## Proposal for a standard chord symbol system

The reason this has taken a while to appear is that I've given the proposal(s) to several of my friends and fellow musicians for their comments/etc. However, all responsibility for any shortcomings/oversights is, of course, mine.

I thought at this point that it would be better to outline where I'm coming from in this debate about my proposals.

For many years I worked as a scientific and technical editor before becoming a full-time professional musician. Part of my work at this time was to ensure consistency in (and between) the books I was involved in publishing: fortunately, in the UK a short while before this, the SI (Système International) units convention had been established for use in all scientific and technical areas, which made life a lot easier.

Later, as a full-time professional musician faced with lead sheets having, for example, at least eight different symbols for a major seventh, I came to wonder how this situation could be tolerated. It wasn't because the different symbols are ideologically different and so could not be accepted — as was for a long time the case with the SI system in the US, where it was thought by some people to be a Communist takeover plot (I'm not joking, some idiots really thought that!). The real reason, of course, was economic: the cost of converting equipment and machinery to the new system.

So, all I am proposing is that a system of chord symbols is put forward for general acceptance that is concise, logical and easy to read. I hasten to add that in this system all the chord symbols have been used before in the various systems and therefore with, I think, a single exception (e.g. E9<sup>b</sup>), none of the symbols are my own invention (though it may well be the case that this notation has also been previously thought of and used by somebody, somewhere).

I set out my proposed system (and the reason for the choice of symbols, where necessary) in the attached file, as the space here is limited.

Finally, as an aside, an example of where mixed symbols/units can have a rather large and disastrous effect:

In 1999 NASA lost a \$125 million Mars orbiter because a Lockheed Martin engineering team used English units of measurement while the agency's team used the more conventional metric system for a key spacecraft operation.

The units mismatch prevented navigation information from transferring between the Mars Climate Orbiter spacecraft team in at Lockheed Martin in Denver and the flight team at NASA's Jet Propulsion Laboratory in Pasadena, California.

Lockheed Martin helped build, develop and operate the spacecraft for NASA. Its engineers provided navigation commands for Climate Orbiters thrusters in English units although NASA has been using the metric system predominantly since at least 1990.

There is a bewildering array of alternatives for musical chord symbols; for instance, at least 8 for major 7<sup>th</sup> (CM<sup>7</sup>, CMa<sup>7</sup>, Cmaj7, C<sup>j7</sup>, C $\Delta^7$ , Cj7, and C<sup> $\Delta$ </sup> or C $\Delta$ ), the last two being illogical at best, because the triangle represents a triad, which has only 3 notes, not 5. This misrepresentation has probably come about as a shortened version of C $\Delta$ 7, as, to my knowledge at least, the triangle has only ever been used in the C major 7<sup>th</sup> symbol; the normal major chord of C, for instance, is symbolised as C — anything more is unnecessary and would therefore increase the redundancy quotient of the symbol.

It is pretty obvious that this forest of competing symbols needs a bit of 'clearing out the undergrowth' to leave a standard set of symbols that have the properties of shortness, logicality, consistency, be easy-to-read and have the least possibility of being mistaken to mean something else — i.e., be as unambiguous as possible. Of these five properties, I maintain that the final one should take precedence over the others. (As a sixth sort of sub-property the symbols present on a normal computer keyboard should preferably be used when their use does not conflict with the fifth property.)

I do not subscribe to the 'If it was good enough for Jesus, then it's good enough for me' sort of reason for retaining a symbol just because it has already been in use: to merit continued use it should adhere to the above-listed properties.

First, I think it would be a good idea to get a couple of points 'out of the way', as it were:

- 1. I would maintain that the 'alt' suffix is totally useless, as no-one (unless the person using it has told them) has anything but the vaguest idea what the writer meant. Anyway, a jazz musician 'alts' almost every chord they play, so it's rather like telling them they should breathe.
- 2. The suffix 'sus' is at the very least redundant. One of the original meanings was that it is a note carried over from the prior chord. It also indicated a note that should be resolved to another (the 3<sup>rd</sup> in the case of a 4<sup>th</sup>) in the following chord. Nowadays, however, the 'sus' is redundantly tacked on to a 4<sup>th</sup> that practically never does either of those things except in extremely rare cases the second and thus the tacked-on 'sus' is unnecessary and just taking up space.

The symbols that are pretty well common to all existing systems are (in C): C (To put  $C\Delta$ , though not wrong, is redundant if we follow the reasonable principle that something that is basic is pure vanilla, as it were, and thus does not need further description.); C4; C6; C7; C9; C11; C13; Cm; Cm4; Cm6; Cm7; Cm9; Cm11; Cm13. That's about it: after that the various systems go their own way.

Let me start out by saying that, with one principal exception, none of the symbols I propose — or, to be more precise, the positioning of them in the one exception — are my invention (this one exception may well have been thought of before; it's just that I haven't come across it): and I choose the symbols because they adhere best to the  $5(+\frac{1}{2})$  rules that I propose.

The more-or-less only example of a sign that is not immediately obvious as to what it means is the diminished 7<sup>th</sup> sign, as in Co or C<sup>o</sup>. I have not been able to find why or when it was first decided to use the lower-case O or degree sign, but they're used in most systems I have come across; so due to its wide-spread use (and therefore

because almost everybody knows what it means) and compactness I consider it preferable to the other fairly commonly-used alternative, dim, as in Cdim. This is my sole concession to the, 'If it was good enough for Jesus...' way of thinking mentioned above.

{An aside here: a diminished  $7^{th}$  is a more-or-less apt name, inasmuch as the  $3^{rd}$ ,  $5^{th}$ , and  $7^{th}$  are a semitone lower and thus 'diminished'.

However, the 'half diminished'  $7^{th}$  is — to be precise (or, as some would say, 'nitpicky') — in fact a 'two-thirds' diminished seventh, as the  $3^{rd}$  and  $5^{th}$  are diminished, but the  $7^{th}$  not.

It can equally well be described as a minor seventh-5. In any case, it is relatively rarely used, so when it is necessary to symbolise it, the % sign has at least the benefit of taking up less space.

This suggestion of the % sign was from a highly experienced and talented jazz pianist and long-time friend of mine, Bob Barton, and has the double advantage of being on a normal keyboard and also being symbolically logical by retaining the forward slash of the Ø sign, thus implying that it is a fraction ('half') of the 'o' or ° sign}

The symbols I propose are as follows:

CHORD	SYMBOL
C 7 <sup>th</sup>	C7
C MAJOR 7 <sup>th</sup>	Cj7
C MINOR 7 <sup>th</sup>	Cm7
C DIMINISHED 7 <sup>th</sup>	C°
C MINOR MAJOR 7 <sup>th</sup>	Cmj7
C HALF DIMINISHED 7 <sup>th</sup>	C%
C 4 <sup>th</sup>	C4
C AUG 5	C+
C AUG 5 <sup>th</sup> + 7 <sup>th</sup>	C+7
C 5 <sup>th</sup> FLAT	C5b (or C5♭)
C 6 <sup>th</sup>	C6
C 7 <sup>th</sup> + 5 <sup>th</sup> FLAT	C7-5b (or C7-5♭)
C 9 <sup>th</sup>	C9
C 9 <sup>th</sup> FLAT	C9b (or C9)
C 9 <sup>th</sup> + 5 <sup>th</sup> FLAT	C9-5b (or C9-5)
C 9 <sup>th</sup> SHARP	C9#
C 11 <sup>th</sup>	C11
C 13 <sup>th</sup>	C13
The shaded rows can also, of course, have minor versions:	Cm9, etc.

(If one is using a chord-symbol typeface (such as the Steinberg chord font, for instance), when the 'b' and # symbols on the keyboard are used, they default to *b* and # symbols. But the normal typeface 'b' and # symbols are perfectly adequate, as they cannot be mistaken to mean anything else.)

Putting the flats after the figures in the chords avoids the flat from being associated with the chord root. (Such as between the two chords  $E_{9}$  and  $E_{9}$  – and also avoids having to put a space-hogging, obvious and therefore redundant 7 before the 9: if there is no 7<sup>th</sup>, a 9<sup>th</sup> is a 2<sup>nd</sup>).

Some people find this proposal of putting the b sign after the number to be difficult to come to terms with. They say, 'we say flattened fifth, and so it's logical to put the sign b in front of the number'. My argument against this is that the terminology is merely a case of herd-following, and not a sacred principle that must be held sacrosanct.

After all, when we talk of notes and key signatures we say C, D $\flat$ , D, E $\flat$  ... (or C, C $\ddagger$ , D, D $\ddagger$  ...), not C, flattened D, D, flattened E ..., so why can't we also use the same style of terminology and speak of, for example, 5<sup>th</sup> flat or 5<sup>th</sup> sharp etc., and then the symbols 5 $\flat$  or 5 $\ddagger$  are then perfectly logical.

When the base note of a chord is important; this often occurs in a sequence such as:

Dm	Dm	Dm	Dm	Bb7	A7	Dm	Dm
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I propose that preceding subscripts should be used for important bass notes, i.e.:

Dm c₄Dm cDm B♭7 A7 Dm Dm

If the typeface is small and subscripts difficult to read, one could put them in bold typeface, or use normal size typeface and put them in brackets before the chord root (which keeps them out of the way of symbols qualifying the chord):

Dm (C<sup>#</sup>)Dm (C)Dm (B)Dm B<sup>b</sup>7 A7 Dm Dm

The system that puts the bass notes after the chord and separated by a forward slash I consider too confusing, due to the way in which often, when a lead sheet is not required and only a chord sequence is written, split bars are written as 2 symbols separated by a forward slash. This could then make it uncertain as to whether the second symbol is signifying the second half-bar or the bass note for what would be a single chord in the bar: I must admit that more often than not, the second symbol would be qualified as in the case of C7 or Am, for example, and thus making it clearer that it was not a bass note. However, it could still occasionally be confusing, and misinterpretation could be avoided much more easily if bass notes preceded the root symbol.

A last suggestion, which obviously applies more to chord sequences than lead sheets, is that when a melody note is important (for instance when it is desired to have the 'starting button' indicated, e.g. the first note in a melody), this could be indicated by a preceding superscript letter, e.g. <sup>c</sup>F, which again has the advantage of keeping out the way of subsequent qualifying symbols.

There are other rather more exotic chords that I have not specified, due to their rather rare usage, but they can all be denoted by following the principles outlined in the above proposed system.

Alan Rogers 24 March 2013