

THE OSGLECTURE CLASS

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Meta class for lecture documents

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<https://github.com/werner-matthias/osglecture>

The class `osglecture` is the Lua^AT_EX core class of the `osglecture` bundle. It projects a shared teaching source onto presentations and long-form documents (lecture notes or books).

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This documentation describes the class options, the commands and environments provided by the class, and their implementation. Using the class also requires an understanding of its basic concepts and its interaction with other components (especially `o1lm`). These topics are covered in `osglecture-manual-en.pdf`.

1 Class options

`standalone = true|false` Default: false

Uses the class outside a course series.

`doctype = {⟨type⟩}`

Sets the document's target type, which, among other things, determines its actual base class. (This is usually only necessary with `standalone`; otherwise, it should be controlled using `o1lm`.)

`profile = {⟨profile⟩}`

Overrides the document profile tied to the doctype (sets, among other things, the base class and backend); otherwise controlled via configuration.

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`class-options = {⟨expressions⟩}`

Passes options to the base class.

`lang = {⟨language code⟩}`

Selects the language of the target document. (This is usually only necessary with `standalone`; otherwise, it should be controlled using `ollm`.)

`patch-overlays = true|false`

Default: true

Extends the overlay syntax of `ltx-talk` or `beamer` to include portable mode expressions.

2 Configuration commands

`\LectureProjectSetup{⟨Einstellungen⟩}`

sets shared project settings. See the manual for their place in the configuration hierarchy.

`class-options = {⟨Optionen⟩}`

sets shared base-class options.

`mode-setup-file = {⟨Datei⟩}`

reads the file in every target, before the profile's mode file; it declares project modes that shared source mentions.

`bibliography = {⟨Einstellungen⟩}`

sets up bibliography management with `biblatex` and `biber`, loading `osglecture-bibliography`; without this key `osglecture` loads no bibliography package.

`bibliography/resources = {⟨Dateiliste⟩}`

bibliography databases, such as `lecture.bib`; in `ollm` builds they are also looked up in `Include`.

`bibliography/style = {⟨Stil⟩}`

Default: alphabetic

`biblatex` style.

`bibliography/options = {⟨Optionen⟩}`

further load options for `biblatex`, such as `sorting=ynt`.

`bibliography/series-target = {⟨Unit-ID⟩}`

unit whose bibliography other units' citations link to when their own document does not print the entry.

`presentation-profile = {⟨Profil⟩}`

selects the presentation profile.

`longform-profile = {⟨Profil⟩}`

selects the long-form profile.

`identity-profile = {⟨Profil⟩}`

selects the identity profile.

`theme = {⟨Name⟩}`

selects the theme.

`numbering = {⟨Name⟩}`

selects the numbering scheme.

`references = {⟨Einstellung⟩}`

sets the reference policy.

`languages = {⟨Einstellungen⟩}`

configures `langselect`; see its package documentation.

`languages/selectable = {⟨Sprachliste⟩}`

`languages/targetlang = {⟨Sprachauswahl⟩}`

`languages/prefix = {⟨Präfixzuordnung⟩}`

`languages/auto = {⟨Wert⟩}`

`languages/trim = {⟨Wert⟩}`

`languages/map = {⟨Sprachzuordnung⟩}`

`languages/load babel = true | false`

`languages/load polyglossia = true | false`

`languages/unified shorthands = true | false`

These subkeys are passed to `langselect`; `selectable` corresponds to its `languages` key.

`\LectureTargetSetup{⟨Target⟩}{⟨Einstellungen⟩}`

sets target-specific settings.

`profile = {⟨Profil⟩}`

selects the document profile.

`filecolor = {⟨Farbe⟩}`

sets the colour of cross-document links.

`\OsgLectureSetup{⟨Einstellungen⟩}`

registers class- and mode-specific settings.

`class/⟨Klasse⟩ = {⟨Optionen⟩}`

passes options to the specified base class.

`mode/⟨Modus⟩ = {⟨Einstellungen⟩}`

sets settings for the specified mode.

`mode/⟨Modus⟩/continuation = {⟨Einstellungen⟩}`

configures continuation from the preceding unit; none cancels a less specific setting.

`mode/⟨Modus⟩/continuation/counters = {⟨Zählerliste⟩}`

specifies the counters to continue.

`mode/⟨Modus⟩/presenter = {⟨Einstellungen⟩}`

configures the presenter page of the screen document type; `mode/screen` is the usual place. Every page there is twice as wide as the slide: the slide on the left, the parts selected here on the right. The setting has no effect in other document types.

2 Configuration commands

- `mode/⟨Modus⟩/presenter/current = true|false` Default: true
shows the current slide at reduced size.
- `mode/⟨Modus⟩/presenter/next = true|false` Default: true
shows the next page (the next overlay step or the next slide) at reduced size. The page count of the previous run determines where the preview ends; after the number of pages has changed another run is therefore needed.
- `mode/⟨Modus⟩/presenter/notes = true|false` Default: true
shows the remarks of the frame recorded with `\Note`.
- `mode/⟨Modus⟩/presenter/clock = true|false` Default: false
adds a running clock at the bottom right. It is a PDF form field that a script in the document updates every second, so it runs only in viewers with JavaScript support (Adobe Acrobat, for instance); others show an empty field. The field is not tagged.
- `mode/⟨Modus⟩/presenter/current-label = {⟨Text⟩}`
`mode/⟨Modus⟩/presenter/next-label = {⟨Text⟩}`
override the captions of the two previews.
- `mode/⟨Modus⟩/presenter/font = {⟨Schriftbefehle⟩}` Default: `\normalsize`
sets the font of the remarks.
- `\IncludeOsgLecturePreamble*⟨⟨Modusausdruck⟩⟩ [⟨Einstellungen⟩] {⟨Name⟩}`
registers the preamble fragment `⟨name⟩`. The unstarred form loads it later if its mode and class conditions match. The starred form loads it immediately and does not permit conditions. The class first looks for `⟨name⟩.tex` in the shared T_EX directory and then for `osglecture-preamble-⟨name⟩.tex` on the T_EX search path.
- `class = {⟨Klassenliste⟩}`
restricts the unstarred form to the specified base classes.
- `\DeclareOsgLectureMetadataField{⟨Name⟩}`
declares a metadata command of the same name with the signature `\⟨mode expression⟩ [⟨short form⟩] {⟨value⟩}` and the accessors `\OsgLectureMetadataValue{⟨name⟩}` and `\OsgLectureMetadataShortValue{⟨name⟩}`. The predefined fields are `\title`, `\subtitle`, `\author`, `\institute`, `\date`, `\course`, and `\event`.
- `\EnforceLectureProjectConfiguration{⟨Konfigurationsbefehle⟩}`
- `\LectureProjectEnforce{⟨Einstellungen⟩}`
applies mandatory project settings. Conflicting lower-priority settings produce an error.
- `\OsgLectureReferencesSetup{⟨Einstellungen⟩}`
configures cross-document references.
- `legacy = true|false` Default: false
enables the legacy `\xref` commands.
- `replace = {⟨Liste⟩}`
replaces the specified standard commands. The list accepts `ref`, `pageref`, `nameref`, `autoref`, and `all`.

3 Document commands

`\lecture[<Kurztitel>]{<Titel>}{<Unit-ID>}`

declares the document's single course unit and creates its profile-dependent structural heading.

`\Note{<remark>}`

records a remark for the presenter. The call belongs inside the frame the remark refers to. In the screen document type all remarks of a frame appear on the presenter page of each of its pages; with `beamer` the remark is forwarded to `\note`, otherwise it is discarded.

`\includeunit{<Unit-ID>}`

includes a built projection of a unit in an integration document. See the manual for details about integration units.

`\olref*[<Unit-ID,Optionen>]{<Label>}`

`\olpageref*[<Unit-ID,Optionen>]{<Label>}`

`\olnameref*[<Unit-ID,Optionen>]{<Label>}`

`\olautoref*[<Unit-ID,Optionen>]{<Label>}`

correspond to the standard commands of the same name without the `ol` prefix. An omitted unit ID refers to the current document. The options `type=` and `lang=` may also be specified. The starred form suppresses the link.

`type = {<Dokumenttyp>}`

selects the target unit's document type; the current document type is the default.

`lang = {<Sprachcode>}`

selects the target unit's language; the current document language is the default.

`\sourceref*[<label>]{<source>}`

typesets a source credit (an image credit, say) in small type. The label defaults to "Quelle" or "Source"; an empty label is dropped together with its colon. Inside a box – typically right after `\includegraphics` – the credit stays in the line and is tagged as `FENote`; otherwise it forms a paragraph of its own and is tagged as `Aside`, flush right with the star. A source credit is real content and never an artifact. The class automatically loads the package `osglecture-annotations`, which provides this command.

`\osgannotation{<content>}`

marks a remark beside the main text stream – typically a `tikzpicture` with `overlay` and `remember picture` that lays a handwritten note with an arrow over the slide. Between paragraphs (vertical mode) this yields an `Aside` that occupies no height; in the middle of a line an `FENote`, as `Aside` is inadmissible inside a paragraph. The text inside remains real, normally tagged text; drawn paths are marked as artifact by `tagpdf` anyway. Reading order follows the position of the call in the source, not the placement on the page: put the call where the remark belongs logically.

4 Text-formatting environments

`\begin{twocolumns}<⟨Modusausdruck⟩> [⟨Ausrichtung,Anteil,sep=Länge⟩]`

typesets two parts separated by `\nextcolumn` side by side when the mode expression matches, and consecutively otherwise. The mode expression is enclosed in angle brackets and defaults to presentation.

A number between zero and one sets the first column's share of the available width (default .5). One value t, c, or b aligns both columns at the top, centre, or bottom; two such values align the columns individually. `<all>` forces columns in every mode, while, for example, `<longform>` selects only long-form documents and `<presentation|longform>` selects both behaviour classes.

The sep key sets the gutter between the two columns to an arbitrary length, overriding the default `\columnsep` (e.g. `sep=1cm`); this is useful when the default gutter looks too tight with very unequal column shares.

`\begin{presitemize}[⟨options⟩]`

typesets a flat sequence of short statements as an itemize list in presentations and joins them into prose in long-form documents. The class automatically loads the package `osglecture-presitemize`, which provides this environment.

`language = de|en|fr`

Overrides the language determined automatically from the document or language configuration.

`punctuation = auto|manual`

Default: auto

Controls whether connectors and final punctuation are generated automatically in long-form output. Existing punctuation is preserved and not supplemented.

`whitespace = normalize|preserve`

Default: normalize

Ignores leading spaces after item commands and treats blank lines in long-form output as a single interword space. `preserve` retains the usual T_EX behaviour.

`\item`, `\anditem`, `\butitem`, `\thereforeitem`, `\commaitem` and `\colonitem` are delimiter-like commands: their content extends up to the next item. They accept Beamer overlay syntax and an optional item label. The explicit form `\presitem[⟨options⟩]` accepts the following values for relation: sentence, and, but, therefore, comma and colon as relations and auto or keep for initial.

`\finite{⟨Text⟩}` marks the finite verb. For the German therefore relation it is moved to the end of the clause in long-form output. `\prespar` starts a new paragraph in long-form output, closing the running sentence; in presentations it does nothing. A mere blank line between items does not separate. Ordinary lists (itemize, enumerate, description) may appear inside an item and remain lists in long-form output as well. `\preskeepcase{⟨Text⟩}` prevents automatic adjustment of the initial letter. `\prescase{⟨Präsentation⟩}{⟨Langform⟩}` selects wording for the current projection. `\longslides{⟨Langform⟩}{⟨Präsentation⟩}`, `\longform{⟨Text⟩}` and `\slides{⟨Text⟩}` provide further projection-dependent selections within items.

5 Implementation

`\begin{literaturelist}[\langle Labelbreite \rangle]` Default: 5.5em
typesets a reading list: selected entries in full, in groups, and with comments. It is available when `osglecture-bibliography` is loaded (see `bibliography` for `\LectureProjectSetup`).

`\litentry{\langle key \rangle}` prints the entry in full with its citation label. `\litgroup{\langle Titel \rangle}` starts a group with its own heading. `\litcomment[\langle Label \rangle]{\langle Text \rangle}` adds a comment on the preceding entries.

A citation or list label links to the bibliography in the same document if it prints the entry, otherwise to that of the unit named by `series-target`; if that one does not print it either, it remains plain text.

`\printseriesbibliography[\langle Optionen \rangle]`
prints all entries that any unit of the series with the same document type and language cites, together with the own citations. The `\langle Optionen \rangle` go to `\printbibliography`, so its filters apply. `ollm check` reports the bibliography as stale as soon as a unit cites something new; `ollm build --resolve` rebuilds it.

5 Implementation

To view the implementation description, please uncomment `\OnlyDescription` in `osglecture.dtx`.

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