The **slugpubs-asc** class[*]

Matthew A. Tucker
matucker@ucsc.edu

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Abstract

This class extends the native **article** class of LaTeX to comply with the stylesheet for *ASC series publications developed by the Linguistics Research Center. Beyond simple headings style changes, this class also provides several macros to automate certain parts of the construction of *ASC manuscripts and redefines the `abstract` environment.

1 Introduction

This class provides an extension of the **article** document class to conform with the specifications for *ASC series publications released by the Linguistics Research Center at the University of California, Santa Cruz. The current version of the style guide is avaialable at: `http://people.ucsc.edu/ matucker/masc/styleguide`. For more information on the Linguistics Research Center events and publications, see the LRC website at `http://lrc.ucsc.edu`.

2 Macros and Usage of slugpubs-asc Commands

This section gives an overview of the main features and activity of the **slugpubs-asc** class, which should suffice for most users. For more detailed information, advanced users can see the implementation in §3.

2.1 Package Options

Most of the time there will be no need to change much of the default behavior of the class, but the package does provide some options to help with debugging, should the need arise. They are, along with their default behavior:

`notwoside` By default, we prefer the **article** class to come loaded for `twosided`, so that the headings can alternate on odd/even pages. However, `notwoside` supresses this behavior.

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[*]This document corresponds to **slugpubs-asc** v1.0, dated 2010/10/01.

nohyphenate This option makes LaTeX hyphenate like M$Word. It is mainly for editorial failsafe. Please do not use it.

pagenums By default we supress page numbers so that the editors can add them in the master. However, `pagenums` will re-enable page numbers. You can use this to check page crossreferencing consistency within your document.

notimes By default we typeset in Times New Roman. `notimes` disables this behavior and tries to set the entire document in `T1` Computer Modern. Useful for font debugging purposes.

2.2 Loaded Packages

The slugpubs-asc class loads several packages to help with redefinitions of several of the LaTeX defaults. This section documents which packages are used (and for what), so that you can attempt to avoid using local packages which could cause conflicts. The most important of these is that the package requires some macros distributed in the somewhat hard-to-find `atbeginend.sty` file. This file is distributed with this class, so make sure you put both in a place where LaTeXcan see them.

The page margins are setup with a combination of fanchdr and geometry magics. The headers are also preset when `\maketitle` is called, so it is best if you leave the headers to us and not attempt to define headers yourself.

Fonts for the slugpubs-asc class are loaded by calls to txfonts (for math support), times, and tipa, in that order. This should satisfy the needs of most users, it is important to note that the order in which these packages are declared in the class is semantically contentful. Therefore, you should not try to define extra fonts locally unless you desperately need them. If you need to, be aware that the class uses `T1` encoding throughout, so any font you load should play nice with that encoding. However, if you need a font that is in the extended tipa interface (provided) in the package tipx, that package should be fine if called in the preamble of your document. If the `notimes` option is given to the class, txfonts and times are not loaded.

The sectioning commands are redefined almost entirely in macros provided by the titlesec package, which behaves oddly if you attempt to re-define sectioning commands yourself. If you believe you are in a position to need to re-define sectioning commands, please contact the class maintainer.

In sum, the following classes should **not** be called by the user, as doing so will lead to errors:

- tipa

- times

- caption

If you encounter any trouble with packages not on this list, please contact the document maintainer.

`appendices`

LATEX's native appendix support (via the `\appendix` command) doesn't allow for easy redefinition of sectioning commands inside the appendices distinct from the regular document section headings. Therefore, this class loads `appendix`. This enables use of the `appendix` environment. Any sectioning commands (*e.g.,* `\section`) inside a `appendices` environment are reinterpreted with a leading letter. This has been tested for the *ASC stylesheet to `\subsection` depth.

So, to get appendices in your document, simply encose the appendix `\section` inside a `\begin{appendices}` ... `\end{appendices}`. Note that sections inside `appendices` environments are not labelled with the word "Appendix," so reference to the appendices in the main text should look like references to *e.g.,* `figure`s, as in: "... for more information, see the data in Appendix~`\ref{\meta{label}}`."

Bibliography support in the *ASC series is provided by `natbib`, and uses the `linquiry2.sty` file reflecting the Linguistic Inquiry 1995 stylesheet revision. See the `natbib` documentation for usage instructions. Note that we load all the relevant bibliographic styles (*i.e.,* `\bibpunct`) for you, so you do not need to declare those macros yourself.

Finally, the package makes internal use of `caption` and `multicol`, though fortunately those packages get along quite well with others. However, should you need them locally, you need not re-declare them. Note also that we do not load a linguistics example macro set (*i.e.,* `covington`, `gb4e`, or `linguex`), in part because people have personal preferences but also because it is important that these packages are the last loaded, since they often cause trouble. Therefore, their declaration is left up to the user.

2.3 Title Commands

Most of the title and header commands from the usual LATEX `article` class, and they work much in the way you expect for single-authored papers, though we discuss their usage here. Please declare all these macros after `\begin{document}` but before the use of `\maketitle`.

`\author`
`\institution`

- `\author {`⟨*author*⟩`}`

- `\institution {`⟨*institution*⟩`}`

The author command works exactly the same as the `\author` command in the LATEX `article` class, though it is supplemented in this class by the `\institution`, which takes one argument, the current or correspondence institution of the author.

`\thanks`

- `\thanks {`⟨*text*⟩`}`

We extend the LATEX `\thanks` command, most of which has to do with visual appearance. To use the new `\thanks` command, simply declare `\thanks` the way you normally would, except do it *outside* the `\title` and `\subtitle` environment.

See the example document provided with this file for an example. slugpubs-asc will take care of putting the footnote in the right place for you.

Because of the font specifications in the *ASC Stylesheet, LaTeX sometimes quibbles about the exact character used to typeset the `\footnotemark`. This will result in a substitution by the LaTeX font selection schema. This should not result in a size difference greater than 0.75pt. On the author's machine, this error looks like this:

```
LaTeX Font Warning: Font shape 'U/wasy/m/n' in size <18> not available
(Font)              size <17.28> substituted on input line 36.


LaTeX Font Warning: Font shape 'U/wasy/m/n' in size <12.59995> not available
(Font)              size <12> substituted on input line 36.
```

If, when typesetting your document, you see size substitutions > 0.75pt or significantly different from the above error, contact the document maintainer by the address listed above.

`\title`
`\subtitle`

- `\title {⟨title-text⟩}`

- `\subtitle {⟨subtitle-text⟩}`

Unfortunately, the Stylesheet asks for differential sizes for the document title and subtitle (if any exists). If you wish to use a post-modern-y subtitle in your document, specify both `\title` *and* `\subtitle`. If you do not wish to use a subtitle, simply call `\title` the way you normally would in an article. Note that the class includes a colon separating the `\title` and `\subtitle`. Thus, do not include the colon yourself in either the arguments to `\title` nor `\subtitle`.

2.3.1 Multiply-Authored Documents

Things get a little more complicated given the stylesheet's constraints on the layout of author names in a multiply-authored document. There is support in the slugpubs-asc class for two-author documents, commands for which are described here. If you need support for more than two authors for your manuscript, contact the package maintainer.

`\authorone`
`\authortwo`

- `\authorone {⟨author-name⟩}`

- `\authortwo {⟨author-name⟩}`

The basic difference between single and multiple-author document is that we replace the `\author` and `\institution` commands with corresponding `\authorone`, `\authortwo`, and `\institution` commands. Use these as though they were the

regular single-author equivalents discussed above. However, please be sure to declare *both* `\authorone` and `\authortwo` if one is used; the class will most likely balk or produce strange results if you do not.

The commands for institutions for multiple authors work much as you would expect:

- `\institutionone {⟨`*institution1*`⟩}`

- `\institutiontwo {⟨`*institution2*`⟩}`

When the document is typeset, `\authorone` is associated with the macro `\institutionone` and likewise for the `two` pair. The class will ensure that `\authorone` is listed first, then `\authortwo`, according to the definitions in the *ASC Stylesheet.

2.4 Abstracts and Keywords

The *ASC Stylesheet calls for a particular set of margins and smaller typeface for the `abstract` environment than is provided by default in LaTeX's article class. We take care of that for you with some behind the scenes LaTeX magic. We also provide a command for helping use keywords according to the Stylesheet.

`\keywords`

The slugpubs-asc class provides a `\keywords` command, which should be used on the last line of the `abstract`. This command will typeset '**Keywords:** ' and then its argument. In sum, it has the syntax:

- `\keywords {⟨`*keyword-list*`⟩}`

3 Implementation

This section walks through the code of the file line-by-line and discusses the implementation of the slugpubs-asc class, as well as some of the oddities you might expect of its behavior.

3.1 Options Processing

Load ifthen so that we don't have to hack around in TeX, this makes the boolean switches a bit easier to read. We also use atbeginend to make things a bit easier with abstracts.

```
1 \RequirePackage{ifthen}
2 \RequirePackage{atbeginend}
3
```

Then we deal with the creation of several flags to hold options for the package.

```
4 \newboolean{hyphenate}
5 \setboolean{hyphenate}{true}
6 \newboolean{nopagenums}
```

```
 7 \setboolean{nopagenums}{true}
 8 \newboolean{times}
 9 \setboolean{times}{true}
10 \newboolean{twosided}
11 \setboolean{twosided}{true}
12
```

The basic idea is that each of these booleans holds the value of that particular option, so that we can refer to its presence later. We use this immediately for the processing of the options provided by slugpubs-asc.

```
13 \DeclareOption{notwoside}{\setboolean{twosided}{false}}
14 \DeclareOption{nohyphenate}{\setboolean{hyphenate}{false}}
15 \DeclareOption{pagenums}{\setboolean{nopagenums}{false}}
16 \DeclareOption{notimes}{\setboolean{times}{false}}
17
18 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{article}}
19
20 \ProcessOptions \relax
21
```

3.2   Package Loading

Since slugpubs-asc is just an extension of article, we don't do a lot of this coding ourselves, but rely on other packages. See §2.2, above, for more information. The first thing we do is pass along the `twosided` option to the document class. The Slugpubs *ASC stylesheet requires US Letter paper and 11pt body fontsize — additionally, we turn on draft that way you can't accidentally overfill your hboxes.

```
22 \ifthenelse{\boolean{twosided}}%
23 {\LoadClass[letterpaper,11pt,twoside,draft]{article}}%
24 {\LoadClass[letterpaper,11pt,draft]{article}}
25
```

Setting up the main document margins is accomplished by use of the geometry package.

```
26 \RequirePackage%
27 [letterpaper,left=1.0in,right=1.0in,top=1.0in,bottom=1.0in,foot=0.75in]%
28 {geometry}
29
```

The stylesheet requires the use of Times New Roman, which is, fortunately for us, implemented as its own package in LaTeX. We also load TIPA for the use of phonetic symbols.

```
30 \ifthenelse{\boolean{times}}
31 {\RequirePackage{txfonts}
32 \RequirePackage[T1]{fontenc}
33 \RequirePackage{times}
34 \RequirePackage[T1]{tipa}}
```

If we are not typesetting with Times (for draft purposes), then we do not load times.

```
35 {\RequirePackage[T1]{fontenc}
36 \RequirePackage[T1]{tipa}}
37
```

We'll need fancyhdr for typesetting the copyright notice required by the stylesheet.

```
38 \RequirePackage{fancyhdr}
39 \RequirePackage{abstract}
```

We'll use titlesec to format section titles according to the stylesheet.

```
40 \RequirePackage[noindentafter]{titlesec}
```

Additionally, we want to make sure that appendices are handled with a bit more care than they would be if the normal LaTeX command \appendix were thrown right before the appendices.

```
41 \RequirePackage[title]{appendix}
```

We use natbib for formatting the bibliography, which means you should use the commands defined in that package.

```
42 \RequirePackage[longnamesfirst]{natbib}
```

The *ASC series prefers if table/figure captions are labeled bold.

```
43 \RequirePackage[labelfont=bf]{caption}
```

Finally, this is easier than actually aligning the author names ourselves in the case of multiply-authored documents.

```
44 \RequirePackage{multicol}
45
```

3.3   Title Formatting

Most of the work this class does is in typesetting the title. We need quite a few internal variables to take care of that, which are set as booleans. You should not redefine these values, ever.

```
46 \newboolean{haveAuthor}
47 \newboolean{haveTitle}
48 \setboolean{haveTitle}{false}
49 \newboolean{haveSubTitle}
50 \newboolean{haveInstitution}
51 \setboolean{haveInstitution}{false}
52
53 \newboolean{twoAuthor}
54 \setboolean{twoAuthor}{false}
55
```

\author If you set the \author command, then we want to set the appropriate flag so that
\institution we know we're in a single-author document. If \author is set, then one should also set \institution, as well.

```
56 \renewcommand{\author}[1]%
57 {\gdef\@slugauthor{#1}\gdef\@author{#1}\setboolean{haveAuthor}{true}}
58
```

```
59 \newcommand{\institution}[1]%
60 {\gdef\@institution{#1}\setboolean{haveInstitution}{true}}
61
```

\title Then we set up the macros that hold the \title and \subtitle.
\subtitle
```
62 \renewcommand{\title}[1]%
63 {\gdef\@slugtitle{#1}\gdef\@title{#1}\setboolean{haveTitle}{true}}
64
65 \newcommand{\subtitle}[1]%
66 {\gdef\@slugsubtitle{#1}\setboolean{haveSubTitle}{true}}
67
```

\thanks We're going to need to redefine some parts of the \thanks command later on, so we mae sure that we can refer to it now.
```
68 \newboolean{hasackfn}
69 \setboolean{hasackfn}{false}
70
71 \newcommand{\ackfn}[1]{\gdef\@ckfn{#1}\setboolean{hasackfn}{true}}
72 \renewcommand{\thanks}[1]{\ackfn{#1}}%
73 \newcommand\theackfn{\def\thefootnote{\fnsymbol{footnote}}\footnote[1]{\@ckfn}}
74
```

\authorone The two-author commands work just the same, and come in matched pairs of
\authortwo \author and \institution commands. Note that one of these should not be
\institutionone declared in the absence of the other.
\institutiontwo
```
75 \newcommand{\authorone}[1]%
76 {\gdef\@slugauthorone{#1}\setboolean{twoAuthor}{true}}
77
78 \newcommand{\authortwo}[1]%
79 {\gdef\@slugauthortwo{#1}\setboolean{twoAuthor}{true}}
80
81 \newcommand{\institutionone}[1]{\gdef\@institutionone{#1}}
82 \newcommand{\institutiontwo}[1]{\gdef\@institutiontwo{#1}}
83
```

Finally, we want to make sure that if we're using multicol to typeset multiple author names later, there's not too much space between the author names.
```
84 \setlength{\multicolsep}{0.0pt}
85
```

\maketitle Now the class begins the task of redefining \maketitle to produce the required results.
```
86 \renewcommand{\maketitle}{%
```
Since we're using fancyhdr to typeset the headers, we make sure that the first page doesn't have any header information by making the call to \pagestyle in the \maketitle command.
```
87 \thispagestyle{empty}
88
```

The whole thing is centered, so we call that environment now.

```
89 \begin{center}
```

The title should be 24 pt Times New Roman with appropriate spacing after titles and subtitles.

```
90   \ifthenelse{\boolean{haveTitle}}{
91         \fontsize{24pt}{24pt}
92         \selectfont
93         \textsc{\@title}\ifthenelse{\boolean{haveSubTitle}}
94 {:\\\vspace{18pt}}{\ifthenelse{\boolean{hasackfn}}
95 {\theackfn}{}\\\vspace{12pt}}
96         \normalsize
97     }{}
98
```

If we do have a subtitle, we want to make sure it is in the correct typeface.

```
99 \ifthenelse{\boolean{haveSubTitle}}{
100 \fontsize{18pt}{18pt}
101 \selectfont
102 \textsc{\@slugsubtitle}\ifthenelse{\boolean{hasackfn}}{\theackfn}{}\\
103 \vspace{12pt}
104 }{}
105
```

Assuming we're in single-author mode, we typeset the author's name here.

```
106 \ifthenelse{\boolean{haveAuthor}}{
107     \fontsize{12pt}{12pt}
108     \selectfont
109     \textsc{\@author}
110     \normalsize
111     \selectfont
112 }{}
113
```

If we executed the last bit of code, then there's only one institution, too, and we typeset that here.

```
114 \ifthenelse{\boolean{haveInstitution}}{
115     \normalsize
116     \selectfont
117     \textit{\@institution}
118 \vspace{12pt}
119 }{}
120
```

Now the mess begins. If any of the code coming up executes, then that means that there are two authors present. This is done with a `multicols` environment.

```
121 \ifthenelse{\boolean{twoAuthor}}{
122 \begin{multicols}{2}
```

The first author and institution are typeset as though it were a single-author document, except in the left hand of a two-column vertical list.

```
123 \fontsize{12pt}{12pt}
124 \selectfont
125 \textsc{\@slugauthorone}\\
126 \normalsize
127 \selectfont
128 \textit{\@institutionone}\\
129 \columnbreak
130
```

The author author, \authortwo, is typeset in the righthand column in the exact same way.

```
131 \fontsize{12pt}{12pt}
132 \selectfont
133 \textsc{\@slugauthortwo}\\
134 \normalsize
135 \selectfont
136 \textit{\@institutiontwo}
```

Nearly finally, we do some wrap-up code execution to close all the environments.

```
137 \end{multicols}
138 \vspace{6pt}
```

However, we're not quite done — we hack around the issue of getting two authors' names into the header. This is done by redefining \author so that it has both names in it.

```
139 \author{\@slugauthorone\ \& \@slugauthortwo}
140 \vspace{6pt}
```

Finally, we run the last of the closing commands.

```
141 }{}
142
143     \end{center}
144 \pagestyle{fancy}
145 \renewcommand{\headrulewidth}{0.0pt}
146 \fancyhead{}
147 \fancyhead[OC]{\fontsize{10pt}{10pt}\selectfont\rm\@title}
148 \fancyhead[EC]{\fontsize{10pt}{10pt}\selectfont\rm\@author}
149 \fancyfoot{}
150 \ifthenelse{\boolean{nopagenums}}{}{\fancyfoot[C]{\thepage}}
151 }
152
```

3.4   Sectioning Commands and Spacing

If for some reason, you want LaTeX to hyphenate like MS word this will do it, even though this is really ugly and violates every typographic convention. The following parameter settings discourage TeX's layout algorithm from breaking lines with syllabic hyphens. This can be enabled by the "nohyphenate" class option, which is off by default.

```
153 \ifthenelse{\boolean{hyphenate}}{}{
154     \hyphenpenalty=5000
155     \tolerance=1000
156 }
157
```

We don't line dangling lines (*i.e.,* widows or orphans), so we set a few penalties in order to help LaTeX along.

```
158 \widowpenalty=15999
159 \clubpenalty=15999
160 \raggedbottom
161
```

We also want to make sure that paragraph indents are half an inch, which is a bit larger than article's default.

```
162 \parindent=0.50in
163
```

The stylesheet requires 9pt footnotes with a 0.5pt rule. We set that here.

```
164 \renewcommand{\@makefntext}[1]%
165 {\noindent\makebox[1.8em][r]%
166 {\fontsize{9pt}{9pt}\selectfont\@makefnmark}%
167 \fontsize{9}{9}\selectfont #1}
168
169 \renewcommand\footnoterule%
170 {\vspace*{-3pt}\hrule width 2in height 0.5pt \vspace*{2.5pt}}
171
```

We also need to reduce the spacing around captions in tables and figures.

```
172 \setlength{\abovecaptionskip}{12pt}
173 \setlength{\belowcaptionskip}{-5pt}
174
```

The section headings are all redefined with titlesec, and that is done *en masse* at this point.

```
175 \titlelabel{\thetitle\ }
176 \titleformat*{\section}{\fontsize{14pt}{14pt}\bf}
177 \titleformat*{\subsection}{\fontsize{12pt}{12pt}\itshape}
178 \titleformat*{\subsubsection}{\fontsize{12pt}{12pt}\rm}
179 \titlespacing{\section}{0pt}{18pt}{12pt}
180 \titlespacing{\subsection}{0pt}{18pt}{12pt}
181 \titlespacing{\subsubsection}{0pt}{18pt}{12pt}
182
```

We set up the header stuff with fancyhdr, and we want the page style to be `fancy`.

```
183 \pagestyle{fancy}
184 \renewcommand{\headrulewidth}{0.0pt}
185 \fancyhead{}
186 \fancyhead[OC]{\fontsize{10pt}{10pt}\selectfont\rm\@title}
187 \fancyhead[EC]{\fontsize{10pt}{10pt}\selectfont\rm\@author}
188 \fancyfoot{}
```

```
189 \ifthenelse{\boolean{nopagenums}}{}{\fancyfoot[C]{\thepage}}
190
191
```

Finally, we redefine the way appendices work with the `appendix` package.

```
192 \renewcommand\appendixname{Appendix\ }
193
```

3.5 Bibliography Setup

The hanging indent in a bibliography for *ASC publications should be one-quarter inch.

```
194 \setlength{\bibhang}{0.25in}
195
```

We also set the punctuation in the bibliography and call the `linquiry.bst` style file. This typesets the bibliography with the Linguistic Inquiry style file, 1995 revision.

```
196 \bibpunct[:]{(}{)}{;}{a}{,}{;}
197 \setlength{\bibsep}{0.0pt}
198 \bibliographystyle{linquiry2}
```

3.6 Some Helpful Macros

The last two things the package does is declare some useful macros for *ASC typesetting.

`\keywords` The `\keywords` command is used to display a list of three to four keywords at the end of the `abstract`

```
199 \newcommand{\keywords}[1]%
200 {\vspace{12pt}\par\noindent\textbf{Keywords: }\normalfont\rm #1}
201
```

Finally, we replace the regular `abstract` environment with a modified version.

```
202 \setlength{\absleftindent}{1in}
203 \setlength{\absrightindent}{1in}
204 \renewcommand\abstractname{}
205 \renewcommand\abslabeldelim{}
206 \setlength\abstitleskip{-3em}
207 \AfterBegin{abstract}{\fontsize{9pt}{9pt}\selectfont\noindent\hspace{-0.3em}}
208
```

4 Conclusion and Thanks

Special thanks to Max Bane, whose `cascadilla` class provided the basis for most of the development of this class. Thanks to Junko Itô for initially suggesting to me the idea of a unified *ASC stylesheet, and thank you to Anie Thompson and Nick LaCara for help with the stylesheet specifications.