



I. Basic Theory

A. Major scale and Intervals

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As you all probably know, music is based on scales. Scales are based on patterns of notes called intervals. Chords are built by playing a combination of notes from a scale. The smallest unit of "distance" between notes is the half-step, By "distance" I mean difference in frequency between notes which relates to a true distance on the fretboard on a guitar. The distance between any two adjacent frets is a half-step. Each note is represented by a letter from A to G. The distance between any two consecutive letters is a whole step - or two half-steps - EXCEPT for the distance between B and C, and E and F which are half-steps. A sharp sign (#) means to play the note one half-step higher than usual and a flat sign (b) means to play the note one half-step lower than usual.

The major scale consists of 8 notes - 7 if you don't count the root note at the top of the scale - separated by the following pattern:

whole - whole - half - whole - whole - whole - half

Lets start by building a major scale starting with a C. This makes it a C major scale, with C known as the root note, or root of the scale.

C-whole-D-whole-E-half-F-whole-G-whole-A-whole-B-half-C

The distance between B and C is already a half-step. C brings us back to the root note, and ends the scale. In summary

C Major: C D E F G A B C

I started with C because it is the easiest. Lets try one a little harder. We'll build a G major scale.

G-whole-A-whole-B-half-C-whole-D-whole-E-whole-

The distance between E and F is a half-step, so we have to add a sharp

G-whole-A-whole-B-half-C-whole-D-whole-E-whole-F#-half-G

Since the distance between F and G is a whole step, the distance between F# and G is a half step. In summary

G Major: G A B C D E F# G

Here's a couple of others for you to test yourself on:

E Major: E F# G# A B C# D# E

F Major: F G A Bb C D E F

Ab Major: Ab Bb C Db Eb F G Ab

Some scales can require double sharps and double flats, but you don't really have to worry about them in Country music. Some of the most common "keys" (another name for the scale a song is built upon) in Country are G, E, A, D, and C, and they don't require double flats or sharps.

Now lets talk about intervals. An interval is the distance between ANY two notes, non-adjacent notes and flats and sharps included. Intervals are summarized in the following table:

Name	Distance	Example
Unison	0 half steps	C to C
Minor Second	1 half step	C to Db
Major Second	2 half steps	C to D
Minor Third	3 half steps	C to Eb
Major Third	4 half steps	C to E
Perfect Fourth	5 half steps	C to F
Augmented Fourth or Diminished Fifth	6 half steps	C to F#
Perfect Fifth	7 half steps	C to G
Augmented Fifth or Minor Sixth	8 half steps	C to G#
Major Sixth or Diminished Seventh	9 half steps	C to A
Minor Seventh	10 half steps	C to Bb
Major Seventh	11 half steps	C to B
Octave	12 half steps	C to C

Note that the major scale consists of the following intervals above the root:

root	major 2nd	major 3rd	perfect 4th	perfect 5th	major 6th	major 7th	root
C	D	E	F	G	A	B	C
G	A	B	C	D	E	F#	G
A	B	C#	D	E	F#	G#	A
D	E	F#	G	A	B	C#	D

You can also exactly specify the interval between two notes with generic intervals (e.g. 2nd, 4th, 7th) as long as you specify the key. For example, a 3rd above note X in scale Y. This will specify if it is a major or minor third. This method is a little more cumbersome, but it will be useful when we start building chords.

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B. Minor Scales, Circle of Fifths

This issue will discuss the circle of fifths which gives a shortcut method for determining the sharps and flats in a scale.

Minor Scale(s)

There are actually 3 different minor scales, natural, harmonic, and melodic. The Harmonic Minor scale is the one of greatest importance for the focus of these lessons, but I will begin with the Natural Minor because it is the easiest to understand. The Natural Minor scale follows the following formula:

whole - half - whole - whole - half - whole - whole

This can be derived from a major scale by beginning with the 6th note of the scale. This is called the related minor of the major scale. Let's look at a couple of examples.

C Major: C D E F G A B C
A Minor: A B C D E F G A

E Major: E F# G# A B C# D# E
C# Minor: C# D# E F# G# A B C#

The next (and most important) minor scale to consider is the Harmonic Minor Scale. This is derived from the Natural Minor by sharpening the 7th note of the scale (double sharp if it is already sharpened). The Harmonic Minor is the scale used when building chords on a minor scale. I will discuss this more in depth when I discuss chords. Examples follow:

A HMinor: A B C D E F G# A
C# HMinor: C# D# E F# G# A B# C# (lots of sharps huh?)

You may be wondering why I wrote B# instead of C since they sound the same. Well the reason is rather technical; each scale has to have exactly one of each lettered note (A B ...) in formal theory. If that B# were written as a C and a piece of written music called for a C, how would the musician know whether to play the C natural or sharp?

The last minor scale is the Melodic Minor, which I will just mention briefly for completeness. The Melodic Minor is the scale that melodies are built around. It has a different form depending on whether the melody is ascending or descending. In the ascending MMinor sharp the 6th and 7th notes of the Natural Minor scale, and the descending MMinor scale is the same as the Natural Minor scale.

Note: From now on I will use the term key and scale interchangeably. Actually there is a subtle difference. Key means the notes that belong to a scale, while scale generally implies playing the notes in order, either ascending or descending.

Circle of Fifths

The circle of fifths is a useful tool for understanding key signatures. Of course first I guess I should define what a key signature is. The key signature tells you which notes are played different from their natural state. It is either a group of flats or sharps, but never a combination of the two. Country music deals with sharps much more often than flats. What I will discuss here is not the full circle of fifths as it would be taught in a music theory class, but it is complete enough for the uses discussed here. It will be helpful for you to memorize the following sequence of notes (the circle of fifths):

F C G D A E B

This is the order that sharps will appear in a key. If a scale contains a sharp in the list, then it will also contain all the sharps to the left of it in the circle of fifths.

Similarly if a key contains a flat in the list, then it will also contain all the flats to the right of it in the circle of fifths. Thus you can completely specify a key by specifying the number of flats or sharps it contains. The following table lists all the keys and their key signatures.

Sharp Key	#sharps	notes sharpened
C Maj-A min	0	
G Maj-E min	1	F
D Maj-B min	2	F C
A Maj-F#min	3	F C G
E Maj-C#min	4	F C G D
B Maj-G#min	5	F C G D A
F#Maj-D#min	6	F C G D A E
C#Maj-A#min	7	F C G D A E B

Flat Key	#flats	notes flatted
F Maj-D min	1	B
BbMaj-G min	2	B E
EbMaj-C min	3	B E A
AbMaj-F min	4	B E A D
DbMaj-Bbmin	5	B E A D G
GbMaj-Ebmin	6	B E A D G C
CbMaj-Abmin	7	B E A D G C F

Note: Any key with over 4 flats or sharps is extremely rare. Keys such as CbMaj (7 flats) sounds the same as B Maj (5 sharps). Keys that have an equivalent sounding key are called enharmonic keys.

Here's how to relate the name of a major key with the key signature. For a minor key, first find its relative major by finding the third note of the scale. If the key does not have a flat in its name (or is F) go down a half step from the name of the key and that is the last sharp. "Last" meaning farthest to the right in the circle of fifths. For a flatted key, the name of the key is the second to last (second farthest to the left) flat in the key. F and C are the two exceptions to the rule. Just remember that the key of C has no flats or sharps and the key of F has only one flat (Bb).

As an example of the usefulness of this method, let's suppose you want to do a bass run between two chords. Suppose you're in the key of E and you want to run between E and A. Obviously the in between note are some kind of F and G, but are they flatted or sharpened? Since we're in the key of E, going down a half step gives D#. Looking at the circle of fifths, that means that E contains F#, C#, G#, D#. Therefore you play both F# and G# in your run.

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C. Chords of the Major scale, and Chord Triads

Today we talk about chord triads. First let me define the term. A chord consists of at least three notes, a root note, some type of third, and some type of fifth. You might notice from the Usenet groups that some people talk about "power chords". These technically aren't chords because they only consist of two notes (technically they are an interval). These are mostly used in heavy metal music, so they're not really applicable to country. I just thought I'd mention them here so that you would have an idea what someone is talking about if they come up. I've also been mentioning triads. Triads are chords that consist of exactly three notes, so the term chord triad is rather redundant. I'll just use the term triad for the rest of this lesson, since we won't be talking about chords of more than three notes until a future lesson.

There are several ways to approach the building (or spelling) of triads. First I'll build them from a scale, and then talk about building them individually. I've often seen them taught in the reverse order, but I find this method to be easier to understand and more directly applicable to playing the guitar.

First we begin with a major scale. I'll do C major, just because it is easiest to notate. You should try this with other keys also.

C Maj: C D E F G A B

Next you start on the third note of the scale and write the scale again above the first. This actually looks best on a musical staff, but we have to deal with ascii here.

E F G A B C D
C Maj: C D E F G A B

This gives us the third of each chord. Next we repeat the procedure by going up either a third from the second scale, or a fifth from the first to get the fifth of each chord.

G A B C D E F
E F G A B C D
C Maj: C D E F G A B

This gives us the seven chords that appear in a major scale.

CEG spells a C major triad, DFA is a D minor, EGB is an E minor, FAC is an F major, GBD is a G major, ACE, is an A minor, and BDF is a B diminished. You're probably wondering how I decided to call which triads major or minor or diminished. Well there's two different ways of looking at it. The easy way is to memorize that the chords built upon the first, fourth, and fifth notes of the scale are major, the ones built upon the second, third, and sixth notes of the scale are minor, and the one on the seventh is diminished. This will be true in any major scale and is useful to memorize. But you want more right? Well that brings me to the second way of looking at building chords, piece by piece.

If you'll recall from the first lesson, I gave you a table of intervals. You may have noticed that certain intervals are known as "perfect". There is a reason for this. Perfect intervals are the most stable sounding and pleasing to the ear. The reason for this is that the upper note of a perfect interval is a rational fraction of the wavelength of the lower note. If you didn't understand that last line, don't worry; it's mostly for those who are familiar with waves and wavelike motion. The table didn't mention it, but the unison and the octave are technically also perfect intervals. Chords including a perfect fifth are the most common and the most pleasing to the ear, therefore they are the ones used 90% of the time..

First we'll talk about major and minor triads, which are both built inside of a perfect fifth. Let's look at a perfect fifth built on an A for an example.

E
A

Next our chord needs a third. We have two choices of thirds to choose from, a minor third up from A, or a major third up from A.

E	E
C \	C# \
A - minor third	A - major third

Let's look at the top half of each chord.

E - major third	E - minor third
C /\	C#/\
A - minor third	A - major third

The first chord is known as a minor triad, and the second is a major triad. So the type of triad is named after the type of interval between the root and third of the triad. You may think of a minor chord in one of two ways: a root note, a minor third up from the root note, and a perfect fifth up from the root; or a minor third with a major third on top of it. Similarly you have two ways to look at a major triad: a root note, a major third up from the root, and a perfect fifth up from the root; or a major third with a minor third on top of it.

Now let's examine the diminished triad. I'll again use A for a root and fit two thirds between a diminished fifth.

E^b - minor third
C /\
A - minor third

To fit two thirds between the diminished fifth we only have one choice and that is to make them both minor. Unlike the major and minor triads which are named based upon the type of third in the lower half, a diminished triad is named for the type of fifth above the root. The diminished triad is the least used chord in a key. This is because it is built around the diminished fifth rather than the perfect fifth and it doesn't sound as stable. When it is used it is generally only for a beat or two as a passing chord between two other chords.

I'll briefly mention an augmented triad for completeness. This is built upon an augmented fifth, and each of the thirds are major. This never appears using only the notes belonging to a scale; you have to use a note that doesn't belong in a scale normally to build an augmented triad, therefore they are of secondary importance and are rarely used.

Now that you understand the different pieces of a triad, you can go back and verify that the triads I gave for the example C major scale are correct. You can also build the chords in other keys and verify the rule that that chords built on the first, fourth, and fifth note of the scale are major; the ones built on the second, third, and sixth note of the scale are minor; and the one built on the seventh note is diminished.

You can also compare your knowledge of chord spelling with chords that you know how to play. Even though many chords are played on more than three strings, they only contain three distinct notes. The other notes are just notes of the triad played in a different octave. This is known as doubling.

Triads that appear in a minor scale are a bit more involved since there are three minor scales to contend with, so I'll save that until the next lesson.

I. Basic Theory

D. Roman Numeral Notation, and Chords of the Minor scale

I know that we talked about chords of the major scale last time, and it would probably be logical to discuss chords of the minor scale next, but I'm going to take a sidebar and describe Roman Numeral notation first. That will make it easier to discuss the chords afterwards.

Roman Numeral Notation is a shorthand to discuss chords and chord progressions without specifying any key. That way I can talk about chords in general without giving specific examples and trying to extrapolate to other keys.

In a nutshell, the number of the Roman numeral tells which note of the scale the chord is built upon. Capital Roman numerals refer to major triads and lower case Roman numerals refer to minor triads. This can be extended to chords more complicated than triads with added symbols that I will introduce as necessary. Roman Numeral Notation can summarize just about everything covered in this series so far like so:

Chords of the Major Scale

I ii iii IV V vi viio

OK, I forgot to mention something. Diminished triads are symbolized by a lower case Roman numeral with a superscripted zero (or a degree symbol), which I can't notate in ascii, so I'll just use a lower case "o". What the example above means is that triads built upon the first note of a major scale is major, those built upon the second is minor, third is minor, fourth and fifth is major, sixth is minor, and seventh is diminished. Pretty easy, huh? You knew all of this from the last lesson; this is just a simpler way to notate it. All you have to do is supply your favorite major scale. And if you're rusty on Roman numerals, you only have to know them up to 7. Now when I talk about a I chord, you can pick a scale like C major and you'll know I'll be talking about a C major triad. And if I talk about a vi chord, and you like the key of E, you'll know I'm talking about a C#m triad.

Now, on to chords of the minor scale. As I mentioned last time, spelling of chords in the minor scale is more involved because the 6th and 7th note of the scale varies depending on which minor scale you are using. Nonetheless, there are seven triads that appear most frequently.

Chords of the Minor Scale

i iio III iv V VI viio

All of the notes used in these chords belong to the harmonic minor scale except for the 5th of the III chord. You can verify this as an exercise. The chords above are the ones used probably 90% of the time. However, using notes from the natural or melodic minor scale, you can construct the following alternate chords.

Alternate Chords of the Minor Scale

ii III+ IV v viio VII note: "+" means an augmented triad.

You might want to use the following table as a shorthand summary of the past two lessons. If you are going to memorize something, this is it.

	Chords in Major Scale	Common Chords in Minor Scale
Major	I, IV, V	III, V, VI
Minor	ii, iii, vi	i, iv
Diminished	viio	iio, viio
Augmented	none	none

I. Basic Theory

E. Seventh chords and Chord Progressions

Seventh chords are our first chords beyond triads, and are the next most common chords to triads. They consist of a triad plus some type of seventh above the root. Lets examine the various combinations possible.

Chord	Symbol	Construction		Order
		Triad	Seventh	
major seventh	M7	major	major	3
dominant seventh	7	major	minor	1
minor seventh	m7	minor	minor	2
half-diminished seventh	o7	diminished	minor	4
diminished seventh	o7	diminished	diminished	5

Note that the half-diminished symbol I used is the same as the diminished symbol. In printed music it is a degree symbol with a slash through it. In Country and Western music there is no real distinction. As a matter of fact, what is called a diminished seventh in chord charts is actually a half-diminished seventh (a stack of 3 minor thirds). From now on when I say diminished, just use the one in your chord chart. The Order column denotes (in my opinion) the relative usage with 1 most common and 5 least common. I would suggest that as an exercise you pull out a chord chart and verify that the above notes do appear in those type of chords.

The following table shows how these chords fit in a key.

	7th Chords in Major Scale	Common 7th Chords in Minor Scale
Dominant	V7	V7
Minor	iim7, iiim7, vim7	im7, ivm7
Major	IM7, IVM7	IIIM7, VIM7
Diminished	viio7	iio7, viio7

Now a few notes about how the seventh chords are used. The diminished triad almost never appears by itself (in the rare case that it does), but as a diminished seventh. It is curious in that when you play one diminished seventh you are actually playing 4 of them. Since all four of the notes are a minor third apart, you can use any of them as the root. It gives an awkward feeling, and when it is used it is usually as a passing chord between two more stabler ones.

Minor seventh chords can be used anywhere a minor triad can be used. It gives a softer, more jazzy sound. The dominant seventh chord only appears for the V chord, if you want to only play notes native to a key. However, C&W music often breaks this rule and plays any major triad as a dominant seventh for a slightly bluesy feel. Major seventh chords can be used in place of a non-V major triad. The major seventh chord has an unmistakably soft sound to it. My music theory teacher called it "the Blue Room chord". It fits perfectly in a ballad to give a romantic feel.

I introduced seventh chords before going to chord progressions mostly because the V chord appears as a V7 more often than a plain V triad. In my discussion of chord progressions I will drop any seventh notations, but you'll know that the V is more commonly V7. The following discussion is in a major key. Minor chord progressions will be mentioned later.

The ultimate chordal goal of almost any piece of music is the tonic, or I chord. 95% of C&W songs begin and end on the I chord. As I mentioned in the first discussion of intervals, the fifth has a very stable sound. So lets go backward in the circle of fifths from a I chord. This brings the V chord. the V-I progression has a feeling of resolution. That is the way most songs end. But don't think that is its only use. It is often used at several points in songs (end of each line, or end of each verse). It is the most common chord progression. Extending the circle of fifths backwards one more step we get the following progression:

ii -> V -> I ...

Here the ellipsis (...) means that you can go anywhere from a I chord. The ii is most often used as a lead in to the V. Many phrases - the smallest units of a chord progression including a V-I progression - contain only I-ii-V-I. Now, backwards two more fifths gives:

iii -> vi -> ii -> V -> I ...

The iii is not very commonly used, but when it is, it usually leads to the vi. This is the last direct step backward in the circle of fifths we will take. The uses rest of the chords are exceptions to the circle of fifths rule. The next step back brings us to the viio. While a viio-iii progression might occur, viio is usually used as a substitute for V. Therefore the customary goal of the viio is usually the I. Sometimes it is also the V. As my diagrams get more complicated remember that chords can either lead to the chord beneath or to the right of them. So here's how the viio fits:

iii -> vi -> ii -> $\left(\begin{array}{c} \text{viio} \\ \backslash \ / \\ \text{V} \end{array} \right)$ -> I ...

The only chord missing is the IV. This has three general uses. It can resolve to the I in what is called the plagal progression. This is the "Amen" in most church hymns. More commonly IV is linked with ii; it can substitute for ii or can lead to ii. So our chart now looks like this:

iii -> vi -> $\left(\begin{array}{c} \text{IV} \\ \backslash \ / \\ \text{ii} \end{array} \right)$ -> $\left(\begin{array}{c} \text{viio} \\ \backslash \ / \\ \text{V} \end{array} \right)$ -> I ...

Now there's some common exceptions. I know, this is a lot to handle, but music is complicated. Sometimes you find a V-vi progression, which is called the deceptive progression because you just thought you were going to resolve to I. You also might see vi-V, which amounts to skipping the IV or ii. Finally you might see a iii-IV. Like I said iii is rare, but it leads to IV as often as vi. I've also noticed that C&W musicians often use a major or minor chord (vii or VII) in place of a diminished seven (viio). I'll try writing all of this out in ascii, but you really should write it out by hand so that the arrows and directions are more clear.

iii -> vi -> $\left(\begin{array}{c} \text{IV} \\ \backslash \ / \\ \text{ii} \end{array} \right)$ -> $\left(\begin{array}{c} \text{viio} \\ \backslash \ / \\ \text{V} \end{array} \right)$ -> I ...

Most chords function the same way in minor as in major. However the III is a common feature of the minor key because it represents the relative major key. A substitute VII actually works different than the proper viio. You often find a song kind of jumping back and forth between the minor key and its relative major key. Here's how the chart looks in a minor key:

VII -> III -> VI -> $\left(\begin{array}{c} \text{iv} \\ \backslash \ / \\ \text{ii} \end{array} \right)$ -> $\left(\begin{array}{c} \text{viio} \\ \backslash \ / \\ \text{V} \end{array} \right)$ -> i ...

Yes, I know this is a lot to digest, but play around with these progressions and listen to how they sound. Pick out some of your favorite songs and see how they fit into the chart.

II. Chord Theory

A. Spelling Altered and Extended Chords

CORRECTION

There were some errors in last issue's discussion of diminished 7th and half-diminished 7th chords. Thanks go to Bo Parker for bringing this to my attention. When you see a chord labeled dim7 expect it to really be a dim7 (stack of 3 minor thirds). A half-diminished chord consists of minor 3rd - minor 3rd - major 3rd. Diminished 7 chords do occur more commonly than half-dim7 (which appear in some styles such as Western swing). If you build chords with the notes that only appear in the key, then in a major key, the seventh chord built on the viio triad should be half-dim7. However the 7th of the chord is usually flatted to produce a dim7. In a minor key, the 7th chord built upon the viio triad is properly a dim7, but the 7th chord built on the iio is a half-dim7. Sometimes half-dim7 chords are obscured by using an enharmonic name such as m7b5. However today's lesson will help you to recognize this.

You may have noticed that my outline-like title of the lesson has moved on to II. That is because I feel that the first major section "Basic Theory" is over. From now on, each new major topic introduced will get a new major section title. Things may not appear in order now especially if we are able to get guest writers for lessons. However, the title will give you a structure to the topics of the lessons.

Today's lesson discusses altered and extended chords. First let me define my terms. Altered chords are chords that change the root-3rd-5th structure of the triad. Extended chords are chords that add notes above the triad (the previously discussed 7th chords are extended chords). Note that it is possible for a chord to be both altered AND extended. The enharmonic spelling of the half-dim7 as given in the correction is an example. It extends to a 7th and alters the 5th.

Altered Chords

By far the most common altered chords are the suspended2 and suspended4 or sus2 and sus4 with the sus4 occurring slightly more often. I'm not even sure that there are others; I can't recall seeing any other altered chords. The sus2 and sus4 are built by replacing the third of a major triad with a major 2nd and perfect 4th respectively. Lets look at an example.

D Major: D F# A
 root major3 perf5

Dsus4: D G A
 root perf4 perf5

Dsus2: D E A
 root major2 perf5

You can think of the building the sus4 as taking the 3rd of the major triad up a half step, and building the sus2 as taking the 3rd of the major triad down a whole step.

Extended Chords

Extended chords are usually built by added a series of 3rds on top of the triad. The 6th chords are the most notable exception. A note about compound intervals is in order. A 9th, for example, is a 2nd in the octave above the root of the scale. As a rule of thumb subtract 7 from the compound name to find the equivalent scale degree. Following the 3rd rule you get the following types of chords: 7th 9th 11th 13th. Note that any of these types of chords imply that there are also each of the types of notes to the left of it. For example a 9th chord implies that there is also a 7th, an 11th chord implies that there is also a 7th and a 9th. I don't believe that there are any others of these types of chords because a 15th would be the root note two octaves up and that would be considered doubling the root note. It is possible to build a chord with a 9th but without a 7th. This would be called add9. Similarly for other intervals.

In the case that you need to spell an extended chord, I would suggest that you write out the scale of the root of the chord. Make it a minor scale if the triad is minor, and a major scale if the triad is major. Then you add each extended note to the triad. Diminished triads must be treated more carefully. You'll have to build a scale that contains the proper type of diminished 7th on the seventh note of the scale. As an example lets built a C11.

C Major scale: C D E F G A B
C triad: C E G

Note that the 11 implies a 7th and a 9th
C7: C E G B
C9: C E G B D
C11: C E G B D F

Another example Am6

A Minor scale: A B C D E F G
Am triad: A C E
Am6 : A C E F

Altered and Extended Chords

There are almost limitless variations possible when you include both alterations and extensions. Just take things one step at a time. I follow these rules of thumb. First write the triad, second add the extensions, remembering the possibility of implied notes, and finally do the alterations of the triad.

The price you pay with all of these options, is that chords no longer have a unique name. Chords that have the same notes, but different names are called enharmonic. Lets look at a B half-dim7 for example. Half-dim7 chords appear on the seventh note of a major scale when you stick to notes in the scale. So lets build a C Major scale.

C Major: C D E F G A B
B half-dim7: B D F A

Lets compare this to a Bm7. Leaving out the details, a Bm7 is spelled:
Bm7: B D F# A

The B half-dim7 is the same as the Bm7 except the 5th is one half-step lower. This could be notated Bm7b5 which is an altered and extended chord.

Lets also look at a Dm.
Dm: D F A

All this is missing in comparison to the B half-dim7 is the B, which is the sixth note of the D Minor scale. So you could also call a B half-dim7 a Dm6.

I'll leave it as an exercise for you to show that Em7 and G6 are enharmonic.

These chords may seem complicated, but if you take them one step at a time you can get through it. There's one other bit of theory that you may need to be aware of, double flats and double sharps. These appear in strange keys that you probably won't be playing in, but they may be the easiest key to spell a chord in. Since each key must include one, and only one, of each lettered note, some notes in some keys may have to be doubly sharped or flatted to keep the proper intervals between the notes.

As an example lets look at an Fb Major (note it is enharmonic to E Major). The easiest way to look at this scale is to flat each note of an F Major scale.

F Major scale: F G A Bb C D E
Fb Major scale: Fb Gb Ab Bbb Cb Db Eb
E Major scale: E F# G# A B C# D#

The Bbb is enharmonic to an A, but since there is already one type of A in the scale, we can't use A again.

One practical note about playing altered and extended chords on the guitar, is that it is impossible to play chords that have more than 6 notes. You'll have to leave out some notes. The fifth and the root are generally the most expendable notes because you would expect a bass player to be covering them. This makes converting a fingering to a chord name particularly difficult, but that is the price guitar players must pay. Once you become familiar with some altered and extended chords though, you'll probably recognize the fingerings. This lesson has not included fingerings to these chords because I'm not very familiar with them. I'll discuss fingerings for some of them when I cover barre chords in a future lesson. Maybe I can talk someone who is more familiar with them and their uses into writing a guest lesson.

II. Chord Theory

B. Basic Barre Chords

As the title suggests, today I'll talk about basic barre chords. I'm a real fan of them mostly because they open the whole neck of the guitar up to you. They're called barre because they require you to make a bar with a finger that covers four, five, or six strings. I believe the spelling of "barre" comes from the French. This barre simulates the nut of the guitar, so you can play some typical chords you would play with open strings anywhere on the neck. First let me discuss some of the techniques of actually making a barre.

Most of the time you will be barre-ing with your index finger. It will take some practice to fret several strings cleanly, but once you get the hang of it, you'll wonder how you had problems before. Ideally, you should try to get a friend to show you how to do this, but if you don't know anyone, I'll try to say what I can. You should sit up straight so that you can push your wrist away from your body so that your hand is straight from the tip of the finger across the strings all the way to the wrist. Your thumb should press against the center of the back of the neck. Contrary to what you might think, you don't have to press very hard. One secret is to slightly rotate your wrist, so that you can use the bonier part of your finger next to your thumb rather than the more fleshy underside. Just keep practicing. One time it will all of a sudden make sense, and from then on barre chords will be easy.

The primary two barre chords you will use are what I call E type shapes and A type shapes. First let's discuss the E type shapes. Normally you probably finger an E like this:

```
E
+++++
|||1||
|23||
```

Instead I want you to finger it like this:

```
E
+++++
|||2||
|34||
```

Now slide everything up one fret and barre your index finger across all six strings, like this:

```
F
+++++
111111
|||2||
|34||
```

You are now playing an F. Slide everything up one fret so that your barre is on the second fret and you're playing an F#, one more fret and you've got a G. And so on. The note on the sixth string is the root of the chord. You can also play the following chords within the same shape just by lifting a finger or two.

```
F7      Fm      Fm7
+++++  +++++  +++++
111111  111111  111111
|||2||  |||||  |||||
|3|||  |34||  |3|||
```

Now lets move on to A chord shapes. If you play an A like so, you can add a barre to it.

```
A
++++++
:|||||
:|234|
```

You make a B by sliding this up one fret and barre-ing five strings with your index finger.

```
B
++++++
:11111
:|||||
:|234|
```

Alternatively you can make a "mini-barre" with your ring (3rd) finger.

```
B
++++++
:11111
:|||||
:|333|
```

It is difficult at first to keep from dulling the 1st string, but with practice it can be done. You can also make the following chords within this A type shape. The root of your chord is on the 5th string.

```
B7   or B7      Bm      Bm7
++++++  ++++++  ++++++  ++++++
:11111  :11111  :11111  :11111
:|||||  :|||||  :|||2|  :|||2|
:|2|3|  :|333|  :|34||  :|3|||
          :||||4
```

I haven't seen it done much, but you can also barre a C chord shape.

```
C#
++++++
:11111
:|||2|
:|3|||
:4|||
```

If you play this on the second fret, you can see how the open string D chord relates to this.

For starters you'll probably need to count frets to know where to play any particular chord. Once you become comfortable with this, you will soon have this memorized though. For example an E shape on the 5th fret is some type of A chord, and an A shape on the 5th fret is some type of D chord. This should help get you started.

Barre chords can also be useful for transposing keys of songs. Lets look at a I-IV-V progression. If you play the I chord as an E shape the IV chord will be an A shape on the same fret, and the V chord will be an A shape two frets higher. If you play the I chord as an A shape, then the IV chord is an E shape two frets lower, and the V chord is an E shape on the same fret as the I. Since you now know the chord progression in a relative position basis, you can choose what key to play it in just by choosing what fret you play your I chord on.

I'm not going to lie to you. For starters barre chords will be frustrating, but it is worth working through this because they will open the entire neck of the guitar up to you. Hopefully this lesson has motivated you to work on learning them.

III. Styles

A. Western Swing/Texas Style backup

NOTE

Bo Parker (parker_b%aplvox.span@fedex.msfc.nasa.gov) is the guest writer for this lesson. He could probably handle any questions about it better than I.

Greetings fellow net.pickers.

This is a short lesson in Western Swing or Texas contest-style backup guitar. I'll be presenting the basic concepts and some arrangements of tunes with backup parts.

This style of playing has a few defining characteristics:

- * Frequently changing chords, generally two per measure (in 4/4).
- * A walking bass line beneath the chords.
- * Frequent use of closed-position chords (i.e. with no open strings) instead of open-voiced chords (such as the standard G, C, etc.).
- * "Passing chords" used between the major harmonic areas in a tune.
- * Extended chords (6ths, major 7ths, 9ths, 13ths, minor 7ths, minor 9ths), altered chords (b9ths, augmented, diminished).

We want to use these techniques to transform the simple chord progressions that are found in many fiddle tunes and country tunes into more complex progressions that will still fit the melody. This is an important point: what you do still has to fit and make musical sense. You probably won't want to use very complex chords like, oh, say, an A13b9sus4 in one of these progressions:

```
A13b9sus4
+--+--+--+
o | | | o
5 +--+--+--+
  | | | |
+--+--+--+
  | | o o |
+--+--+--+
  | | o | |
+--+--+--+
```

It probably won't work very well. But just use your judgment. If a chord sounds like it works, then it works.

These are essentially jazz-based techniques, and it helps to have at least some knowledge of jazz harmony to get a grip on this stuff. The discussion does get a little tech-oid, but even if you don't understand the theory, just try playing through the examples - they're a lot of fun and they sound really cool.

Listen to recordings by the great Bob Wills and the Texas Playboys for good examples of this type of backup playing. The Texas Playboys guitarist, Eldon Shamblin, is responsible for much of the development of this style as it is applied to country-style tunes. Another great group to listen to if you want to hear this stuff in a more traditional jazz setting is the Quintet of the Hot Club of France, with the virtuoso Django Reinhardt on guitar. Another master practitioner of this style is Ranger Doug from Riders in the Sky.

OK, so, on to the first tune. This is an arrangement of "Sally Goodin," a great old traditional Texas fiddle tune. This is from the article "Swinging With Sally Goodin" by Jim Wood, from the Sept/Oct 1990 issue of Acoustic Guitar magazine.

I have TABbed the melody as if it were played in G. The accompaniment is in A, though, so you'll have to capo at the second fret to make the melody work with the accompaniment. Each "|" above the staff represents a quarter note.

Sally Goodin (traditional)
 arr. Jim Wood, TAB by Bo Parker parker_b%aplvox.span@fedex.msfc.nasa.gov
 Melody: Don't worry about the chord symbols - fingerings are given below.
 D#o7 means D# diminished 7th.

A	A9/C#	D	D#o7	A	A#o7	Bm7	E7
-----	-----	-----	-----	-----	-----	-----	-----
--0--0-----		--0-----		--0--0-----			
-0--2--0--0-0-		-0--2-0--0-0-0-		-0--2--0-2-0--			-----0-0-0-
-----		-----2-----		-----2-----		-0--0-0-2-----	-----
-----		-----		-----		-----	-----

A	A9/C#	D	D#o7	E7	F#m	E7/G#	A
-----	-----	-----	-----	-----	-----	-----	-----
--0--0-----		--0-----		--0--0-----			
-0--2--0--0-0-		-0--2-0--0-0-0-		-0--2--0-2-0--			-----0-0-0-
-----		-----2-----		-----2-----		-0--0-0-2-----	-----
-----		-----		-----		-----	-----

A	A7/G	D/F#	Dm/F	A/E	D#o7	E7/D	E7/B
-----	-----	-----	-----	-----	-----	-----	-----
-----0-1-3--3-3-		--3-0-----		--3-0-----			
-0-2-----		-3-----3-0-3-3-3-		-3-----3-0-----			-----0-0-0-
-----		-----		-----2-0--		-0--0-0-2-----	-----
-----		-----		-----2-----		-----	-----

A	A9/C#	D	D#o7	E7	E7/B	E7/G#	A
-----	-----	-----	-----	-----	-----	-----	-----
-----0-1-3--3-3-		--3-0-----		--3-0-----			
-0-2-----		-3-----3-0-3-3-3-		-3-----3-0-----			-----0-0-0-
-----		-----		-----2-0--		-0--0-0-2-----	-----
-----		-----		-----2-----		-----	-----

OK - now the accompaniment. Note the nice walking bass lines. The whole thing is done bass-strum, bass-strum, etc.

A	A9/C#	D	D#o7	A	A#o7	Bm7	E7
-----	-----	-----2-----2-----	-----3-----1-----	-----2-----2-----	-----2-----0-----	-----2-----0-----	-----3-----0-----
-----2-----5-----	-----2-----4-----	-----2-----2-----	-----2-----2-----	-----2-----0-----	-----2-----0-----	-----2-----1-----	-----2-----1-----
-----2-----5-----	-----2-----5-----	-----0-----1-----	-----0-----1-----	-----2-----2-----	-----2-----2-----	-----0-----0-----	-----0-----0-----
-----4-----	-----4-----	-----	-----	-----1-----	-----1-----	-----2-----	-----2-----
-----	-----	-----	-----	-----	-----	-----0-----	-----0-----

A	A9/C#	D	D#o7	E7	F#m	E7/G#	A
-----	-----	-----2-----2-----	-----3-----5-----	-----3-----5-----	-----7-----5-----	-----7-----5-----	-----5-----5-----
-----2-----5-----	-----2-----4-----	-----2-----2-----	-----4-----6-----	-----4-----6-----	-----7-----6-----	-----7-----6-----	-----7-----6-----
-----2-----5-----	-----2-----5-----	-----0-----1-----	-----2-----4-----	-----2-----4-----	-----6-----7-----	-----6-----7-----	-----6-----7-----
-----4-----	-----4-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----

A	A7/G	D/F#	Dm/F	A/E	D#o7	E7/D	E7/B
-----5-----5-----	-----7-----6-----	-----5-----7-----	-----5-----7-----	-----5-----7-----	-----5-----0-----	-----5-----0-----	-----5-----0-----
-----5-----5-----	-----7-----7-----	-----6-----5-----	-----6-----5-----	-----6-----5-----	-----4-----1-----	-----4-----1-----	-----4-----1-----
-----6-----6-----	-----7-----7-----	-----7-----7-----	-----7-----7-----	-----7-----7-----	-----6-----0-----	-----6-----0-----	-----6-----0-----
-----7-----5-----	-----9-----8-----	-----7-----6-----	-----7-----6-----	-----7-----6-----	-----5-----2-----	-----5-----2-----	-----5-----2-----
-----	-----	-----	-----	-----	-----	-----	-----

A	A9/C#	D	D#o7	E7	E7/B	E7/G#	A
-----2-----5-----	-----2-----4-----	-----2-----2-----	-----5-----5-----	-----3-----2-----	-----3-----2-----	-----3-----2-----	-----3-----2-----
-----2-----4-----	-----2-----5-----	-----2-----2-----	-----7-----7-----	-----4-----2-----	-----4-----2-----	-----4-----2-----	-----4-----2-----
-----2-----5-----	-----0-----1-----	-----2-----2-----	-----6-----6-----	-----2-----2-----	-----2-----2-----	-----2-----2-----	-----2-----2-----
-----4-----	-----	-----	-----7-----	-----0-----	-----0-----	-----0-----	-----0-----
-----	-----	-----	-----7-----	-----4-----	-----4-----	-----4-----	-----4-----

An important point about this backup style is the articulation. You should strive for a sound like this:

boom-CHUNK-boom-CHUNK-boom-CHUNK-boom-CHUNK...
 1 2 3 4 1 2 3 4

"Boom" is the bass note (which is allowed to ring), and "CHUNK" is an accented, muted chord strum. So in other words, the chords should not be allowed to ring out - they should be cut short by lifting the fingers of your fretting hand as soon as you strike the strings. This gives a little rhythmic jab or "sock" on the backbeat, and leads, BTW, to this style sometimes being referred to as "sock guitar." This also is why we use primarily closed-voiced chords - it's hard to properly mute open-voiced chords.

Another way these chords are articulated sometimes is like this:

CHUNK-CHUNK-CHUNK-CHUNK-CHUNK-CHUNK-CHUNK-CHUNK...
 1 2 3 4 1 2 3 4

i.e. with no separate bass note - just the whole chord strummed staccato on beats 1, 2, 3, and 4. This is more like the way that big-band guitarists play, for example Freddie Green with the Count Basie Orchestra.

Another point to note is that we don't always use chords voiced with the root in the bass. A good example is this voicing, which appears in the first measure:

```

      A9/C#
    +---+---+---+
    | o | o | |
    +---+---+---+
    | | o | o |
5 +---+---+---+

```

Such voicings are used primarily to keep the bass line moving. Another point about this chord is that it provides a I dominant (I9), which leads very strongly to the IV chord in the next measure.

An example of a passing chord, as mentioned above, is the D#dim7 chord found in measure 2:

```

      D#dim7
0 +---+---+---+
  | | o | o |
  +---+---+---+
  | | | o | o
  +---+---+---+

```

This chord adds interest to the progression in two ways: First, it provides an interesting harmonic transition between the IV chord (D) and the I chord (A/E). Second, the D, D#, A run in the bass gives a very nice jazzy, chromatic sound to the progression. A similar use of a passing chord (an A#dim7) is found in measure 3. In fact, just playing through measures 1 through 4 will give you a good idea of where this stuff is coming from.

Now the next tune, Westphalia Waltz. This is a lovely old fiddle waltz that sounds great with a Texas-style backup. As above, I have provided a guitar TAB for the melody with the "straight" chords indicated on the upper line of chords above the TAB and the Texas-style chords indicated on the lower line of chords above the TAB. The next TAB is just for the backup part.

When playing a waltz, it sounds best if you let the chords ring rather than muting them. So, you want a sound more like this:

```

BOOM-strum-strum-BOOM-strum-strum...
1   2   3   1   2   3

```

where the 1 is accented and the 2 and 3 are unaccented.

Also, note that the moving ("walking") voice in this backup part is sometimes in an inner voice rather than in the bass. For example, see the G, F#, E, F#, G run on the 4th string in measures 1 through 5.

TAB- Westphalia Waltz arr. Bo Parker, TAB by Bo Parker

Pickup measure

```

      A
      |   |   |
      |-----|
      |-----|
      |-----|
      |-----0---2-4-|
      |-----|

```

Part A

G G	Bm Gmaj7	Em G6	G Gmaj7
	0		
-----	-----0-----	-----3-----	-----
-0-----2-	-----	-----	-----0-2-4-
-----	-----	-----	-----
-----	-----	-----	-----

G G	G#dim	D Am7	D9
-----	-----0-----1---	-----	-----
-0-----2-	-----	-----2-----	-----4-----3-2-1-
-----	-----	-----3-----	-----
-----	-----	-----	-----

D Am7	D9	Am7	D9
-----	-----3-----	-----2-----3-	-----2-----0----
-0-----4-	-----2-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----

D Am7	Daug9/C	G G6/9/B	<u>1</u> G
-----	-----0-----	-----	-----
-3-----2-3-	-----3-----2-1-	-----0-----1-	-----0-----*
-----	-----	-----	-----0-2-4*
-----	-----	-----	-----

<u>2</u>

-0-----

Part B

G G	Bm Gmaj7	Em G6	G Gmaj7
-3-----	-2-----	-0--2--3--	-0-----
-----	-----	-----	-----
*-----	-----	-----	-----
*-----	-----	-----	-----
-----	-----	-----	-----

G G	G#dim	D Am7	D9
-0-----	-0-----	-1-----0--	-----
-----2--0--	-----2--0--	-----2-0--	-----
-----	-----	-----	-4-----
-----	-----	-----	-----
-----	-----	-----	-----

D Am7	D9	Am7	D9
-0-----	-0-----	-0--2--3--	-2-----0--
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----

D Am7	Daug9/C	G G6/9/B	G
-3-----2-3-	-0-----	-0-----1-0--	-----
-----	-----3--2-1-	-----2-	-0-----*
-----	-----	-----	-----*
-----	-----	-----	-----

Backup
Same for both parts

G	Gmaj7	G6	Gmaj7
-----	-----	-----	-----
-----3---3---	-----3---3---	-----3---3---	-----3---3---
-----4---4---	-----4---4---	-----4---4---	-----4---4---
-----5---5---	-----4---4---	-----2---2---	-----4---4---
-----5---5---	-----	-----	-----
-----3-----	-----3-----	-----3-----	-----3-----

G	G#dim	Am7	D9
-----	-----	-----	-----
-----3---3---	-----3---3---	-----5---5---	-----5---5---
-----4---4---	-----4---4---	-----5---5---	-----5---5---
-----5---5---	-----3---3---	-----5---5---	-----4---4---
-----5---5---	-----	-----5---4---	-----5---
-----3-----3-	-----4-----4-	-----5-----	-----

Am7	D9	Am7	D9
-----	-----	-----	-----
-----5---5---	-----5---5---	-----5---5---	-----5---5---
-----5---5---	-----5---5---	-----5---5---	-----5---5---
-----5---5---	-----4---4---	-----5---5---	-----4---4---
-----5---4---	-----5---	-----5---4---	-----5---
-----5-----	-----	-----5-----	-----

Am7	Daug9/C	G6/9/B	G
-----	-----	-----	-----
-----5---5---	-----5---5---	-----3---3---	-----0-----
-----5---5---	-----3---3---	-----2---2---	-----0-----
-----5---5---	-----4---4---	-----2---2---	-----0-----
-----5---2---	-----3---	-----2---	-----
-----5-----	-----	-----	-----3-----0-2-

G	Gmaj7	G6	Gmaj7
-----3-----3-----	-----3-----3-----	-----3-----3-----	-----3-----3-----
-----4-----4-----	-----4-----4-----	-----4-----4-----	-----4-----4-----
-----5-----5-----	-----4-----4-----	-----2-----2-----	-----4-----4-----
-----5-----5-----	-----5-----5-----	-----5-----5-----	-----5-----5-----
-----3-----3-----	-----3-----3-----	-----3-----3-----	-----3-----3-----

G	G#dim	Am7	D9
-----3-----3-----	-----3-----3-----	-----5-----5-----	-----5-----5-----
-----4-----4-----	-----4-----4-----	-----5-----5-----	-----5-----5-----
-----5-----5-----	-----3-----3-----	-----5-----5-----	-----4-----4-----
-----5-----5-----	-----5-----5-----	-----5-----5-----	-----4-----4-----
-----3-----3-----	-----4-----4-----	-----5-----5-----	-----5-----5-----

Am7	D9	Am7	D9
-----5-----5-----	-----5-----5-----	-----5-----5-----	-----5-----5-----
-----5-----5-----	-----5-----5-----	-----5-----5-----	-----5-----5-----
-----5-----5-----	-----4-----4-----	-----5-----5-----	-----4-----4-----
-----5-----5-----	-----5-----5-----	-----5-----5-----	-----4-----4-----
-----5-----5-----	-----5-----5-----	-----5-----5-----	-----5-----5-----

Am7	D7	G	G/D
-----5-----5-----	-----3-----3-----	-----3-----3-----	-----3-----3-----
-----5-----5-----	-----5-----5-----	-----0-----0-----	-----0-----0-----
-----5-----5-----	-----4-----4-----	-----0-----0-----	-----0-----0-----
-----5-----5-----	-----5-----5-----	-----0-----0-----	-----0-----0-----
-----5-----5-----	-----5-----5-----	-----3-----3-----	-----3-----3-----

An interesting chord in this progression is the D augmented chord (actually a Daug9/C) in measure 14. Remember that a D augmented chord has the notes D, F#, A#. Well, that A# is the same as as a Bb, which is the flat-third "blue note" in the key of G. Its presence in the D augmented chord (which is used as a V dominant chord) gives the V - I cadence a really cool bluesy, "down-home" kind of sound.

I have provided you with a short overview of the Western swing or "Texas" style of backup guitar playing. Play with these progressions for awhile and you will discover that there are many contexts in which these concepts, particularly walking bass lines and passing chords, can be applied. Use these techniques in a few places in the songs you like to play, and you will find that they can really spice up your rhythm playing.