# LEADSHEETS

vo.2a 2015/07/07

Typesetting leadsheets and songbooks

#### Clemens NIEDERBERGER

http://www.mychemistry.eu/forums/forum/leadsheets/

#### contact@mychemistry.eu

# **Table of Contents**

I.	About the Package	2	8.3. Options	15
1.	License and Requirements	2	8.4. Song Properties	16 18
2.	Background	2	8.6. Capo Information	18
3∙	The Structure of the Package	3	<ul><li>9. The verse Environment</li><li>9.1. Options</li></ul>	19 20
II.	The musicsymbols Library	5	10. Placing Chords  10.1. The Commands	21 21 22
III. The chords Library (and the musejazz Library)		7	10.3. Caveat	24 24
4. The \writechord Command		7	11. Transposing	
	Options  The musejazz Library	9	12. Other verse-like Environments 12.1. Available Environments 12.2. Own verse-like Environments	28 28 29
			13. Typesetting Bars	31
IV.	. The songs Library	13	14. Templates	32
7.	Background	13	14.1. Title Templates	3 <sup>2</sup> 3 <sup>2</sup>
8.	The song Environment	13	14.1.2. Existing Templates	32
	8.1. A First Example	14	14.1.3. Own Templates	32
	8.2. Using the song Environment.	15	14.1.4. Examples	34

14.2. Verse-type Templates	37 V. Appendix	45
14.2.1. Background		
14.2.2. Existing Templates	37 A. References	45
14.2.3. Own Templates 14.2.4. Examples	<sup>38</sup> P. I. I.	
14.2.4. Examples	39 B. Index	45
15. Internationalization	43	

# Part I.

# **About the Package**

I like beautiful melodies telling me terrible things.

Tom Waits

## 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."

**LEADSHEETS** requires the bundles l3kernel [The13a] and l3packages [The13b] to be available. It also needs the package translations [Nie13].

# 2. Background

Over the years I repeatedly wanted to typeset simple leadsheets of songs, *i. e.*, song lyrics and the corresponding chords.¹ This is not too hard with standard Late commands and environments but it is not very convenient... so looking for existing packages is the logical next step and I found two very promising packages: songs [Ham12] and songbook [Rat10]. However, both were note *quite* what I wanted. Just a bit too inflexible in the wrong places, needing tweaking here and there, and so on. On the other hand I had quite some code lying on my hard drive with various attempts of typesetting leadsheets. This package is now the attempt to have a clean, documented and customisable version of my code.²

<sup>1.</sup> I also have had the need (or let's say: wish) to typeset leadsheets in the style of the *The Real Book* – but this is a task where other software than L<sup>x</sup>TeX usually is far easier.

<sup>2.</sup> Plus new things!

## 3. The Structure of the Package

LEADSHEETS is a modular package and consists of several libraries.<sup>3</sup> If you just say

1 \usepackage{leadsheets}

Package option: full

then the songs library is loaded.<sup>4</sup> If you want to ensure that *every* library is loaded so you don't have to think about it any more you can use

1 \usepackage[full]{leadsheets}

Package option: minimal

This actually loads every library except the musejazz library. If you instead use

1 \usepackage[minimal]{leadsheets}

then *no* libraries are loaded. In this case you have to load the libraries yourself in order to use the package.

\useleadsheetslibraries{\langle comma list of libraries\rangle}

With this command one or several of **LEADSHEETS**' libraries can be loaded.

 $\useleadsheetslibrary{\langle library\rangle}$ 

With this command one of LEADSHEETS' libraries can be loaded.

The libraries are divided into two parts: libraries to be loaded by users and auxiliary libraries loaded by other libraries but not to be loaded directly by users.

The user-libraries are the following ones:

Package option: musicsymbols

**musicsymbols** This library makes the music symbol font provided by MusiXT<sub>E</sub>X available as text font. It is described in part II.

Package option: chords

**chords** This library defines a few macros for typesetting of chord symbols. It is described in part III. It also loads the musicsymbolslibrary.

<sup>3.</sup> This did seem like a good idea for maintenance when I first came up with it. Now I'm not so sure any more but I am way too lazy to change it back. So here we are...

<sup>4.</sup> Which currently means that *all* libraries are loaded as the songs library needs them.

Package option: musejazz

**musejazz** extends the chords library to use MuseScore's "MuseJazz" font, see section 6. It loads the chords library.

Package option: songs

**songs** This is the *main library*. It defines everything necessary for the typesetting of the leadsheets. It currently loads *all other libraries*, *i. e.*, user libraries *and* internal libraries, except for the musejazz library. This library is described in part IV.

Those libraries can also be loaded as a package option. If you say

\usepackage[musicsymbols]{leadsheets}

then only the musicsymbols library is loaded. Saying

1 \usepackage[songs]{leadsheets}

is the same as using the package *without* any options. "Without any" also means that neither musicsymbols, chords nor songs has been given as class option!

There is also a number of auxiliary libraries which are all needed by the songs library. The libraries are usually not described in sections of their own but as part of the songs library. However, the following list gives hints to where some of the concepts are explained:

- **properties** This is an auxiliary library not meant to be loaded directly by users. It defines the necessary macros for song properties. See section 8.4 for more details on the concept.
- **transposing** This is an auxiliary library not meant to be loaded directly by users. It defines a transposing mechanism for chord symbols. See section 11 for further details.
- **chordnames** This is an auxiliary library not meant to be loaded directly by users. It defines the necessary macros for printing chords.
- **templates** This is an auxiliary library not meant to be loaded directly by users. It defines the necessary macros for **LEADSHEETS**' template mechanism. See section 14 for details on the concept.
- **translations** This is an auxiliary library not meant to be loaded directly by users. It provides a few translations for a number of printed strings. See section 15 for more information.

# Part II.

# The musicsymbols Library

Music expresses that which cannot be said and on which it is impossible to be silent.

Victor Hugo

The musicsymbols library is a very small library that makes the music symbol font provided by MusiXTEX available as text font and then uses it to define a number of symbols. This redefines the macros \sharp, \flat and \natural. All defined symbols are listed in table 1.

If you want to use the library standalone then you can say:

- 1 \usepackage[minimal]{leadsheets}
- 2 \useleadsheetslibraries{musicsymbols}

musicsymbols defines three further commands, namely \musix, \textmusix - a font switch and a text font command - and \musicsymbol. Those commands are meant for internal use only which is why they're not explained here.

TABLE 1: Symbols defined by musicsymbols.

Command	Symbol	Command	Symbol
\sharp	#	\flat	b
\doublesharp	×	\doubleflat	<b>&gt;&gt;</b>
\natural	þ		
\trebleclef	&	\bassclef	9:
\altoclef	18		
\allabreve	¢	\meterC	c
\wholerest	-	\halfrest	-
\quarterrest	}	\eighthrest	7
\sixteenthrest	7		

musicsymbols also defines a number of macros for denoting bars. Those macros are listed in table 2.

There are three macros that can be redefined to adjust the appearance of those bars:

TABLE 2: Bar symbols.

Macro	Symbol	Macro	Symbol
\normalbar		\leftrepeat	<b> </b>  :
\rightrepeat	:	\leftrightrepeat	<b>:  </b> :
\doublebar		\stopbar	

\normalbarwidth Default: .02em

The thickness of a bar rule as used in \normalbar.

\thickbarwidth Default: .15em

The thickness of the thick bar rules as used for example in **\leftrepeat** or **\stopbar**.

\interbarwidth Default: .1em

The distance between two bar rules as in  $\doublebar$  or  $\stopbar$ .

#### Ring Of Fire

gespielt von Johnny Cash

Intro: [Bläser]

G C G C G

1. Love is a burning thing
D G D G

And it makes a fiery ring
C G C G

Bound by wild desire

FIGURE 1: One possible layout for LEADSHEETS mimicking the typewriter style.

# Part III.

# The chords Library (and the musejazz Library)

I never practice my guitar – from time to time I just open the case and throw in a piece of raw meat.

Wes Montgomery

#### 4. The \writechord Command

chords provides the command  $\mbox{writechord}\{\langle chord\rangle\}\$  for convenient typesetting of chords:

```
\text{writechord}{Bb7(#9)} \writechord{Bbb6}
\text{2 \writechord}{C#7(b9)} \writechord{C}
\text{Bb}^{7(\psi 9)} \text{Bb}^6 \text{C}\pm^{7(\psi 9)} \text{Cx}^{13}
\text{##13}
```

#### $\chordname\{\langle chord\rangle\}\$

Typesetting chords. Inside the argument every # will be replaced by # and every b is replaced with  $^{b}$ . Numerals and parentheses are typeset as superscripts. Everything between parentheses is always a superscript:  $\mbox{writechord} \{F\#7(\#11)\}\ F\#^{7(\#11)}$ .

#### $\writechord{\langle chord \rangle}$

This command can and actually *should* be used for placing chords inline. It transforms the chords according to the options knows the options <u>input-notation</u> and <u>output-notation</u>. This command also transforms the chord according to the options inside of the song environment <u>transpose</u> and <u>enharmonic</u> before printing it, see also page 21.

There are several token lists that are treated specially inside \writechord:

#### 4. The \writechord Command

```
- This token is replaced by \textsuperscript.
      - The symbol for major chords. Per default this is empty. \writechord{Gma} G.
ma
      – The symbol for minor chords. Per default this is m. \mbox{writechord}\{\mbox{Gmi}\}\mbox{ Gm}.
Мi
      - The symbol for diminished chords. Per default this is \textsuperscript{0}. \
        writechord(Go) Go.
      - The symbol for augmented chords. Per default this is \textsuperscript{+}. \
        writechord\{G+\} G^+.
      - The symbol for half diminished chords. Per default this is \textsuperscript{\o{}}.
/0
        \writechord{G/o} G^{\emptyset}.
      - The "sharp" symbol. Per default this is \sharp. \writechord {F#} F#.
      - The "double sharp" symbol. Per default this is \doublesharp. \writechord{F##} Fx.
##
      - The "flat" symbol. Per default this is \flat. \writechord{Eb} E.
b
      - The "double flat" symbol. Per default this is \doubleflat. \writechord{Ebb} E₺.
bb
      - Cancelling flat/sharp combination: this is removed.
b#
      - Cancelling sharp/flat combination: this is removed.
#b
     - This is superscripted: \writechord{Gadd9} Gadd9.
add
     - This is superscripted: \writechord{Gsus4} G<sup>sus4</sup>.
sus
\mbox{dim } - \mbox{ This is superscripted: $$\writechord{Gdim5}$ $G^{dim5}$.}
maj7 - This is superscripted: \writechord{Gmaj7} G<sup>maj7</sup>.
maj9 - This is superscripted: \writechord{Gmaj9} G<sup>maj9</sup>.
```

How these token lists are treated depends on optional settings:

```
1 \setchords{
2  major-seven = $\Delta$,
3  major-nine = $\Delta$\textsuperscript{9}
4 }
5 \writechord{Gmaj7} \writechord{Gmaj9}
6 \writechord{G^6} \writechord{G6}
7 \writechord{G7^#5}
```

```
G\Delta~G\Delta^9~G^6~G^6~G^{7\sharp 5}
```

If you want to use the library standalone then you can say:

```
1 \usepackage[minimal]{leadsheets}
2 \useleadsheetslibraries{chords}
```

This also loads the musicsymbols library.

# 5. Options

Options are set with the command

```
\setchords{\langle options \rangle}
```

where  $\langle options \rangle$  is a comma separated list of keyval options.

Actually there's a second possibility: options can also be set with the command \setleadsheets (see section 8.3) if they're preceded by chords/ (including the slash).

The options allow detailed customization of how chords are printed. It doesn't change the input syntax.

```
format = \{\langle code \rangle\}  (initially empty)
```

Code inserted before a chord within the same group. Can be used for special formatting of the chords, with \sffamily, say.

```
sharp = \{\langle code \rangle\} Default: \sharp
```

The sharp symbol.

```
flat = {\langle code \rangle} Default: \backslash flat
```

The flat symbol.

```
double-sharp = \{\langle code \rangle\} Default: \doublesharp
```

The double sharp symbol.

```
double-flat = \{\langle code \rangle\} Default: \doubleflat
```

The double flat symbol.

```
aug = \{\langle code \rangle\} Default: +
```

The augmented symbol.

```
half-dim = \{\langle code \rangle\} Default: \o{}
```

The half-diminished symbol.

```
full-dim = \{\langle code \rangle\}
                                                                                                  Default: o
  The diminished symbol.
dim = \{\langle code \rangle\}
                                                                       Default: \textsuperscript{dim}
  The token list dim.
add = \{\langle code \rangle\}
                                                                       Default: \textsuperscript{add}
  The token list add.
sus = \{\langle code \rangle\}
                                                                       Default: \textsuperscript{sus}
  The token list sus.
major = \{\langle code \rangle\}
                                                                                           (initially empty)
  The token list ma.
minor = \{\langle code \rangle\}
                                                                                                  Default: m
  The token list mi.
major-seven = \{\langle code \rangle\}
                                                                     Default: \textsuperscript{maj7}
  The token list maj 7.
major-nine = \{\langle code \rangle\}
                                                                     Default: \textsuperscript{maj9}
  The token list maj 9.
     There are further options which concern the different notations of the pitches B and B<sub>9</sub> in
   German (and a few other European countries) and English.
input-notation = german|english
                                                                                          Default: english
   and B flat as Bb.
output-notation = german|english
                                                                                          Default: english
```

Changed in version 0.2

Changed in

version 0.2

If set to german B should be input as H and B flat as B. If set to english B should be input as B

Default: B

Default: H

If set to german B is output as H and B-flat as B.

 $german-B = \{\langle code \rangle\}$ 

Customize the output of B flat when output-notation = {german}.

 $german-H = \{\langle code \rangle\}$ 

Introduced in version o.2

Introduced in version 0.2

Customize the output of B when  $output-notation = \{german\}.$ 

Let's see a few examples for the input-notation and output-notation options.

```
input and output English:\par
_{2} \writechord{Bb} \writechord{B} \writechord{B#}\par
3 \writechord{B} \writechord{H#}\par
4 \medskip
6 \setchords{input-notation=german}
```

```
7 input German and output English:\par
8 \writechord{Bb} \writechord{B} \writechord{B#}\par
9 \writechord{B} \writechord{H#}\par
10 \medskip
\setchords{output-notation=german}
13 input and output German:\par
_{^{14}} \writechord{Bb} \writechord{B}\\par
_{^{15}}\ \writechord{B} \writechord{H} \writechord{H#}\par
17 \medskip
input English and output German:\par
20 \writechord{Bb} \writechord{B} \writechord{B#}\par
21 \writechord{B} \writechord{H} \writechord{H#}
  input and output English:
  B♭ B B#
  BBB#
  input German and output English:
  B → B → B
  B♭ B B#
  input and output German:
  B♭B H
  BHH#
  input English and output German:
  ВНН#
  HHH#
```

# 6. The musejazz Library

The musejazz library extends the chords library to use MuseScore's  $^5$  font "MuseJazz" for the chord symbols. The library contains the two lines which explains why it requires LualFTeX or XqLFTeX. Well, and the font, obviously.

```
1 \RequirePackage{fontspec}
2 \newfontfamily\musejazz{MuseJazz}
```

<sup>5.</sup> http://musescore.com/

#### 6. The musejazz Library

Here is a small example of it's usage and the outcome:

```
1 % compile with LuaLaTeX or XeLaTeX
2 \documentclass[margin=4mm]{standalone}
3 \usepackage{leadsheets}
4 \useleadsheetslibrary{musejazz}
5 \begin{document}
6 \Huge\writechord{Bb7(#9)}\space\writechord{F##9}
7 \end{document}
Bb7(#9) Fx9
```

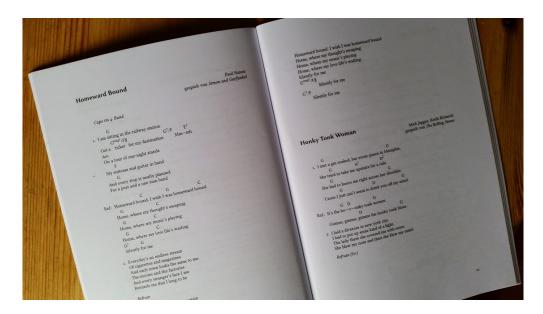


FIGURE 2: Even before officially publishing this bundle I used it for typesetting a small songbook!

# Part IV.

# The songs Library

I don't care about the rules. If I don't break the rules at least ten times every song then I'm not doing my job.

Jeff Beck

# 7. Background

The LEADSHEETS package allows for easy creation of leadsheets but it also can be used to create complete songbooks. The basic idea is that songs are typeset in the song environment. Each song gets a number of properties (see section 8.4) that determine how the title of the song is typeset. For the typesetting of the titles a template mechanism is used (see section 14.1). Songs can also be tagged. The tags then allow to typeset only songs matching a list of tags that is specified via an option.

# 8. The song Environment

 $\begin{song}[\langle options \rangle] {\langle properties \rangle}$ 

The main environment used to typeset songs. It has a mandatory argument where the song's

properties are set (*cf.* section 8.4). It also has an optional argument for setting options specific to the song.

#### 8.1. A First Example

First let's take a look at an example:

```
1 \documentclass{article}
2 \usepackage{leadsheets}
3 \begin{document}
_5 \begin{song}{title={Mary Had A Little Lamb}, music={Stevie Ray Vaughan},
      lyrics={traditional}, tags={srv,blues}}
7 \begin{verse}
8 Mary had a little lamb \\
   Its fleece was white as snow, yea \\
   Everywhere the child went \\
   The little lamb was sure to go, yea
12 \end{verse}
13 \begin{verse}
   He followed her to school one day \\
   And broke the teacher's rule \\
  What a time did they have \\
   That day at school
18 \end{verse}
19 \end{song}
21 \end{document}
              Mary Had A Little Lamb
                  Mary had a little lamb
                  Its fleece was white as snow, yea
                  Everywhere the child went
                  The little lamb was sure to go, yea
                  He followed her to school one day
                  And broke the teacher's rule
                  What a time did they have
                  That day at school
```

Per default the songtitle simply is a \section\* without any other additions. This is the

songtitle template *minimal*, see section 14.1 for more details on those templates and how to create your own.

#### 8.2. Using the song Environment

Inside the song environment a number of additional environments are used to specify the different parts of a song. They all are basically the same kind of environment, namely an itemize environment internally where the only \item has the name of the environment as option. The verse environment is a little bit different since verses can be numbered. If they are then each usage of verse inside song will step a vers number and print it (as option to the internal \item).

```
\begin{verse}[⟨options⟩]
  An environment for specifying the verses of a song.

\begin{chorus}[⟨options⟩]
  An environment for specifying the chorus of a song.
  This is the same as \begin{verse}[type=chorus,⟨options⟩].

\begin{intro}[⟨options⟩]
  An environment for specifying the intro of a song.
  This is the same as \begin{verse}[type=intro,⟨options⟩].

\begin{interlude}[⟨options⟩]
  An environment for specifying an interlude of a song.
  This is the same as \begin{verse}[type=interlude,⟨options⟩].

\begin{bridge}[⟨bridge⟩]
  An environment for specifying a bridge of a song.
  This is the same as \begin{verse}[type=bridge,⟨options⟩].
```

These environments and their options are described in more detail in sections 9 and 12.

#### 8.3. Options

The options to the song environment are the same as the general options of LEADSHEETS. This means you can set the following options either local to a song or global for the whole document with this command:

```
\setleadsheets{\langle options \rangle}
Setup command for LEADSHEETS.
```

Although I used the word "global" above all options are local to the current scope!

```
title-template = {\langle template name \rangle} Default: minimal
```

The songtitle template, see section 14.1 for details.

```
chord-cs = \{\langle cs \rangle\}
                                                                                                     Default: \chordname
```

The command that is used to parse the chords. See section 10 for details.  $\langle cs \rangle$  needs to be a command that takes a mandatory argument.

```
song-format = \{\langle T_F X code \rangle\}
                                                                                                               (initially empty)
```

 $\langle T_F X \ code \rangle$  is inserted *before* the song title at the beginning of the song environment.

```
text-format = \{\langle T_E X code \rangle\}
                                                                                                             (initially empty)
```

 $\langle T_E X code \rangle$  is inserted *after* the song title at the beginning of the song environment.

```
print-tags = \{\langle list \ of \ tags \rangle\}
```

A comma separated list of tags. When specified a song will only be printed if it is tagged with at least one of the tags in  $\langle list \ of \ tags \rangle$ .

```
obey-lines = true|false
```

Default: false An experimental option. Use at your own risk! If set to true then inside the verse like environments end-of-lines will be obeyed and start a new line. This comes with a price when

using chords, see section 10.3.

bar-shortcuts = true|false

Default: false

Makes the characters: and | active inside the song environment. See sections 8.5 and 13 for more details.

#### 8.4. Song Properties

Songs can have a number of properties which basically are used in songtitle templates (see section 14.1). One specific property, tags, plays a different role, though.

```
title = \{\langle title \rangle\}
```

This is the main title of the song.

```
subtitle = \{\langle subtitle \rangle\}
```

A subtitle.

```
short-title = \{\langle short song title \rangle\}
```

A short title (may be useful in a template that writes the titles in \sections for a version to be used in the table of contents).

```
sort-title = \{\langle song\ title \rangle\}
```

If not set explicitly this property holds the same value as title.

```
sort-short-title = \{\langle short song title \rangle\}
```

If not set explicitly this property holds the same value as short-title.

```
composer = \{\langle composer \rangle\}
```

The composer of the song. As of now this accepts an arbitrary entry but maybe this will not be supported any more when indexing will be implemented. No promises.

```
sort-composer = \{\langle composer \rangle\}
  If not set explicitly this property holds the same value as composer.
lyrics = \{\langle writer \rangle\}
  Whoever wrote the lyrics if different from the composer. As of now this accepts an arbitrary
  entry but maybe this will not be supported any more when indexing will be implemented. No
  promises.
sort-lyrics = \{\langle writer \rangle\}
  If not set explicitly this property holds the same value as writer.
arr = \{\langle arranger \rangle\}
  Whoever arranged the song. As of now this accepts an arbitrary entry but maybe this will not
  be supported any more when indexing will be implemented. No promises.
sort-arr = \{\langle arranger \rangle\}
  If not set explicitly this property holds the same value as arr.
band = \{\langle band \rangle\}
  The band who plays or played the song.
sort-band = \{\langle band \rangle\}
  If not set explicitly this property holds the same value as band.
interpret = \{\langle interpret \rangle\}
  The interpret of the song. As of now this accepts an arbitrary entry but maybe this will not be
  supported any more when indexing will be implemented. No promises.
sort-interpret = \{\langle interpret \rangle\}
  If not set explicitly this property holds the same value as interpret.
genre = \{\langle genre \rangle\}
  The genre of the song.
key = \{\langle key \rangle\}
  The key of the song. This property is used for transposing and must have a specific format then,
  see section 11.
capo = \{\langle fret \rangle\}
  This property is used for transposing and for the \capo macro, see sections 8.6 and 11.
tempo = \{\langle tempo \rangle\}
  The tempo of the song.
tags = \{\langle tags \rangle\}
```

A comma separated list of tags. Those tags play a role for the option print-tags. When that option is used a song is only printed if it has at least one of the tags specified in the option.

There are three more properties, counter, ID and height that cannot be set but are set automatically for each song. The counter simply holds the number of the current song starting from 1 for the first song. The ID currently always ia  $song\langle counter\rangle$  where  $\langle counter\rangle$  is the current counter value. The property height holds the height of the typeset song in pt. The height is determined by placing the body of the respective song environment in a vertical box and measuring the height and depth of the box. This is done in a measuring phase that can be tested in a songtitle template definition, see section 14.1 for details. This is important since the property height is not available in the measuring phase but only afterwards!

In principle all properties can get list of entries where items are separated with <code>\_and\_.</code> Of course this doesn't make sense for each property – a song does only have one title. But a song can very well have more than one composer: think of the Beatles where most songs were written by Paul McCartney and John Lennon.<sup>6</sup>

It is possibly to define further such properties. For details see section 14.1.3.

#### 8.5. Special Characters

Inside the song environment several characters don't have their usual category codes:

- category code 13 (active). It is a shortcut for the \chord command.
- category code 13 (active). It is a shortcut for the \writechord command.
- category code 13 (active). Used for typesetting bars.
- : category code 13 (active). Used for typesetting bars.
- # category code 12 (other). Used for chord names.

Actually the characters | and : are *not* changed per default. In order to do that you have to use the option bar-shortcuts.

For details on the usage of the characters | and : see section 13. The usage of chords is explained in section 10.

#### 8.6. Capo Information

When you set the capo property the macro \capo writes

Capo: IV. fret

What it writes *exactly* depends on a few settings: the capo property obviously, which determines the number that is printed. The translations for the "capo" and "fret" strings (see section 15 for details) and the setting of the following option:

```
capo-nr-format = arabic|roman|Roman
```

Default: Roman

The format of the number printed by the \capo macro.

$$capo-nr = \{\langle code \rangle\}$$
 Default: #1.

The code to print the number. In the code refer to the number with #1.

<sup>6.</sup> This is not quite true: most songs were mostly written either by Paul or John but legally usually both are the composers.

#### 9. The verse Environment

```
\begin{verse} [\langle options \rangle]
```

An environment for specifying the verses of a song.

```
\begin{verse*} [\langle options \rangle]
```

The same as the verse environment but will always be unnumbered regardless of any option settings.

```
1 \documentclass{article}
2 \usepackage{leadsheets}
3 \setleadsheets{verse/numbered=true}
4 \begin{document}
6 \begin{song}{title=Foo}
7 \begin{verse}
   Lorem ipsum dolor sit amet, consetetur sadipscing elitr,\\
   sed diam nonumy eirmod tempor invidunt ut labore et dolore\\
   magna aliquyam erat, sed diam voluptua.
11 \end{verse}
12 \begin{verse*}
  Lorem ipsum dolor sit amet, consetetur sadipscing elitr,\\
   sed diam nonumy eirmod tempor invidunt ut labore et dolore\\
   magna aliquyam erat, sed diam voluptua.
16 \end{verse*}
17 \begin{verse}
   Lorem ipsum dolor sit amet, consetetur sadipscing elitr,\\
  sed diam nonumy eirmod tempor invidunt ut labore et dolore\\
20 magna aliquyam erat, sed diam voluptua.
21 \end{verse}
_{22} \end{song}
24 \end{document}
```

#### Foo

 Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.

#### 9.1. Options

The verse environment and all related environments have the following options:

```
format = \{\langle code \rangle\}  (initially empty)
```

 $\langle code \rangle$  is inserted at the beginning of the environment and can thus be used to add formatting, e.g., format = {\itshape}.

$$label-format = \{\langle code \rangle\}$$
 (initially empty)

The same for the environment labels.

```
class = \{\langle class-name \rangle\} Default: default
```

Introduced in version 0.2

The verse environment and all related environments all belong to a class, the default class is called default. This is of interest when using the remember-chords and recall-chords options.

This can be used either locally, *i. e.*, as option to the corresponding environment, or for all environments of the same type using the setup command using the following syntax:

```
\strut = \langle code \rangle
```

- \begin{verse}[format=\itshape]
- $_{\scriptscriptstyle 2}$   $\,$  Lorem ipsum dolor sit amet, consetetur sadipscing elitr,\\
- sed diam nonumy eirmod tempor invidunt ut labore et dolore\\
- 4 magna aliquyam erat, sed diam voluptua.
- 5 \end{verse}

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.

It is also possible so set the formatting for all related environments at once:

```
verses-format = \{\langle code \rangle\}  (initially empty)
```

Sets the format for all verse like environments.

```
verses-label-format = \{\langle code \rangle\}  (initially empty)
```

Sets the label format for all verse like environments.

Both options are overwritten if the options for a specific environment are set. That is, if you want all environments to have italic shape except for choruses, then you could do

```
1 \setleadsheets{
2  verses-format = \itshape ,
3  chorus/format =
4 }
```

### 10. Placing Chords

#### 10.1. The Commands

```
\chord* - \{\langle chord \rangle\} \langle text \rangle
```

Places  $\langle \mathit{chord} \rangle$  centered above  $\langle \mathit{text} \rangle$ . The starred version gobbles the trailing space while the unstarred version does not. Like the star the dash is optional. It sets the option <code>smash-next-chord</code> to <code>true</code>.  $\langle \mathit{text} \rangle$  may be empty but the trailing space  $\mathit{must}$  be there. If  $\langle \mathit{text} \rangle$  is empty then the chord is place above some horizontal space which can be set with the option <code>empty-chord-dim</code>.

```
\writechord{\langle chord \rangle}
```

This command transforms the chord according to the options transpose and enharmonic before printing it. This command can/should be used for placing chords inline or for typesetting the key property in a template. The command is used by \chord for the actual printing. The command also transforms the chords according to the options input-notation and output-notation.

<sup>7.</sup> There are more characters with a special function, see section 8.5

```
Text \chord{E7}text \chord*{B7}lon ger E^7 B^7 text text longer text
```

#### 10.2. Usage

Note that per default the width of a chord is not ignored:

However, there is an option which sets the width of a chord to zero:

```
smash-chords = true|false Default: false
```

If set to true the width of the chords set with \chord is set to zero.

```
smash-next-chord = true | false Default: false
```

If set to true the width of the next chord set with \chord is set to zero.

Before we forget – there are more options:

```
empty-chord-dim = \{\langle dim \rangle\} Default: 1em
```

The horizontal space that is inserted if the  $\langle text \rangle$  argument of  $\backslash$  chord is empty.

```
align-chords = \{\langle col \rangle\} Default: c
```

Determines how a chord is aligned with respect to the word it is placed above of. Valid input is any valid tabular column identifier.

```
print-chords = \underline{true}|false Default: true
```

If set to false \chord won't print the chord but will do nothing instead. This options does not affect \writechord.

While \chord is available in the whole document the ^ syntax is – as mentioned before – only available inside of the song environment.

```
1 \documentclass{article}
2 \usepackage{leadsheets}
3 \begin{document}
  \begin{song}{title={Mary Had A Little Lamb}, music={Stevie Ray Vaughan},
      lyrics={traditional}, tags={srv,blues}}
7 \begin{verse}
    ^{E7} Mary had a little lamb ^{A7} \\
    Its fleece was white as ^{E7}snow, yea \\
   Everywhere the child ^{B7}went ^{A7} \\
    The little lamb was sure to ^{E7}go, yea
12 \end{verse}
13 \begin{verse}
   {E7} He followed her to school one day {A7} \
   And broke the teacher's ^{E7}rule \\
    What a time did they {B7}have {A7} \
    That day at ^{E7}school
18 \end{verse}
19 \end{song}
21 \end{document}
              Mary Had A Little Lamb
                     Mary had a little lamb
                  Its fleece was white as snow, yea
                   Everywhere the child went
                  The little lamb was sure to go, yea
                     He followed her to school one day
                   And broke the teacher's rule
                   What a time did they have
                             \mathbf{F}^7
```

You've probably noticed: chords are printed with \chordname in the default setting. You can change this with the option chord-cs. If you do then keep in mind that the input syntax will also change.

#### 10.3. Caveat

If you use obey-lines = {true} you have to be careful when you place chords. If you place a chord over the last word in a line

```
¹ ^{F#mi} You've been ^*{B}run nin', ^*{E}hid in' much too ^{A}long.
```

then the end of line that is used as the mandatory space argument for \chord may not be recognized as an end of line. Even worse: at the end of a verse like environment this may cause non-obvious errors. So if you're getting in trouble in these cases you should always insert an explicit space, *e. g.* by one of the following methods:

```
'a ^{F#mi} You've been ^*{B}run nin', ^*{E}hid in' much too ^{A}long. {}

a ^{F#mi} You've been ^*{B}run nin', ^*{E}hid in' much too ^{A}long. \empty

a ^{F#mi} You've been ^*{B}run nin', ^*{E}hid in' much too ^{A}long. \relax
```

#### 10.4. Remembering Chords

LEADSHEETS has the option

```
remember-chords = true|false
```

Default: false

If set to true the chords in the *first* appearance of a verse like environment are remembered. In the next appearances of said environment the shortcut ^ has changed its meaning and inserts a chord automatically.

Let's take at look at an example to see what this means:

```
1 \definesongtitletemplate{empty}{}
2 \begin{song}[verse/numbered,remember-chords,title-template=empty]{title=foobar}
3 \begin{verse}
4    ^{G}Lorem ipsum ^{C}dolor sit ^{E7}amet, consetetur ^{Bb7(b5)}sadipscing
5 \end{verse}
6 \begin{verse}
7    ^Lorem ipsum ^dolor sit ^amet, consetetur ^sadipscing
8 \end{verse}
9 \end{song}
```

G C E<sup>7</sup> B<sub>b</sub><sup>7(55)</sup>

1. Lorem ipsum dolor sit amet, consetetur sadipscing

G C E<sup>7</sup> B<sub>b</sub><sup>7(55)</sup>

2. Lorem ipsum dolor sit amet, consetetur sadipscing

In this example the chords used in the first verse environment have been remembered and in the second verse environment the ^ shortcut inserted the corresponding chords in the order they had been specified the first time. It is important when using this that you don't use the ^ shortcut in subsequent environments more often than the first time. It will produce an error otherwise. You can use it less, of course.

The  $^{\circ}$  shortcut still has the *the same* syntax as  $^{\circ}$  with one exception: it lacks the mandatory argument  $^{\circ}$  (since it's obviously not needed). It has the optional  $^{*}$  and  $^{\circ}$ , though, as well as the mandatory space ()!

Each verse like environment (see section 12 for more information) is treated uniquely by this mechansim:

```
1 \definesongtitletemplate{empty}{}
  2 \begin{song}[verse/numbered,remember-chords,title-template=empty]{title=foobar}
  3 \begin{verse}
      ^{G}Lorem ipsum ^{C}dolor sit ^{E7}amet, consetetur ^{Bb7(b5)}sadipscing
  5 \end{verse}
    \begin{chorus}
      ^{F}Lorem ipsum ^{Gmi}dolor sit amet, consetetur ^{C7}sadipscing
  8 \end{chorus}
    \begin{verse}
      ^Lorem ipsum ^dolor sit ^amet, consetetur ^sadipscing
  11 \end{verse}
  12 \begin{chorus}
      ^Lorem ipsum ^dolor sit amet, consetetur ^sadipscing
  14 \end{chorus}
  15 \end{song}
                                                  B<sub>2</sub>7(55)
                                E^7
          G
                       C
     1. Lorem ipsum dolor sit amet, consetetur sadipscing
                      Gm
Chorus: Lorem ipsum dolor sit amet, consetetur sadipscing
     2. Lorem ipsum dolor sit amet, consetetur sadipscing
```

F Gm  $C^7$  Chorus: Lorem ipsum dolor sit amet, consetetur sadipscing

This is important: verse and verse\* are treated as two different environments, the same holds for all starred verse like environments! If you want to recall the chords of a different type of environment, then you can use the option recall-chords:

```
1 \definesongtitletemplate{empty}{}
  2 \begin{song}[verse/numbered,remember-chords,title-template=empty]{title=foobar}
  3 \begin{verse}
      ^{G}Lorem ipsum ^{C}dolor sit ^{E7}amet, consetetur ^{Bb7(b5)}sadipscing
  _{5} \setminus end\{verse\}
    \begin{chorus}
      ^{F}Lorem ipsum ^{Gmi}dolor sit amet, consetetur ^{C7}sadipscing
  8 \end{chorus}
  9 \begin{verse}
      ^Lorem ipsum ^dolor sit ^amet, consetetur ^sadipscing
  11 \end{verse}
  12 \begin{chorus}[recall-chords=verse-default]
      ^Lorem ipsum ^dolor sit amet, consetetur ^sadipscing
  14 \end{chorus}
  15 \end{song}
                                E^7
                                                  Bb7(b5)
                       C
          G
     1. Lorem ipsum dolor sit amet, consetetur sadipscing
           F
                      Gm
Chorus: Lorem ipsum dolor sit amet, consetetur sadipscing
                                E^7
     2. Lorem ipsum dolor sit amet, consetetur sadipscing
                       C
          G
Chorus: Lorem ipsum dolor sit amet, consetetur sadipscing
```

# 11. Transposing

Provided a song has the property key *and* the key is given as one of the twelve "usual" keys, *i. e.*, one of the keys given in table 3, the chords of a song can be transposed.

#### 11. Transposing

#### $transpose = \{\langle number \rangle\}$

Transposes the chords of a song by  $\langle number \rangle$  of semitones.  $\langle number \rangle$  can be a negative number, then the chords are transposed down.

#### enharmonic = sharp|flat

Suppose you transpose a song in the key of E down a semitone. **LEADSHEETS** will then transpose to the key of E<sup>b</sup>. It always chooses the key whose signature has less accidentals. You can force a variant, though, by using this option. With enharmonic = {sharp} LEADSHEETS would have chosen D# instead of E<sup>b</sup>.

#### transpose-capo = true|false

When this is set to true chords are transposed down on semitone per capo fret.

The transposing mechanism relies on the chords input syntax which means that if you change <a href="chord-cs">chord-cs</a> horrible things may happen. So don't change <a href="chord-cs">chord-cs</a> and use <a href="transpose">transpose</a> at the same time!

Key	Input	Key	Input	Key	Input	Key	Input	Key	Input	Key	Input
С	С			С	Cma			Am	Ami		
G	G	F	F	G	Gma	F	Fma	Em	Emi	Dm	Dmi
D	D	ВЬ	Bb	D	Dma	B♭	Bbma	Bm	Bmi	Gm	Gmi
A	Α	E♭	Eb	A	Ama	E♭	Ebma	F#m	F#mi	Cm	Cmi
E	Е	A♭	Ab	E	Ema	A♭	Abma	C#m	C#mi	Fm	Fmi
В	В	$D_{\flat}$	Db	В	Bma	$\mathbf{D}_{}$	Dbma	G#m	G#mi	F♭m	Fbmi
F#	F#	G♭	Gb	F#	F#ma	G	Gbma	D#m	D#mi	E♭m	Ebmi

TABLE 3: Allowed keys for the key property.

```
What a time did they {B7}have {A7} \
     That day at ^{E7}school
18 \end{verse}
19 \end{song}
21 \end{document}
                 Mary Had A Little Lamb
                      F^{\sharp 7}
                          Mary had a little lamb
                       Its fleece was white as snow, yea
                                            C♯<sup>7</sup> B<sup>7</sup>
                       Everywhere the child went
                       The little lamb was sure to go, yea
                          He followed her to school one day
                                             F^{\sharp 7}
                       And broke the teacher's rule
                                            C#7 B7
                       What a time did they have
```

#### 12. Other verse-like Environments

Songs can have lots of different kinds of parts: verses, choruses, bridges, intros, outros, and so on. Typographically they're all more or less the same, at least for the purpose of this package. This means we'd ideally have environments for all of these parts with a distinct name in order to get a clean source. At the same time these environments should all behave basically the same. This is what the environments described in the following sections are for.

#### 12.1. Available Environments

```
\begin{chorus}[⟨options⟩]
An environment for specifying the chorus of a song.

\begin{chorus*}[⟨options⟩]
The same as chorus but does not display the label.

\begin{intro}[⟨options⟩]
An environment for specifying the intro of a song.

\begin{intro*}[⟨options⟩]
The same as intro but does not display the label.

\begin{interlude}[⟨options⟩]
An environment for specifying an interlude of a song.
```

```
\begin{bridge} [\langle bridge \rangle]
```

An environment for specifying a bridge of a song.

```
\left( \text{begin} \left( \text{info} \right) \right) \left( \text{options} \right) \right]
```

An environment for specifying arbitrary information. This environment has no label.

```
\begin{solo}{(options)}
```

An environment for specifying a solo to a song.

```
\begin{solo*}[\langle options \rangle]
```

The same as solo but does not display the label.

#### 12.2. Own verse-like Environments

All environments mentioned in the previous section were defined with this command:

```
\newversetype*{\langle environment\ name \rangle}[\langle default\ options \rangle]
```

This defines an environment  $\langle environment\ name \rangle$ . This environment uses the verse-type template *itemize* (see section 14.2) unless specified differently in the  $\langle default\ options \rangle$ . The starred version defines an environment which hides the displayed name. More precisely: the macro  $\langle verselabel$  that is used in verse-type template definitions prints nothing in an environment defined with  $\langle verselabel \rangle$ .

This also defines a translation string (see section 15) leadsheets/ $\langle environment\ name \rangle$  with both an empty translation fallback and English translation unless specified differently with the name option.

At last this defines a new counter  $\langle environment\ name \rangle$  and sets  $\the \langle environment\ name \rangle$  to  $\arabic$ {environment\ name}..

As mentioned before in section 9.1 all environments defined this way have the options format and label-format. They have more options. Here's a complete list:

```
format = \{\langle code \rangle\}  (initially empty)
```

 $\langle code \rangle$  is inserted at the beginning of the environment and can thus be used to add formatting, *e. g.*, format = {\itshape}.

```
label-format = \{\langle code \rangle\}  (initially empty)
```

Default::

The same for the environment labels.

```
after-label = \{\langle code \rangle\}
```

 $\langle code \rangle$  is inserted in the label after the label text.

```
name = \{\langle name \rangle\}  (initially empty)
```

The translation fallback and English translation of the environment. This should only be used with \newversetype. Later changes should be made with \DeclareTranslation (see section 15).

```
template = \{\langle template \rangle\} Default: itemize
```

The verse-type template used for the environment, see section 14.2 for details.

```
numbered = true|false
```

Default: false

If set to true \verselabel (used in verse-type template definitions, see section 14.2) adds a number after the name.

```
named = true|false
```

Default: true

If set to true \verselabel (used in verse-type template definitions, see section 14.2) prints the name of the current environment (as determined by the translation of the corresponding string, see also section 15).

```
recall-chords = \{\langle environment \rangle - \langle class \rangle\}
```

An option to be used with the remember-chords mechanism, see section 10.4 for an example. If you're not using different classes then  $\langle class \rangle$  needs to be default, see also page 20. The class to a verse-like environment allows for example to have verses with different chords which are still counted reguarly together with the remember-chords option.

There are also a number of general options for setting the defaults of some options for all environments:

```
verses-format = \{\langle code \rangle\}
```

(initially empty)

Sets the format for all verse like environments.

```
verses-label-format = \{\langle code \rangle\}
```

(initially empty)

Sets the label format for all verse like environments.

```
verses-after-label = \{\langle code \rangle\}
```

Default::

Defeault  $\langle code \rangle$  that is inserted in the label after the label text of verse like environments.

This options only determine the formatting of an environment if the corresponding options of the environment hasn't been set.

Let's summarize: the label text of these environments is built of three items in the following order:

- 1. The  $\langle code \rangle$  set with the corresponding label-format option.
- 2. The label text as defined as second argument to \newversetype or as declared through the corresponding translation.
- 3. The  $\langle code \rangle$  set with the corresponding after-label option.

```
1 \newversetype{foo}{Foo}
2 \setleadsheets{
3   foo/label-format = \bfseries ,
4   foo/after-label = ~$\Rightarrow$
5 }
6 \begin{foo}
7   Lorem ipsum dolor sit amet, consetetur sadipscing elitr,\\
8   sed diam nonumy eirmod tempor invidunt ut labore et dolore\\
```

```
9 magna aliquyam erat, sed diam voluptua.

10 \end{foo}

Foo

⇒ Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.
```

And just to give you some more examples here is how some of the existing environments are defined:

```
1 \newversetype{verse}[ name=Verse, named=false, after-label= ]
2 \newversetype*{verse*}
3 \newversetype{chorus}[ name=Chorus ]
4 \newversetype*{chorus*}
```

## 13. Typesetting Bars

Sometimes it can be useful to typeset the chord scheme of a song. Then one should be able to indicate start and beginnings of bars, maybe indicate repeats and so on. While this is obviously possible with the macros provided by the musicsymbols package listed in table 2 it may be more convenient to have a shorter syntax. This is why inside the song environment some characters can be made (or are) active (see section 8.5). For the typesetting of bars this are the characters: nor |. Per default they are not active, though. If you want to use the shortcut syntax you have to use the option bar-shortcuts. Here's a short example that emulates the behaviour by setting the characters active explicitly:

```
| \catcode'|=\active
| \catcode':=\active
| \square \text{repeat} | \text{this} : | \text{par} | | |
| \text{this} | \text{part} | \text{end} | \text{this} : | \text{par} |
| \text{the} | \text{song} | \text{is over} | \text{now} | |
| \text{repeat} | \text{this} : | \text{and} | \text{this} : | \text{this} | \text{part} | \text{ends} | \text{this} : | \text{this} | \text{part} | \text{ends} | \text{this} | \text{ends} | \text{the} | \text{ends} | \text{the} | \text{ends} | \te
```

All possibly combinations that have a special definition are shown in the example above. The replacements that are done internally are these:

- \normalbar\space (the space is there because otherwise it eats following spaces which would be annoying)

```
|: - \leftrepeat

:| - \rightrepeat

:|: - \leftrightrepeat

|| - \doublebar

||| - \stopbar
```

## 14. Templates

#### 14.1. Title Templates

#### 14.1.1. Background

The titles of songs set with the song environment are displayed according to the chosen title template. It is chosen through the option title-template which can be set with \setleadsheets or as option to a specific song environment. LEADSHEETS provides few predefined templates and an easy mechanism to define own templates.

#### 14.1.2. Existing Templates

Currently **LEADSHEETS** provides two templates:

*minimal* This only typesettes the song title in a \section\*.

**tabular** This typesets the song title in a \section and prints some song properties in a tabular below it. This template needs the array [MCo8] package loaded.

#### 14.1.3. Own Templates

The principle is pretty straight forward: templates are defined with the following command:

```
\definesongtitletemplate\{\langle name \rangle\}\{\langle code \rangle\}
This defines the template \langle name \rangle.
```

Inside of  $\langle code \rangle$  any code can be used. The idea is that you use the commands presented below to insert song properties where you want them.

First there are two commands related to defining new properties:

```
\definesongproperty{\langle property\rangle}
```

Defines a new property  $\langle property \rangle$ . All existing properties have been defined this way. The command can only be used in the preamble.

```
\copysongproperty{\langle from \rangle}{\langle to \rangle}
```

Copies the values of property  $\langle from \rangle$  to property  $\langle to \rangle$  if property  $\langle to \rangle$  has not been set but property  $\langle from \rangle$  has been. For example all sort- $\langle property \rangle$  properties have been treated this way so they have the  $\langle property \rangle$  value as fallback. The command can only be used in the preamble.

Then there are a number of commands related to retrieving and using the values of properties. All these commands only make sense inside a title template definition (see section 14.1). Some of the commands are expandable which means they can be used in an \edef like context, *i. e.*, they are also suitable for writing the property values to the table of contents or other auxiliary files.

#### \*\songproperty $\{\langle property \rangle\}$

Retrieves property \( \rho perty \rangle .

```
\label{lem:last_two} $$ \begin{array}{ll} \c ode \c od
```

Prints a property list  $\langle property \rangle$  separated with  $\langle between\ two \rangle$  if the list contains only two items and separated with  $\langle between\ more \rangle$  and  $\langle between\ last\ two \rangle$  if the list contains more than two items.  $\langle code \rangle$  is placed directly in front of each item and items are surrounded with braces which means that the last token in  $\langle code \rangle$  may be a macro with a mandatory argument.

```
\usesongpropertylist[\langle code \rangle]{\langle property \rangle}{\langle between \rangle} Default: \@firstofone
```

Like \printsongpropertylist but separates items with  $\langle between \rangle$  regardless of the length of the list.

#### \* \forsongpropertylist{ $\langle property \rangle$ }{ $\langle code \rangle$ }

Places all items of the property list  $\langle property \rangle$  in the input stream, each item preceded with  $\langle code \rangle$ . Items are surrounded with braces which means that the last token in  $\langle code \rangle$  may be a macro with a mandatory argument.

#### \* \ifsongproperty $\{\langle property \rangle\}\{\langle true \rangle\}\{\langle false \rangle\}$

Checks if property \( \rhoperty \rangle \) has been set.

```
\ifsongpropertiesequal\{\langle property 1 \rangle\}\{\langle property 2 \rangle\}\{\langle true \rangle\}\{\langle false \rangle\}
```

Checks if properties  $\langle property 1 \rangle$  and  $\langle property 2 \rangle$  have been set to the same value.

#### \* \ifsongmeasuring $\{\langle true \rangle\}\{\langle false \rangle\}$

**LEADSHEETS** measures the height of a song body before it typesets it and it can be necessary in a template to know if the measuring phase is active or not. For example the song property height should only be used if *not* in the measuring phase: it's value get's determined there and is not yet available.

```
\ensuremath{\mbox{expandcode}} \{ \ensuremath{\mbox{code}} \}
```

```
Exhaustively expands \langle code \rangle. Experienced users won't need this. It is essentially
```

\begingroup\edef\x{\endgroup $\langle code \rangle$ }\x.

(More precisely it is a wrapper for the expl3 function \use:x.) This means that any # needs to doubled. Inside the argument of this commands non-robust macros that should not be expanded need to be prefixed with \noexpand.

With the right template definition you can index composers, interprets, song titles, ... You can write tables of contents for properties such as song titles, and so on, and so on. **LEADSHEETS** does not do this for you and it may require some experience to create templates which do all this.

#### 14.1.4. Examples

In order to give you an idea on how to use songtitle templates I'll show you how the existing ones are defined and one new definition.

**The minimal template** This is quite short and self-explaining.

```
1 \definesongtitletemplate{minimal}{\section*{\songproperty{title}}}
```

**A custom template** Now let's see an example for a newly defined template. It's nearly as simple as the *minimal* template.

```
1 \documentclass{article}
2 \usepackage{leadsheets}
3 \definesongtitletemplate{custom}{
   \ifsongmeasuring
      {\section*}
      {\section}{%
     \songproperty{title}%
     \ifsongproperty{music}
        { (music by \printsongpropertylist{music}{ \& }{, }{ \& })}
10
   }
11
12 }
\setleadsheets{title-template = custom}
\begin{document}
15
16 \begin{song}{title={Mary Had A Little Lamb}, music={Stevie Ray Vaughan},
      lyrics={traditional}, tags={srv,blues}}
18 \begin{verse}
  Mary had a little lamb \\
  Its fleece was white as snow, yea \\
   Everywhere the child went \\
```

```
The little lamb was sure to go, yea
23 \end{verse}
24 \begin{verse}
   He followed her to school one day \\
    And broke the teacher's rule \\
    What a time did they have \\
    That day at school
29 \end{verse}
30 \end{song}
_{3^2} \setminus end\{document\}
                   Mary Had A Little Lamb (music by Stevie
                   Ray Vaughan)
                   Mary had a little lamb
                   Its fleece was white as snow, yea
                   Everywhere the child went
                   The little lamb was sure to go, yea
                   He followed her to school one day
                   And broke the teacher's rule
                   What a time did they have
                   That day at school
```

**The** *tabular* **template** This one is a lot more advanced and demonstrates various of the available commands.

```
1 \definesongtitletemplate{tabular}{
    \ifsongmeasuring
      {\section*}
3
      {\section}%
      {\songproperty{title}}
    \begingroup\footnotesize
    \begin{tabular}{
        @{}
        >{\raggedright\arraybackslash}p{.5\linewidth}
        >{\raggedleft\arraybackslash}p{.5\linewidth}
11
        @{}
12
      }
13
      \ifsongproperty{interpret}
```

```
{\GetTranslation{leadsheets/interpret}}
15
16
       \ifsongproperty{composer}
17
         {%
18
           &
19
           \GetTranslation{leadsheets/composer}: %
20
           \printsongpropertylist{composer}{ \& }{, }{ \& }
           \ifsongproperty{lyrics}
             {
               \GetTranslation{leadsheets/lyrics}: %
               \printsongpropertylist{lyrics}{ \& }{, }{ \& }
             }
             {}%
28
         }
29
         {}%
       \ifsongproperty{interpret}{\\}{\ifsongproperty{composer}{\\}{}}%
31
       \ifsongproperty{genre}
32
         {& Genre: \songproperty{genre} \\}
         {}%
       \ifsongproperty{tempo}
35
         {& Tempo: \songproperty{tempo} \\}
36
         {}%
       \ifsongproperty{key}
38
         {%
39
           & \setchords{
               major = -\GetTranslation{leadsheets/major} ,
               minor = -\GetTranslation{leadsheets/minor}
43
           \GetTranslation{leadsheets/key}: %
           \expandcode{\writechord{\songproperty{key}}} \\%
         }
         {}%
47
    \ensuremath{\mbox{end}}\{\ensuremath{\mbox{tabular}}\}
48
    \par\endgroup
49
50 }
```

A song using the *tabular* template:

```
1 \documentclass{article}
2 \usepackage{leadsheets}
3 \usepackage{array}
4 \setleadsheets{title-template = tabular}
5 \begin{document}
6
```

```
7 \begin{song}{title={Mary Had A Little Lamb}, interpret={Stevie Ray Vaughan},
      genre={blues}, tags={srv,blues},key=E}
9 \begin{verse}
   ^{E7} Mary had a little lamb ^{A7} \\
    Its fleece was white as {E7}snow, yea \
    Everywhere the child ^{B7}went ^{A7} \
    The little lamb was sure to ^{E7}go, yea
14 \end{verse}
15 \begin{verse}
   ^{E7} He followed her to school one day ^{A7} \\
   And broke the teacher's ^{E7}rule \\
   What a time did they {B7}have {A7} \
    That day at ^{E7}school
20 \end{verse}
21 \end{song}
23 \end{document}
                  Mary Had A Little Lamb
              as interpreted by Stevie Ray Vaughan
                                                                  Genre: blues
                                                                     Key: E
                     Mary had a little lamb
                  Its fleece was white as snow, yea
                                   B^7 A^7
                  Everywhere the child went
                  The little lamb was sure to go, year
```

#### 14.2. Verse-type Templates

#### 14.2.1. Background

Similar to the songtitles also the verse like environments are typeset using templates. Defining them is just as easy as for the song titles.

#### 14.2.2. Existing Templates

Currently **LEADSHEETS** provides only one template:

*itemize* Uses an itemize environment for typesetting the corresponding environment.

#### 14.2.3. Own Templates

Own templates can be defined using these commands:

#### $\defineversetypetemplate{\langle name \rangle} {\langle begin\ code \rangle} {\langle end\ code \rangle}$

This defines the template  $\langle name \rangle$ .

#### \verselabel

Used inside \defineversetypetemplate. This determines where the label of the environment using the template will be displayed.

#### \verselabelformat

Used inside \defineversetypetemplate. The format of the current environment as set with the corresponding format option.

#### \verseafterlabel

Used inside \defineversetypetemplate. The format of the current environment as set with the corresponding after-label option.

#### \versename

Used inside \defineversetypetemplate. This prints the name of the current environment.

#### \versenumber

Used inside  $\ensuremath{\mbox{\mbox{defineversetypetemplate}}}$ . Expands to the  $\ensuremath{\mbox{\mbox{\mbox{the}}}\ensuremath{\mbox{\mbox{\mbox{environment}}}}$  command for the current environment.

#### $\iftime for the line of the$

Can be used inside \defineversetypetemplate for checking if the current environment was defined by the starred version of \newversetype.

#### $\ightharpoonup$

Can be used inside \defineversetypetemplate for checking if for the current environment the option numbered is true or false.

#### $\iftime for the following th$

Can be used inside \defineversetypetemplate for checking if for the current environment the option named is true or false.

#### $\ifolines{\langle true \rangle} {\langle false \rangle}$

Checks if for the current song the option obey-lines is true or false.

Since with \defineversetypetemplate you define a template for an environment it has two argument for code: one for code at the beginning of the environment and one for code at the end. The command \verselabel internally uses the conditionals. Its definition is equivalent to the following:

```
1 \newcommand*\verselabel{%
    \ifversestarred
      {}
3
      {%
        \verselabelformat
        \ifversenamed
             \versename
             \ifversenumbered{ }{}%
           }
          {}%
11
        \ifversenumbered
12
           {\versenumber}
13
           {}%
14
         \verseafterlabel
15
      }%
16
17 }
```

#### 14.2.4. Examples

In order to give you an idea on how to use verse-type templates I'll show you how the existing ones are defined and a few new definitions.

**The** *itemize* **template** This is how the *itemize* is defined.

The most interesting part is probably the \ifobeylines part. When the option obey-lines is set to true an end of a line inserts a \par token. So in order not to get a vertical skip

after every line the template sets \parskip to zero. With obey-lines = {true} an empty line also inserts a \par token but it also inserts a vertical space according to the value set with obey-lines-parskip. This option can only be set in a verse-type template definition (which is why it isn't documented elsewhere). All verse like environments initialize the length to the current value of \parskip before the template code is inserted.

**A flushleft template** An example for a template *flushleft* that typesets the label in the margin:

```
1 \defineversetypetemplate{flushleft}
    {%
2
      \noindent\llap{\verselabel\space}%
      \flushleft
      \unskip
      \vspace*{-\baselineskip}
      \ifobeylines
        {%
          \setlength\parskip{0pt}
          \setleadsheets{ obey-lines-parskip = .5\baselineskip }
10
        }
11
        {%
12
          \setlength\parskip{.5\baselineskip}
13
          \vspace*{-\parskip}
14
        }%
15
    {\endflushleft}
17
18 \begin{chorus}[template=flushleft]
   Lorem ipsum dolor sit amet, consetetur sadipscing elitr, \\
    sed diam nonumy eirmod tempor invidunt ut labore et dolore \\
    magna aliquyam erat, sed diam voluptua.
21
22
    Lorem ipsum dolor sit amet, consetetur sadipscing elitr, \\
    sed diam nonumy eirmod tempor invidunt ut labore et dolore \\
    magna aliquyam erat, sed diam voluptua.
26 \end{chorus}
```

Chorus: Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. **A flushright template** An example for a template *flushright* that typesets the label in the margin:

```
1 \defineversetypetemplate{flushright}
    {%
      \noindent\llap{\verselabel\space}%
3
      \flushright
      \unskip
      \vspace*{-\baselineskip}
      \ifobeylines
        {%
          \setlength\parskip{0pt}
          \setleadsheets{ obey-lines-parskip = .5\baselineskip }
        }
        {%
12
          \setlength\parskip{.5\baselineskip}
13
          \vspace*{-\parskip}
        }%
15
    {\endflushright}
18 \begin{chorus}[template=flushright]
    Lorem ipsum dolor sit amet, consetetur sadipscing elitr, \\
    sed diam nonumy eirmod tempor invidunt ut labore et dolore \\
    magna aliquyam erat, sed diam voluptua.
    Lorem ipsum dolor sit amet, consetetur sadipscing elitr, \\
23
    sed diam nonumy eirmod tempor invidunt ut labore et dolore \\
    magna aliquyam erat, sed diam voluptua.
26 \end{chorus}
```

Chorus:

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.

As you can see it's not entirely easy to define a template that suits both songs with and without obey-lines = {true}. Personally I would forget about that option and not care about it at all in my templates.

A *framed* template Last but not least an example using the mdframed package [Dan13] – just to show you that everything is possible. The example adapts one of the examples of

mdframed's manual.

```
1 \defineversetypetemplate{framed}
    {%
      \expandcode{%
3
        \noexpand\mdframed[
          \ifversestarred{}{%
            frametitle={%
              \noexpand\tikz[baseline=(current bounding box.east),outer sep=0pt]
                 \noexpand\node[anchor=east, rectangle, fill=blue!20, rounded corners
    =2pt]
                {\noexpand\strut\noexpand\verselabel};
            }%
10
          },
11
          roundcorner = 5pt ,
          linecolor = blue!20 ,
13
          linewidth = 2pt,
14
          topline = true,
          frametitleaboveskip = \dimexpr-\ht\strutbox\relax ,
        ]%
17
18
      \setlength\parindent{0pt}
19
      \setlength\parskip{\parsep}
      \ifobeylines
21
        {\setleadsheets{ obey-lines-parskip=\parskip }\setlength\parskip{0pt}}
22
        {\vspace*{-\parskip}}%
23
    }
24
    {%
25
      \endmdframed
26
      \addvspace{\baselineskip}%
27
29 \begin{chorus}[template=framed]
    Lorem ipsum dolor sit amet, consetetur sadipscing elitr, \\
    sed diam nonumy eirmod tempor invidunt ut labore et dolore \\
    magna aliquyam erat, sed diam voluptua.
32
33
    Lorem ipsum dolor sit amet, consetetur sadipscing elitr, \\
    sed diam nonumy eirmod tempor invidunt ut labore et dolore \\
    magna aliquyam erat, sed diam voluptua.
37 \end{chorus}
```

#### **Chorus:**

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.

Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua.

## 15. Internationalization

Th environments described in sections 9 and 12 as well as a few other words used in LEAD-SHEETS are translated with the help of the translations package [Nie13]. All predefined and available translation strings are listed in table 4. You can change those translations or add translations for other languages with this command:

```
\DeclareTranslation{\langle language \rangle} {\langle string \rangle} {\langle translation \rangle}
```

The command provided by the translations package for translating strings.

Those translations can be used for example in song title templates (see section 14.1). One of the strings listed in table 4 is a little different: the string leadsheets/interpret is declared as

```
1 \DeclareTranslation{English}{leadsheets/interpret}
2 {as interpreted by \printsongpropertylist{interpret}{ \& }{, }{ \& }}
3 \DeclareTranslation{German}{leadsheets/interpret}
4 {wie von \printsongpropertylist{interpret}{ \& }{, }{ \& } interpretiert}
```

which means it uses the song property interpret. As a consequence it only really can be used inside a song environment. In other cases as for example in table 4 the property part expands to nothing (but the spaces around it are of course there). Also keep in mind that \printsongpropertylist is not expandable.

TABLE 4: Predefined translation strings.

TABLE 4. Hedefilled translation strings.					
String	English	German			
leadsheets/major	major	Dur			
leadsheets/minor	minor	Moll			
leadsheets/chorus	Chorus	Refrain			
leadsheets/verse	Verse	Strophe			
leadsheets/composer	Composer	Komponist			
leadsheets/lyrics	Lyrics	Text			
leadsheets/key	Key	Tonart			
leadsheets/capo	Capo	Kapo			
leadsheets/fret	fret	Bund			
leadsheets/interpret	as interpreted by	wie von interpretiert			
leadsheets/intro	Intro	Intro			
leadsheets/interlude	Interlude	Interlude			
leadsheets/bridge	Bridge	Bridge			
leadsheets/solo	Solo	Solo			

# Part V.

# **Appendix**

Talking about music is like dancing about architecture.

Thelonious Monk

# A. References

[Dan13]	Marco Daniel. mdframed. version 1.9b, July 1, 2013. URL: http://mirror.ctan.org/macros/latex/contrib/mdframed/.
[Ham12]	Kevin W. Hamlen. songs. version 2.14, Mar. 17, 2012. URL: http://mirror.ctan.org/macros/latex/contrib/songs/.
[MCo8]	Frank MITTELBACH and David CARLISLE. array. version 2.4c, Sept. 9, 2008. URL: http://mirror.ctan.org/macros/latex/required/tools/.
[Nie13]	Clemens NIEDERBERGER. translations. version 1.1a, Sept. 30, 2013. URL: http://mirror.ctan.org/macros/latex/contrib/translations/.
[Rat10]	Christopher RATH. songbook. version 4.5, Apr. 30, 2010. URL: http://mirror.ctan.org/macros/latex/contrib/songbook/.
[The13a]	THE LATEX3 PROJECT TEAM. 13kernel. version SVN 4582, July 28, 2013. URL: http://mirror.ctan.org/macros/latex/contrib/l3kernel/.
[The13b]	THE LATEX3 PROJECT TEAM.   3 packages. version SVN 4582, July 28, 2013. URL: http://mirror.ctan.org/macros/latex/contrib/l3packages/.
[Varoo]	Various. <i>The Real Book. C Edition.</i> 6th edition. Vol. I. Hal Leonard Publishing Corporation, Jan. 1, 2000. ISBN: 978-0634060380.

# B. Index

Symbols	arr17	capo-nr18
: (shortcut)16, 18, 31	array (package) 32	capo-nr-format18
_ (shortcut) 18, 21	aug 9	CARLISLE, David32
(shortcut) 16, 18, 31 f.	_	\chord18, 21-25
^ (shortcut) 18, 21, 24 f.		chord-cs16, 23, 27
<b>A</b> add	band	\chordname
after-label		chords (package option) 3
align-chords22		chorus (environment) 15, 21, 25 f.
	capo	28, 31, 40 ff.
\altoclef5	\capo	chorus* (environment) 28

# INDEX

class       20, 30         composer       16 f.         \copysongproperty       33         counter       18         D       D         DANIEL, Marco       41         \DeclareTranslation       29         \definesongproperty       32         \definesongtitletemplate       24 ff,	info (environment)	P print-chords
32, 34 f.         \defineversetypetemplate. 38-42         dim	K key	R RATH, Christopher
E \eighthrest	\leftrightrepeat 6, 32 LPPL 2 lyrics 17  M major 10	\setchords 8-11, 36 \setleadsheets 9, 15, 19-22, 30, 32, 34, 36, 39-42 sharp 9 \sharp 5, 8 f. short-title 16
F       flat	major-nine       10         major-seven       10         mdframed (package)       41 f.         \meterC       5         minimal (package option)       3         minimal (songtitle template)       15, 32, 34         minor       10         Management of English       10	\sixteenthrest
full-dim.       10         G       10         genre.       17         german-B.       10         german-H.       10         H	MITTELBACH, Frank	songbook (package)       2         \songproperty       33-36         songs (library)       3 f.         songs (package option)       4         songs (package)       2         sort-arr       17         sort-band       17         sort-composer       17
half-dim.       9         \halfrest.       5         HAMLEN, Kevin       2         height       18, 33         I       ID         ID       18         \ifobeylines       38-42         \ifsongmeasuring       33 ff.         \ifsongpropertiesequal       33         \ifsongproperty       33-36	N name	sort-interpret       17         sort-lyrics       17         sort-short-title       16         sort-title       16         \stopbar       6, 32         subtitle       16         sus       10         T       tabular (songtitle template)       32, 36         tags       16 f.
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	obey-lines        .16, 24, 38-41         obey-lines-parskip        .40         output-notation        .7, 10, 21	template         29           templates (library)         4           tempo         17

# INDEX

	\trebleclef5	, , ,
\textmusix5		\verselabelformat38 f.
THE LATEX3 PROJECT TEAM 2	U	\versename 38 f.
The Real Book 2	\useleadsheetslibraries3,5,9	\versenumber38 f.
\thickbarwidth6	\useleadsheetslibrary 3, 12	verses-after-label30
title16	\usesongpropertylist33	verses-format 21, 30
title-template15, 32		verses-label-format21, 30
translations (library) 4	V	
translations (package) 2, 43	verse (environment)14 ff., 19 ff.,	W
transpose, 21, 27	23-28, 30 f., 34 f., 37, 40	\wholerest5
transpose-capo27	verse* (environment) 19, 26	\writechord7 f., 10 ff., 18, 21 f., 36
transposing (library) 4	\verseafterlabel38 f.	writer17