paperTeX class: creating newspapers using LaTeX

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Contents

1 Introduction

paperTeX class is a LaTeX 2$_\varepsilon$ class that allows you to create a paperTeX newspaper. The output document has a front page and as many inner pages as desired. News appear one after another, telling the type, number of columns, heading, subheading, images, author and so forth. It is possible to change the aspect of (almost) everything therefore it is highly customizable. Commands to add different titles, headings and footers are also provided.

This class uses features from many other LaTeX packages and creates new commands and environments to create your own publication. I decided to write my own class because of my language problems using a plain TeX class called `newsletr` by Hunter Goatley. I have used paperTeX working together with a Perl script that fills the whole TeX source file with database information and compiles the document obtaining a PDF. This process does not require any designer or programmer thus you could use paperTeX in a blog or website system.

This manual is typeset according to the conventions of the LaTeX DOCSTRIP utility which enables the automatic extraction of the LaTeX macro source files.

Section **??** describes the usage of the class.

2 Usage

To create a paperTeX newspaper just load the class as usual, with

   `\documentclass[`*class-options*`]{papertex}`

at the beginning of your your LaTeX 2$_\varepsilon$ source file. The [*class-options*] are as described in section **??**.

From this point it is possible to include packages and renew class commands described in section **??**.

2.1 Front page

frontpage   As every newspaper, paperTeX has its own front page. It includes main headings, an index, the newspaper logo and other useful information. This environment should be the first you use within paperTeX class but it is not mandatory, maybe you just want to create a newsletter.

\firstimage   The first two commands you can use inside the `frontpage` environment are
\firstnews   `\firstimage` and `\firstnews` which include, respectively, the main image and the main heading in the front page. The first one takes two arguments ⟨*image*⟩ and ⟨*description*⟩. Notice that second argument is optional and it declares the image caption; ⟨*image*⟩ defines the relative path to the image. In order to include the first piece of news use

$$\text{\firstnews}\{\langle title\rangle\}\{\langle opening\rangle\}\{\langle time\rangle\}$$

first two arguments are mandatory and represent the heading and the opening paragraph. Las argument is optional (you can leave it blank) and indicates the time when news happened.

\secondnews   The second piece of news is included using the command `\secondnews` just as the first news. The main differences are that this second piece has two more arguments and it does not include an image.

$$\text{\secondnews}\{\langle title\rangle\}\{\langle subtitle\rangle\}\{\langle opening\rangle\}\{\langle pagesof\rangle\}\{\langle time\rangle\}$$

The new arguments ⟨*subtitle*⟩ and ⟨*pagesof*⟩ define a subtitle and the name of the section for this piece of news.

\thirdnews   The third piece of news is the last one in the paperTeX front page. It works like the `\secondnews` command but it is possible to include an image within the text.

$$\text{\thirdnews}\{\langle title\rangle\}\{\langle subtitle\rangle\}\{\langle opening\rangle\}(\langle image\rangle)\{\langle pagesof\rangle\}\{\langle time\rangle\}$$

Where ⟨*image*⟩ indicates the relative path to the image. The other arguments meaning is the same as `\secondnews` command.

indexblock   The front page includes three information blocks besides the news: `indexblock`
authorblock   which contains the index, `authorblock` which includes information about the au-
weatherblock   thor and a `weatherblock` containing a weather forecast. All these three environ-
ments are mostly a frame in the front page therefore they can be redefined to fit your personal wishes but I kept them to give an example and to respect the original paperTeX format.

\indexitem   The `indexblock` environment contains a manually edited index of paperTeX. It takes one optional argument ⟨*title*⟩ that places a title over the index block. To add entries inside the index just type

$$\text{\indexitem}\{\langle title\rangle\}\{\langle reference\rangle\}$$

inside the environment. The ⟨*title*⟩ is the index entry text and the ⟨*reference*⟩ points to a news inside paperTeX. It will be more clear when you read subsection **??**. In order to get a correct output, it is necessary to leave a blank line between index items.

The `authorblock` environment can include whatever you would like. I called it `authorblock` because I think it is nice to include some author reference in the front page: who you are, why are you doing this... This environment creates a frame box in the bottom right corner of the front page with your own logo at the top.

\weatheritem   Finally, the `weatherblock` lets you include a weather forecast. It takes one optional argument ⟨*title*⟩ that places a title over the weather block. It can fit up to three weather icons with maximum and minimum temperatures, description and name. To add each of the weather entries type the following

$$\texttt{\textbackslash weatheritem}(⟨\textit{image}⟩)\{⟨\textit{day-name}⟩\}\{⟨\textit{max}⟩\}\{⟨\textit{min}⟩\}\{⟨\textit{short-desc}⟩\}$$

The first argument indicates the path to the weather icon (i.e. sunny or snow)[1], ⟨*day-name*⟩ like Monday, ⟨*max*⟩ and ⟨*min*⟩ are the highest and lowest day temperatures and ⟨*short-desc*⟩ is a brief description of the weather conditions: partly cloudy, sunny and windy...

2.2 Inside

Once we have created the front page we should include all news inside our newspaper. paperTEX arranges all news one after each other, expanding headings all over the page and splitting the news text in the number of columns we wish. There are three different environments to define a piece of news: the `news` environment described in section **??**, the `editorial` environment **??** for opinion news and the `shortnews` environment explained in **??**.

2.2.1 The news environment

news   The main environment to include a piece of news is called `news`. It takes five arguments that set up the headings and structure of the news.

> `\begin{news}{`⟨*num-of-columns*⟩`}{`⟨*title*⟩`}{`⟨*subtitle*⟩`}{`⟨*pagesof*⟩`}{`⟨*label*⟩`}`
> `...` ⟨*text*⟩ `...`
> `\end{news}`

The first argument ⟨*num-of-columns*⟩ sets the number of columns the news will be divided whereas ⟨*label*⟩ is used when pointing a news from the index in the front page. The rest of the arguments are easy to understand.

    Inside the `news` environment, besides the main text of the news, it is possible to include additional information using several class commands.

\authorandplace   The `\authorandplace{`⟨*author*⟩`}{`⟨*place*⟩`}` inserts the name of the editor and
\timestamp   the place where the news happened in the way many newspapers do. Another useful command is `\timestamp{`⟨*time*⟩`}` which includes the time and a separator just before the text. These two commands should be used before the text because they type the text at the same place they are executed.

\image   To include images within the text of a news, paperTEX provides an `\image`

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[1]You can download a nice weather icon-set from http://www.weather.com.

command. Since `multicol` package does not provide any float support for its `multicol` environment, I created a macro that includes an image only if that is possible, calculating if there is enough space for the image. It is not the best solution but it works quite well and I could not find a better one. To include an image use the command and its two arguments: the relative path to the image and a short description.

$$\text{\textbackslash image}(\langle image \rangle)\{\langle description \rangle\}$$

\columntitle
\expandedtitle
Within the text of the news, it is possible to add column and expanded titles. The main difference between them is that the first one keeps inside the width of a news column whereas the second expands all over the width of the page, breaking all the columns. Their use is analogous, as follows

$$\text{\textbackslash columntitle}\{\langle type \rangle\}\{\langle text \rangle\}$$
$$\text{\textbackslash expandedtitle}\{\langle type \rangle\}\{\langle text \rangle\}$$

These two commands use `fancybox` package features. That's why there are five different types of titles which correspond mainly with `fancybox` ones: `shadowbox`, `doublebox`, `ovalbox`, `Ovalbox` and `lines`.

2.2.2 The editorial environment

editorial
In addition to the `news` environment, one can use the `editorial` environment to create editorial or opinion texts. The main feature is that it transforms the style of the heading. Although this environment accepts all the commands `news` takes, it does not make any sense to use the `\authorandplace` command within it since it includes an author argument. To create an editorial text use

$$\text{\textbackslash begin\{editorial\}}\{\langle num\text{-}of\text{-}columns \rangle\}\{\langle title \rangle\}\{\langle author \rangle\}\{\langle label \rangle\}$$
$$\ldots \langle text \rangle \ldots$$
$$\text{\textbackslash end\{editorial\}}$$

All arguments have the same meaning as `news` environment (see **??**).

2.2.3 The shortnews environment

shortnews
The `shortnews` environment creates a block of short news. Althought it has its own title and subtitle, each piece of news within it may have a title. To use it just type:

$$\text{\textbackslash begin\{shortnews\}}\{\langle num\text{-}of\text{-}columns \rangle\}\{\langle title \rangle\}\{\langle subtitle \rangle\}\{\langle label \rangle\}$$
$$\ldots$$
$$\text{\textbackslash shortnewsitem}\{\langle title \rangle\}\{\langle text \rangle\}$$
$$\ldots$$
$$\text{\textbackslash end\{shortnews\}}$$

You can also specify the number of columns of the block like `editorial` and `news` environments. To add a piece of news inside the `shortnews` use the `\shortnewsitem`, indicating a title and the text of the issue.

2.2.4 Commands between news

\newssep
\newsection

There are two commands you can use among the news inside paperTeX: \newssep and \newsection. The first one does not take any parameter and just draws a line between two news. The second creates a new PDF bookmark and changes the content of \papertex@section to the new ⟨section name⟩. From the point it is used, all news which follow will be grouped within the new section.

\newsection{⟨section name⟩}

3   Customization

paperTeX includes many commands which can be used to customize its aspect, from the front page to the last page. I will list them grouped so it is easy to find them. Treat them as standard LaTeX commands, using \renewcommand to change their behaviour.

Front page

\logo
\mylogo
\minilogo

When creating a newspaper, everyone wants to show its own logo instead of paperTeX default heading. To achieve this, you can proceed in two different ways: redefining the entire \logo command or redefining \logo to \mylogo which takes one mandatory argument, ⟨whatever⟩, and keeps the edition name, date and time in the heading space just under ⟨whatever⟩. You can, for example, insert an image (height up to 1.5cm / 0.6in) or some formatted text. Another command relating to your logo is \minilogo which defines the small logo that appears inside the airlock's (see ??).

\edition
\editionFormat

The edition text has to be declared in the preamble of the document. One important thing to know is that \author, \date and \title have no effect inside paperTeX since the newspaper date is taken from \today command and the other two are only for the title page (if using \maketitle).

\indexFormat
\indexEntryFormat
\indexEntryPageTxt
\indexEntryPageFormat
\indexEntrySeparator

When defining the index in the front page, there are several commands to customize the final index style. \indexFormat sets the format of the title; \indexEntryFormat, the format of each index entry; \indexEntryPageTxt and \indexEntryPageFormat lets you define which is the text that goes with the page number (i.e. page, p., pág.) and its format. Finally, paperTeX creates a thin line between index entries, you can redefine it using \indexEntrySeparator. To get the index with papertex@indexwidth is provided.

\weatherFormat
\weatherTempFormat
\weatherUnits

Relating to the weather block, the title format can be changed redefining \weatherFormat. In order to customize the format of the temperature numbers and their units it is necessary to redefine \weatherTempFormat and \weatherUnits respectively.

*TitleFormat
*SubtitleFormat
*TextFormat

The main news that appear in the front page can change their formats. To obtain that there are three standard commands to modify the title, subtitle and text style. You just have to replace the star (*) with first, second or third depending on which news you are editing. Note that first piece of news has no

subtitle therefore it does not make any sense to use the non-existent command \firstSubtitleFormat.

\pictureCaptionFormat \pagesFormat   Two other elements to configure are the picture captions and the pages or section format in the entire document. To proceed just redefine the macros \pictureCaptionFormat and \pagesFormat.

Inside the newspaper

\innerTitleFormat \innerSubtitleFormat \innerAuthorFormat \innerPlaceFormat   The news inside paperTeX may have a different format from the ones in the front page. To change their title or subtitle format redefine \innerTitleFormat and \innerSubtitleFormat. The news text format matches the document general definition. When using the \authorandplace command, you might want to change the default style. Just renew \innerAuthorFormat and \innerPlaceFormat to get the results.

\timestampTxt \timestampSeparator \timestampFormat   The \timestamp command described in section **??** lets you introduce the time of the event before the news text. You can configure its appearance by altering several commands: \timestampTxt which means the text after the timestamp (i.e. h., hours, secs.); \timestampSeparator which defines the element between the actual timestamp and the beginning of the text and, finally, \timestampFormat to change the entire timestamp format.

\innerTextFinalMark   Most of the newspaper in my country (Spain) finish the news text with a black square (■). As I wanted to create a highly customizable LaTeX class I added the macro \innerTextFinalMark to change this black square. This item will appear always following the last character of the text with the ∼ character.

\minraggedcols \raggedFormat   The \minraggedcols counter is used to tell paperTeX when news text should be ragged instead of justified. The counter represents the minimum number of columns that are needed in order to use ragged texts. For example, if \minraggedcols is set to 3, all news with 3 columns or more will be ragged. News with 1, 2 columns will have justified text. By default, \minraggedcols is set to 4.

New feature v1.2

The \raggedFormat macro can be redefined to fit user ragged style. Default value is \RaggedRight.

\heading \foot   paperTeX includes package fancyhdr for changing headings and footers. Although it is possible to use its own commands to modify paperTeX style, there are two commands to change headings and foot appearance. Place them in the preamble of your paperTeX document.

\heading{⟨left⟩}{⟨center⟩}{⟨right⟩}

\foot{⟨left⟩}{⟨center⟩}{⟨right⟩}

If you still prefer to use fancyhdr macros, use them after the frontpage environment.

4 Class options

The paperTeX class is in itself an alteration of the standard `article` class, thus it inherits most of its class options but `twoside`, `twocolumn`, `notitlepage` and `a4paper`. If you find problems when loading other `article` features, please let me know to fix it.

There are also five own options that paperTeX implements.

a3paper (*false*) This option makes paperTeX $297mm$ width by $420mm$ height. This option is implemented because the standard `article` class does not allow this document size.

9pt (*false*) Allows the $9pt$ font size that `article` class does not include (default is $10pt$).

hyphenatedtitles (*false*) Forces heading titles to be hyphenated. This feature is off by default because most of newspapers prefer not to hyphenate them.

columnlines (*false*) Adds lines between columns in the entire paperTeX. The default line width is $0.1pt$ but it is possible to change this by setting length `\columnlines` in the preamble.

showgrid (*false*) This option is only for developing purposes. Because the front page has a personal design using the `textpos` package, I created this grid to make easier the lay out.

5 Implementation

This section deals with the package source code. Please, do not read this unless you really need it. The comments are very short and they, generally, just tell you where you are. If you are experiencing any problems when testing this class, you could send me an email and I would try to solve it.

Of course, I am also pleased to receive emails telling me what is wrong in this code or what I should improve. It would be great!

5.1 Init, packages and options

First define paperTeX class.

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesClass{papertex}[2006/07/06 paperTeX class]
```

Require `ifthen` package which will be very useful.

```
3 \RequirePackage{ifthen}
```

Define some lengths for page sizes.

```
4 \newlength{\papertex@imgsize}
5 \newlength{\papertex@coltitsize}
```

```
6 \newlength{\papertex@pageneed}
7 \newlength{\papertex@pageleft}
8 \newlength{\papertex@indexwidth}
```

Keep track of the number of columns of the piece of news we are in.

```
9 \newcommand{\papertex@ncolumns}{0}
```

Lines between columns. This is a `multicol` package feature.

```
10 \newlength{\columnlines}
11 \setlength{\columnlines}{0 pt} % no lines by default
```

Define some booleans to control paperTeX class options like hyphenated titles in front page, nine points font or front page grid.

```
12 \newboolean{papertex@hyphenatedtitles}
13 \setboolean{papertex@hyphenatedtitles}{true}
14 \newboolean{papertex@ninepoints}
15 \setboolean{papertex@ninepoints}{false}
16 \newboolean{papertex@showgrid}
17 \setboolean{papertex@showgrid}{false}
18 \newboolean{papertex@a3paper}
19 \setboolean{papertex@a3paper}{false}
```

Some booleans to keep track of where we are.

```
20 \newboolean{papertex@insidefrontpage}
21 \setboolean{papertex@insidefrontpage}{false}
22 \newboolean{papertex@insideweather}
23 \setboolean{papertex@insideweather}{false}
24 \newboolean{papertex@insideindex}
25 \setboolean{papertex@insideindex}{false}
```

These counters are needed for creating the front page virtual grid which comes from the *absolute* option of the `textpos` package.

```
26 \newcount\papertex@gridrows
27 \newcount\papertex@gridcolumns
28 \papertex@gridrows=40
29 \papertex@gridcolumns=50
```

New feature v1.2

The following count defines when paperTeX should use ragged text instead of justified text. It represents the maximum number of columns not ragged. Default value is 5.

```
30 \newcount\minraggedcols
31 \minraggedcols=5
```

Now, we declare the class options. First, all the options which paperTeX inherits from "article.cls" standard class.

```
32 \DeclareOption{10pt}{\PassOptionsToClass{10pt}{article}}
33 \DeclareOption{11pt}{\PassOptionsToClass{11pt}{article}}
34 \DeclareOption{12pt}{\PassOptionsToClass{12pt}{article}}
```

Second, options paperTeX does not inherit from "article.cls".

```
35 \DeclareOption{twocolumn}%
36 {\ClassWarning{paperTeX}{Option 'twocolumn' not available for paperTeX.}}
```

```
37 \DeclareOption{notitlepage}%
38 {\ClassWarning{paperTeX}{Option 'notitlepage' not available for paperTeX.}}
39 \DeclareOption{twoside}%
40 {\ClassWarning{paperTeX}{Option 'twoside' not available for paperTeX.}}
```

Finally, paperTEX own options.

```
41 \DeclareOption{9pt}{\setboolean{papertex@ninepoints}{true}}
42 \DeclareOption{hyphenatedtitles}{\setboolean{papertex@hyphenatedtitles}{false}}
43 \DeclareOption{columnlines}{\setlength{\columnlines}{0.1 pt}}
44 \DeclareOption{showgrid}{\setboolean{papertex@showgrid}{true}}
45 \DeclareOption{a3paper}{\setboolean{papertex@a3paper}{true}}
```

As paperTEX is based in the LATEX "article" class, we load this class with default paperTEX options.

```
46 \ProcessOptions\relax
47 \LoadClass[10pt, onecolumn, titlepage, a4paper]{article}
```

From this point, paperTEX requires all packages needed.

```
48 \RequirePackage{ifpdf}
49 \RequirePackage{multido}
50 \RequirePackage{datetime}
51 \RequirePackage{multicol}
52 \RequirePackage{fancyhdr}
53 \RequirePackage{fancybox}
```

New feature v1.2a

Define margins using geometry package to get as much as possible from the page layout. It is also time to check if "a3paper" option is requested.

```
54 \ifthenelse{\boolean{papertex@a3paper}}{%
55 \RequirePackage[a3paper,headsep=0.5cm,vmargin={2cm,2cm},hmargin={1.5cm,1.5cm}]{geometry}
56 }{
57 \RequirePackage[headsep=0.5cm,vmargin={2cm,2cm},hmargin={1.5cm,1.5cm}]{geometry}
58 }
```

Some requirements whether we compile using PDFLATEX or just LATEX.

```
59 \ifpdf
60 \RequirePackage[pdftex]{graphicx,color}
61   \RequirePackage[pdftex]{hyperref}
62 \else
63 \RequirePackage{color}
64 \RequirePackage[dvips]{graphicx}
65 \RequirePackage[dvips]{hyperref}
66 \fi
```

Some more packages. . .

```
67 \RequirePackage[absolute]{textpos} % absoulte positioning
68 \RequirePackage{hyphenat} % when hyphenate
69 \RequirePackage{wrapfig}
70 \RequirePackage{lastpage} % to know the last page number
71 \RequirePackage{setspace} % set space between lines
```

New feature 2007/01/25

We, now, load ragged2e package in order to provide paperTEX with nicely

ragged texts. A new command called `\raggedFormat` is defined to control which kind of ragged format should be used.

```
72 \RequirePackage{ragged2e}
73 \newcommand{\raggedFormat}{\RaggedRight}
```

When the whole class is loaded, draw the front page grid. Draw lines if requested by using **showgrid** option. There is also a substraction from `\minraggedcols` counter by one in order to match is definition.

```
74 \AtEndOfClass{\papertexInit}
75 \ifthenelse{\boolean{papertex@showgrid}}{%
76 \AtBeginDocument{
77 \grid[show]{\papertex@gridrows}{\papertex@gridcolumns}}
78 \advance\minraggedcols by -1
79 }{%
80 \AtBeginDocument{
81 \grid[]{\papertex@gridrows}{\papertex@gridcolumns}}
82 \advance\minraggedcols by -1
83 }
```

Definition of **ninepoints** class option.

```
84 \ifthenelse{\boolean{papertex@ninepoints}}{
85 \renewcommand{\normalsize}{%
86   \@setfontsize{\normalsize}{9pt}{10pt}%
87   \setlength{\abovedisplayskip}{5pt plus 1pt minus .5pt}%
88   \setlength{\belowdisplayskip}{\abovedisplayskip}%
89   \setlength{\abovedisplayshortskip}{3pt plus 1pt minus 2pt}%
90   \setlength{\belowdisplayshortskip}{\abovedisplayshortskip}}
91
92 \renewcommand{\tiny}{\@setfontsize{\tiny}{5pt}{6pt}}
93
94 \renewcommand{\scriptsize}{\@setfontsize{\scriptsize}{7pt}{8pt}}
95
96 \renewcommand{\small}{%
97   \@setfontsize{\small}{8pt}{9pt}%
98   \setlength{\abovedisplayskip}{4pt plus 1pt minus 1pt}%
99   \setlength{\belowdisplayskip}{\abovedisplayskip}%
100   \setlength{\abovedisplayshortskip}{2pt plus 1pt}%
101   \setlength{\belowdisplayshortskip}{\abovedisplayshortskip}}
102
103 \renewcommand{\footnotesize}{%
104   \@setfontsize{\footnotesize}{8pt}{9pt}%
105   \setlength{\abovedisplayskip}{4pt plus 1pt minus .5pt}%
106   \setlength{\belowdisplayskip}{\abovedisplayskip}%
107   \setlength{\abovedisplayshortskip}{2pt plus 1pt}%
108   \setlength{\belowdisplayshortskip}{\abovedisplayshortskip}}
109
110 \renewcommand{\large}{\@setfontsize{\large}{11pt}{13pt}}
111 \renewcommand{\Large}{\@setfontsize{\Large}{14pt}{18pt}}
112 \renewcommand{\LARGE}{\@setfontsize{\LARGE}{18pt}{20pt}}
113 \renewcommand{\huge}{\@setfontsize{\huge}{20pt}{25pt}}
```

```
114 \renewcommand{\Huge}{\@setfontsize{\Huge}{25pt}{30pt}}
115 }{}
```

5.2   paperTeX default style

Colours.

```
116 \definecolor{color}{cmyk}{0.5, 0, 1, 0.5}
117 \definecolor{max}{cmyk}{0, 0.5, 0.5, 0.5}
118 \definecolor{min}{cmyk}{0.5, 0, 0.5, 0.5}
```

Web address.

```
119 \newcommand{\papertex@wwwTxt}{http://nachollopis.com}
120 \newcommand{\papertex@wwwFormat}{\sffamily}
121 \newcommand{\papertex@www}{%
122 \raisebox{-3pt}{{\papertex@wwwFormat\papertex@wwwTxt}}
123 }
```

Edition.

```
124 \newcommand{\papertex@edition}{MY EDITION}
125 \newcommand{\editionFormat}{\large\bfseries\textttt}
126 \newcommand{\papertex@editionLogo}{%
127 \raisebox{-3pt}{%
128 \textcolor{color}{{\editionFormat\papertex@edition}}%
129 }%
130 }
```

Index.

```
131 \newcommand{\indexFormat}{\large\bfseries\sffamily}
132 \newcommand{\papertex@indexFrameTitle}[1]
133 {\begin{flushright}{\textcolor{color}{{\indexFormat #1}}}\end{flushright}}
134
135 \newcommand{\indexEntryFormat}{\large\sffamily}
136 \newcommand{\papertex@indexEntry}[1]{\begin{minipage}{13\TPHorizModule}%
137 {\indexEntryFormat\noindent\ignorespaces{#1}}%
138 \end{minipage}}
139 \newcommand{\indexEntrySeparator}{\rule{\papertex@indexwidth}{.1pt}}
140 \newcommand{\indexEntryPageTxt}{p.}
141 \newcommand{\indexEntryPageFormat}{\footnotesize}
142 \newcommand{\papertex@indexEntryPage}[1]{%
143 {\indexEntryPageFormat\textcolor{color}{\indexEntryPageTxt{}~#1}}%
144 }
```

Date and time.

```
145 \newcommand{\headDateTimeFormat}{}
146 \newcommand{\papertex@headDateTime}{%
147 \headDateTimeFormat\date\hspace{5pt}$\parallel$\hspace{5pt}%
148 \textcolor{color}{\currenttime h}%
149 }
```

Weather.

```
150 \newcommand{\weatherFormat}{\bfseries\sffamily}
```

```
151 \newcommand{\papertex@weather}[1]{%
152 \noindent\textcolor{color}{{\weatherFormat #1}}%
153 }
154 \newcommand{\weatherTempFormat}{\small}
155 \newcommand{\weatherUnits}{\textdegree{}C}
```

Section name.

```
156 \newcommand{\papertex@section}[0]{FRONT PAGE}
```

Inner pages heading.

```
157 \newcommand{\papertex@headleft}{%
158 {{\usefont{T1}{bch}{b}{n} \noindent\textcolor{color}{paper}}%
159 {\usefont{T1}{pag}{m}{n} \textcolor{black}{TeX}} , \date}%
160 }
161 \newcommand{\papertex@headcenter}{%
162 \papertex@section{}
163 }
164 \newcommand{\papertex@headright}{%
165 \textcolor{color}{\small\papertex@edition}%
166 \hspace*{5pt}\thepage\ / \pageref{LastPage}
167 }
168
169 \newcommand{\heading}[3]{%
170 \renewcommand{\papertex@headleft}{#1}%
171 \renewcommand{\papertex@headcenter}{#2}%
172 \renewcommand{\papertex@headright}{#3}%
173 }
```

Inner pages foot.

```
174 \newcommand{\papertex@footleft}{%
175 {\footnotesize\copyright\ \papertex@wwwTxt{} - Created using paper\TeX{}}%
176 }
177 \newcommand{\papertex@footcenter}{%
178 }
179 \newcommand{\papertex@footright}{%
180 }
181
182 \newcommand{\foot}[3]{%
183 \renewcommand{\papertex@footleft}{#1}%
184 \renewcommand{\papertex@footcenter}{#2}%
185 \renewcommand{\papertex@footright}{#3}%
186 }
```

First news on main page.

```
187 \newcommand{\firstTitleFormat}{\Huge\sffamily\bfseries\flushleft}
188 \newcommand{\papertex@firstTitle}[1]{%
189 {%
190 \begin{spacing}{2.0}{%
191 \noindent\ignorespaces
192 \ifthenelse{\boolean{papertex@hyphenatedtitles}}%
193 {\nohyphens{\firstTitleFormat #1}}%
```

```
194 {{\firstTitleFormat #1}}%
195 }%
196 \end{spacing}%
197 }%
198 }
199 \newcommand{\firstTextFormat}{}
200 \newcommand{\papertex@firstText}[1]{%
201 {\noindent\ignorespaces\firstTextFormat #1}%
202 }
```

Second news on main page.

```
203 \newcommand{\secondTitleFormat}{\LARGE\sffamily\bfseries}
204 \newcommand{\papertex@secondTitle}[1]{%
205 \begin{spacing}{1.5}{%
206 \noindent\ignorespaces\flushleft
207 \ifthenelse{\boolean{papertex@hyphenatedtitles}}%
208 {\nohyphens{\secondTitleFormat #1}}%
209 {{\secondTitleFormat #1}}%
210 }\end{spacing}%
211 }
212 \newcommand{\secondSubtitleFormat}{\large}
213 \newcommand{\papertex@secondSubtitle}[1]{%
214 {\noindent\ignorespaces{\secondSubtitleFormat #1}}%
215 }
216 \newcommand{\secondTextFormat}{}
217 \newcommand{\papertex@secondText}[1]{%
218 \begin{multicols}{2}
219 {\noindent\ignorespaces\secondTextFormat #1}
220 \end{multicols}
221 }
```

Third news on main page.

```
222 \newcommand{\thirdTitleFormat}{\Large\sffamily\bfseries}
223 \newcommand{\papertex@thirdTitle}[1]{%
224 \begin{spacing}{1.5}{%
225 \noindent\ignorespaces\flushleft
226 \ifthenelse{\boolean{papertex@hyphenatedtitles}}%
227 {\nohyphens{\thirdTitleFormat #1}}%
228 {{\thirdTitleFormat #1}}%
229 }\end{spacing}%
230 }
231 \newcommand{\thirdSubtitleFormat}{\large}
232 \newcommand{\papertex@thirdSubtitle}[1]%
233 {{\noindent\ignorespaces\thirdSubtitleFormat #1}}
234 \newcommand{\thirdTextFormat}{}
235 \newcommand{\papertex@thirdText}[1]{{\thirdTextFormat #1}}
```

Pictures captions.

```
236 \newcommand{\pictureCaptionFormat}{\small\bfseries}
237 \newcommand{\papertex@pictureCaption}[1]{%
238 {\noindent\pictureCaptionFormat #1}%
```

```
239 }
```

Pages: paperTEX sections.

```
240 \newcommand{\pagesFormat}{\bfseries\footnotesize}
241 \newcommand{\papertex@pages}[1]%
242 {\noindent\textcolor{color}{\pagesFormat\MakeUppercase{#1}}}
```

Inner pages news: `normal` style.

- Heading.

```
243     \newcommand{\innerTitleFormat}{\Huge}
244     \newcommand{\papertex@innerTitle}[1]{%
245     \begin{flushleft}{%
246     \noindent
247     \ifthenelse{\boolean{papertex@hyphenatedtitles}}%
248     {\nohyphens{\innerTitleFormat #1}}%
249     {{\innerTitleFormat #1}}%
250     }%
251     \\%
252     \end{flushleft}%
253     }
```

- Subheading.

```
254     \newcommand{\innerSubtitleFormat}{\large}
255     \newcommand{\papertex@innerSubtitle}[1]{{\innerSubtitleFormat #1}}
```

- Time.

```
256     \newcommand{\timestampTxt}{h}
257     \newcommand{\timestampSeparator}{|}
258     \newcommand{\timestampFormat}{\small}
259     \newcommand{\timestamp}[1]{%
260     {\timestampFormat\textcolor{color}{%
261     #1~\timestampTxt{}}%
262     }~\timestampSeparator{}%
263     }
```

- Author.

```
264     \newcommand{\innerAuthorFormat}{\footnotesize}
```

- Place.

```
265     \newcommand{\innerPlaceFormat}{\footnotesize\bfseries}
```

- Section. See `\sectionFormat`.

- Image caption. See `\pictureCaptionFormat`.

- Final text mark. A black square.

```
266     \newcommand{\innerTextFinalMark}{\rule{0.65em}{0.65em}}
```

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Inner pages news: `editorial` (opinion) style.

- Heading.

```
267    \newcommand{\editorialTitleFormat}{\LARGE\textit}
268    \newcommand{\papertex@editorialTitle}[1]{\editorialTitleFormat{#1}}
```

- Author.

```
269    \newcommand{\editorialAuthorFormat}{\textsc}
```

Inner pages news: `shortnews` style.

- Group heading.

```
270    \newcommand{\shortnewsTitleFormat}{\LARGE\bfseries}
271    \newcommand{\papertex@shortnewsTitle}[1]{{\shortnewsTitleFormat #1}}
```

- Group subheading.

```
272    \newcommand{\shortnewsSubtitleFormat}{\Large}
273    \newcommand{\papertex@shortnewsSubtitle}[1]{{\shortnewsSubtitleFormat #1}}
```

- Sigle item heading.

```
274    \newcommand{\shortnewsItemTitleFormat}{\large\bfseries}
275    \newcommand{\papertex@shortnewsItemTitle}[1]{{\shortnewsItemTitleFormat #1}}
```

5.3   General macros

First, we have a little hack to `\maketitle` article macro.

```
276 \renewcommand{\maketitle}{\begin{titlepage}%
277   \let\footnotesize\small
278   \let\footnoterule\relax
279   \let \footnote \thanks
280   \null\vfil
281   \vskip 60\p@
282   \begin{center}%
283     {\LARGE \@title \par}%
284     \vskip 1em%
285     {\LARGE ``\papertex@edition '' \par}%
286     \vskip 3em%
287     {\large
288      \lineskip .75em%
289       \begin{tabular}[t]{c}%
290         \@author
291       \end{tabular}\par}%
292       \vskip 1.5em%
293     {\large \@date \par}%
294   \end{center}\par
295   \@thanks
296   \vfil\null
```

```
297  \end{titlepage}%
298  \setcounter{footnote}{0}%
299  \global\let\thanks\relax
300  \global\let\maketitle\relax
301  \global\let\@thanks\@empty
302  \global\let\@author\@empty
303  \global\let\@date\@empty
304  \global\let\@title\@empty
305  \global\let\title\relax
306  \global\let\author\relax
307  \global\let\date\relax
308  \global\let\and\relax
309 }
```

Prints out some text when compiling.

```
310 \newcommand{\papertex@say}[1]{\typeout{#1}}
```

Minipage inside a framebox.

```
311 \newsavebox{\papertex@fmbox}
312 \newenvironment{papertex@fmpage}[1]
313 {\begin{lrbox}{\papertex@fmbox}\begin{minipage}{#1}}
314 {\end{minipage}\end{lrbox}\fbox{\usebox{\papertex@fmbox}}}
```

Next macro inserts an image inside a *news* environment. The image is resized in order to fit in the column width. The image is also surrounded by a frame. This macro controls that there is enough space to include the image otherwise it shows a warning in the compilation log.

```
315 \newcommand{\image}[2]{
316 %set imgsize to 0pt in each call - thanks to Janosch Maier
317 \setlength{\papertex@imgsize}{0pt}
318 \vspace{5pt}
319 %distance between frame and image
320 \setlength{\fboxsep}{1pt}
321 %new image size
322 \addtolength{\papertex@imgsize}{\columnwidth}
323 %substract space between columns
324 \addtolength{\papertex@imgsize}{-1\columnsep}
325 \ifpdf
326 \setlength{\papertex@pageneed}{1.5\papertex@imgsize}
327 \addtolength{\papertex@pageneed}{50pt}
328 \ClassWarning{paperTeX}{%
329 Image #1 needs: \the\papertex@pageneed \space %
330 and there is left: \the\page@free\space%
331 }
332 %image fits in
333 \ifdim \papertex@pageneed < \page@free
334
335 {\centering\fbox{%
336 \includegraphics[width = \papertex@imgsize,
337 height = \papertex@imgsize,
338 keepaspectratio ]{#1}}}
```

```
339 \papertex@pictureCaption{#2}
340
341 \vspace{5pt}
342 \else
343 %not enough space
344 \ClassWarning{Image #1 needs more space!%
345   It was not inserted!}
346 \fi
347 \fi
348 }
```

Some `textpos` parameters in order to start everything from the upper left corner.

```
349 \textblockorigin{1cm}{1cm}
```

Some `textpos` dimensions to draw the invisible grid.

```
350 \newdimen\papertex@dx
351 \newdimen\papertex@dy
352 \newcount\papertex@cx
353 \newcount\papertex@cy
```

This command draws the grid we need to place everything in the front page at absolute positions. If first optional argument is set to "show", lines are shown so you can see the grid.

```
354 \newcommand{\grid}[3][]{
355 \papertex@dx=\textwidth%
356 \papertex@dy=\textheight%
357 \papertex@cx=#3% %columns
358 \papertex@cy=#2% %rows
359
360 \count1=#3%
361 \advance\count1 by 1
362
363 \count2=#2%
364 \advance\count2 by 1
365
366 %calculate cell dimensions
367 \divide\papertex@dx by #3
368 \divide\papertex@dy by #2
369
370 \setlength{\TPHorizModule}{\papertex@dx}
371 \setlength{\TPVertModule}{\papertex@dy}
372
373 \ifthenelse{\equal{#1}{show}}{
374 %draw rows
375 \multido{\papertex@nrow=0+1}{\count2}{
376 \begin{textblock}{\papertex@cx}(0,\papertex@nrow)
377 \rule[0pt]{\textwidth}{.1pt}
378 \end{textblock}
379 }
380
```

```
381 %draw columns
382 \multido{\papertex@ncol=0+1}{\count1}{
383 \begin{textblock}{\papertex@cy}(\papertex@ncol,0)
384 \rule[0pt]{.1pt}{\textheight}
385 \end{textblock}
386 }
387 }{}
388 }
```

This macro inits paperTEX: heading size, page style, space between columns and frame box line width. It also creates the index using `makeindex`.

```
389 \newcommand{\papertexInit}{
390 \setlength{\headheight}{14pt}
391 \renewcommand{\headrulewidth}{0.4pt}
392
393 \pagestyle{fancy}
394
395 \setlength{\columnseprule}{\columnlines}
396 \setlength{\fboxrule}{0.1 pt}
397
398 }
```

The `\mylogo` macro can be redefined in order to use a customized head image.

```
399 \newcommand{\mylogo}[1]{
400 {#1}
401
402 \noindent
403 \papertex@editionLogo\hspace{5pt}
404 \hrulefill
405 \hspace{5pt}\papertex@headDateTime
406 }
```

Edition command.

```
407 \newcommand{\edition}[1]{\renewcommand{\papertex@edition}{#1}}
```

Next environment surrounds newspaper front page. It defines its own style (heading and foot) and keeps track of where we are.

```
408 \newenvironment{frontpage}[0]
409 {
410 \setboolean{papertex@insidefrontpage}{true}
411 \thispagestyle{empty}
412 \pdfbookmark[1]{FRONT PAGE}{\thepage}
413 \logo
414
415 }%
416 {
417 \thispagestyle{empty}
418 \clearpage
419 \newpage
420
```

```
421
422 \fancyhead{}
423 \fancyfoot{}
424 \fancyhead[R]{\papertex@headright}
425 \fancyhead[L]{\papertex@headleft}
426     \fancyhead[C]{\papertex@headcenter}
427     \fancyfoot[R]{\papertex@footright}
428     \fancyfoot[L]{\papertex@footleft}
429 \fancyfoot[C]{\papertex@footcenter}
430 \renewcommand{\headrulewidth}{0.4pt}
431 \setboolean{papertex@insidefrontpage}{false}
432 %
433
434 }
```

5.4   Front page

Edit these items to set up your own front page Read `textpos` documentation to
know how to work with textblocks. Don't forget to use paperTEX styles for titles,
captions and so on. It will be more consistent.

   First piece of news.

```
435 \newcommand{\firstnews}[3]
436 {
437 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
438 \ifthenelse{\boolean{papertex@hyphenatedtitles}}{%
439 \begin{textblock}{24}(22,5)
440 }
441 {
442 \begin{textblock}{28}(22,5)
443 }
444 \vspace{-7pt}
445 \papertex@firstTitle{#1}
446 \end{textblock}
447 \begin{textblock}{29}(22,10)
448 \vspace{5pt plus 2pt minus 2pt}
449
450 \papertex@firstText{\timestamp{#3}~#2}
451
452 \end{textblock}
453
454 \begin{textblock}{50}(0,15)
455 \rule{50\TPHorizModule}{.3pt}
456 \end{textblock}
457 }{%else
458 \ClassError{paperTeX}{%
459 \protect\firstnews\space in a wrong place.\MessageBreak
460 \protect\firstnews\space may only appear inside frontpage environment.
461 }{%
462 \protect\firstnews\space may only appear inside frontpage environment.
```

```
463 }%
464 }
465 }
```

Second piece of news.

```
466 \newcommand{\secondnews}[5]
467 {
468 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
469 \begin{textblock}{33}(2,16)
470 \papertex@pages{#4}
471 \vspace{-5pt}
472 \papertex@secondTitle{#1}
473
474 \vspace*{5pt}
475
476 \papertex@secondSubtitle{#2}
477
478 \vspace*{-7pt}
479
480 \papertex@secondText{\timestamp{#5}~#3}
481
482 \end{textblock}
483
484 \begin{textblock}{33}(2,25)
485 \vspace{5pt plus 2pt minus 2pt}
486
487 \noindent\ignorespaces\rule{33\TPHorizModule}{.3pt}
488 \end{textblock}
489 }{%else
490 \ClassError{paperTeX}{%
491 \protect\secondnews\space in a wrong place.\MessageBreak
492 \protect\secondnews\space may only appear inside frontpage environment.
493 }{%
494 \protect\secondnews\space may only appear inside frontpage environment.
495 }%
496 }
497 }
```

Third piece of news. It is possible to avoid using an image just leaving the 4th parameter empty.

```
498 \newcommand{\thirdnews}[6]
499 {
500 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
501 \begin{textblock}{32}(2,26)
502 \papertex@pages{#5}
503 \vspace{-5pt}
504 \setlength{\fboxsep}{1pt}
505 \papertex@thirdTitle{#1}
506
507 \vspace*{5pt}
```

```
508
509 \papertex@thirdSubtitle{#2}
510
511 \vspace*{5pt}
512
513 {\noindent\ignorespaces %
514 \ifthenelse{\equal{#4}{}}{}
515 {\begin{wrapfigure}{r}{.3\textwidth}
516 \vspace*{-12pt}
517 \ifpdf
518 \noindent\fbox{\includegraphics[width=.3\textwidth]{#4}}
519 \fi
520 \end{wrapfigure}%
521 }%
522 \papertex@thirdText{\timestamp{#6}~#3}
523
524 }
525
526 \vspace*{5pt}
527
528 \end{textblock}
529 }{%else
530 \ClassError{paperTeX}{%
531 \protect\thirdnews\space in a wrong place.\MessageBreak
532 \protect\thirdnews\space may only appear inside frontpage environment.
533 }{%
534 \protect\thirdnews\space may only appear inside frontpage environment.
535 }%
536 }
537 }
```

Main image in front page. Usually related to \firstNews.

```
538 \newcommand{\firstimage}[2]
539 {
540 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
541 \begin{textblock}{18}(2,5)
542 \setlength{\fboxsep}{1pt}
543 \ifpdf % only in PDF
544 \noindent\fbox{\includegraphics[width = 18\TPHorizModule ]{#1}}
545 \fi
546
547 \papertex@pictureCaption{#2}
548 \end{textblock}%
549 }
550 {\ClassError{paperTeX}{%
551 \protect\firstimage\space in a wrong place.\MessageBreak
552 \protect\firstimage\space may only appear inside frontpage environment.
553 }{%
554 \protect\firstimage\space may only appear inside frontpage environment.
555 }}
```

```
556 }%
```

Weather item (weather forecast).

```
557 \newcommand{\weatheritem}[5]{%
558 \ifthenelse{\boolean{papertex@insideweather}}{
559 \begin{minipage}{45pt}
560 \ifpdf
561 \includegraphics[width=40pt]{#1}
562 \fi
563 \end{minipage}
564 \begin{minipage}{50pt}
565 \weatherTempFormat
566 #2\\
567 \textcolor{min}{#3} $\|$ \textcolor{max}{#4} \weatherUnits{}\\
568 #5
569 \end{minipage}
570 }{%else
571 \ClassError{paperTeX}{%
572 \protect\weatheritem\space in a wrong place.\MessageBreak
573 \protect\weatheritem\space may only appear inside weatherblock environment.
574 }{%
575 \protect\weatheritem\space may only appear inside weatherblock environment.\MessageBreak
576 weatherblock environment may only appear inside frontpage environment.
577 }%
578 }
579 }
```

Weather block.

```
580 \newenvironment{weatherblock}[1]
581 {
582 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
583 \setboolean{papertex@insideweather}{true}
584 \begin{textblock}{32}(2,38)
585 \vspace*{-15pt}
586
587 \hfill\papertex@weather{#1}
588
589 \vspace*{5pt}
590
591 \noindent\begin{papertex@fmpage}{32\TPHorizModule}
592 \begin{minipage}{32\TPHorizModule}
593 \hspace{5pt}
594
595 }{%
596 \ClassError{paperTeX}{%
597 weatherblock in a wrong place.\MessageBreak
598 weatherblock may only appear inside frontpage environment.
599 }{%
600 weatherblock may only appear inside frontpage environment.
601 }
```

```
602 }
603 }%
604 {
605 \end{minipage}
606 \end{papertex@fmpage}
607 \end{textblock}
608 \setboolean{papertex@insideweather}{false}
609 }
```

Author block.

```
610 \newenvironment{authorblock}[0]
611 {
612 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
613 \begin{textblock}{15}(36,35)
614 \setlength{\fboxsep}{5pt}
615 \begin{papertex@fmpage}{13\TPHorizModule}
616 \begin{minipage}{13\TPHorizModule}
617 \centering
618 \minilogo
619
620 }{%else
621 \ClassError{paperTeX}{%
622 authorblock in a wrong place.\MessageBreak
623 authorblock may only appear inside frontpage environment.
624 }{%
625 authorblock may only appear inside frontpage environment.
626 }
627 }
628 }
629 {
630 \end{minipage}
631 \end{papertex@fmpage}
632 \end{textblock}
633 }
```

Main index block.

```
634 \newenvironment{indexblock}[1]
635 {
636 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
637 \setboolean{papertex@insideindex}{true}%let's in
638 \begin{textblock}{15}(36,16)
639 \setlength{\papertex@indexwidth}{13\TPHorizModule}
640 \papertex@indexFrameTitle{#1}
641
642 \setlength{\fboxsep}{5pt} %espacio entre el frame y la imagen
643 \begin{papertex@fmpage}{\papertex@indexwidth}
644 \begin{minipage}{\papertex@indexwidth}
645 \vspace*{10pt}
646 }{%else
647 \ClassError{paperTeX}{%
```

```
648 indexblock in a wrong place.\MessageBreak
649 indexblock may only appear inside frontpage environment.
650 }{%
651 indexblock may only appear inside frontpage environment.
652 }
653 }
654 }%
655 {
656 \end{minipage}
657 \end{papertex@fmpage}
658 \end{textblock}
659 \setboolean{papertex@insideindex}{false}%let's out
660 }
```

Index item.

```
661 \newcommand{\indexitem}[2]
662 {
663 \ifthenelse{\boolean{papertex@insideindex}}{
664 \papertex@indexEntry{#1~\papertex@indexEntryPage{\pageref{#2}}}
665
666 \vspace{0.5cm}
667
668 \noindent\ignorespaces\indexEntrySeparator{}
669 }{%else
670 \ClassError{paperTeX}{%
671 \protect\indexitem\space in a wrong place.\MessageBreak
672 \protect\indexitem\space may only appear inside indexblock environment.
673 }{%
674 \protect\indexitem\space may only appear inside indexblock environment.\MessageBreak
675 indexblock environment may only appear inside frontpage environment.
676 }%
677 }
678 }
```

5.5 Inner news

Next two macros create an expanded title. The first command one is called inside
the second one. They create a framed title that expands over all news columns.
It can be used inside a `news` environment. It uses `fancybox` frame types and a
custom one: text between two horizontal lines.

```
679 \newcommand{\papertex@inexpandedtitle}[1]{
680 \begin{minipage}{.95\textwidth}
681 \begin{center}
682 \noindent\Large\textbf{#1}
683 \end{center}
684 \end{minipage}
685 }
686
687 \newcommand{\expandedtitle}[2]{
```

```
688 \end{multicols}
689
690 \begin{center}
691 \setlength{\fboxsep}{5pt}
692 \setlength{\shadowsize}{2pt}
693 \ifthenelse{\equal{#1}{shadowbox}}{%
694 \shadowbox{%
695 \papertex@inexpandedtitle{#2}%
696 }%
697 }{}
698 \ifthenelse{\equal{#1}{doublebox}}{%
699 \doublebox{%
700 \papertex@inexpandedtitle{#2}%
701 }%
702 }{}
703 \ifthenelse{\equal{#1}{ovalbox}}{%
704 \ovalbox{%
705 \papertex@inexpandedtitle{#2}%
706 }%
707 }{}
708 \ifthenelse{\equal{#1}{Ovalbox}}{%
709 \Ovalbox{%
710 \papertex@inexpandedtitle{#2}%
711 }%
712 }{}
713 \ifthenelse{\equal{#1}{lines}}{
714 \hrule
715 \vspace*{8pt}
716 \begin{center}
717 \noindent\Large\textbf{#2}
718 \end{center}
719 \vspace*{8pt}
720 \hrule
721 }{}
722 \end{center}
723
724 \begin{multicols}{\papertex@ncolumns{}}
725 \ifnum \papertex@ncolumns > \minraggedcols
726 \raggedFormat
727 \fi
728 }
```

The same as before but the title does not expand over news columns.

```
729 \newcommand{\papertex@incolumntitle}[2]{
730 \begin{minipage}{#1}
731 \begin{center}
732 \noindent\normalsize\textbf{#2}
733 \end{center}
734 \end{minipage}
735 }
```

```
736
737 \newcommand{\columntitle}[2]{
738 \vspace*{5pt}
739 \begin{center}
740 \setlength{\fboxsep}{5pt}
741 \setlength{\shadowsize}{2pt}
742 \addtolength{\papertex@coltitsize}{\columnwidth}
743 \addtolength{\papertex@coltitsize}{-1\columnsep}
744 \addtolength{\papertex@coltitsize}{-5pt}
745 \addtolength{\papertex@coltitsize}{-1\shadowsize}
746 \ifthenelse{\equal{#1}{shadowbox}}{%
747 \shadowbox{%
748 \papertex@incolumntitle{\papertex@coltitsize}{#2}%
749 }%
750 }{}
751 \ifthenelse{\equal{#1}{doublebox}}{%
752 \doublebox{%
753 \papertex@incolumntitle{\papertex@coltitsize}{#2}%
754 }%
755 }{}
756 \ifthenelse{\equal{#1}{ovalbox}}{%
757 \ovalbox{%
758 \papertex@incolumntitle{\papertex@coltitsize}{#2}%
759 }%
760 }{}
761 \ifthenelse{\equal{#1}{Ovalbox}}{%
762 \Ovalbox{%
763 \papertex@incolumntitle{\papertex@coltitsize}{#2}%
764 }%
765 }{}
766 \ifthenelse{\equal{#1}{lines}}{
767 \hrule
768 \vspace*{5pt}
769 \begin{center}
770 \noindent\normalsize\textbf{#2}
771 \end{center}
772 \vspace*{5pt}
773 \hrule
774 }{}
775 \end{center}
776 }
```

Formating the heading date. This macro uses `datetime` package. I did some modifications on "datetime.sty" file in order to satisfy my own need but I do not think people should change anything.

```
777 \renewcommand{\date}{%
778 \longdate{\today}%
779 }
```

The next macro types out the author and the place of the news. It is just a format command.

```
780 \newcommand{\authorandplace}[2]{%
781 \leftline{%
782 {\innerAuthorFormat #1},\space{}{\innerPlaceFormat #2}%
783 }%
784 \par %
785 }
```

New section macro creates a new PDF bookmark and keeps track of which section we are. This is useful because we would like to print out the section name on all page headings.

```
786 \newcommand{\newsection}[1]{
787 \pdfbookmark[0]{#1}{\thepage} %bookmark para el pdf
788 \renewcommand{\papertex@section}{#1}
789 }
```

Inner news environment. This enviroment creates a piece of news inside the newspaper. It creates a `multicol` environment in the opening and ends it at closing. It also uses `multicol` feature to expand the news headings all over the columns and creates a new PDF bookmark and label.

The fifth parameter gets the name of the label that the user can use in the front page index. It uses `\phantomsection` to make `\pageref` work. Notice that paperTeX has not any sections.

It tells `multicols` environment that it should appear $4cm$ of text at least. Otherwise, it changes to a new page.

```
790 \newenvironment{news}[5]
791 {
792 \papertex@say{Adding a new piece of news}
793 \renewcommand{\papertex@ncolumns}{#1}
794 \begin{multicols}{#1}[%
795 \papertex@pages{#4}
796 \papertex@innerTitle{#2}%
797 \papertex@innerSubtitle{#3}%
798 ][4cm]%
799 \phantomsection
800 \pdfbookmark[1]{#2}{\thepage}
801 \label{#5}
802 \ifnum #1 > \minraggedcols
803 \raggedFormat
804 \fi
805 }
806 {~\innerTextFinalMark{}
807 \end{multicols}
808 }
```

Thin line to put between news. The line will not show up if there is not enough space. For example, it will never appear at the top of a new page.

```
809 \newcommand{\newssep}{%
810 \setlength{\papertex@pageneed}{16000pt}
```

```
811 \setlength\papertex@pageleft{\pagegoal}
812 \addtolength\papertex@pageleft{-\pagetotal}
813
814 \papertex@say{How much left \the\papertex@pageleft}
815
816 \ifdim \papertex@pageneed < \papertex@pageleft
817 \papertex@say{Not enough space}
818 \else
819 \papertex@say{Adding sep line between news}
820 \vspace*{10pt plus 10pt minus 5pt}
821 \hrule
822 \vspace*{10pt plus 5pt minus 5pt}
823 \fi
824
825 }
```

Next command inserts the opinion news heading. It is very different from normal news. I writes the title, a thin line and the author (usually in small caps). It uses a tabular in order the line as wide as the titles.

```
826 \newcommand{\papertex@editorialTit}[2]{
827 \setlength{\arrayrulewidth}{.1pt}
828 \begin{center}
829 \begin{tabular}{c}
830 \noindent
831 \papertex@editorialTitle{#1}
832 \vspace{2pt plus 1pt minus 1pt}
833 \\
834 \hline
835 \vspace{2pt plus 1pt minus 1pt}
836 \\
837 \editorialAuthorFormat{#2}
838 \end{tabular}
839 \end{center}
840 }
```

Next environment introduces a new opinion news. It tells `multicols` environment that it should appear $4cm$ of text at least. Otherwise, it changes to a new page.

```
841 \newenvironment{editorial}[4]
842 {
843 \papertex@say{Adding a new editorial}
844 \begin{multicols}{#1}[%
845 \papertex@editorialTit{#2}{#3}%
846 ][4cm]
847 \phantomsection
848 \pdfbookmark[1]{#2}{\thepage}
849 \label{#4}
850 \ifnum #1 > \minraggedcols
851 \raggedFormat
852 \fi
```

```
853 }
854 {
855 \end{multicols}
856 }
```

Next command inserts the short news heading. It is very different from normal news.

```
857 \newcommand{\papertex@shortnewsTit}[2]{
858 \begin{center}
859 \vbox{%
860 \noindent
861 \papertex@shortnewsTitle{#1}
862 \vspace{4pt plus 2pt minus 2pt}
863 \hrule
864 \vspace{4pt plus 2pt minus 2pt}
865 \papertex@shortnewsSubtitle{#2}
866 }
867 \end{center}
868 }
```

Next environment introduces a short news group.

```
869 \newenvironment{shortnews}[4]
870 {
871 \papertex@say{Adding a short news block}
872 \begin{multicols}{#1}[\papertex@shortnewsTit{#2}{#3}][4cm] %
873 \phantomsection
874 \pdfbookmark[1]{#2}{\thepage}
875     \label{#4}
876 \par %
877 \ifnum #1 > \minraggedcols
878 \raggedFormat
879 \fi
880 }
881 {
882 \end{multicols}
883 }
```

This command is used to add short news items inside a short news group.

```
884 \newcommand{\shortnewsitem}[2]{
885 \goodbreak
886 \vspace{5pt plus 3pt minus 3pt}
887 {\vbox{\noindent\papertex@shortnewsItemTitle{#1}}}
888 \vspace{5pt plus 3pt minus 3pt}
889 {\noindent #2}\\
890 }
```