

Using Declarations

In addition to the options available via `article.cls`, `IEEEtran.cls` has several article type options (`reference`, `journal`, `technote`, `peerreview`, `peerreviewca`).

Some of the options available via `IEEEtran.cls` are listed in the following table. For example, `\setlength{\topmargin}{-0.58in}` specifies the format of a numbered list to make it easier to use. `Siamltex.cls` uses environments similar to the traditional `enumerate`. `IEEEtran.cls` offers an optional `list` environment to enable setting list properties globally.

```
\setlength{\topmargin}{-0.58in}
\setlength{\headheight}{0.17in}
\setlength{\headsep}{0.42in}
\setlength{\footskip}{0in}
\setlength{\topskip}{0in}
\setlength{\oddsidemargin}{0in}
\setlength{\evensidemargin}{0in}
\setlength{\textwidth}{6.5in}
\setlength{\textheight}{9in}
```

Some of the options available via `IEEEtran.cls` are listed in the following table. For example, `\setlength{\topmargin}{-0.58in}` specifies how to use existing \LaTeX commands to achieve the journal style. The documentation for SIAM's macros states to use `\S` for section references except when the reference is the first word in the sentence. It also specifies when to use which dash (i.e. total width – margins, from 3–5, a sentence—with a clause).

1.2 Packages

Packages extend the basic \LaTeX commands. There are standard packages that are included with every \LaTeX implementation and there are “contributed packages” submitted by \LaTeX users (Kopka & Daly, 2004). Some publisher class files include standard packages, so they need not be declared in your \LaTeX document. `Elsarticle.cls` includes `geometry.sty` and sets necessary variables. To use packages include the following markup command

```
\usepackage[options]{package name}
```

The options declared in the document class are global, so they have precedence. Any option set in the document class file will apply to all packages. Options used with the packages apply to the packages only (Kopka & Daly, 2004). When compiling, an “unknown control sequence” often indicates that a package is needed.

1.3 Article Class with \LaTeX - `article.cls`

The focus of this workshop is the `article` class, `article.cls`. The structural considerations of the document remain the same when using any of the publisher class files discussed in this workshop since they are based on `article.cls`. There might be syntax differences when specifying title and author; however, generally the declaration of sections remain the same. It will appear different typographically with the selection of these classes, but the user will include them in the document in the same manner. The basic structure of a document is given below.

```
\documentclass[twoside]{article}
\usepackage{graphicx}
\usepackage{hyperref}

\title{Using Document Classes and Packages for your Journal}
\author{T.~Stitz \and J.~Doe \and A.~Smith}

... more preamble commands

\begin{document}
\maketitle

\section{First Level}
```

²Commands begin with a backslash (i.e. `\maketitle`) and environments use `\begin{environment}`.

In addition to the `Using Geometry` package, available via `article.cls`. `IEEEtran.cls` has several article types (`journal`, `technote`, `peerreview`, `peerreviewca`). `Siamltx.cls` uses `\geometry{paper=letterpaper,margin=1in}` for equations, theorems, figures, and tables.

Some publisher class files extend options for existing markup commands and environments.² For example, `elsarticle.cls` provides an optional argument to specify the format of a numbered list to make it easier for the author. Others provide additional commands and environments. `Siamltx.cls` uses environments called `renumerate` and `romannum` to apply formatting to the traditional `enumerate`. `IEEEtran.cls` offers an optional argument for numbered lists, as well as various commands to enable setting list properties globally.

Some publisher class file documentation specifies how to use existing \LaTeX commands to achieve the journal style. The documentation for SIAM’s macros states to use `\S` for section references except when the reference is the first word in the sentence. It also specifies when to use which dash (i.e. total width – margins, from 3–5, a sentence—with a clause).

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class is

Using Baselinestretch

```
\renewcommand{\baselinestretch}{2}
```

```
\documentclass[options]{class name}.
```

Class files contain global processing information for the publication (Kopka & Daly, 2004). For example, URL color is declared as blue in `elsarticle.cls` if the *hyperref* package is loaded. Declaring a color of green in the document will not change the color.

Publisher class files can change default options as provided by `article.cls`. `Siamltex.cls` changes the default option to *twoside* output in order to use the markup command `\markboth{}{}` for the running headings without requiring the user to specify *twoside* in the options (`article.cls` default is *oneside*). `IEEEtran.cls` changes the default option of number of columns to *twocolumn* (`article.cls` default is *onecolumn*). Sometimes additional formatting is added to these options. `IEEEtran.cls` draft mode specifies double spacing to allow space for editing comments. It also forces capitalization of running headings. Sometimes class file formatting changes the order of markup commands. For example, the abstract is part of the “front matter” in Elsevier journals, thus it appears before `\maketitle`. This is also the case for IEEE Computer Society Journals.

In addition, many publisher class files extend the options available via `article.cls`. `IEEEtran.cls` has several article types that have different formatting (*conference*, *journal*, *technote*, *peerreview*, *peerreviewca*). `Siamltex.cls` gives options to change the default numbering for equations, theorems, figures, and tables.

Some publisher class files extend options for existing markup commands and environments.² For example, `elsarticle.cls` provides an optional argument to specify the format of a numbered list to make it easier for the author. Others provide additional commands and environments. `Siamltex.cls` uses environments called *renumerate* and *romannum* to apply formatting to the traditional *enumerate*. `IEEEtran.cls` offers an optional argument for numbered lists, as well as various commands to enable setting list properties globally.

Some publisher class file documentation specifies how to use existing L^AT_EX commands to achieve the journal style. The documentation for SIAM’s macros states to use `\S` for section references except when the reference is the first word in the sentence. It also specifies when to use which dash (i.e. total width – margins, from 3–5, a sentence—with a clause).

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Class files `Using setspace` publication (Kopka & Daly, 2004). For example, URL color `\usepackage[doublespacing]{setspace}` `ref` package is loaded. Declaring a color of green in the document will not change the color.

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