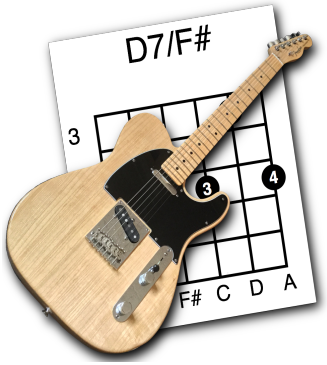
Using Fretspace

A Guided Tour



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Using Fretspace: A Guided Tour

Introduction

Fretspace is a chord and scale editor for guitars and other fretted instruments. It allows you to create charts of chord, scale, and arpeggio shapes, and can be used for any fretted instrument in almost any tuning. You can create your own shapes by clicking on boxes to add and remove dots, in which case Fretspace will identify the chord or scale that you have created. There are also chord and scale pickers that allow you to choose almost any chord, scale, or arpeggio that is possible in the current tuning. Fretspace calculates fingerings for chord and scale shapes, and also allows you to change the fingering if you wish to do so. There are options for labelling the notes and degrees in a chord or scale shape, and for coloring the root notes. Charts can be printed, and shapes can be copied and pasted in PDF format to other programs.

Fretspace also contains tools that allow you to move shapes around the fretboard to create new chords and scales, or to create inversions of a chord or scale. Playing around with shapes in Fretspace is a great way to understand how the fretboard works for a particular instrument or tuning!

Getting started

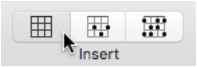
When you start Fretspace for the first time, it opens a window containing an empty chart in standard guitar tuning. If you play a different instrument, or use a different tuning, you can select the appropriate instrument or tuning from the Tuning popup in the Inspector panel on the right of the window. This tutorial uses standard guitar tuning, so leave the tuning set to Guitar for now. (There is some information on other tunings at the end of the tutorial.)

There are three main areas within a Fretspace window: a Charts panel on the left (which lists the charts that are in the current document), an Inspector panel on the right (which displays information about the current chart and the

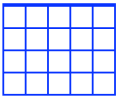
currently selected box), and the actual chart area in the middle. There is also a toolbar at the top of the window.

Drawing shapes

Start by adding an empty box to the chart. To do this, you can click on the Insert Box tool in the toolbar. (You can also select Insert Box from the Chart menu, or press ⌘B on the keyboard).

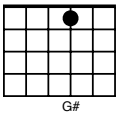


You should now see a blue box containing six vertical lines, which represent the six strings of a guitar, and five horizontal lines: a thick line representing the nut (just below the headstock) and four additional lines representing the first four frets. The box is blue to indicate that it is selected.

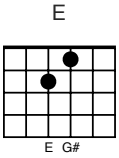


In the Inspector panel to the right, you will see that a Box section and a Notes section have been added to the Chart section.

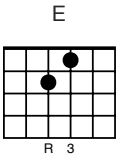
Let's start by adding a note to the box. Click on the third string from the right just before the first fret, which is the line below the thick line that represents the nut. Fretspace will add a dot where you clicked. You can remove the dot by clicking on it a second time, but leave it there for now. You can identify the note that you have added by going to the Inspector panel and clicking on Show Notes in the Chart section, so that the note value (G#) is displayed beneath the box.



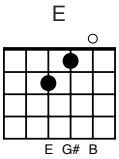
Click a second time, on the string which is to the left of the string where you added the first dot (the fourth string) in the space between the first and second frets. Fretspace will add a second dot, and a label (E) identifying the shape that you have just created. This is a (partial) E major chord that contains the root (E) and a major third (G#).



It's also helpful to think of notes in terms of their function within a chord or scale (in this case the E is the root of the chord, and the G# is third degree). If you click on Show Degrees, Fretspace will display chord degrees (R and 3) instead of notes.

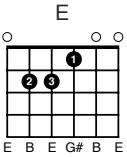


Go back and select Show Notes, so that Fretspace displays the notes E and G#. To get a complete E major chord, we need to add a B (the fifth degree of the chord). On a standard-tuned guitar we can get that by playing an open (unfretted) B string, which is the second string from the right. Click immediately above this string, just before the thick line that represents the nut. Fretspace adds a dot that is outlined instead of filled, indicating that this is an open note. "Open" means you don't need to fret this dot, just play the open string without putting any fingers on it. Below the box, Fretspace displays the note values: E-G#-B.



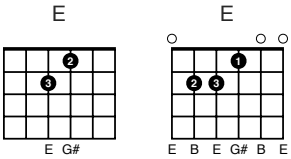
This is a three-note chord shape, but we have six strings available. We could go on adding dots on other strings, but there is a shortcut we can use at this point.

Click on the Complete tool in the toolbar, and Fretspace will automatically complete the shape by adding dots on other strings to create a full E chord that uses all six strings: E-B-E-G#-B-E. If you play guitar, you will recognize this shape as one of the first chords you learned. Now go to the Inspector panel and click on Show Fingering. Fretspace will display a finger number within each dot, which shows you how to play this shape: first finger on the G string, third finger on the D string, and second finger on the A string.

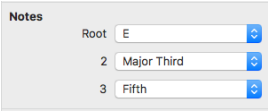


Actually, we could have used Complete without adding an open note on the B string. Click on the Clear tool in the toolbar, and Fretspace will remove all the dots from this box.

Then click again to add the E and G# notes on the fourth and third strings. Now, click on Complete (or press ⌘Return) and Fretspace will add all the remaining notes. If a chord contains a root and a third, Complete will add the fifth automatically.



The Notes section of the Inspector panel displays chord (or scale) roots and degrees. With the E chord selected, it should look like this:



This tells us that the root of the chord is E, and that the chord also contains a major third and a fifth. You can use the popup menus in the Notes section to change the root of the chord, or to convert it into a different type of chord: changing Major Third to Minor Third will convert it into an Em chord. Try doing that, and then change it back again (or select Undo from the Edit menu).

MIDI playback

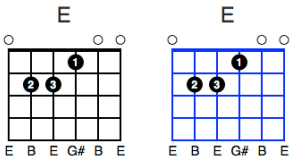
To hear what this chord sounds like, click on the Play tool in the toolbar, or press Space. The Play tool changes to a Stop tool during playback: click a second time (or press Space a second time) to stop playback.

If you click on Play a second time while holding down the Option key, Fretspace will play the chord as an arpeggio.

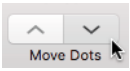
Moving shapes along the fretboard

We can move shapes around the fretboard to create different chords and scales. Let's start by duplicating the E shape that we already have. Select Duplicate Selection from the Edit menu (or press ⌘D as a shortcut) and

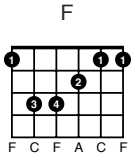
Fretspace creates a duplicate E shape next to the first shape. The new shape is blue to indicate that it's selected, and the first shape is now black.



While the second E shape is selected, choose Move Dots Down from the toolbar or Box menu (or press ⌘▼ as a shortcut).[1]

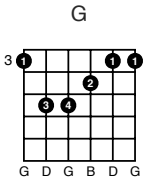


We now have a standard F chord, one fret (and one semitone) higher than a standard E chord.



We can also move this shape further along the fretboard to create other chords. Choose Move Dots Down to change F to F#, and click on it a second time to change it to G. Notice that when you move the dots to G, the thick line representing the nut disappears and Fretspace displays the fret number 3 to the left of the box, indicating that this is the first fret within this box shape. (The Box section of the Inspector panel allows you to change the first fret and number of frets that are displayed in a box.)

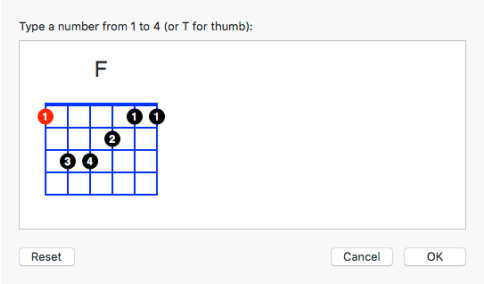
1. One slightly confusing thing about the guitar (and other fretted instruments) is that up and down or high and low can mean different things in different contexts. For example, the highest string on a guitar is the string that is nearest the floor when you're playing, and the highest fret is the fret which is furthest away from the nut. Highest in this context means that the string (or fret) has a higher pitch than other strings (or frets). Within Fretspace, Move Dots Up (or Down) refers to up and down within a box as it is shown on screen. Moving dots down within a box creates notes that are higher in musical pitch.



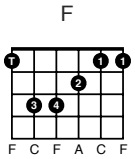
Before moving on to the next section, change G back to F again by choosing Move Dots Up, or by undoing your previous actions (Undo in the Edit menu).

Editing shapes

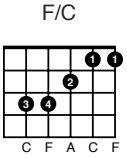
If you look at the fingering that Fretspace displays for the F chord we created, you can see that this is a bar chord, which is played with the first finger placed across all six strings. Bar chords are more difficult to play than unbarred chords, especially for beginners, but there are other ways of playing an F chord that don't involve barring all the strings. One thing we could do is to use our thumb to play the lowest note. Choose Edit Fingering from the Box menu, and you will see the same chord displayed in a drop-down dialog, with the first dot displayed in red to show that it is selected (you can click on other dots to select them, or tab between the dots).



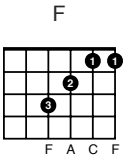
While the first dot is selected, press T (for "thumb") on the keyboard and OK the dialog. You now have an alternative fingering in which only the first two strings are barred.



Another way we can play F, without using a thumb, is to remove the dot that is on the lowest string, which we can do by clicking on it a second time. This is still an F chord, but it has a C rather than an F in the bass, so Fretspace labels it as F/C — meaning "F over C in the bass". (Technically this is the second inversion of an F major chord.)



If you want an easy F chord that starts with F rather than C, you can get this by removing the C dot on the fifth string (click on it a second time).

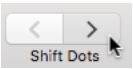


Moving shapes across the fretboard

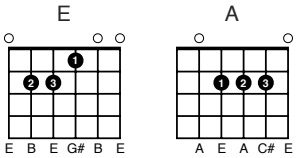
As well as moving shapes up and down along the fretboard, we can move them across the fretboard. Let's start by creating a new paragraph or section. Select the last box in the chart (F) and add a new section by pressing Return. Fretspace displays a paragraph symbol (¶), which is blue because it's selected. If you click away from it, it will disappear, but you can reselect it by clicking where it was, or by navigating to it using the arrow keys on the keyboard. You can delete a section break by selecting it and pressing Delete or Backspace.

Click again on the first E shape, and select Copy from the Edit menu. Now click on a blank area of the page (so nothing is selected) and select Paste from the Edit menu. Fretspace pastes a new E shape in a new section below the first shape.

Duplicate the second E shape that you just pasted (⌘D or Duplicate Selection from the Edit menu) and choose Shift Dots Right from the toolbar or Box menu (or use the shortcut ⌘►).

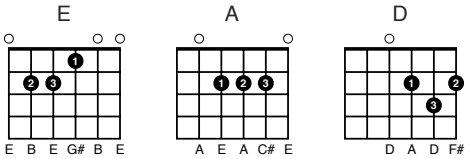


Fretspace moves the dots of the E shape one position to the right, and the shape changes slightly to become a standard A shape.



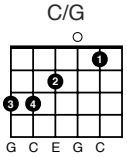
The reason that the shape changes is because of the way that a guitar is tuned in standard tuning. Most of the strings are tuned a fourth (five frets or semitones) apart, but the second string is tuned a major third (four frets or semitones) above the third string. When Fretspace moves dots across the fretboard it preserves the musical intervals between each dot–so any dot that is moved from the left onto the second string will also be moved one fret down (on screen) to preserve its musical relationship to other dots, and any dot that is moved left from the second string will be moved one fret up (on screen).

Now we can repeat this process with the A shape that we just created. Duplicate this shape (⌘D) and choose Shift Dots Right a second time. Fretspace moves the dots to the right (once again adjusting for the smaller interval between the third and second strings) to create a standard D shape. Because of the way a guitar is tuned (mostly in fourths), moving a shape to the right will create a shape that is a fourth higher. An A chord is musically a fourth higher than an E chord, and a D chord is a fourth higher than an A chord.

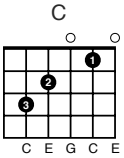


If we continue working in fourths, the next chord after D should be G; but if we carry on moving dots to the right we will end up moving all the dots out of the box. Let's do something different instead. Click on the E shape that is at the start of the second line, and drag it while holding down the Option key, till it is at the end of the line. By holding down Option we cause the shape to be duplicated rather than simply moved, as would happen otherwise. We could also Copy and Paste as we did previously.

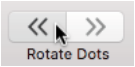
Once you have another E chord at the end of the line, select Move Dots Down to change it into an F shape, and then choose Shift Dots Left to change it into a C shape (technically a C/G shape). Just as we created shapes that were a fourth higher by moving dots to the right, so we can create shapes that are a fourth lower by moving dots to the left (C is a fourth below F).



Normally, we'd also play an open note on the first string, so click on Complete to have Fretspace add this automatically. Then convert the C/G shape into a standard C shape by clicking on the dot on the sixth (leftmost) string in order to remove it.

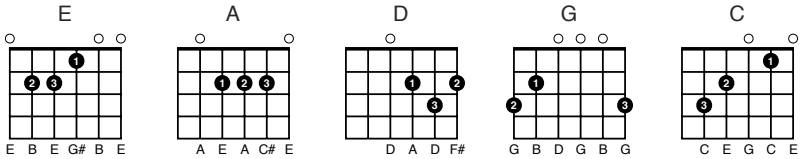


Now duplicate the C shape (⌘D) and select a different option from the toolbar: Rotate Dots Left.



Rotate Dots is like Shift Dots except that it exploits the fact that in standard guitar tuning the first and last strings are tuned to different pitches of the same note: so after it has moved the dots left or right it duplicates the dot that is now on the bottom or top string and adds it to the string on the opposite side. This only works for tunings where the first and last strings are tuned to the same note value, or are within a few semitones of each other.

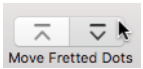
The second line of the chart now contains five standard guitar chords (E, A, D, C, and G). If we drag the C after the G, the chords are arranged in a logical order, a fourth apart from each other.



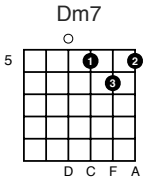
Select these boxes and click on the Play button (or press Space) to hear what they sound like.

Moving fretted dots to create open chords

Another option for moving dots is Move Fretted Dots.



This is similar to Move Dots except that it leaves unfretted dots where they are (as open dots) and moves only the fretted dots to create a different chord. Try it with a duplicate of the D shape: if you click twice on Move Fretted Dots Down you will get an E7 shape, and if you click a third time you will end up with a Dm7.

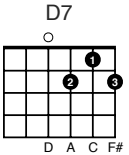


Chords that combine open notes with fretted notes higher (in pitch) up the fretboard have a distinctive sound and are useful variants to standard chords. Click on the Play button (or press Space) to hear what this chord sounds like.

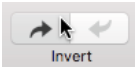
Inverting shapes

Chords can have different bass notes, as we have seen. A chord which is played over its root note is known as a root-position chord, while chords that are played over a different note from the root note are known as inversions: C/G is the second inversion of C, since it is played over the second chord note after the root note. Fretspace has an Invert tool that allows you to create inversions of shapes.

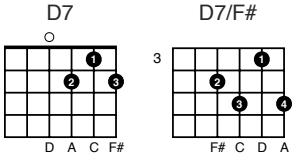
Copy the D shape that you created earlier and paste it at the start of a new section (click on the last shape in the chart and press Return). Convert this into a D7 shape by clicking on the second string (counting from the right) just before the first fret. Because this is a chord shape rather than a scale (or arpeggio) shape, you can only have one dot on a string, so Fretspace removes the dot that was previously at the third fret of this string.



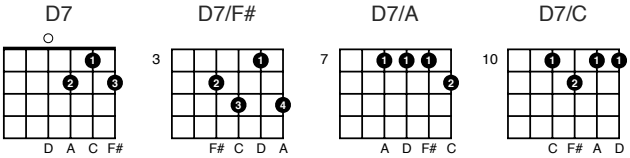
Now duplicate this D7 shape and click on the first Invert tool. There are two Invert tools (Next Inversion and Previous Inversion) but only the first is enabled at this point.



Fretspace inverts the D7 shape to create a first inversion (D7/F#). It contains the same set of notes as the root shape but starts on the third degree of the chord (F#).

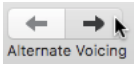


Duplicate the inverted shape and invert it again to create a second inversion shape (D7/A), then repeat this process to create a third inversion shape (D7/C).

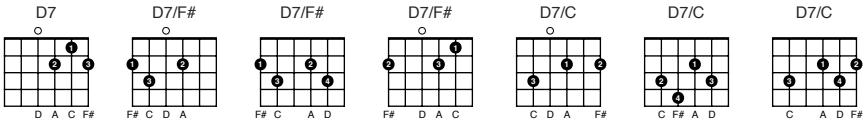


If you invert this third inversion, you will end up with a root shape that is an octave higher than the original D7 shape that you started with. You can also invert shapes to their previous inversion by choosing the second Invert option (Previous Inversion). Three-note and four-note chord inversions are used by jazz guitarists to play chordal melodies, and can also be used to create moving bass lines. They're also a good way to create variants of standard root-position chords. Any chord can be inverted, but some inversions of chords that have more than four notes may be difficult or impossible to play.

Another tool that can be used for creating inversions and other alternative voicings is the Alternate Voicings tool.



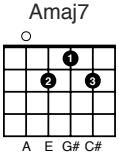
In contrast to the Invert tool, which moves shapes up and down the fretboard, Alternate Voicings displays alternative arrangements of notes in the same area of the fretboard. If you take the D7 shape we used earlier and click repeatedly on Next Alternate Voicing in the toolbar (or press the shortcut: ⌘U), Fretspace will cycle through the following alternative ways of playing the four notes of a D7 chord:



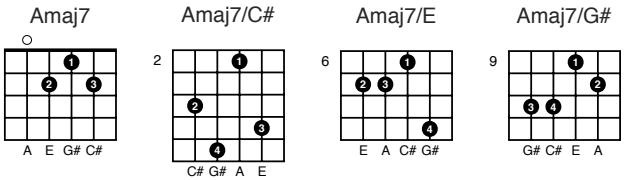
If you look closely at the first and fourth of these shapes, you will notice that they are actually similar, except that F# has been moved from the first string to the last string (this is also true of the second and fifth, and third and seventh shapes). Because the first and last strings of a guitar (in standard tuning) are tuned to the same musical note, you can swap any notes that are on these two strings. Another way to to do this in Fretspace is to use the Swap Dots tool.

Resizing boxes

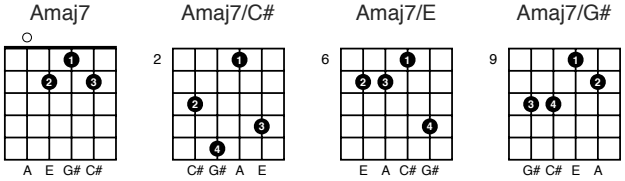
Sometimes, when you invert a shape, Fretspace needs to make the box larger to fit the inverted shape. Duplicate the D7 shape we used earlier and convert it into a Dmaj7 shape by clicking just before the second fret of the second string, or by using the Notes section of the Inspector panel to replace the minor seventh degree (C) with a major seventh (C#). Now use Shift Dots Left (⌘◀) to convert this shape into an Amaj7 shape on the next set of strings.



Select this shape and use Duplicate Selection and Invert to create the following inversions (you can do this quickly and easily using shortcuts: just press ⌘D followed by ⌘I three times in succession).



This might look tidier if the boxes were resized to be the same height. To do this, select the four boxes and choose Set Number of Frets from the Box menu. Type 5 in the drop-down dialog.

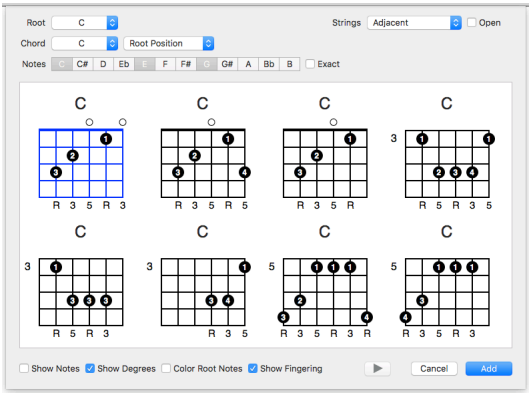


While the boxes are selected, click on the Play button (or press Space) to hear what they sound like. Hold down the Option key to have them played as arpeggios.

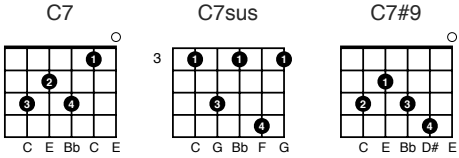
Choosing chord shapes

Besides allowing us to draw and edit shapes, Fretspace can calculate chord and scale shapes for virtually any possible chord or scale. Click on Insert Chord in the toolbar, or choose it from the Chart menu.

Fretspace displays a chord picker that lets you choose almost any chord that can be played in the current tuning. The chord picker initially displays a set of C major chord shapes in root position. You can also select other inversions, other root notes, and other types of chord by choosing from the Root, Chord, and Inversion popups at the top left of the dialog. The Chord popup is divided into five logical sections: power chords (which only contain a root and a fifth and are neither major or minor), major chords, dominant chords, minor chords, and diminished chords.

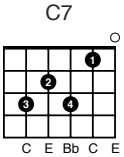


Choose C7 from the Chord popup and click on Add to add it to the current chart. You could also choose a more exotic variant of C7, such as C7sus, or C7#9.



You can select and add multiple shapes, and you can double-click on a shape instead of clicking Add. To hear what a chord sounds like, select it within the chord picker and click on the Play button (next to Cancel) or press Space. Hold down the Option key if you would like to hear the chord played as an arpeggio.

If you're not sure what a chord is called, or it's not listed in the Chord menu, you can also choose chords by selecting notes from the Notes buttons. When you do this, Fretspace displays chords that contain the exact notes that you have selected (so long as they're possible chords—chords that contain more notes than exist in the current tuning are obviously not possible). But it's also possible to omit less important notes from a chord, as happens with the most common way of playing a C7 chord, where the fifth (G) is omitted. To see this, select the following notes in the row of Notes buttons: C E G Bb. Notice how the following chord isn't displayed, because it doesn't contain all of these notes (G is omitted):



You can change this by clicking on the Exact checkbox to deselect it. When you do this, Fretspace includes variant forms of chords that do not contain all their notes. The C7 shape shown above is now the first shape in the picker.

Another example of a chord where notes are commonly omitted is the dominant 13th chord. Select C13 from the Chord menu (you don't have to use the submenu to do this, just click on C13 in the main menu). You can see from the Notes buttons, that this chord contains seven notes: C E G Bb D F A if we arrange them in thirds. Fretspace displays a variety of C13 shapes, but none of them contain all seven notes, because it's not possible to play seven-note chords on a six-string guitar. If you select the Exact checkbox now, Fretspace will not display any shapes.

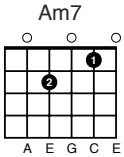
At the top right of the chord picker, you can use the Strings popup to choose between chords that are played on any combination of strings, or any combination of adjacent strings, or "full" chords that are played on adjacent strings and do not have unplayed strings following played strings (these are usually the easiest chords to play). You can also choose to display 4-note and 3-note chords that are played on a limited set of strings (you can specify other

combinations of strings by selecting string numbers in the row of buttons that is displayed beneath the Strings popup when you choose a specific 4-Note or 3-Note option, or Other). 4-note and 3-note chords are useful for playing chord melodies. You can also select Open if you want to display open chords: these are chords that include open strings but are fretted further up than the first position on the fretboard.

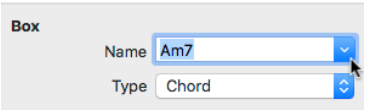
The chord picker displays shapes in a logical order. Shapes that are played at lower frets are displayed ahead of shapes that are played at higher frets. For each fret position, similar shapes are grouped together: shapes with lower notes are displayed before shapes with higher or unplayed notes (starting with the lowest note on the lowest string).

The chords that Fretspace displays in the chord picker are calculated programmatically, and include virtually every chord that can possibly be played in the current tuning. But it's important to note that what is possible for one person may be difficult or impossible for another. It's best to ignore any shapes that you find difficult to play, or practice them gently for short periods. *Don't strain your hands or fingers trying to play shapes that you can't play comfortably*. You don't need to play every possible shape when there are easier alternatives that might also sound better in many contexts.

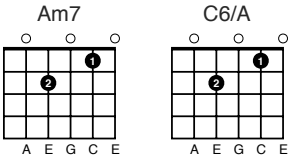
Before we leave the chord picker, let's look at one more chord shape. Select A as the chord root and choose Am7 from the chord popup. Double-click on the first Am7 shape to insert it into the chart.



If you play guitar you probably know that this shape can also be used to play C6, and that Am7 and C6 contain the same notes. Fretspace chooses what it thinks is the most likely name of this chord, but it also provides a list of alternative names that you can select from. Go to the Inspector panel and click on the down-arrow next to the box name.

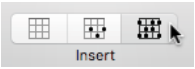


Fretspace now displays a drop-down menu that contains other possible names for this chord shape, including C6/A and C6. You can select whichever name you prefer, or enter a completely different name if that is appropriate. Duplicate the Am7 shape and select C6/A as the name of the second shape.[2]



Choosing scale and arpeggio shapes

The scale and arpeggio picker is similar to the chord picker. Click on Insert Scale / Arpeggio in the toolbar, or choose it from the Chart menu.

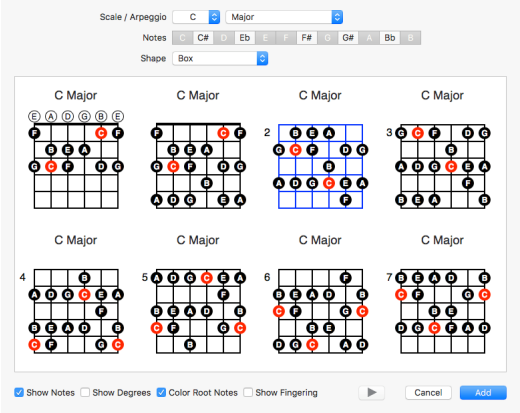


Fretspace displays a scale/arpeggio picker that lets you choose any scale or arpeggio that can be played in the current tuning.

When the scale picker is first opened, it displays a set of C major scales—but you can also select other scales and arpeggios and other root notes from the Root and Scale popups at the top of the dialog. If you want to display shapes for a scale or arpeggio that isn't listed in the popups, you can do so by selecting specific notes in the row of Note buttons. You can also choose

2. Although these chords contain the same notes, the root of each chord is different: the root of Am7 is A and the root of C6 is C. On the other hand, C6 and C6/A are merely different ways of notating the same chord. C6/A is pronounced "C6 over A" and indicates that C6 is played over an A note in the bass. Fretspace normally uses this notation to indicate the bass note of guitar chords whenever this is different from the root of the chord. For instruments that have fewer strings, where there are fewer possible inversions, it doesn't do this.

between different scale shapes: standard Box shapes (with notes that are placed within a restricted area of the fretboard), Diagonal shapes (which stretch diagonally across the fretboard), and 2/3/4 Notes Per String shapes (with a fixed number of notes on each string).



Some scales exist in different modes. Modes contain the same notes as their parent scale, but start from a different root note. For example, there are seven modes of the C major scale: C Ionian (which is the same as C Major), D Dorian, E Phrygian, F Lydian, G Mixolydian, A Aeolian, and B Locrian. Fretspace lists modes in submenus.

To see what the D Dorian mode looks like, choose D from the Root popup and Dorian from the Major submenu. Fretspace shows the notes that are in this scale by selecting D, E, F, G, A, B, and C in the row of Notes buttons. These are the same as the notes of the C Major scale, but they start from D instead of C, and the scale has a minor sound. There are also seven modes of the Melodic Minor scale, seven modes of the Harmonic Minor scale, and seven modes of most other seven-note scales.

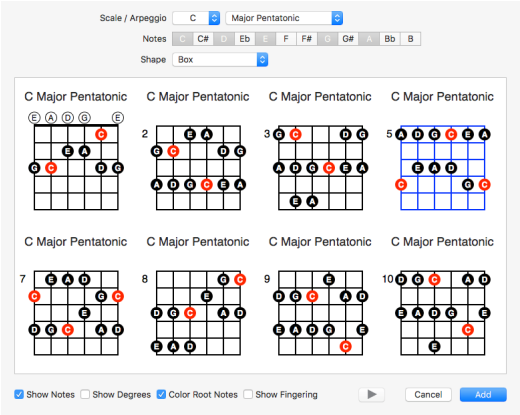
To hear what a scale sounds like, select it within the scale picker and click on the Play button (next to Cancel) or press Space. Hold down the Option key to hear the scale played from its root note.

The Scale menu organizes scales and arpeggios in a logical way. The first section displays seven-note scales and their modes, starting with the major scale and continuing through other less common scales, including some fairly exotic scales and modes—such as the Neapolitan Major scale, which despite its name is actually a minor scale (there is also a different minor scale known as the Neapolitan Minor.) Following this section there is a second section of Bebop scales, which can be regarded as seven-note scales that have been modified by the addition of a chromatic jazz note. The third section contains pentatonic scales, including the standard Major and Minor Pentatonic scales—which are actually modes of each other. The fourth section contains blues scales, including the standard Major and Minor Blues scales (also modes of each other), which can be regarded as pentatonic scales that have been modified by the addition of a blues note (a flattened third or fifth). The fifth section contains non-diatonic scales (scales that do not logically belong to a particular key) such as the Diminished, Whole Tone, and Chromatic scales. Following this, there are two sections for three-note and four-note arpeggios.

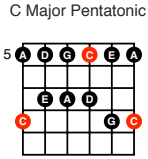
Editing scale shapes

Scale shapes can be edited in the same way as chord shapes. Let's start by creating a new chart. Select New Chart from the Chart menu, or click on the + button at the bottom of the Charts area on the left of the window. Fretspace creates a new chart called "Chart 2", but we can change this to a more informative title using the Name field of the Chart section of the Inspector panel. Change the name to "Scales".

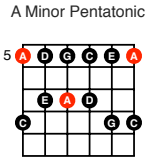
Now use the scale picker to choose a C Major Pentatonic scale.



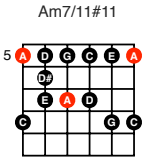
If you are a guitarist, you may recognize some of these shapes. Choose the fourth shape, which is probably the most well-known pentatonic scale shape, and double-click on it to insert it into the "Scales" chart. Then click on Show Notes in the Inspector panel, to see the notes that are used. Also click on Color Root Notes, and Fretspace will color the root notes in order to distinguish them from the other notes in the scale.



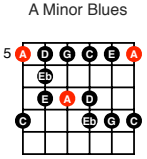
If you play blues guitar, you will recognize that this scale contains the same notes as an A Minor Pentatonic scale (the Minor and Major Pentatonic scales are modes of each other). Because these scales contain the same notes, we can choose to relabel the shape as an A Minor Pentatonic shape. Click on the down-arrow next to the box name in the Inspector panel and choose A Minor Pentatonic from the drop-down menu. The notes are still the same, but the root of the scale has changed, and Fretspace colors the A dots instead of the C dots.



We can edit this shape by adding or removing dots. Click on the fifth string (second from the left) and add a dot between D and E.



This is not a recognized scale form (Fretspace infers that it could be some kind of A minor arpeggio) but we can transform it to a recognized scale by clicking on Complete in order to duplicate the added note in the second octave of the scale. We now have a standard A Minor Blues scale. Click on the Play button in the toolbar (or press Space) to hear what it sounds like. Hold down the Option key if you would like it to be played starting and ending on its root.



Scale and arpeggio boxes behave slightly differently from chord boxes. Since it is possible to have more than one note on the same string, Fretspace does not remove other dots when you add a dot to a scale box. You can convert scale boxes into chord boxes, and vice versa, using the Type popup in the Inspector panel.

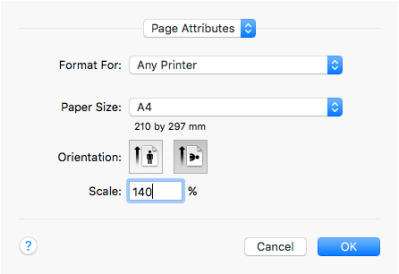
A useful trick when editing scales and arpeggios is that if you hold down the Option key while clicking, Fretspace will also add or remove the same note in

other octaves of the scale or arpeggio. For example, if you Option click on one of the Eb notes in the A Minor Blues scale, Fretspace will remove this and other Eb notes in the scale.

Printing charts

Once we have created a chart, we might want to print it for future reference. We probably also want the printed chart to have a title, so that we can easily distinguish it from other charts. Go back to the first chart you created (Chart 1) and give it a more useful title, such as "Guitar Chords". Then click on Show Title in the Inspector panel. Fretspace now displays the title at the top of the chart.

The first step in printing a chart is to decide what size paper you want to use, and what scale and orientation you want to print with. Choose Page Setup from the File menu. This will display the paper size that you normally use for printing. Unless you want to use a different paper size, you can leave this as it is. The other options that you have at this point are to choose between landscape and portrait orientation and to choose the scale at which you want the chart to be printed. If you want the boxes to be printed at a larger scale than their default size, you can do this by changing the scale. However, this may also cause the chart to be reformatted—because it is no longer possible to fit the same number of boxes on a line. A helpful trick that you can use at this point is to select landscape orientation along with a larger scale. If you normally print to A4 paper, a combination of 140% scale and landscape orientation will fit the same number of boxes on a row, but there will be fewer rows of boxes on the page. Try doing that now, and OK the dialog.



If you look at your chart now, you will see that it has been reformatted across two landscape pages that are wider than they are tall. If you'd rather fit more boxes on the page, but have them printed at a smaller size, you could go back to the Page Layout dialog and change the settings to what they were—but there is an easier option. Almost anything that you do in Fretspace can be undone by selecting Undo from the Edit menu. Look in the Edit menu now, and you will see that the top option says Undo Change Print Settings.

Actually printing the chart is a simple matter of choosing Print from the File menu. This will display a standard print dialog, which you can use to print the chart that you are currently looking at.

Viewing charts on screen

If you would rather view charts on screen instead of printing them, there is a layout option that is more useful for screen viewing. The Inspector panel displays a Layout popup, which is currently set to Fixed—meaning that pages have a fixed size, corresponding to the size that is selected in the Page Layout dialog. Click on this popup and choose Flexible instead of Fixed. Then resize the window to be smaller or larger than its current size. Instead of displaying boxes within a fixed page size, Fretspace displays them to fit the current window size. This has no effect on the way that charts are printed: if you want to see how a chart will look when it is printed, switch back to Fixed layout.

Copying boxes to other applications

Boxes can be copied from Fretspace and pasted into other applications as PDF vector graphics. As vector graphics they can be rescaled in those applications without loss of quality. Many of the illustrations in this tutorial were created by copying Fretspace boxes into Nisus Writer and rescaling them there.

Other tunings

This tutorial has looked at how charts can be created using standard guitar tuning. If you play a different instrument or use a different tuning, you can select an appropriate tuning from the Tuning popup in the Inspector panel. You can also use the Settings dialog to change the default tuning for new charts to be the one that you normally use.

If you use a tuning that isn't available in Fretspace's set of pre-defined tunings, you can create a new tuning and add it to the list. Select Settings (Preferences in old versions of macOS) from the Fretspace menu and click on the Tunings section. Choose a tuning that is most similar to the one that you want to use and click on the Add button. For example, to create a Banjo tuning in which the fourth string is tuned down to C, you would click on Add after selecting the standard Banjo tuning. Then, in the drop-down dialog that is displayed, change the pitch of the fourth string from D3 to C3 (two notes below in the popup).[3] Name the new tuning "Banjo: CGBD" or "Banjo C" (or any name that you prefer). The Fretspace User Guide has more information on editing tunings.

3. Note pitches are defined in Scientific Pitch Notation, which uniquely identifies notes by their pitch. For reference, middle C is C4 and the lowest possible note (in this notation) is C0 (four octaves below middle C). Some instruments, including the guitar, are transposed in standard music notation: middle C in guitar music has a pitch which is actually an octave below middle C (C3 rather than C4). Note values in the Tunings dialog represent actual pitch values.

Note for banjo players

Banjos commonly have five rather than four strings, and the fifth string starts five frets above the other strings. Since it is usually not fretted, banjo shapes are typically shown with four strings rather than five strings. If you wish to use banjo shapes that include all five strings, starting at the fifth fret or higher, you can do this by creating a Banjo tuning with D4 as the pitch of the fifth string. The actual pitch of the fifth string is G4, but since the string starts at the fifth fret, D4 will give the correct note values for chord shapes in which the fifth string is fretted. If the fifth string is not fretted, you can either use a four-string tuning or create another five-string tuning in which the fifth string is G4 (but don't place any dots on it). Fretspace allows you to mix boxes with different tunings on the same page. Normally this would be confusing, but this is one situation where you might legitimately wish to do so.

Conclusion

If you have worked through this tutorial, you should now have a pretty good idea of how to use Fretspace! Further information on features that have not been covered here (or have been only briefly covered) can be found in the Fretspace User Guide.

Have fun!