Introduction
Welcome to the Mobile Studio Podcast Extra for podcast #1. If you haven’t already heard podcast #1 entitled: Striking a Chord, then head over to www.themobilestudio.net/podcast, click on podcast #1 and take a listen.

Podcast #1 is all about Chords and how they can help you to turn your melody into a fully arranged song, how you can use them to color your arrangement and make it more interesting, how they can influence emotion in your audience and how you can use them to create harmony lines. The podcast finished off with a look at the circle of fifths and a way that you can use it to help you naturally modulate between two keys sending your song off in a whole new direction.

In this podcast extra I’m going to help you build some of the chords we talked about in the podcast, explain what the degrees of a scale are and how you can use them to identify similar chords in different keys. We’ll look at chord inversions, a neat way you can use the same chord but make it sound different and finally, continuing on from where Podcast #1 left off, I’ll show you how exactly to use pivot chords to modulate into a new key in the middle of your song.

Types of Chords
In the podcast, we defined a chord as a set of three or more notes played together which have a harmonic interval between them. The example we used in the podcast was the chord of C major made up of the notes C, E and G. To better understand how the chords are formed and which chords are available to us in which keys, we’re going to go back to our scales, those pesky little exercises one has to do when learning piano. We need to look at the scales as they are going to define for us what notes are available to make up the chords we want to play.

So going back to the key in which our first chord is played, C major, the notes that make up the scale are C, D, E, F, G, A, B and C.

We’re going to give each of these notes a number. C will be 1, D will be 2, E will be 3 and so on. So we see that the chord of C major is made up of C – the first note of the scale, E – the third note of the scale and G – the fifth note of the scale. This numbering system, also known as the degree of the scale, is absolutely key to understanding the different chords in the different keys as, it doesn’t matter which key you are in, the major chord of that key will always be made up of the 1st, 3rd and 5th notes, or degrees of that scale. So, for example: If we now take the chord of D major, let’s first look at the D major scale: D, E, F#, G, A, B C# and D.

You'll notice that the scale of D major has 2 sharps in it. In the original podcast we talked about keys and how we can use the circle of fifths to help us find out which sharps and flats exit in each key. If you would like a quick refresher, take a look at the circle of fifths video presentation at www.themobilestudio.net/podcast and go to Podcast #1.
So if we again assigned numbers, or degrees to each note of the D major scale we can see that, the chord of D major is made up of the 1st degree – D, the 3rd degree – F#, and the 5th degree – A.

Because we can find the chords of any key, simply by following this numbering system, I’m going to talk about all the different types of chords as if they were in the key of C.

Up till now we’ve spoken only of major chords. What about minor chords? Well the same rules apply it’s just that now instead of the degrees of the scale referring to the major scale, they refer to the minor scale. For example the scale of C minor is made up of the notes: C, D, Eb, F, G, Ab, Bb and C. So the chord of C minor is made up of the 1st degree – C, the 3rd degree – Eb and the 5th degree – G.

If we do the same in the D minor scale made up of D, E, F, G, A, Bb, C and D, the chord of D minor is made up of the 1st degree – D, the 3rd degree – F and the 5th degree – A.

How about some more interesting sounding chords? Remember in the original podcast, we said that chords could be used to influence emotion in your listener. Different types of chords engender different emotions.

We can add other notes to the chord which change the sound of the chord so for example, if we add in the 7th note of the scale, in C major the 7th degree is B, we get C major 7th, a very wistful relaxed sounding chord.

We can flatten that 7th note and get C dominant 7th more often known simply as C7th. This is a very expectant type of chord and is useful when you want to suggest that there is more to come in your song. It is also very useful when modulating between different keys, but more of that a little later on.

Again this works in any key. In the key of D for example the 7th degree of the scale is C# so playing D’s 1st, 3rd 5th and 7th degrees gives us D major 7th. Flattening that note from C# to C we get D7th.

What chord could we use to generate fear and suspense? Well and Augmented chord is a good chord for that such as C Augmented. To make an augmented chord we sharpen the 5th note of the chord. So C Augmented is made up of C, E and G#. Another good chord for fear and suspense is a diminished chord such as C diminished. To make the diminished chord, we take the minor chord and flatten the 5th note of the chord. So C diminished is made up of C, Eb and Gb.

You can find all these chords in all the different keys in my chords crib sheet. If you are listening to this podcast from the podcast webpage, simply scroll down to find the resources section and click on the link to download the file. If you are listening to the downloaded version of this podcast, then go to the Podcast Extra homepage by clicking on the link sent to you by E-Mail when you subscribed to the Mobile Studio Podcast and go to Podcast Extra #1.

Chord Inversions
So now we know how to form the different chords and know what the degrees of each chord are, we can play around with what we know and work on getting even more out of our chords. In the excerpt you are about to hear there are 8 bars. The chord changes on the first beat of each bar.

Excerpt from Lewandowski’s Tov Lehodot plays
Apart from the first and last bars, it sounds as if a different chord plays on each bar. However, this is not quite true. One of those chords has been reused. Here is the excerpt again only this time, I will name the chords as they play.

**Excerpt from Lewandowski’s Tov Lehodot plays**

C Major, E Major, A Minor, E minor, D minor... and now D minor again, C major, G major and C major

How has the composer used the D minor chord twice in consecutive bars and made it sound almost like 2 different chords? The answer is by inverting the notes in the chord. The first time the chord plays, we have the 1st inversion of the chord then the chord plays again only this time we hear the un-inverted chord. A chord inversion means that we reorder the notes in the chord.

So if the basic D minor chord is made up of the notes D, F and A, in order to get the first inversion of the chord we take the bass note of the chord D and play it an octave above so instead of being the lowest note in the chord, it now becomes the highest note. The bass note of our chord is F on top of that we have the A and then on top of that we have the D. The first inversion of the chord is a good chord for the end of a song as it gives a sense of completion.

We can further modify the chord to get the second inversion again by taking the bass note of our first inverted chord, F and now playing that an octave above so now the F becomes the highest note in the chord giving us A, D and F. In a chord containing only 3 notes, like D minor, there are only 3 different combinations of notes that would make up the chord, so we have the basic chord D minor, the first inversion and the second inversion.

However, in a chord with more notes in it such as D minor 7th which has 4 notes, we have 4 different ways of playing the chord. The basic chord, D, F, A and C, the first inversion F, A, C and D, the second inversion A, C, D and F and the third inversion C, D, F and A.

So chord inversions are a neat way of making your chords go a little further in your song. You can have 2 sections of melody next to each other, which require the same chord, but by using an inversion you can make that chord sound slightly different.

Chord inversions can also be useful when played in conjunction with other chords. As I mentioned in the original podcast, one of my favorite tricks in a song is to use a descending bass in my chord sequences, where the bass note of the chord descends by one note with each new chord. This can be very useful when arranging a vocal harmony as the descending bass idea makes for an easy tune for my bass section to sing.

I start with a basic chord like C major for example. This I play in its un-inverted form C, E and G. The next chord is E minor, but in order to allow for the B of the E minor chord to be the bass note of the chord, I play the second inversion of the chord, B, E, G. The next chord, A minor is played in its un-inverted form with A being the bass note and C and E on top of that. The next chord has G as its bass note, but is the second inversion of the C major chord I played before. This is followed by F major, un-inverted as F is already the bass note of F major, then C major again but this time in its first inversion with E as the bass note, then G major in its second inversion with D as its bass note and finally back to C major in its un-inverted form.

So by combining chords in their different inversions you can write harmony lines that are little tunes in themselves.
Modulation

Having begun to put our chords together into chord sequences lets now use a chord sequence to make a journey within our song. Chords play around the melody interpreting it and flag to the listener where the melody is going.

One very useful clue our chord sequence can give to our listeners is if our song is about to modulate into a new key.

Modulation is a very useful tool in a song as it enables you to reuse a piece of melody, but make it sound different and therefore maintain interest in your song. There are plenty of songs out there which modulate very suddenly, i.e. give no clue to the listener that the song is about to change key. This method makes the modulation very noticeable and that’s fine if you want it to be a feature of your song. However, there is another way to modulate that is much more subtle and musical; if a little more time consuming in the composing stage.

In the original podcast and the accompanying video on the Circle of Fifths, I explained how to modulate between a major key and its relative minor key. I also demonstrated how to find a pivot chord to help you modulate between 2 closely related major keys. However, when planning out the modulation chord sequence, it isn’t enough to simply rely on the pivot chord to take you into the new key. Our ears need a little more help to navigate through the modulation.

Modulation is a five stage process:

In stage 1, we have our song in its original key.

In stage 2, we begin the build up to the pivot chord and the pivot chord itself.

In stage 3, we now make the journey into the new key. A good way of leading the ear into the new key is via the dominant 7th chord. The dominant chord of any key is the 5th chord of the scale of that key. You can use the Circle of Fifths to easily find the fifth chord of the key you want to modulate into by looking at the chord one step clockwise around the circle from the key you are modulating to. So in my example, we are leading into the key of G, the 5th chord of the G scale is D. Therefore the dominant 7th chord of the key of G is D7th.

You may think that once we’ve arrived in the new key we have finished. But this is not true. If we don’t do something to confirm this new key, then the ear will simply want to revert back to the old key. Therefore in stage 4 we need some sort of melody to confirm the new key. The simplest way to do this is to repeat the dominant 7th, and new key’s tonic chord sequence.

...or perhaps we could be a little more adventurous and dip into the new key’s relative minor key for a few bars like I have done in my song:

In stage 5, we complete the modulation process by continuing our song in the new key, or as I have done in my example, repeating the original melody, only now, in the new key.
So to recap, the 5 stages of modulation are:

1. Play your song in the original key
2. Build up to and play the pivot chord
3. Lead the ear into the new key via the dominant 7th
4. Confirm the new key by repeating the dominant 7th or by composing a few new bars in the key's relative minor
5. Continue the song in the new key

**Conclusion**

As I mentioned in the original podcast, adding chords is the first step in transforming your song from a simple melody into a full blown arrangement. Chords are like the architect’s plans for your arrangement. Through chords you can add color to your melody, influence emotion in your audience and build vocal and instrumental harmonies.

In this podcast extra we have seen how chords are constructed and how by knowing your scales, and use of the Circle of Fifths you can work out the different chords in each key by using a simple numbering system. We've also seen how chord inversions can help you get even more out of the chords in your song.

We finished with a 5 point plan to help you musically modulate between different keys in the middle of your song.

I hope that I have managed to deepen your knowledge about chords and harmony. Please leave a comment on this podcast's homepage or E-Mail me directly at mark@themobilestudio.net to tell me what you would like to hear about next in the Mobile Studio Podcast.

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See next page for score to Mark’s Modulation Song
Mark's Modulation Song

Mark Newman

Voice:

= 100

Here we are in the key of C But is

Piano:

C C Em Am C

Vo.

that where we really want to be? To add a touch of va-ri-a-ty

Pno.

Dm F G G7 C Em Am C

Vo.

haps we could mod-u-late to G In order to do it musi-cally and to

Pno.

Dm G C F C C Em Am

Vo.

guide the ear in to the new key We pi-vot on A Mi-nor this is

Pno.

Dm F G G7 C Em
Striking a Chord

He leads through D seventh into G. Now we need a little melody. To confirm we're in the key of B minor and D. Then we return to the tune we played in C major.

Now we're in the key of G. A minor and D seventh. G and C and G.