

# Fancy paragraph designs with the fancypar package

v1.3, dated 2021/04/17.

Gonzalo Medina  
Universidad Nacional de Colombia – Sede Manizales  
Departamento de Matemáticas y Estadística  
gmedinaar@unal.edu.co

April 17, 2021

## Abstract

This package offers five predefined decorative styles for text paragraphs of a document; the user can easily control the styles' attributes using the key-value mechanism. The package also allows the creation of new fancy designs.

## Contents

*Introduction, 1 – User Interface, 2 (Package options, 2) – Predefined styles, 3 (The notebook style, 4. The zebra-like style, 4. The dashed paragraph, 5. Marking every line, 5. Underlining every line, 5) – Defining new styles, 6 – Examples, 7 – Implementation, 13.*

## 1 Introduction

The fancypar package exploits the “dissecting paragraphs with `\lastbox`” technique explained in Section 5.9.6 of Victor Eijkhout’s *TeX by Topic* ([2]) to provide five predefined and easily customizable fancy paragraph styles. New designs can also be easily defined.

↘ The five commands were designed for *text* paragraphs, so the mandatory argument of the five main commands described in Section 3, page 3 cannot contain, for example, displayed math. By the way, this paragraph was typeset using one of the predefined styles offered by this package.

The author will gladly receive suggestions, comments and bug reports.

## 2 User Interface

Simply load this package in the preamble of a document (i.e. the part of your document between `\documentclass` and `\begin{document}`) in the standard way:

```
\usepackage{fancy par}
```

This will make available the five predefined styles, through the commands `\NotebookPar`, `\ZebraPar`, `\DashedPar`, `\MarkedPar` and `\UnderlinedPar`, described in Section 3, page 3.

- ↘ The fancy par package internally loads the xcolor package ([3]) without package options. If xcolor needs to be loaded with some options in a document, then
- ↘ fancy par must be loaded *after* xcolor to prevent a clash.

### 2.1 Package options

The fancy par package can also be loaded declaring some package options:

```
\usepackage[options]{fancy par}
```

Here (and in what follows) *options* represents a comma-separated list of *key=value* pairs<sup>1</sup>, controlling some attributes of the predefined styles. The available options are described in Section 3, page 3 (a summary with the default values is shown in Table 1, page 6).

`\fancy parsetup` Additionally, for a later change of options, the fancy par package offers the command `\fancy parsetup`:

```
\fancy parsetup{options}
```

So, for example,

```
\usepackage[colorone=blue!20,colortwo=red!20]{fancy par}
```

and

```
\usepackage{fancy par}
\fancy parsetup{colorone=blue!20,colortwo=red!20}
```

---

<sup>1</sup>This feature was implemented using the xkeyval package ([1]).

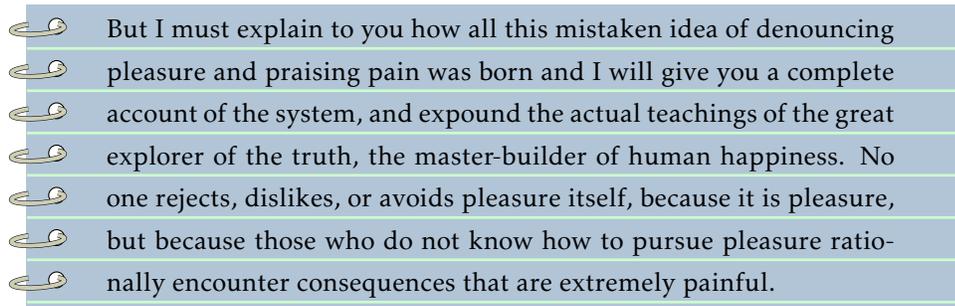
will produce the same result. The advantage of `\fancyparsetup` is that it can be used not only in the preamble but on the body of the document, as many times as required. Even more control can be obtained using the optional argument for the commands `\NotebookPar`, `\ZebraPar`, `\DashedPar`, `\MarkedPar`, and `\UnderlinedPar`.

### 3 Predefined styles

Each of the commands `\NotebookPar`, `\ZebraPar`, `\DashedPar`, `\MarkedPar`, and `\UnderlinedPar` described in this section has one mandatory argument: the *text* paragraph to which the style will be applied to. As mentioned above, each style has some predefined settings which can be changed by using the corresponding options in either the `\usepackage` or `\fancyparsetup` commands or individually, by using the optional argument of the corresponding command.

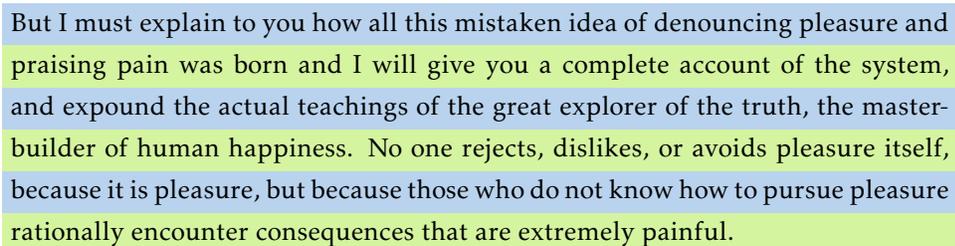
Below is an illustration of the look of the predefined styles, using some placeholder text (see Section 5, page 7).

*The notebook style:*



But I must explain to you how all this mistaken idea of denouncing pleasure and praising pain was born and I will give you a complete account of the system, and expound the actual teachings of the great explorer of the truth, the master-builder of human happiness. No one rejects, dislikes, or avoids pleasure itself, because it is pleasure, but because those who do not know how to pursue pleasure rationally encounter consequences that are extremely painful.

*The zebra style:*



But I must explain to you how all this mistaken idea of denouncing pleasure and praising pain was born and I will give you a complete account of the system, and expound the actual teachings of the great explorer of the truth, the master-builder of human happiness. No one rejects, dislikes, or avoids pleasure itself, because it is pleasure, but because those who do not know how to pursue pleasure rationally encounter consequences that are extremely painful.

*The marked style:*

But I must explain to you how all this mistaken idea of denouncing pleasure and praising pain was born and I will give you a complete account of the system, and expound the actual teachings of the great explorer of the truth, the master-builder of human happiness. No one rejects, dislikes, or avoids pleasure itself, because it is pleasure, but because those who do not know how to pursue pleasure rationally encounter consequences that are extremely painful. ✓  
 ✓  
 ✓  
 ✓  
 ✓  
 ✓

*The dashed style:*

~~But I must explain to you how all this mistaken idea of denouncing pleasure and praising pain was born and I will give you a complete account of the system, and expound the actual teachings of the great explorer of the truth, the master-builder of human happiness. No one rejects, dislikes, or avoids pleasure itself, because it is pleasure, but because those who do not know how to pursue pleasure rationally encounter consequences that are extremely painful.~~

*The underlined style:*

But I must explain to you how all this mistaken idea of denouncing pleasure and praising pain was born and I will give you a complete account of the system, and expound the actual teachings of the great explorer of the truth, the master-builder of human happiness. No one rejects, dislikes, or avoids pleasure itself, because it is pleasure, but because those who do not know how to pursue pleasure rationally encounter consequences that are extremely painful.

### 3.1 The notebook style

`\NotebookPar` This command will present the affected paragraph as if it was written in a notebook. Using the TikZ package ([4]), a spiral is added by default to the notebook (the spiral can be activated/deactivated using the `spiral` option). The options for this command are

- `linecolor=<color>` Color of the notebook's lines.
- `intercolor=<color>` Color of the rule between lines.
- `textcolor=<color>` Color of the text.
- `spiralcolor=<color>` Color of the spiral.
- `interheight=<length>` Height of the rule used between consecutive lines.
- `spiral=<true|false>` Activate/deactivate the spiral.
- `nbtextwidth=<length>` Text width inside the notebook (only affects the text).

The syntax is

```
\NotebookPar[options]{<text paragraph>}
```

### 3.2 The zebra-like style

`\ZebraPar` This command will color every line of the affected paragraph using a two-color (zebra-like) pattern. The options for this command are

- `colorone=<color>` Background color of the odd-numbered lines.
- `colortwo=<color>` Background color of the even-numbered lines.
- `textcolorone=<color>` Color of the text in the odd-numbered lines.
- `textcolortwo=<color>` Color of the text in the even-numbered lines.

The syntax is

```
\ZebraPar[options]{\langle text paragraph \rangle}
```

`fancycolor` Internally, the counter `fancycolor` is used to alternate colors for the odd and  
`\FancyZColor` even-numbered lines, by redefining the command `\FancyZColor`. A little vari-  
`\FancyZTextColor` ation allows to achieve more sophisticated patterns with more than two alter-  
nating colors (see Example 4, page 10). By an appropriate redefinition of the  
`\FancyZTextColor`, some interesting patterns for the color of the text could also  
be achieved.

### 3.3 The dashed paragraph

`\DashedPar` This command uses the `\xleaders` T<sub>E</sub>X primitive to fill the `textwidth` with evenly  
spaced copies of a symbol (or “dash”). The options for this command are

`dashsymbol=\langle symbol \rangle` Symbol to be used as “dash”.  
`dashcolor=\langle color \rangle` Color for the symbol to be used as “dash”.  
`separation=\langle length \rangle` Distance between two copies of the symbol.

The syntax is as follows:

```
\DashedPar[options]{\langle text paragraph \rangle}
```

### 3.4 Marking every line

`\MarkedPar` This command will add a symbol (or “mark”) to every line in the affected para-  
graph; the options for this style are `mark=\langle symbol \rangle` (the symbol to be used as the  
mark) and `position=\langle right|left \rangle` (the position of the symbol). The syntax is as  
follows:

```
\MarkedPar[options]{\langle text paragraph \rangle}
```

### 3.5 Underlining every line

`\UnderlinedPar` This command will underline every line of the affected paragraph. The only  
option for this command is `rulecolor=\langle color \rangle` which controls the color of the  
rule used. The syntax is

```
\UnderlinedPar[rulecolor=\langle color \rangle]{\langle text paragraph \rangle}
```

Command/Style	Options	Default
<code>\NotebookPar</code>	<code>linecolor=&lt;color&gt;</code> <code>intercolor=&lt;color&gt;</code> <code>textcolor=&lt;color&gt;</code> <code>interheight=&lt;length&gt;</code> <code>spiralcolor=&lt;color&gt;</code> <code>spiral=&lt;true false&gt;</code> <code>nbtextwidth=&lt;length&gt;</code>	SlateGray3!80  green!20  black 1pt LightYellow3  true <code>\textindentright</code>
<code>\ZebraPar</code>	<code>colorone=&lt;color&gt;</code> <code>colortwo=&lt;color&gt;</code> <code>textcolorone=&lt;color&gt;</code> <code>textcolortwo=&lt;color&gt;</code>	SlateGray2  DarkOliveGreen2!90!white!70  black black
<code>\DashedPar</code>	<code>separation=&lt;length&gt;</code> <code>dashsymbol=&lt;symbol&gt;</code> <code>dashcolor=&lt;color&gt;</code>	0.9em – (en-dash: --) blue!50 
<code>\MarkedPar</code>	<code>mark=&lt;symbol&gt;</code> <code>position=&lt;right left&gt;</code>	$\sqrt{\text{surd}}$ right
<code>\UnderlinedPar</code>	<code>rulecolor=&lt;color&gt;</code>	DarkOliveGreen3 

Table 1: summary of the predefined styles, their options and their default values.

## 4 Defining new styles

`\FancyPreFormat`  
`\FancyFormat`  
`\AddFancyFormat`

The creation of new paragraph designs involves the redefinition of the two commands `\FancyPreFormat` and `\FancyFormat`. The redefinition of the former will have effect just before the first line of the affected paragraph, whilst the redefinition of the latter will affect all lines of the paragraph; the redefinition of `\FancyFormat` *must* contain the `\box\linebox` construct. After redefining those commands, the actual typesetting of the modified paragraph is done by invoking `\vbox{#1\par\AddFancyFormat}`. Schematically the definition of a new style (called, for example, `\MyStylePar`) should have the following aspect:

```

\newcommand\MyStylePar[1]{%
  \renewcommand\FancyPreFormat{%
    ...some commands...
  }
  \renewcommand\FancyFormat{%
    ...some commands...
    \box\linebox%
    ...some commands...
  }
  ...some commands...
}

```

```

\ vbox{#1\ par\ AddFancyFormat}%
...some commands...
}%

```

For a complete illustration of a new style definition, see Example 5, page 10.

## 5 Examples

In the following examples we will use some placeholder text, taken from H. Rackham's 1914 translation of Section 1.10.32 of "de Finibus Bonorum et Malorum", written by Cicero:

```

\ newcommand*\ testtext{But I must explain to you how all this
mistaken idea of denouncing pleasure and praising pain was born
and I will give you a complete account of the system, and
expound the actual teachings of the great explorer of the
truth, the master-builder of human happiness. No one rejects,
dislikes, or avoids pleasure itself, because it is pleasure, but
because those who do not know how to pursue pleasure rationally
encounter consequences that are extremely painful.}

```

Each example includes the complete compilable code (after addition of the above definition of the `\testtext` command) and its result.

### Example 1

*The default predefined styles.*

```

\ documentclass{article}
\ usepackage[english]{babel}
\ usepackage{fancy par}

\ begin{document}
\ textit{The notebook style:}
\ NotebookPar{\ testtext}
\ textit{The zebra style:}
\ ZebraPar{\ testtext}
\ textit{The marked style:}
\ MarkedPar{\ testtext}
\ textit{The dashed style:}
\ DashedPar{\ testtext}
\ textit{The underlined style:}

```

```
\UnderlinedPar{\testtext}
\end{document}
```

The output of this example is shown on Section 3, page 3.

**Example 2**

*Changing the predefined styles (via \usepackage and \fancyparsetup).*

```
\documentclass{article}
\usepackage[english]{babel}
\usepackage[x11names]{xcolor}
\usepackage[spiral=false,linecolor=Chocolate3!100!white!80]%
  {fancy par}

\begin{document}
\NotebookPar{\testtext}
\fancyparsetup{spiral=true,linecolor=LightGoldenrod3,
  interheight=2pt,intercolor=Cornsilk2}
\NotebookPar{\testtext}
\fancyparsetup{spiral=false,linecolor=OliveDrab4!100!white!90,
  interheight=0pt,textcolor=white}
\NotebookPar{\testtext}
\end{document}
```

- But I must explain to you how all this mistaken idea of denouncing
- pleasure and praising pain was born and I will give you a complete
- account of the system, and expound the actual teachings of the great
- explorer of the truth, the master-builder of human happiness. No
- one rejects, dislikes, or avoids pleasure itself, because it is pleasure,
- but because those who do not know how to pursue pleasure ratio-
- nally encounter consequences that are extremely painful.

 But I must explain to you how all this mistaken idea of denouncing  
 pleasure and praising pain was born and I will give you a complete  
 account of the system, and expound the actual teachings of the great  
 explorer of the truth, the master-builder of human happiness. No  
 one rejects, dislikes, or avoids pleasure itself, because it is pleasure,  
 but because those who do not know how to pursue pleasure ratio-  
 nally encounter consequences that are extremely painful.

- But I must explain to you how all this mistaken idea of denouncing
- pleasure and praising pain was born and I will give you a complete
- account of the system, and expound the actual teachings of the great
- explorer of the truth, the master-builder of human happiness. No
- one rejects, dislikes, or avoids pleasure itself, because it is pleasure,
- but because those who do not know how to pursue pleasure ratio-
- nally encounter consequences that are extremely painful.

**Example 3**

*Changing the predefined styles (via the optional argument of the commands).*

```

\documentclass{article}
\usepackage[english]{babel}
\usepackage{fancyhdr}

\begin{document}
\MarkedPar{\testtext}
\MarkedPar[mark=\ddag,position=left]{\testtext}
\MarkedPar[mark=\bullet]{\testtext}
\end{document}

```

But I must explain to you how all this mistaken idea of denouncing pleasure and  
 praising pain was born and I will give you a complete account of the system,  
 and expound the actual teachings of the great explorer of the truth, the master-  
 builder of human happiness. No one rejects, dislikes, or avoids pleasure itself,  
 because it is pleasure, but because those who do not know how to pursue pleasure  
 rationally encounter consequences that are extremely painful.

✓  
 ✓  
 ✓  
 ✓  
 ✓  
 ✓

‡ But I must explain to you how all this mistaken idea of denouncing pleasure and  
 ‡ praising pain was born and I will give you a complete account of the system,  
 ‡ and expound the actual teachings of the great explorer of the truth, the master-  
 ‡ builder of human happiness. No one rejects, dislikes, or avoids pleasure itself,  
 ‡ because it is pleasure, but because those who do not know how to pursue pleasure  
 ‡ rationally encounter consequences that are extremely painful.

But I must explain to you how all this mistaken idea of denouncing pleasure and  
 praising pain was born and I will give you a complete account of the system,  
 and expound the actual teachings of the great explorer of the truth, the master-  
 builder of human happiness. No one rejects, dislikes, or avoids pleasure itself,  
 because it is pleasure, but because those who do not know how to pursue pleasure  
 rationally encounter consequences that are extremely painful. ●

**Example 4**

*In this example a three color zebra pattern is used for the lines of the paragraph.*

```
\documentclass{book}
\usepackage[english]{babel}
\usepackage[x11names]{xcolor}
\usepackage{fancypar}
\usepackage{intcalc}

\renewcommand{\FancyZColor}{%
  \ifcase\intcalcMod{\value{fancycount}}{3}%
    OliveDrab4!100!white!90\or Chocolate3!100!white!80%
    \or LightGoldenrod3\fi
}

\begin{document}
\ZebraPar{\testtext}
\end{document}
```

But I must explain to you how all this mistaken idea of denouncing pleasure and  
 praising pain was born and I will give you a complete account of the system,  
 and expound the actual teachings of the great explorer of the truth, the master-  
 builder of human happiness. No one rejects, dislikes, or avoids pleasure itself,  
 because it is pleasure, but because those who do not know how to pursue pleasure  
 rationally encounter consequences that are extremely painful.

**Example 5**

*Definition of a new style.* In this example we build a new style; the odd-numbered lines will be typeset in red and the even-numbered lines will be typeset in black.

```

\documentclass{article}
\usepackage[english]{babel}
\usepackage{fancypar}

\newcounter{mycount}

\newcommand\MyStylePar[1]{%
  \renewcommand\FancyPreFormat{\setcounter{mycount}{0}}
  \renewcommand\FancyFormat{%
    \stepcounter{mycount}
    \ifodd\themycount%
      \noindent\textcolor{red}{\box\linebox}%
    \else%
      \box\linebox%
    \fi%
  }
  \par\medskip%
  \vbox{\noindent#1\par\AddFancyFormat}%
  \par\medskip%
}%

\begin{document}
\MyStylePar{\testtext}
\end{document}

```

But I must explain to you how all this mistaken idea of denouncing pleasure and praising pain was born and I will give you a complete account of the system, and expound the actual teachings of the great explorer of the truth, the master-builder of human happiness. No one rejects, dislikes, or avoids pleasure itself, because it is pleasure, but because those who do not know how to pursue pleasure rationally encounter consequences that are extremely painful.

## References

- [1] Hendri Adriaens, The xkeyval package. <http://www.ctan.org/pkg/xkeyval>.
- [2] Victor Eijkhout, T<sub>E</sub>X by Topic. <http://www.eijkhout.net/tbt/>.
- [3] Dr. Uwe Kern, The xcolor package. <http://www.ctan.org/pkg/xcolor>.
- [4] Till Tantau, The PGF/TikZ package. <http://www.ctan.org/pkg/pgf>.

## Change History

v 1.1		
General: default symbol for the		paragraph. Thanks to Frank
mark option changed to $\sqrt{\quad}$ . . . . .	5	Mittelbach . . . . . 17
dingbat will not be used . . . . .	12	General: Second revision . . . . . 1
First revision . . . . .	1	
v 1.2		v 1.3
\NotebookPar: NotebookPar		\add@fancy@format: An additional
admits more than one		unskip was added since the
paragraph. Thanks to Frank		2021 release of LaTeX adds an
Mittelbach . . . . .	14	extra glue in the material
\add@fancy@format: Now all other		between paragraphs. Thanks to
styles also admit more than one		Frank Mittelbach . . . . . 17
		General: Third revision . . . . . 1

## 6 Implementation

Standard identification:

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesPackage{fancypar}[2021/04/17 v1.3 fancy paragraphs]
3
```

We load the necessary packages:

```
4 \@ifpackageloaded{xkeyval}{}{\RequirePackage{xkeyval}}
5 \@ifpackageloaded{tikz}{\usetikzlibrary{calc}}
6   {\RequirePackage{tikz}\usetikzlibrary{calc}}
7 \@ifpackageloaded{xcolor}{}{\RequirePackage{xcolor}}
8
```

colorone The xkeyval package was used to handle the package options that will also be  
colortwo used later on. First, the options declaration (prefix: FP, family: fancypar).

```
9 \DeclareOptionX[FP]<fancypar>{colorone}{\def\FancyZColorOne{#1}}
10 \DeclareOptionX[FP]<fancypar>{colortwo}{\def\FancyZColorTwo{#1}}
11 \DeclareOptionX[FP]<fancypar>{textcolorone}{\def\FancyZTextColorOne{#1}}
12 \DeclareOptionX[FP]<fancypar>{textcolortwo}{\def\FancyZTextColorTwo{#1}}
13 \DeclareOptionX[FP]<fancypar>{linecolor}{\def\FancyN1Color{#1}}
14 \DeclareOptionX[FP]<fancypar>{intercolor}{\def\FancyN1Color{#1}}
15 \DeclareOptionX[FP]<fancypar>{interheight}{\def\FancyN1Height{#1}}
16 \DeclareOptionX[FP]<fancypar>{spiralcolor}{\def\FancyNSColor{#1}}
17 \DeclareOptionX[FP]<fancypar>{textcolor}{\def\FancyNTextColor{#1}}
18 \DeclareOptionX[FP]<fancypar>{nbtextwidth}{\def\FancyNWidth{#1}}
19 \DeclareOptionX[FP]<fancypar>{mark}{\def\FancyMark{#1}}
20 \DeclareOptionX[FP]<fancypar>{rulecolor}{\def\FancyUCColor{#1}}
21 \DeclareOptionX[FP]<fancypar>{separation}{\def\FancyDSeparation{#1}}
22 \DeclareOptionX[FP]<fancypar>{dashcolor}{\def\FancyDCColor{#1}}
23 \DeclareOptionX[FP]<fancypar>{dashsymbol}{\def\FancyDSymbol{#1}}
24
```

\textindent The length \textindent will be used to control the indentation of the paragraph  
\textindentright in the notebook style, depending on whether or not the spiral will be used. The  
length \textindentright controls the distance from the right indentation of the  
text; it is set to \textwidth-2cm.

```
25 \newlength\textindent{}
26 \newlength\textindentright{}
27 \setlength\textindentright{\textwidth}
28 \addtolength\textindentright{-2cm}
29
```

spiral The boolean key spiral is used here to set \textindent appropriately and will  
be used in the definition of the notebook style to draw or not the spiral.

```
30 \define@boolkey[FP]{fancypar}{spiral}{%
31 \iffP@fancypar@spiral
32 \setlength\textindent{-2.6mm}%
33 \else
```

```

34 \setlength\textindent{3mm}%
35 \fi
36 }
37

```

position The choice-key position is used to specify the placement of the mark in the marked style.

```

38 \define@choicekey+[FP]{fancy par}{position}[\val\nr]{left,right}{%
39 \ifcase\nr\relax
40 \def\FancyMarkPosition{\llap{\mbox{\FancyMark\quad}}\box\linebox}
41 \or
42 \def\FancyMarkPosition{\box\linebox\rlap{\mbox{\quad\FancyMark}}}
43 \fi
44 }{%
45 \PackageWarning{fancy par}{erroneous input ignored}%
46 }
47
48 \DeclareOptionX*{\PackageWarning{fancy par}{`CurrentOption' ignored}}
49

```

Now we define some of the colors that will be used by default. We use the RGB system to define colors already present in the x11names family, just to avoid loading the xcolor package with options.

```

50 \definecolor{zcolori}{RGB}{185,211,238}%SlateGray2
51 \definecolor{zcolorii}{RGB}{188,238,104}%DarkOliveGreen2
52 \definecolor{lcolor}{RGB}{159,182,205}%SlateGray3
53 \definecolor{scolor}{RGB}{205,205,180}%LightYellow3
54 \definecolor{rcolor}{RGB}{162,205,90}%DarkOliveGreen3
55

```

We set the default value for the keys that were defined.

```

56 \ExecuteOptionsX[FP]<fancy par>{%
57 colorone=zcolori,%
58 colortwo=zcolorii!90!white!70,%
59 textcolorone=black,%
60 textcolortwo=black,%
61 linecolor=lcolor!80,%
62 intercolor=green!20,%
63 interheight=1pt,%
64 spiralcolor=scolor,%
65 spiral=true,%
66 textcolor=black,%
67 nbtextwidth=\textindentright,%
68 mark=${\surd$,% \changes{v 1.1}{2010/04/25}{changed to ${\surd$}}
69 rulecolor=rcolor,%
70 position=right,%
71 dashcolor=blue!50,%
72 separation=0.9em,%
73 dashsymbol=--

```

```
74 }
75
```

Now comes the processing of the keys and values which will be passed by the user to the package.

```
76 \ProcessOptionsX[FP]<fancy par>
77
```

`\fancy par setup` Definition of the command to control attributes in the preamble or at any point of the document.

```
78 \DeclareRobustCommand*\fancy par setup[1]{%
79   \setkeys[FP]{fancy par}{#1}
80 }
81
```

`\NotebookPar` Now, to the definition of the five predefined styles. `\NotebookPar` comes first.

```
82 %%% notebook %%%
83 \newcommand\NotebookPar[2][ ]{%
84   \begin group
85     \setkeys[FP]{fancy par}{#1}
86     \renewcommand\FancyPreFormat{\small skip}
87     \renewcommand\FancyFormat{%
88       \hskip\text indent%
89       \tikz{%
90         \draw[draw=black,fill=white] (-1,-0.3) circle (3pt);%
91         \ifFP@fancy par@spiral
92           \draw[very thin,rotate=4,double=\FancyNSColor,%
93             double distance=1.5pt]%
94             (-1,-0.2) arc (40:-250:10pt and 2pt);%
95         \else\relax
96         \fi
97       }
98       \hskip4mm\vphantom{\strut}%
99       \textcolor{\FancyNTextColor}{\box\linebox}%
100      \color{\FancyNilColor}\hrule height\FancyNilHeight%
101      \small skip%
102    }
103    \setlength\par indent{0pt}
104    \par\vskip\baselineskip
105    \noindent%
106    \begin{tikz picture}[inner sep=-1.1pt]%
107      \setlength\fbbox sep{0pt}%
108      \node (a) {\colorbox{\FancyN1Color}{%
109        \vbox{%
110          \vskip-0.5mm\par shape 1 0cm \FancyNTwidth%
111          \def\par{{\@@par}}% A trick that executes the real "par" = \@@par in-
side a group so that the par shape is restored. Thanks to Frank Mittelbach.
112          #2\@@par
113          \add@fancy@format%
114        }}%

```

```

115   }%
116   } {};
117   \end{tikzpicture}
118   \par\bigskip
119   \endgroup
120 }
121

```

fancycount Next, we define the counter fancycount, and the command \FancyZColor  
\FancyZColor used to produce the zebra-like pattern (by changing the color depending on  
\FancyZTextColor whether the value of the counter is odd or even). We also define the command  
\FancyZTextColor to allow a similar definition for the color of the text lines.  
The counter and the commands can be used, or redefined by the user, in a L<sup>A</sup>T<sub>E</sub>X  
document to produce more sophisticated zebra-like designs.

```

122 \newcounter{fancycount}
123 \newcommand\FancyZColor{}
124 \renewcommand\FancyZColor{%alternate line colors
125   \ifodd\thefancycount %
126     \FancyZColorOne%
127   \else
128     \FancyZColorTwo%
129   \fi
130 }
131
132 \newcommand\FancyZTextColor{}
133 \renewcommand\FancyZTextColor{%alternate text colors
134   \ifodd\thefancycount %
135     \FancyZTextColorOne%
136   \else
137     \FancyZTextColorTwo%
138   \fi
139 }
140

```

\ZebraPar Now, the definition of \ZebraPar.

```

141 %%% zebra %%%
142 \newcommand\ZebraPar[2][ ]{%
143   \begingroup
144   \setkeys[FP]{fancypar}{#1}%
145   \renewcommand\FancyPreFormat{\setcounter{fancycount}{0}}%
146   \renewcommand\FancyFormat{%
147     \noindent\stepcounter{fancycount}%
148     \makebox[\textwidth]{\colorbox{\FancyZColor}{%
149       \textcolor{\FancyZTextColor}{\box\linebox}}}%
150     \hrule height 0pt%
151   }
152   \par\smallskip\noindent%
153   \vbox{#2\par\add@fancy@format}%
154   \par\smallskip%

```

```

155 \endgroup
156 }
157

```

`\leaderfill` Definition of the leader that will be used in `\DashedPar`.

```

158 \def\leaderfill{%
159 \color{\FancyDColor}%
160 \xleaders\hbox to \FancyDSeparation{\hss\FancyDSymbol\hss}\hfill%
161 }
162

```

`\DashedPar` The turn now is for `\DashedPar`.

```

163%%% dashed %%%%%%%%%%%
164 \newcommand\DashedPar[2][]{%
165 \begingroup
166 \setkeys[FP]{fancypar}{#1}%
167 \renewcommand\FancyPreFormat{%
168 \hbox to \textwidth{\leaderfill}%
169 \vskip-\baselineskip%
170 }
171 \renewcommand\FancyFormat{%
172 \vphantom{\strut}\box\linebox%
173 \hbox to \textwidth{\leaderfill}%
174 \vskip-\baselineskip%
175 }
176 \par\medskip
177 \vbox{\noindent#2\par\add@fancy@format\medskip}%
178 \par\bigskip
179 \endgroup
180 }%
181

```

`\MarkedPar` The definition of `\MarkedPar`.

```

182%%% marked %%%%%%%%%%%
183 \newcommand\MarkedPar[2][]{%
184 \begingroup
185 \setkeys[FP]{fancypar}{#1}
186 \renewcommand\FancyPreFormat{}
187 \renewcommand\FancyFormat{%
188 \noindent%
189 \FancyMarkPosition\par%
190 }%
191 \par\medskip%
192 \vbox{#2\par\add@fancy@format}%
193 \par\medskip%
194 \endgroup
195 }
196

```

`\UnderlinedPar` And last, but not least, the definition of `\UnderlinedPar`.

```
197 %%%% underlined %%%%%%%%%%%%%%%  
198 \newcommand\UnderlinedPar[2][]{  
199   \begingroup  
200   \setkeys[FP]{fancypar}{#1}  
201   \renewcommand\FancyPreFormat{)%  
202   \renewcommand\FancyFormat{%  
203     \box\linebox\color{\FancyUColor}\hrule  
204     \smallskip  
205   }  
206   \par\medskip%  
207   \vbox{\noindent#2\par\add@fancy@format}  
208   \par\medskip%  
209   \endgroup  
210 }  
211
```

`\add@fancy@format` The simple, yet powerful macro that makes use of `\lastbox` to dissect a paragraph; this macro is the core of this package; it is invoked in each one of the five predefined styles (and must be used in newly defined ones). A description can be found in [2].

```
212 \newsavebox\linebox%  
213 \def\add@fancy@format{%  
214   \setbox\linebox\lastbox  
215   \ifvoid\linebox\FancyPreFormat\else  
216     \unskip  
217     \unpenalty  
218     \unskip %Allows more than one paragraph in MarkedPar, DashedPar, Ze-  
219     \unskip %Required after the 2021 LaTeX release to handle an additional glue in the ma-  
220     {\add@fancy@format}%  
221     \FancyFormat  
222   \fi  
223 }  
224
```

`\AddFancyFormat` A copy of `\add@fancy@format` which the user can employ to apply new styles defined with the two commands below.

```
225 \let\AddFancyFormat\add@fancy@format  
226
```

`\FancyPreFormat` These two commands will allow the user to define his/her own styles.

```
\FancyFormat  
227 \newcommand\FancyPreFormat{)%  
228 \newcommand\FancyFormat{)%
```

## 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.

<b>Symbols</b>	<code>\FancyDSeparation</code> .	<code>\linecolor</code> . . . . . <u>9</u>
<code>\@@par</code> . . . . . 111, 112	. . . . . 21, 160	
<b>A</b>	<code>\FancyDSymbol</code> .. 23, 160	<b>M</b>
<code>\add@fancy@format</code> .	<code>\FancyFormat</code> . . . . .	<code>\mark</code> . . . . . <u>9</u>
. 113, 153, 177,	6, 87, 146, 171,	<code>\MarkedPar</code> . . . . . 5, <u>182</u>
192, 207, <u>212</u> , 225	187, 202, 221, <u>227</u>	<b>N</b>
<code>\AddFancyFormat</code> . 6, <u>225</u>	<code>\FancyMark</code> . . . 19, 40, 42	<code>\nbtexwidth</code> . . . . . <u>9</u>
<b>C</b>	<code>\FancyMarkPosition</code>	<code>\NotebookPar</code> . . . . . 4, <u>82</u>
<code>\changes</code> . . . . . 68	. . . . . 40, 42, 189	<b>P</b>
<code>\colorone</code> . . . . . <u>9</u>	<code>\FancyNilColor</code> . 14, 100	<code>\PackageWarning</code> . 45, 48
<code>\colortwo</code> . . . . . <u>9</u>	<code>\FancyNilHeight</code> 15, 100	<code>\position</code> . . . . . <u>38</u>
<b>D</b>	<code>\FancyNIColor</code> .. 13, 108	<code>\ProcessOptionsX</code> . . . 76
<code>\dashcolor</code> . . . . . <u>9</u>	<code>\FancyNSColor</code> . . . 16, 92	<b>R</b>
<code>\DashedPar</code> . . . . . 5, <u>163</u>	<code>\FancyNTextColor</code> 17, 99	<code>\rulecolor</code> . . . . . <u>9</u>
<code>\dashsymbol</code> . . . . . <u>9</u>	<code>\FancyNTWidth</code> .. 18, 110	<b>S</b>
<code>\DeclareOptionX</code> . . .	<code>\fancyparsetup</code> . . . 2, <u>78</u>	<code>\separation</code> . . . . . <u>9</u>
. . . . . 9, 10, 11,	<code>\FancyPreFormat</code> . . .	<code>\spiral</code> . . . . . <u>30</u>
12, 13, 14, 15,	6, 86, 145, 167,	<code>\spiralcolor</code> . . . . . <u>9</u>
16, 17, 18, 19,	186, 201, 215, <u>227</u>	<code>\strut</code> . . . . . 98, 172
20, 21, 22, 23, 48	<code>\FancyUColor</code> .. 20, 203	<code>\surd</code> . . . . . 68
<code>\DeclareRobustCommand</code>	<code>\FancyZColor</code> 5, <u>122</u> , 148	<b>T</b>
. . . . . 78	<code>\FancyZColorOne</code> . 9, 126	<code>\textcolor</code> . . . . . <u>9</u>
<code>\define@boolkey</code> . . . . 30	<code>\FancyZColorTwo</code> 10, 128	<code>\textcolorone</code> . . . . . <u>9</u>
<code>\define@choicekey</code> .. 38	<code>\FancyZTextColor</code> ..	<code>\textcolortwo</code> . . . . . <u>9</u>
<code>\definecolor</code> . . . . .	. . . . . 5, <u>122</u> , 149	<code>\textindent</code> <u>25</u> , 32, 34, 88
.. 50, 51, 52, 53, 54	<code>\FancyZTextColorOne</code>	<code>\textindentright</code> <u>25</u> , 67
<b>E</b>	. . . . . 11, 135	<code>\thefancycount</code> 125, 134
<code>\ExecuteOptionsX</code> . . . 56	<code>\FancyZTextColorTwo</code>	<b>U</b>
<b>F</b>	. . . . . 12, 137	<code>\UnderlinedPar</code> .. 5, <u>197</u>
<code>\fancycolor</code> . . . . . 5	<b>I</b>	<b>Z</b>
<code>\fancycount</code> . . . . . <u>122</u>	<code>\iffP@fancypar@spiral</code>	<code>\ZebraPar</code> . . . . . 4, <u>141</u>
<code>\FancyDColor</code> .. 22, 159	. . . . . 31, 91	
	<code>\intercolor</code> . . . . . <u>9</u>	
	<code>\interheight</code> . . . . . <u>9</u>	
	<b>L</b>	
	<code>\leaderfill</code> <u>158</u> , 168, 173	