

The **dashundergaps** package

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1 Introduction

This package (v1.1) *helps you to* use (a) pattern(s) from this list:

1. `\dashing;`
2. `\dotting;`

3. underlining

for a word which can be either

1. hidden;
2. or not.

This can be *useful in* these situations:

1. You are writing a document for which you need to dash or (and) to dot text,
2. You want to write a test for which students have to “fill in the gaps,” and you want to chose when to print the answers.

2 Use

2.1 Loading the Package

To *load the package*, please use

```
\usepackage[options]{dashundergaps}
```

2.2 Available Options

Without any option, the package will not be really useful, as it will not perform anything that will be nice for you. Consequently, the *following options are available*:

- **dash**: will dash `\text` if used with the command

```
\dashuline{text}
```

where you want “text” to be dashed (*i.e.* somewhere in the **document** environment)

- **dot**: will dot `\text` if used with the command

```
\dotuline{text}
```

where you want “text” to be dotted (*i.e.* somewhere in the **document** environment),

- **phantomtext**: will help you to write a pattern at the place of the text. This pattern can be
 - dashing, if used with **dash** option;
 - dotting, if used with **dot** option;
 - underlining, if used with (**dash and dot**) options *or* with neither **dash** nor **dot**;
 - the text in itself, if used with **teachernotes** option.

- `teachernotes`: see the last point of `phantomtext`,
- `displaynbgaps`: will produce, at the end of your document (and in the center of the page), a summary of the number of gaps like

GAPS: x .

3 Possible Combinations

All the possible sensed commands (the launching order has no importance) of `dashundergap.sty` are given at Table 1 *except* the use of `displaynbgaps`, which can trivially be used iff `phantomtext` is used. Here, “×” is equivalent to the well-known “N.A.” and thus means “Not Applicable here,” or, equivalently, “Not Available.”

Option(s)	Consequence		
	<code>\gap{text}</code>	<code>\dashuline{text}</code>	<code>\dotuline{text}</code>
dash (only)	×	<u>text</u>	×
dot (only)	×	×	<u>text</u>
dash, dot	×	<u>text</u>	<u>text</u>
phantomtext (only)	— (1)	×	×
phantomtext, dash	-- (1)	<u>text</u>	×
phantomtext, dot	... (1)	×	<u>text</u>
phantomtext, dash, dot	— (1)	<u>text</u>	<u>text</u>
phantomtext, teachernotes	text	×	×
phantomtext, dash, teachernotes	text	<u>text</u>	×
phantomtext, dot, teachernotes	text	×	<u>text</u>
phantomtext, dash, dot, teachernotes	text	<u>text</u>	<u>text</u>

Table 1: Possible sensed commands of this package except `displaynbgaps`.

4 Examples

From now on, the output of the listed codes will be put in rectangular boxes.

4.1 Dashing

Here is an *example* of *sentence dashing*.

```
\documentclass[10pt]{article}

\usepackage[dash]{dashundergaps}

\begin{document}
\dashuline{This is a dashed sentence}
\end{document}
```

gives

This is a dashed sentence

Dotting is done in the same way.

4.2 Gaps with Dots – Student Version

Here is an *example* of *dotted gaps* for the student version.

```
\documentclass[10pt]{article}

\usepackage[dot, phantomtext]{dashundergaps}

\begin{document}
In Computer Science, ‘PC’ means ‘Personal \gap{Computer}.’

We can still \dotuline{dot this}.
\end{document}
```

results in

<p>In Computer Science, “PC” means “Personal” We can still <u>dot this</u>.</p>
--

4.3 With Tabular

To produce

Head A	Head B	Head C
Col 1	Col 2	Col 3
Col 1	Col 2	Col 3

just use

```
\begin{tabular}{lll}
\hline
Head A & Head B & Head C\\
\multicolumn{2}{l}{\dotuline{\hfill}}\\
Col 1 & Col 2 & Col 3\\
Col 1 & Col 2 & Col 3\\
\hline
\end{tabular}
```

where you want it to appear.

5 Implementation

Here is the code of `dashundergaps.sty`:

```
1 %% This is file 'dashundergaps.sty' v1.1 by Meriadri Luca.
3 \NeedsTeXFormat{LaTeX2e}
4 \ProvidesPackage{dashundergaps}[2009/11/12 Dashing and underlining (phantom) text]
5 \PackageInfo{dashundergaps}{This is DashUnderGaps by Meriadri Luca.}
7 \RequirePackage{ifthen}[1994/06/01]
8 \PassOptionsToPackage{normalem}{ulem}
9 \RequirePackage{ulem}
10 \newboolean{dot} % false at start
11 \newboolean{dash} % false at start
13
14 \DeclareOption{dash}{%
15 \typeout{Dashing mode activated!}}
```

```

\setboolean{dash}{true}
17 \def\dashuline{\bgroup
\ifdim\ULdepth=\maxdimen
19 \settodepth\ULdepth{(j)\advance\ULdepth.4pt\fi
\markoverwith{\kern.15em
21 \vtop{\kern\ULdepth \hrule width .3em}%
\kern.15em}\ULon}
23 }

25
\DeclareOption{dot}{%
27 \typeout{Dotting mode activated!}
\setboolean{dot}{true}
29 \def\dotuline{\bgroup
\ifdim\ULdepth=\maxdimen
31 \settodepth\ULdepth{(j)\advance\ULdepth.4pt\fi
\markoverwith{\beginingroup
33 \advance\ULdepth0.08ex
\lower\ULdepth\hbox{\kern.15em .\kern.1em}%
35 \endgroup}\ULon}
37 }

39 \DeclareOption{phantomtext}{%
\typeout{Phantom mode activated! All the gaps will be filled.}
41 \newboolean{teachernotes} % false at start
\newcounter{nb-gaps}
43 \setcounter{nb-gaps}{1}
\newcounter{nth-gaps}
45 \setcounter{nth-gaps}{1}

47 \newcommand{\gap}[1]{%
\ifthenelse{\boolean{teachernotes}}
49 {\textbf{#1}} {\arabic{nth-gaps}}}
{\ifthenelse{\boolean{dash} \AND \boolean{dot}}{\underline{\phantom{#1}} (\arabic{nth-gaps})}
51 {\ifthenelse{\boolean{dash}}{\dashuline{\phantom{#1}} (\arabic{nth-gaps})}
{\ifthenelse{\boolean{dot}}{\dotuline{\phantom{#1}} (\arabic{nth-gaps})}
53 {\underline{\phantom{#1}} (\arabic{nth-gaps})}}}}
\addtocounter{nb-gaps}{1}
55 \addtocounter{nth-gaps}{1}
}}

57

59 \DeclareOption{teachernotes}{%
\typeout{Phantom mode deactivated! All the gaps will be filled with their content.}
61 \setboolean{teachernotes}{true}
63 }

65 \DeclareOption{displaynbgaps}{%
\typeout{Gaps counting mode activated!}
67 \addtocounter{nb-gaps}{-1}
\AtEndDocument{\vfill \centering \bfseries GAPS: \arabic{nb-gaps}.}
69 }

71 \ProcessOptions\relax

```

6 Limitations

This package is currently not able to cope with strange users such as the ones which would

- Like to use both `\dashuline{text}` and `\dotuline{text}` and would like `\gap{text}` to appear either as `\dotuline{}` or as `\dashuline{}`. This is not implemented as this would be a really unuseful feature: there are not many folks who want their `\gap{text}` to be filled with something else than

`\underline{}`

when already using `\dashuline` or `\dotuline` in the text!

7 Remarks

7.1 Dashing and Dotting Hierarchy

7.1.1 Numbering

Some users would like to use a code like this:

```
...
\usepackage[dash,dot]{dashundergaps}
...
\usepackage[calwidth,pagestyles,raggedright,bf,sf,...]{titlesec}
\titledformat{\section}{\normalfont\Huge\bfseries}{\dashuline{\thesection}}{1em}{}
\titledformat{\subsection}{\normalfont\LARGE\bfseries}{\dotuline{\thesubsection}}{1em}{}
\titledformat{\subsubsection}{\normalfont\Large\bfseries}{\thesubsubsection}{1em}{}
\titledformat{\paragraph}[runin]{\normalfont\large\bfseries\itshape}{\theparagraph}{1em}{}
\titledformat{\subparagraph}[runin]{\normalfont\normalsize\bfseries\itshape}{\thesubparagraph}{1em}{}
...
```

It is possible, and will work. For example, here, sections and subsections will have their numbering respectively dashed and dotted.

7.1.2 Titles

You cannot modify

```
...
\usepackage[dash,dot]{dashundergaps}
...
\usepackage[calwidth,pagestyles,raggedright,bf,sf,...]{titlesec}
\titledformat{\section}{\normalfont\Huge\bfseries}{\thesection}{1em}{}
\titledformat{\subsection}{\normalfont\LARGE\bfseries}{\thesubsection}{1em}{}
\titledformat{\subsubsection}{\normalfont\Large\bfseries}{\thesubsubsection}{1em}{}
\titledformat{\paragraph}[runin]{\normalfont\large\bfseries\itshape}{\theparagraph}{1em}{}
\titledformat{\subparagraph}[runin]{\normalfont\normalsize\bfseries\itshape}{\thesubparagraph}{1em}{}
...
```

to output the names of your sections, subsections, ... in a dashed or dotted fashion. For this, the temporary solution is to use, at each of the points of the hierarchy, a code like this (this is for `\section`):

```
\section{\protect\dashuline{This is the First Section}}
```

Do not forget the `\protect` please. It must be written because `\dashuline` and `\dotuline` were not declared as robust commands.

7.2 Ulem and the Emphasize Command

Donald Arseneau informed me in an e-mail that adding

```
\PassOptionsToPackage{normalem}{ulem}
```

before

```
\RequirePackage{ulem}
```

would be a good idea, since `\emph` is equivalent to `\underline` for `ulem` when the `normalem` option is not given to it. This has been modified, and is in v1.1.

8 Bugs

No *bugs* are currently known in this package.

9 Version History

1. v1.0: package is introduced to the L^AT_EX world,
2. v1.1: see [7.2](#).

10 Contact

If you have any question concerning this package (limitations, bugs, ...), please contact me at Luca.Merriadri@student.ulg.ac.be.

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11 References

References

- [1] TUG, Dashed or dotted underline, 2009. <http://ewus.de/tipp-1014.html>.