Building 7th Chords

But First! A quick review of building Triads...

-Triads are 3-note chords

-They consist of a Root (R) a 3^{rd} (3) and a 5^{Th} (5).

-Every triad has two important intervals

-Between the R and 3

-Between the 3 and 5

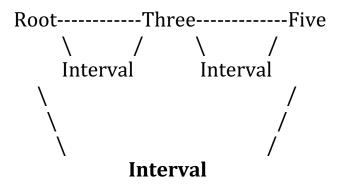
-Depending on what type of interval each one is (either a Major 3rd or a minor 3rd) you'll get a specific chord type, also known as chord 'quality.' (aka major chords, minor chords, diminished chords)

-And a reminder of what those two intervals are: <u>Major 3rd (M3)</u>

Two notes that are 4 half steps from each other (or 2 whole steps if that's helpful!) Example: C to E, D to F#, E to G#

<u>minor 3rd (m3)</u>

Two notes that are 3 half steps from each other (or a whole step plus a half step if that's helpful!) Example: C to Eb, D to F, E to G



The 3 types of Diatonic triads

Major Triad: Root------Three-----Five \//\// Maj 3rd min 3rd

minor Triad: Root------Three-----Five \//\// min 3rd Maj 3rd

diminished Triad:

 $\begin{array}{c|c} Root----- Three----- Five \\ & & & \\ & & & \\ & & & \\ & & min \ 3^{rd} & min \ 3^{rd} \end{array}$

(Note: For Major and minor, the interval from the Root to the fiveis a Perfect 5th. In a diminished chord it isn't a perfect 5th, but don't worry about that for now.)

-Every Major key has the same set of seven triads.

I Major ii minor (ii-, ii min) iii minor IV Major V Major vi minor vii diminished (vii dim, vii °)

So if you know the notes in a key, you can plug in the note names to the chords above and find all the diatonic chords.

For example:

We know the key of E has four sharps in it. (Which four sharps? Use "Father Charles Goes Down And Ends Battle" to figure out that the sharps are F, C, G and D. Everything else is a natural)

So the notes of an E Major scale are: E F# G# A B C# D# Let's plug those into our chords from the previous page:

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I Major = E Major

ii minor = f# minor

iii minor = g# minor

IV Major = A Major

V Major = B Major

vi minor = c# minor

vii diminished = d# diminished
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So the diatonic triads in the key of E major are: E Major f# minor g# minor A Major B Major c# minor d# diminished

When you write a diatonic song in E major, use only those 7 chords and a melody that uses only the notes in E Major.

Adding that 4th note!

When we take triads and add on a $4^{\rm th}$ note to them, we get $7^{\rm th}$ chords. So now we have $R{-}3{-}5{-}7$

Like with the diatonic triads above, it's all about noticing the intervals. Only now we start to <u>also</u> pay attention to the largest interval, which is the distance from the Root to the 7^{th} note.

That's a good indicator of what kind of 7th chord it is. It will always be either a major 7th inteveral (11 half steps) or a minor 7th interval (10 half steps). More on those below!

The 4 types of Diatonic 7th chords:

-Major 7th, minor 7th, Dominant 7th, minor 7th b5

Major 7th: Root------ 3------7 \ / / \ / / M3 m3 M3

-Or, you can think of it as a **Major Triad**, with a **M7** on top.

Aka – the interval from Root to 7th is a **Major 7th** interval.

(This is also more easily thought of as being one half step less than a full octave. So if you ever want to find a Major 7^{th} above a note, play the note an octave up, and then go back down one half step.) -We notate a Major 7^{th} with: **R 3 5 7**

minor 7th: Root-----b3-----b7 \ / \ / \ / m3 M3 m3

-Or, you can think of it as a **minor triad**, with a **m7** on top. Aka – the interval from Root to the 7th is a **minor 7th** interval. (This is also more easily thought of as being **TWO** half steps less than a full octave. So if you ever want to find a minor 7th above a note, play the note an octave up, and then go back down TWO half step.) -We notate a minor 7th with: **R b3 5 b7**

Dominant 7th:

-Or, you can think of it as a **Major Triad**, with a **m7** on top. Aka – the interval from Root to the 7th is a **minor 7th** interval. We notate a dominant 7th as: **R 3 5 b7** Minor 7 flat 5:

Root-----b3-----b5-----b7 \ / \ / \ / m3 m3 M3

-Or, you can think of it as a **dminished triad**, with a **m7** on top. Aka – the interval from Root to the 7th is a **minor 7th** interval. -We notate a minor 7 flat 5 with: **R b3 b5 b7**

-Every Major key has the same set of seven 7th chords.

I Major 7 ii minor 7 (most commonly written as a dash: ii-7) iii -7 IV Major 7 V7 (aka V dominant 7th) vi -7 vii -7b5

So if you know the notes in a key, you can plug in the note names to the chords above and find all the diatonic chords.

So the diatonic triads in the key of E major are:

E Major 7 f# -7 g# -7 A Major 7 B7 c# -7 d# -7b5

When you write a diatonic song in E major, use only that set of 7^{th} chords and a melody that uses only the notes in E Major.