have discovered through the years in this introductory

course "**Music Production 101**" and some more advanced techniques in my next course " **Advanced Music Production** "

I would like to see "**Music Prodcution 101**" become the beginners Bible of music production .

David Campos
Music Producer & Composer
www.eComputerRecordingSoftware.com

My Methods and How I Managed To Thrive In The Music Business

What has happened through the advancement of music technology over the last 80 years was that there was a continuous collection of knowledge, tips, tricks and secrets that was passed down from sound engineer to sound engineer and from producer to producer over the decades .

I have heard stories of top music producers like David Foster covering their outboard gear and mixing desks with bed sheets to hide their secrets when visitors or other engineers came into the studio.

With the advent of computer recording software and the proliferation of personal computers the barrier to entry has come down significantly. 20 years ago you would need millions of dollars to build and setup the gear for a state of the art analogue recording studio. Today things have changed .

For a minimal outlay you can have the same gear as the top music producers and compete on the same level with them. **BUT** ….

This is a BIG **BUT** because , what I have noticed over the last few years is that every Joe Soap and his dog these days has a little home studio and is trying to make international quality beats **BUT** I keep finding that everyone is struggling with the same problems. I get asked the same questions every day.

- How do I set a compressor ?
- How do I master ?
- How do I get my vocals to sound good?
- How do I get a good mix?
- Why does my music sound bad outside my studio?
- Why is my mix so soft compared to everyone else?
- How do I record an electric guitar?

This not really a question of gear but of knowledge. The problem is not access to tools but access to knowledge.

All these aspiring young music producers have got the tools but they skipped an important step. They skipped learning the collective knowledge about producing music , mixing music and recording music from the older guys who learnt it from music production heros before them. The fundamentals of music production & sound have not changed in 80 years, just the tools have.

Introducing "Music Production 101"

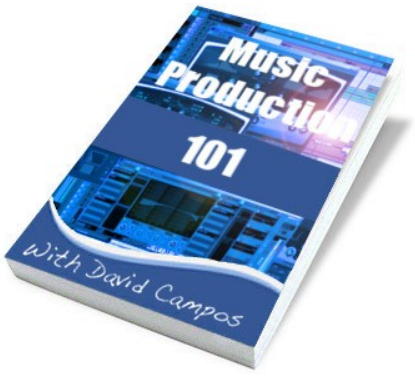
In "Music Production 101" I will show you

- How to setup your own virtual studio at home
- How to get started sequencing & composing the modern way
- How to use Virtual instruments to instantly make music
- Tips on how to record those final vocals & guitar on your track
- The art of using EQ , compression & reverb on your tracks
- How to perfect mixing your newly created tracks

  …& finally the secret to mastering revealed.

Music Production 101™

The New Way To Easily Produce Music at Home or Anywhere



With David Campos

www.eComputerRecordingSoftware.com

What Is Music Production ?

Music production is the process of recording or creating a music product in a recording studio from which we can then make a master. There can be many forms that the music product can be exploited after that for e.g. CDs , mp3 downloads, advertisements, movies, computer games etc..

What is a Recording Studio ?

A recording studio is usually made up of two rooms. The main room is called "the control room" and the 2nd room is called "the booth". These rooms are soundproofed so that no sound leaks from outside into the recording studio and visa versa . The booth is also acoustically isolated from the control room so that sound does not travel between the two.

The control room is where all the recording equipment and most of the gear sits. This is where the sound engineer and music producer usually sit while they monitor the recording process on loudspeakers .

The Booth is where the musicians or singers perform their takes into microphones which feed the signal through to the control room. Usually musicians and singers will wear headphones in the booth so that the music they are performing to doesn't leak through into the microphone. In the old days musicians would all play at the same time and be recorded in one take. That is why older studios were massive to cater for so many musicians performing at the same time. These days most producers record one musician at a time with multiple takes with multitrack recording. It is not uncommon these days for a booth to be quite small, really big enough for 2 or 3 people at the most.

What is a music producer ?

Let me start by filling you in with the traditional role of a music producer. Originally music producers were hired by record companies, film production companies or advertising agencies to produce music products for them to sell or exploit. The music producer's job was to organize & facilitate everything and everyone necessary to produce the music commissioned by the client.

What is the fundamental process of producing music ?

The Music producers job was to go and

- Find a reputable recording studio
- Get a good sound engineer
- Secure a talented composer/s to compose the song/s
- Hire an arranger to arrange the parts the composer composed
- Hire competent musicians and singers to perform the song
- Find a musical director to direct the performances of the artists in the studio
- Source a mixing engineer to mix the song with a huge mixing console into a stereo final mix

  and finally sub-contract a mastering engineer to master the final mix.

Traditionally there was nothing creative about being a music producer. They were merely facilitators of other peoples talent and creativity. Even today there are many music producers who use this model but this is becoming increasingly rare.

So what happened ? Why are modern music producers so involved in the creative process today?

As technology developed and more and more peoples jobs were replaced by machines, so music producers became ever increasingly more powerful over the creative side of music itself. Technology also was having an affect on the styles of music being produced, for e.g.

- The invention of the electric guitar heavily influenced the style we know as Rock 'n Roll
- The invention of the Fender Rhodes electric piano is a major part of the sound of RnB (Rhythm & Blues)
- The B3 organ made a huge impact on Blues Rock of the 60s and 70s
- The invention of the synthesizer spawned many new styles like disco & electro
- The invention of chorus and phaser FX, were a big part of the later sound of The Beatles.
- Jimmy Hendricks was the inventor of the Wah Wah pedal which was integral to his sound.
- The refinement of keyboards & drum boxes (Linn drum,909) later influenced the sound of the 80s with bands like Eurythmics & Depeche Mode
- Computers started to enter the studio as MIDI sequencers in the late 80s this meant that now half the instruments were programmed and sequenced and half were recorded on multitrack tape.
- Samplers became more common in the early 90s and this led to real drums being sampled from other people's recordings and then looped to form the

foundation of a new song. This brought about the rise of Hip Hop and Dance music.

- Finally, computers took over all these technologies around 1999 with the creation of virtual instruments running inside the sequencer. This was the death blow to the old ways of doing things.

What this meant was that finally one person (The music producer) could sit behind a computer and

- Compose the song using a USB keyboard and virtual instruments
- Record on his workstation eliminating the need for a recording studio
- Arrange the song with a mouse on a DAW (Digital Audio Workstation)
- Mix the song internally inside the virtual mixing desk
- Master the song & burn it to a CD master

This is why we have super famous producers today like Timbaland, Scott Storch and Will I AM .

The role of "Music Producer" has taken over the roles of all those people that used to be part of the process. e.g.

- sound engineer
- composer
- musical arranger
- musical director
- musician
- mixing engineer
- mastering engineer
- & in the case of Will I AM & Timbaland... the artist too.

This is why it is now possible for people like me to make a killing, making music for a living, using very little gear at a very low cost and using very few musicians. Its time for you to setup your very own recording studio.

Setting Up Your Own Recording Studio

What Gear Do I Need ?

Ok, so a modern digital recording studio can consist of any, or all of the following bits:

- A computer

- DAW (Digital Audio Workstation) software package

- Audio interface and MIDI interface

- External MIDI sound generators (e.g. synthesizers & samplers) * Optional

- External audio devices (e.g. mixers, mike pre-amplifier & FX units) * Optional

- External MIDI or USB keyboard controller

- Amp & speakers

- 3rd party plugins (e.g. FX & Virtual instruments)

A Computer

This will be the mothership of your operation. All sequencing, programming and recording will be done, edited and saved on this machine.

NB My advise is to get the fastest computer you can because working with audio on a computer can become very taxing on the computers CPU (central processing unit) especially when you are running a virtual studio with all instruments and FX being generated by the computers own CPU . I personally use an Apple Macbook Pro (laptop) which works like a dream. I also own a G5 desktop which I don't use anymore. Working on a laptop for me is very convenient and just as powerful.

DAW (Digital Audio Workstation) software package

This is going to be your main piece of software. the DAW is your sequencer, multitrack recorder, reverbs, compressors, mixer, editor and can even be used for mastering.

NB I personally use Logic Studio. If you are not familiar with any DAW yet, I strongly recommend Logic Studio. It literally is a studio in a box. I will be doing all my future tutorials on music production using Logic Studio. You can however use any of the main DAWs that are reputable because most of what I'm teaching are concepts and principles that can easily be applied to any DAW.

Audio Interface and MIDI interfaces

The audio interface is the connection from the analogue world to the digital world. All your audio from mikes, guitars and any sound traveling down an analogue cable, will be converted from analogue to digital when you're recording going into the computer through the audio interface. Then from the computer converted from digital to analogue when you play back your recordings.

NB My advise is to get either a firewire or USB external Audio Interface . Internal sound cards don't have the same quality as external audio interfaces. Make sure you get an audio interface with at least 24 bit / 96khz spec.

External MIDI sound generators

If you own or would like to record or sequence an external synthesizer or sampler then you will need a MIDI interface (Musical Instrument Digital Interface). This is a special 5 pin cable that some sound cards and stand alone USB interfaces have that you can plug in an external synthesizer or sampler which can then be driven and controlled by the computers sequencer.

NB I personally have sold all my external synthesizers and MIDI modules because I find that internal virtual instruments are far superior, easier to work with, much more convenient and less complicated than outboard MIDI synths. You can load a song on your DAW (Digital Audio Workstation) and just press play. With external MIDI Synths it's not that simple. Trust me !

External audio devices

External audio devices include mixers, mike pre-amplifier & FX units. If you use a condenser microphone then you will need a mike pre-amp with phantom power. Mixers are used to mix different audio sources into one stereo (two channel) mix. Outboard FX units are routed through the mixer on bus sends, through digital or analogue cables.

NB My advise is to avoid all outboard mixers & reverb units. Go virtual. There is nothing more powerful than virtual FX and internal mixing in your DAW . Nothing cleaner than a completely digital session.

NB My suggestion is... you should only use a condenser microphone for vocals or acoustic guitars and never use a dynamic mike (Live Microphone) for recording these soft types of sounds in a studio. Dynamic mikes are great for a live environment but they don't have the sensitivity that condenser microphones have. You should only use dynamic microphones for loud instruments like drums. I always say that I can hear the hairs in the singers nose growing when I record vocals on a condenser microphone.

External MIDI or USB keyboard controller

Every studio needs a controller to input the notes or the beats you want into your song.

Most producers use a keyboard controller but you do get guitar controllers too . Initially controllers were all MIDI but these days most controllers are mainly USB.

NB My suggestion is to go with a USB controller, especially if you are planning to work with a laptop as your main computer. If you choose a MIDI controller then you will need a MIDI interface to plug the MIDI controller into.

Amp & speakers

The amplifier and speakers (monitors) are what you will hear your music through. The sound will come out of the computer digitally to the the sound card (Audio Interface) and out the sound card analogue into the amplifier, to the speakers.

NB My advise is to go for self powered Nearfeild monitors. Self powered speakers are simple to operate and the amp is perfectly matched to the speaker by the manufacturer. Nearfield monitors are a special kind of monitor specially designed so that yo can hear the bass frequencies accurately from a close distance (i.e. in a studio). This is essential.

3rd party plugins (e.g. FX & Virtual instruments)

3rd Party plugins are extra pieces of software that you can run inside your DAW that add extra functionality to your computer recording software, e.g. FX & virtual instruments.

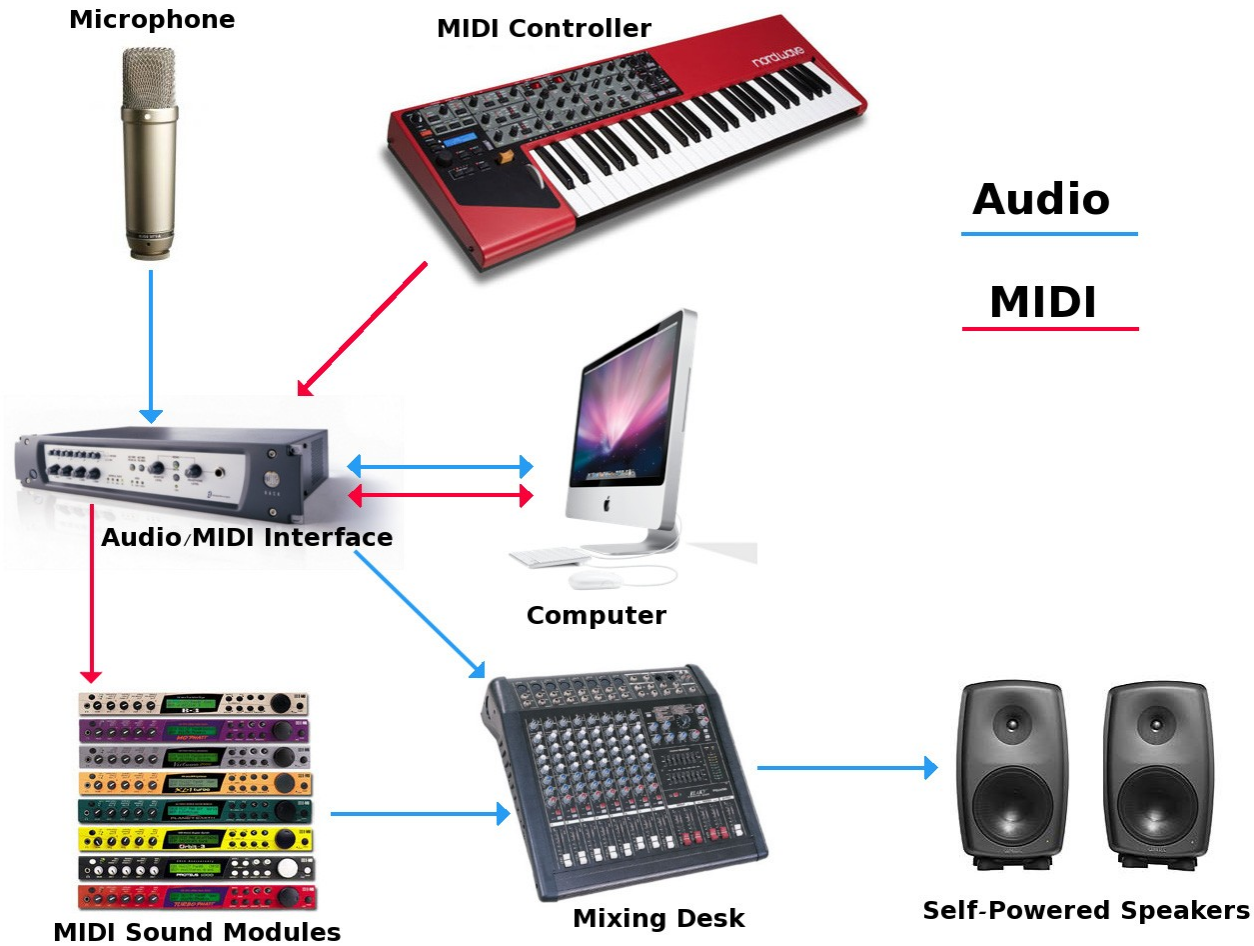
NB Even though most DAWs come with excellent FX & built in virtual instruments, I highly recommend that you look around to purchase 3rd party plugins and increase your arsenal of libraries and instruments to use on your productions. I firmly believe that you are only as good as your sounds.

How Do I Plug It All Together ?

There are many different combinations to connect up your studio. If you decide to use external MIDI sound modules, then you will need an external mixer to mix your music... then your setup will be different to mine. I prefer to run a very simple system only using virtual instruments and a USB keyboard controller. Here are a couple of options for connecting up your gear...

External MIDI Setup

This is a more complicated and outdated way to setup your studio. In my opinion however if you choose to go this route this would be the correct way to connect your gear up.



Simple USB Virtual Setup

This is how my system is setup . My computer is actually a laptop . KISS (Keep It Simple Stupid).

Where Should I Setup My Studio ?

I have built many studios in my life, in many different places. There is no wrong place to build a studio. My first studio was in my bedroom in my apartment. That was difficult because I didn't have any soundproofing in that setup and my small kids would distract me from working .

We then rented in an office environment where we built the studio ourselves. That studio was real fun because we would go out for lunch everyday, there weren't any distractions that come from working from home and it made our whole impression, on artists and clients in general, more professional.

The studio I'm in now is in a double garage in my house in the suburbs that I converted into a recording studio. This means that I have the best of both worlds. I am separate from my home (by 5 metres) and yet I can pop in anytime. I like to kiss my wife and play with my kids, not to mention that my wife is Greek and she cooks up a storm for lunch everyday :-)

Therefore there is NO wrong place to build a studio. There are just pros and cons. I have come to find a balance in my situation by having a separated studio at home. It works for me. You should see what works for you.

What About Soundproofing ?

I am now in the process of building a new studio at my beach house in my store room. It's quite big so it should be awesome !! I will create a course which will be available early next year. I have developed a system that

- uses no nails
- needs very little labor
- is very cheap to build
- takes roughly a week to build

So keep in touch for that course coming soon.

If you're not subscribed to my blog for future courses then why not sign up here : www.eComputerRecordingSoftware.com

Composing and Sequencing, The Fast And Easy way!

The Modern Method To Composition

In the old days , songwriters and musicians would sit down with a guitar or by a piano and they would compose the song on an instrument while singing at the same time. A lot of famous composers were like that for e.g. Billy Joel plays the piano , Barry Manilow composes on his piano and Bob Dylan wrote songs on his guitar .

Once a song was composed the song would be taken to their publishers or record company A & R people and they would place the song either with the original composer or with other artists in the record company's stable etc. Only then did the process of production start .

These days things have changed drastically. Most music producers are songwriters and the process of composing and producing is almost one and the same . This doesn't mean that the old system doesn't apply anymore but by and large most producers work this way.

Now you might ask **How has songwriting become like this** ? The simple answer is twofold:

- Technology : Because beat programming has taken over most genres of music
- Money ….. Yes Money. Because the composer of the song almost always makes the most money.

This whole subject of the **Business of Songwriting** falls under "Music Publishing" which I will go into more detail in another course.

Anyway back to my explanation of the modern way of composing music .I will show you in the following chapters how with a system setup as I have shown you and the modern way of multilayering instruments , you can compose music as you produce on your sequencer. It's an interactive process thats is fun and easy. You will be surprised how easy

it can be. All you need is a little bit of knowledge and a tiny bit of talent and you can go far.

Anyway ...Its time to get started. Are you ready ??

Tempo , Click Tracks & the Transport Bar

What is Tempo ?

Tempo is the speed at which your song runs. A fast/high tempo means your song will run at a fast speed . A slow/low tempo will mean that your song will run slowly.

Tempo is measured in BPM = Beats Per Minute

This means that a song of 120 BPM has 120 beats per minute.

A beat is what you count when you count music, for e.g. 1 ...2 ….3 ...4 …

Each count is 1 beat. Most songs have a 4/4 time signature. This means that there are 4 beats in each bar of music for that song.

Right.....

So let me give you a rough outline of what sort of speeds or BPM different styles of music tend to be.

- 60-90 BPM : Ballads, Classical & love songs
- 80-100 BPM : Blues, Easy listening, RnB , Hip Hop , Reggae , Country
- 95-125 BPM : Pop, Rock
- 110-130 BPM : Dance, Disco, House

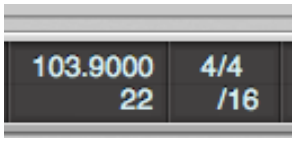
- 130-150 BPM : Drum 'n Bass, Rock 'n Roll
- 140-170 BPM : Speed Metal

These are just ideas and guidelines of what in my experience is common. These are not rules but just kind of general speeds different styles tend to be.

Did you notice that the slower BPM styles tend to be relaxing, emotional and romantic styles, like country, ballads, RnB . On the flip side did you notice that the fast tempos tend to be exciting, more aggressive and more dancing styles like House or Rock 'n Roll. Above 140 BPM and people tend to find music too hectic & below 75 and people start to fall asleep. The tempo is a powerful way to control the emotion and feeling of the track.

By the way , I go into a little more detail about the psychology of tempo and the effect it has subconsciously on the human mind in my next course :
"**Advanced Music Production**"

The first thing you need to do is find what tempo you would like your song to be.
You can adjust the tempo in your DAW by clicking it and changing the number. In Logic Studio the tempo function looks like this



Notice that in this picture the tempo is 103.9 and can you see next to the tempo is the time signature 4/4 .

The Click Track

Do you remember I spoke about the beat in BPM ? The beat is what you count in music. For e.g. 1....2....3...4... and again for bar two 1....2....3....4.... etc...

When musicians practice their instruments or when a drummer plays live they use a little device called a metronome.

This little machine can make a click on the beat at what ever tempo the musician desires. He/She would select the tempo that is correct for the song or style and then use that click as a reference to perform. The same applies to live performances with a band. The drummer knows what tempo he wants for each song and then he will play the drums with the tempo of the click set on the metronome. Then all the other musicians will follow the drummers lead for tempo.

Now !! Coming back to our DAW . Every DAW has a function called a "click track". Its usually a switch that you can put ON or OFF . In Logic studio it looks like this

So the first step for you is to switch on your click track in your DAW by clicking on the click track icon as above .

The Transport Bar

This is where you control your DAW. This is where the play , pause , rewind , stop and record buttons are. You can also see your tempo, time signature & bar position etc..

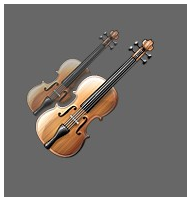
Understanding Different Instrument Classes

Before we start composing and recording let me give you a little run down on the various types or classes of sounds and virtual instruments . This is not an exhaustive list, just the main ones.

- **Bass** : Can be electric, acoustic or synthesizer... creates the low sounding notes you hear in music

- **Piano** : Classed under keyboards, used to play chords and melody.

- **Drums** : Can be live, electronic or sampled, they dictates the tempo, beat & rhythm of the song.



- **Strings** : Orchestral instrument, originally for classical music but used in all music forms nowadays.

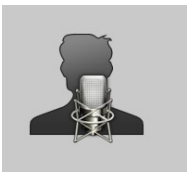
- **Organ** : Another keyboard, very versatile , also used to play mainly chords.

- **Synthesizers** : Electronic based instrument

- **Brass** : Orchestral instrument. The sound of brass is produced by blowing wind through the instrument.

- **Guitar** : Can be electric or acoustic, also used to play chords and melodies.

- **Electric Piano** : Falls under keyboards, also used to play mainly chords.



- **Voices** : The human voice is an instrument used to sing the lead melody, backing vocals or choir.

It is amazing what is possible to achieve these days using virtual instruments. Almost all of the instruments listed above are available as virtual instruments except the human voice. I use these types of virtual instruments everyday. I will get more into that in the next chapter but first let's get started using these instruments.

Multi Tracking, Looping and Multilayering

OK !! Now we can start on the modern method that almost all professional producer/composers use today to compose and create beats or songs.
The way it works is like this :

1. The producer will be inspired and come up with a bass line, synth hook or a chord structure in his head.
2. The next step would be to switch on the click track and find the right tempo.
3. He would then record his Bass or Chord idea down with his USB keyboard on the 1st track in time with the click track, several times until he plays it correctly.
4. Then the producer will loop this idea . Maybe a 1 bar loop or 4 bar loop etc..
5. The producer would then refine, edit, maybe change a few notes until that first idea is perfected.
6. Next step would be to add the next instrument to track 2. Maybe drums ? Whatever your inspired to add next.
7. Then the producer will loop the drums. Maybe a 1 bar loop or 4 bar loop etc...
8. He would then refine, edit & tweak that 2nd track until it worked perfectly with the 1st track.
9. And so on... until he has multilayered all the musical elements necessary for a complete song.
10. Usually the last step would be to record the vocals.

At anytime the producer can and will go back and change things in the earlier tracks already recorded. At anytime he can delete and re-record any instrument that feels wrong. Often the song changes as you go. Sometimes you make a mistake and it sounds better than the original . So you go and change everything in the song to conform to the mistake. Only once in my life did an artist sing something to a click track and left me to figure out the music afterward. It worked well but that is usually not how it works and can be restricting.

Most people like to start with a drum beat (especially house , hip hop, pop) , then add bass, then add chords, then add other sounds and finally add vocals.

This process is a little hard to explain in words but I will make a more in depth video later to show the process in more detail in my next course "**Advanced Music Production**"

General Composition & Production Tips

1. Always name and save your session before you start working and then get into the habit of saving your work every 10 minutes.
2. Every time you substantially start to change the direction of a composition I suggest you add a number on the end of your filename and then increment it as you go. This way you can totally stuff up a song that was working a few minutes earlier and go back a few numbers. It also means you don't have to be scared to try different things out.
3. Always label your recorded tracks as you work so as to find your way around easily.
4. Take many breaks to clear your head. I try to not sit for more than half an hour without getting up and walking to make a cup of tea or talk to someone or go to the bathroom or my personal favorite... go for a walk around the block. If you work too long you start to lose your perspective. If it's late at night, go to bed and listen fresh in the morning.
5. Don't work tired or feeling bad in any way. I find that I write terrible music when I'm irritable, cold, hungry, tired etc...
6. Constantly ask people's opinions of your music while you're working. I ask my wife her opinion then half an hour later, I'll ask my 13 year old daughter what she thinks and then later I'll even ask my maid… anybody, even a granny. Ask everyone and actually LISTEN to their comments. Don't be sensitive about your music. Even idiots have valid comments. When they comment don't listen to their solutions, listen to their concerns and try to get to the root of what bugs them and then YOU go work out the solution.
7. Listen to music that you want to aim for. Always set bench marks and measure your music up against those benchmarks.

8. Start to analyze what other producers are doing in their music and try to figure out how you can do the same or better.
9. Break rules !! Put a hip hop beat to a country guitar with a pop vocal... Sorry... It's already been done (Taylor Swift or Shania Twain)

These are a few general suggestions and tips that I've found work for me over the years. I do have a huge list of specific tips & tricks that I go into in detail in my "**Advanced Music Production**" course. However in this introductory ebook I don't have the time to go into specifics and besides I think its best I physically show you with video tutorials . So please make sure you are subscribed to my blog for more info coming soon.

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Virtual Instruments And How To Use Them

Virtual Instruments are very easy to use. Cubase were the first to really perfect virtual instruments with their Cubase VST release but since then all DAWs now have roughly the same functionality. Most Daws come with many built-in virtual instruments but you can add more to your library by buying 3rd party virtual instrument plugins from companies like Spectrasonics & Native Instruments.

What I want you to do is to use the multi-tracking, looping and multilayering system I described previously using the built in virtual instruments in your DAW (Cubase, Logic, Protools etc).

Bass

I use a plugin called "Trillian" made by Spectrasonics which is a virtual bass guitar plugin. This plugin has acoustic basses like Jazz bass, Trillian has electric basses from vintage up to modern bass guitars and finally synth basses. It really is an awesome piece of software. You can even hear the fingers moving on the strings if you listen carefully. The bottom line is, I haven't hired a bass player to play in a session for me for years since I started using virtual bass plugins.

Piano

Logic Studio has 5 impressive virtual grand pianos that sound as real as you will ever need. If you buy a USB controller with weighted keys, it feels & sounds like the real thing. There are many 3rd party grand piano plugins that are excellent. Now you can literally burn your piano because your not going to need it any more.

Drums

Do you know how difficult miking up a drum kit is? Then when you've recorded the kik, snare, hi hat, toms and overheads, are you aware that the snare will leak into the kik mic and the hi hat will leak into the snare mic etc.? So you have to use a noise gate on each channel with a side chain EQ. I have done this many times and I do show the right way to do it in my "**Advanced Music Production**" course BUT… I still choose to program all my drums. At the end of the day, drums are the easiest instruments to fake using software samplers and virtual instruments.

Strings

Strings and general orchestral instruments are a little bit more tricky to get right but with a little bit of effort and the correct arrangements it is also very easy to fake good orchestral arrangements. I often get commissioned to compose orchestral pieces for TV and I never use live string sections. Its also about economics. The moment you start adding the cost of hiring maybe six or seven orchestral musicians plus now you must hire a bigger studio to fit everyone into then the project starts to not be profitable anymore. Besides why wait when you can program and play the parts yourself right now today. Time is money.

Organ

The most famous organ to date is the Hammond B3 organ. In the 50s the B3 was a real marvel of technology. The sound of the hammond organ is world famous and they used to have a Leslie speaker that would spin around to create a tremolo effect. You can still find them around today but it costs a lot to buy and maintain an original Hammond organ.

There are now many 3rd party plugins and built in virtual B3 organs that sound amazing. You can even emulate the sound of the Leslie. Logic Studio has a beautiful virtual B3.

Synthesizers

This is the easiest class of instrument to emulate. In fact there are more virtual synthesizer plugins available on the market then any other kind of musical instrument.

Brass

Brass is one of the few instruments that I struggle to get sounding right with virtual instruments. It is possible with careful arranging but I tend to just bite the bullet and bring in professionals. Usually you can get a great brass section sound by hiring a trumpet player and a trombonist. Then you can do multiple takes of the same keys and of the harmonies which you can layer to create a FAT brass section. After the musicians have left I sometimes even might put in some virtual brass mixed in with the real recording just to give me more harmonies or a bigger sound.

The other option is to use samples. Samples are live recordings of brass section. You can integrate these live brass samples into your song using apple loops or rex files. I will speak more about that later.

Guitar

There are many excellent virtual guitar instruments. With careful programming and by understanding how a guitarist plays, you can get excellent results. I often program guitar into tracks and get away with it sounding great. My guitarist friend was listening to a track I composed the other day and he asked who the session guitarist was on the song. I responded by telling him that I had played it on my USB keyboard much to his disgust. I go into a lot more detail about my methods and secrets in my upcoming course "**Advanced Music Production**". Another option I use a lot especially for rhythm guitar is apple loops which integrates seamlessly into Logic. You just pick your chord and key and you drag it into your session.

Having said all that, there just are times when you can't beat a proper guitarist. Especially for solos and blues type licks etc. Then I call in a session guitarist BUT only after I've tried to do it myself virtually and it isn't working.

Electric Piano

The Fender Rhodes is an absolute MUST HAVE in your arsenal of instruments. This instrument has several excellent 3rd party plugins out there that quite honestly sound awesome. There is definitely NO reason why you should bother with the original vintage machine and try to mike it up and maintain it.

Voices

The human voice must be the most loved and common instrument in human history. You can change any instrument or style but there will invariably always be a human voice somewhere in the mix. There is no virtual plugin that can replace the voice… yet there is a lot of work going on in the field of physical modeling right now and I'm sure in the next ten years we will see some amazing things happen HOWEVER in the meantime there just is nothing that can replace a really talented singer performing on a song. A song just doesn't feel complete until you've tracked and mixed in the vocals.

Audio Recording on Your Multitrack DAW

By using the virtual instruments in your DAW to compose, multitrack, loop your ideas and multilayer as I have explained earlier, you should be at a point now where you have a backtrack for a song and you need to go to the next level and record some guitar or vocals through your condenser microphone into your Audio interface.

Signal chain, Levels and The Soundcard

Signal Chain

The vocalist will stand in the booth isolated acoustically from the control room and sing into the mike. The sound will be converted by the microphone from air pressure waves to an electrical signal. This electrical signal will then travel down the wire of the microphone which should be plugged into the soundcard (Audio Interface). The Audio interface has an analogue to digital converter that will convert the analogue electrical signal to a digital signal which will then travel to the computer as 1s and 0s via the USB/Firewire cable. This is the point where your DAW takes over and saves the recording as a computer file. This file or "take" will be the audio recording that you will work with in your DAW. This is called the "Signal Chain".

Once you have recorded the vocalist take to your DAW you can edit the singers performance by cutting, copying and pasting the same way you do with a word processor.

Levels

The "level" is the volume or loudness that the audio is at different stages in the signal chain. It is very important that the level is at an optimum (not too loud and not too soft) at each stage of the signal chain. If the level is too loud then you get distortion. If the level is too soft then you will get hiss and noise.

For e.g. The singer should not sing at a full screaming volume right on top of the microphone. Especially if its a condenser microphone. You will get distortion at that stage of the signal chain and no matter what you do after that , the signal will be distorted. The singer should also not sing on the other side of the room in a whisper. There will be a lot of hiss when you try to correct the level at a later stage.

The same applies to the analogue electrical signal traveling down the wires to the sound card. When the audio signal reaches the A/D converter (Analogue to Digital converter) there is an optimum level that the audio interface is set to. If the level is too loud then you get distortion. If the level is too soft then you will get hiss and noise when you try to gain (lift the level) and correct it later.

So You must always check your levels are not too high or too low.

The Soundcard

This is the final part of the signal chain. This is where your analogue audio is converted to digital audio.

NB As I've said before, you must make sure that you buy a soundcard with at least a 24bit / 96khz spec. Another very important essential is that your sound card has phantom power. All condenser microphones need a 48V power supply that comes from the soundcard down the XLR audio cable to the mike.

Recording Guitars

As I've said already, guitars are one of the harder instruments to fake with virtual instruments and this is why you should learn how to record the real thing.

Guitars can be broken up into two sections

1. Electric Guitars
2. Acoustic guitars

Recording Electric Guitars

Electric guitars can be recorded in a number of ways.

- Through a ribbon or condenser microphone in front of a guitar amp
- Through a DI box straight into the sound card
- Through an External Virtual amp or POD wired to the soundcard.

In this ebook, I am only going to deal with the 1st option : Recording an electric guitar through a condenser microphone picking up a real guitar amp.

I did make a simple video about it which

you can watch here >> Watch how to record electric guitars

The idea is very simple and very effective.

1. Put your amp in the booth and plug the guitar into the amp.
2. Use a long wire so that the guitarist can sit in the control room with you while you're recording.
3. Put the condenser mike right in front (6 inches) of the cone of the guitar amp.
4. If you are driving the amp very loud then move the mic further away until you get a good signal with no distortion.
5. Now you can start recording to your DAW.

Recording Acoustic Guitars

There are two main ways to record acoustic guitars:

1. Direct from the acoustic guitar itself with a condenser microphone
2. Out from the jack output of the acoustic guitar straight into the soundcard

Recording the guitarist directly with a condenser microphone can be a bit tricky. You will find that you will tend to pick up lots of noises like finger noises and shirt noises and even breathing noises from the session guitarist. Another BIG problem is that the sound of the guitar changes drastically depending on where you put the mike.

Many producers and sound engineers argue about wether the mike should be close to the guitar aiming at the neck or wether you should aim at the box of the guitar from about 3 feet etc... I say the best is to try out many positions and see what works for you. I have been miking up acoustic guitars for 20 years and I instinctively know what works for me in each situation.

I will be covering this subject in much more depth with videos and illustrations in my next course "**Advanced Music Production**" so please make sure you are subscribed.

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NBSome tips about recording guitar:

- Always know what you want before you start. I always tell the guitarist exactly what I'm looking for before we start.
- Be confident!! Musicians and artists will look to the producer for leadership. If you are coming across as unsure and insecure that will translate to an unsure undirected sound.
- Remember!! You must use the same multitracking , looping and multilayering method I showed you earlier for programming music on recorded audio. All you need is a good take of the loop your looking for. Don't make the musician play the same loop for hours. Let him do a few takes and then pick the best section and loop it.
- When you have all the bits and pieces you want, then my suggestion is to mute (to temporarily switch off) all the session guitarists previous takes and then ask the musician what he thinks will work best and let him go for it. Often professionals will bring something you wouldn't have thought of into the mix. A good producer will always listen to other people.
- With acoustic guitar, I suggest you record both the jack output of the guitar and the condenser mike feed at the same time on two separate channels. You will be amazed how having both has given me more power to use them both in different ways.

Recording Vocals

Vocals are usually the last instrument to be recorded. Nothing makes a song really come together as much as when you add those vocals. There is something primal about us as humans and our need to hear a human voice in music. It just seems to never go out of fashion.

NBMy belief is that you are only as good as your sounds and the musicians you hire. Always only use the best musicians and singers that you can find. If a singer is not cutting it, say "Thanks", but let him go and get some one else.

Vocals can be broken down into 3 main categories.

1. Lead
2. Backing Vocals
3. Choir

Lead

The Lead is the main melody usually sung by the main artist. This is the part of the song that everybody hums or sings in the shower. The whole song actually hinges on the lead. The lead is also the melody that the composer of the song will register with the composers society of his country, to copyright the song. I will talk about music copyright in more depth in another course later.

Backing vocals

Backing vocals are usually sung by supporting singers to back up the lead singer. Backing vocals can be either exactly the same melody as the lead or they can be a harmony of the lead. There even songs where the backing vocals can answer the lead or overlap etc...

NB In reality these days, we can record and layer as many tracks as we want on our DAW and its expensive to hire many singers to backup a lead in a song so its common for the lead singer to back him/her self on their own song. Listen carefully to most RnB and Pop these days and you will hear that Beyonce, Kay Ce & Jo Jo, R Kelly and many more artists are actually backing themselves on their songs. Its just that easy to do it since they already standing there in the booth all warmed up and familiar with the song. There are a few **Tricks & Tips** which I will share in my "**Advanced Music Production**" course to make the backing vocals sound like different people.

I get calls almost everyday from young and aspiring music producers asking me about vocal production. The vocal is the most important instrument in the song. Get it wrong and the whole song will not work. I actually go into great detail and share **all** my **secrets** for recording and mixing vocals in my upcoming course. I will show you my exact settings and methods and I will hold back nothing.

Choir

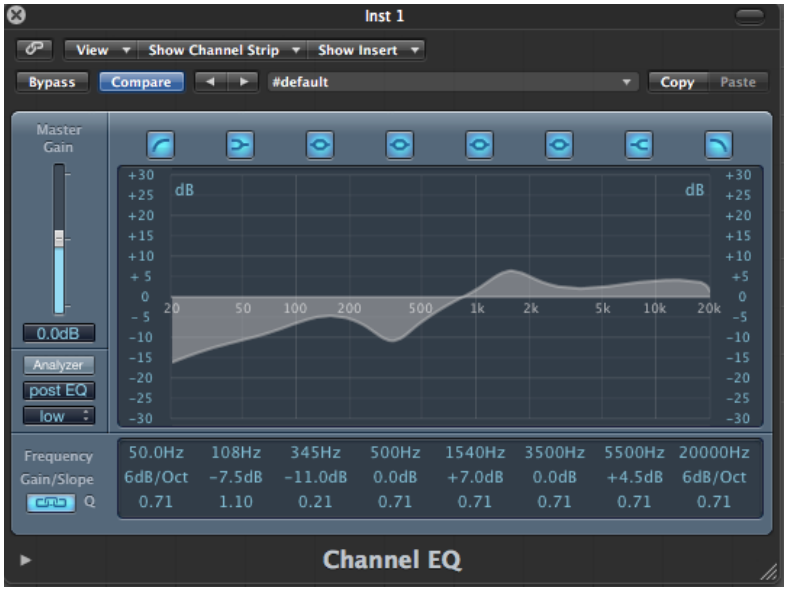
Choir is a whole art on its own. Choirs have their own culture and terms they use. All choirs should have a director/arranger that lead and guide them.

NB If you are going to work with a choir then I suggest you make sure you have a choir director to work with and that you hire a bigger studio for the session and take the session back to your own studio later for mixing.

There is also a way to create fake choir which sounds like dozens of people but in fact you only use a handful of singers and you save a ton of money in the process. I will be doing a video on that soon in my "**Advanced Music Production**" course.

Understanding FX & Dynamics

EQ



EQ is the frequency spectrum from bass being the boomy warm frequencies you can feel in your body, to mids being the middle frequencies where you can hear chords and voice to tops being the high frequencies like hi hats.

The human ear on average can hear from 50 hz up to 20 khz. Most instruments fall within certain ranges for e.g.

Bass : The Kik drum & Bass guitar usually falls within the 0hz-500hz range

Mids : Pianos, voice, guitars, organ, snare drum & toms fall within 500hz-10khz

Tops : Hi Hats, symbols, “s” and “t's” of voices fall within 10khz-20khz

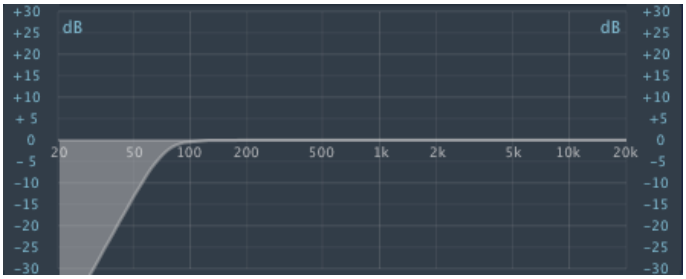
NB EQ is first and foremost a corrective tool. My advise is to use EQ to correct a sound rather than as an effect. Yes you can do the telephone effect using EQ but the biggest benefit EQ has to your productions when you mixing is the ability to fix or correct instruments or voices that sound too bassy or too bright etc...

NB Secondly, subtractive EQ is always more natural sounding than additive EQ, e.g. Its better to subtract some bass out of a snare drum than to add tops. If you add EQ there is always the possibility that the sound will sound right on your speakers and sound strange on another set. This is not a rule but a suggestion. Sometimes you have no choice but to use additive EQ.

NB Thirdly, when you create an EQ curve, it's always better sounding to make the shape of the curve from bass to tops, smooth and gentle. Always avoid sharp spikes in your EQ curve. This will also add to the unnatural and unpredictability of a sound. Especially on different sized speakers.

Filters

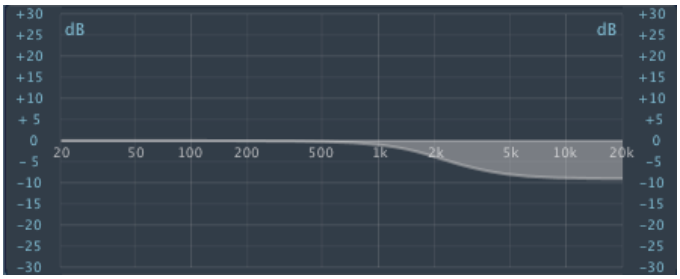
High Pass Filter -HPF



High Pass Filters are a form of EQ where the high frequencies are allowed to pass but the low frequencies are not. The greyed out area in the picture reveals where the bass frequencies have been rolled off to. The position of where the HPF starts to roll off the bass from is adjustable. You can see that there is a curve to the roll off. It doesn't just drop off...

NB This is great for rolling off bass and kiks from drum loops so that your kik in your song doesn't fight or clash with the kik in the loop.

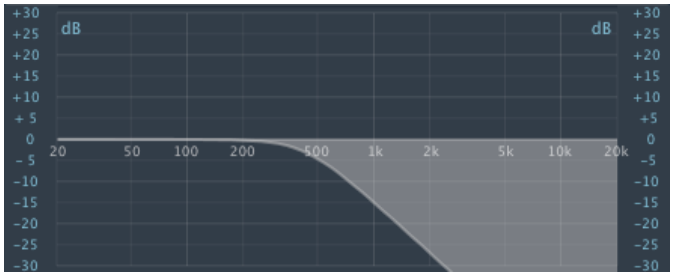
High Shelving EQ



As you can see in the greyed out curve in the picture the High Shelving EQ is like a general shelf where you can adjust a whole bunch of high frequencies from a specific point or frequency upwards. You can also adjust the amount of the shelf, either negative or positive.

NB High shelving EQ is an excellent tool for general corrections of recordings in the higher frequencies, e.g. bringing the brightness down of a bass guitar that's sticking out in the mix and fighting with other mid instruments.

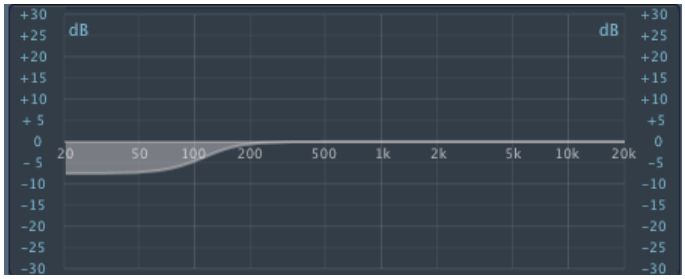
Low Pass Filter - LPF



The Low Pass Filter is similar to the High Pass Filter, except it only allows low frequencies past from a specific & adjustable point onwards. The greyed out area in the picture shows the frequencies that are being filtered. Notice that those frequencies are completely rolled off.

NB This filter is excellent for creating that club effect where the synths sound all muddy and warm and then slowly as the track progresses the tops are slowly let back as the LPF frequency is opened up higher and higher creating suspense.

Low Shelving EQ



Low Shelving EQ is the opposite of High Shelving EQ . The only difference being that you can control a shelf of frequencies, except this time in the lower frequencies.

NB Again, this is great as a corrective EQ. I use this filter the most of all. e.g. If a vocal track lacks a bit of punch or is dull, I will put a low shelving EQ on the vocal track and subtract maybe 3dB from about 150hz onwards and then increase the level of the track by 3dB.

Compression

Compression is a very powerful tool, especially for mixing. The function of compression is to control the fluctuations in volume of an instrument.

NBSo for e.g. let's say you record a singer and now you are trying to mix that take into your song... You will notice at one part of the recording the singer sings too loud. So you put the level down on the mixer until it sounds right in the mix. Then in another part of the take the singer sings too softly. So you put up the volume of that same channel. You now have a problem. The perfect position of the level on the mixer for one part of the song is different to another part. So what do you do?

Your answer is compression! Compression will stop all the higher volume parts of the singers take from going over a certain threshold which you can adjust to perfection. So now the over all volume of the recording should be more even and balanced and this means that when you set your level of the vocals to be correct in one part of the song, it

should be correct in another.

Compression has four main controls.

Threshold

The depth of compression applied to the track. It is commonly set in dB, where a lower threshold (for e.g. -50 dB) means a larger part of the signal will be treated (compared to a higher threshold of -10 dB).

Ratio

The ratio determines the input/output ratio for signals higher than the threshold. For example, a 5:1 ratio means that a signal overshooting the threshold by 5 dB will leave the compressor 1 dB above the threshold.

Attack & Release

The attack and release settings determine how fast the compressor takes to act on the incoming signal so as to maintain a curved and more natural sounding response.

Overview of Compression

Knowing how to set a compressor is critical to the sound of your music and your mix. In my 20 years of producing and recording I have discovered that every instrument has different settings and I have figured out what I call, the sweet spots, for all of them.

I will only be revealing how to do this in great depth in my upcoming course

"**Advanced Music Production**"

So stay tuned :-)

Noise Gate

The Noise Gate is basically a gate that opens and closes to let through sound or block sound, depending on if the signal is above or below a certain threshold. This is great for vocal recordings because if you set the threshold, attack and release of the noise gate right, you will eliminate all spit noises, clothes noises and hiss when ever the singer is not singing. Then as soon as the singer starts to sing and the signal goes above the threshold then the gate will open letting through those sparkling vocals.

NB A lot of people argue with me and say that its not a big deal letting slight noises in between the singing coming through because you cant hear them drowned in the music. NO!! I don't agree. All these bad things add up in the end and this is what makes the difference between a good production and a sloppy one.

Reverb

Reverb is an important part of music production. Reverb gives us the ability to add ambience and space to a recording afterward.

Reverb also known as reverberation is the result of when a sound is created in an enclosed space like a hall which causes many echos to build up and then slowly decay as the sound is absorbed by the walls and air. You will notice this more when the sound source stops but the reverb continues, becoming softer and softer until you cant hear any more sound.

The whole point of recording your vocals in a dead (reverb free) space like a booth is so that you as the producer can have total control over what the final ambient environment you would like your track to be in.

So this means that we record the guitar or trumpet or vocals or whatever instrument, dry and then we add the kind of reverb and the amount of reverberation we want afterward on the mixer. In the case of the modern method I am teaching you here, we will control the reverb in the virtual mixing desk.

Digital Delay

People don't realize this but "digital delay" is actually more important to me than reverb. I use delay on almost every song, that is as long as its a modern style production. Digital delay is not really synonymous with older style productions. The trick to using delay properly is the timing. The delay must be on time with the song and echo on the beat.

MY DAW has a built in function in the delay that I can just choose the timing based on wether I want an ¼ , 1/8th or 1/6th delay by clicking a button as you can see in the picture, BUT that is not how it always was to start with. I was taught a formula when I was a kid by my father on how to work out how many milliseconds to set the delay to so that it echoed on time with the song. Its very simple so here goes.

Lets say for example we have a tempo of 120 BPM which is easy to work with. If you remember what I said in the tempo section of this ebook, that would mean that there are 120 beats per minute. A minute has 60 seconds, therefore you take 60 and divide it by the BPM(120).

60 (seconds) / 120 (BPM) = 0.5 seconds per beat or 500 milliseconds per beat.

There are 4 beats in a bar so if you wanted your delay to be 1/8ths , then you would divide the 500 milliseconds by 2 = 250 milliseconds (0.25 seconds).

If you wanted 1/16th delays then you would
divide the 500 milliseconds by 4 = 125 milliseconds (0.125 seconds).

Now!! lets do the math for a different tempo like 115 BPM.

60 (seconds) / 115 (BPM) = 0.522 seconds per beat or 522 milliseconds per beat.

There are 4 beats in a bar so if you wanted your delay to be 1/8ths, then you would divide the 522 milliseconds by 2 = 261 milliseconds (0.261 seconds).

If you wanted 1/16th delays then you would
divide the 522 milliseconds by 4 = 130 milliseconds (0.130 seconds).

If you set your delay at these settings at a tempo of 115 then what ever you applied the delay to in your mix would echo in time with the song and that is a beautiful thing.

Just think of Mike and the Mechanics song "Living years" notice the guitar effect. The delays are interplaying in time with the riff creating an amazing rhythm. They are using the exact same formula that I am showing you here.

Watch the video here >> Living Years

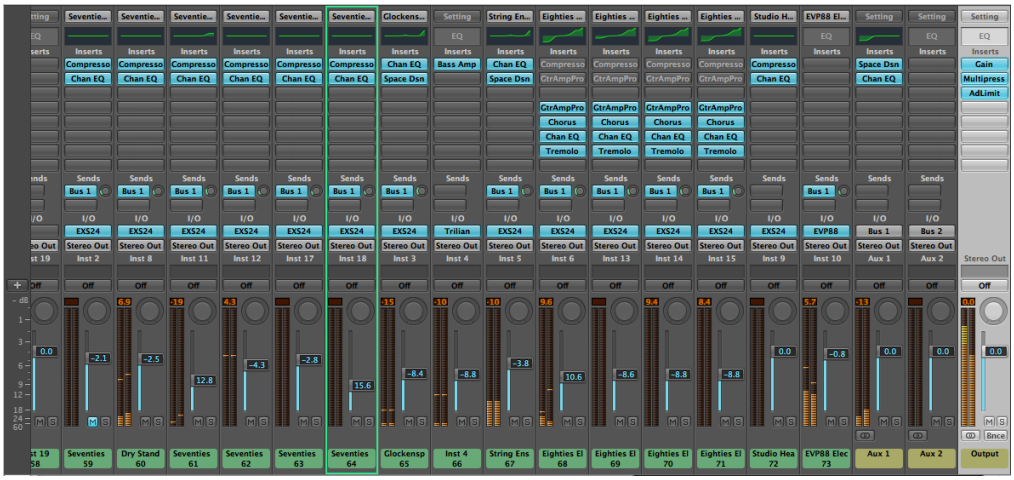
Another good example is U2. "The Edge" who is the guitarist of U2 uses this technique almost to death. You can hear him warming up and check the delay in this video at 1:47 of the song "Where the streets have no name" and then when they play listen how the delay creates that rhythm I was talking about. Today this technique is common place in a lot of music.

Watch the video here >> Where the streets have no name

Mixing with a Virtual Mixer

Fundamentally, the purpose of mixing is to mix the many tracks in your song or balance the levels of your multitrack recording down to a stereo master. This stereo master is what a CD or mp3 is made from.

Mixing is an art and a very rare skill in the world today. When I did my research 10 years ago, I was shocked to find that the same few guys names were popping up mixing album after album and hit after hit. This is true for both the UK and America. If you searched then you would find the same few names popping up again and again, BUT things have been changing.



These days it's becoming increasingly more common for producers to mix their own material. The technology has just got to the point now where you can actually mix world class music right inside your virtual mixer inside your DAW. Its just that easy and convenient. Don't believe the rubbish that people tell you that you need to mix your music on an SSL Desk or through some fancy analogue channel strip. The more your signal is in the analogue domain the worse it will be for it. You are only as good as the weakest link in the chain and trust me even the best mixing desks don't come near the specs of virtual instruments running through a virtual digital desk being digitally bounced down to a final mastered mix never leaving the digital domain.

Ears ,More Ears and Ear training

One thing I believe is essential to mixing and music production is your ears. Your ears are the most powerful weapon you have in your arsenal. Look after them and train them just like you train your brain or your muscles. You can train your ears to become much more aware of sound. The more you concentrate when you listen to music the more your ear intelligence will grow. You've got to start listening more deeply to music. Try and identify the different instruments. Try and hear what notes they are playing.

I have always been more of an auditory person. Since a child I was always "hearing" before "seeing". I even listen very carefully to people's tone when they speak. Notice that speech has a melody to it. This is the universal melody of tone that we all speak and trust me, if you look into it and study it, this universal melody does make its way through into our music.

Getting back to mixing… You must start to listen to the mix of different songs and different styles of music and notice the differences and the similarities.

NB One trick my father always taught me was that if I was mixing a country track, I should play a song of a good country mix in my studio. Then listen to it on my studio speakers while sitting in my mixing position. Get used to the sound and the balance. Now play your country song at the same volume. What do you notice first? What stands out in your track that is different to the well mixed reference track you've picked. Adjust your track and then go back . Do it again.

Eventually you will start to get to a point where you will instinctively know what to do when your mixing and you won't know HOW you know. Like driving a car.

Room Acoustics & Speakers

Sound proofing, room acoustics and your speakers (monitors) are your only source of reference for you to judge and decide what to do when your mixing.

I remember struggling to mix on normal Hi Fi speakers in my bedroom and the sound was bouncing off the walls and the bass was booming but when I played the mix in another room or my car it sounded dead and the track had no bass.

My philosophy for mixing, related to your environment, is kind of like driving a car. If you had very bad eyesight and you couldn't see properly and then you went for a drive without your glasses on then you would crash into things. The reason is that your perception would be wrong and your awareness of what is going on would be clouded. You wouldn't have the necessary information to make a competent decision without being able to see.

The same applies to mixing. If you can't hear what's going on properly then you won't be able to make an informed decision what to do to correct it. It's like you are half blind and you are not wearing your glasses. By having the right soundproofing and the correct type of speakers, empowers you to hear properly and to trust what you hear to be accurate.

I will be doing a course on building a studio at home soon. Make sure your subscribed at my blog for more info http://www.eComputerRecordingSoftware.com

NB As I said in my suggested gear chapter, I suggest you use Nearfield reference speakers. Nearfield speakers are a type of speaker that produces the correct bass but at short distances from the speaker. Because the typical home studio is not that large this is essential for you to have an accurate reference for your bass while you sit in front of the speakers.

The Channel Strip

This is a virtual channel strip. Each instrument and each recording is assigned to a channel strip. There are four main elements to a virtual channel strip.

1. **The volume fader** : To control the volume of that specific channel/track.
2. **The pan** : To control how far left, right or centre you would like the track to be in the mix.
3. **The bus send** : This is where you will decide how much reverb or delay you would like on that specific channel.
4. **The inserts** : To insert plugins like EQ, noise gate & compression into that channel.

The Panning Triangle Formula

After many years of mixing and producing many different styles of music, I have noticed patterns and formulas for mixing music. I noticed that there were certain universal rules that applied to any style of music i.e. Rock, Rap, Pop, Country etc..

I have developed my own formula called "The Secret Triangle Formula" that I will share in my upcoming video course "**Advanced Music Production**"

Mixing in a nutshell

The trick to mixing well is to perfect all the previous sections. It's the combination of good sequencing , good recording , the right EQ & compression settings, using reverb & delay correctly, having the right environment and speakers to mix on and finally knowing how to use pan and volume correctly that will finally give you that elusive sparkling mix you've been searching for.

How to Master Mastering : The Way I do It !!

What is mastering

Before the days of CDs and Dat (Digital Audio Tape), Music was mixed through an analogue mixer and the multiple channels would come out the master channel mixed in stereo and then the mixed track would be recorded to a reel to reel ¼ inch analogue tape master. This master would then be sent off to a final mastering engineer who would adjust the EQ and dynamics of that mix to make it well balanced and loud for radio etc...

This final master would be the master that all the records that would be sold in the shops would be massed produced from.

Modern tools

Today the principle hasn't changed only the method. With modern digital audio workstation and computers, we can mix the song virtually and bounce down a digital stereo mix that can be mastered by a 3rd party or by the producer in another software package BUT this is where I stray from the pack of traditional thinking.

Theory of mastering

The fundamentals of mastering are a formula that when followed properly, will achieve the desired results irrespective of the software or hardware used. All that is happening in these mastering software programs is creators of these programs have replicated the method that good mastering engineers have been using for 50 years using analogue and electronic equipment.

I am about to reveal this secret to you so here goes.

NB The secret to mastering on the final stereo mix are these 3 processes:

1. Corrective EQ
2. Multiband Compression
3. Final Limitting

Everything else you have been told about stereo enhancers, phase correction and aural brighteners etc... is BullS*!t!! It's all just myths from people who don't know better.

Stereo spread and brightening is something you get right at the programing and mixing phase of your song. Not at the end when you are mastering.

My Method

Now here is where I take this whole idea and make it 21st century and make it extremely practical.

When other music producers walk into my studio and I show them my method they almost always invariably fall over with shock and surprise.

NB My method for mastering is to run these 3 fundamentals of mastering LIVE inserted into my master channel while I am composing, recording and mixing. This means that

- my track is not going to change its sound after it leaves my studio.
- I can hear exactly what my mix will sound like through the mastering.
- I can bounce down a digital master with built in Apoggee UV22HR straight from my DAW.

This means that all the virtual instruments, all the FX, all the reverbs are starting digital, mixed virtually in the digital domain and then are mastered in the digital domain and finally digitally bounced down to a final mix that is CD compliant ready for production without leaving the DAW itself and without being compromised by being converted to analogue and back to digital again as some mastering engineers like to do.

So there we go . **I have revealed a very powerful piece of information there**. Take note!

In my upcoming course "**Advanced Music Production**" I will show you how, step by step and in great detail how you can actually do this yourself. I will also reveal all my personal settings for mastering.

So !! Where To From Here ??

When I showed this ebook to a few music industry players that I know, the response I got from almost all of them was "**Why give away so much secret information for free ?**"

My philosophy is that in life you have to give sometimes before you can receive back. I have been working in the field of music production for 20 years and I have shared a lot of information in this ebook for free that took me years to discover and understand. With this information you will be able to go now and make great music IF you follow my methods I have outlined.

At this point you may be thinking...

"This is all good stuff, but I still have so many questions to help me actually implement all of these great ideas... Where do I go next?"

Because of the limitations of a report like this (being text based and all) it's impossible to show you everything you need to know for implementing the techniques properly that I have shown you. For example, when it comes to sequencing, recording and my mastering methods, **text is WAY too limited to give you a clear enough picture**.

Of course, with the information I've already provided you, you will definitely be able to go far with your own music productions and getting your computer recording system up and running. But I can assure you, if you're new to all this, you will definitely come across some very frustrating "hiccups".

Unfortunately there is only so far I can go with a text based platform like this ebook. I have so much more to teach you . This ebook is just the tip of the iceberg of what I would love to still teach you and this is why I have created a new video based course called : "**Advanced Music Production**"

Advanced Music Production

In this upcoming course I will be revealing everything I know about the art of music production that has made me the successful music producer I am today. My extensive 20 years of experience and blood sweat & tears I've gone through to collect this knowledge will be opened up for you to see. **I will hold back nothing and show you every stage, step by step in my video tutorials how to become an advanced music producer.**

The course will be around 50 in-depth video lessons over a 6 month period delivered to your inbox.

In this course I will show you:

- Detailed explanations of drum programming, sequencing tips and tricks that I use everyday.
- How to be able to produce any style of music like RnB, Hip Hop, Country, even if you don't like it. This is one of my strengths.
- I will teach you arrangement and song formats that have worked for other arrangers for over 50 years.
- How to record real musicians and live instruments like trumpet, brass & strings.
- A fully comprehensive lesson in all methods of recording electric and acoustic guitar with real session guitarists.
- How to mike up a drum kit the right way.
- How to work with live drum recordings in a DAW, including side chain gating which very few people know how to do properly.
- Exactly how to understand and set all the functions in compression, EQ, delay, noise gate etc..
- I will share all of my personal settings for compression, EQ , reverbs etc..
- I will go into great detail about all the different plugins that you will need to know about to give you that edge for e.g. chorus, de-essing, autotune, tremelo etc.
- There will also be resource files (audio recordings) for you to practice using these

plugins on your tracks.

- My personal methods for getting that sparkling mix
- How to automate and simplify your work flow
- My panning triangle formula
- The exact details of my mastering method explained and revealed
- Finally my personal philosophy and passion for music and music technology

This is just a sample of what I will be covering in my "**Advanced Music Production**" course.

If you would like to know more and signup for this course then click here >> http://AdvancedMusicProduction.com/signup

David Campos

Music Producer & Composer