REALBOOKCHORDS

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Typesetting jazz chords the 'Real Book' way

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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 l3kernel is needed. REAL-BOOKCHORDS also needs xparse (part of the l3packages bundle) and fontspec 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 XƎLATEX or LuaLATEX to be able to use its features.

2 About

On his website Jochen Pietsch offered three fonts [Pie] which mimic the styles of the famous The Real Book[1] [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 X⅃LATEX or LuaLATEX 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. They used to be available at `http://notation.jochenpietsch.de/` and are placed under the Creative Commons Attribution-Noncommercial-Share Alike 3.0 Unported License ⓒⒾⓈⓄ. I provide them on REALBOOKCHORDS' BitBucket site `https://bitbucket.org/cgnieder/realbookchords/`. 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.

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

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

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
   }
```


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 has 01 34567 9 #()+-maj

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} Cmi E^+ Gma^9 $F^{\sharp}mi^9$ D^{b13}

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

G^7 A^9 F^{11} E^{13} B^{7+}

Often enough one needs alterated extensions. REALBOOKCHORDS defines macros to access the characters $^\flat$ and $^\sharp$ easily:

\b $_\flat$
  minor/diminished extension

\f
  alias for \b

\k $_\sharp$
  major/augmented extension

\s
  alias for \k

Note that these macros are only valid inside \rbc so that the usual meaning of, *e. g.*, \b still holds outside. Now let's see them in action:

```
1 \rbc{Fmi7(\b5)} \rbc{G7(\k9)} \rbc{Eb7(\b9)} \rbc{Db9(\k11)} \rbc{Cmi7(5-)}
```

$$F_{MI}{}^{7(\flat5)} \ G^{7(\sharp9)} \ E\flat^{7(\flat9)} \ D\flat^{9(\sharp11)} \ C_{MI}{}^{7(5-)}$$

There are also some "extension descriptions":

```
1 \rbc{Cmaj9} \rbc{Bbadd9} \rbc{Absus4} \rbc{Galt} \rbc{F7omit3} \rbc{E\#dim}
2 \rbc{Daug}
```

$$C^{maj9} \ B\flat^{add9} \ A\flat^{sus4} \ G^{alt.} \ F^{7omit3} \ E^{\sharp dim.} \ D^{aug}$$

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 = <u>true</u>|false   Default: false
   switch between original characters and faked ones.

```
1 \RBCsetup{use-fake-symbols}
2 \rbc{Cmaj9} \rbc{Bbadd9} \rbc{Absus4} \rbc{Galt} \rbc{F7omit3} \rbc{E\#dim}
3 \rbc{Daug}
```

$$C^{maj9} \ B\flat^{add9} \ A\flat^{sus4} \ G^{alt.} \ F^{7omit3} \ E^{\sharp dim.} \ D^{aug}$$

6.3 Double Extensions

Sometimes more than one alterated 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{⟨*intervalls*⟩}
   \rbc{\bb{13,9}} $\binom{\flat13}{\flat9}$

\ff
   alias for \bb

\bk{⟨*intervalls*⟩}
   \rbc{\bk{13,9}} $\binom{\flat13}{\sharp9}$

`\fs`
  alias for `\bk`

`\bs`
  alias for `\bk`

`\kb{`⟨*intervalls*⟩`}`
  `\rbc{\kb{13,9}}` $\left(\substack{\#13 \\ \flat9}\right)$

`\sf`
  alias for `\kb`

`\sb`
  alias for `\kb`

`\kk{`⟨*intervalls*⟩`}`
  `\rbc{\kk{13,9}}` $\left(\substack{\#13 \\ \#9}\right)$

`\ss`
  alias for `\kk`

`\dt[`⟨*alterations>*⟩`]{`⟨*intervalls*⟩`}`
  `\dt[bb]{13,9}` $\left(\substack{\flat13 \\ \flat9}\right)$

There are four different combinations of alterations. For each there is a macro, for some of these there are also aliases since "k" (German: "Kreuz") may not be the natural choice for everyone. 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 but 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}
2 \dt[B]{13,9} \dt[K]{13,9} \dt[b]{13,9} \dt[k]{13,9}
3
4 % second possible representation:
5 \dt{13,9} \dt[ff]{13,9} \dt[fs]{13,9} \dt[sf]{13,9} \dt[ss]{13,9}
6 \dt[F]{13,9} \dt[S]{13,9} \dt[f]{13,9} \dt[s]{13,9}
7
8  % third possible representation:
9 \dt{13,9} \dt[bb]{13,9} \dt[bs]{13,9} \dt[sb]{13,9} \dt[ss]{13,9}
10 \dt[B]{13,9} \dt[S]{13,9} \dt[b]{13,9} \dt[s]{13,9}
```

$\left(\substack{13 \\ 9}\right) \left(\substack{\flat13 \\ \flat9}\right) \left(\substack{\flat13 \\ \#9}\right) \left(\substack{\#13 \\ \flat9}\right) \left(\substack{\#13 \\ \#9}\right) \left(\substack{\flat13 \\ 9}\right) \left(\substack{\#13 \\ 9}\right) \left(\substack{13 \\ \flat9}\right) \left(\substack{13 \\ \#9}\right)$

$\left(\substack{13 \\ 9}\right) \left(\substack{\flat13 \\ \flat9}\right) \left(\substack{\flat13 \\ \#9}\right) \left(\substack{\#13 \\ \flat9}\right) \left(\substack{\#13 \\ \#9}\right) \left(\substack{\flat13 \\ 9}\right) \left(\substack{\#13 \\ 9}\right) \left(\substack{13 \\ \flat9}\right) \left(\substack{13 \\ \#9}\right)$

$$\left(\begin{smallmatrix}13\\9\end{smallmatrix}\right) \left(\begin{smallmatrix}\flat13\\\flat9\end{smallmatrix}\right) \left(\begin{smallmatrix}\flat13\\\sharp9\end{smallmatrix}\right) \left(\begin{smallmatrix}\sharp13\\\flat9\end{smallmatrix}\right) \left(\begin{smallmatrix}\sharp13\\\sharp9\end{smallmatrix}\right) \left(\begin{smallmatrix}\flat13\\9\end{smallmatrix}\right) \left(\begin{smallmatrix}\sharp13\\9\end{smallmatrix}\right) \left(\begin{smallmatrix}13\\\flat9\end{smallmatrix}\right) \left(\begin{smallmatrix}13\\\sharp9\end{smallmatrix}\right)$$

The intervall numbers for both extensions are given seperated with a comma. If the combination is present as a character like for example $\begin{smallmatrix}13\\9\end{smallmatrix}$ then the character is used else it is faked: $\begin{smallmatrix}9\\6\end{smallmatrix}$

`fake-double-extensions` = <u>true</u>|false   Default: `false`
  when `true` *all* double extension numbers are faked.

`double-extensions-brackets` = <u>true</u>|false   Default: `false`
  enclose the double extensions in brackets or not.

There is a shortcut for the `double-extensions-brackets` = {⟨o⟩}ption: `\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}}
2 \rbc*{C\dt{9,6}} \rbc*{C[\bk{13,9}]}
```

$$E^{\flat7}\left(\begin{smallmatrix}\flat9\\\sharp5\end{smallmatrix}\right) \ C^9_6 \ C^9_6 \ C\left(\begin{smallmatrix}\flat13\\\sharp9\end{smallmatrix}\right)$$

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\#}}
```

$$\text{Cmi}^7\!/_{\!B^\flat} \ \ C^7\!/_{\!G} \ \ C\!/_{\!G} \ \ E^7\!/_{\!G^\sharp}$$

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]
```

$$\mathbf{Ama^{7(}omit^{3)}\ (major)}$$

You can also use the following option:

parse = <u>true</u>|false   Default: true
  switch off the parsing.

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

parse=true: $\mathbf{A_{MA}}^{7(omit3)}\,{}^{(maj}or)$

parse=false: $\mathbf{Ama^{7(}omit^{3)}\ (major)}$

7 Song Titles

\SongTitle[⟨*left*⟩]{⟨*center*⟩}[⟨*right*⟩]
  A centered title with options to put text to the left and the right of it.

songtitle-format-left = {⟨*code*⟩}   Default: \NewRealBookChords\footnotesize
  Format of the text to the left.

songtitle-format-center = {⟨*code*⟩}   Default: \NewRealBookChords\Large\centering
  Format of the text in the center.

songtitle-format-right = {⟨*code*⟩}   Default: \NewRealBookChords\footnotesize
  Format of the text to the right.

songtitle-pos-left = l|c|r   Default: l
  Alignment of the text to the left.

songtitle-pos-right = l|c|r   Default: l
  Alignment of the text to the right.

  As an example: the following code …

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

... produces this:

Begin The Beguine

Medium Swing Tempo   Begin The Beguine

Begin The Beguine   Cole Porter
                                  arr.: Jerry Sears

Begin The Beguine   Cole Porter
                                  arr.: Jerry Sears

8 See it in Action

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

A similar problem arises when musixtex is used together with biblatex: 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 = {⟨o⟩}ption and let it handle things. However, this doesn't always work as expected, yet.

```
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}
```

Note that this option should be used as a package option and *not* via \RBCsetup.

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.

\musixtexaddspace
   REALBOOKCHORDS undefines musixtex's \addspace but stores the definition in \musixtex-addspace. 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.

breve-version = fontspec|musixtex
   sets \breve to the definition of the specified package.

addspace-version = musixtex
   restores musixtex's definition.

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

```
1  \begin{music}
2    \let\addspace\musixtexaddspace
3    \parindent0pt \generalmeter{\meterfrac44}\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}
```


References

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