

guitarchordschemes

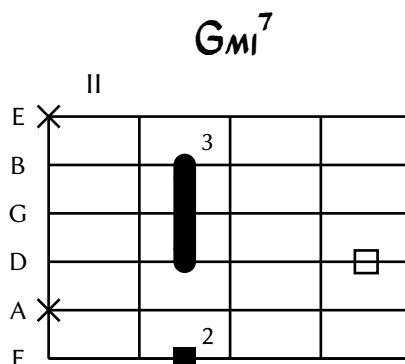
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Guitar Chord and Scale Tablatures with TikZ

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English documentation



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1 License and Requirements

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

GUITARCHORDSCHEMES loads the packages TikZ [TWF10], etoolbox [Leh11] and pgfplots [Wri11]. It also loads the TikZ libraries shapes.misc, arrows and calc. Depending on an option it

also loads `realbookchords` [Nie13]. This package is not yet published on CTAN¹ and thus not part of any T_EX distribution. Until it is you can find it at <https://bitbucket.org/cgnieder/realbookchords/>. See section 4 for details on this option.

2 The Commands

This package more or less provides a single command:

► `\chordscheme[<options>]`

► `\scales[<option>]`

These commands set the frame for the chord and scale tablatures and can be used to create sheets for manually writing down tablatures:

```
1 \chordscheme
```

| | | | | |
|---|--|--|--|--|
| E | | | | |
| B | | | | |
| G | | | | |
| D | | | | |
| A | | | | |
| E | | | | |

Similarly `\scales` creates a frame with two more frets:

```
1 \scales
```

| | | | | | |
|---|--|--|--|--|--|
| E | | | | | |
| B | | | | | |
| G | | | | | |
| D | | | | | |
| A | | | | | |
| E | | | | | |

2.1 Options for `\chordscheme`

The [options] argument is where the actual details for a chord happen. These are the available ones for `\chordscheme`:

► `name = <chordsymbol>`

Set the chord symbol. This option accepts a list of entries.

¹ the COMPREHENSIVE T_EX ARCHIVE NETWORK

- ▶ **position** = <position>
Set the position for the first of the four frets.
- ▶ **finger** = <fret>/<string>:<label>
Specify the finger positions for a chord. This option accepts a list of entries. The :<label> is optional.
- ▶ **root** = <fret>/<string>:<label>
The same as finger but uses a square instead of a circle to indicate that this finger is playing the root of the chord. This option accepts a list of entries. The :<label> is optional.
- ▶ **show-root** = <fret>/<string>
Specify positions of the root that are *not* part of the actual chord but are somewhere in the vicinity of it on the guitar neck. This option accepts a list of entries.
- ▶ **barre** = <fret>/<string range>:<label>
Specify a barré position for a chord. The <string range> part must contain a two string numbers separated with a dash. This option accepts a list of entries. The :<label> is optional.
- ▶ **ring** = <string>
Specify open strings. This option accepts a list of entries.
- ▶ **mute** = <string>
Specify muted/unplayed strings. This option accepts a list of entries.

Let's take a look at a few examples:

```

1  \chordscheme[
2    name      = G ,
3    position  = I ,
4    finger    = {2/5:1} ,
5    root      = {3/6:2, 3/1:4} ,
6    ring      = {2,3,4}
7  ]

```

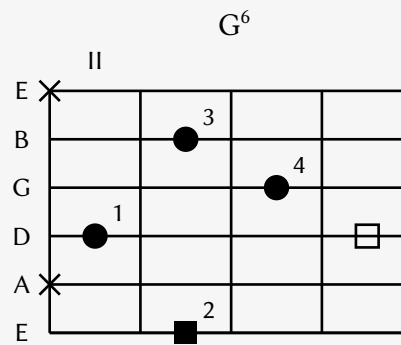
The diagram illustrates a G chord on a guitar fretboard. The strings are labeled E, B, G, D, A, E from top to bottom. The frets are numbered 1 to 4. Fingerings are indicated by circles (1-4) and squares (1-4). The root G is at fret 3, string 6. The diagram shows a G chord with a barre at fret 3.

Or a more “jazzy” chord:

```

1 \chordscheme[
2   name      = G\textsuperscript{6} ,
3   position  = II ,
4   finger    = {1/4:1, 3/3:4, 2/2:3} ,
5   root      = 2/6:2 ,
6   show-root = 4/4 ,
7   mute      = {1,5}
8 ]

```

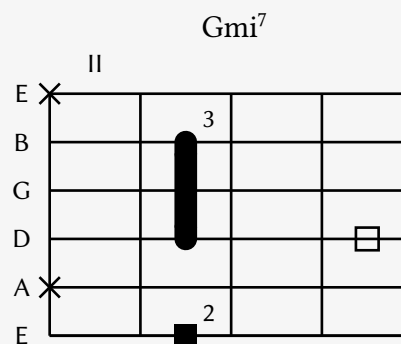


One with a barré:

```

1 \chordscheme[
2   name      = Gmi\textsuperscript{7} ,
3   position  = II ,
4   barre     = 2/2-4:3 ,
5   show-root = 4/4 ,
6   root      = 2/6:2 ,
7   mute      = {1,5}
8 ]

```



2.2 Options for \scales

The [options] argument for \scales are similar to the ones for \chordscheme:

- **name** = <title>
Set a title for the scale.
- **position** = <position>
Set the position for the first of the six frets.
- **finger** = <fret>/<string>:<label>
Specify the finger positions for the scale. This option accepts a list of entries. The :<label> is optional.
- **root** = <fret>/<string>:<label>
The same as finger but uses a square instead of a circle to indicate that this finger is playing the root of the scale. This option accepts a list of entries. The :<label> is optional.
- **fingering** = type 1|type 1A|type 2|type 3|type 4
Set a whole predefined fingering. The types correspond to ones taught in Leavitt's *A Modern Method for Guitar* [Lea66]. This option assumes a ionic scale and places the roots correspondingly.

- **fingering*** = type 1|type 1A|type 2|type 3|type 4
The same as **fingering** but not scale is assumed and no roots are indicated.
- **fingering?** = type 1|type 1A|type 2|type 3|type 4
The same as **fingering*** but also no labels for the fingers are given.

Let's see an example:

```

1 \scales[
2   name      = F-major (Fingering Type~1A) ,
3   position  = I ,
4   fingering = type 1A
5 ]

```

F-major (Fingering Type 1A)

| | | | | | | |
|---|----|---|---|--|---|--|
| | 1s | | 2 | | 4 | |
| E | ■ | | ● | | ● | |
| B | | | ● | | ● | |
| G | | ● | ● | | ● | |
| D | | ● | ■ | | ● | |
| A | ● | | ● | | ● | |
| E | ■ | | ● | | ● | |

An example for **fingering***:

```

1 \scales[
2   name      = Fingering Type~3 ,
3   fingering* = type 3
4 ]

```

Fingering Type 3

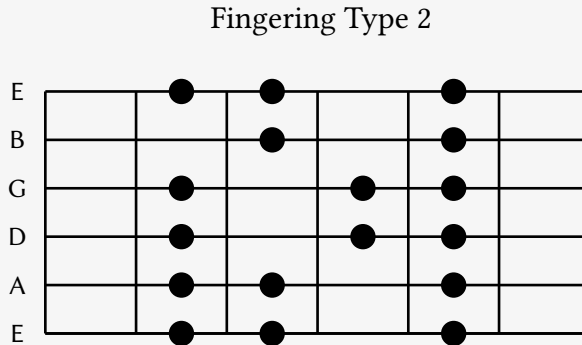
| | | | | | | |
|---|--|---|---|---|---|--|
| | | 1 | 2 | | 4 | |
| E | | ● | ● | | ● | |
| B | | ● | ● | | ● | |
| G | | ● | | ● | | |
| D | | ● | | ● | ● | |
| A | | ● | | ● | ● | |
| E | | ● | ● | | ● | |

Last an example for **fingering?**:

```

1 \scales[
2   name      = Fingering Type~2 ,
3   fingering? = type 2
4 ]

```



3 Options

There are quite a number of options determining the layout of the tablatures. They can either be set as package options or via the setup command:

► `\setchordscheme{<options>}`

Below every option and its corresponding default setting is described.

► `x-unit = <dim>` Default: .8cm

The basic x unit for the TikZ picture the chord scheme is set in.

► `y-unit = <dim>` Default: .8cm

The basic y unit for the TikZ picture the chord scheme is set in.

► `finger-format = <TeX code>` Default: `\sffamily\small`

The format the numbers for the fingers are typeset with.

► `finger-format+ = <TeX code>` (initially empty)

Code to be appended to `finger-format`.

► `position-format = <TeX code>` Default: `\sffamily`

The format the number for the position is typeset with.

► `position-format+ = <TeX code>` (initially empty)

Code to be appended to `position-format`.

► `name-format = <TeX code>` Default: `\large`


The format the chord name/symbol is typeset with.

3 Options

- ▶ `name-format+` = <TeX code> (initially empty)
Code to be appended to `name-format`.
- ▶ `string-name-format` = <TeX code> Default: `\sffamily\small`
The format the names of the strings are typeset with.
- ▶ `string-name-format+` = <TeX code> (initially empty)
Code to be appended to `string-name-format`.
- ▶ `line-width` = <dim> Default: 1pt
The line width used for all lines drawn in the chord scheme.
- ▶ `finger-radius` = <dim> Default: .15cm
The radius of the circles that represent the fingers. Also determines the size of the root markers and the barré.
- ▶ `finger-x-offset` = <dim> Default: 3mm
The x offset of the number with respect to the circle.
- ▶ `finger-y-offset` = <dim> Default: 3mm
The y offset of the number with respect to the circle.
- ▶ `finger-style` = <tikz style> Default: `fill`
The TikZ style the circles representing the fingers are drawn with. This is equivalent to `\tikzset{finger style/.style={<tikz style>}}`.
- ▶ `root-style` = <tikz style> Default: `fill`
The TikZ style the squares representing the roots are drawn with. This is equivalent to `\tikzset{root style/.style={<tikz style>}}`.
- ▶ `show-root-style` = <tikz style> Default: `draw`
The TikZ style the squares representing the “ghost roots” are drawn with. This is equivalent to `\tikzset{show root style/.style={<tikz style>}}`.
- ▶ `ringing-style` = <tikz style> Default: `draw`
The TikZ style the circles representing the open string markers are drawn with. This is equivalent to `\tikzset{ringing style/.style={<tikz style>}}`.
- ▶ `muted-style` = <tikz style> Default: `{cross out,draw}`
The TikZ style the nodes representing muted strings are drawn with. This is equivalent to `\tikzset{muted style/.style={<tikz style>}}`.
- ▶ `tuning` = <comma list of string names> Default: `{E,B,G,D,A,E}`
The tuning.
- ▶ `use-rbc` = `true|false` Default: `false`
If set to `true` the `name` will be set in the command `\rbc` from the `realbookchords`. If this option is not used as a package option then make sure you also load `realbookchords` [Nie13]. Please be aware that the latter requires $\text{X}\text{\LaTeX}$ or $\text{L}\text{\LaTeX}$. See section 4 for details.

4 Using realbookchords

Setting `\setchordscheme{use-rbc=true}` or using the same as package option will set the chord names/symbols in realbookchords' command `\rbc`.

In order to use this option you need to install the realbookchords package [Nie13]. I expect it to go to CTAN eventually but until then you can get it at <https://bitbucket.org/cgnieder/realbookchords/>. The package uses Jochen Pietsch's "New Real Book" font [Pie] for typesetting the chord symbols which you can get at <http://notation.jochenpietsch.de/>. It is placed under the Creative Commons Attribution-Noncommercial-Share Alike 3.0 Unported License .

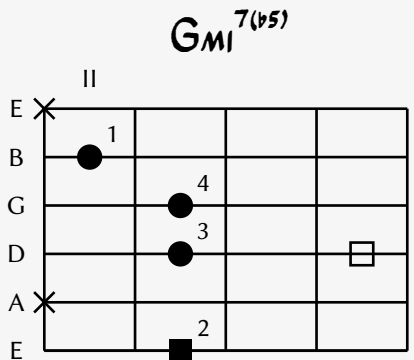
realbookchords requires that you compile your document with X_YLaTeX or Lua^ATeX.

Here is an example of how the chord symbol looks with realbookchords:

```

1 \setchordscheme{use-rbc=true}
2 \chordscheme[
3   name      = Gmi7(\b5) ,
4   position  = II ,
5   finger    = {1/2:1, 2/3:4, 2/4:3} ,
6   show-root = {4/4} ,
7   root      = {2/6:2} ,
8   mute      = {1,5}
9 ]

```



References

- [Lea66] William G. Leavitt. *A Modern Method for Guitar*. Vol. 1. Berklee Press Publications, Boston, 1966.
- [Leh11] Philipp Lehman. etoolbox. Version 2.1, Jan. 21, 2011. URL: <http://mirror.ctan.org/macros/latex/contrib/etoolbox>.
- [Nie13] Clemens Niederberger. realbookchords. Version 0.1, Apr. 29, 2013. URL: <https://bitbucket.org/cgnieder/guitarchordschemes/>.
- [Pie] Jochen Pietsch. *Jazz Fonts*. URL: http://notation.jochenpietsch.de/index_e.html (visited on 05/10/2012).
- [TWF10] Till Tantau, Mark Wibrow, and Christian Feuersänger. TikZ/pgf. Version 2.10, Feb. 25, 2010. URL: <http://sourceforge.net/projects/pgf/> (visited on 04/18/2013).
- [Wri11] Joseph Wright. pgfplots. Version 2.1, June 2, 2011. URL: <http://mirror.ctan.org/macros/latex/contrib/pgfplots>.

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