

BUILD
ANY
CHORD,
ANYWHERE!

by

Frank Geiger

**A “NEW” Color Graphics Method to
Build (Form) Chords Anywhere On the Fingerboard**

**DOESN'T REQUIRE READING MUSIC, KNOWLEDGE
OF KEY SIGNATURES OR CHORD SPELLINGS**

For Instruments “Tuned in Fifths”:

**Tenor Banjos, Tenor Guitars,
Irish-tuned Banjos/Bouzoukis,
Mandolins & Similar**

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Introduction

This book describes a little-known color graphics method that I developed to build chords at any fret on any fretted instrument tuned in fifths. (The phrase, “tuned in fifths”, means that the instrument is tuned in regular intervals across the strings so that each string, except the lowest, is tuned five notes higher than its adjacent lower string.) I can testify that the method works amazingly well because I have been using it as a professional tenor banjo soloist in Atlanta, Georgia for 13 years.

The style that I use in playing solos on the tenor banjo, tenor guitar, and (for my own enjoyment), mandolin is called “chord melody”. It is a common tenor banjo style in which chords and melody are played at the same time, so it requires that chords be built around the melody notes wherever they may be. It is the ideal solo style, is easily adapted to accompany vocals, and it is easier to learn than one might think.

Many players of fifths-tuned instruments play either the melody as single notes or chords as an accompaniment to someone else. That is what they may experience playing with a musical group or see in live performances or on television. This is because most bluegrass, Dixieland and Irish groups, banjo bands and mandolin orchestras are justified in requiring their members to play either single notes or chords, but not both. But this is a restriction required by the organization or style of music, not by the instrument. Your four-string instrument is like a quartet. It can sing in four parts, three, two, or one - at any time in the music and as you choose.

If you want to play chord melody solos, better chord accompaniments, or just learn more about chord theory you will find that this method makes it easier because it uses a pattern of four different colored dots to represent chord degree locations. This gives “visibility” to harmony locations on the fingerboard, which helps experienced players quickly recall or build (form) chords anywhere for chord melody solos. The explanation of these patterns also helps beginners understand basic chord theory, remember common chord symbols and be less dependent on traditional chord diagrams.

For example, in the moveable pattern of colored dots, which is easily remembered for fifths-tuned instruments, **BLUE DOTS** represent all locations of “**root**” notes (**degree 1**), the note named in the chord; **YELLOW DOTS** represent all locations of “**thirds**” (**degree 3**), three notes up from the root; **RED DOTS** are locations of “**fifths**” (**degree 5**); and **GREEN DOTS** are locations of “**flatted sevenths**” (**degree 7b**).

These colors help to locate chords using degree “formulas” for different chord types. For example, every major chord has the formula of (1,3,5), which corresponds to a blue dot, a yellow dot and a red dot. Because the relationship between these degrees is fixed and is so clearly seen in color, it easy to find the 1, 3, and 5 locations to build any major chord, as named by the lettered note at any blue dot’s location. Many chord formulas are included with examples and the music scale to explain them is reviewed.

Once any one colored dot is imagined at any location on the fingerboard, every location of all colors can be found. The blank spaces around these colors represent locations where the player can play all the other chord degrees, as identified by their proximity to the colored dots, (+5, -5, 4, etc.). This means that the player can play any chord anywhere on the fingerboard once the formulas for the chord types are known.

Why color? Remember those “paint-by-the-number” art painting sets? The paper or canvas in the sets was printed with tiny irregular shapes and each shape had a number corresponding to a color in the paint box. Before you filled in any of the shapes with color you either could not see the image or see it fleetingly and then lose it again. But add a few colors and the image quickly appeared. Why? Because our human brains use color to make sense of confusing shapes and patterns. This is true in paint-by-the-number sets and, as you will see, in degree locations on your musical instrument’s fingerboard.

You should find that this method isn’t a replacement for reading music, lessons, practice, other methods or anything else. It is a logical, different and colorful perspective that will reinforce what you already know to help you to play better, learn faster and have a lot more fun - both with your musical group and/or as a soloist.

The pattern of colored dots and the few simple rules to find them may give your brain just what it needs to play and understand chords. Because you will literally SEE and REMEMBER the beautiful logic of fifths tuning that makes this system work, and use it to build any chord anywhere on the fingerboard.

Best wishes,

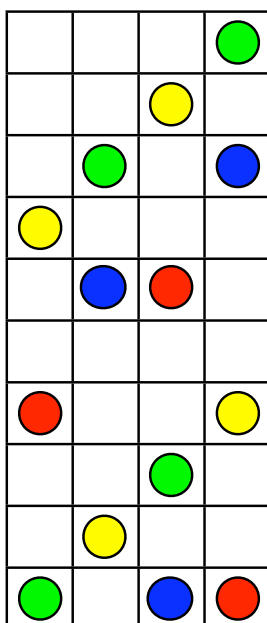
Frank Geiger





1. The Concept

Did you know that it is easy to build tenor banjo, tenor guitar, Irish-tuned banjo and mandolin chords anywhere on the fingerboard? Once you know how, and you can learn here, playing chord melody becomes easier, chord diagrams and chord forms make sense, and memorizing more than a dozen or so chord diagrams seems worthwhile but nonessential. The secret lies in becoming familiar with a pattern of colored dots.

Look at this moveable pattern of colored dots. The grid represents any nine frets and possible finger positions on your instrument's fingerboard. The dots are part of the moveable harmony pattern of ANY stringed instrument tuned in fifths. You won't have to memorize it to begin using it. But the more you use it the more familiar it will become until you can almost imagine a small bit of it that you need to build a chord.

The key on the right tells you the meaning of the colored dots. Notice that every blue dot has a red dot to its right. That is because your instrument is tuned in fifths, so every root note has the fifth of its chord to its right. (You probably knew that.) Look at the green and yellow dots. They alternate on diagonals from lower left to upper right. Which means if you know the location of any third you can find the locations of many other thirds and flatted sevenths. Notice that the yellow dot is to the upper left of a



KEY	
	Blue dots are the root note (or "1" note) locations, e.g., the note named in the chord.
	Yellow dots are the locations of the thirds. Try to play at least one in every chord.
	Red dots are the locations of the fifths. The fifth, and root, can often be left out of the chord.
	Green dots are the locations of the flatted sevenths. Almost as important as the third.

blue dot, the root note. This is true of every root note and every third. All of this means that when you know the location of any root note, you know or can easily find locations of all thirds, fifths and flatted sevenths! All you need is a starting point. A blue dot is often a good choice since you know what the note is. It is the note named in the chord.

Three simple "copy" rules on the following pages will help you find all roots, thirds, fifths, and all other notes that you need once you locate just one. Next, we will look at why this pattern can help you find any chord anywhere on the fingerboard.

"Hold it!", "Wait a minute!" and "Back up!" (I can almost hear someone saying.) "You said the pattern is moveable but mine is just printed on the page".

The pattern moves with the music. Since we can't see harmonious sounds we visualize them as this pattern of colored dots on the fingerboard. It also helps to imagine that this pattern of possible musical sounds extends in all directions, even off the fingerboard. So we are only looking at a part of the pattern and at a particular moment in time in the music. Again, the pattern moves but the pattern itself doesn't change, which makes it easy to use. It is especially easy to use by players of stringed instruments tuned in fifths because the spaces between the colors are so regular.

The entire pattern moves relative to the fingerboard every time the music we are playing changes chords that change the root note. It doesn't move relative to the fingerboard when we change chords that keep the same root note. For example, the pattern doesn't move when we change from a B flat major chord to a B flat seventh, a B flat minor, or any B flat-type chord because the root note, B flat, (Bb), doesn't change.

				KEY
		●		● Blue dots are the root note (or "1" note) locations, e.g., the note named in the chord.
	●		●	● Yellow dots are the locations of the thirds. Try to play at least one in every chord.
●				● Red dots are the locations of the fifths. The fifth can often be eliminated from the chord.
	●	●		● Green dots are the locations of the flatted sevenths. Almost as important as the third.
●			●	
	●			
●		●	●	

So our task in building chords is to imagine where a portion of this pattern of dots will be located on the fingerboard at the time in the music when we will make a different chord with a different root note. We only have to locate any one dot, then use the regular features of the pattern to find everything else that we need to build the chord.

- Any chord, as you will see.

The brown area on the grid to the left is the area behind the nut. Keeping

in mind that the blue dot represents the root note, see if you can guess the type of chord that is being played in the music at this particular moment. You need to know that a traditional tenor banjo or tenor guitar is tuned C, G, D, A, lowest pitched string to highest. The mandolin and Irish-tuned banjo, (tuned an octave lower than a mandolin), are both tuned G, D, A, E. The top white row is the first fret. Read the next paragraph after you try to guess the chord-type being played.

The chord-type that would be played on a traditionally tuned tenor banjo or tenor guitar is a "B-type" chord. We know that because every blue dot, the root note, is on some "B" location on the fingerboard. Look at the highest string, which is tuned A and you will see the blue dot is on the second fret. Since the open string is A, the first fret on this string represents B flat and the second fret is a B. So the pattern as shown can be used

to build any type of B chord that we wish, such as B minor, B seventh, B minor seventh, B major seventh, B minor seventh flat 5, etc. We will explain how later.

On a mandolin or Irish-tuned banjo the high open string is E. So the first fret position on the highest string would be an F and the second fret with the blue dot would be an F sharp (F#). Since this blue dot is on an F#, every blue dot is on an F# and the pattern positioned as shown could be used to build any “F#-type” chord. (Tenor banjo players could have guessed this knowing the B note on the tenor is a fifth lower than F# at the same fret. If you didn’t know enough about musical scales yet to answer this don’t worry because the only scale that you will need to play solos is reviewed below.

2. Why The Pattern Works

In this section the chromatic scale is reviewed, the relationship between numbered degrees and lettered notes is summarized, and the rationale for using the pattern of colored dots is illustrated by example.

There are a number of scales in western music. You only need to know the one below, called the “chromatic scale”, to enjoy playing your instrument. This scale includes eight lettered notes plus others. The lettered notes are A, B, C, D, E, F, G and A again. The eighth note, called the octave, has the same letter name as the first. In the key of C the letters are usually arranged in the order: C, D, E, F, G, A, B, and C again.

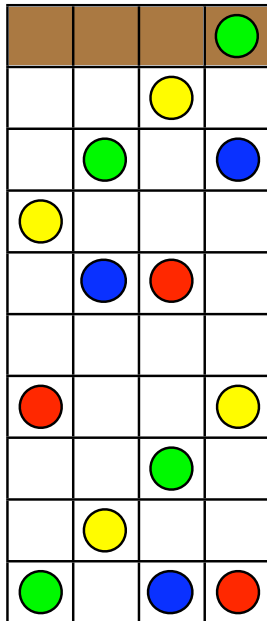
C	C#D^b	D	D#E^b	E	F	F#G^b	G	G#A^b	A	A#B^b	B	C
1	1#,2 ^b	2/9	2#,3 ^b	3	4/11	4#,5 ^b	5	5#,6 ^b	6/13	6#,7 ^b	7	8

You probably already know that these letters are not the only notes in our music and that there are also notes called sharps and flats between every letter except E and F and between B and C. This irregular spacing, which is usually thought of as a mixture of “whole steps” and “half steps”, is best seen on a piano keyboard where the black piano keys are not between all of the white keys. Above is the chromatic scale with all notes on it. Below the letters are numbers which are of particular interest in building chords. This numbered scale is moveable in relation to the lettered scale and is moved, usually in imagination only, so that the 1 is under the letter corresponding to the root note, the one named in the chord to be formed. So the alignment shown, which has the 1 under the C, would be used in forming “C-type” chords. The numbers represent “degrees” relative to the root (degree “1”). The root note of the chord is always degree “1”.

The scale above continues and we are only looking at one octave. In other words, there is a 9^b, a 9, a 9#, etc., in the next octave. In piano music where chords are designated with letter symbols above the music you will often see the numbers 9, 11, and 13 (and others also) after the chord letter. The numbered scale above shows that you can play the 2 for the 9, (preferably a high 2), the 4 for an 11, and the 6 for a 13, because they are the same lettered note an octave or more apart.

Suppose that you want to play an A flat (A_b) chord. You have several options to do this. You could look up the chord in a chord book and play the positions designated with black dots on the fingerboard diagram shown in the book. That works, but it is a lot of page flipping and it is easy to forget how to form chords learned in this way.

Or, you could learn, as mentioned earlier, that every major chord is composed of a root or 1 note, a third or 3 note, and a fifth or 5 note. In other words every major chord is built around a “formula” of (1,3,5). With this knowledge you could look at the scale



KEY	
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●	Yellow dots are the locations of the thirds. Try to play at least one in every chord.
●	Red dots are the locations of the fifths. The fifth can be eliminated from the chord.
●	Green dots are the locations of the flatted sevenths, often referred to simply as “sevenths”.

table just discussed and mentally move the 1 block under the A_b position (since the 1 is the “root” or the note named in the chord). Then count the blocks to learn the lettered notes of the 3 and 5, and finally locate those notes on the fingerboard and play them. You could even construct a cardboard model such that the two scales had equal spacing and would slide against each other. When the 1 was placed under the A_b the 3 and the 5 would automatically lie under their proper letters. Then you would find the lettered notes

on the fingerboard to make the chord. But this would still be a lot of work even after making the cardboard model.

Easiest and fastest of all, use the pattern. Locate a convenient A_b on an inside string on the fingerboard, place a finger tip on that location which is the 1, (the blue dot location), another finger tip at its upper left which is the 3, (yellow dot location), and another finger (or bar) at its immediate right which is the 5 (red dot location). In this manner you could play the A_b chord without thinking about any of the lettered notes involved except the A_b . **If you want to know the notes in the chord you can always look at your fingers and see what lettered notes you are playing.** You are also not concerned about sharps and flats in the key of A_b . They were automatically considered when you chose to use this system based on chord degrees and not lettered notes. The colored dots make this procedure easy to remember and fast to execute.

This last method will give you a proper A_b chord but it will only have three notes. Later we will discuss how to play all four strings by adding a chordal note on the fourth string. This is easily done by “copying” any chordal notes to the open string using one of three “copy rules”.

If you already knew how to play an Ab major chord, perhaps because you learned it years ago from black and white chord diagrams, you are in an excellent position to build on what you know. Learning to use the pattern will support your knowledge by showing you how to easily modify the chords that you know to make complex chords and interior music lines.

The same is true if you spell chords or read music to find them. Whatever chording method you use now is still useful and made more useful by the pattern.

Now, we can go back and fill in some of the other locations that were not assigned colored dots. For clarity we will use a minus sign (-) for the flat symbol (*b*), a plus sign (+) for the sharp symbol (*#*), and we will use the commonly used octave numbers, 9 and 11 instead of 2 and 4. We will show the 6 *but keep in mind that it can be a 13*.

Do you remember that the yellow dots and green dots alternate along a diagonal? This is a huge help in finding the 3's and 7b's. Similar regularity exists for all lower left to upper right diagonals. Notice that blue dots alternate with -5's and red dots alternate with -9's! You could memorize the alternating blank diagonals but those are easier to find from their proximity to the colored dots: the +5 is in front of the red dot (naturally); the 11 is really a 4 and so is in front of the yellow 3; the 7 is right behind the blue dot root (1 or 8) and before the green dot 7b. Two locations which you will use frequently are the -5 and 9. The 9 is to the immediate right of the red and the -5 is right behind the red.

-9	+5	+9	●
9	6	●	7
+9	●	11	●
●	7	-5	-9
11	●	●	9
-5	-9	+5	+9
●	9	6	●
+5	+9	●	11
6	●	7	-5
●	11	●	●

Even though we are still not building chords, now is a good time to look at the row which is four frets back from the root note (blue dot). That fret is significant because it is the location of the index finger when the root note is under the little finger, and *all of the numbers at this fret, 5, 9, 6, and 3, are so frequently played*. Notice the 6 is in the same column as the root. The root note can usually be left out of a chord entirely, so it is an easy matter to form an index finger bar to play the 6 instead of the root in a major chord to give the chord an interesting “modern” sound. Also, the 7 which is immediately behind the root can be played instead of the root to create a nice modern effect. In written music you will often see both melody lines and interior lines of the music moving from the root to the 7 and/or to the 6, and vice-versa.

You will also see this type of movement written in melody lines and interior lines behind the third (yellow dot) in seventh chords, because the 9+, 9 and 9-, which are located between the root and the third, “color” the seventh chord. (Here the verb, *color*, is used in the musical sense). The next section describes three ways to find another third, or any other degree, at a handy location near the chord we wish to form.

3. A Closer Look At The Pattern

In this section we will take a closer look at the pattern because it has so much to teach us regardless of where it is positioned on the fingerboard.

First, understand that the *relative positions* of these colored dots, and therefore all relative positions of their notes and the notes between them, are UNCHANGING. The pattern is valid for every tune, every key, and every fingerboard location on every stringed musical instrument tuned in fifths. Understanding this we will sometimes use the words “notes” and “degrees” interchangeably for convenience, although we understand that they are not quite the same thing since only note locations are fixed on the fingerboard.

-9	+5	+9	●
9	6	●	7
+9	●	11	●
●	7	-5	-9
11	●	●	9
-5	-9	+5	+9
●	9	6	●
+5	+9	●	11
6	●	7	-5
●	11	●	●

Here is a quick review of the relationships we have discussed:

- Every yellow dot, the third of the chord, is always to the upper left of a blue dot, the root of the chord.

- Every red dot, the fifth of the chord, is always to the immediate right of a blue dot, the root of the chord.

- Yellow dots, thirds, alternate with green dots, flatted sevenths, along a diagonal that goes from lower left to upper right.

- All similar diagonals, those going from lower left to upper right, have alternating numbered chord degrees.

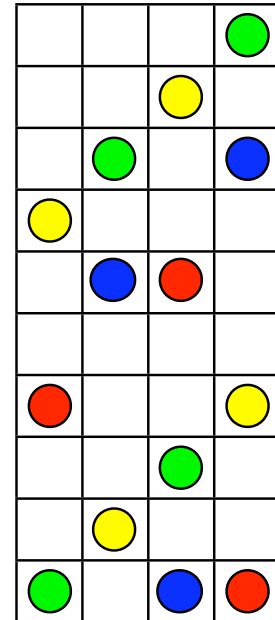
Now look at the red dot at the lower right of the diagram, which represents the fifth of some chord on the top string. The next red dot is four frets back, **(counting the frets you begin and end on)**, and it is on the lowest string, or four spaces (or strings) left. This means that we can play either red dot, or both, when we need a fifth for the chord. Players of “fifths tuning” are, here again, fortunate. Because the red dot on the lowest pitched string is four frets back, the index finger and little finger fall comfortably and naturally on these two outer string positions.

But what about the other colors and blank spaces? The same relationship applies. If you need the same color as on the top string you can easily find one four frets back on the lowest string. It is probably already under your index finger!

Since this repeatability of the color (or degree) applies to all colors, letters and numbers, you could say that a rule exists which allows you to “copy” a note’s color, number or letter from one outside string to the other. Because it “copies” four frets back and four strings left (or four strings right and four frets down if going from lowest to highest string), a good name for this rule is, “copy rule four by four”, or “(4 x 4)”. (The word, “copy”, is a good one because, like a copy machine, it copies anything - any note.)

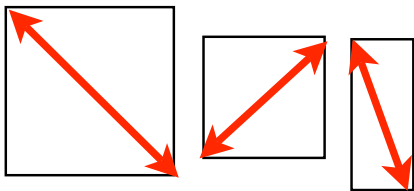
There are many possible copy rules but you really only need a few to build any chord anywhere on the fingerboard. **Remember to count inclusively, e.g. count the space you begin on and end on when you are counting.** So you would count the “corner” twice. (Or, don’t count at all and just think, “four frets back and four strings left”.)

Look at the blue dot on the top string in the pattern in the next figure. The next blue dot is three strings left and three frets down. Now look at its closest yellow dot. The next yellow dot is also three strings left and three frets down. The same is true for the green, red, and (you guessed it), every color, number and letter in the pattern. This illustrates a “three by three” , “(3 x 3)”, copy rule.



Another rule to copy any known note up or down the fingerboard in speedy fashion is the (2 x 6). Can you find it in the pattern? (Hint: Look at any colored dot.) The answer is below.

Copy rule (2x6): You can copy any color or numbered note two strings right and six frets down, (or two strings left and six frets back).



The figures at the left should help you remember which locations copy where in either direction. From left to right the figures represent copy rules (4x4), (3x3) and (2x6).

Copy rules are especially useful: (1) arranging chord melody solos when you don’t know the locations of any notes that you need near the melody notes; (2) placing “extra” chordal notes on the outer strings to complete four string chords; and, (3) learning the identity (degree or letter) of any unknown note by copying it to the vicinity of a known colored dot, or vice-versa.

We’ve called these “copy rules” because that is how we will use them. They are just additional relationships between colored dots where the dots are of the same color.

Another relationship between different colored dots that has been very useful over the years is this one specific to a yellow dot (third) on the top string and the red (fifth) location on the lowest string at the same fret: **“If the third is on the top string there will always be a fifth at the same fret on the lowest string”**. You can see this relationship clearly in the center of the pattern above. Notice that this fret is distant from any root note, which may explain why it has been so useful in building chords.

Do you feel like you know the pattern? On the next page is a short exercise for you to find out. You will learn a great deal by actually doing the exercise with your instru-

ment in hand. Because it is one thing to understand the pattern when you are looking at it in color, and quite another when you are looking at your instrument's fingerboard.

Exercise

1. Hold your instrument in the playing position and, without looking at the pattern, see if you can find these locations for any Eb-type chord between frets 1 and 5. (If you have trouble getting started, look at the pattern in the book and try again.)

- One blue dot location and state the number and letter of the note.
- One yellow dot location and state the number and letter of the note.
- One red dot location and state the number and letter of the note.
- One flatted fifth location and state the letter of the note.

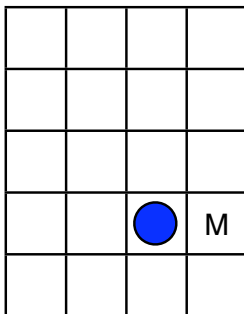
2. Using the copy rules, (review them if you need to and return here), see if you can copy the root to a location near or on the 8th fret, (to build an Eb chord chord near the 8th fret), and then near the 12th fret. (No problem if you can't do this one yet. This question is meant to illustrate where we are going more than what you should know.)

4. Building Common Chords

In this section we build a number of chords that you may already know, but please don't skip anything because it is the process, not the end result, that is important. The grids below represent any locations on the fingerboard.

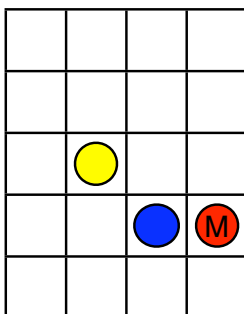
Building Major Chords (1,3,5)

Step 1. Locate the root note. Recall that the root note is the note named in the chord, e.g., the note designated by the letter in the chord's name including any sharp or flat symbol next to it.



If you are playing chords as accompaniment to your own singing or to someone else playing melody or singing, you can select any location of the root note because the chord can be anywhere on the fingerboard. If you are playing "chord melody", (chords and melody at the same time), you need to locate a root note in the general vicinity of the melody note. We show an arbitrary melody note here as the letter, "M". It doesn't matter if the root note is on an inside string or an outside string. We will look at different situations with the melody note on different strings.

The figure assumes that we located a root note next to the melody note at the same fret as the melody note and next to it.

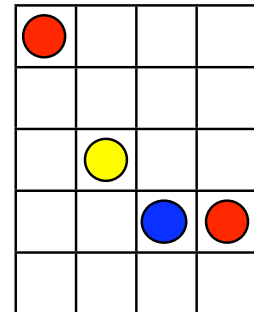


Step 2. Locate the third and fifth. From the formula we see that we need a 3 which is a yellow dot and a 5 which is a red dot. From your knowledge of the pattern you know that every yellow dot is to the upper left of every blue dot and every red dot is to the immedi-

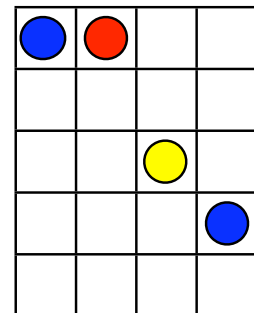
ate right of every blue dot. So you can locate these quite easily as shown. Note the red dot is at the same location as the melody note, so we can play the melody note with this chord. Sometimes the melody note is not in the chord designated in the music. In that case in chord melody you would play the chord with the non-chordal melody note.

You can play the three note chord and not play the low string. If you determine that the open low string is a note in the chord you can also play the low string open. In most cases you will want to play all four strings, so you will need to locate a chordal note on the low string. (You can also play a base line on the low string.)

Step 3. Find a finger position on the open string. Let's assume that you want to play the low string with a fingered note. You can copy a note to the low string using one of the three copy rules. The 4x4 rule ("four up and four left") copies the red dot fifth from the top string to the low string. As mentioned earlier your index finger will fall naturally on this lowest string location since it is four frets back. Your little finger can make a bar to cover both the blue and red dots. (You can even bar the little finger independent of the others with practice.) The figure at the right shows the completed chord. Tenor banjo players may recognize this chord form as "Form V", so named because the fifth is the highest note.

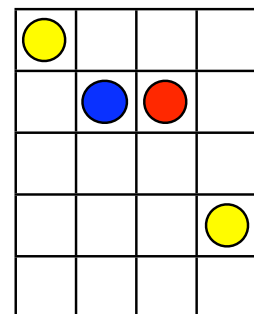


Look again at the pattern at the above right. If the pattern shifts to the right the blue dot at the bottom will be placed on the highest string and the red dot next to it will "fall off" the fingerboard. Can you guess what color dot will appear and where?



The upper red dot will shift to the right and the dot which will appear is the one which is always to the immediate left of a red dot - the blue dot root. If you didn't recall this blue-red relationship you could still use the 4x4 rule as before and copy the blue dot on the lower right from its new location to the blue dot location at the upper left. Tenor banjo players may recognize this major chord as "Form I", so named because the 1 is the highest note in the chord.

If we want a root note on the next-to-lowest string, we could put a blue dot at its location, a red dot to its immediate right and a yellow dot to its upper left. At the same time the blue dot on the right would move off the fingerboard and the yellow dot would move to the top string. You could get the same result using the 4x4 rule. Notice that to keep the same size grid for the figure the grid was moved up to show the yellow dot coming in at the top left. (*The dots did not move down the fingerboard as it may appear.*) Tenor banjo players may recognize this major chord form as "Form III".



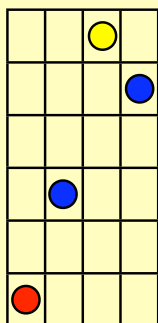
Summary of Major Chord (1,3,5) Forms Presented.

It should be apparent to experienced players who learned major chord forms I, III, and V, (“McNeil Chord System for Tenor Banjo” by Charles McNeil, 1923), that those three forms, which look unrelated in black and white chord diagrams, are really just a shift in our pattern of colored dots. By now the colors should be giving meaning to some black and white chord diagrams that you may already know. You also noticed that we built all of these chords using only: (1) the location of any colored dot near the melody note, (2) a knowledge but limited use of the entire pattern, and (3) knowledge of how to use the 4x4 copy rule. - All without mentioning any notes except the root note.

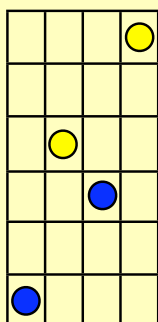
The inset below, “For Mandolin Players”, builds chords covering six frets which are easy on the mandolin and often preferred over the five fret forms presented. **If you don't play the mandolin, you can still benefit from the “optional rule” highlighted in red.**

For Mandolin Players

Below are two mandolin extended forms for major chords (1,3,5). They are built using the same rules plus one more optional rule described in red text below.



This is a popular major chord form on the mandolin spanning six frets. Even if the colors were not shown you could spot the distinctive third-root combination with its third at the upper left of the root. Use the 3x3 rule to locate the next lower root. You could locate the fifth by locating another root off the fingerboard to its left and then placing the red fifth to its right on the fingerboard. Or you can use this handy “optional” rule: **“A red dot is always ‘next string’ left and three frets down from a blue dot”**. Notice that this isn't a copy rule since it only applies to the root and the fifth.

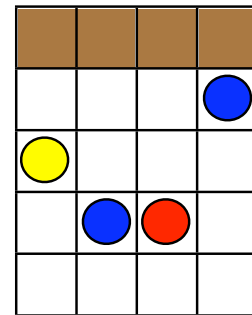


The chord on the left does not include a red dot fifth. The fifth can often be left out as it was in this case. If the top string third were placed at the second fret this would be a D chord. Try this form as a D chord on your mandolin and then play the fifth (the red dot is imagined) that is located to the right of the bottom root instead of the bottom third (yellow). Which sounds better? Which is easier to play? (Suggestion: If it is just a little harder, play the one which sounds best to you until it becomes easy to play.)

Major Chord Forms with Highest Notes Near the Nut

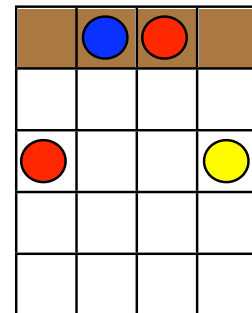
When the melody note in the music is near the nut the chord may also be near the nut. This means that the general orientation of the fingers in making the chord can't lie as it normally does from upper left to lower right. (The fingers must lie from lower left to upper right, lie in some staggered configuration, or take advantage of a bar to play the melody note with the chord.) The 3x3 rule is especially handy in building such chords. It pays to memorize these unusual chord forms near the nut, but you should also know how to build them. We will build several to illustrate an approach. *As before, the brown areas on the grids below represent the wood behind the nut.*

You may remember this major chord form with its root note at the first fret on the top string. To build this chord copy the blue at the first fret using the 3x3 rule. Recall that the 3x3 rule copies anything three spaces left and three down. Then add the fifth, red, and third, yellow, around this copied root in the usual way - red on the right of the root and yellow at the upper left. Can you name this chord on your instrument? (*Answer:* Tenor: Bb. Irish/Mandolin: F) This chord form, often called, "Alternate Form I", is moveable. If the pattern shown were moved back one fret the blue dot would lie behind the nut. Can you guess what chord that would be? (*Answer:* The chord named after the open high string since the blue dot root is behind the nut.)



Look at this chord on the right at the second fret location. See if you can answer these questions given only the yellow dot:

- A. How did we locate the fifth on the lowest string?
- B. How did we locate the red dot behind the nut?
- C. How did we locate the blue dot?
- D. What chord is this on your instrument?

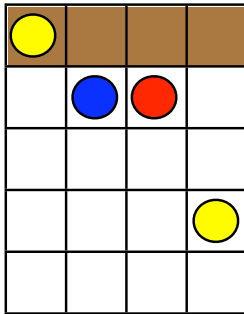


If you are having difficulty answering these questions or the ones in the previous exercise don't be discouraged because these concepts are new. It is simply a matter of practice. Give yourself plenty of time to absorb everything.

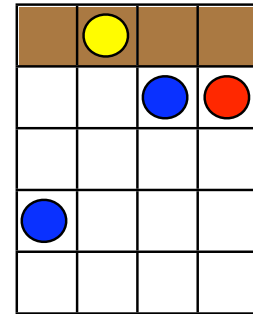
A. How did we locate the fifth on the lowest string? *Answer: By remembering this special relationship mentioned earlier: "When the third is on the outer top string a fifth will be on the outer low string at the same fret".* B. How did we locate the red dot behind the nut? *Answer: The red dot behind the nut was determined using the 3x3 copy rule from the lower red dot.* C. How did we locate the blue dot? *Answer: A blue dot is always to the left of a red dot.* D. What chord is this on your instrument? *Answer: It is a major chord that has the same name as your second lowest open string because a blue dot is there. So, the chord is a G for tenors and D for Irish banjos and mandolins.*

Two More “Near-Nut” Chord Builds For Jazz Players

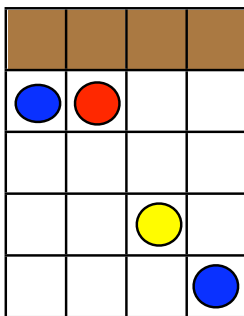
Jazz groups often play many tunes in the keys of *E_b*, *A_b*, and *B_b* because horn players like these keys. We have already discussed the *B_b* chord near the nut for tenor



banjo so we will only discuss building the tenor banjo’s *E_b* and *A_b* chords near the nut. Mandolin and Irish Banjo players can build these same chords in the same manner but the chords will be named differently. The *A_b* chord diagram on the tenor, shown on the left, would appear as an *E_b* chord played on the mandolin or Irish banjo, and the *E_b* chord diagram on the tenor, shown on the right, would appear as a *B_b* chord on the mandolin or Irish banjo. We will discuss the *A_b* chord on the Irish banjo and mandolin last.



First step is to locate the roots at the first fret in both figures. Next place the red dot to the right of the blue and the yellow to the upper left. That is the complete chord. If we want a chordal note on the string not used so we can play all four strings, we can use either the 4x4 rule or the 3x3 rule. The 4x4 works best on the left to copy the open string third to the top string, and the 3x3 works best on the right to copy the root near the upper right to the low string at the lower left. The inset below gives another perspective to help remember these copy rules.



To make the *A_b* chord on the mandolin, you could build the chord starting at the root (*A_b*) on either the top or low string. If you started on the top string you would first place the yellow dot to the upper left of the root, copy the root to the low string using 4x4 copy rule and place the red dot to the right of it. If you started on the low string you would do much the same thing by copying the root to the high string and placing the yellow and red dots about these roots in the normal way.

Summary of Building Major Chord Forms Near The Nut

You undoubtedly noticed that the 3x3 copy rule was highly useful in building chords near the nut, and that the chords formed often utilized open string notes. But the same procedures that were used earlier still applied since the pattern of dots itself never changes. We also saw that it was helpful to think of open string notes as finger positions behind the nut, and did this by placing the colored dots in the brown area.

Copy Rules From the Left Hand's Perspective

4x4 rule copies a low index finger note to/from the little finger high string note.
3x3 rule copies to or from an index or middle finger note two strings left.

Building Seventh Chords (1, 3, 5, 7b)

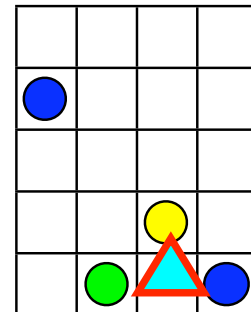
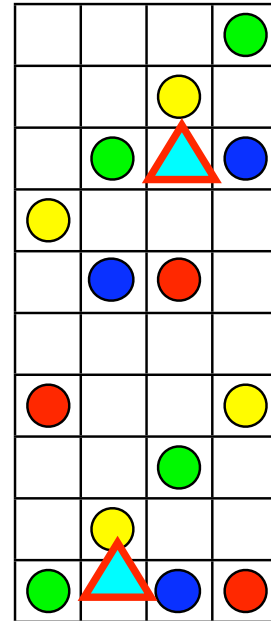
Notice from this formula for a seventh chord, (1,3,5,7b), that the chord is nothing more than a major chord to which a flatted seventh has been added. Flatted seventh degrees, (7b's), are so common in music that they merit their own color, **GREEN**. Look at the pattern and note the green dot locations. These are the locations we will be adding to any major chord to make the chord a seventh.

There are two good ways to locate any flatted seventh on your fingerboard. You can locate it two spaces behind any root, (knowing the root is also the 8 note), or find its location on either side of any third and along the diagonal that runs lower left to upper right.

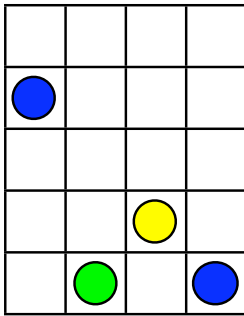
Also notice from the figure that a combination of blue, yellow and green dots often forms a small triangle with the yellow dot at the top. We will be referring to this grouping, highlighted here with the light blue and red triangle, as "the small triangle" because it is seen in so many chords. Thinking of this triangle helps build seventh chords quickly since it is much easier and faster to locate the small triangle than it is to locate a blue dot, then a yellow and a green. When we place a small triangle with its blue dot at a location we have almost formed the seventh chord since we only need the fifth. We begin building many seventh chords by placing these small triangle groups.

At the right is a common seventh chord often referred to as the Form I Seventh* because the highest note in the chord is the 1 or root note. You can see that it is easily formed by placing the seventh chord small triangle at the root location on the top string and then using the 4x4 copy rule to copy the root on the top string to the lowest string. Notice that there is no fifth in this chord. We could play a different chord form with the same top string note that includes the fifth, and we will show it later, but this form usually sounds better.

Look at this form again. How would you modify this chord if the melody note was located two frets behind the root note? That would be a flatted seventh (green dot) loca-

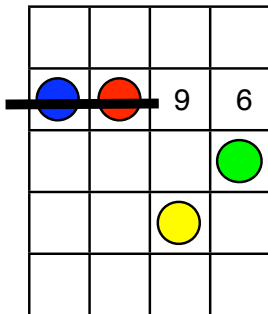


*Many beginning banjo players have difficulty forming this chord with the fingers. It just takes practice to stretch the finger muscles so don't give up.

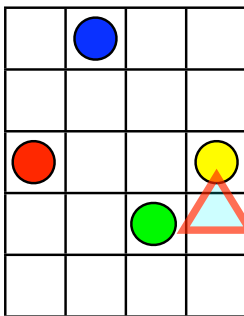


tion. You would know this from your knowledge of alternating green and yellow dots or from the fact that the flatted seventh is always two frets behind the root. So we would play that flatted seventh as the melody note.

Since we would have two sevenths we wouldn't need the one on the left and we definitely have a good substitute - the missing fifth (red dot) which was not included in the chord. The fifth is located just to the right of the blue dot at the left on the index finger bar line which was discussed earlier. The figure below shows the chord, called Form VII, with the flatted seventh as the melody note.



Since we mentioned the root index finger bar line, do you remember the other chord degrees that are on this same fret? These index finger locations are used so often that it pays to memorize them. They are the 9 which is to the immediate right of the red dot fifth, and the 6 which is immediately behind the green dot. The reason we repeat this for emphasis is because it is common for music lines, both melody lines and interior lines, to move from the third and seventh to and around the 9 and 6. We need to be ready with the knowledge of where these degrees are located.



Suppose we need a seventh chord and the third of the chord is the melody note. This chord is easy to build if you remember the special relationship mentioned earlier: "If the third is on the highest string a fifth is on the lowest string at the same fret". It is easy to locate the green dot. It is on the diagonal with the third. But how is the blue dot located? (Hint: Use the partial triangle shown.)

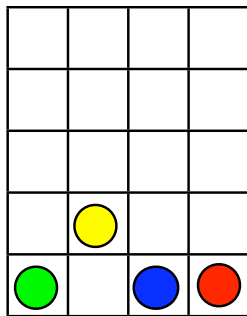
You could use the 4x4 copy rule from the blue dot *off the finger-board* in the small triangle. You could also use the 3x3 rule to copy a temporary red dot to a location at the top fret shown and then place the blue dot to its immediate left. Or, if you read the mandolin players inset, you might remember the "optional rule" for mandolin players and use it.

The optional rule stated that a red dot is always "next string" left of a root and three frets down. (It was highlighted for mandolin players because it is handy making mandolin chords covering six frets.)

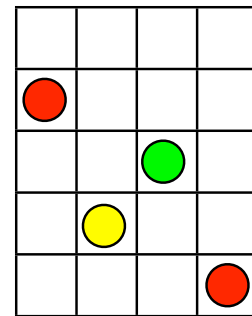
That is three different ways to locate the blue dot. Want another? (There has to be a blue dot off the grid two frets in front of the green dot. Use the 2x6 copy rule from it.)

If you don't happen to know that the melody note is the third of the chord that you need, try to locate a root note near the melody note to form the chord. Your fingers will quickly tell you if the melody note is a third, fifth, seventh, or some note not in the chord. Of course, any note can be used equally as well as the root for this purpose.

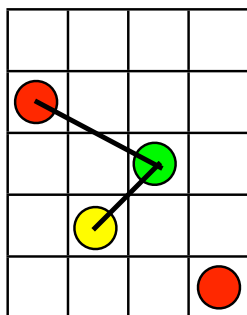
We have covered seventh chords with: the root as the highest note (Form I); the seventh as the highest note (Form VII); and the third as the highest note (Form III). We only need one more - the seventh chord with the fifth as the highest note (Form V). It comes in these two popular forms.



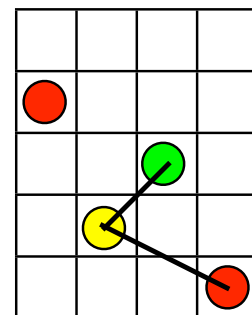
The first, shown at the above left, is based on the small triangle. If we place the small triangle on the left of the fingerboard we can play the fifth at the right of the root location on the inside string. This is a complete seventh chord often called, "Alternate Form V".



The second form, shown on the right, has two fifths and no root. Play both of these and see if you don't think the one on the right sounds better. But it depends on the music.

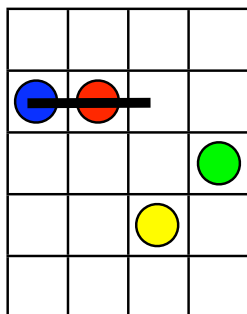


Look at the three dots on the left three-fourths of this figure on the left. Then look at the three dots on the right three-fourths of the figure on the right. The extra black lines indicate combinations which we will discuss.

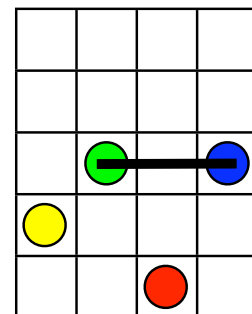


Notice these configurations of three dots are sevenths in themselves except that they lack a root note. This is not a problem. They are used so frequently - as much as the "small triangle" - that they each need a name

to help communication. I call the one on the left the "inside stagger" and the one on the right the "outside stagger". They are both great sounding three string seventh chords.



Notice what happens when we shift the "inside stagger", as shown on the left above, one space to the right. We expose the root to the left of the upper red dot. Does this chord look familiar? It should because we just discussed it. It is the seventh chord with the seventh as the highest note in the chord, commonly referred to as the Form VII.

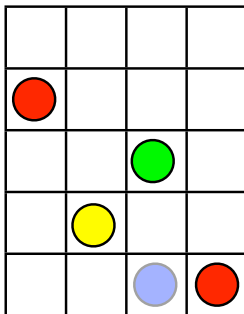


When we shift the "outside stagger" to the left, as shown on the right, we expose the root, which could be played with an index finger bar with the green dot. You could locate this root using a 3x3 temporary copy of the red off the fingerboard and place the root to its left on the fingerboard. Or, (We need that mandolin player's optional rule again!), use the optional rule to locate the blue dot. This form is often called "Alternate Form I" of the seventh, useful playing Bb7 (tenor) or F7 (mandolin/Irish) near the nut.

These two seventh forms, the “outside stagger” and “inside stagger”, are especially useful in playing chord melody when the melody note is on the second string. The only problem in using these three string chords, or any chords without a root, is in knowing what chord you are either playing or are about to play - because they lack the root.

You can always memorize the name of the chord. Another way is to locate the position of any root note even though you do not intend to play it, since the note at the root location is the name of the seventh chord whether the root is played or not. *The light blue color of the root note in the figure is a reminder that it is not to be played.*

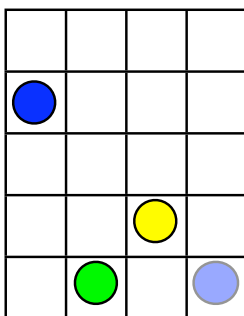
The inside stagger portion of this chord (left three-fourths) is built around the seventh which is two frets back from a root “not played”, shown in light blue.



The highest note in the three-string portion is the seventh, so it is often called the “Form VII Junior” of the seventh chord. **Think about the position of the root not played to name/locate it.**

The outside stagger portion (right three-fourths) is built around the third of the chord to the upper left of the root not played. The highest note in this chord is the fifth, which is why this form is sometimes called the “Form V Junior” of the seventh chord when played on three strings. **Again, think about the light blue dot to name/locate it.**

There is a three note seventh chord built around the third and it comes from the root form of the seventh - the one with the small triangle. The root not played is shown in light blue. Notice that this form has a root. It is easy to tell the name of the chord from either the low pitch root that is played or the high pitch one that is not. Notice the chord is missing a fifth as shown. You can play this or any three note form on the inside or outside strings.



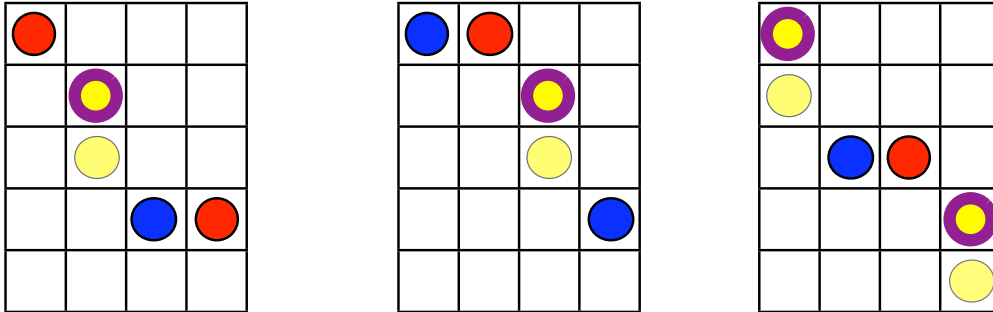
If the pattern is shifted to the right can you guess what colored dot will appear in the figure on the low string and where it will be? (Hint: Where will the yellow dot be?)

(Answer: A red dot will appear at the same fret as the yellow. This is because when the yellow dot is in the highest outer string the red dot is always on the same fret, low outer string.) You can probably guess that this three string form is often called the “Form III Junior” because the highest note played in the chord is the third.

Minor Chords, (1,3b,5)

The formula, (1, 3b, 5), says it all. We don’t even need diagrams for minor chords because the chord’s formula tells us to PLAY THE SPACE BEHIND THE YELLOW DOT instead of the yellow dot. We “think” about the yellow dot and use it to locate the 3b, but we don’t play the 3. (Just as we thought about the root’s blue dot above but didn’t play

it earlier.) If there are two yellow dots normally played in the major chord you need to flat both. So, here are three minor chord forms *that you absolutely don't need to see*:

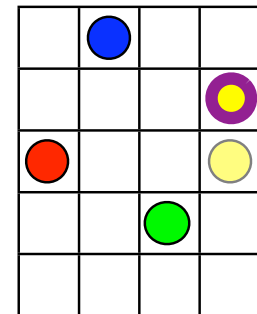


The purple ring represents a flatted note. Can you spot the **three string minor forms** in these figures? Look for: one with the root as the highest note in the chord; one with the flatted third as the highest note in the chord; and one with the fifth as the highest note in the chord. (Hint: Look for three string groupings where the note on the right is blue, then a purple-circle yellow dot, and finally red.) Those three note forms can be on the inside three strings or the outside three strings. As usual, the note at the blue dot root location determines the name of the minor chord.

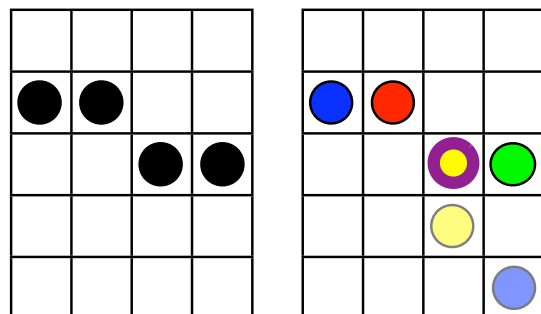
Minor Seventh Chords, (1,3b, 5, 7b)

Any minor seventh chord is nothing more than a seventh chord with a flatted third instead of a third. Or, you can think of it as a minor chord to which a flatted seventh has been added. Since you know how to build a seventh chord at any fret, it is simply a matter of building a seventh chord and then playing the space behind the third instead of the third. In other words, build it as you built the minor chord but this time start with a seventh chord instead of a major chord.

When forming minor chords and minor sevenths you will usually be able to slide a finger on the third back one fret to play either the minor chord or minor seventh. Occasionally, you will have to change fingering. This would be true of the figure on the right in which the middle finger covering the yellow in the seventh chord cannot slide back. The middle two fingers must “switch sides”, as you will see when you play the seventh and then the minor seventh.

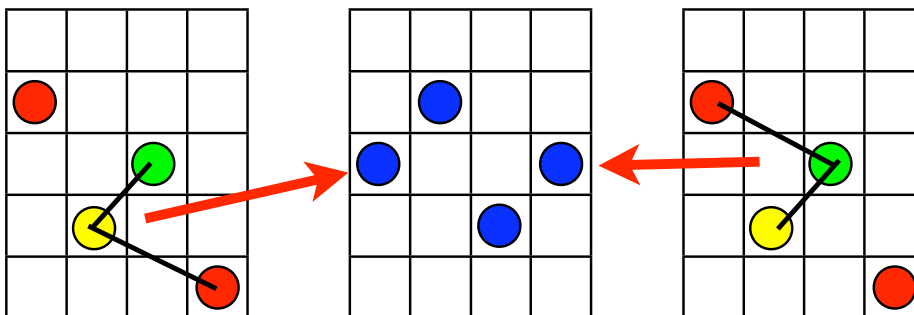


How many times have you seen this black and white chord diagram for a a minor seventh? (It is also a sixth chord form.) The colors show how it was formed from a major chord.



Diminished Chords, (1, 3b, 5b, 6)

The four string diminished chord has only one chord form which looks like a collision of the two three string seventh chords discussed earlier - the “inside stagger” and “outside stagger”. This means that the three string version of the diminished chord can be identical to either of these two three string seventh forms. All the dots are blue to emphasize that the diminished chord can have the name of any note under a blue dot. The

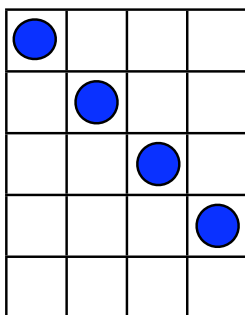


chord symbol has many forms including the letter followed by “dim” or “o”. The diminished chord repeats every four frets. It is so easy to memorize and use that we needn’t build it.

To place any “Xdim” visualize any blue dot on “X” whether “X” is played or not.

Augmented (1, 3, 5#) Chords

Augmented chords are major chords with the fifth replaced by the augmented fifth, (5+). This replacement makes the common root form, “Form I” of the major chord, resemble a line of fingers - similar to the diagonal of the red and green alternating dots but oriented in the opposite direction. The name of the chord can be any one of the blue dots. Like the diminished chord this chord repeats every four frets.



To play the augmented chord place a finger on the note named in the chord as you form this line of fingers. Near the nut where there is insufficient room to form the line of fingers, build the chord from its formula. First locate a major chord then play the location in front of the red dot, which is the 5+, instead of the 5. *Question: How do you know there are only three different notes? (Ans: 4x4 or 4=4)*

Time For A Perspective Break - “What You Know Now and What’s Next”

“What You Know Now”. You have reached a milestone at this point because now you are familiar with the entire pattern of colored dots. You know how to use its features and a few copy rules to imagine much smaller patterns of colored dots that represent both four string and three string major chords, (1,3,5), and seventh chords, (1,3,5,7b), anywhere on the fingerboard including the area around the nut. Using these chords as frameworks you know how to modify them to build minor chords and minor seventh chords. You know which chord degrees are essential and which you can leave out if you have to. You also know how to form the unique and easy-to-use diminished and augmented chords, which you could build but will memorize because they are so

simple. You now can build many chords to match a chord name in the music, or name the chord even as you build it. You are better able to look at black and white chord diagrams and know which chord degrees are represented by each of the black dots, (or know how to find out), and so you are able to modify these black and white chord diagrams to make other chords. You appreciate the importance of locating the root note correctly on your fingerboard, whether it is played or not, in order to name the chord.

“What’s Next?” (Answer: “More chords, essential tools and practice!”)

More chord formulas. The inset below lists chord formulas including those already discussed. More than these are not really needed because, like the major and seventh chords, these formulas serve as frameworks which are easily modified to make other chords. We will build more chords to demonstrate this approach, which is nothing more than playing various spaces around the colored dots, sometimes instead of the colors.

-9	+5	+9	●
9	6	●	7
+9	●	11	●
●	7	-5	-9
11	●	●	9
-5	-9	+5	+9
●	9	6	●
+5	+9	●	11
6	●	7	-5
●	11	●	●
7	-5	-9	+5
●	●	9	6
-9	+5	+9	●
9	6	●	7

CHORD FORMULAS
Major (1,3,5)
Minor (1,3 b ,5)
Augmented (1,3,5#)
Diminished (1,3 b ,5 b ,6)
Suspended (1,4,5)
Seventh (1,3,5,7 b)
Minor Seventh (1,3 b ,5,7 b)
Major Seventh (1,3,5,7)
Sixth (1,3,5,6)
Ninth (1,3,5,7 b ,9)
Minor Sixth (1,3 b ,5,6)

Additions to Chord Letters
(nothing)= major
m=mi=min=(-)=minor
M7=major seventh
m7=min7=minor seventh
sus4=sus=suspended
dim=(-)=(o)=diminished
aug=(+)=+5
The word, “add” followed by the degree to be added

Essential tools.

Good musical arrangements on a music stand. Since this book does not include music for practice you may need to purchase or borrow music sheets or books which show chords of sufficient complexity to make the music sound polished. Books of popular piano/vocal arrangements, (but not many so called, “easy play versions”), are usually excellent if they show the names (symbols) of chords above the music, and if the chords are not simply majors, minors and sevenths. You can find such books available in the music sections of your local library and for sale in large book stores and many music stores.

Practice. A very experienced and skilled professional plectrum banjo player said that every year at a banjo convention the same people come up after his performance and ask him how he does it, and that every year he gives them this same answer -

“Practice!” Then he added, “It’s like they don’t believe me!”

(That implied advice is better than everything in this book. This or any method might reduce the amount of practice required but it will never replace the need for a lot of it.)

Final Chords in the List Titled, “Chord Formulas”.

You probably noticed that there are chords in the list which we have not discussed - the suspended fourth, the sixth, the minor sixth, the major seventh, and the ninth chord. These are described briefly in this section. They are easy to build using what you know.

The Suspended Fourth, (1,4,5). The suspended fourth chord is similar to the major chord but uses the fourth, the space in front of the third, instead of the third. It actually sounds like it is “suspended” between two other chords.

A related chord, which can be learned at the same time, is the **seventh chord with a suspended fourth**, (X7sus4) which is, or would be, a seventh chord except that the third is replaced with the note in front of the third - the fourth.

The pattern in the inset doesn’t show a “4” but recall that it is the same note as the “11” which is shown on the fingerboard grid. Are you familiar with “7-11” convenience stores? If you are you have another way to remember how to locate the 4: the “7-11” diagonal. The 4, or 11, is always the space directly in front of the yellow dot 3.

Both of these chords are easy to locate and to form with the fingers. Since the fourth is the note immediately in front of the third, which is to the upper left of the root, the fourth is to the immediate left of the root and is easily covered with a bar at the same fret as the root. On the seventh chord with the suspended fourth, the suspended fourth essentially *flattens the small triangle* resulting in a three string bar at the fret of the root.

Play any suspended fourth chord and then move from the fourth to the third and you will hear a sound that you have heard many times - the sound of the fourth “resolving” to the third.

The Sixth Chord, (1,3,5,6). Recall that earlier we imagined a sixth note when we lifted the little finger from a high root note and barred the index finger to play the sixth instead of the root. That makes a sixth chord if the 1, 3, 5 and 6 are played.

The sixth should be thought of as a major chord to which an extra “polishing” or “coloring” note has been added - the sixth. In this role the sixth chord acts much like a major seventh chord in that it can be substituted for a major chord to add “color”.

When you look at the formation of a sixth chord on the fingerboard or in a chord diagram you may be surprised to see that it looks like a minor seventh chord of some type. That is because it is! The four notes of a sixth chord are identical to the four notes of some minor seventh chord with a different letter. For example, a C6 (C,E,G,A) has the same notes as an Am7 (A,C,E,G). (All the dots change colors in sequence!)

The sixth chord is easy to form since the major chord is easy to remember and a nearby sixth note is easy to locate. Notice from the pattern that the sixth note is also

always immediately left of the yellow dot third and immediately behind the green dot flatted seventh. Just extend the finger covering the third or “flat” the green dot.

The Major Seventh Chord, (1,3,5,7). The major seventh chord is a major chord to which the 7, the note above the flatted seventh, is added. This is the space in front of the green dot and is also the position immediately behind the root. Since the location of the root is usually known and the root is not needed for the chord, you can play this chord easily and quickly by barring at the third toward the right over two strings, provided that the third is not on the top string. Major seventh chords are not shown.

The Ninth Chord, (1, 3, 5, 7b, 9): There is also little reason to show the ninth chord because the formula shows that it is simply a seventh to which a ninth has been added. The 9’s two spaces in front of the root and to the right of each 5 are good candidates.

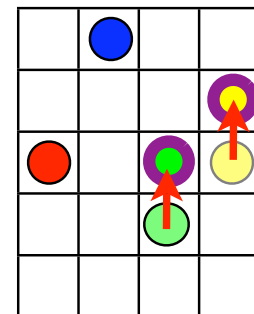
You may have noticed that this chord has five notes and you can’t play them all on a four stringed instrument. The root and fifth are good choices to drop. Let the sound and the music be your judge on which one (or more) to leave out.

The Minor Sixth Chord, (1, 3b, 5, 6). Just as a seventh chord has a minor form, the sixth chord also has a minor form and it is quite common. To build it start with the minor chord and add the sixth, or start with the seventh form and flat *both* the third and the flatted seventh. (Remember, the 6 is behind the green dot flatted seventh.)

If you want to play the chord with the melody note it is a good idea to know if the melody note is the 1, 3b, 5, 6, or none of these. If you don’t know this just copy any note that you do know to the vicinity of the melody note and you can see what it is.

Let’s assume that you want to make a minor sixth chord with the flatted third as the melody note. You can start by thinking about the seventh chord which has the third as the high note and then move a finger behind its third one fret to flat the third, then place this finger on the melody note. *(It is a good idea to memorize all of the forms of the minor seventh chords because they are used so frequently.)*

Do the same thing with the seventh location - place a finger on fret behind the seventh location to play the sixth, (shown here as a green dot with a purple ring instead of the number, “6”.) Notice that just as the thirds alternate on a diagonal with the sevenths, the flatted thirds alternate on a diagonal with the sixths (flatted green dots) as illustrated in the figure. So you could say, “To make a minor sixth from a seventh chord, move the green-yellow diagonal pair back one fret”.



Another way to build this chord, or any minor sixth chord, is to start with the diminished chord. The formula for a diminished chord is (1,3b, 5b, 6). Notice that this formula is “almost” many chords and would be a minor sixth if the fifth were not flatted! So we could start by playing the diminished form as shown on the next page. Next, we would have to determine which finger is on the 5b and raise it one fret as shown in the

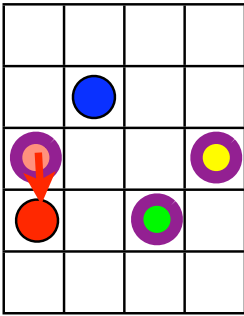
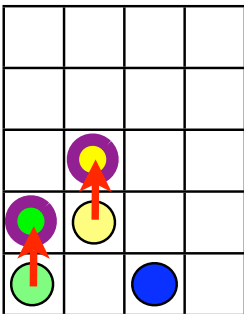
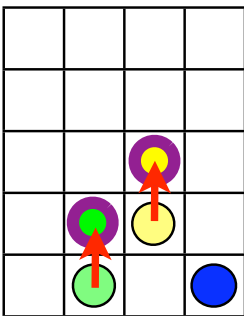


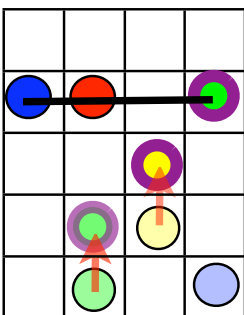
figure. This is easier if you recall the rule that a fifth is on the lower outer string when the third on the top string at the same fret. The same is true if both are flatted: **The flatted fifth is on the far left of a flatted third.** Remember that any position in the diminished form can be the root note - the note named in the diminished chord. If the melody note is in the diminished chord one of your fingers will probably already be on a root note. If the melody note is “a passing tone” - e.g., a note that is not in the diminished chord, then the diminished chord will be “nearby” (within four frets) so the passing tone can be played with the chord without difficulty.

Another form of the minor sixth chord that is used very frequently is the three-string version. The “outside stagger” configuration on the left (seen earlier as a three-string seventh form, is formed from the “small triangle” discussed earlier and is shown in these two figures. Recall that the top position of the small triangle is the third, the lower left corner is the flatted seventh and the right corner is the root. It is a simple matter to flat the top and left corners of the small triangle to make the minor sixth. (Flattening this green-yellow diagonal *pair*, as discussed earlier, makes the small triangle a minor sixth!)



If you play the small triangle three string chord on your instrument and then play this chord by letting these two fingers slide back one fret, you will hear a very familiar and harmonious “shift” in the sound. This is because it is a shift in the “circle of fifths” movement so common in our music. This three note minor sixth three-string chord is also a seventh chord with a different root. (In your music if the chord is shown as a $Xm6$ chord it is because the arranger wanted to call it that and not a seventh chord with some other root note. You will see it written both ways.) If you are learning a tune from the music and see that an $X7$ becomes $Xm6$ and the root doesn’t change, just slide these two fingers back one fret. The music is making this “circle-of-fifths” shift.

If you want to play four strings and include the missing fifth on the figure above, just add the fifth that is to the right of the blue dot.



If you want to play the four strings and the root is on the top string, as in the figure on the left, just bar the index finger and lift the little finger from the root. Recall that the sixth is always at the index finger bar behind the root. Use the 4x4 copy rule to copy the root on the top string four frets back to the low string as shown. Since you then have two sixth notes you can either “not play” the lower one to let the fifth at the index finger bar sound in the chord, or leave out the fifth and play both 6’s. Try both of these fingerings because both sound good and the one which sounds better will depend on the music.

Perspective Break #2

This completes our discussion of building common chords - chords which we can modify as instructed in the chord symbols, or can modify with melody notes, base line notes, or embellishments. We build more complex chords simply by adding to these common chords based on information in the symbols such as “add ninth”, “no fifth”, etc. (NOTE: “+5” does NOT mean add a 5. +5, (or 5+), is a degree - the degree one space ahead of the red dot 5. So, C+5 is the C augmented fifth chord, (1,3,+5) discussed earlier.) Even without very firm naming standards, (and there aren't any), you should be able to figure out almost all of them. (And reading music always helps.)

5. Building Complex Chords

General: There are so many complex chords that we can only scratch the surface here. We do so with a few more suggestions, recommended web sites, and a fact.

1. A Few More Suggestions:

1. A symbol that looks like “Ø” located to the upper right of the letter of the chord identifies the chord as a “half diminished” chord. (The diminished symbol is supposedly cut in half by the slash.) This chord is the same as minor seventh with a flatted fifth, more often shown as Cm7(b5). (Which you could build if only given that symbol and not, “Ø”.)
2. Much pop music and guitar music today use symbols which frequently show a slash, such as A7/E. This convention assumes that the root of the chord is the lowest note of the chord unless a slash is used. If the slash is there the note behind the slash is the lowest note to be played. It may or may not be in the chord, (ouch), so this convention confuses things a bit. In the example given, (A7/E), try to locate a low E on the base string and build an A7 chord near it so you can play the E, the A7 and the melody note.
3. It is not a bad approach to learn complex chords “as you go”. In other words, wait until you see a chord symbol that you do not understand or are not sure about. Then attempt to learn what it is. There are many books and web sites covering these.

2. Recommended Web sites:

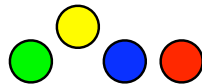
www.jazzcenter.org/cw-jrc/chords.htm. An excellent four page overview of the various types of chords with their names and symbols.

<http://chordlist.brian-amberg.de>, “Brian’s huge chord list collection”, is an outstanding web site which lists hundreds of chords with chord diagrams and everything is specific to your instrument. The site illustrates 54 C-type chords, each with chord symbols, a drawing of all the chord’s notes on the staff, and several black and white chord diagrams for each chord with inversions. Chords can even be sorted by “rating”, “difficulty” and “beauty”. It is a very impressive and highly useful site with one inconvenience - the notes represented by the black dots in the chord diagrams are not given! To

know the notes being played you must be able to read the music, finger the chord on your banjo, or figure them out by their positions in the diagram. Still, a great site.

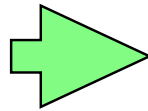
3. Fact: YOU Can Do it! You may not appreciate it yet but you can already play complex chords! Since you play fifths you can, (sooner or later), build any chord, anywhere

- because now you know this:

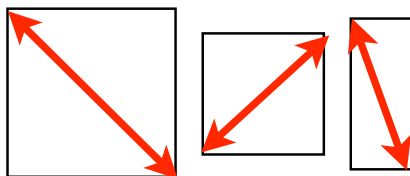


...and can learn this;

(Isn't the logic beautiful!)



with copy rules 4x4, 3x3, & 2x6;



.....and little blue to red 2x3.



..SO,

-9	+5	+9	●
9	6	●	7
+9	●	11	●
●	7	-5	-9
11	●	●	9
-5	-9	+5	+9
●	9	6	●
+5	+9	●	11
6	●	7	-5
●	11	●	●
7	-5	-9	+5
●	●	9	6
-9	+5	+9	●
9	6	●	7

CHORD FORMULAS

Major (1,3,5)
 Minor (1,3*b*,5)
 Augmented (1,3,5#)
 Diminished (1,3*b*,5*b*,6)
 Suspended (1,4,5)
 Seventh (1,3,5,7*b*)
 Minor Seventh (1,3*b*,5,7*b*)
 Major Seventh (1,3,5,7)
 Sixth (1,3,5,6)
 Ninth (1,3,5,7*b*,9)
 Minor Sixth (1,3*b*,5,6)

Additions to Chord Letters

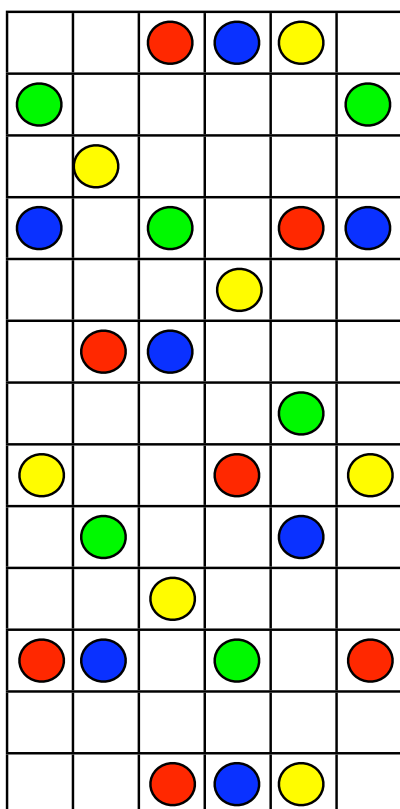
(nothing)= major
 m=mi=min=(-)=minor
 M7=major seventh
 m7=min7=minor seventh
 sus4=sus=suspended
 dim=(-)=(o)=diminished
 aug=(+)=+5
 The word, "add" followed by the degree to be added

CONGRATULATIONS!

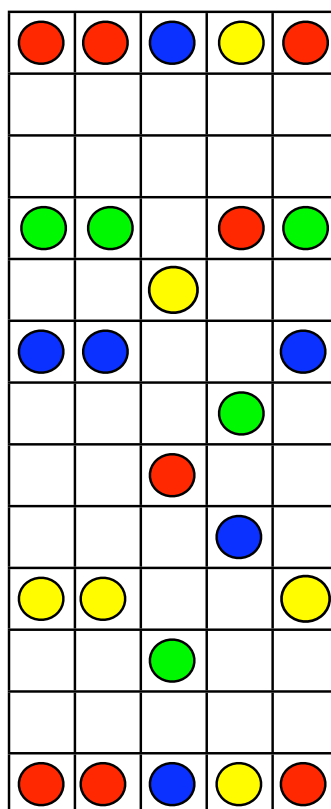
Aren't you glad you play fifths!

APPENDIX

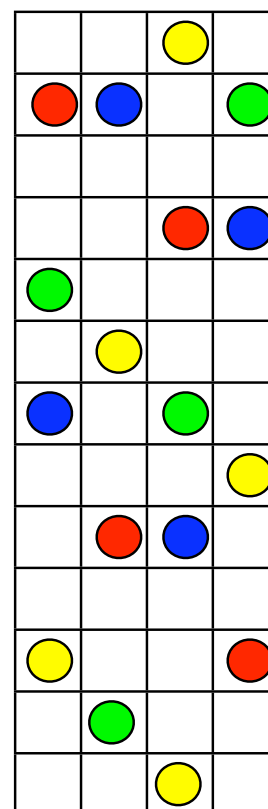
Guitar



5-String Banjo



Bass Guitar



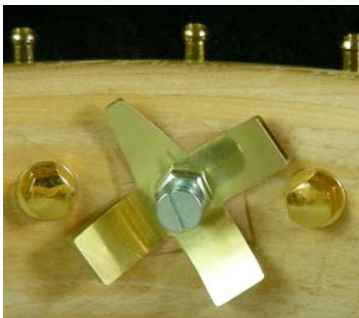
Note the bass guitar pattern is a mirror image of the pattern in this book. For this reason the bass guitarist can use this book by simply changing the order of the copy rules, etc. The other patterns are simply too complex to be useful.

Advertisement

New “Geiger Tone Control Amplifiers” for Round Hole Guitars and Wood Rim Banjos with Rim Bolts

What’s a “Tone Control Amplifier”?

Our newly patented and just released mechanical tone control amplifiers: (1) increase potential volume; (2) improve sound quality by amplifying harmonics (high frequencies); and, (3) enable the player to have easy and significant control over the instrument’s timbre (“tone” or “sound character”). These “tone amps” work by collecting inaudible sound surface waves by contact, mechanically amplifying them using reflections and then sending them back into the instrument automatically as audible sound positive feedback. The player controls timbre by inserting small, thin wood and metal squares (included) in the surface wave’s path for the timbre desired.



The banjo tone amp is on the left and the guitar tone amp is shown on the right.

Look closely at the banjo amp and you will see the overlapping crosses that convert the surface waves to audible sound, and one tone square behind the crosses. The guitar tone



amp, on the right, uses tone squares and also small tone rectangles. They can be seen to the left of the sound hole and beneath a small sheet brass arch which acts as a holding spring and sound pick-up. (This arch extends above the guitar’s top 1/2 inch.) A “tone kit” is included with each tone amp. The kit contains an assortment of brass, steel and wood veneers plus a soft plastic “tone square pocket squeeze purse”.

Both tone amps are attachments which may be removed or left on the instrument indefinitely. They should not damage the instrument when properly installed and used.

You can read more about these exciting new inventions, download this book free, and learn to make other sound-enhancing devices at: www.geigeracousticdevices.biz.

The banjo tone amplifier is \$24.95 plus \$4.00 shipping/handling and the guitar tone amplifier is \$49.95 plus \$5.00 shipping/handling. These prices may change without notice. To order print your name and address clearly and send a check or money order in U.S. funds and on a US bank to:

Geiger Acoustic Devices, LLC
190 Berwick Dr., NE
Atlanta, GA 30328-1205 USA

About the Author

Frank Geiger has been a professional tenor banjo soloist in the Atlanta, Georgia area for over 20 years. He primarily plays and sings older American popular music before the the rock-and-roll era for groups of seniors. He also entertains convention audiences as a "Dixieland" soloist at Atlanta's many "Old South" theme events.



During his 20-year career with the Army he was assigned to California twice where he was able to take tenor banjo lessons from professional tenor banjoist, Doug Carr, in the San Francisco area and attend many large banjo conventions. After retiring from the Army to Atlanta in 1980 he continued his life-long interest in the tenor banjo as a member of Horis Ward's small but active "Golden Banjos" band, and soon began entertaining as a soloist to supplement his income from a second career in computer sales. It was during this period that he invented a number of devices to improve the sound of banjos and guitars, two of which he now markets through his own company, Geiger Acoustic Devices, LLC.

Mr. Geiger and his wife, Linda, make their home in the Atlanta suburb city of Sandy Springs, Georgia. They are joined in the Atlanta area by their daughter, Anne, son-in-law, David, and two granddaughters, Lauren and Elizabeth.