The pracjourn class

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2007/08/13 v0.4n

Abstract pracjourn is a class based on `article.cls`, to be used for typesetting articles in The PracTEX Journal, http://tug.org/pracjourn.

Contents

1 Introduction

The pracjourn LaTeX document class is to be used for articles written for the The PracTEX Journal, http://tug.org/pracjourn. The source for the document class resides at http://tug.org/pracjourn/dtx, and is also available at CTAN.

2 Usage

Refer to the sample document, www.tug.org/pracjourn/dtx/pjsample.tex, for context. Issue a `\documentclass{pracjourn}` command at the beginning of your document as usual. No class options are necessary.

This document class automatically loads the packages color, graphicx, hyperref, and textcomp. These are all standard packages in every TEX distribution.

2.1 Formatting

Page metrics are appropriate for printing on either A4 or letter size paper. The type size is 12/15.5 Palatino. Except in exceptional circumstances, please refrain from using typefaces other than those defined by this class.

Hyperlinks are inserted automatically in the relevant locations in a dark blue colour. If you wish to adjust this colour to suit your own colour requirements,

simply redefine the `linkcolour`. E.g., to change it to dark red, `\definecolor{linkcolour}{rgb}{0.7,0.2,0.2}`.

2.2 *Author/article metadata*

All author and article information must be defined before `\maketitle`, which should probably be the first thing after `\begin{document}`.

`\author` `\title` `\abstract`
The `\author`, `\title`, and `\abstract` commands are used to define those pieces of metadata about the article, and are mandatory. Note that the `\abstract` is a plain old command, *not* an environment.

`\noabstract`
Should you have a reason for not having an abstract, this may be signified by declaring `\noabstract` instead.

`\license`
It is optional to specify a copyright and/or license declaration, to be typeset in the footer of the first page, with the `\license` command.[1]

`\email` `\website` `\address`
Additional author information may be specified, to be typeset appropriately, with the following commands: `\email`, `\website`, and `\address`.

If the switcheml package is installed somewhere that TEX will find it, it is loaded for the purpose of obfuscating the typeset email address. This is done to prevent harvesting by spammers, but if the package cannot be found the email address will by typeset as a hyperlink.

`\hyperlinkemail`
Should you wish to typeset your email address as a hyperlink (that is, theoretically harvestable by spammers) despite having switcheml installed, you may simply include the command `\hyperlinkemail` anywhere before `\begin{document}`.

2.2.1 Adding more author/article information

As previously mentioned, this class provides the `\email`, `\website`, and `\address` macros for typesetting that information in the header block. These commands are defined in the source code of the class file with (something like) the following:[2]

```
\addinfo[\typesetemail]{Email}
\addinfo[\url]{Website}
\addinfo{Address}
```

Additional blocks my be added on a per-article basis in the same manner.

`\addinfo`
To be specific, the `\addinfo` command takes one mandatory argument, which is the title of the item to be added to the list, and one optional argument, which is used to define the formatting of the block.

1. The `\TPJcopyright` command, which used to provide this functionality is still provided for backwards compatibility.
2. `\typesetemail` is an internal command defined by either `\hyperlinkemail` or `\obfuscateemail`.

This command will then define the macro used to input the additional information by taking the lowercase of the title of the information and turning it into a TEX macro.

`\newinfo` If lowercasing the heading to create the macro name is impractical (due to accents, for example), then this command can be used instead:

```
\newinfo\resume[\color{red}]{R\'esum\'e}
```

The names used in the article metadata ('Email', 'Résumé', etc.) can be redefined as follows:

```
\renewcommand\emailname{Email}
\renewcommand\resumename{Resume}
```

These macros are defined automatically by `\addinfo`/`\newinfo`.

`\addinfospace` If you wish to add some vertical space after the previous item in the front matter, the `\addinfospace{`⟨*height*⟩`}` command will insert some. This may be necessary after multi-line blocks, which require some breathing room.

`\clearinfo` If you don't like the ordering of the information blocks or you wish to edit the formatting of the current setup, the `\clearinfo` command allows you to start fresh and redefine the info blocks however you may wish.

2.3 Additional user commands

`\dash` For 'smart' dashes in text. Thinly spaced from the text, it ignores surrounding spaces, and permits only succeeding line breaks.

```
use like this \dash for consistent dashes
```

produces 'use like this — for consistent dashes'.

`\note` For easier footnotes. This command ignores preceding space, so linebreaks before the footnote text in the source will not give the wrong spacing.

```
And here's an example.
  \note{Albeit a trivial one.}
And continuing
```

produces 'And here's an example.[3] And continuing'.

`itemise` For non-US writers, it is probably more natural to use `\begin{itemise}` over what LATEX provides by default.

`\ctanfile` `\ctanloc` These commands are used to refer to online locations and documentation within the Comprehensive TEX Archive Network. Usage is as follows:

```
\ctanfile{macros/latex/contrib/titlesec/titlesec.pdf}
\ctanloc{macros/latex/contrib/titlesec/}
```

It will print the input prefixed with 'CTAN:' and provide a hyperlink to the location.

3. Albeit a trivial one.

2.4 *TPJ internal commands*

Two commands are to be used at the direction of the PracTEX production team: `\TPJrevision` and `\TPJissue`. These commands typeset information in the header of the first page relating to the revision number (or date) of the article and the issue number of the journal.

This document class creates a file `_rev.tex` in the current directory (if a `\TPJrevision` statement is present) and reads a file `_iss.tex`, if present. Please keep a separate directory for each article you develop for TPJ.

2.5 *Logos*

The following logos and abbreviations are defined for your convenience:

`\TeX`:	TEX	`\pdfTeX`:	pdfTEX
`\LaTeX`:	LATEX	`\pdfLaTeX`:	pdfLATEX
`\LaTeXe`:	LATEX2ε	`\XeTeX`:	XETEX
`\BibTeX`:	BIBTEX	`\ExTeX`:	εχTEX
`\MF`:	METAFONT	`\PracTeX`:	PracTEX
`\MP`:	METAPOST	`\TPJ`:	The PracTEX Journal
`\ConTeXt`:	ConTEXt	`\PS`:	PostScript

3 History

The first revision of this class was written by Karl Berry. KB: Gratefully based on the `dtxtut` skeleton.

Revised by Arthur Ogawa, 2004/01/03, to include new features, per Lance Carnes, as follows:

1. Define an `\articleID` macro which typesets the article identification in a block somewhere on the first page of the article, and which can be used to identify the article/revision date for reader comments. E.g. if this appears in the article source file:

```
\author{A.U. Thor}
\title{Pracjourn Sample}
\TPJissue{TPJ Vol 1 No 1, 2005-1-15}
\TPJrevision{2005-2-12}%
\TPJcopyright{\textcopyright\ 2005 TeX Users Group}
```

   it will become a block of text typeset on the first page of the article. See e.g. this example PDF.

2. Write the information from the argument of the `\articleID` macro into a file called `_id.tex`. Put this file in the same directory as the source file, and overwrite any previous files of the same name.

3. Define a `\TPJcopyright` macro which will print a copyright notice at the bottom of the first page. E.g. `\TPJcopyright{2005 TeX Users Group}` will produce "©2005 TeX Users Group" in the page footer of the title page.

4. The page measures should work with both Letter and A4 paper sizes.

Revised again by Will Robertson, mid-2005, to implement some extra things. This snow-balled into the current version, a description of which here would be redundant.

4 Implementation

The is fairly poorly documented, and the class has undergone a multitude of small changes over the TPJ issues 2005-4, 2006-1. It should now be fairly stable, and over time it's conceivable (but unlikely) that the descriptions herein will be improved.

4.1 Base class and options

Use LaTeX's article class, but at a bigger default type size.

KB: 12pt seems a little too big, 11pt seems a little too small. Implementing 11.5pt is not obvious.

If the document instance calls for options that conflict with the following choices, then the document wins. However our default option list is not the same as those of article.cls.

```
\let\ExecuteOptions@ltx\ExecuteOptions
\def\ExecuteOptions#1{%
 \ExecuteOptions@ltx{letterpaper,12pt,oneside,onecolumn,final}%
}%
\LoadClassWithOptions{article}
\let\ExecuteOptions\ExecuteOptions@ltx
```

4.2 Metrics

Default leading (from `classes.dtx`) for 11pt is 13.6pt leading, for 12pt is 14.5pt. We want more—this factor gives us 12pt type on 15.5pt leading.

```
\linespread{1.069}
```

Change the text width to something that works for both A4 and Letter paper, as well as possible.

xx The vertical dimensions need to be changed as well, perhaps for a 9in text height, taking account of the headline and footline.

```
\setlength\textwidth{432pt}
\setlength\oddsidemargin{18pt}% xx depend on letter/a4
\setlength\evensidemargin{18pt}
```

4.3 Package loading

Palatino, including math (sc option for true small caps, not in TL 2003). Try for mathpazo; if not available use palatino.

Enable pdfTeX's margin kerning, if available, but *not* font expansion, which increases the size and complexity of the resultant PDF. This side-effect may be deemed negligible in the future.

The textcomp package is loaded in order to provide a nice looking copyright logo, amongst other things.

```
\IfFileExists{lmodern.sty}{%
  \RequirePackage{lmodern}
  \usepackage[T1]{fontenc}}{}
\IfFileExists{mathpazo.sty}
             {\RequirePackage[sc]{mathpazo}}
             {\renewcommand\rmdefault{ppl}}
\IfFileExists{microtype.sty}{%
  \RequirePackage[protrusion=true,expansion=false]{microtype}}{}
\RequirePackage{textcomp}
```

hyperref is used for creating live hyperlinks, as well as providing `\url` for typesetting URLs easily. All hyperlinks are coloured in a dark shade of blue.

```
\RequirePackage{color,hyperref,graphicx}
\definecolor{linkcolour}{rgb}{0,0.2,0.6}
\hypersetup{colorlinks,breaklinks,
            linkcolor=linkcolour,citecolor=linkcolour,
            filecolor=linkcolour, urlcolor=linkcolour}
```

TODO: update this to use the successor to the switcheml package

If the switcheml package is installed in the author's system, use it to obfuscate their email address by default. Otherwise, just use a hyperlink. The commands to do this are defined in a later section.

An author may specify `\hyperlinkemail` explicitly should they not care to obfuscate their email address even with the switcheml package installed.

```
\IfFileExists{switcheml.sty}
             {\RequirePackage{switcheml}
              \AtBeginDocument{\@ifx@undefined{\typesetemail}{\obfuscateemail}{}}}
             {\AtBeginDocument{\@ifx@undefined{\typesetemail}{\hyperlinkemail}{}}}
```

4.4 *Amendments from article*

`\maketitle`

Printing the date of the last TEX run in the title block does not seem warranted—if someone reprocesses the document with no changes, we wouldn't want the date to change.

xx use rcs.sty or something?

xx include bibtex id?

```
\renewcommand\maketitle{\par
  \iftpj@noabstract\else
    \@ifx@undefined{\tpj@info@\string\abstract}
      {\ClassError{pracjourn}
        {Please specify an \string\abstract\space before \string\maketitle}
        {It is a PracTeX Journal requirement to include an abstract.   \MessageBreak
                                                                       \MessageBreak
         If you have exceptional reasons for not having one in this    \MessageBreak
         article, write \string\noabstract\space somewhere before \string\maketitle.}}{}
  \fi
  \begingroup
```

```
    \renewcommand\thefootnote{\@fnsymbol\c@footnote}%
    \def\@makefnmark{\rlap{\@textsuperscript{\normalfont\@thefnmark}}}%
    \long\def\@makefntext##1{\parindent 1em\noindent
            \hb@xt@1.8em{%
                \hss\@textsuperscript{\normalfont\@thefnmark}}##1}%
    \newpage
    \global\@topnum\z@   % Prevents figures from going at top of page.
    \@maketitle
    \thispagestyle{titlepage}\@thanks
  \endgroup
  \setcounter{footnote}{0}%
  \global\let\thanks\relax
  \global\let\maketitle\relax
  \global\let\@maketitle\relax
  \global\let\title\relax
  \global\let\author\relax
  \global\let\date\relax
  \global\let\and\relax
}%
```

`\@maketitle`

```
\def\@maketitle{%
  \newpage
  \null
  \write@ID@aux\read@issue
  \begin{flushleft}
    \let\footnote\thanks
    \begingroup\LARGE \@title  \par\endgroup
    \vspace{2ex}%
    \begingroup\large \@author \par\endgroup
  \end{flushleft}
```

This is where the extra author information is typeset. As various pieces of information are defined, they fill up the `\tpj@optional@author@info` macro, which is subsequently used here as per the definition of the author.

```
  \tpj@optional@author@info
  \iftpj@noabstract\else
    \vspace{2ex}%
    \tpj@info@container{\abstractname}{\abstract}
  \fi}
```

4.4.1 Formatting changes

`\section` `\subsection` `\subsubsection` `\paragraph` `\subparagraph`

Remove bold from the all the section headings, just for something a little different. This is verbatim from `article.cls` with a bunch of `\bfseries`'s omitted.

TODO: just use titlesec instead

```
\renewcommand\section{\@startsection {section}{1}{\z@}%
```

```
                                    {-3.5ex \@plus -1ex \@minus -.2ex}%
                                    {2.3ex \@plus.2ex}%
                                    {\normalfont\Large\raggedright}}
\renewcommand\subsection{\@startsection{subsection}{2}{\z@}%
                                    {-3.25ex\@plus -1ex \@minus -.2ex}%
                                    {1.5ex \@plus .2ex}%
                                    {\normalfont\large\raggedright}}
\renewcommand\subsubsection{\@startsection{subsubsection}{3}{\z@}%
                                    {-3.25ex\@plus -1ex \@minus -.2ex}%
                                    {1.5ex \@plus .2ex}%
                                    {\normalfont\normalsize\raggedright}}
\renewcommand\paragraph{\@startsection{paragraph}{4}{\z@}%
                                    {3.25ex \@plus1ex \@minus.2ex}%
                                    {-1em}%
                                    {\normalfont\normalsize\itshape}}
\renewcommand\subparagraph{\@startsection{subparagraph}{5}{\parindent}%
                                    {3.25ex \@plus1ex \@minus .2ex}%
                                    {-1em}%
                                    {\normalfont\normalsize\itshape}}
```

Lists

TODO: just use enumitem instead

`itemize` `enumerate` `description`

Decrease the amount of vertical space between items in the list environments. To do this, save the old environment macros under new names, and then change the 'real' environments to call the originals plus some space-adjusting parameters.

Note that description lists shouldn't contain more than on paragraph.

```
\let\tpj@itemize\itemize
\let\tpj@enditemize\enditemize
\let\tpj@enum\enumerate
\let\tpj@endenum\endenumerate
\let\tpj@desc\description
\let\tpj@enddesc\enddescription
\renewenvironment{itemize}
  {\tpj@itemize\parskip0pt}{\tpj@enditemize}
\renewenvironment{enumerate}
  {\tpj@enum\parskip0pt}{\tpj@endenum}
\renewenvironment{description}
  {\tpj@desc\parskip0pt\parindent1.8em}{\tpj@enddesc}
```

`itemise`

Provide an environment with the correct spelling of 'itemize'.

```
\let\itemise\itemize
\let\enditemise\enditemize
```

`\labelitemi(...)`

Get rid of the nasty blob that is the `\textbullet`, and replace it with more unobtrusive dashes.

```
\renewcommand\labelitemi{\normalfont\bfseries\textendash}
\renewcommand\labelitemii{\normalfont\bfseries\textperiodcentered}
```

\descriptionlabel Change the description label to italics instead of bold.

```
\renewcommand*\descriptionlabel[1]{\hspace\labelsep
                                  \normalfont\itshape #1}
```

Footnotes Here we change the footnote formatting a little bit from the default.

\@makefntext Make the footnote number at the bottom of the page not a superscript (recommended by Bringhurst, if you're curious—the superscript is there originally to get the number out of the way, but that's no longer needed when you're labelling the note with the number).

```
\def\@makefntext#1{%
  \parindent 0em\relax
  \makebox[1.5em][l]{\normalfont\footnotesize\@thefnmark.}#1}
```

4.5 *TPJ additions*

4.5.1 Boolean logic

\@ifx@empty
\@ifx@undefined
\@ifeof
The following three procedures implement part of the boolean logic facility, an expansion-only calculating engine.

```
\def\@ifx@empty#1{% Implicit #2#3
  \ifx#1\@empty
    \expandafter\@firstoftwo
  \else
    \expandafter\@secondoftwo
  \fi}%
\def\@ifx@undefined#1{% Implicit #2#3
  \ifx#1\@undefined
    \expandafter\@firstoftwo
  \else
    \expandafter\@secondoftwo
  \fi}%
\def\@ifeof#1{% Implicit #2#3
 \ifeof#1
   \expandafter\@firstoftwo
 \else
   \expandafter\@secondoftwo
 \fi}%
\def\boolean@true#1{\let#1\@firstoftwo}%
\def\boolean@false#1{\let#1\@secondoftwo}%
```

4.5.2 Titlepage pagestyle

\ps@titlepage The \ps@titlepage procedure effects a page style called titlepage, which applies only to the title page. The \titlepage@head procedure sets type in the page header, \titlepage@foot in the page footer.

```
\def\ps@titlepage{%
  \def\@oddhead{\titlepage@head\hfil}%
  \let\@evenhead\@oddhead
  \def\@oddfoot{\hfil\titlepage@foot}%
  \let\@evenfoot\@oddfoot}%
```

\titlepage@head This is the text block before the article title. Changes depending on the production stage.

```
\def\titlepage@head{\footnotesize
  \parbox{\linewidth}{%
    \@ifx@empty\@TPJissue{For submission to \TPJ}{\@TPJissue}\par
    \@ifx@empty\@TPJissue
       {\@ifx@empty\@TPJrevision{Draft of \today}{Article revision \@TPJrevision}}%
       {\@ifx@empty\@TPJrevision
          {\ClassError{pracjourn}
            {\string\TPJrevision\space must be defined if
             \string\TPJissue\space is also}
            {It is a requirement for PracTeX Journal articles to contain\MessageBreak
             revision information for version tracking. Please input this\MessageBreak
             information, or omit \protect\TPJissue.}}
          {Article revision \@TPJrevision}}}}%
```

\titlepage@foot To typeset the optional copyright declaration by the author.

```
\def\titlepage@foot{%
  \vtop{\raggedleft\footnotesize\@TPJcopyright}}%
```

```
% Better float parameters: (from the TeX FAQ)
\renewcommand{\topfraction}{.85}
\renewcommand{\bottomfraction}{.7}
\renewcommand{\textfraction}{.15}
\renewcommand{\floatpagefraction}{.66}
\renewcommand{\dbltopfraction}{.66}
\renewcommand{\dblfloatpagefraction}{.66}
\setcounter{topnumber}{9}
\setcounter{bottomnumber}{9}
\setcounter{totalnumber}{20}
\setcounter{dbltopnumber}{9}
```

4.5.3 Additional author/article information

\addinfo This command defines a new block of information to be typeset in the title block of the document. For every new item, a new \tpj@info@container is appended

to \tpj@optional@author@info, which is called in \@maketitle.

```
\newcommand\addinfo[2][]{%
  \def\@tempa{\new@addinfo{#1}{#2}}%
  \lowercase{\expandafter\@tempa\expandafter{\csname#2\endcsname}}}
\newcommand\new@addinfo[3]{%
  \tpj@define@info@block{#3}%
  \expandafter\newcommand
    \csname\expandafter\@gobble\string#3name\endcsname{#2}%
  \g@addto@macro\tpj@optional@author@info{%
    \tpj@info@container[#1]{\csname\expandafter\@gobble\string#3name\endcsname}{#3}}}
```

\newinfo E.g., \newinfo\resume[\resfont]{R\'esum\'e}

```
\newcommand\newinfo[1]{%
  \@ifnextchar[{\@newinfo{#1}}{\@newinfo{#1}[]}}
\def\@newinfo#1[#2]#3{%
  \tpj@define@info@block{#1}%
  \expandafter\newcommand
    \csname\expandafter\@gobble\string#1name\endcsname{#3}%
  \g@addto@macro\tpj@optional@author@info{%
    \tpj@info@container[#2]{%
      \csname\expandafter\@gobble\string#1name\endcsname}{#1}}}
```

\addinfospace Adds some space after the previous item in the frontmatter.

```
\newcommand\addinfospace[1]{\g@addto@macro\tpj@optional@author@info{\vspace{#1}}}
```

\tpj@define@info@block This macro actually does the work of \addinfo. It takes the name of a piece of info to be typeset in the title block of the article.

This is much easier (but uglier, in hindsight :( ) than \begin{abstract}...\end{abstract} contortions (cf. ltugboat.cls).

```
\newcommand\tpj@define@info@block[1]{%
  \newcommand#1[1]{\expandafter\def\csname tpj@info@\string#1\endcsname{##1}}}
```

\clearinfo If the \tpj@optional@author@info macro needs to be cleared for some reason,[4] the \clearinfo command will come quite in handy. This command is also used to initialise the macro in question.

```
\newcommand\clearinfo{\let\tpj@optional@author@info\@empty}
\clearinfo
```

Optional fields These are the default information blocks. \typesetemail is defined by one of either \hyperlinkemail or \obfuscateemail.

```
\addinfo[\typesetemail]{Email}
\addinfo[\url]{Website}
\addinfo[\linespread{0.9}\selectfont]{Address}
```

4. The only reason I can think of to do this is to re-arrange the order of the items in the title block of the article.

Abstract We bypass `\addinfo` so that the abstract info block is not added to the `\tpj@optional@author@info` macro.

The abstract block itself is called directly in `\@maketitle`.

```
\let\abstract\relax
\tpj@define@info@block\abstract
\def\abstractname{Abstract}
```

`\noabstract` However, the abstract may indeed be suppressed if that is the author's wish.

```
\newif\iftpj@noabstract
\newcommand\noabstract{\tpj@noabstracttrue}
```

`\endabstract` If an abstract environment is used, give an error. Maybe I should just support the environment, instead.

```
\def\endabstract{%
  \ClassError{pracjourn}
   {Please input the abstract with \string\abstract{...}, before \string\begin{document}}
   {Instead of the \string\begin{abstract}...\string\end{abstract} \MessageBreak
    environment, use \string\abstract{...}. Paragraphs are allowed!\MessageBreak
                                                                   \MessageBreak
    Because the abstract is typeset with the title block,          \MessageBreak
    it must be input before the \string\begin{document}\space command.}}
```

`\TPJissue` `\TPJrevision` `\TPJcopyright` The three user-level commands `\TPJissue`, `\TPJrevision`, and `\TPJcopyright` specify the issue, the revision, and the copyright information of the document.

Since these commands are like `\author` and `\title`, one might wish to disable them upon executing the `\titlepage` procedure. But we do not.

If the document has a `\TPJrevision` statement, the title page header contains words to that effect, otherwise it bears the current date.

If the document lacks a `\TPJcopyright` statement, the title page footer contains nothing.

```
\newcommand{\TPJissue}[2]{\gdef\@TPJissue{\TPJ, #1, No.\,#2}}%
\newcommand{\TPJrevision}[3]{\gdef\@TPJrevision{#1/#2/#3}}%
\newcommand{\TPJcopyright}[1]{\gdef\@TPJcopyright{#1}}%
\let\@TPJissue\@empty
\let\@TPJrevision\@empty
\let\@TPJcopyright\@empty
```

`\license` For consistency with the other user commands of this class, `\license` is defined as an alias of `\TPJcopyright`.

```
\let\license\TPJcopyright
```

`\tpj@info@container` This is the macro that typesets the optional author info for fields defined as above. It splits it all up in minipages, in a smaller font and with more compressed leading than the main document text.[5] It takes the name of the info as a

5. LaTeX's `\@hangfrom` (or whatever it is) could well have been much easier.

mandatory argument, which is used to typeset the info label as well as retrieve the actual data from the `\tpj@info@#3` macro (see `\addinfo`).

An optional argument is used as a hook to typeset the info data in the equivalent form `#1{#2}`.

For example, to typeset the info defined by the author in the `\abstract` (recall, this is set up due to a corresponding `\addinfo{Abstract}{\abstract}`—see above), input `\tpj@info@container{Abstract}`. To typeset it, say, in italics, it would be possible to write `\tpj@info@container[\textit]{Abstract}`.

```
\newcommand\tpj@info@container[3][]{%
```

After `\maketitle`, redefine the info command to return an error.

```
  \gdef#3{\ClassError{pracjourn}{#2 must be defined BEFORE \string\maketitle}{}}
```

Now, we typeset the info block, but only if the info has actually been specified by the author.

```
  \expandafter\ifx\csname tpj@info@\string#3\endcsname\relax\else
    \noindent\small
```

On the left, right-aligned sans serif item label, e.g., 'Abstract':

```
    \begin{minipage}[t]{0.15\textwidth}
      \noindent\hfill\sffamily#2
    \end{minipage}\hfill
```

On the right, the content, defined by, e.g., `\abstract`:

```
    \begin{minipage}[t]{0.825\textwidth}
      \linespread{1.0}\selectfont
      \setlength\parindent{1.5em}%
      \noindent\ignorespaces
      \expandafter#1\expandafter{\csname tpj@info@\string#3\endcsname}
    \end{minipage}\par
  \fi}
```

4.5.4 Email & hyperlink macros

`\typesetemail` We define the macro `\typesetemail` to be used for self-explanatory purposes. The class contains methods to define it in one of two ways.

`\hyperlinkemail` The `\hyperlinkemail` command defines `\typesetemail` to use the hyperref package's facilities to create a hyperlink email address in the output document.

`\obfuscateemail` The `\obfuscateemail` command defines `\typesetemail` to use the switcheml package's facilities to create a machine-obfuscated email address in the output document.[6]

6. The switcheml package defines, among a couple of other things, a macro for typesetting email addresses that obfuscates their representation in the PDF file, ensuring protection against harvesting email addresses from web-public PDF documents.

```
\newcommand\obfuscateemail{%
  \def\typesetemail##1{\ttfamily\switchemail{##1}}}
\newcommand\hyperlinkemail{%
  \def\typesetemail##1{\ttfamily\tpj@compose@mailto{##1}{Re: PracTeX Journal article}{##1}}}
```

`\tpj@compose@mailto` This macro takes three arguments to typeset a mailto email hyperlink. The `#1` takes the email address, `#2` takes the default subject of the email, and `#3` is the text to appear in the output as the hyperlink.

All spaces in the hyperlink source are converted to %20 to accommodate Mac OS X's PDF reader; this isn't necessary for Adobe Reader. Oh well.

```
\newcommand\tpj@compose@mailto[3]{%
  \edef\@tempa{mailto:#1?subject=#2 }%
  \edef\@tempb{\expandafter\html@spaces\@tempa\@empty}%
  \href{\@tempb}{#3}}
```

`\html@spaces` This macro takes a string and (hopefully) converts all spaces (or is it all whitespace?) to '%20', creating a string that can be used for encoding the subject of the email comments hyperlink in `\titlepage@head`. Using `\catcode`, we remove the comment ability of the % character, making it a normal letter. (This code was heavily influenced by the LaTeX kernel's `\zap@space` command.)

```
\catcode`\%=11
\def\html@spaces#1 #2{#1%20\ifx#2\@empty\else\expandafter\html@spaces\fi#2}
\catcode`\%=14
```

4.5.5 User commands

`\note` Fairly straightforward.

`\dash`
`\ctanfile`
`\ctanloc`

```
\newcommand\note[1]{\unskip\footnote{#1}}
\DeclareRobustCommand\dash{%
  \unskip\nobreak\thinspace\textemdash\thinspace\ignorespaces}
\pdfstringdefDisableCommands{\renewcommand{\dash}{ - }}
\newcommand\ctanfile[1]{%
  \href{http://www.ctan.org/get?fn=/#1}
       {\path{CTAN:#1}}}
\newcommand\ctanloc[1]{%
  \href{http://www.ctan.org/tex-archive/#1}
       {\path{CTAN:#1}}}
```

4.5.6 Logos

`\tpf@deflogo` Wrapper for both `\DeclareRobustCommand` and `\pdfstringdefDisableCommand`.

```
\newcommand\tpj@deflogo{\@dblarg\tpj@@deflogo}
\newcommand\tpj@@deflogo[3][\@nil]{%
  \expandafter\DeclareRobustCommand\csname#2\endcsname{#3}%
  \pdfstringdefDisableCommands{%
    \expandafter\def\csname#2\endcsname{#1}}}
```

The texnames and mflogo packages have been incorporated into the class in order to remove the dependence on external packages and to tune the logos for Palatino. First, here are the relevant parts[7] of `texnames.sty`, v1.10, tuned for Palatino and adapted to use `\textsc` where appropriate:

```
\tpj@deflogo{TeX}{T\kern-.15em\lower.5ex\hbox{E}\kern-.07em X\spacefactor1000\relax}
\tpj@deflogo{LaTeX}{L\kern-.32em\raise.37ex\hbox{\scalebox{0.76}{A}}\kern-.15em\TeX}
\tpj@deflogo{LaTeXe}{\LaTeX2$_{\textstyle\varepsilon}$}
\tpj@deflogo{BibTeX}{B{\textsc i\kern-.025em\textsc b}\kern-.08em\TeX}
```

And now `mflogo.sty`, unchanged in its entirety:

```
\DeclareRobustCommand\logofamily{%
  \not@math@alphabet\logofamily\relax
  \fontencoding{U}\fontfamily{logo}\selectfont}
\DeclareTextFontCommand{\textlogo}{\logofamily}
\tpj@deflogo[MetaFont]{MF}{\textlogo{META}\@dischyph\textlogo{FONT}\@}
\tpj@deflogo[MetaPost]{MP}{\textlogo{META}\@dischyph\textlogo{POST}\@}
```

Now some new definitions. Despite the fact that it makes no difference with the main font used for this class, I define `\pdfTeX` with some italic correction to set a good precedent. Compare Computer Modern with and without: pdfTEX vs. pdfTEX; I find the former more attractive because the ascender of the 'f' doesn't collide.

```
\tpj@deflogo{ConTeXt}{C\kern-.03em on\-\kern-.10em\TeX\kern-0.04em t}%
\tpj@deflogo{pdfTeX}{pdf\/\TeX}
\tpj@deflogo{pdfLaTeX}{pdf\/\LaTeX}
\newcommand\PS{PostScript}
\tpj@deflogo{PracTeX}{Prac\kern-0.07em\TeX}
\newcommand\TPJ{The \PracTeX\ Journal}
\tpj@deflogo{XeTeX}{%
      X\lower.5ex\hbox{\kern-.07em\reflectbox{E}}%
      \kern-.15em\TeX}
\tpj@deflogo{ExTeX}{\textrm{\relax
 \ensuremath{\textstyle\varepsilon_{\kern-0.15em\mathcal{X}}}\relax
 \kern-.15em\TeX}}
```

4.5.7 Version tracking

`\write@ID@aux` Establish an auxiliary file, `_id.tex`, for TPJ tracking information.

```
\def\write@ID@aux{%
 \@ifx@empty\@TPJrevision{}{%
  \begingroup
   \let\thanks\@gobble
   \immediate\openout\ID@aux _rev.tex
%  \immediate\write\ID@aux{\@percentchar\space
%    This file generated by the pracjourn document class}%
```

7. No-one still refers to AMSTeX and SLITeX and so on, right?

```
    \immediate\write\ID@aux{\@TPJrevision}%
    \immediate\closeout\ID@aux
   \endgroup
 }%
}%
\newwrite\ID@aux
```

\read@iss@aux

```
\def\read@issue{%
 \openin\@inputcheck _iss.tex
 \@ifeof\@inputcheck{}
   {\ifx\@TPJissue\@empty\else
      \typeout{---------^^J
               pracjourn: \protect\TPJissue\space info overwritten due to _iss.tex file^^J
               ---------}
    \fi
    \read\@inputcheck to\@TPJissue
    \closein\@inputcheck
    \expandafter\parse@iss\@TPJissue\@nil}}
```

\parse@iss

```
\def\parse@iss TPJ #1 No #2, #3-#4-#5\@nil{%
  \@tempcnta#2\relax
  \protected@xdef\@TPJissue{\TPJ, #1, No.\,\the\@tempcnta}}
```

4.5.8 Miscellaneous

\set@pdfpage

The PDFTEX parameters \pdfpagewidth and \pdfpageheight determine the CropBox/BleedBox/TrimBox/ArtBox. The procedure \setpdfpage sets them to the values of the LATEX \paperwidth and \paperheight. If PDFTEX is not the engine, nothing is done.

We arrange for the procedure to be executed at Begin Document time.

```
\def\set@pdfpage{%
 \@ifx@undefined\pdfoutput{}{%
  \pdfpagewidth =\paperwidth
  \pdfpageheight=\paperheight
  \relax}}
\AtBeginDocument{\set@pdfpage}
```