



Chord accord

Confused about chords? Not any more, as Steven Helstrip explains all you need to know about how they're put together, how they interact and how to use them to best effect.

Judging by the letters I receive, the most frequently asked questions are about the use of chords and how to treat them. So this month we'll be looking at chord progressions, how chords relate to one another and how chord inversions can be used to create different textures.

In theory, it is possible to play any song using just three chords: the root chord, the IV and the V. In the key of C Major these translate to C Major, F Major and G Major.

Some of the best songs ever written are based on these three chords and the reason they work is because each note in a major scale is covered within these chords. But many variations can be used: chords can be substituted, or replaced, with related triads; even changing the bass note can give a chord a different texture.

What's in a chord?

A chord, or triad, is simply a collection of three or more notes that sound together. The two most common chord types are Major and Minor triads consisting of just three notes.

Fig 1 Seven chords in the key of C major						
I	II	III	IV	V	VI	VII
C Maj	D Min	E Min	F Maj	G Maj	A Min	B dim
C E G	D F A	E G B	F A C	G B D	A C E	B D F

There are several ways you can find the notes to a chord: you can refer to our Chord Reference table [below] — probably the easiest way; or you can calculate them for yourself by first playing the root note (C, for example), followed by the third and the fifth notes in that scale (E and G); this chord is C Major. If you want a minor chord, then the third (E) needs to be flattened, in this case, E flat.

In every scale there are seven notes and therefore seven basic chords. For this example we will stick with the key of C Major, although the same principle applies to every scale. Fig 1 shows the seven chords that belong to the key of C Major.

In every major scale there are three major chords: the root, the fourth and the fifth chords. Three of the remaining four chords are minor (second, third and sixth)

and the seventh, a rarely used chord, is diminished.

The key of C Major has no accidentals (sharps, flats, black keys; whatever you want to call them) and thus each chord has the same shape when played on a keyboard.

You will notice, too, that many of the chords share notes. For example, A Minor has two notes which can also be found in C Major; those notes being C and E. A Minor is therefore the relative minor of C Major. The relative minor of G Major is E Minor and so on.

Because many chords share the same notes, it is possible to substitute a major chord for a minor chord to add more interest (Fig 2). Let's say, for example, the chords for a particular song are C Major for two bars, followed by F Major for two bars.

This can be improved by moving to A Minor on the second bar and instead of going to F Major, move down to D Minor for a bar and then to F. The chord sequence now has four chords and in some cases will sound more interesting and, dare I say it, more accomplished.

Seventh heaven

So what else can you do to "spice up" the chords? We've mentioned major and minor chords, let's move on to sevenths.

You will have noticed that numbers always come into the equation when talking about chords. And although they can sound intimidating, they really aren't all

Chord Reference Table				
	Major	Min	Seventh	Maj Seventh
C	C E G	C E flat G	C E G B flat	C E G B
C Sharp	C sharp E G sharp	C sharp E flat G sharp	C sharp E G sharp B	C sharp E G sharp c
D	D F sharp A	D F A	D F sharp A C	D F sharp A C sharp
D Sharp	D sharp G A sharp	D sharp F sharp A sharp	D sharp G A sharp C sharp	D sharp G A sharp D
E	E G sharp B	E G B	E G sharp B D	E G sharp B D sharp
F	F A C	F A flat C	F A C E flat	F A C E
F Sharp	F sharp A sharp C sharp	F sharp A C sharp	F sharp A sharp C sharp E	F sharp A sharp C sharp F
G	G B D	G B flat D	G B D F	G B D F sharp
G Sharp	G sharp C D sharp	G sharp B D sharp	G sharp C D sharp F sharp	G sharp C D sharp G
A	A C sharp E	A C E	A C sharp E G	A C sharp E G sharp
A Sharp	A sharp D F	A sharp C sharp F	A sharp D F G sharp	A sharp D F A
B	B D sharp F sharp	B D F sharp	B D sharp F sharp A	B D sharp F sharp A sharp

Chord progressions and how to tune them up



Fig 2 *Spice up your tune by substituting a major chord for a minor one*



Fig 3 *Make more of your melody by adding sevenths to the A and D minor chords*



Fig 4 *You can add sevenths to chords C and F too, but this is where things get tricky*



Fig 5 *Inverting the chords so that each chord is not playing in parallel*



Fig 6 *For a creative crescendo, try adding a ninth to D minor*

that bad: a seventh chord simply has one extra note — the seventh. Seven notes up from A is G. Therefore, by adding G to an A Minor chord you have A Minor Seven.

To further add to the confusion, you'll notice that A Minor seven is effectively a C Major chord but with an A in the bass.

Likewise, D Minor seven is effectively an F Major chord, only with a D in the bass.

Continuing with the new chord progression, try adding sevenths to the A and D Minor chords (*Fig 3*). Again this adds further interest, thickens up the chords and provides more options for the melody and



other musical parts that may come into the song.

Sevenths can also be added to chords C and F, but this is where it starts to get really confusing (*Fig 4*). If you were to play C seven, the notes in that chord are C, E, G and B flat. Likewise with F seven, the notes are F, A, C and E flat. The confusing part is that there are two types of seventh chords: sevenths and major sevenths. A Major seventh is where the seventh note is raised by one semitone. So, the chords in which we're interested are C Major with a Major seventh, if you see what I mean, and F Major with a major seventh.

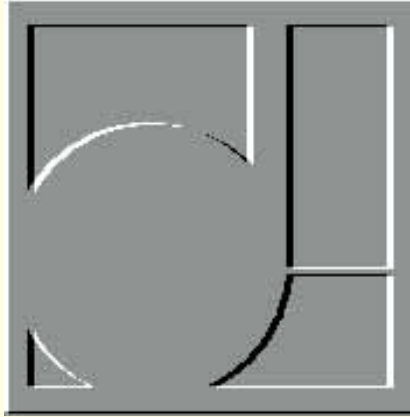
Inversions

Each chord now has four notes and each has an identical shape when played on a keyboard. When each chord is played in root position (with the root note at the bottom) the chord progression can sound disjointed. By inverting the chords, or changing the shapes, the progression becomes more complete.

An inversion involves moving notes up an octave. For example, C Major played in first inversion would have an E followed by G, then C. The same chord played in second inversion would have G followed by C, then E. With seventh chords you can have up to three inversions, where the seventh note is played at the bottom of the chord.

Going back to the chord progression, try inverting the chords so that each chord is not playing in parallel. *Fig 5* shows just one example, although you can try different inversions.

Depending on which instrument is



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playing the part, you can also add a bass note. I put these examples together using a electric piano. When doubled up with a

string pad it may sound better without the strings playing the bass note since the texture will become too thick.

Cloud nine

Going completely overboard, you might like to add a ninth to D minor (*Fig 6*). This involves adding an E to the chord. When reading printed music, if you see that a chord has a ninth, it is usually taken for granted that the seventh is included, even though it might not specify it.

When playing straight chords on a piano, try different inversions but try to keep away from playing in parallel. If there is a bass playing, it may sound better not to play a bass note, particularly when playing jazz.

When it comes to arranging strings it's sometimes necessary to "thin out" the chords as the texture can become too thick. Try removing the root note and perhaps the fifth. The third is best left in the chord since it's the third which determines a major from a minor chord.

You can find more examples of chords on this month's free cover-mounted CD-ROM, recorded as MIDI files. The file is chord.mid and can be found in hands\sound.



PCW Contacts

Readers' contributions to the Sound column are music to our ears. If you have any hints or tips, any MIDI-related items or general comments, send them to the usual PCW address, or to steven_helstrip@pcw.ccmil.com. compuserve.com