NICHOLAS LACARA · University of Toronto

9 May 2019

The lingdoc class

The lacara class is a LaTeX class designed by Nicholas LaCara for typesetting various kinds of linguistics documents and handouts. It provides several page layouts and numerous options for maximum flexibility.

KEYWORDS: LaTeX, linguistics, typesetting

Contents

1   Background

The point of this class is to easily make available numerous formatting choices that I use in my handouts and manuscripts. Since I am a theoretical syntactician, much of the options provided by this package are oriented towards writing papers in linguistics (and syntax, specifically).

2   Overview

2.1   Requirements and dependencies

This class requires the following packages be installed. These are all standard packages.

- enumitem
- fancyhdr
- geometry
- ifthen

- ifxetex
- marginnote
- multicol
- natbib

- tcolorbox
- titlesec
- xcolor
- xspace

The following packages are not necessary for, but are loaded if they are installed.[1]

- AlegreyaSans (falls back to Montserrat)
- booktabs
- microtype

- MinionPro (falls back to mathptmx)
- ulem

The package loads the following packages by default, but they may be disabled.

- pst-jtree
- pst-node

- hyperref
- cgloss4e

The following packages can be enabled by using certain class options:

- expex
- gb4e
- linguex
- mathptmx

- montserrat
- OTtablx
- tipa

Most of these packages are available as part of standard TeX distributions (such as TeXLive).

---

[1] The package microtype, and the fonts MinionPro, newtxtt, and AlegreyaSans are not loaded if compiled with XƎLATEX. XƎLATEXwill look for the mathspec package.

3   Class features

3.1   Layouts

This class provides three different layouts for documents: a layout for academic papers, a layout for portrait handouts, and a layout for two-column landscape handouts. The class has been coded in such a way so as to make it easy to convert between layouts with minimal effort (*e.g.*, to change a handout into a paper).

3.1.1   *Article*

The default layout provided by this class is a layout of writing papers and articles. It is a two-sided layout with a default 12pt font size and default 6-inch line width. This approximates the optimal line width for reading at that size (see Bringhurst 2008), and this scales depending on the font size is selected. Section numbers are set in the left margin by default.

3.1.2   *Portrait handout*

The second layout is a portrait handout which typesets footnotes as margin notes in the right-hand margin. The body text is set at 11pt to accommodate the margin notes while still retaining readability. Section numbers, list numbers, and list bullets are set in the margin. To enable, call the handout option when loading the class.[2]

3.1.3   *Landscape handout*

The final option is a two-column landscape handout. This layout is set at 10pt to maximize use of space. Section numbers are not set in the margin, but are set at a larger font size to make them easier to see. To enable, call the landout option when loading the class.

3.2   Special commands and environments

This class calls the article as input, so all commands defined by that class are available here. In addition, several more commands are defined here.

3.2.1   *Commands*

- \abstract
  A replacement for the standard abstract environment. It will typeset the abstract as part of the document title. Because of how this works, this command must be called in the preamble. Calling \abstract in the document body will have no effect.

- \keywords
  A place to put document keywords.[3] This will typset the keywords in the preamble under the

---

2   Because of the way margin notes are indexed, changing a document from portrait handout layout to another layout will cause a crash when compiled. This error will disappear when compiled again.

3   Keywords are stored in \@keywords.

abstract and will include them in the PDF metadata. As with the \abstract command, this must be called in the preamble.

- \author
  Usage is \author[<short>]{<full name>}. The short name is typeset is used in PDF if you want to include material in the title that hyperref does not like.

- \title
  Usage is \title[<short>]{<full title>}. The short title is used in PDF metadata if you want to include material in the title that hyperref does not like (do not use any LaTeX commands in the short title).

- \affiliaton
  Typesets affiliation information after author name in title. Usage is \affiliation{<the-place-you-work>}.[4]

- \event
  Typesets event, class, or conference information in the title. Usage is \event{<event>}.[5]

3.2.2 Environments

- The Abstract environment
  Creates a fullwidth box for your abstract and keywords and any other sort of front-matter-y stuff you might want.

- The framed and shaded environments.
  The command \framed draws a box around material in the environment, while \shaded places a shaded box around it.[6]

- The fullwidth environment
  For use with the handout layout. Typesets material into the left margin.[7]

  \begin{fullwidth} ... \end{fullwidth}

3.3 Other features

This class provides several other features. PDF metadata is automatically generated based on the (slightly modified) \author, \title, and \Keywords command. The class also provides its own environment for linguistic examples, following the syntax of gb4e. The code is taken from Alan Munn's gb4e-emulate, which is more flexible.

---

4   Affiliation is stored in \@affiliation.

5   Event is stored in \@event.

6   Older versions of this class used the framed package to draw frames and boxes around material. This package was simple, but not very flexible, so its functionality has been reimplemented in this package with the tcolorbox package.

7   This does not yet work with the landscape handout layout. Be careful using it in documents that you may wish to set in this other layout.

4   Package options

4.1   Layouts

This class defines three different layout options:

1. `article`
   The paper option defines a portrait page with a default font size of 12pt, two-side margins, and footnotes. This option is called by default.

2. `handout`
   The handout option defines a portrait handout with a default font size of 11pt. There are no footnotes; these are instead set as marginnotes; to facilitate switching between layouts, the command `\footnote` is redefined to be `\marginnote`.

3. `landout`
   The landout option defines a two-column, landscape handout, which is a common format for handouts in theoretical syntax. The font size is 10pt.

4.2   Typefaces

This class has a number of in-built options for typesetting documents in various typefaces. Options vary depending on whether the document is compiled with LaTeX, XƎLaTeX, or pdfLaTeX.

4.2.1   *(Plain) LaTeX*

By default, this class typesets documents in Minion Pro when they are compiled with LaTeX or pdfLaTeX. To override this behavior, use one of the following options:

- `times`
  Calls Times typeface for math and text (using mathptmx).

- `nofonts`
  Does not call any font; defaults to Computer Modern. Use this option if you want to call your own font options. Also use this option if you intend to use XƎLaTeX with the fontspec package.

- `tipa`
  Loads the tipa package for IPA phonetic fonts.

4.2.2   *pdfLaTeX*

This package was not made with pdfLaTeX in mind since I frequently use several packages based on pstricks, and this is not compatible with pdfLaTeX. These include pst-jtree and OTtablx.

Generally, documents will compile as long as no code from these packages is included, but it may be useful to disable pst-jtree.[8]

- `nojtree`
  Stops class from loading pst-jtree and pst-node.

---

8   This might also be useful if using other tree or drawing packages.

4.3   Font size and margins

Font size is controlled with the 10pt, 11pt, and 12pt options. In the Article layout, the line width scales depending on the font size chosen:

Font Size	Line Width	Text height
10pt	5 in	7.5 in
11pt	5.5 in	8.25 in
12pt	6 in	9 in

Margins can be adjusted manually by using the \geometry command from the geometry package in the preamble. This is safe to do with the Article and Landout layouts, but use caution with the Handout layout.

4.4   Linguistics packages

This class is set up to load a number of packages for typesetting linguistics documents. The packages that are loaded can be adjusted through various package options.

4.4.1   *Example packages*

This class has built-in code for numbered linguistic examples, which was taken from Alan Munn's gb4e-emulate. The syntax of this environment is identical to that of gb4e. However, it does not implement any of the additional things that gb4e does; specifically, gb4e's automath is not implemented here. Thus, the symbols ^ and _ are not redefined to work outside of mathmode. This is because this leads unwanted behavior for typesetting super- and subscripts together in mathmode.

That said, the class provides options for calling other common example packages, as well as the original gb4e. These also disable the built-in example environment.

- expex
  Calls the package expex.

- gb4e
  Calls the package gb4e, and enables automath.

- linguex
  Calls the package linguex

- noex
  No example package will be called.

4.4.2   *Phonology*

This class is geared toward use in theoretical syntax, but it can also be used for phonology. ipa fonts [sʌtʃ æz ðɪs] are provided by tipa in plain/pdf LaTeX. To use:

- `tipa`
Provides the tipa package for ɪᴘᴀ fonts.

Note that there are no ɪᴘᴀ fonts for Minion Pro. ɪᴘᴀ characters will be set in Times if Minion is used, but if consistency is what you are going for, you may want to call the option `times` as well.
     If you want to typeset Optimality Theory tableaux, Nathan Sanders' OTtablx is much better than using a `tabular` environment. Provide the following option to load the package:

- `ottab`
Loads the OTtablx package for typesetting Optimality Theory tableaux.

By default OTtablx is called with the `noipa` option, since this makes it straightforward to do things other than phonology with the package.

4.4.3 Other packages

This class calls pst-jtree and pst-node for drawing trees. To disable, call the following options:

- `nojtree`
Stops class from loading pst-jtree and pst-node.

This class also loads hyperref. To disable:

- `nohyperref`
Disables the hyperref package.

This class also loads packages that depend on pstricks. To keep these loaded, but disable pstricks drawing:

- `PSTricksOff`
Disables pstricks drawing. Same as command `\PSTricksOff`.

4.5   Other options

There are several miscellaneous package options, mostly having to do with various optional formatting choices.

- `color`
Turns on colored section headings, title, page headings, and a few other things.

- `draftfoot`
Adds a footer to the lower right of every page indicating that the document is a draft, with the date.

- `nocolor`
  A few things that get colored by the hyperref package, like citations and links, have color enabled by default even when the `color` option isn't used. This disables all color introduced by the class, disabling colors introduced by hyperref and superseding the `color` option if it is also called.[9] To disable hyperref, use the `nohyperref` option.

- `nohang`
  Disables hanging material in the left margin. Now implemented for footnotes, too.

- `nonatbib`
  This class uses the natbib by default. This option disables it (if, for example, you would rather use biblatex).

- `notitle`
  In this class, \begin{document} calls \maketitle by default.[10] This command stops \begin{document} from calling \maketitle.

5   Usage and document structure

Although this class is based on the article class, there are a few ways in which it differs. This section is mostly there to explain a few places where users of the article class might get tripped up.

5.1   Preamble

The preamble should minimally include the following declarations:

```
\documentclass{lingdoc}

\author{Name of author}
\title{Title of the document}
```

However, other information, such as the short name and title, can be provided. Affiliation and event information are optional; LaTeX will mention in the output if these elements are not used. After these commands, other packages can be loaded, and new commands defined:

```
\documentclass{lacara}

   \author[short name]{Name of author}
   \title[short title]{Full title: This document}
   \affiliation{University of \LaTeX}
   \event{Linguistics 101}
```

---

9   This does not disable colors introduced by other packages or user commands.
10 This is a trick to solve a problem. \maketitle needs to be called before \multicols{2} in the landscape handout mode.

```
\usepackage{thebestpackage}
\newcommand{\hello}[1]{Hello, #1!}
```

The class provides the \abstract and \keywords commands for typesetting. Unlike the standard LaTeX article class, \abstract must be called in the preamble.

```
\abstract{This is a summary of this paper. You will learn the
   answers to many questions.}

\keywords{life, language, linguistics}
```

As noted above, using the \keywords command will add the keywords to the PDF metadata. You should separate your keywords with commas, but do not use LaTeX commands.

5.2 Document body

As mentioned in Section 4.5, the \maketitle command is called as part of \begin{document}. There is no need to call this command at the beginning of the document. If you want to disable this functionality, use the package option notitle.

5.3 References

This class uses natbib and calls the lingquiry2.bst bibstyle file by default. If you are using references, there are two options. You can use the \bibliography command as normal, or you can use the \References command. \References is meant primarily for the handout layout, as it typesets the references in a two-column fullwidth environment with a smaller typeface size. The command works as follows:

```
\References{/home/you/work.bib}
```

References

Bringhurst, Robert. 2008. *The Elements of Typographic Style*. Vancouver: Hartley & Marks, 3.2 edition.

Munn, Alan. 2010. gb4e-emulate.sty. URL https://github.com/semprag/tex/blob/master/gb4e-emulate.sty.

Sanders, Nathan. 2014. Documentation for the OTtablx Package. URL http://sanders.phonologist.org/OTtablx/OTtablx-doc.pdf.

blha	hadsfa	adfasdf
dafsa	adfksadf	adkjl

Table 1   This is a test table. Here is some more text to test and see how well justification and hanging work. With luck this will look the way I want it to.