

The `nowidow` package

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1.0 from 2011/09/20

1 Introduction

Religion that is pure and undefiled
before God, the Father, is this:
to visit orphans and widows
in their affliction,
and to keep oneself
unstained from the world.

James 1:27 — ESV

This package was based on the answer to a question¹ about expansion with `\begingroup` and `\foreach` asked on <http://tex.stackexchange.com>. Thanks to Martin Scharrer² for his solution.

Widows (single lines at the top of a page) and orphans (single lines at the bottom of a page) happen frequently and should be avoided.

The `\widowpenalties` and `\clubpenalties` commands allow to prevent them, but their syntax is a bit complex to use.

The `nowidow` package provides `\nowidow` and `\noclub` commands which are simpler to use in order to prevent widows and orphans.

2 Usage

To load the package, use:

```
\usepackage[<options>]{nowidow}
```

When no options are specified, the package will only provide macros and not load any settings automatically. The following sections describe the possible options for this package.

¹<http://tex.stackexchange.com/questions/26272/expansion-issue-with-begingroup-and-foreach/26275#26275>

²<http://tex.stackexchange.com/users/2975/martin-scharrer>

2.1 Options

`defaultlines=<value>`

The `defaultlines` option sets the default minimal number of lines to be kept after or before the page break.

`all`

The `all` option sets the widow and orphan penalties for the whole document upon loading the package, for example:

```
\usepackage[defaultlines=4,all]{nowidow}
```

2.2 Commands

`\nowidow`

To prevent widows in a paragraph, call `\nowidow` immediately at the end of the paragraph (without an empty line), optionally followed by the minimal number of lines you want after the page break:

```
This paragraph overflows to the next page,  
but I really don't want any widows in it.  
\nowidow[3]
```

The minimal number of lines to be kept after the page break defaults to 2 if not specified or overridden by the `defaultlines` option.

`\setnowidow`

This macro is similar to `\nowidow` but sets the widow penalty for the whole document instead of the current paragraph only.

This macro is used when the package is loaded with the `all` option.

`\noclub`

This is similar to the `\nowidow` command but prevents orphans at the end of a page:

```
This paragraph overflows to the next page,  
but I really don't want any orphans in it.  
\noclub[3]
```

The minimal number of lines to be kept before the page break defaults to 2 if not specified or overridden by the `defaultlines` option.

`\setnoclub`

This macro is similar to `\noclub` but sets the orphan penalty for the whole document instead of the current paragraph only.

This macro is used when the package is loaded with the `all` option.

3 Implementation

```
1 \ProvidesPackage{nowidow}

Options

2 \RequirePackage{kvoptions}
3 \SetupKeyvalOptions{
4   family=nowidow,
5   prefix=nowidow@,
6 }
7 \DeclareStringOption[2]{defaultlines}
8 \DeclareBoolOption{all}
9 \ProcessKeyvalOptions*

\nowidow@X

10 \def\nowidow@X#1{%
11   \ifnum#1<\nowidowmax
12     10000
13     \expandafter\nowidow@X\expandafter{%
14       \the\numexpr(#1)+1\expandafter\relax\expandafter}%
15   \fi
16 }

\setnowidow

17 \newcommand{\setnowidow}[1][\nowidow@defaultlines]{%
18   \mathchardef\nowidowmax#1\relax
19   \widowpenalties #1 \nowidow@X{1} 0\par
20 }
21 \ifnowidow@all
22   \setnowidow
23 \fi

\nowidow

24 \newcommand{\nowidow}[1][\nowidow@defaultlines]{%
25   \begingroup
26   \setnowidow[#1]
27   \endgroup
28 }

\setnoclub

29 \newcommand{\setnoclub}[1][\nowidow@defaultlines]{%
30   \mathchardef\nowidowmax#1\relax
31   \clubpenalties #1 \nowidow@X{1} 0\par
32 }
33 \ifnowidow@all
34   \setnoclub
35 \fi

\noclub
```

```

36 \newcommand{\noclub}[1][\nowidow@defaultlines]{%
37   \begingroup
38   \setnoclub[#1]
39   \endgroup
40 }

```

Change History

0.1		mand and package options	1
	General: Initial version	1	0.4
0.2		General: Add orphan management	1
	General: Fix nowidow@X	1	1.0
0.3		General: Add setnowidow com-	
		General: Improve documentation . . .	1

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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.

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