The jslectureplanner package

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*Please report issues via `https://github.com/jspitz/jslectureplanner`

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1   Aim of this package

I have written this package in order to facilitate (and somewhat systematize) the planning of my university courses. The basic idea of this package is that you write all general data of a course (date, semester, type, course title, session titles, general information etc.) into a central tex file (e. g., *metadata.tex*), and then input this file into all documents related to the course (course program, bibliography, scripts, handouts, beamer presentations, exercises etc.), in order to re-use the data. This is particularly helpful if you have standard courses which are held every other semester: instead of changing the data in every single file, you just need to change it once, in the metadata file.

To further facilitate the planning, the package is able to calculate the session dates of a whole semester, if the course is held weekly. You only need to set the date of the first lecture, the package does the rest. Moreover, the package can be used to generate a sectioned bibliography for the course via biblatex.

Since the package was written for my own needs, it is somewhat tied to my workflow. Particularly, it is tied to my context: teaching in the Humanities at a German-speaking university. Hence, the categorization of the package draws on this context. In particular, all strings and formats are German. However, it is possible to customize them to some degree, particularly to translate them to other languages. This is described later in this manual.

This manual describes the basic user interface of the package. You might want to have a look at the example file included in the package in order to see how it is supposed to be used.

2   Requirements

The following packages are required: etoolbox, advdate, xkeyval, datetime, calc.

3   General idea

The general idea goes as follows:

- Set up a *metadata.tex* file (or whatever name you prefer) and insert all meta information of the course there (as described in sec. 4 and 5).

- In your documents, load the package (**\usepackage{jslectureplanner}**) and then input the metadata file (**\input{metadata.tex}**).

- Then use the macros described below (sec. 6 and 7) to retrieve the respective data.

The procedure is detailed in the following sections.

4 Setting up course metadata

You can set up the course metadata either via package options (if you load the package in the metadata file; see sec. 4.1) or via specific macros (see sec. 4.2).

4.1 Via package options

4.1.1 Course classification

The course classification draws on the conventions at German universities (or those where I have worked, for that matter). Each type is connected to a verbose string (such as "Seminar"), a short form (such as "SE") and a form that is used to denote individual sessions (as in "the second *session* of this course").

type=<type>, where **<type>** is one of

- **vl**: a lecture (verbose form: "Vorlesung"[1], short form: "VL", session form: "Vorlesung")
- **ps**: undergraduate seminar (verbose form: "Proseminar", short form: "PS", session form: "Sitzung")
- **se**: seminar (verbose form: "Seminar", short form: "SE", session form: "Sitzung")
- **ue**: practical course (verbose form: "Übung", short form: "UE", session form: "Sitzung")
- **ko**: colloquium (verbose form: "Kolloquium", short form: "KO", session form: "Sitzung")
- **pv**: research seminar (verbose form: "Privatissimum", short form: "PV", session form: "Sitzung")

4.1.2 Course title

title=<title> Title of the course

titlesep=<separator> Separator between title and subtitle

subtitle=<subtitle> Subtitle of the course

shorttitle=<shorttitle> Short title of the course (for headings etc.)

4.1.3 Date and place

semester=<term>, where **<term>** is one of

- **fs**: spring term ("Frühjahrssemester", short form: "FS")
- **hs**: fall term ("Herbstsemester", short form: "HS")

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[1]Sec. 8 explains how to customize these strings.

- **ss**: summer term ("Sommersemester", short form: "SoSe")
- **ws**: winter term ("Wintersemester", short form: "WS")

year=<year>

uni=<university>

institute=<institute>

room=<room>

startdate=<startdate> Date of the first session (argument *must* have the form DD/MM/YYYY).

4.1.4 Additional information

platform=<url> information (e.g., URL) of the e-learning platform

officehours=<data> date of the office hours

4.2 Via macros

The following macros provide an alternative interface to set up the course metadata described in the previous subsection.

4.2.1 Course classification

- `\LecType{<course type>}`: Set course type; `<course type>` is one of[2]

  - **vl**: lecture (*Vorlesung*)
  - **ps**: undergraduate seminar (*Proseminar*)
  - **se**: seminar (*Seminar*)
  - **ue**: practical course (*Übung*)
  - **ko**: colloquium (*Kolloquium*)
  - **pv**: research seminar (*Privatissimum*)

4.2.2 Course title

- `\LecTitle[<options>]{<title>}`: Set course title; `<options>` might be any set of package options described in sec. 4.1

- `\LecTitleSep{<title separator>}`: Set course title-subtitle separator

- `\LecSubTitle{<subtitle>}`: Set course subtitle

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[2]See above sec. 4.1.1 for a detailed description.

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4.2.3 Date and place

- **\LecYear{<term>}{<year>}**, Set term and year of the course; **<term>** is one of[3]

  - **fs**: spring term (*Frühjahrssemester*)
  - **hs**: fall term (*Herbstsemester*)
  - **ss**: summer term (*Sommersemester*)
  - **ws**: winter term (*Wintersemester*)

- **\LecUni{<university>}**: Set the name of your university

- **\LecInstitute{<institute>}**: Set your institute name

- **\LecRoom{<room>}**: Set the room where the course takes place

- **\LecStartDate{<startdate>}**: Set date of the first session (argument *must* have the form DD/MM/YYYY).

4.2.4 Additional information

- **\SetOfficeHours{<office hours>}**: Set date of your office hours

- **\SetPlatform{<platform information>}**: Set information (e.g., URL) of the e-learning platform

5 Setting up a course plan

In the metadata file, you can setup a plan for the course by entering session information in chronological order. This is done via the following macro:

- **\NewSession[<options>]{Session title}**

  <options> include:

  - **titlesep=<separator>**: Separator between session title and subtitle
  - **subtitle=<subtitle>**: Subtitle of the session
  - **shorttitle=<shorttitle>**: Short title of the session (for headings etc.)
  - **room=<room>**: Specific room for this session (if it differs)
  - **bibsec=<keyword>**: Session keyword for the bibliography (see below sec. 6.3)

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[3]See above sec. 4.1.3 for a detailed description.

- **cancel=<true|false>**: Whether this session takes place. If you specify **cancel=true**, the program will mark the session as "canceled". For instance,

  \NewSession[cancel=true]{Dies Academicus}

  will output something like

  15. 05.: Dies Academicus – keine Sitzung

  (i. e., "Dies Academicus – no session")

- **\SetBreak[<span>]{Reason}**: Add a semester break (e.g., holidays). This increments the counter for one week and outputs in the program

  (<span>: Reason)

  E. g., **\SetBreak[28.05.--3.06.]{Whitsun holidays}** expands to

  (28.05.–3.06.: Whitsun holidays)

- **\SetBreaks[<options>]{Reason}**: Add a semester break (e.g., holidays) that is longer than one week. This increments the counter respectively, and outputs in the program

  (<span>: Reason)

  <options> include:

  - **weeks=<int>**: Number of weeks the break takes (to increment the internal counter that is used to calculate the session dates)
  - **span=<time span>**: time span (to be output on the program)

- **\SetBeamerFrameBreak**: Add a frame break in the beamer program at this position. This also increments the frame counter which is used for subsequent program frame titles. Note that you can insert maximally 3 breaks.

- **\SetBeamerHook{<code>}**: Add arbitrary LaTeX code to the beamer program

- **\begin{SessionBlock}{<Block title>}**
  ...
  \end{SessionBlock}:
  Thematic block consisting of several sessions. Respective sessions are nested inside this block.

6   Retrieving general course information

Once the metadata file is set up as documented above and input to your document(s), you can retrieve the recorded as well as concatenated information by means the following macros.

6.1   Course data

The following macros output general course-specific information:

- **\lectype**: Outputs the course type in short form (e. g., "SE")

- **\lectypeverb**: Outputs the course type in verbose form (e. g., "Seminar")

- **\lectypesession**: Outputs the appropriate "session" string (e. g., "Vorlesung" or "Sitzung")

- **\lectitle**: Outputs the main title of the course

- **\lectitlesep**: Outputs the separator between title and subtitle

- **\lecsubtitle**: Outputs the subtitle of the course

- **\lecfulltitle**: Outputs the full title of the course (title, separator, subtitle)

- **\lecshorttitle**: Outputs the short version of the course title

- **\lecsemshort**: Outputs the short version of the term type (e. g., "WS")

- **\lecsemverb**: Outputs the verbose version of the term type (e. g., "Wintersemester")

- **\lecyear**: Outputs the year

- **\lecsemester**: Outputs the short version of the semester (e. g., "WS 2014")

- **\lecsemesterverb**: Outputs the verbose version of the semester (e. g., "Wintersemester 2014")

- **\lecuniversity**: Outputs the university name

- **\lecinstitute**: Outputs the institute name

- **\lecroom**: Outputs the room

- **\lecplatform**: Outputs information on the e-learning platform

- **\officehours**: Outputs the office hours

6.2 Generating lecture programs

- **\makeprogram**: Generates a lecture program from the metadata in the form

```
\begin{labeling}{\lecprogramlistindent}
\item[<short date>] <session full title>
...
(break)
...
\item[<short date>] <session full title>
\end{labeling}
```

The **labeling** environment is defined by the KOMA classes. The package provides a fallback, however, if another class is used.

- **\makebeamerprogram[<options>]**: Generates a beamer-suited lecture program from the metadata in the form

```
\begin[label=beamerprogram<nr>,<bfoptions>]{frame}
\frametitle{<Heading>}
\begin{description}[\lecprogramlistindent]
\item[<short date>] <session full title>
...
(break)
...
\item[<short date>] <session full title>
\end{description}
\end{frame}
```

<options> can be one of

- **title=<title>**: Program title (<Heading>)
- **options=<bfoptions>**: Beamer frame options

Note that multiple subsequent frames are generated if the metadata file contains **\SetBeamerFrameBreak** macros. Also note that you can refer to the frames via the automatically generated labels *beamerprogram* (for the first frame), *beamerprogram2* for the second, etc. Finally note that the number of program frames is currently limited to 4. If you need more, you should probably rethink your program structure.

6.3 Generating bibliographies

The package provides macros for easy generation of sectioned bibliographies via biblatex. The macro

- **\makesessionbib**

generates code in the form

```
\section{<session full title>}
\nocite{*}
\printbibliography[keyword=<session keyword>,heading=none]
```

for each session of the lecture which has been linked to a biblatex keyword via the **bibsec** option (see above sec. 5).

So if you specify your session with a keyword via the **bibsec** option, and tag your BibTeX database entries with that keyword, you will get a list of session-specific literature.

7   Retrieving session-specific information

In session-specific documents, you also need information specific to the current session. This is done as follows.

7.1   Setting the current session

Use **\ThisSession{<nr>}** to tell the package which session is current. **<nr>** is an integer value, e.g. **\ThisSession{3}** for the 3rd session of the lecture.

7.2   Generating session-specific information for the current session

If you have specified the current session via the macro **\ThisSession**, the following macros output general session-specific information:

- **\sesdate**: Date of the current session

- **\sesshortdate**: Date of the current session, short form (no year)

- **\sestitle**: Main title of the current session

- **\sestitlesep**: Title-subtitle separator of the current session

- **\sessubtitle**: Subtitle of the current session

- **\sesfulltitle**: Full title of the current session (title, separator, subtitle)

- **\sesnr**: Number of the current session

- **\sesroom**: Room of the current session

7.3 Generating session-specific information for an arbitrary session

Independent of the value of **\ThisSession**, you can retrieve the following information for arbitrary sessions (session number **<nr>**) via the following macros:

- **\SessionTitle{<nr>}**: Outputs the main title of session number **<nr>**

- **\SessionFullTitle{<nr>}**: Outputs the full title (main title, separator, subtitle) of session number **<nr>**

- **\SessionShortTitle{<nr>}**: Outputs the short title of session number **<nr>**

- **\SessionDate{<nr>}**: Outputs the date of session number **<nr>**

- **\SessionShortDate{<nr>}**: Outputs the short date (no year) of session number **<nr>**

- **\SessionRoom{<nr>}**: Outputs the room of session number **<nr>**

- **\MakeProgramline{<nr>}**: Outputs a list item line for session number **<nr>** in the form

  ```
  \item[{\bfseries <short date>}] <session full title>
  ```

8 Customizing the output

8.1 Customizing the course type strings

The strings of the course types can be changed via the macros:

- **\DefTypeVL{<short form>}{<title>}{<session title>}**

- **\DefTypePS{<short form>}{<title>}{<session title>}**

- **\DefTypeSE{<short form>}{<title>}{<session title>}**

- **\DefTypeUE{<short form>}{<title>}{<session title>}**

- **\DefTypeKO{<short form>}{<title>}{<session title>}**

- **\DefTypePV{<short form>}{<title>}{<session title>}**

An English form for a lecture, thus, can be achieved by e. g.

- **\DefTypeVL{LEC}{Lecture}{Session}**

The types themselves are hardcoded. If you need further/other types, you need to modify the package (or ask me to do it).

8.2 Customizing the term types

The strings of the term types can be changed via the macros:

- `\DefTypeFS{<short form>}{<verbose form>}`

- `\DefTypeHS{<short form>}{<verbose form>}`

- `\DefTypeSS{<short form>}{<verbose form>}`

- `\DefTypeWS{<short form>}{<verbose form>}`

8.3 Customizing the date format

If you need to change the date format, redefine the macros **\lecdateformat** (for the long format) and **\lecdateshortformat** (for the short format), using the syntax provided by the datetime package. By default, the two formats are defined as follows:

```
\newcommand*\lecdateformat{%
    \THEDAY.\,\twodigit{\THEMONTH}.\,\THEYEAR}
\newcommand*\lecdateshortformat{%
    \THEDAY.\,\twodigit{\THEMONTH}.}
```

Use \renewcommand* to redefine them.

8.4 Misc. customizing

The canceling output is "Session title – keine <Session>" ("keine" is German for "no"). To modify or translate this, redefine the following macro

```
\newcommand*\leccancel{\ -- keine \lectypesession}
```

The default program string used in beamer frames can be changed by redefining

```
\newcommand*\lecprogram{Programm}
```

The indentation used in program lists can be changed by redefining

```
\newcommand*\lecprogramlistindent{\textbf{88.\,88.}}
```

Again, use \renewcommand* to redefine those.

8.5 Using styles

The most elegant way to do the customizing is to use *lecture planner style* (*.lps) files. These files can be loaded via the **style=<style>** package option, where <style> is the file name without *.lps extension.

Currently, the package ships only one style, *german-default*, which includes the default strings. This one can be used as a model. If you provide me with other style files, in particular translations to other languages than German (but also other university conventions), I consider them for inclusion to the package.

9 History

- forthcoming (v. 0.8): Fix corruption of \today; add framework for different styles; add option and macro to set a room for the course as well as a session-specific room; remove redundant lecture type **vo** from the documentation; change **\leccancel** default definition in favour of better translatability.

- 2015/01/04 (v. 0.7): Add macro for resetting \today; minor corrections in the manual.

- 2014/12/12 (v. 0.6 b): Minor corrections in the manual and example files.

- 2014/12/12 (v. 0.6): Initial release to CTAN.