

STYLE FILES FOR ASCE-LIKE DOCUMENTS

Matthew R. Kuhn¹, Member, ASCE

ABSTRACT

This document was produced with the L^AT_EX typesetting program using the document class “`ascelike.cls`” and the example document “`ascexmpl.tex`”. The reference section on page 9 was produced with the B_IB_TE_X style “`ascelike.bst`” and the database “`ascelike.bib`”. The objective of these files is manuscripts that roughly comply with the guidelines of the American Society of Civil Engineers. The document class produces either double-spaced manuscripts for journal submissions or camera-ready manuscripts for conference proceedings. This document serves as a brief guide to `ascelike.cls`, as well as a test of the output that is produced by the input file `ascexmpl.tex`. The package is freely available under the LaTeX Project Public License, version 1.1

Keywords: L^AT_EX, ASCE, document class, `ascelike.cls` (version 2.2), `ascelike.bst` (version 2.1).

INTRODUCTION

The document class “`ascelike.cls`” produces manuscripts that roughly comply with the guidelines of the American Society of Civil Engineers (ASCE). The `ascelike.cls` document class, the bibliographic style `ascelike.bst`, and example files are available on the ctan web-site (Kuhn 2011). Although it is *not* produced by ASCE, its agents, or employees, `ascelike.cls` is now referenced on the ASCE web-site.

The program `ascelike.cls` is distributed under the terms of the LaTeX Project Public License Distributed, available from the CTAN archives; either version 1.1 of the License,

¹Dept. of Civil Engrg., Donald P. Shiley School of Engrg., Univ. of Portland, 5000 N. Willamette Blvd., Portland, OR 97203. E-mail: kuhn@up.edu.

23 or any later version. If you modify `ascelike.cls`, you should rename it so that “altered”
24 copies are not later proliferated.

25 The document class “`ascelike.cls`” requires the following supplementary files:

- 26 • `ifthen.sty`,
- 27 • `setspace.sty`,
- 28 • `endfloat.sty`, and
- 29 • `lineno.sty`.

30 *Without these files, `ascelike.cls` won't work.* These files are typically included in L^AT_EX
31 distributions, such as the TeXLive and MikTeX distributions. All of these files are also
32 freely available from the Comprehensive T_EX Archive Network (CTAN) archive, through
33 <http://www.ctan.org> or <http://www.tug.org>, although they may need to be unbundled
34 from a `*.dtx` form. If one of these files is not installed as part of your T_EX system,
35 then download the file from the CTAN archive and place it in the same folder as your
36 manuscript files. On Debian GNU/Linux systems, the `setspace.sty` file is part of the
37 `texlive-latex-recommended` package; the `endfloat.sty` file is part of the `texlive-latex-extra`
38 package; and the `lineno.sty` file is part of the `texlive-humanities` package.

39 In addition to `ascelike.cls`, the file `ascelike.bst` can be used with the bibliographic
40 tool BIB_TE_X to produce ASCE-like reference citations and entries (with the weird use of
41 quotation marks around titles, etc.) (Kuhn 2011). An example bibliographic data base is
42 given in `ascexmpl.bib`.

43 In addition to these essential files, we have found the following packages very useful:

- 44 • `graphicx.sty` and its companion files for incorporating encapsulated postscript (fig-
45 ure) files into the document
- 46 • `times.sty` for typesetting with Times fonts.
- 47 • `subfigure.sty` for arranging and numbering sub-figures
- 48 • `amsmath.sty` and its companion files for the AMS extensions to mathematical for-

49 matting (`amsfonts.sty`, `amssymb.sty`, and `amsbsy.sty`).

- 50 • `url.sty` can be used to embed the underscore “_” and ampersand “&” symbols with
51 web addresses.

52 All of these packages are freely available from the CTAN archive, but they are also included
53 in most L^AT_EX distributions.

54 INPUT AND OPTIONS

55 You should prepare your `*.tex` input file as a regular L^AT_EX file using the standard
56 `article.cls` constructs, but, of course, substitute `ascelike` for `article` in the opening
57 `\documentclass` command. You will likely need to specify a number of options as described
58 below. In addition, `ascelike` provides two new commands: `KeyWords` and `NameTag`, both
59 of which are described further below.

60 Document class `ascelike.cls` provides the options given below. The `Proceedings|`-
61 `Journal` options are the most important; the other options are largely incidental.

- 62 1. Options `Journal|Proceedings` specify the overall format of the output manuscript.

63 `Journal` produces double-spaced manuscripts for ASCE journals. As default set-
64 tings, it places tables and figures at the end of the manuscript and produces lists of
65 tables and figures. It places line numbers within the left margin. All of these default
66 settings can be altered with the options that are described below. It also numbers the
67 appendices with Roman numerals and produces proper headings for sections, subsec-
68 tions, subsections, appendices, and abstract. It produces the proper page margins
69 and numbers the pages.

70 `Proceedings` produces camera-ready single-spaced manuscripts for most ASCE
71 conference proceedings. As default settings, it places figures and tables within the
72 text. It does not place line numbers within the left margin. Pages are numbered,
73 and the bottom left corner can be “tagged” with the author’s name (this can be
74 done by inserting the command `\NameTag{<your name>}` within the preamble of

75 your document). All of these default settings can be altered with the options that are
76 described below. It also produces the proper page margins as given on the old shiny,
77 camera-ready paper (with the light blue lines) supplied by ASCE. It produces proper
78 headings for sections, subsections, subsubsections, appendices, and the abstract.

- 79 2. Options `BackFigs|InsideFigs` can be used to override the default placement of tables
80 and figures in the `Journal` and `Proceedings` formats.
- 81 3. Options `SingleSpace|DoubleSpace` can be used to override the default text spacing
82 in the `Journal` and `Proceedings` formats.
- 83 4. Options `10pt|11pt|12pt` can be used to override the default text size (12pt).
- 84 5. The option `NoLists` suppresses inclusion of lists of tables and figures that would
85 normally be included in the `Journal` format.
- 86 6. The option `NoPageNumbers` suppresses the printing of page numbers.
- 87 7. The option `SectionNumbers` produces an automatic numbering of sections. Without
88 the `SectionNumbers` option, sections will *not* be numbered, as this seems to be the
89 usual formatting in ASCE journals (note that the appendices will, however, be au-
90 tomatically “numbered” with Roman numerals). With the `SectionNumbers` option,
91 sections and subsections are numbered with Arabic numerals (e.g. 2, 2.1, etc.), but
92 subsubsection headings will not be numbered. To change this default depth of num-
93 bering when the option `SectionNumbers` is invoked, insert the following commands
94 in the preamble of your document:

```
95 \setcounter{secnumdepth}{1} Number sections only
```

```
\setcounter{secnumdepth}{3} Number sections, subsections,  
and subsubsections
```

96 Even with the `SectionNumbers` option, you can use the “starred” form, `\section*{ }`,
97 to create a section heading without numbers. This might be desirable for an Acknowl-
98 edgements section at the end of a paper. Note, however, that the starred form will
99 not suppress the numbering of subsections or subsubsections.

100 8. The options `NoLineNumbers|LineNumbers` can be used to override the default use (or
101 absence) of line numbers in the `Journal` and `Proceedings`.

102 **SECTIONS, SUBSECTIONS, EQUATIONS, ETC.**

103 This section is included to explain and to test the formatting of sections, subsections,
104 subsubsections, equations, tables, and figures. Section heads are automatically made upper-
105 case, which is great unless your section heading contains mathematics, `<math stuff>`. If
106 a heading does contain mathematics, you will need to modify `ascelike.cls`, in particular
107 the line containing the `\uppercase` command. To force mathematics symbols to become
108 bold within a section heading, try using the `\boldmath` command before the in-line math:
109 for example, `\boldmath$a_{i}=\sqrt{\beta}`.

110 **An Example Subsection with math, $a_i = \sqrt{\beta}$**

111 No automatic capitalization occurs with subsection headings; you will need to capitalize
112 the first letter of each word, as in “An Example Subsection.”

113 *An example subsubsection*

114 No automatic capitalization occurs with subsubsections; you will need to capitalize only
115 the first letter of subsubsection headings.

116 And now we include an example of a displayed equation (Eq. ??)

$$117 \qquad E = mc^2, \qquad (1)$$

118 a figure (Fig. ??), and a table (Table ??). Notice that the caption of Fig. ?? contains a
119 citation of a bibliographic item ([Stahl et al. 2004](#)). This can lead to the following errors:

120 ! Illegal parameter number in definition of `\reserved@a`.

121 ! Missing control sequence inserted

122 These errors are avoided by protecting citations within captions, as `\protect\cite{...}`.

123 A new command `\KeyWords{<your key words>}` can be used to produce a labeled list
124 of key words. It can be placed anywhere in the document and produces an unindented
125 paragraph of keywords at that location.

126 CITATIONS AND BIBLIOGRAPHIC ENTRIES

127 When used together, `ascelike.cls` and `ascelike.bst` produce APA / *Chicago Manual*
128 *of Style* citations in name-date format. The code in `ascelike.bst` is a modification of the
129 `chicago.sty` and `chicago.bst` packages. The following citation options are available:

- 130 • `\cite{key}` produces citations with full author list and year (Ireland 1954).
- 131 • `\citeNP{key}` produces citations with full author list and year, but without enclosing
132 parentheses: e.g. Ireland 1954.
- 133 • `\citeA{key}` produces citations with only the full author list: e.g. (Ireland)
- 134 • `\citeN{key}` produces citations with the full author list and year, but which can be
135 used as nouns in a sentence; no parentheses appear around the author names, but
136 only around the year: e.g. Ireland (1954) states that ...
- 137 • `\citeyear{key}` produces the year information only, within parentheses, as in (1954).
- 138 • `\citeyearNP{key}` produces the year information only, as in 1954.

139 The bibliographic data base `ascexmpl.bib` gives examples of bibliographic entries for dif-
140 ferent document types. These entries are from the canonical set in the ASCE web document
141 “Instructions For Preparation Of Electronic Manuscripts” and from the ASCE web-site. The
142 References section of this document has been automatically created with the `ascelike.bst`
143 style for the following entries:

- 144 • a book (Goossens et al. 1994),
- 145 • an anonymous book (Moody 1988),
- 146 • an anonymous report using @MANUAL (Federal 1991),
- 147 • a journal article (Stahl et al. 2004; Pennoni 1992),
- 148 • a journal article in press (Dasgupta 2008),

- 149 ● an article in an edited book using @INCOLLECTION (Zadeh 1981),
- 150 ● a building code using @MANUAL (International 1988),
- 151 ● a discussion of an @ARTICLE (Vesilind 1992),
- 152 ● a masters thesis using @MASTERSTHESIS (Sotiropulos 1991),
- 153 ● a doctoral thesis using @PHDTHESIS (Chang 1987),
- 154 ● a paper in a foreign journal (Ireland 1954),
- 155 ● a paper in a proceedings using @INPROCEEDINGS (Eshenaur et al. 1991; Garrett 2003),
- 156 ● a standard using @INCOLLECTION (ASTM 1991),
- 157 ● a translated book (Melan 1913),
- 158 ● a two-part paper (Frater and Packer 1992a; Frater and Packer 1992b),
- 159 ● a university report using @TECHREPORT (Duan et al. 1990),
- 160 ● an untitled item in the Federal Register using @MANUAL (Federal 1988),
- 161 ● works in a foreign language (Duvant and Lions 1972; Reiffenstuhl 1982),
- 162 ● software using @MANUAL (Lotus 1985),
- 163 ● two works by the same author in the same year (Gaspar and Koenders 2001a; Gaspar
- 164 and Koenders 2001b), and
- 165 ● two works by three authors in the same year that only share the first two authors
- 166 (Huang et al. 2009a; Huang et al. 2009b).

167 ASCE has added two types of bibliographic entries: web-pages and CD-ROMs. A web-
 168 page can be formatted using the @MISC entry category, as with the item (Burka 1993) produced
 169 with the following *.bib entry:

```

170 @MISC{Burka:1993a,
171     author = {Burka, L. P.},
172     title = {A hypertext history of multi-user dimensions},
173     journal = {MUD history},
174     year = {1993},
175     month = {Dec. 5, 1994},

```

```
176     url = {http://www.ccs.neu.edu}
177 }
```

178 Notice the use of the “month” field to give the date that material was downloaded and the use
179 of a new “url” field. The “url” and month” fields can also be used with other entry types
180 (i.e., @BOOK, @INPROCEEDINGS, @MANUAL, @MASTERSTHESIS, @PHDTHESIS, and @TECHREPORT):
181 for example, in the entry type @PHDTHESIS for (Wichtmann 2005).

182 A CD-ROM can be referenced when using the @BOOK, @INBOOK, @INCOLLECTION, or
183 @INPROCEEDINGS categories, as in the entry (Liggett and Caughey 1998). The field “howpublished”
184 is used to designate the medium in the .bib file:

```
185     howpublished = {CD-ROM},
```

186 MISCELLANY

187 Many ASCE conference proceedings are now published on CD ROM media. I have no-
188 ticed that instructions on paper formats issued by conference organizers often differ from
189 the standard ASCE instructions. Fortunately most of the differences can be easily accom-
190 modated, such as changes in the margins and placement of the authors’ addresses. As for
191 margins, these can, of course, be altered by using `\setlength{<length>}` commands within
192 the preamble to a document without making any changes to `ascelike.cls`. (See the L^AT_EX
193 book (Lamport 1994), its companion (Goossens et al. 1994), or online web documentation.)

194 Authors’ addresses can be placed below the title (instead of in a footnote) by *not* using
195 the `\thanks` command. Multiple authors from the same institution can be handled within
196 the `\author{...}` command by using the `\footnotemark` command:

```
197 \\\
198 Ima Colleague,\footnotemark[1] Member, ASCE%
```

APPENDIX I. REFERENCES

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271

APPENDIX II. NOTATION

272

The following symbols are used in this paper:

D = pile diameter (m);

273

R = distance (m); and

$C_{Oh\ no!}$ = fudge factor.

TABLE 1. An example table

Assembly Attribute (1)	Values (2)
Number of particles	4008
Particle sizes	Multiple
Particle size range	$0.45D_{50}^*$ to $1.40D_{50}$
Initial void ratio, e_{init}	0.179
Assembly size	$54D_{50} \times 54D_{50} \times 54D_{50}$

* D_{50} represents the median particle diameter



FIG. 1. An example figure (just a box). This particular figure has a caption with more information than the figure itself, a very poor practice indeed. A reference here (Stahl et al. 2004).