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 2 describes the usage of the package.

2 Usage

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

$$\text{\\documentclass}[\textit{class-options}]\{\texttt{papertex}\}$$

at the beginning of your your LaTeX 2_ε source file. The [*class-options*] are as described in section 4.

From this point it is possible to include packages and renew class commands described in section 3.

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

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

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.

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

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.

\thirdnews{⟨*title*⟩}{⟨*subtitle*⟩}{⟨*opening*⟩}(⟨*image*⟩){⟨*pagesof*⟩}{⟨*time*⟩}

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

\indexitem{⟨*title*⟩}{⟨*reference*⟩}

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 2.2. 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

\weatheritem(⟨*image*⟩){⟨*day-name*⟩}{⟨*max*⟩}{⟨*min*⟩}{⟨*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

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

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 2.2.1, the `editorial` environment 2.2.2 for opinion news and the `shortnews` environment explained in 2.2.3.

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` 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.

> \image(⟨*image*⟩){⟨*description*⟩}

\columntitle   Within the text of the news, it is possible to add column and expanded titles.
\expandedtitle   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

> \columntitle{⟨*type*⟩}{⟨*text*⟩}
> \expandedtitle{⟨*type*⟩}{⟨*text*⟩}

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`.

4

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

> `\begin{editorial}`{⟨*num-of-columns*⟩}{⟨*title*⟩}{⟨*author*⟩}{⟨*label*⟩}
> . . . ⟨*text*⟩ . . .
> `\end{editorial}`

All arguments have the same meaning as `news` environment (see 2.2.1).

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:

> `\begin{shortnews}`{⟨*num-of-columns*⟩}{⟨*title*⟩}{⟨*subtitle*⟩}{⟨*label*⟩}
> . . .
> `\shortnewsitem`{⟨*title*⟩}{⟨*text*⟩}
> . . .
> `\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 2.1).

\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 2.2.1 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.

\heading   paperTeX includes package fancyhdr for changing headings and footers. Al-
\foot   though 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 and notitlepage. If you find problems when loading other article features, please let me know to fix it.

There are also four own options that paperTeX implements.

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

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 0.1*pt* 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}
```

Some booleans to keep track of where we are.

```
18 \newboolean{papertex@insidefrontpage}
19 \setboolean{papertex@insidefrontpage}{false}
20 \newboolean{papertex@insideweather}
21 \setboolean{papertex@insideweather}{false}
22 \newboolean{papertex@insideindex}
23 \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.

```
24 \newcount\papertex@gridrows
25 \newcount\papertex@gridcolumns
26 \papertex@gridrows=40
27 \papertex@gridcolumns=50
```

Now, we declare the class options. First, options paperTEX inherit from "article.cls".

```
28 \DeclareOption{10pt}{\PassOptionsToClass{10pt}{article}}
29 \DeclareOption{11pt}{\PassOptionsToClass{11pt}{article}}
```

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

```
30 \DeclareOption{twocolumn}%
31 {\ClassWarning{paperTeX}{Option 'twocolumn' not available for paperTeX.}}
32 \DeclareOption{notitlepage}%
33 {\ClassWarning{paperTeX}{Option 'notitlepage' not available for paperTeX.}}
34 \DeclareOption{twoside}%
35 {\ClassWarning{paperTeX}{Option 'twoside' not available for paperTeX.}}
```

Finally, paperTEX own options.

```
36 \DeclareOption{9pt}{\setboolean{papertex@ninepoints}{true}}
37 \DeclareOption{hyphenatedtitles}{\setboolean{papertex@hyphenatedtitles}{false}}
38 \DeclareOption{columnlines}{\setlength{\columnlines}{0.1 pt}}
39 \DeclareOption{showgrid}{\setboolean{papertex@showgrid}{true}}
```

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

```
40 \ProcessOptions
41 \LoadClass[10pt, onecolumn, titlepage]{article}
```

From this point, paperTEX requires all packages needed.

```
42 \RequirePackage{ifpdf}
43 \RequirePackage{multido}
44 \RequirePackage{datetime}
45 \RequirePackage{multicol}
46 \RequirePackage{fancyhdr}
47 \RequirePackage{fancybox}
48 \RequirePackage{anysize}
```

Define margins to get as much as possible from the page layout.

```
49 \marginsize{1.5cm}{1.5cm}{0.5cm}{0.5cm}
```

Some requirements whether we compile using PDFLATEX or just LATEX.

```
50 \ifpdf
51 \RequirePackage[pdftex]{graphicx,color}
52   \RequirePackage[pdftex]{hyperref}
53 \else
54 \RequirePackage{color}
55 \RequirePackage[dvips]{graphicx}
56 \RequirePackage[dvips]{hyperref}
57 \fi
```

Some more packages. . .

```
58 \RequirePackage[absolute]{textpos} % absoulte positioning
59 \RequirePackage{hyphenat} % when hyphenate
60 \RequirePackage{wrapfig}
61 \RequirePackage{lastpage} % to know the last page number
62 \RequirePackage{setspace} % set space between lines
```

When the whole class is loaded, draw the front page grid. Draw lines if requested by using **showgrid** option.

```
63 \AtEndOfClass{\papertexInit}
64 \ifthenelse{\boolean{papertex@showgrid}}{%
65 \AtBeginDocument{\grid[show]{\papertex@gridrows}{\papertex@gridcolumns}}
66 }{%
67 \AtBeginDocument{\grid[]{\papertex@gridrows}{\papertex@gridcolumns}}
68 }
```

Definition of **ninepoints** class option.

```
69 \ifthenelse{\boolean{papertex@ninepoints}}{
70 \renewcommand{\normalsize}{%
71   \@setfontsize{\normalsize}{9pt}{10pt}%
72   \setlength{\abovedisplayskip}{5pt plus 1pt minus .5pt}%
73   \setlength{\belowdisplayskip}{\abovedisplayskip}%
74   \setlength{\abovedisplayshortskip}{3pt plus 1pt minus 2pt}%
75   \setlength{\belowdisplayshortskip}{\abovedisplayshortskip}}
76
77 \renewcommand{\tiny}{\@setfontsize{\tiny}{5pt}{6pt}}
78
79 \renewcommand{\scriptsize}{\@setfontsize{\scriptsize}{7pt}{8pt}}
80
81 \renewcommand{\small}{%
82   \@setfontsize{\small}{8pt}{9pt}%
83   \setlength{\abovedisplayskip}{4pt plus 1pt minus 1pt}%
84   \setlength{\belowdisplayskip}{\abovedisplayskip}%
85   \setlength{\abovedisplayshortskip}{2pt plus 1pt}%
86   \setlength{\belowdisplayshortskip}{\abovedisplayshortskip}}
87
88 \renewcommand{\footnotesize}{%
89   \@setfontsize{\footnotesize}{8pt}{9pt}%
90   \setlength{\abovedisplayskip}{4pt plus 1pt minus .5pt}%
91   \setlength{\belowdisplayskip}{\abovedisplayskip}%
92   \setlength{\abovedisplayshortskip}{2pt plus 1pt}%
93   \setlength{\belowdisplayshortskip}{\abovedisplayshortskip}}
94
95 \renewcommand{\large}{\@setfontsize{\large}{11pt}{13pt}}
96 \renewcommand{\Large}{\@setfontsize{\Large}{14pt}{18pt}}
97 \renewcommand{\LARGE}{\@setfontsize{\LARGE}{18pt}{20pt}}
98 \renewcommand{\huge}{\@setfontsize{\huge}{20pt}{25pt}}
99 \renewcommand{\Huge}{\@setfontsize{\Huge}{25pt}{30pt}}
100 }{}
```

5.2   paperTeX default style

Colours.

```
101 \definecolor{color}{cmyk}{0.5, 0, 1, 0.5}
102 \definecolor{max}{cmyk}{0, 0.5, 0.5, 0.5}
103 \definecolor{min}{cmyk}{0.5, 0, 0.5, 0.5}
```

Web address.

```
104 \newcommand{\papertex@wwwTxt}{http://nachollopis.com}
105 \newcommand{\papertex@wwwFormat}{\sffamily}
106 \newcommand{\papertex@www}{%
107 \raisebox{-3pt}{{\papertex@wwwFormat\papertex@wwwTxt}}
108 }
```

Edition.

```
109 \newcommand{\papertex@edition}{MY EDITION}
110 \newcommand{\editionFormat}{\large\bfseries\textttt}
111 \newcommand{\papertex@editionLogo}{%
112 \raisebox{-3pt}{%
113 \textcolor{color}{{\editionFormat\papertex@edition}}%
114 }%
115 }
```

Index.

```
116 \newcommand{\indexFormat}{\large\bfseries\sffamily}
117 \newcommand{\papertex@indexFrameTitle}[1]
118 {\begin{flushright}{\textcolor{color}{{\indexFormat #1}}}\end{flushright}}
119
120 \newcommand{\indexEntryFormat}{\large\sffamily}
121 \newcommand{\papertex@indexEntry}[1]{\begin{minipage}{13\TPHorizModule}%
122 {\indexEntryFormat\noindent\ignorespaces{#1}}%
123 \end{minipage}}
124 \newcommand{\indexEntrySeparator}{\rule{\papertex@indexwidth}{.1pt}}
125 \newcommand{\indexEntryPageTxt}{p.}
126 \newcommand{\indexEntryPageFormat}{\footnotesize}
127 \newcommand{\papertex@indexEntryPage}[1]{%
128 {\indexEntryPageFormat\textcolor{color}{\indexEntryPageTxt{}~#1}}%
129 }
```

Date and time.

```
130 \newcommand{\headDateTimeFormat}{}
131 \newcommand{\papertex@headDateTime}{%
132 \headDateTimeFormat\date\hspace{5pt}$\parallel$\hspace{5pt}%
133 \textcolor{color}{\currenttime h}%
134 }
```

Weather.

```
135 \newcommand{\weatherFormat}{\bfseries\sffamily}
136 \newcommand{\papertex@weather}[1]{%
137 \noindent\textcolor{color}{{\weatherFormat #1}}%
138 }
139 \newcommand{\weatherTempFormat}{\small}
140 \newcommand{\weatherUnits}{\textdegree{}C}
```

Section name.

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

Inner pages heading.

```
142 \newcommand{\papertex@headleft}{%
```

```
143 {{\usefont{T1}{bch}{b}{n} \noindent\textcolor{color}{paper}}}%
144 {\usefont{T1}{pag}{m}{n} \textcolor{black}{TeX}} , \date}%
145 }
146 \newcommand{\papertex@headcenter}{%
147 \papertex@section{}
148 }
149 \newcommand{\papertex@headright}{%
150 \textcolor{color}{\small\papertex@edition}%
151 \hspace*{5pt}\thepage\ / \pageref{LastPage}
152 }
153
154 \newcommand{\heading}[3]{%
155 \renewcommand{\papertex@headleft}{#1}%
156 \renewcommand{\papertex@headcenter}{#2}%
157 \renewcommand{\papertex@headright}{#3}%
158 }
```
Inner pages foot.
```
159 \newcommand{\papertex@footleft}{%
160 {\footnotesize\copyright\ \papertex@wwwTxt{} - Created using paper\TeX{}}}%
161 }
162 \newcommand{\papertex@footcenter}{%
163 }
164 \newcommand{\papertex@footright}{%
165 }
166
167 \newcommand{\foot}[3]{%
168 \renewcommand{\papertex@footleft}{#1}%
169 \renewcommand{\papertex@footcenter}{#2}%
170 \renewcommand{\papertex@footright}{#3}%
171 }
```
First news on main page.
```
172 \newcommand{\firstTitleFormat}{\Huge\sffamily\bfseries\flushleft}
173 \newcommand{\papertex@firstTitle}[1]{%
174 {%
175 \begin{spacing}{2.0}{%
176 \noindent\ignorespaces
177 \ifthenelse{\boolean{papertex@hyphenatedtitles}}%
178 {\nohyphens{\firstTitleFormat #1}}%
179 {{\firstTitleFormat #1}}%
180 }%
181 \end{spacing}%
182 }%
183 }
184 \newcommand{\firstTextFormat}{}
185 \newcommand{\papertex@firstText}[1]{%
186 {\noindent\ignorespaces\firstTextFormat #1}%
187 }
```
Second news on main page.

```
188 \newcommand{\secondTitleFormat}{\LARGE\sffamily\bfseries}
189 \newcommand{\papertex@secondTitle}[1]{%
190 \begin{spacing}{1.5}{%
191 \noindent\ignorespaces\flushleft
192 \ifthenelse{\boolean{papertex@hyphenatedtitles}}%
193 {\nohyphens{\secondTitleFormat #1}}%
194 {{\secondTitleFormat #1}}%
195 }\end{spacing}%
196 }
197 \newcommand{\secondSubtitleFormat}{\large}
198 \newcommand{\papertex@secondSubtitle}[1]{%
199 {\noindent\ignorespaces{\secondSubtitleFormat #1}}%
200 }
201 \newcommand{\secondTextFormat}{}
202 \newcommand{\papertex@secondText}[1]{%
203 \begin{multicols}{2}
204 {\noindent\ignorespaces\secondTextFormat #1}
205 \end{multicols}
206 }
```

Third news on main page.

```
207 \newcommand{\thirdTitleFormat}{\Large\sffamily\bfseries}
208 \newcommand{\papertex@thirdTitle}[1]{%
209 \begin{spacing}{1.5}{%
210 \noindent\ignorespaces\flushleft
211 \ifthenelse{\boolean{papertex@hyphenatedtitles}}%
212 {\nohyphens{\thirdTitleFormat #1}}%
213 {{\thirdTitleFormat #1}}%
214 }\end{spacing}%
215 }
216 \newcommand{\thirdSubtitleFormat}{\large}
217 \newcommand{\papertex@thirdSubtitle}[1]%
218 {{\noindent\ignorespaces\thirdSubtitleFormat #1}}
219 \newcommand{\thirdTextFormat}{}
220 \newcommand{\papertex@thirdText}[1]{{\thirdTextFormat #1}}
```

Pictures captions.

```
221 \newcommand{\pictureCaptionFormat}{\small\bfseries}
222 \newcommand{\papertex@pictureCaption}[1]{%
223 {\noindent\pictureCaptionFormat #1}%
224 }
```

Pages: paperTEX sections.

```
225 \newcommand{\pagesFormat}{\bfseries\footnotesize}
226 \newcommand{\papertex@pages}[1]%
227 {\noindent\textcolor{color}{\pagesFormat\MakeUppercase{#1}}}
```

Inner pages news: `normal` style.

- Heading.

```
228     \newcommand{\innerTitleFormat}{\Huge}
```

```
229    \newcommand{\papertex@innerTitle}[1]{%
230    \begin{flushleft}{%
231    \noindent
232    \ifthenelse{\boolean{papertex@hyphenatedtitles}}%
233    {\nohyphens{\innerTitleFormat #1}}%
234    {{\innerTitleFormat #1}}%
235    }%
236    \\%
237    \end{flushleft}%
238    }
```

- Subheading.

```
239    \newcommand{\innerSubtitleFormat}{\large}
240    \newcommand{\papertex@innerSubtitle}[1]{{\innerSubtitleFormat #1}}
```

- Time.

```
241    \newcommand{\timestampTxt}{h}
242    \newcommand{\timestampSeparator}{|}
243    \newcommand{\timestampFormat}{\small}
244    \newcommand{\timestamp}[1]{%
245    {\timestampFormat\textcolor{color}{%
246    #1~\timestampTxt{}}%
247    }~\timestampSeparator{}%
248    }
```

- Author.

```
249    \newcommand{\innerAuthorFormat}{\footnotesize}
```

- Place.

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

- Section. See \sectionFormat.

- Image caption. See \pictureCaptionFormat.

- Final text mark. A black square.

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

Inner pages news: editorial (opinion) style.

- Heading.

```
252    \newcommand{\editorialTitleFormat}{\LARGE\textit}
253    \newcommand{\papertex@editorialTitle}[1]{\editorialTitleFormat{#1}}
```

- Author.

```
254    \newcommand{\editorialAuthorFormat}{\textsc}
```

Inner pages news: shortnews style.

- Group heading.

```
255    \newcommand{\shortnewsTitleFormat}{\LARGE\bfseries}
256    \newcommand{\papertex@shortnewsTitle}[1]{{\shortnewsTitleFormat #1}}
```

- Group subheading.

```
257    \newcommand{\shortnewsSubtitleFormat}{\Large}
258    \newcommand{\papertex@shortnewsSubtitle}[1]{{\shortnewsSubtitleFormat #1}}
```

- Sigle item heading.

```
259    \newcommand{\shortnewsItemTitleFormat}{\large\bfseries}
260    \newcommand{\papertex@shortnewsItemTitle}[1]{{\shortnewsItemTitleFormat #1}}
```

5.3   General macros

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

```
261 \renewcommand{\maketitle}{\begin{titlepage}%
262    \let\footnotesize\small
263    \let\footnoterule\relax
264    \let \footnote \thanks
265    \null\vfil
266    \vskip 60\p@
267    \begin{center}%
268      {\LARGE \@title \par}%
269      \vskip 1em%
270      {\LARGE ''\papertex@edition '' \par}%
271      \vskip 3em%
272      {\large
273       \lineskip .75em%
274        \begin{tabular}[t]{c}%
275          \@author
276        \end{tabular}\par}%
277        \vskip 1.5em%
278      {\large \@date \par}%
279    \end{center}\par
280    \@thanks
281    \vfil\null
282    \end{titlepage}%
283    \setcounter{footnote}{0}%
284    \global\let\thanks\relax
285    \global\let\maketitle\relax
286    \global\let\@thanks\@empty
287    \global\let\@author\@empty
288    \global\let\@date\@empty
289    \global\let\@title\@empty
290    \global\let\title\relax
291    \global\let\author\relax
292    \global\let\date\relax
293    \global\let\and\relax
```

```
294 }
```
Prints out some text when compiling.
```
295 \newcommand{\papertex@say}[1]{\typeout{#1}}
```
Minipage inside a framebox.
```
296 \newsavebox{\papertex@fmbox}
297 \newenvironment{papertex@fmpage}[1]
298  {\begin{lrbox}{\papertex@fmbox}\begin{minipage}{#1}}
299  {\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.
```
300 \newcommand{\image}[2]{
301 \vspace{5pt}
302 %distance between frame and image
303 \setlength{\fboxsep}{1pt}
304 %new image size
305 \addtolength{\papertex@imgsize}{\columnwidth}
306 %substract space between columns
307 \addtolength{\papertex@imgsize}{-1\columnsep}
308 \ifpdf
309 \setlength{\papertex@pageneed}{1.5\papertex@imgsize}
310 \addtolength{\papertex@pageneed}{50pt}
311 \ClassWarning{paperTeX}{%
312 Image #1 needs: \the\papertex@pageneed \space %
313 and there is left: \the\page@free\space%
314 }
315 %image fits in
316 \ifdim \papertex@pageneed < \page@free
317
318 {\centering\fbox{%
319 \includegraphics[width = \papertex@imgsize,
320 height = \papertex@imgsize,
321 keepaspectratio ]{#1}}}
322 \papertex@pictureCaption{#2}
323
324 \vspace{5pt}
325 \else
326 %not enough space
327 \ClassWarning{Image #1 needs more space!%
328   It was not inserted!}
329 \fi
330 \fi
331 }
```
Some `textpos` parameters in order to start everything from the upper left corner.
```
332 \textblockorigin{1cm}{1cm}
```

Some `textpos` dimensions to draw the invisible grid.

```
333 \newdimen\papertex@dx
334 \newdimen\papertex@dy
335 \newcount\papertex@cx
336 \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.

```
337 \newcommand{\grid}[3][]{
338 \papertex@dx=\textwidth%
339 \papertex@dy=\textheight%
340 \papertex@cx=#3% %columns
341 \papertex@cy=#2% %rows
342
343 \count1=#3%
344 \advance\count1 by 1
345
346 \count2=#2%
347 \advance\count2 by 1
348
349 %calculate cell dimensions
350 \divide\papertex@dx by #3
351 \divide\papertex@dy by #2
352
353 \setlength{\TPHorizModule}{\papertex@dx}
354 \setlength{\TPVertModule}{\papertex@dy}
355
356 \ifthenelse{\equal{#1}{show}}{
357 %draw rows
358 \multido{\papertex@nrow=0+1}{\count2}{
359 \begin{textblock}{\papertex@cx}(0,\papertex@nrow)
360 \rule[0pt]{\textwidth}{.1pt}
361 \end{textblock}
362 }
363
364 %draw columns
365 \multido{\papertex@ncol=0+1}{\count1}{
366 \begin{textblock}{\papertex@cy}(\papertex@ncol,0)
367 \rule[0pt]{.1pt}{\textheight}
368 \end{textblock}
369 }
370 }{}
371 }
```

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

```
372 \newcommand{\papertexInit}{
373 \setlength{\headheight}{14pt}
374 \renewcommand{\headrulewidth}{0.4pt}
```

```
375
376 \pagestyle{fancy}
377
378 \setlength{\columnseprule}{\columnlines}
379 \setlength{\fboxrule}{0.1 pt}
380
381 \makeindex
382 }
```

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

```
383 \newcommand{\mylogo}[1]{
384 {#1}
385
386 \noindent
387 \papertex@editionLogo\hspace{5pt}
388 \hrulefill
389 \hspace{5pt}\papertex@headDateTime
390 }
```

Edition command.

```
391 \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.

```
392 \newenvironment{frontpage}[0]
393 {
394 \setboolean{papertex@insidefrontpage}{true}
395 \thispagestyle{empty}
396 \pdfbookmark[1]{FRONT PAGE}{\thepage}
397 \logo
398
399 }%
400 {
401 \thispagestyle{empty}
402 \clearpage
403 \newpage
404
405
406 \fancyhead{}
407 \fancyfoot{}
408 \fancyhead[R]{\papertex@headright}
409 \fancyhead[L]{\papertex@headleft}
410     \fancyhead[C]{\papertex@headcenter}
411     \fancyfoot[R]{\papertex@footright}
412     \fancyfoot[L]{\papertex@footleft}
413 \fancyfoot[C]{\papertex@footcenter}
414 \renewcommand{\headrulewidth}{0.4pt}
415 \setboolean{papertex@insidefrontpage}{false}
416 %
417
418 }
```

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.

```
419 \newcommand{\firstnews}[3]
420 {
421 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
422 \ifthenelse{\boolean{papertex@hyphenatedtitles}}{%
423 \begin{textblock}{24}(22,5)
424 }
425 {
426 \begin{textblock}{28}(22,5)
427 }
428 \vspace{-7pt}
429 \papertex@firstTitle{#1}
430 \end{textblock}
431 \begin{textblock}{29}(22,10)
432 \vspace{5pt plus 2pt minus 2pt}
433
434 \papertex@firstText{\timestamp{#3}~#2}
435
436 \end{textblock}
437
438 \begin{textblock}{50}(0,15)
439 \rule{50\TPHorizModule}{.3pt}
440 \end{textblock}
441 }{%else
442 \ClassError{paperTeX}{%
443 \protect\firstnews\space in a wrong place.\MessageBreak
444 \protect\firstnews\space may only appear inside frontpage environment.
445 }{%
446 \protect\firstnews\space may only appear inside frontpage environment.
447 }%
448 }
449 }
```

Second piece of news.

```
450 \newcommand{\secondnews}[5]
451 {
452 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
453 \begin{textblock}{33}(2,16)
454 \papertex@pages{#4}
455 \vspace{-5pt}
456 \papertex@secondTitle{#1}
457
458 \vspace*{5pt}
459
460 \papertex@secondSubtitle{#2}
```

```
461
462 \vspace*{-7pt}
463
464 \papertex@secondText{\timestamp{#5}~#3}
465
466 \end{textblock}
467
468 \begin{textblock}{33}(2,25)
469 \vspace{5pt plus 2pt minus 2pt}
470
471 \noindent\ignorespaces\rule{33\TPHorizModule}{.3pt}
472 \end{textblock}
473 }{%else
474 \ClassError{paperTeX}{%
475 \protect\secondnews\space in a wrong place.\MessageBreak
476 \protect\secondnews\space may only appear inside frontpage environment.
477 }{%
478 \protect\secondnews\space may only appear inside frontpage environment.
479 }%
480 }
481 }
```

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

```
482 \newcommand{\thirdnews}[6]
483 {
484 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
485 \begin{textblock}{32}(2,26)
486 \papertex@pages{#5}
487 \vspace{-5pt}
488 \setlength{\fboxsep}{1pt}
489 \papertex@thirdTitle{#1}
490
491 \vspace*{5pt}
492
493 \papertex@thirdSubtitle{#2}
494
495 \vspace*{5pt}
496
497 {\noindent\ignorespaces %
498 \ifthenelse{\equal{#4}{}}{}
499 {\begin{wrapfigure}{r}{.3\textwidth}
500 \vspace*{-12pt}
501 \ifpdf
502 \noindent\fbox{\includegraphics[width=.3\textwidth]{#4}}
503 \fi
504 \end{wrapfigure}%
505 }%
506 \papertex@thirdText{\timestamp{#6}~#3}
507
```

```
508 }
509
510 \vspace*{5pt}
511
512 \end{textblock}
513 }{%else
514 \ClassError{paperTeX}{%
515 \protect\thirdnews\space in a wrong place.\MessageBreak
516 \protect\thirdnews\space may only appear inside frontpage environment.
517 }{%
518 \protect\thirdnews\space may only appear inside frontpage environment.
519 }%
520 }
521 }
```

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

```
522 \newcommand{\firstimage}[2]
523 {
524 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
525 \begin{textblock}{18}(2,5)
526 \setlength{\fboxsep}{1pt}
527 \ifpdf % only in PDF
528 \noindent\fbox{\includegraphics[width = 18\TPHorizModule ]{#1}}
529 \fi
530
531 \papertex@pictureCaption{#2}
532 \end{textblock}%
533 }
534 {\ClassError{paperTeX}{%
535 \protect\firstimage\space in a wrong place.\MessageBreak
536 \protect\firstimage\space may only appear inside frontpage environment.
537 }{%
538 \protect\firstimage\space may only appear inside frontpage environment.
539 }}
540 }%
```

Weather item (weather forecast).

```
541 \newcommand{\weatheritem}[5]{%
542 \ifthenelse{\boolean{papertex@insideweather}}{
543 \begin{minipage}{45pt}
544 \ifpdf
545 \includegraphics[width=40pt]{#1}
546 \fi
547 \end{minipage}
548 \begin{minipage}{50pt}
549 \weatherTempFormat
550 #2\\
551 \textcolor{min}{#3} $\|$ \textcolor{max}{#4} \weatherUnits{}\\
552 #5
553 \end{minipage}
```

```
554 }{%else
555 \ClassError{paperTeX}{%
556 \protect\weatheritem\space in a wrong place.\MessageBreak
557 \protect\weatheritem\space may only appear inside weatherblock environment.
558 }{%
559 \protect\weatheritem\space may only appear inside weatherblock environment.\MessageBreak
560 weatherblock environment may only appear inside frontpage environment.
561 }%
562 }
563 }
```

Weather block.

```
564 \newenvironment{weatherblock}[1]
565 {
566 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
567 \setboolean{papertex@insideweather}{true}
568 \begin{textblock}{32}(2,38)
569 \vspace*{-15pt}
570
571 \hfill\papertex@weather{#1}
572
573 \vspace*{5pt}
574
575 \noindent\begin{papertex@fmpage}{32\TPHorizModule}
576 \begin{minipage}{32\TPHorizModule}
577 \hspace{5pt}
578
579 }{%
580 \ClassError{paperTeX}{%
581 weatherblock in a wrong place.\MessageBreak
582 weatherblock may only appear inside frontpage environment.
583 }{%
584 weatherblock may only appear inside frontpage environment.
585 }
586 }
587 }%
588 {
589 \end{minipage}
590 \end{papertex@fmpage}
591 \end{textblock}
592 \setboolean{papertex@insideweather}{false}
593 }
```

Author block.

```
594 \newenvironment{authorblock}[0]
595 {
596 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
597 \begin{textblock}{15}(36,35)
598 \setlength{\fboxsep}{5pt}
599 \begin{papertex@fmpage}{13\TPHorizModule}
```

```
600 \begin{minipage}{13\TPHorizModule}
601 \centering
602 \minilogo
603
604 }{%else
605 \ClassError{paperTeX}{%
606 authorblock in a wrong place.\MessageBreak
607 authorblock may only appear inside frontpage environment.
608 }{%
609 authorblock may only appear inside frontpage environment.
610 }
611 }
612 }
613 {
614 \end{minipage}
615 \end{papertex@fmpage}
616 \end{textblock}
617 }
```

Main index block.

```
618 \newenvironment{indexblock}[1]
619 {
620 \ifthenelse{\boolean{papertex@insidefrontpage}}{%
621 \setboolean{papertex@insideindex}{true}%let's in
622 \begin{textblock}{15}(36,16)
623 \setlength{\papertex@indexwidth}{13\TPHorizModule}
624 \papertex@indexFrameTitle{#1}
625
626 \setlength{\fboxsep}{5pt} %espacio entre el frame y la imagen
627 \begin{papertex@fmpage}{\papertex@indexwidth}
628 \begin{minipage}{\papertex@indexwidth}
629 \vspace*{10pt}
630 }{%else
631 \ClassError{paperTeX}{%
632 indexblock in a wrong place.\MessageBreak
633 indexblock may only appear inside frontpage environment.
634 }{%
635 indexblock may only appear inside frontpage environment.
636 }
637 }
638 }%
639 {
640 \end{minipage}
641 \end{papertex@fmpage}
642 \end{textblock}
643 \setboolean{papertex@insideindex}{false}%let's out
644 }
```

Index item.

```
645 \newcommand{\indexitem}[2]
```

```
646 {
647 \ifthenelse{\boolean{papertex@insideindex}}{
648 \papertex@indexEntry{#1~\papertex@indexEntryPage{\pageref{#2}}}}
649
650 \vspace{0.5cm}
651
652 \noindent\ignorespaces\indexEntrySeparator{}
653 }{%else
654 \ClassError{paperTeX}{%
655 \protect\indexitem\space in a wrong place.\MessageBreak
656 \protect\indexitem\space may only appear inside indexblock environment.
657 }{%
658 \protect\indexitem\space may only appear inside indexblock environment.\MessageBreak
659 indexblock environment may only appear inside frontpage environment.
660 }%
661 }
662 }
```

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.

```
663 \newcommand{\papertex@inexpandedtitle}[1]{
664 \begin{minipage}{.95\textwidth}
665 \begin{center}
666 \noindent\Large\textbf{#1}
667 \end{center}
668 \end{minipage}
669 }
670
671 \newcommand{\expandedtitle}[2]{
672 \end{multicols}
673
674 \begin{center}
675 \setlength{\fboxsep}{5pt}
676 \setlength{\shadowsize}{2pt}
677 \ifthenelse{\equal{#1}{shadowbox}}{%
678 \shadowbox{%
679 \papertex@inexpandedtitle{#2}%
680 }%
681 }{}
682 \ifthenelse{\equal{#1}{doublebox}}{%
683 \doublebox{%
684 \papertex@inexpandedtitle{#2}%
685 }%
686 }{}
687 \ifthenelse{\equal{#1}{ovalbox}}{%
```

```
688 \ovalbox{%
689 \papertex@inexpandedtitle{#2}%
690 }%
691 }{}
692 \ifthenelse{\equal{#1}{Ovalbox}}{%
693 \Ovalbox{%
694 \papertex@inexpandedtitle{#2}%
695 }%
696 }{}
697 \ifthenelse{\equal{#1}{lines}}{
698 \hrule
699 \vspace*{8pt}
700 \begin{center}
701 \noindent\Large\textbf{#2}
702 \end{center}
703 \vspace*{8pt}
704 \hrule
705 }{}
706 \end{center}
707
708 \begin{multicols}{\papertex@ncolumns{}}
709 }
```

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

```
710 \newcommand{\papertex@incolumntitle}[2]{
711 \begin{minipage}{#1}
712 \begin{center}
713 \noindent\normalsize\textbf{#2}
714 \end{center}
715 \end{minipage}
716 }
717
718 \newcommand{\columntitle}[2]{
719 \vspace*{5pt}
720 \begin{center}
721 \setlength{\fboxsep}{5pt}
722 \setlength{\shadowsize}{2pt}
723 \addtolength{\papertex@coltitsize}{\columnwidth}
724 \addtolength{\papertex@coltitsize}{-1\columnsep}
725 \addtolength{\papertex@coltitsize}{-5pt}
726 \addtolength{\papertex@coltitsize}{-1\shadowsize}
727 \ifthenelse{\equal{#1}{shadowbox}}{%
728 \shadowbox{%
729 \papertex@incolumntitle{\papertex@coltitsize}{#2}%
730 }%
731 }{}
732 \ifthenelse{\equal{#1}{doublebox}}{%
733 \doublebox{%
734 \papertex@incolumntitle{\papertex@coltitsize}{#2}%
735 }%
```

```
736 }{}
737 \ifthenelse{\equal{#1}{ovalbox}}{%
738 \ovalbox{%
739 \papertex@incolumntitle{\papertex@coltitsize}{#2}%
740 }%
741 }{}
742 \ifthenelse{\equal{#1}{Ovalbox}}{%
743 \Ovalbox{%
744 \papertex@incolumntitle{\papertex@coltitsize}{#2}%
745 }%
746 }{}
747 \ifthenelse{\equal{#1}{lines}}{
748 \hrule
749 \vspace*{5pt}
750 \begin{center}
751 \noindent\normalsize\textbf{#2}
752 \end{center}
753 \vspace*{5pt}
754 \hrule
755 }{}
756 \end{center}
757 }
```

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.

```
758 \renewcommand{\date}{%
759 \longdate{\today}%
760 }
```

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

```
761 \newcommand{\authorandplace}[2]{%
762 \rightline{%
763 {\innerAuthorFormat #1},\space{}{\innerPlaceFormat #2}%
764 }%
765 \par %
766 }
```

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.

```
767 \newcommand{\newsection}[1]{
768 \pdfbookmark[0]{#1}{\thepage} %bookmark para el pdf
769 \renewcommand{\papertex@section}{#1}
770 }
```

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.

```
771 \newenvironment{news}[5]
772 {
773 \papertex@say{Adding a new piece of news}
774 \renewcommand{\papertex@ncolumns}{#1}
775 \begin{multicols}{#1}[%
776 \papertex@pages{#4}
777 \papertex@innerTitle{#2}%
778 \papertex@innerSubtitle{#3}%
779 ][4cm]%
780 \phantomsection
781 \pdfbookmark[1]{#2}{\thepage}
782 \label{#5}
783 }
784 {~\innerTextFinalMark{}
785 \end{multicols}
786 }
```

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.

```
787 \newcommand{\newssep}{%
788 \setlength{\papertex@pageneed}{16000pt}
789 \setlength\papertex@pageleft{\pagegoal}
790 \addtolength\papertex@pageleft{-\pagetotal}
791
792 \papertex@say{How much left \the\papertex@pageleft}
793
794 \ifdim \papertex@pageneed < \papertex@pageleft
795 \papertex@say{Not enough space}
796 \else
797 \papertex@say{Adding sep line between news}
798 \vspace*{10pt plus 10pt minus 5pt}
799 \hrule
800 \vspace*{10pt plus 5pt minus 5pt}
801 \fi
802
803 }
```

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.

```
804 \newcommand{\papertex@editorialTit}[2]{
805 \setlength{\arrayrulewidth}{.1pt}
806 \begin{center}
807 \begin{tabular}{c}
808 \noindent
```

```
809 \papertex@editorialTitle{#1}
810 \vspace{2pt plus 1pt minus 1pt}
811 \\
812 \hline
813 \vspace{2pt plus 1pt minus 1pt}
814 \\
815 \editorialAuthorFormat{#2}
816 \end{tabular}
817 \end{center}
818 }
```

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

```
819 \newenvironment{editorial}[4]
820 {
821 \papertex@say{Adding a new editorial}
822 \begin{multicols}{#1}[%
823 \papertex@editorialTit{#2}{#3}%
824 ][4cm]
825 \phantomsection
826 \pdfbookmark[1]{#2}{\thepage}
827 \label{#4}
828 }
829 {
830 \end{multicols}
831 }
```

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

```
832 \newcommand{\papertex@shortnewsTit}[2]{
833 \begin{center}
834 \vbox{%
835 \noindent
836 \papertex@shortnewsTitle{#1}
837 \vspace{4pt plus 2pt minus 2pt}
838 \hrule
839 \vspace{4pt plus 2pt minus 2pt}
840 \papertex@shortnewsSubtitle{#2}
841 }
842 \end{center}
843 }
```

Next environment introduces a short news group.

```
844 \newenvironment{shortnews}[4]
845 {
846 \papertex@say{Adding a short news block}
847 \begin{multicols}{#1}[\papertex@shortnewsTit{#2}{#3}][4cm] %
848 \phantomsection
849 \pdfbookmark[1]{#2}{\thepage}
850     \label{#4}
```

```
851 \par %
852 }
853 {
854 \end{multicols}
855 }
```

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

```
856 \newcommand{\shortnewsitem}[2]{
857 \goodbreak
858 {\vbox{\noindent\papertex@shortnewsItemTitle{#1}}}
859 \vspace{5pt plus 3pt minus 3pt}
860 {\noindent #2}\\
861 }
```