

The ‘fvrb-ex’ package

Example environments with the ‘fancyvrb’ package

Denis Girou
CNRS/IDRIS
Orsay – France
email: Denis.Girou@idris.fr

Version 1.9
May 16, 2010

Abstract

This package, built above the ‘fancyvrb’ one (from Timothy VAN ZANDT), offer several kinds of the so-called *example* environments to format some code both in “verbatim” mode and in the “normal” way, below or on the side. The advantage of such environments is that the code itself is included only one time in the source code, which allow to be sure of the consistence of the two versions shown.

Some other kinds of such environments are specially devoted to graphics, allowing to give the size of them. It is possible in this case to draw also a grid.

Contents			
1 Introduction	2	5 ‘fvrb-ex’ code	9
2 User interface	2	5.1 Preamble and options management	9
2.1 Environments	2	5.2 The various example environments	11
2.2 Loading options	3	5.3 General macros	12
2.3 ‘fancyvrb’ options imposed	3	5.4 Example environments using the pspicture PSTricks one	13
3 Usage examples	4	6 ‘hbaw’ code	14
3.1 Usage of the environments	4	7 ‘hcolor’ code	18
3.2 Usage of the ‘hbaw’ and ‘hcolor’ packages	8	8 Test file	21
3.3 Thanks	8		
4 Driver file	9		

1 Introduction

These macros are based on some previous work of Timothy VAN ZANDT, adapted and developed to suit my personal needs.

This package is built above the ‘fancyvrb’ one (from Timothy VAN ZANDT), to offer some *example* environments showing both the code and its result. Its main strength is that it allows to use all the power of ‘fancyvrb’, with its great number of customization parameters.

These macros can also be used in conjunction with the ‘hbaw’ and ‘hcolor’ packages, to allow to generate the verbatim code with some *highlighting* attributes to emphasize parts of the text. It can also produce different effects according to the choice of a *colored* or *black and white* version. This last facility was developed for slides, to allow to generate them both in color for projection and in black and white to distribute them as paper copy.

Some special environments for graphic drawings allow to define directly the size of them, without requiring to use also a *picture* environment. To be able to use them, the PSTricks package must be available, even if these specialized environments can be used for graphics built with another macro language than PSTricks.

Warning! You must be aware that it has been reported that this package doesn’t work at all on some platforms, due to the way the 8 bits characters are managed by some T_EX systems.

2 User interface

Warning! We suppose here that you already know the ‘fancyvrb’ package. If not, look at its own documentation!

2.1 Environments

Five new environments are defined:

Example : show the verbatim text and the formatted result below.

CenterExample : same than **Example**, but the result is centered.

SideBySideExample : show the formatted result on the left and the verbatim text on the right. The result is centered vertically according to the text.

PCenterExample : same than **CenterExample**, but the result is put inside a PSTricks `pspicture` environment. It is undefined if PSTricks is not available. It is specially devoted to graphic drawings, but not specially built with PSTricks itself. It requires to specify the dimensions of the graphic. In fact, it is the same thing than to use the **CenterExample** environment and to put the material inside a L^AT_EX `picture` or PSTricks `pspicture` environment, but it can be more convenient to have not to specify this one explicitly.

PSideByExample : same than **SideByExample**, but the result is put inside a PSTricks `pspicture` environment. The preceding comments for **PCenterExample** are of course also valid for it.

The syntax of the first three is:

```
\begin{EnvironmentName}[optional_fancyvrb_arguments]
.....
\end{EnvironmentName}
```

and for the two last ones:

```
\begin{EnvironmentName}[opt_fvrb_args][(x_min,y_min)](x_max,y_max)
.....
\end{EnvironmentName}
```

In these last cases, default values for `x_min` and `y_min` are 0.

2.2 Loading options

baw : allow highlighting for a *black and white* version. In this case the ‘**hbaw**’ will be loaded and its definitions will be active to emphasize texts.

color : allow highlighting for a *color* version. In this case the ‘**hcolor**’ will be loaded and its definitions will be active to emphasize texts.

bawcolor : doesn’t specify in the file if it will be a *black and white* or a *color* version to generate. A question will be asked interactively at compile time. This allows to generate at choice one of the two versions without any change in the file.

pstricks : require the loading of PSTricks (which of course must be available on the system) to be able to use the special environments devoted to graphics (but not at all mandatory PSTricks graphics).

Of course, these three keywords are mutually exclusive. If none of the **baw**, **color** or **bawcolor** keyword is specified, none of the supplementary files will be loaded.

2.3 ‘fancyvrb’ options imposed

The following ‘**fancyvrb**’ parameters are imposed:

gobble=2 : each line inside these environments is supposed to be indented by 2 characters. It only concerns the aspect of the source code, which will be more readable like that.

numbersep=3pt : it will be effective only if **numbers=left** or **numbers=right** will be chosen.

commentchar=W : it is the comment character for the source text, which will not be printed in the verbatim part, but executed in the formatted part. So, it allow to have the example not generated by the code shown, which can be surprising for readers and must be used only with care in special circumstances! Character chosen is 163 (\mathcal{L}). If it cannot be used on your system or if you have it inside your verbatim text, you must change it by yourself in the package file.

commandchars=XYZ : respectively the *escape*, *beginning of group* and *end of group* characters, to allow escape sequences (L^AT_EX commands as font and color changes) to be applied on the verbatim text, using the ‘`hbaw`’ or ‘`hcolor`’ packages. These characters are specially chosen to probably be used by nobody in their codes... Characters chosen are those of codes 167, 181 and 182 (μ). If they cannot be used on your system or if you have some of them inside your verbatim text, you must made yourself the relevant changes in the three files of the package.

3 Usage examples

3.1 Usage of the environments

```
1 \begin{Example}  
2   First verbatim line.  
3   Second verbatim line.  
4   Third verbatim line.  
5 \end{Example}
```

First verbatim line.
Second verbatim line.
Third verbatim line.

First verbatim line. Second verbatim line. Third verbatim line.

It is possible to customize the verbatim environments as in the standard way defined by ‘`fancyvrb`’, locally as argument of the environment¹, or globally using the `\fvset` command.

```
1 \begin{Example}[frame=lines,framerule=1mm,numbers=left]  
2   First verbatim line.  
3   Second verbatim line.  
4   Third verbatim line.  
5 \end{Example}
```

¹Take care that you must define these parameters directly for the `Example`, `CenterExample` and `SideBySideExample` environments, but that you must put them inside a `\fvset` macro for the `PCenterExample` and `PsideBySideExample` ones, as in these cases you can also specify some `PSTricks` parameters, using the `\psset` macro.

```

1 First verbatim line.
2 Second verbatim line.
3 Third verbatim line.

```

First verbatim line. Second verbatim line. Third verbatim line.

```

1 \begin{CenterExample}[frame=single,numbers=right]
2   First verbatim line.
3   Second verbatim line.
4   Third verbatim line.
5 \end{CenterExample}

```

```

First verbatim line.
Second verbatim line.
Third verbatim line.

```

```

1
2
3

```

First verbatim line. Second verbatim line. Third verbatim line.

```

1 \begin{SideBySideExample}
2   [xrightmargin=3cm,numbers=left]
3   First
4   Second
5 \end{SideBySideExample}

```

First Second ₁ First
 ₂ Second

As explained, the `PCenterExample` and `PSideBySideExample` environments, specially devoted to graphics, put their contents inside a `PSTricks pspicture` environment². So, we must define the size of it.

```

1 \fvset{frame=lines,framerule=0.5mm,numbers=left}
2
3 \begin{PCenterExample}(-0.5,-0.5)(0.5,0.5)
4   \setlength{\unitlength}{1cm}
5   \put(0,0){\circle{1}}
6 \end{PCenterExample}

```

```

1 \setlength{\unitlength}{1cm}
2 \put(0,0){\circle{1}}

```



²The * convention of the `pspicture` environment is not accepted here.

So, it is the same thing than to do:

```
1 \fvset{frame=lines,framerule=0.5mm,numbers=left}
2
3 \begin{CenterExample}
4   \setlength{\unitlength}{1cm}
5   \begin{picture}(1,1)(-0.5,-0.5)
6     \put(0,0){\circle{1}}
7   \end{picture}
8 \end{CenterExample}
```

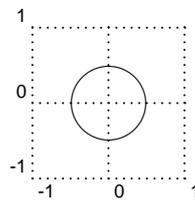
```
1 \setlength{\unitlength}{1cm}
2 \begin{picture}(1,1)(-0.5,-0.5)
3   \put(0,0){\circle{1}}
4 \end{picture}
```



Using the `\showgrid` macro, we can require to superpose the graphic above a grid, which can help to built it as desired. The size of the picture must be at least of 1 unit in this case, and the grid is rounded to the next greater integer.

```
1 \showgrid
2 \begin{PcenterExample}[frame=single,numbers=left](-1,-1)(1,1)
3   \setlength{\unitlength}{1cm}
4   \put(0,0){\circle{1}}
5 \end{PcenterExample}
```

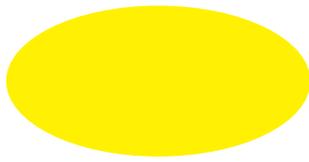
```
1 \setlength{\unitlength}{1cm}
2 \put(0,0){\circle{1}}
```



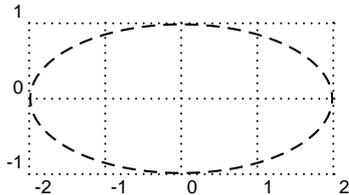
```

1 \fvset{frame=single,xrightmargin=5cm}
2 \begin{PSideBySideExample}(-2,-1)(2,1)
3   \psellipse*[linecolor=yellow](2,1)
4 \end{PSideBySideExample}
5
6 \showgrid
7 \begin{PSideBySideExample}(-2,-1)(2,1)
8   \psellipse[linestyle=dashed](2,1)
9 \end{PSideBySideExample}

```



```
\psellipse*[linecolor=yellow](2,1)
```



```
\psellipse[linestyle=dashed](2,1)
```

The special \mathcal{L} character defined as the comment for ‘fancyvrb’ must be used with care, as it allow to change the code run in the formatted part without showing these changes in the verbatim part. So, the code shown will not correspond any more in this case to the one which produce the result... (we must take care also to do not indent these lines, otherwise we will change the formatting...).

Nevertheless, in very special circumstances, it allow to do special tricks.

```

1 \begin{CenterExample}[frame=lines,framerule=0.5mm]
2   First verbatim line.
3    $\mathcal{L}$ \textit{%
4     Second verbatim line.
5   }
6    $\mathcal{L}$ \LARGE
7   Third verbatim line.
8 \end{CenterExample}

```

```

First verbatim line.
Second verbatim line.
Third verbatim line.

```

First verbatim line. *Second verbatim line.* Third verbatim line.

3.2 Usage of the ‘hbaw’ and ‘hcolor’ packages

If the option `baw`, `color` or `bawcolor` is chosen, we can use special commands to emphasize text in the verbatim formatting. It allow mainly to change the font or the color of special parts of the text.

Here we suppose that the package option `baw` for the ‘fvrb-ex’ has been chosen:

```

1 \begin{CenterExample}[frame=single,numbers=right]
2   HLaμFirst verbatim line.
3   HLbμSecond verbatim line.
4   HLCBwzμThird verbatim line.
5 \end{CenterExample}

```

```

1 First verbatim line.
2 Second verbatim line.
3 Third verbatim line.

```

First verbatim line. Second verbatim line. Third verbatim line.

```

1 \fvset{frame=single}
2 \begin{PSideBySideExample}[xrightmargin=5.5cm](-2,-1)(2,1)
3   \psellipse[linestyle=HLCBwzμdashed](2,1)
4 \end{PSideBySideExample}
5
6 \begin{PSideBySideExample}[xrightmargin=4.5cm](-2,-1)(2,1)
7   \psellipse[linestyle=HLbμdotted](2,1)
8 \end{PSideBySideExample}

```



```
\psellipse[linestyle=dashed](2,1)
```



```
\psellipse[linestyle=dotted](2,1)
```

3.3 Thanks

I thank you Sebastian RAHTZ <s.rahtz@elsevier.co.uk>, Thomas SIEGEL <siegel@aix520.informatik.uni-leipzig.de> and Rolf NIEPRASCHK <niepraschk@ptb.de> for their tests and comments on preliminary versions of this package.

4 Driver file

The next bit of code contains the documentation driver file for T_EX, i.e., the file that will produce the documentation you are currently reading. It will be extracted from this file by the `docstrip` program.

```
1 <*driver>
2 \documentclass{ltxdoc}
3 \GetFileInfo{fvrb-ex.dtx}
4 \usepackage[baw,pstricks]{fvrb-ex}
5 \EnableCrossrefs
6 \CodelineIndex
7 \RecordChanges
8 %%\OnlyDescription           % Comment it for implementation details
9 %\Oldmakeindex              % Uncomment if your MakeIndex is pre-0.9
10 \hbadness=7000              % Over and under full box warnings
11 \begin{document}
12 % To be able to use the letter "mu"
13 \catcode'\^^b5=\active
14 \def^^b5{ $\mu$ }
15 % To be able to use the letter "pound"
16 \catcode'\^^a3=\active
17 \def^^a3{ $\pounds$ }
18 \DocInput{fvrb-ex.dtx}
19 \end{document}
20 </driver>
```

5 ‘fvrb-ex’ code

`!*fvrb-ex!`

5.1 Preamble and options management

What we need.

```
21 \NeedsTeXFormat{LaTeX2e}
    Who we are.
22 \def\fileversion{1.9}
23 \def\filedate{2010/05/16}
24 \ProvidesPackage{fvrb-ex}[\filedate]
25 \message{‘fvrb-ex’ v\fileversion, \filedate\space (Denis Girou)}
    Require PSTricks if specified (to define the PCenterExample and PSideBySideExample
    environments).
26 \newif\ifpstricks\pstricksfalse
27 \let\LoadPSticks=\relax
28 \DeclareOption{pstricks}{\def\LoadPSticks{\RequirePackage{pstricks}}\pstrickstrue}
    Declaration of the explicit black and white version.
29 \DeclareOption{baw}{\def\ColorVersion{n}}
```

```

    Declaration of the explicit color version.
30 \DeclareOption{color}{\def\ColorVersion{y}}
    Declaration option to choose black and white or color version.
31 \DeclareOption{bawcolor}{\def\ColorVersion{?}}
    Process the options.
32 \ProcessOptions\relax
33 \LoadPStricks
    Require the ‘fancyvrb’ package.
34 \ifpstricks\RequirePackage{pstricks}\fi
35 \RequirePackage{fancyvrb}
    To ask an interactive question if necessary (code from ‘docstrip’).
36 \newread\ttyin
37 \def\iden#1{#1}
38 \def\strip#1#2 \@gobble{\def #1{#2}}
39 \def\@defpar{\par}
40 \def\@gobble#1{}
41 \def\Ask#1#2{%
42 \message{#2}\read\ttyin to #1\ifx#1\@defpar\def#1{}\else
43 \iden{\expandafter\strip\expandafter#1#1\@gobble\@gobble} \@gobble\fi}
    To be able to ask later to choose between color and black and white version.

\Answer@Yes
44 \def\Answer@Yes{y}

\Answer@No
45 \def\Answer@No{n}

\Question@Mark
46 \def\Question@Mark{?}

\Question@Color
47 \def\Question@Color{Color version? (y=yes)}

    For the highlighting style (color or black and white version), if defined.

\Highlight@Attributes
48 \def\Highlight@Attributes{} % Default=nothing

\NoHighlight@Attributes
49 \def\NoHighlight@Attributes{} % Default=nothing

    Forced choice of the black and white version.
50 \ifx\ColorVersion\Answer@Yes
51 \RequirePackage{color} % Standard LaTeX ‘color’ package
52 \RequirePackage{hcolor} % Color version
53 \fi

```

Forced choice of the *color* version.

```
54 \ifx\ColorVersion\Answer@No
55   \RequirePackage{color}           % Standard LaTeX 'color' package
56   \RequirePackage{hbaw}           % Black and white version
57 \fi
```

Choice of the highlighting style (color, black and white or nothing).

```
58 \ifx\ColorVersion\Question@Mark
59   \Ask\ColorVersion{^^J\Question@Color}
60   \ifx\ColorVersion\Answer@Yes
61     \RequirePackage{color}         % Standard LaTeX 'color' package
62     \RequirePackage{hcolor}       % Color version
63   \else
64     \RequirePackage{color}         % Standard LaTeX 'color' package
65     \RequirePackage{hbaw}         % Black and white version
66   \fi
67 \fi
```

Verbatim example environments must be indented by two spaces, which should be ignored.

```
68 \fvset{gobble=2}
```

To decide later if the result must be surimpose on a grid (useful only if PSTricks is available).

```
69 \newif\ifFvrbEx@Grid
```

5.2 The various example environments

Example `Example` is an environment to show the verbatim code and the result just below.

```
70 \def\Example{%
71   \catcode'\^^M=\active
72   \@ifnextchar[{\catcode'\^^M=5\Example@}{\catcode'\^^M=5\Begin@Example}]
```

`\endExample` is a macro for the `Example` environment to close the verbatim part and to put the formatted result below.

```
73 \def\endExample{%
74   \end{VerbatimOut}%
75   \Below@Example{\input{\jobname.tmp}}
```

`\Example@` `\Example@` is an internal macro to set locally the ‘`fancyvrb`’ options if needed (both for the `Example`, `CenterExample` and `SideBySideExample` environments).

```
76 \def\Example@[#1]{\fvset{#1}\Begin@Example}
```

CenterExample `CenterExample` is an environment to show the verbatim code and the result just below, inside a `center` environment.

```
77 \def\CenterExample{%
78   \catcode'\^^M=\active
79   \@ifnextchar[{\catcode'\^^M=5\Example@}{\catcode'\^^M=5\Begin@Example}]
```

`\endCenterExample` `\endCenterExample` is a macro for the `CenterExample` environment to close the verbatim part and to put the formatted result below, centering it.

```
80 \def\endCenterExample{%
81 \end{VerbatimOut}%
82 \center
83 \Below@Example{\input{\jobname.tmp}}
84 \endcenter}
```

`SideBySideExample` `SideBySideExample` is an environment to show the verbatim code and the result on the left, using a `minipage` environment.

```
85 \def\SideBySideExample{%
86 \catcode'\^M=\active
87 \@ifnextchar[{\catcode'\^M=5\Example@}%
88             {\catcode'\^M=5\Begin@Example}}
```

`\endSideBySideExample` `\endSideBySideExample` is a macro for the `SideBySideExample` environment to close the verbatim part and to put the formatted result on the left side.

```
89 \def\endSideBySideExample{%
90 \end{VerbatimOut}%
91 \SideBySide@Example{\input{\jobname.tmp}}}
```

5.3 General macros

`\Begin@Example` `\Begin@Example` is an internal macro to start an example environment.

```
92 \newcommand{\Begin@Example}{%
93 \parindent=0pt
94 \multiply\topsep by 2
95 \VerbatimEnvironment
96 \begin{VerbatimOut}[codes={\catcode'\^a3=12\catcode'\^a7=12\catcode'\^b5=12%
97             \catcode'\^b6=12}]{\jobname.tmp}}
```

`\Below@Example` `\Below@Example` is an internal macro to insert the verbatim part and to put the formatted result just below. The possible highlighting must be suppressed and the comment character deactivated before to input the formatted part.

```
98 \newcommand{\Below@Example}[1]{%
99 \VerbatimInput[gobble=0,commentchar=^a3,commandchars=^a7^b5^b6,numbersep=3pt]%
100             {\jobname.tmp}
101 \catcode'\^a3=9\relax%
102 \NoHighlight@Attributes % To suppress possible highlighting
103 \ifFvrbEx@Grid\vspace{5pt}\fi
104 #1%
105 \ifFvrbEx@Grid\vspace{5pt}\fi
106 \par}
```

`\SideBySide@Example` `\SideBySide@Example` is an internal macro to insert the verbatim part and to put the formatted result on the left side, using a `minipage` environment. The possible highlighting must be suppressed and the comment character deactivated before to input the formatted part.

```

107 \newcommand{\SideBySide@Example}[1]{%
108 \@tempdimb=\FV@XRightMargin
109 \advance\@tempdimb -5mm
110 \begin{minipage}[c]{\@tempdimb}
111 \fvset{xrightmargin=0pt}
112 \catcode'\^a3=9\relax%
113 \NoHighlight@Attributes % To suppress possible highlighting
114 #1
115 \end{minipage}%
116 \@tempdimb=\textwidth
117 \advance\@tempdimb -\FV@XRightMargin
118 \advance\@tempdimb 5mm
119 \begin{minipage}[c]{\@tempdimb}
120 \VerbatimInput[gobble=0,commentchar=^a3,commandchars=^a7^b5^b6,numbersep=3pt,
121 xleftmargin=5mm,xrightmargin=0pt]{\jobname.tmp}
122 \end{minipage}}

```

5.4 Example environments using the pspicture PSTricks one

Of course, PSTricks must be available to be able to use them.

```

123 \ifx\PSTricksLoaded\endinput
      Grid definition (using PSTricks).
124 \newcommand{\showgrid}{\FvrEx@Gridtrue}
125 \newsobject{FvrExGrid}{psgrid}{subgriddiv=0,griddots=10,gridlabels=7pt}
PCenterExample   PCenterExample is an environment to show the verbatim code and the result
                  just below, inside a center environment.
126 \def\PCenterExample{\@ifnextchar[{\Pst@Example}{\Pst@@Example}}

\endPCenterExample \endPCenterExample is a macro for the PCenterExample environment to close the
                    verbatim part and to put the formatted result below, inside a PSTricks pspicture
                    environment, and centering it.
127 \def\endPCenterExample{%
128 \end{VerbatimOut}%
129 \Below@Example{%
130 \center
131 \expandafter\pspicture\Picture@Size
132 \ifFvrEx@Grid\FvrExGrid\fi\relax
133 \input{\jobname.tmp}%
134 \endpspicture
135 \endcenter
136 \smallskip}}

PSideBySideExample   PSideBySideExample is an environment to show the verbatim code and to put
                      the formatted result on the left side, inside a PSTricks pspicture environment.
137 \def\PSideBySideExample{\@ifnextchar[{\Pst@Example}{\Pst@@Example}}

```

`\endPSideBySideExample` `\endPSideBySideExample` is a macro for the `PSideBySideExample` environment to close the verbatim code and to put the formatted result on the left side, inside a `PSTricks` `pspicture` environment.

```

138 \def\endPSideBySideExample{%
139   \end{VerbatimOut}%
140   \SideBySide@Example{%
141     \ifFvrbEx@Grid\vspace{5pt}\fi
142     \expandafter\pspicture\Picture@Size
143     \ifFvrbEx@Grid\FvrbExGrid\fi\relax
144     \input{\jobname.tmp}%
145     \endpspicture
146     \ifFvrbEx@Grid\vspace{5pt}\fi
147     \smallskip}}

```

`\Pst@Example` `\Pst@Example` is an internal macro to set locally the ‘`fancyvrb`’ options if needed (both for `PCenterExample` and `PSideBySideExample` environments).

```

148 \def\Pst@Example[#1]{\fvset{#1}\Pst@@Example}

```

`\Pst@@Example` `\Pst@@Example` is an internal macro to define the starting point of the `pspicture` environment to used.

```

149 \def\Pst@@Example#1(#2,#3){%
150   \catcode'\^M=\active
151   \@ifnextchar({\catcode'\^M=5\Pst@@@Example(#2,#3)}
152               {\catcode'\^M=5\Pst@@@Example(0,0)(#2,#3)}}

```

`\Pst@@@Example` `\Pst@@@Example` is an internal macro to transmit the size of the `pspicture` environment to used and to call the relevant internal macro to insert the verbatim part.

```

153 \def\Pst@@@Example(#1,#2)(#3,#4){%
154   \def\Picture@Size{(#1,#2)(#3,#4)}%
155   \Begin@Example}

```

End of the code for environments using `PSTricks`.

```

156 \fi                                     % End \ifx\PSTricksLoaded
i/fvrb-exi

```

6 ‘`hbaw`’ code

i*hbawi

What we need.

```

157 \NeedsTeXFormat{LaTeX2e}

```

Who we are.

```

158 \def\fileversion{1.4}

```

```

159 \def\filedate{1998/03/19}

```

```

160 \ProvidesPackage{hbaw}[\filedate]

```

```

161 \message{‘hbaw’ v\fileversion, \filedate\space (Denis Girou)}

```

`\FvrbEx@ColoredBox` `\FvrbEx@ColoredBox` is an internal macro to print some text in bold face in a defined color, inside a colored box of another color.

```

162 \newcommand{\FvrbEx@ColoredBox}[3]{%
163 \fboxsep=1pt\fcolorbox{#2}{#2}{\textcolor{#3}{\textbf{#1}}}}

```

`\Highlight@Attributes` `\Highlight@Attributes` is an internal macro to define a serie of highlighting macros to emphasize text in a black and white mode. All have a corresponding version in color mode, using the ‘hcolor’ package. We take care here of possible mathematic material.

```

164 \def\Highlight@Attributes{%

```

Some font changes.

```

165 \def\HLbFa##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}
166 \def\HLbFb##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}
167 \def\HLc##1{##1}
168 \def\HLd##1{##1}
169 \def\HLe##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}
170 \def\HLf##1{##1}
171 \def\HLq##1{##1}
172 \def\HLr##1{##1}
173 \def\HLz##1{##1}

```

Bold text.

```

174 \def\HLBFa##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}
175 \def\HLBFb##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}
176 \def\HLBFc##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}
177 \def\HLBFd##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}
178 \def\HLBFe##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}
179 \def\HLBFf##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}
180 \def\HLBFz##1{\ifmmode\mathbf{##1}\else\textbf{##1}\fi}

```

Italic text (`\textsl` rather than `\textit` due to the problem of the coding of the \$ character).

```

181 \def\HLITa##1{\ifmmode\mathnormal{##1}\else\textsl{##1}\fi}
182 \def\HLITb##1{\ifmmode\mathnormal{##1}\else\textsl{##1}\fi}
183 \def\HLITc##1{\ifmmode\mathnormal{##1}\else\textsl{##1}\fi}
184 \def\HLITd##1{\ifmmode\mathnormal{##1}\else\textsl{##1}\fi}
185 \def\HLITe##1{\ifmmode\mathnormal{##1}\else\textsl{##1}\fi}
186 \def\HLITf##1{\ifmmode\mathnormal{##1}\else\textsl{##1}\fi}
187 \def\HLITz##1{\ifmmode\mathnormal{##1}\else\textsl{##1}\fi}

```

Small capitals text.

```

188 \def\HLSCa##1{\ifmmode\mathit{##1}\else\textsc{##1}\fi}
189 \def\HLSCb##1{\ifmmode\mathit{##1}\else\textsc{##1}\fi}
190 \def\HLSCc##1{\ifmmode\mathit{##1}\else\textsc{##1}\fi}
191 \def\HLSCd##1{\ifmmode\mathit{##1}\else\textsc{##1}\fi}
192 \def\HLSCe##1{\ifmmode\mathit{##1}\else\textsc{##1}\fi}
193 \def\HLSCf##1{\ifmmode\mathit{##1}\else\textsc{##1}\fi}
194 \def\HLSCz##1{\ifmmode\mathit{##1}\else\textsc{##1}\fi}

```

Teletype writer text.

```
195 \def\HLTTa##1{\ifmmode\mathtt{##1}\else\texttt{##1}\fi}
196 \def\HLTTb##1{\ifmmode\mathtt{##1}\else\texttt{##1}\fi}
197 \def\HLTTc##1{\ifmmode\mathtt{##1}\else\texttt{##1}\fi}
198 \def\HLTTd##1{\ifmmode\mathtt{##1}\else\texttt{##1}\fi}
199 \def\HLTTe##1{\ifmmode\mathtt{##1}\else\texttt{##1}\fi}
200 \def\HLTTf##1{\ifmmode\mathtt{##1}\else\texttt{##1}\fi}
201 \def\HLTTg##1{\ifmmode\mathtt{##1}\else\texttt{##1}\fi}
202 \def\HLTTTr##1{\ifmmode\mathtt{##1}\else\texttt{##1}\fi}
203 \def\HLTTz##1{\ifmmode\mathtt{##1}\else\texttt{##1}\fi}
```

Italic and teletype writer text.

```
204 \def\HLITTa##1{\ifmmode\mathtt{##1}\else\textsl{\texttt{##1}}\fi}
205 \def\HLITTB##1{\ifmmode\mathtt{##1}\else\textsl{\texttt{##1}}\fi}
206 \def\HLITTC##1{\ifmmode\mathtt{##1}\else\textsl{\texttt{##1}}\fi}
207 \def\HLITTD##1{\ifmmode\mathtt{##1}\else\textsl{\texttt{##1}}\fi}
208 \def\HLITTE##1{\ifmmode\mathtt{##1}\else\textsl{\texttt{##1}}\fi}
209 \def\HLITTF##1{\ifmmode\mathtt{##1}\else\textsl{\texttt{##1}}\fi}
210 \def\HLITTZ##1{\ifmmode\mathtt{##1}\else\textsl{\texttt{##1}}\fi}
```

Black text inside a colored box.

```
211 \def\HLCBba##1{\FvrbEx@ColoredBox{##1}{blue}{black}}
212 \def\HLCBBb##1{\FvrbEx@ColoredBox{##1}{cyan}{black}}
213 \def\HLCBbc##1{\FvrbEx@ColoredBox{##1}{green}{black}}
214 \def\HLCBbd##1{\FvrbEx@ColoredBox{##1}{magenta}{black}}
215 \def\HLCBbe##1{\FvrbEx@ColoredBox{##1}{red}{black}}
216 \def\HLCBbf##1{\FvrbEx@ColoredBox{##1}{yellow}{black}}
217 \def\HLCBBz##1{\FvrbEx@ColoredBox{##1}{black}{black}}
```

White text inside a colored box (we replace cyan and yellow by green because these colors are not well seen in black and white mode).

```
218 \def\HLCBwa##1{\FvrbEx@ColoredBox{##1}{blue}{white}}
219 \def\HLCBwb##1{\FvrbEx@ColoredBox{##1}{green}{white}}
220 \def\HLCBwc##1{\FvrbEx@ColoredBox{##1}{green}{white}}
221 \def\HLCBwd##1{\FvrbEx@ColoredBox{##1}{magenta}{white}}
222 \def\HLCBwe##1{\FvrbEx@ColoredBox{##1}{red}{white}}
223 \def\HLCBwf##1{\FvrbEx@ColoredBox{##1}{green}{white}}
224 \def\HLCBwz##1{\FvrbEx@ColoredBox{##1}{black}{white}}
```

Underlined text.

```
225 \def\HLSa##1{\underline{##1}}
226 \def\HLSb##1{\underline{##1}}
227 \def\HLSc##1{\underline{##1}}
228 \def\HLSd##1{\underline{##1}}
229 \def\HLSe##1{\underline{##1}}
230 \def\HLSf##1{\underline{##1}}
231 \def\HLSz##1{\underline{##1}}
```

Underlined text (same than preceding in this black and white version).

```
232 \def\HLSaa##1{\underline{##1}}
233 \def\HLSbb##1{\underline{##1}}
```

```

234 \def\HLScc##1{\underline{##1}}
235 \def\HLSdd##1{\underline{##1}}
236 \def\HLSee##1{\underline{##1}}
237 \def\HLSeff##1{\underline{##1}}
238 \def\HLSez##1{\underline{##1}}
      End of \Highlight@Attributes.
239 }

```

`\NoHighlight@Attributes` `\NoHighlight@Attributes` is an internal macro to inhibit all the highlighting macros define by `\Highlight@Attributes`. It is necessary to call it before to insert the formatted part, as highlighting process must concern only the verbatim part.

```

240 \def\NoHighlight@Attributes{%
      First, we re-establish the active catcodes for the verbatim mode.
241 \catcode'\^^a7=0\relax%
242 \catcode'\^^b5=1\relax%
243 \catcode'\^^b6=2\relax%
      Desactivation of the highlighting macros.
244 \def\HLa##1{##1}%
245 \def\HLb##1{##1}%
246 \def\HLc##1{##1}%
247 \def\HLd##1{##1}%
248 \def\HLe##1{##1}%
249 \def\HLf##1{##1}%
250 \def\HLBFa##1{##1}%
251 \def\HLBFb##1{##1}%
252 \def\HLBFc##1{##1}%
253 \def\HLBFd##1{##1}%
254 \def\HLBFe##1{##1}%
255 \def\HLBFf##1{##1}%
256 \def\HLITa##1{##1}%
257 \def\HLITb##1{##1}%
258 \def\HLITc##1{##1}%
259 \def\HLITd##1{##1}%
260 \def\HLITe##1{##1}%
261 \def\HLITf##1{##1}%
262 \def\HLCBBa##1{##1}%
263 \def\HLCBBb##1{##1}%
264 \def\HLCBBc##1{##1}%
265 \def\HLCBBd##1{##1}%
266 \def\HLCBBe##1{##1}%
267 \def\HLCBBf##1{##1}%
268 \def\HLCBBz##1{##1}%
269 \def\HLCBwa##1{##1}%
270 \def\HLCBwb##1{##1}%
271 \def\HLCBwc##1{##1}%
272 \def\HLCBwd##1{##1}%

```

```

273 \def\HLCBWe##1{##1}%
274 \def\HLCBwf##1{##1}%
275 \def\HLCBWz##1{##1}%
      End of \NoHighlight@Attributes.
276 }
      Activation of the highlighting macros.
277 \Highlight@Attributes
      i/hbaw¿

```

7 ‘hcolor’ code

```

i*hcolor¿
      What we need.
278 \NeedsTeXFormat{LaTeX2e}
      Who we are.
279 \def\fileversion{1.4}
280 \def\filedate{1998/03/19}
281 \ProvidesPackage{hcolor}[\filedate]
282 \message{‘hcolor’ v\fileversion, \filedate\space (Denis Girou)}

```

`\FvrEx@ColoredUnderline` `\FvrEx@ColoredUnderline` is an internal macro to underline some text in color.

```

283 \newcommand{\FvrEx@ColoredUnderline}[3]{%
284 $\setbox\z@\hbox{\begingroup#3\endgroup}%
285 \dp\z@\z@\m@th\color{#1}\underline{\textcolor{#2}{\box\z@}}$}

```

`\FvrEx@ColoredBox` `\FvrEx@ColoredBox` is an internal macro to print some text in bold face in a defined color, inside a colored box of another color.

```

286 \newcommand{\FvrEx@ColoredBox}[3]{%
287 \fboxsep=1pt\fcolorbox{#2}{#2}{\textcolor{#3}{\textbf{#1}}}}

```

`\Highlight@Attributes` `\Highlight@Attributes` is an internal macro to define a serie of highlighting macros to emphasize text in a black and white mode. All have a corresponding version in black and white mode, using the ‘hbaw’ package. We do not take care here of possible mathematic material, but it can be done...

```

288 \def\Highlight@Attributes{%
      Some font changes.
289 \def\HLa##1{\textcolor{blue}{##1}}
290 \def\HLb##1{\textcolor{cyan}{##1}}
291 \def\HLc##1{\textcolor{green}{##1}}
292 \def\HLd##1{\textcolor{magenta}{##1}}
293 \def\HLe##1{\textcolor{red}{##1}}
294 \def\HLf##1{\textcolor{yellow}{##1}}
295 \def\HLq##1{\textcolor{PaleGreen}{##1}}
296 \def\HLr##1{\textcolor{SlateBlue}{##1}}
297 \def\HLz##1{\textcolor{black}{##1}}

```

Colored bold text.

```
298 \def\HLBFa##1{\textcolor{blue}{\textbf{##1}}}
299 \def\HLBFb##1{\textcolor{cyan}{\textbf{##1}}}
300 \def\HLBFc##1{\textcolor{green}{\textbf{##1}}}
301 \def\HLBFd##1{\textcolor{magenta}{\textbf{##1}}}
302 \def\HLBFe##1{\textcolor{red}{\textbf{##1}}}
303 \def\HLBFf##1{\textcolor{yellow}{\textbf{##1}}}
304 \def\HLBFz##1{\textcolor{black}{\textbf{##1}}}
```

Colored italic text (`\textsl` rather than `\textit` due to the problem of the \$ character).

```
305 \def\HLITa##1{\textcolor{blue}{\textsl{##1}}}
306 \def\HLITb##1{\textcolor{cyan}{\textsl{##1}}}
307 \def\HLITc##1{\textcolor{green}{\textsl{##1}}}
308 \def\HLITd##1{\textcolor{magenta}{\textsl{##1}}}
309 \def\HLITe##1{\textcolor{red}{\textsl{##1}}}
310 \def\HLITf##1{\textcolor{yellow}{\textsl{##1}}}
311 \def\HLITz##1{\textcolor{black}{\textsl{##1}}}
```

Colored small capitals text.

```
312 \def\HLSCa##1{\textcolor{blue}{\textsc{##1}}}
313 \def\HLSCb##1{\textcolor{cyan}{\textsc{##1}}}
314 \def\HLSCc##1{\textcolor{green}{\textsc{##1}}}
315 \def\HLSCd##1{\textcolor{magenta}{\textsc{##1}}}
316 \def\HLSCe##1{\textcolor{red}{\textsc{##1}}}
317 \def\HLSCf##1{\textcolor{yellow}{\textsc{##1}}}
318 \def\HLSCz##1{\textcolor{black}{\textsc{##1}}}
```

Colored teletype writer text.

```
319 \def\HLTTa##1{\textcolor{blue}{\texttt{##1}}}
320 \def\HLTTb##1{\textcolor{cyan}{\texttt{##1}}}
321 \def\HLTTc##1{\textcolor{green}{\texttt{##1}}}
322 \def\HLTTd##1{\textcolor{magenta}{\texttt{##1}}}
323 \def\HLTTe##1{\textcolor{red}{\texttt{##1}}}
324 \def\HLTTf##1{\textcolor{yellow}{\texttt{##1}}}
325 \def\HLTTq##1{\textcolor{ForestGreen}{\texttt{##1}}}
326 \def\HLTTt##1{\textcolor{PineGreen}{\texttt{##1}}}
327 \def\HLTTz##1{\textcolor{black}{\texttt{##1}}}
```

Colored italic and teletype writer text.

```
328 \def\HLITTTa##1{\textcolor{blue}{\textsl{\texttt{##1}}}}
329 \def\HLITTTb##1{\textcolor{cyan}{\textsl{\texttt{##1}}}}
330 \def\HLITTTc##1{\textcolor{green}{\textsl{\texttt{##1}}}}
331 \def\HLITTTd##1{\textcolor{magenta}{\textsl{\texttt{##1}}}}
332 \def\HLITTTe##1{\textcolor{red}{\textsl{\texttt{##1}}}}
333 \def\HLITTTf##1{\textcolor{yellow}{\textsl{\texttt{##1}}}}
334 \def\HLITTTz##1{\textcolor{black}{\textsl{\texttt{##1}}}}
```

Black text inside a colored box.

```
335 \def\HLCBBa##1{\FvrbEx@ColoredBox{##1}{blue}{black}}
336 \def\HLCBBb##1{\FvrbEx@ColoredBox{##1}{cyan}{black}}
```

```

337 \def\HLCBBc##1{\FvrbEx@ColoredBox{##1}{green}{black}}
338 \def\HLCBBd##1{\FvrbEx@ColoredBox{##1}{magenta}{black}}
339 \def\HLCBBe##1{\FvrbEx@ColoredBox{##1}{red}{black}}
340 \def\HLCBBf##1{\FvrbEx@ColoredBox{##1}{yellow}{black}}
341 \def\HLCBBz##1{\FvrbEx@ColoredBox{##1}{black}{black}}

```

White text inside a colored box.

```

342 \def\HLCBwa##1{\FvrbEx@ColoredBox{##1}{blue}{white}}
343 \def\HLCBwb##1{\FvrbEx@ColoredBox{##1}{cyan}{white}}
344 \def\HLCBwc##1{\FvrbEx@ColoredBox{##1}{green}{white}}
345 \def\HLCBwd##1{\FvrbEx@ColoredBox{##1}{magenta}{white}}
346 \def\HLCBwe##1{\FvrbEx@ColoredBox{##1}{red}{white}}
347 \def\HLCBwf##1{\FvrbEx@ColoredBox{##1}{yellow}{white}}
348 \def\HLCBwz##1{\FvrbEx@ColoredBox{##1}{black}{white}}

```

Colored underlined text.

```

349 \def\HLSa##1{\color{blue}\underline{##1}}
350 \def\HLSb##1{\color{cyan}\underline{##1}}
351 \def\HLSc##1{\color{green}\underline{##1}}
352 \def\HLSd##1{\color{magenta}\underline{##1}}
353 \def\HLSe##1{\color{red}\underline{##1}}
354 \def\HLSf##1{\color{yellow}\underline{##1}}
355 \def\HLSz##1{\color{black}\underline{##1}}

```

Colored underlined colored text (with the same color).

```

356 \def\HLSaa##1{\FvrbEx@ColoredUnderline{blue}{black}{##1}}
357 \def\HLSbb##1{\FvrbEx@ColoredUnderline{cyan}{black}{##1}}
358 \def\HLScc##1{\FvrbEx@ColoredUnderline{green}{black}{##1}}
359 \def\HLSdd##1{\FvrbEx@ColoredUnderline{magenta}{black}{##1}}
360 \def\HLSee##1{\FvrbEx@ColoredUnderline{red}{black}{##1}}
361 \def\HLSff##1{\FvrbEx@ColoredUnderline{yellow}{black}{##1}}
362 \def\HLSzz##1{\FvrbEx@ColoredUnderline{black}{black}{##1}}

```

End of `\Highlight@Attributes`.

```
363 }
```

`\NoHighlight@Attributes` `\NoHighlight@Attributes` is an internal macro to inhibit all the highlighting macros define by `\Highlight@Attributes`. It is necessary to call it before to insert the formatted part, as highlighting process must concern only the verbatim one.

```
364 \def\NoHighlight@Attributes{%
```

First, we re-establish the active catcodes for the verbatim mode.

```

365 \catcode'\^^a7=0\relax%
366 \catcode'\^^b5=1\relax%
367 \catcode'\^^b6=2\relax%

```

Desactivation of the highlighting macros.

```

368 \def\HLa##1{##1}%
369 \def\HLb##1{##1}%
370 \def\HLc##1{##1}%

```

```

371 \def\HLd##1{##1}%
372 \def\HLe##1{##1}%
373 \def\HLf##1{##1}%
374 \def\HLBFa##1{##1}%
375 \def\HLBFb##1{##1}%
376 \def\HLBFc##1{##1}%
377 \def\HLBFd##1{##1}%
378 \def\HLBFe##1{##1}%
379 \def\HLBFf##1{##1}%
380 \def\HLITa##1{##1}%
381 \def\HLITb##1{##1}%
382 \def\HLITc##1{##1}%
383 \def\HLITd##1{##1}%
384 \def\HLITe##1{##1}%
385 \def\HLITf##1{##1}%
386 \def\HLCBba##1{##1}%
387 \def\HLCBBb##1{##1}%
388 \def\HLCBBc##1{##1}%
389 \def\HLCBBd##1{##1}%
390 \def\HLCBBe##1{##1}%
391 \def\HLCBBf##1{##1}%
392 \def\HLCBBz##1{##1}%
393 \def\HLCBwa##1{##1}%
394 \def\HLCBwb##1{##1}%
395 \def\HLCBwc##1{##1}%
396 \def\HLCBwd##1{##1}%
397 \def\HLCBwe##1{##1}%
398 \def\HLCBwf##1{##1}%
399 \def\HLCBwz##1{##1}%

    End of \NoHighlight@Attributes.
400 }

    Activation of the highlighting macros.
401 \Highlight@Attributes
    i/hcolor;

```

8 Test file

```

i*t-fvrbex;

402 \documentclass{article}
403
404 \usepackage[bawcolor,pstricks]{fvrb-ex}
405 \pstrickstrue
406 \usepackage[T1]{fontenc}
407 \usepackage[latin1]{inputenc}
408 \usepackage[charter]{mathdesign}
409 \usepackage{url}
410 \usepackage{xcolor}

```

```

411
412 \begin{document}
413
414 \title{Test file for the '\textsf{fvrb-ex}' package}
415 \author{Denis Girou\CNRS/IDRIS\Orsay -- France\
416         {\footnotesize email: Denis.Girou@idris.fr}}
417 \date{Version 1.2\March 27, 1998}
418
419 \maketitle
420
421 \RecustomVerbatimEnvironment{Verbatim}{Verbatim}
422   {gobble=2,commentchar=^a3,numbers=left,numbersep=3pt,frame=single}
423
424 \section{\texttt{Example} environment}
425
426 \begin{Verbatim}
427   \begin{Example}
428     First verbatim line.
429     Second verbatim line.
430     Third verbatim line.
431   \end{Example}
432 \end{Verbatim}
433
434 \begin{Example}
435   First verbatim line.
436   Second verbatim line.
437   Third verbatim line.
438 \end{Example}
439
440 \begin{Verbatim}
441   \begin{Example}[frame=lines,framerule=1mm,numbers=left]
442     First verbatim line.
443     Second verbatim line.
444     Third verbatim line.
445   \end{Example}
446 \end{Verbatim}
447
448 \begin{Example}[frame=lines,framerule=1mm,numbers=left]
449   First verbatim line.
450   Second verbatim line.
451   Third verbatim line.
452 \end{Example}
453
454 \section{\texttt{CenterExample} environment}
455
456 \begin{Verbatim}
457   \begin{CenterExample}[frame=single,numbers=right]
458     First verbatim line.
459     Second verbatim line.
460     Third verbatim line.

```

```

461 \end{CenterExample}
462 \end{Verbatim}
463
464 \begin{CenterExample}[frame=single,numbers=right]
465   First verbatim line.
466   Second verbatim line.
467   Third verbatim line.
468 \end{CenterExample}
469
470 \begin{Verbatim}
471   \begin{CenterExample}[frame=lines,numbers=left]
472     ^^a7HLa^^b5First^^b6 verbatim line.
473     ^^a7HLb^^b5Second^^b6 verbatim line.
474     ^^a7HLCBwz^^b5Third^^b6 verbatim line.
475   \end{CenterExample}
476 \end{Verbatim}
477
478 \begin{CenterExample}[frame=lines,numbers=left]
479   ^^a7HLa^^b5First^^b6 verbatim line.
480   ^^a7HLb^^b5Second^^b6 verbatim line.
481   ^^a7HLCBwz^^b5Third^^b6 verbatim line.
482 \end{CenterExample}
483
484 \section{\texttt{SideBySideExample} environment}
485
486 \begin{Verbatim}
487   \begin{SideBySideExample}[xrightmargin=5cm,frame=lines,
488     numbers=left]
489     First verbatim line.
490     Second verbatim line.
491     Third verbatim line.
492   \end{SideBySideExample}
493 \end{Verbatim}
494
495 \begin{SideBySideExample}[xrightmargin=5cm,frame=single,numbers=left]
496   First verbatim line.
497   Second verbatim line.
498   Third verbatim line.
499 \end{SideBySideExample}
500
501 \ifpstricks                % If PSTricks is available
502
503 \section{\texttt{PCenterExample} environment}
504
505 \begin{Verbatim}
506   \fvset{frame=lines,framerule=0.5mm,numbers=left}
507
508   \begin{PCenterExample}(-0.5,-0.5)(0.5,0.5)
509     \setlength{\unitlength}{1cm}
510     \put(0,0){\circle{1}}

```

```

511 \end{PCenterExample}
512
513 \showgrid
514 \begin{PCenterExample}(-1,-1)(1,1)
515 \setlength{\unitlength}{1cm}
516 \put(0,0){\circle{1}}
517 \end{PCenterExample}
518 \end{Verbatim}
519
520 {\fvset{frame=lines,framerule=0.5mm,numbers=left}
521 \begin{PCenterExample}(-0.5,-0.5)(0.5,0.5)
522 \setlength{\unitlength}{1cm}
523 \put(0,0){\circle{1}}
524 \end{PCenterExample}
525 \showgrid
526 \begin{PCenterExample}(-1,-1)(1,1)
527 \setlength{\unitlength}{1cm}
528 \put(0,0){\circle{1}}
529 \end{PCenterExample}
530 }
531
532 \section{\texttt{PSideBySideExample} environment}
533
534 \begin{Verbatim}
535 \fvset{frame=single,xrightmargin=5cm}
536 \begin{PSideBySideExample}(-2,-1)(2,1)
537 \psellipse*[linecolor=yellow](2,1)
538 \end{PSideBySideExample}
539 \showgrid
540 \begin{PSideBySideExample}(-2,-1)(2,1)
541 \psellipse[linestyle=dashed](2,1)
542 \end{PSideBySideExample}
543 \end{Verbatim}
544
545 {\fvset{frame=single,xrightmargin=5cm}
546 \begin{PSideBySideExample}(-2,-1)(2,1)
547 \psellipse*[linecolor=yellow](2,1)
548 \end{PSideBySideExample}
549
550 \showgrid
551 \begin{PSideBySideExample}(-2,-1)(2,1)
552 \psellipse[linestyle=dashed](2,1)
553 \end{PSideBySideExample}
554 }
555
556 \begin{Verbatim}
557 \fvset{frame=single,xrightmargin=5cm}
558 \begin{PSideBySideExample}(-2,-1)(2,1)
559 \psellipse[linestyle=^a7HLCBWe^b5dashed^b6](2,1)
560 \end{PSideBySideExample}

```

```

561 \begin{PSideBySideExample}[numbers=right](-2,-1)(2,1)
562 \psellipse[linestyle=^a7HLe^b5dotted^b6](2,1)
563 \end{PSideBySideExample}
564 \end{Verbatim}
565
566 {\fvset{frame=single,xrightmargin=5cm}
567 \begin{PSideBySideExample}(-2,-1)(2,1)
568 \psellipse[linestyle=^a7HLCBWe^b5dashed^b6](2,1)
569 \end{PSideBySideExample}
570 \begin{PSideBySideExample}[numbers=right](-2,-1)(2,1)
571 \psellipse[linestyle=^a7HLe^b5dotted^b6](2,1)
572 \end{PSideBySideExample}
573
574
575 \else % If PSTricks is not available
576 \begin{quote}
577 \section{\texttt{PCenterExample} and \texttt{PSideBySideExample}
578 environments}
579
580 \textbf{\large Warning!} These two environments are not demonstrated here,
581 because PSTricks was not found on this platform.
582 \end{quote}
583 \fi
584
585 \end{document}

```

i/t-fvr**ex**i

Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in **roman** refer to the code lines where the entry is used.

Symbols	CenterExample (environment) 11
\wedge 13, 16, 71, 72, 78, 79, 86–88, 96, 97, 101, 112, 150–152, 241–243, 365–367	
A	E
\Answer@No <u>45</u> \Answer@Yes <u>44</u> \Ask 41, 59	\endCenterExample <u>80</u> \endExample 73 \endPCenterExample <u>127</u> \endPSideBySideExample <u>138</u> \endSideBySideExample <u>89</u>
	environments:
	CenterExample 11
	Example 11
	PCenterExample 13
	PSideBySideExample 13
	SideBySideExample 11
\CenterExample 77	\Example 70

Example (environment)	11	\HLITTe	208, 332
\Example@	72, <u>76</u> , 79, 87	\HLITTF	209, 333
F			
\FvrbEx@ColoredBox		\HLITZ	210, 334
.	<u>162</u> , 211–224, <u>286</u> , 335–348	\HLITz	187, 311
\FvrbEx@ColoredUnderline	<u>283</u> , 356–362	\HLq	171, 295
\FvrbEx@Gridtrue	124	\HLr	172, 296
\FvrbExGrid	132, 143	\HLSa	225, 349
H			
\Highlight@Attributes		\HLSaa	232, 356
.	<u>48</u> , <u>164</u> , 277, <u>288</u> , 401	\HLSb	226, 350
\HLa	165, 244, 289, 368	\HLSbb	233, 357
\HLb	166, 245, 290, 369	\HLSc	227, 351
\HLBFa	174, 250, 298, 374	\HLSCa	188, 312
\HLBFb	175, 251, 299, 375	\HLSCb	189, 313
\HLBFc	176, 252, 300, 376	\HLSCc	190, 314
\HLBfd	177, 253, 301, 377	\HLSCd	234, 358
\HLBFd	177, 253, 301, 377	\HLSCe	191, 315
\HLBFf	178, 254, 302, 378	\HLSCf	192, 316
\HLBFf	179, 255, 303, 379	\HLSCg	193, 317
\HLBFz	180, 304	\HLSCz	194, 318
\HLc	167, 246, 291, 370	\HLSd	228, 352
\HLCBBa	211, 262, 335, 386	\HLSdd	235, 359
\HLCBBb	212, 263, 336, 387	\HLSe	229, 353
\HLCBBc	213, 264, 337, 388	\HLSee	236, 360
\HLCBBd	214, 265, 338, 389	\HLSeF	237, 361
\HLCBBe	215, 266, 339, 390	\HLSez	238, 362
\HLCBBf	216, 267, 340, 391	\HLSf	230, 354
\HLCBBz	217, 268, 341, 392	\HLSz	231, 355
\HLCBwa	218, 269, 342, 393	\HLTTa	195, 319
\HLCBwb	219, 270, 343, 394	\HLTTb	196, 320
\HLCBwc	220, 271, 344, 395	\HLTTc	197, 321
\HLCBwd	221, 272, 345, 396	\HLTTd	198, 322
\HLCBwe	222, 273, 346, 397	\HLTTe	199, 323
\HLCBwf	223, 274, 347, 398	\HLTTf	200, 324
\HLCBwz	224, 275, 348, 399	\HLTTg	201, 325
\HLd	168, 247, 292, 371	\HLTTTr	202, 326
\HLe	169, 248, 293, 372	\HLTTz	203, 327
\HLf	170, 249, 294, 373	\HLz	173, 297
\HLITa	181, 256, 305, 380	I	
\HLITb	182, 257, 306, 381	\ifFvrbEx@Grid	
\HLITc	183, 258, 307, 382	69, 103, 105, 132, 141, 143, 146
\HLITd	184, 259, 308, 383	L	
\HLITe	185, 260, 309, 384	\let	27
\HLITf	186, 261, 310, 385	\LoadPStricks	27, 28, 33
\HLITTa	204, 328	N	
\HLITTB	205, 329	\NoHighlight@Attributes	
\HLITTC	206, 330	<u>49</u> , 102, 113, 240, <u>240</u> , 364, <u>364</u>
\HLITTD	207, 331		

P		Q	
<code>\PcenterExample</code>	126	<code>\Question@Color</code>	<u>47</u>
<code>PcenterExample</code> (environment)	13	<code>\Question@Mark</code>	<u>46</u>
<code>\Picture@Size</code>	131, 142, 154	S	
<code>\PSideBySideExample</code>	137	<code>\showgrid</code>	124, 513, 525, 539, 550
<code>PSideBySideExample</code> (environment) .	13	<code>\SideBySide@Example</code>	91, <u>107</u> , 140
<code>\Pst@@@Example</code>	151, 152, <u>153</u>	<code>\SideBySideExample</code>	85
<code>\Pst@@Example</code>	126, 137, 148, <u>149</u>	<code>SideBySideExample</code> (environment) ..	11
<code>\Pst@Example</code>	126, 137, <u>148</u>		
<code>\pstricksfalse</code>	26		

Change History

v0.1		chars. [KB/ER]	1
General: First personal version. . .	1	v1.9	
v1.7		General: Use LPPL as license and	
General: First public release.	1	fix bug with loading pstricks	
v1.8		(hv)	1
General: Use ‘ instead of eight-bits			