GUITARCHORDSCHEMES

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guitar chord schemes and fingering scales with Ti*k*Z

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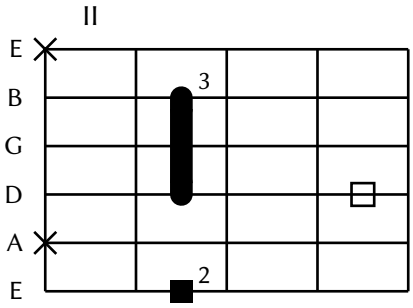
Gm^{7}



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1 License and Requirements

Permission is granted to copy, distribute and/or modify this software under the terms of the LaTeX Project Public License (LPPL), version 1.3 or later (http://www.latex-project.org/lppl.txt). The software has the status "maintained."

GUITARCHORDSCHEMES loads the packages Ti*k*Z [Tan13], etoolbox [Leh15] and pgfopts [Wri11]. It also loads the Ti*k*Z libraries shapes.misc, arrows and calc.

2 The Commands

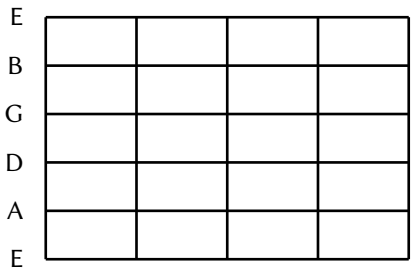
This package mainly provides two commands:

`\chordscheme`[⟨*options*⟩]
Typeset a guitar chord scheme.

`\scales`[⟨*option*⟩]
Typeset a fingering scale.

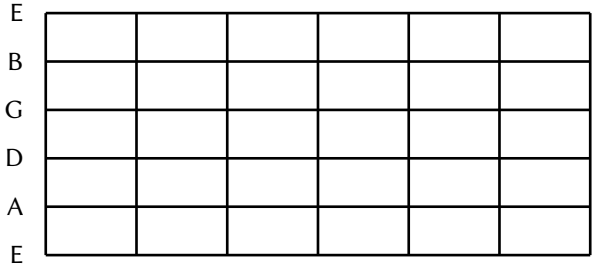
These commands set the frame for the chord and scale tablatures and can be used to create sheets for manually writing down tablatures:

```
\chordscheme
```



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

```
\scales
```



2.1 Options for `\chordscheme`

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

`fret-number` = {⟨*number*⟩} Default: 4

Introduced in version 0.6

The number of frets that are drawn. This number must be at least 4. The option should be set as first option since it influences other options.

`name` = {⟨*chordsymbol*⟩}

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

`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 comma separated 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 comma separated 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 comma separated 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*⟩}

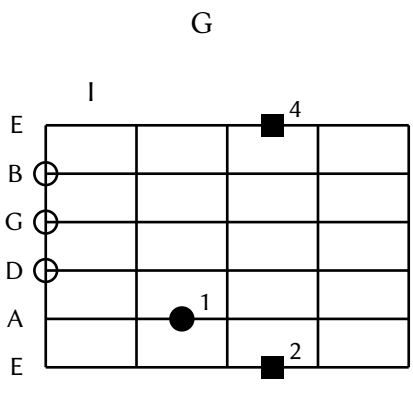
Specify open strings. This option accepts a comma separatedlist of entries.

`mute` = {⟨*string*⟩}

Specify muted/un-played strings. This option accepts a comma separated list of entries.

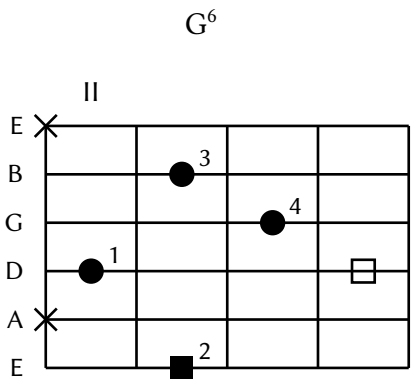
Let's take a look at a few examples:

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



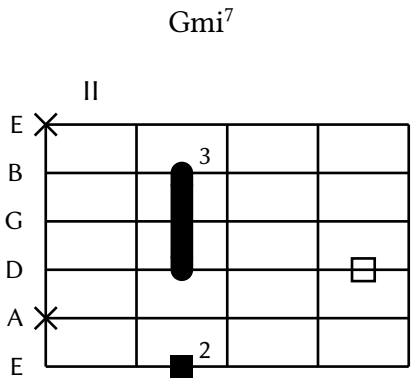
Or a more "'jazzy"' chord:

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



One with a barré:

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



2.2 Options for `\scales`

The ⟨*options*⟩ argument for `\scales` are similar to the ones for `\chordscheme`:

`fret-number` = {⟨*number*⟩} Default: 6

Introduced in version 0.6

The number of frets that are drawn. This number must be at least 6. The option should be set as first option since it influences other options.

`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 comma separated 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 comma separated list of entries. The :⟨*label*⟩ is optional.

`fret number` = {⟨*integer*⟩} Default: 6
The number of frets displayed for a scale. The minimum number is 6.

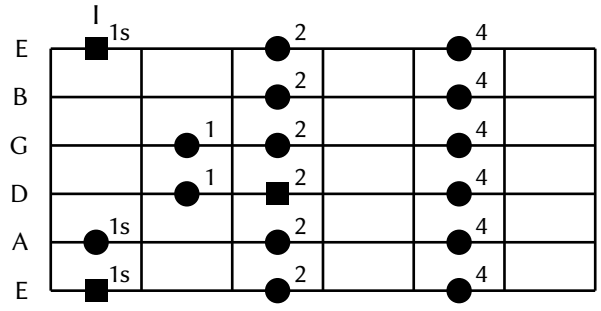
`fingering` = `type 1|type 1A|type 2|type 3|type 4`
Set a whole predefined fingering. The types correspond to ones taught in Leavitt's *A Modern Method for Guitar* [Lea66]. This option assumes an ionic scale and places the roots correspondingly.

`fingering*` = `type 1|type 1A|type 2|type 3|type 4`
The same as `fingering` but no 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:

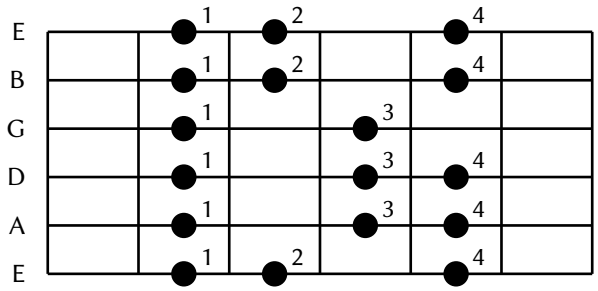
```
\scales[
  name      = F-major (Fingering Type~1A) ,
  position  = I ,
  fingering = type 1A
]
```



An example for `fingering*`:

```
\scales[
  name       = Fingering Type~3 ,
  fingering* = type 3
]
```

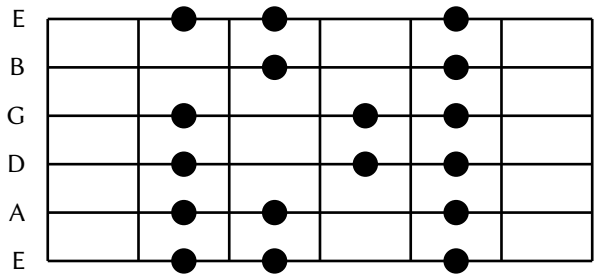
Fingering Type 3



Now an example for `fingering?`:

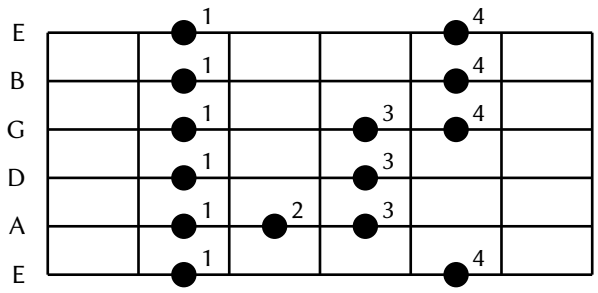
```
\scales[
  name       = Fingering Type~2 ,
  fingering? = type 2
]
```

Fingering Type 2



At last an example for an explicitly set scale:

```
\scales[
  finger = {
    2/1:1,               5/1:4,
    2/2:1,               5/2:4,
    2/3:1,        4/3:3, 5/3:4,
    2/4:1,        4/4:3,
    2/5:1, 3/5:2, 4/5:3,
    2/6:1,               5/6:4
  }
]
```



You can add other predefined fingerings or change the existing ones with the following command:

`\setfingering{`⟨*name*⟩`}{`⟨*fingers*⟩`}{`⟨*roots*⟩`}`

Introduced in version 0.7

`{`⟨*name*⟩`}` sets the name as chosen by `fingering`, `fingering*` or `fingering?`, ⟨*fingers*⟩ is passed to the `finger` option and ⟨*roots*⟩ either to the `finger` option or the `root` option depending if the fingering is called by `fingering`, `fingering*` or `fingering?`.

As an example here is how fingering type 1A has been defined:

```
\setfingering{type 1A}{
                  3/1:2,        5/1:4,
                  3/2:2,        5/2:4,
           2/3:1, 3/3:2,        5/3:4,
           2/4:1,               5/4:4,
  1/5:1s,         3/5:2,        5/5:4,
                  3/6:2,        5/6:4
}{1/1:1s, 3/4:2, 1/6:1s}
```

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*⟩`}`
The setup command for GUITARCHORDSCHEMES.

Below every option and its corresponding default setting is described.

`x-unit` = {⟨*dim*⟩} Default: `.8cm`
The basic x unit for the Ti*k*Z picture the chord scheme is set in.

`y-unit` = {⟨*dim*⟩} Default: `.8cm`
The basic y unit for the Ti*k*Z picture the chord scheme is set in.

`rotate` = {⟨*angle*⟩} Default: `0`
Introduced in version 0.7
Rotates the diagram counter-clockwise by ⟨*angle*⟩.

`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.

`name-format+` = {⟨*TEX code*⟩} (initially empty)
Code to be appended to `name-format`.

`name-below` = `true`|`false` Default: `false`
Introduced in version 0.7
If set to `true` the name will be written below instead of above the diagram.

`name-distance` = {⟨*dim*⟩} Default: `.5em`
Introduced in version 0.7
The distance between name and chord diagram.

`chord-name-cs` = {⟨*cs*⟩} Default: `\@firstofone`
Introduced in version 0.5
The command that is used to parse the chord name. ⟨*cs*⟩ needs to be a command that takes a mandatory argument.

`scales-name-cs` = {⟨*cs*⟩} Default: `\@firstofone`
Introduced in version 0.5
The command that is used to parse the scales name. ⟨*cs*⟩ needs to be a command that takes a mandatory argument.

`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`.

`strings` = {⟨*num*⟩} Default: `6`
Introduced in version 0.7
Sets the number of strings.

`chord-frets` = {⟨*number*⟩} Default: `4`
Introduced in version 0.6
The default number of frets of a chord scheme. ⟨*number*⟩ must be at least 4.

`scales-frets` = {⟨*number*⟩} Default: `6`
Introduced in version 0.6
The default number of frets of a scales scheme. ⟨*number*⟩ must be at least 6.

`line-width` = {⟨*dim*⟩} Default: `1pt`
The line width used for all lines drawn in the chord scheme.

`finger-radius` = {⟨*num*⟩} Default: `.1875`
The radius of the circles that represent the fingers in multiples of `x-unit`. Also determines the size of the root markers and the barré.

`finger-x-offset` = {⟨*num*⟩} Default: `.375`
The x offset of the number with respect to the circle in multiples of `x-unit`.

`finger-y-offset` = {⟨*num*⟩} Default: `.375`
The y offset of the number with respect to the circle in multiples of `y-unit`.

`finger-style` = {⟨*TikZ style*⟩} Default: `fill`
The Ti*k*Z 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 Ti*k*Z 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 Ti*k*Z 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 Ti*k*Z 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 Ti*k*Z style the nodes representing muted strings are drawn with. This is equivalent to `\tikzset{muted style/.style={`⟨*TikZ style*⟩`}}`.

`tuning` = {⟨*comma separated list of string names*⟩} Default: `E,B,G,D,A,E`

The tuning. The strings are named from first to sixth string. If you want to remove all names use `tuning` = {,,,,,}.

`restrict-bounding-box` = `true`|`false` Default: `false`

Introduced in version 0.7

If set to `true` the bounding box of the Ti*k*Z picture is not extended by string names, position labels etc. but restricted (more or less) only to the chord scheme diagram itself.

References

[Lea66] William G. Leavitt. *A Modern Method for Guitar*. Vol. 1. Berklee Press Publications, Boston, 1966.

[Leh15] Philipp Lehman, current maintainer: Joseph Wright. etoolbox. version 2.2a, Aug. 2, 2015. URL: http://mirror.ctan.org/macros/latex/contrib/etoolbox/.

[Tan13] Till Tantau. TikZ/pgf. version 3.0.0, Dec. 13, 2013. URL: http://mirror.ctan.org/graphics/pgf/.

[Wri11] Joseph Wright. pgfopts. version 2.1, June 2, 2011. URL: http://mirror.ctan.org/macros/latex/contrib/pgfopts/.

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