

realbookchords

v0.1 2012/05/10

Typesetting jazz chords with the ‘Real Book’ way

Clemens NIEDERBERGER

<https://bitbucket.org/cgnieder/realbookchords/>
contact@mychemistry.eu

English documentation

Contents		
1 License and Requirements	1	6 Typesetting Chords 4
2 About	2	6.1 Basics 4
3 Setup	2	6.2 Extensions 4
4 The Fonts	2	6.3 Double Extensions 5
4.1 New Real Book Chords	3	6.4 Bass Notes 6
4.2 Real Book Title	3	6.5 Disabling the Parsing 6
4.3 RealBook Chords	3	7 Song Titles 7
5 Shortcomings	4	8 See it in Action 8
		References 10
		Index 11

1 License and Requirements

REALBOOKCHORDS is placed under the terms of the LaTeX Project Public License, version 1.3 or later (<http://www.latex-project.org/lppl.txt>). It has the status “maintained”.

In order to function properly a rather up to date version of the l3kernel¹ is needed. REALBOOKCHORDS also needs xparse (part of the l3packages² bundle) and fontspec³ for proper font support.

REALBOOKCHORDS does not offer the fonts it uses. You need to install them on your system by yourself and then use this package with Xe_{La}TeX or Lua_{La}TeX to be able to use its features.

¹ CTAN: l3kernel ² CTAN: l3packages ³ CTAN: fontspec

2 About

On his website Jochen Pietsch offers three fonts [Pie] which mimic the styles of the famous The Real Book⁴ [Var00] and its successor The New Real Book [Var09]:

- New Real Book Chords
- Real Book Title
- RealBook Chords

`REALBOOKCHORDS` does *not* offer these fonts. Instead it offers easy to use macros to use the first font with $\text{X}\text{\LaTeX}$ or $\text{Lua}\text{\LaTeX}$ if it is installed on your system. Especially a macro for the intuitive usage of the sometimes rather hidden symbols for the creation of chord symbols is offered.

3 Setup

`REALBOOKCHORDS` defines a few options which can be globally set using

► `\RBCsetup{<options>}`

The options follow a key/value system like in many other \LaTeX packages.

4 The Fonts

Now first let's take a look at the fonts. You can get them at <http://notation.jochenpietsch.de/>. They are placed under the Creative Commons Attribution-Noncommercial-Share Alike 3.0 Unported License. Jochen Pietsch who designed the fonts says there that he doesn't develop the fonts any further so we have to live with any shortcomings:

Please note, these fonts are still in beta-stage, so you might note some missing characters, or you may need to tweak the layout. Because my interest in this project has decreased, I have no plans to do any further improvements.

Jochen Pietsch

The license of the fonts forbids to use them for commercial purposes. This is not strictly true for this package but as it is rather useless without them, well...

This documentation defines new font families for two of the three fonts, the third one is defined by `REALBOOKCHORDS`.

```
1 % from the preamble of this document
2 \newfontfamily\RealBookTitle{Real Book Title}
3 \newfontfamily\RealBookChords{RealBook Chords}
```

⁴ The original illegal edition is no longer available, though. I am uncertain if the 6th edition still uses the same handwritten font.

The package provides this font family switch:

- `\NewRealBookChords` → activate the font family “New Real Book Chords”

4.1 New Real Book Chords

The most important font for this package is “New Real Book Chords”. The font has only a limited number of characters since its purpose is to build chords. This also means that it has some unexpected symbols. But have a look for yourself:

```
1 \normalsize\NewRealBookChords ABCDEFGHIJKLMNOPQRSTUVWXYZ \\  
2 a cdefghijklmnopqrstuvwxyz 0123456789 \\  
3 .,:!/*='\"&()[+~\textordmasculine\% \\  
4 b\{a}\ss{\} \#{\}\~{a}? < > ; {\makeatletter @} \_ \\  
5 \'{a} \aa{\} \'{a} \^{a} \'{A} \'{A} \^{A} \~{A} \'{A} \AA{\} \AE{\} \'{E} \'{E}  
  \'{E}
```

ABCDEFGHIJKLMNOPQRSTUVWXYZ
a cdefghijklmnopqrstuvwxyz 0123456789
.,:!*='\"&()[+~^o6/9
b b # # MA MI omit aaa dim.
b # b # 5 9 11 13 9 11 13 7 13 13
b # # b 5 5 5 5 9 9 9 6 11 13

4.2 Real Book Title

The following example is simply to show you the font, `REALBOOKCHORDS` does not use it at all.

```
1 \normalsize\RealBookTitle ABCDEFGHIJKLMNOPQRSTUVWXYZ \\  
2 abcdefghijklmnopqrstuvwxyz 01234 6 -/_
```

ABCDEFGHIJKLMNOPQRSTUVWXYZ
ABCDEFGHIJKLMNOPQRSTUVWXYZ 01234 6 -/_

4.3 RealBook Chords

The following example is simply to show you the font, `REALBOOKCHORDS` does not use it at all.

```
1 \normalsize\RealBookChords ABCDEFG ab s 01 34567 9 \#()+~\textasciicircum
```

ABCDEFG alt.b s 01 34567 9 \#()+~

5 Shortcomings

Since the font is missing some symbols, for instance the uppercase delta for a maj7 chord or the striked through o (similar to ø) for a half-diminished chord, for one thing this package does workarounds and else we have to live with it.

There are plans for the future to extend this package for the use with the more professional font available here: <http://www.jazzfont.com/>. But for that I'll first have to be able to buy the font and experiment with it a bit. *Finis coronat opus.*

6 Typesetting Chords

It's time to get to the important stuff: the chords. To typeset them there is one basic command:

► `\rbc[<options>]{<chord specs>}` →

The `{<chord specs>}` will be explained in detail in the rest of the documentation.

6.1 Basics

The basic usage is pretty self-explanatory:

```
1 \rbc{Ab9} \rbc{Cmi} \rbc{E+} \rbc{Gma9} \rbc{F\#mi9} \rbc{Db13}
```

A^{b9} C_{mi} E⁺ G_{ma}⁹ F[#]_{mi}⁹ D^{b13}

Note that this is nearly but not exactly the same as using the font directly:

```
1 \NewRealBookChords Ab9 Cmi E+ Gma9 F\#mi9 Db13
```

A^{b9} C_{mi} E⁺ G_{ma}⁹ F[#]_{mi}⁹ D^{b13}

The font provides the characters **MI** and **MA**. `\jc` replaces the strings `mi` and `ma` with them. You have also seen that a `b` gives ^b for a flat root and `\#` gives [#] for a sharp root.

6.2 Extensions

One very important aspect of “jazzy” chords is tensions. The basic tensions are clear – just insert the intervall number:

```
1 \rbc{G7} \rbc{A9} \rbc{F11} \rbc{E13} \rbc{B7+}
```

G⁷ A⁹ F¹¹ E¹³ B⁷⁺

Often enough one needs altered extensions. **REALBOOKCHORDS** defines two macros to access the characters ^b and [#] easily:

- `\b` → minor/diminished extension
- `\k` → major/augmented extension

Let's see them in action:

```
1 \rb{Fmi7(\b5)} \rb{G7(\k9)} \rb{Eb7(\b9)} \rb{Db9(\k11)} \rb{Cmi7(5-)}
Fmi7(♭5) G7(♯9) Eb7(♭9) Db9(♯11) Cmi7(5-)
```

There are also six “extension descriptions”:

```
1 \rb{Cmaj9} \rb{Bbadd9} \rb{Gsus4} \rb{Ealt} \rb{F7omit3} \rb{D\#dim} \
Cmaj9 Bbadd9 Gsus4 Ealt. F7omit3 D#dim.
```

Since they're not all available as single characters, [REALBOOKCHORDS](#) fakes the missing ones. This results in inconsistent looks. That's why [REALBOOKCHORDS](#) provides an option so that all six are faked:

- `use-fake-symbols = true/false` → switch between original characters and faked ones. Default = false

```
1 \RBCsetup{use-fake-symbols}
2 \rb{Cmaj9} \rb{Bbadd9} \rb{Gsus4} \rb{Ealt} \rb{F7omit3} \rb{D\#dim}
Cmaj9 Bbadd9 Gsus4 Ealt. F7omit3 D#dim.
```

6.3 Double Extensions

Sometimes more than one altered extension needs to be indicated. The “New Real Book Chords” font provides a number of characters for this purpose. [REALBOOKCHORDS](#) provides five macros to access them easily:

- `\bb{<intervals>} → \rb{\bb{13,9}} (♭13)(♭9)`
- `\bk{<intervals>} → \rb{\bk{13,9}} (♭13)(♯9)`
- `\kb{<intervals>} → \rb{\kb{13,9}} (♯13)(♭9)`
- `\kk{<intervals>} → \rb{\kk{13,9}} (♯13)(♯9)`
- `\dt[<alterations>]{<intervals>} → \dt[bb]{13,9} (♭13)(♭9)`

There are four different combinations of alterations. For each there is a macros. The fifth macro also provides a possibility to access to the for combinations but also enables to only alterate only one of the two extensions. Unlike the first four macros `\dt` is *not only inside* `\rbc` defined butr can also be used in normal text.

All possible [`<alterations>`] are shown below:

```
1 \dt{13,9} \dt[bb]{13,9} \dt[bk]{13,9} \dt[kb]{13,9} \dt[kk]{13,9} \dt[B
  ]{13,9} \dt[K]{13,9} \dt[b]{13,9} \dt[k]{13,9}

(13) (b13) (b13) (#13) (#13) (b13) (#13) (13) (13)
  9      9      9      9      9      9      9      9
```

The intervall numbers for both extensions are given seperated with a comma. If the combination is present as a character like for example $\overset{13}{\underset{9}{\text{f}}}$ then the character is used else it is faked:

- `fake-double-extensions` = `true/false` → when true *all* double extension numbers are faked.
Default = false
- `double-extensions-brackets` = `true/false` → enclose the double extensions in brackets or not.
Default = false

There is a shortcut for the `double-extensions-brackets` option: `\rbc*`. The brackets can also be set explicitly using `[` and `]`.

```
1 \rbc{Eb7\bk{9,5}} \rbc[double-extensions-brackets=false]{C\dt{9,6}} \rbc*{C\
  dt{9,6}} \rbc*{C[\bk{13,9}]]

Eb7(#5) C96 C96 C(b139)
```

6.4 Bass Notes

If you want to indicate a different bass note for the chord you simply seperate the main chord from the bass note with a slash. Please note: if the bass note is a flat or sharp note you have to enclose it in braces:

```
1 \rbc{Cmi7/{Bb}} \rbc{C7/G} \rbc{C/G} \rbc{E7/{G\#}}

C7Bb C7G C7G E7G#
```

6.5 Disabling the Parsing

If you don't want all the parsing of the `\rbc` command but simply access the “New Real Book Chords” font you can of course use the font family switch presented earlier:

```
1 \NewRealBookChords Ama7(omit3) [major] Ama7(omit3) (major)
```

You can also use the following option:

- `parse = true/false` → switch off the parsing. Default = true

```
1 \texttt{parse=true}: \rbc{Ama7(omit3) [major]} \\  
2 \texttt{parse=false}: \rbc[parse=false]{Ama7(omit3) [major]}
```

parse=true: *Ama⁷(omit³) (major)*
 parse=false: *Ama⁷(omit³) (major)*

7 Song Titles

- `\<center>[<right]` →
- `songtitle-format-left = <code>` → Default = `\NewRealBookChords\footnotesize`
- `songtitle-format-center = <code>` → Default = `\NewRealBookChords\Large\centering`
- `songtitle-format-right = <code>` → Default = `\NewRealBookChords\footnotesize`
- `songtitle-pos-left = l/c/r` → Default = l
- `songtitle-pos-right = l/c/r` → Default = l

```
1 \SongTitle{Begin The Beguine}  
2 \SongTitle[Medium Swing Tempo]{Begin The Beguine}  
3 \SongTitle{Begin The Beguine}[Cole Porter\arr.: Jerry Sears]  
4 \RBCsetup{songtitle-pos-right=r}  
5 \SongTitle{Begin The Beguine}[Cole Porter\arr.: Jerry Sears]
```

	<i>Begin The Beguine</i>	
<i>Medium Swing Tempo</i>	<i>Begin The Beguine</i>	
	<i>Begin The Beguine</i>	
	<i>Begin The Beguine</i>	<i>Cole Porter</i>
		<i>arr.: Jerry Sears</i>
		<i>Cole Porter</i>
		<i>arr.: Jerry Sears</i>

8 See it in Action

Let's use the `\rbc` command together with `musixtex`⁵ for a real example. Both `fontspec` which is loaded by `REALBOOKCHORDS` and `musixtex` define the command `\breve`. The definition of `fontspec` takes place `\AtBeginDocument`.

A similar problem arises when `musixtex` is used together with `biblatex`⁶: they both define `\addspace`.

You can do something like the following to get them to work together:

```
1 \documentclass{article}
2 \usepackage{musixtex}
3 \let\mbreve\breve
4 \let\breve\relax
5 \usepackage{realbookchords}
6 \begin{document}
7   do stuff, e.g. restore the 'musixtex' definition of \breve
8 \end{document}
```

Or – even easier – load `REALBOOKCHORDS` with the `load-musixtex` option and let it handle things.

```
1 \documentclass{article}
2 \usepackage[load-musixtex]{realbookchords}
3 \begin{document}
4   do stuff, e.g. restore the 'musixtex' definition of \breve
5 \end{document}
```

If you use this option `REALBOOKCHORDS` loads `musixtex` and sets `\breve` to the meaning of `fontspec`. You have the possibility to access `musixtex`'s version:

- ▶ `\musixtexbreve` → `musixtex`'s original definition.
- ▶ `\fontspecbreve` → `fontspec`'s original definition.
- ▶ `breve-version = fontspec/musixtex` → sets `\breve` to the definition of the specified package.
- ▶ `\musixtexaddspace` → `REALBOOKCHORDS` undefines `musixtex`'s `\addspace` but stores the definition in `\musixtexaddspace`. You'll probably need to restore `musixtex`'s definition. If you don't use `biblatex` in the same document there shouldn't be a problem.
- ▶ `addspace-version = musixtex` → restores `musixtex`'s definition.

Let's take the first eight bars of Kenny Durham's "Blue Bossa" as an example:

⁵ CTAN: `musixtex` ⁶ CTAN: `biblatex`


```

1 \begin{music}
2 \let\addspace\musixtexaddspace
3 \parindent0pt \generalmeter{\meterfrac{4}{4}}\setsign{1}{-3}\nobarnumbers
4 \SongTitle{Blue Bossa}[\Kenny Durham]
5 \startpiece
6 \addspace{.5\afterruleskip}%
7 \Notes\qa g\en
8 \doublebar % 1
9 \NOTes\Uptext{\rbc{Cmi6}}\qlp n\en
10 \Notes\ca l\en
11 \Notes\qa k\en
12 \Notes\isluru0j\ca j\en
13 \bar % 2
14 \NOTes\tslur0j\hlp j\en
15 \NOTes\qa i\en
16 \bar % 3
17 \NOTes\Uptext{\rbc{Fmi7}}\ha h\en
18 \Notes\qlp n\en
19 \Notes\isluru0m\ca m\en
20 \bar % 4
21 \NOTes\tslur0m\wh m\en
22 \bar % 5
23 \NOTes\Uptext{\rbc{Dmi7(\b5)}}\qlp m\en
24 \Notes\ca{lk}\qa j\en
25 \Notes\isluru0i\ca i\en
26 \bar % 6
27 \NOTes\Uptext{\rbc{G7(\k5)}}\tslur0i\hlp i\en
28 \Notes\qa h\en
29 \bar % 7
30 \NOTes\Uptext{\rbc{Cmi6}}\ha g\en
31 \Notes\qlp m\isluru0l\ca l\en
32 \bar % 8
33 \NOTes\tslur0l\wh l\en
34 \endpiece
35 \end{music}

```

Blue Bossa

Kenny Durham

The musical score for "Blue Bossa" by Kenny Durham is presented on two staves. The first staff contains measures 1 through 4, and the second staff contains measures 5 through 8. The key signature is one flat (B-flat major or D minor). The time signature is 4/4. The notes are as follows:

- Measure 1: C4 (quarter), G4 (quarter), F4 (quarter), E4 (quarter).
- Measure 2: D4 (quarter), C4 (quarter), B3 (quarter), A3 (quarter).
- Measure 3: G3 (quarter), F3 (quarter), E3 (quarter), D3 (quarter).
- Measure 4: C3 (quarter), B2 (quarter), A2 (quarter), G2 (quarter).
- Measure 5: F3 (quarter), E3 (quarter), D3 (quarter), C3 (quarter).
- Measure 6: B2 (quarter), A2 (quarter), G2 (quarter), F2 (quarter).
- Measure 7: E2 (quarter), D2 (quarter), C2 (quarter), B1 (quarter).
- Measure 8: A1 (quarter), G1 (quarter), F1 (quarter), E1 (quarter).

Chord symbols are placed above the notes:

- Measure 1: Cm^6
- Measure 2: Fm^7
- Measure 3: $Dm^7(b5)$
- Measure 4: $G^7(\#5)$
- Measure 5: Cm^6

References

- [Pie] Jochen Pietsch. *Jazz Fonts*. URL: http://notation.jochenpietsch.de/index_e.html (visited on 05/10/2012).
- [Var00] Various. *The Real Book Volume I. C Edition*. 6th edition. Hal Leonard Publishing Corporation, Jan. 1, 2000. ISBN: 978-0634060380.
- [Var09] Various. *The New Real Book Volume I. C Edition*. 1st edition. Ama Verlag, Feb. 12, 2009. ISBN: 978-0961470142.

Index

Section titles are indicated **bold**, packages sans serif, commands `\brown` and options `green`.

A

`\addspace` 7

B

`\b` 5

`\bb` 5

`biblatex` 7

`\bk` 5

`\breve` 7

D

`double-extensions-brackets` 6

`\dt` 5f.

F

`fake-double-extensions` 6

`fontspec` 1, 7

J

`\jc` 4

K

`\k` 5

`\kb` 5

`\kk` 5

L

`l3kernel` 1

`l3packages` 1

M

`musixtex` 7

N

`\NewRealBookChords` 3

P

`parse` 7

R

`\rbc` 4, 6f.

`\rbc*` 6

`\RBCsetup` 2

U

`use-fake-symbols` 5

X

`xparse` 1