CHORD MANAGER Manual Pages

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Rainer Boettchers
Paderborn/Germany
(boettchers.pad@sni.de)

This pages should provide a short introduction to CHORDMAN.EXE, the Chord Manager (from now on CM, just to save bandwidth).

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Thanks to Jeff Glatt for this disclaimer. Visit his home page for a lot of useful info about MIDI (http://www.servtech.com/public/jglatt), but I will not pay any royalties to him for this disclaimer.

CHORDMAN is Freeware. That means it's not worth a single buck. You can give as many copies of it to friends and enemies you can.

Apologies

Sorry, not a native speaker ... or writer ... or whatsoever ...

New in Version 1.1

Some corrections and the Chord Finder. Selectable font color. Fretdistance now 1 .. 11 (thanks to Colonel Zero). Some new bugs implemented.

What is Chordman, what does it or should it do?

Well, if your want to play a chord and you dont know how to do this you will do the following (usually): You have to know the key (which defines the root note) and what notes belong to this chord. To find the chord notes you have to know the chord structure, or rule. And you have to know your guitar's fretboard (what only few guitar players do). Then you can tell the notes of this chord, locate them on the fretboard and then you can play the chord. Quite easy, isn't it? Yes, ok, there are some other parameters, e.g.: the notes should be located in a certain distance, the root note has to be lowest note and you have to know the tuning of your instrument etc.

All this is what CM does for you. CM finds, for a certain chord, where the notes on the fretboard are. What notes to use and how to 'finger' the chord is up to you.

Now that you have found your voicing (or you have a chord you do not know) you can use the Chord Finder. The Chord Finder lets you enter a voicing and checks the intervals it contains.

CM was designed and written for my personal use so this documents only gives some hints. I will not give a complete lesson about building chords and scales.

CM serves to find voicings for chords on stringed instruments with 4 .. 12 strings. The results are not final, complete pictures but an overview how a voicing could be built. So CM is not a tool for chord engineers. It's a tool for chord scientists. Chord users may read on, they will find some hints at the end of this document.

Installation

The following files should be included in the CHORDMAN.ZIP archive:

CHORDMAN.EXE	The binary Windows 3.1/3.11 program
CTL3DV2.DLL	A DLL necessary for 3D dialogs etc.
CHORDMAN.INI	The INI and data file for CM
CHORDMAN.WRI	This file

To install CM unzip the archive into a directory up to your choice. Set the working directory to the install directory, otherwise CM will not find the CHORDMAN.INI file and will not work properly. If the CTL3DV2.DLL already resides in your Windows system directory delete it from CM's working directory. If not copy this file to your Windows system directory. Windows' standard INI files will not be modified.

How does it work?

Ok, let's again collect parameters for creating a chord and how CM can do this.

#1: The Key

There is a combo box at the left side of the CM main window. Here you select it. The key usually defines the root note for a chord.

#2: The Chord

This is a point where CM is rather different from other similar programs. Those programs have the chord structures built in. The chord structures that are used by CM are userdefined, in the CHORDMAN.INI file. The chord names (in the next combo box) are taken from the INI file, and they are defined just there. I have provided a number of chords as examples. I hope they are correct but that's no problem, you can change the INI file and all chord definitions with any standard editor (e.g. NOTEPAD.EXE). The general form of the entries in the Chords Section is:

```
chordname=n1 n2 n3 n4 .....
```

where nX are the intervals! So a definition for a major chord is:

```
major=1 3 5
```

The following limits are valid: the chordname can have up to 32 characters and the interval list can have up to 16 positions. Valid intervals are: 1, b2, 2, b3, 3, 4, #4, b5, 5, #5, b6, 6, b7, 7, 8, b9, 9, #9, b10, 10, #11, 11, 12, b13, 13.

There's something special with chord names that start with an _underscore ('_'). If a name DOES NOT start with an underscore CM will only look for the root/bass note on the current root string. If the name starts WITH an _ CM will also look for chord notes on the string where the root note is. Got it? Well, it's useful when working with scales. The template INI file shows how this works, e.g. with a 'maj' and a '_maj' chord definition.

#3: The Strict Button (with the ! on it)

This switch toggles between STRICT and NONSTRICT mode. STRICT mode means: only chords that have a root note are valid, and: Really only the notes that match the chord rule are taken as valid. So in NONSTRICT mode for a chord you will get all necessary notes in all octaves, in STRICT mode you will get only the notes that are exact members of the chord with the root on the selected string (for the scientific part of this software).

#4: The MIDI Button (with the loudspeaker symbol)

If you have a MIDI interface in your PC this button is enabled. When set the basic chord is played via MIDI. Just a gimmick, just for fun, but sometimes useful.

#5: The Arpeggio Button

This button enables arpeggio mode for the MIDI playing. The delay between the notes can be set in the MIDI setup dialog. The delay routine is very simple but the delay from 1...999 units should work for any machine with 486DX50 to Pentium/133.

#6: Fret Distance (FD)

Only notes that are in a given distance relative to the root note (or bass note, you can define chords without the root or with a different bass note) are displayed. This combo selects the distance range relative to the root on the fretboard.

However, one class of notes is always taken into account: those on open strings. Independently from the selected fret range CM always shows notes on open strings (by the way ... I love open chords ...) if they are in the chord.

#7: Root Strings (RS)

Defines the lowest strings where CM looks for the root/bass note.

#8: Tuning

Defines the tuning of your instrument and more. These names are again taken from the INI file and have the following form:

```
tunename=c n1 n2 n3 n4 .....
```

where

> tunename = name of tuning, up to 32 characters
> c = number of strings
> nX = well, you guess it, the 'real' tuning.

The notes can be defined as:

> Nn, where N = note, n = octave,   or
> N, where N = note and octave is assumed as 1

N goes from C to B, n from 0 to 9. Example:

> GuitarStd=6 E1 A1 D2 G2 B2 E3

#8: The EXEC button.

It simply starts the calculation of the voicing list. And plays the chord if MIDI = on.

End the program selecting FILE|EXIT, this saves the current settings. If you end the program via the system menu the parameters are not saved.

In some cases the calculation is started automatically: when you change colors or font, and when you toggle the STRICT mode. You have to start it 'by hand' after changing key and chord (yes, there is reason for this behaviour).

If you have a standard VGA display you will not see the Print button. Sorry. Use the menu.

The Menu

Menu: quite simple, you can select some MIDI parameters, general display/print options and the display font. You should select an evenspaced font like Courier. The other functions are used the same way as in other Windows programs. Work a little bit around. CM is a rather simple program (and I am not an experienced Windows programmer, by the way ...).

Well, this should be enough. One last comment: CM does certain checks on the chord definitions and tunings. If something is wrong it will ignore the entry and add a line 'LastErrorMessage' to your CHORDMAN.INI file.

The Chord Finder

The Chord Finder is started via the menu command MISC|CHORD FINDER. The CF is a popup window which will be active until you select the menu function again or until you execute a chord calculation. CF uses the tuning, display and sound options from the main window. The functions of the main window stay selectable.

To do things with CF you have to use the two mouse buttons.

To enter a voicing proceed as follows:

> At first you have to select the root string and position. After you have done
> this you cannot change the root unless you clear the current voicing.
>
> After selecting the root you can enter (again with the left mouse button) the
> other notes. Two display modes are possible: intervals and notes. You can
> select the mode via the menu function OPTIONS|GENERAL OPTIONS.
> Notes different from root can be changed, deleted or whatever.

Pressing the right mouse button shows up a little menu. You can play the chord like it is on the fretboard, delete the current voicing or clear the string you have pointed to while pressing the right mouse button. Playing chords is only possible if you have activated the MIDI button in the tool bar of the main window. You can select the way the chord is played in the General Options dialog, either as single note when selected, or always as full chord.

CF display the current interval structure and scans your chord entries in the INI file. If it finds a chord that matches the interval structure it displays the result.

Everything clear? Good ...

Additional functions

I remember I have done some other modifications. Look in the menu and you will find them (or not).

You can edit the INI file on the fly via OPTIONS|EDIT INI FILE. You can select your favourite editor in the General Options menu. After changing the INI file (adding/deleting chords or tunings) you should select OPTIONS|RESCAN INI FILE to make the changes valid.

That's all?

Eeeh, ... yes. Oh no! A chord is a sequence of notes. A scale is also a sequence of notes. So the entries in the CHORDS section could also work with scales! Look at the INI file I have provided as a template!

Comments

You can define any chord, also very unusual ones:

```
[Chords]
major=1 3 5
major_1stinv=3 5 1
major_2ndinv=5 1 3
5=1 5
_evenspaced=1 2 4 6 8
```

The Chord Finder, when looking for chords, sorts the interval structure (internally) and selects the first one that matches. So inversions should follow the basic chord.

Invent your own instrument, or your own tuning and find the chords for it in some seconds:

```
[Tunings]
MyOwnA=6 E1 A1 E2 A2 B2 E3
MyPowerUke=4 E2 B2 E3 B3
```

Again: It would be a greatful help if you would share experience or tell what is wrong or could be done better.

Some last words for chord users

The question here should be: how can CM help me to find a voicing for a given chord? Ok, so we

take a short lesson on chords.

A chord is formed by three or more notes having a welldefined relationship to the root note. The major chord is a rather simple chord, so let's take it as an example. The chord structure of a major chord is:

Root + major third + perfect fifth

For our German readers:

Prime + Grosse Terz + Quinte

Using short forms this means:

1 - 3 - 5, where 1 = root, 3 = major third, 5 = perfect fiftth

The corresponding intervals are:

1 = root
3 = 4 half steps above root
5 = 7 half steps above root

Now, to form a Cmajor chord:

1: this is C, first part of the chord's name
3: this is E, this makes it one major chord
5: this is G

Important notice: Only THESE notes are used for the CMajor chord. You cant use other notes. And: these notes MUST be in the chord. If you leave the E note this will not become a major chord (but a power chord, C5, which is no chord but a doublestop, so the full name of this program should be:ChordDoublestopScaleMaster).

The parameters for C maj would be:

Key = C
Chord = major
No Strict mode
FD = 3 (this is a reasonable range)
RD = 3 (find root/bass notes on the lower 3 strings)

Press the EXEC Button and CM will give the table for this chord (use CM to see it, dont want to include graphics here ...)

Now use this table to find the voicing for this chord and you get the following results:

To play a C major chord you could use the following voicings:

```
0            3            3            3
1            1            5            1
0     or     0     or     5     or     0
2            2            5            2
3            3            3            3
X            X            3            3
```

Please send me a photo of your fingers after playing the last voicing.

CM also tells you the bass notes on strings below the string that has the current root note. Sometimes these bass notes do not sound very good. And sometimes they do. In this case CM says the open E1 string can be used, but it's not a good solution. But using the 5 (this is G) on the E1 string is ok (in fact this is a C/G chord, Cmaj plus G as bass note).

If you haven't got it up to here, use another chord program.

The Chord Finder should help you to identify chords you like und you dont know by name.

Known bugs, problems, errors

The template INI file contains some chords and scales. As always: I dont warrenty that they are all correct. If you know better, do it as you like it (that's one benefit in CM, you are not bound to the authors opinions). However, if any REAL theorist out there could help ....

If you delete a TUNING entry check that this is not the LastTuning in the PARAMETER section of the INI file. Otherwise CM will crash at startup. I will fix that later.
Still the scroller does not work well. Perhaps I will understand this damn stuff later and fix this also.

You should not close the chord finder window with CTRL-F4. Nothing will happen, but the menu item will stay checked sometimes (I dont know why ...).

Next thingies

The CMCL. This is the Chordmaster Control Language. It is a control language to build lessons and tutorials on base of CM. Sounds great??? You can select parameters from a textfile and you can play the chords and melodies via MIDI. Great stuff.

Thanks for support to ...

Dimitris Dranidis (Universität München) on intervals.

APPENDIX

Calculating voicings does not use any builtin rules except for identifying note and interval names. The Chord Finder uses internal rules, so I will list them to enable you to bother me with flame messages.

Chord Finder Interval Rules

Some intervals, if found in a certain environment, are translated (or renamed if you like). Here is a table what is done to the intervals.

Interval ...	becomes ...	if ...
8	1	real enharmonic
b9	b2	there is no b3 or 3 in the voicing

9	2	there is no b3 or 3 in the voicing
#9	b3	there is no b3 or 3 in the voicing
10	3	you show me the opposite
11	4	there is no b3 or 3 in the voicing
#11	b5	there is no b5 or 5 in the voicing
12	5	always
#12	#5	always
13	6	there is no b7 or 7 in the voicing
#13	b7	always