

Two `pagestyles` for underlining headers*

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1997/02/16

Abstract

This package implements two new `pagestyles` `underline` and `myunderline` that are similar to the standard `headings` and `myheadings` `pagestyles` but provide a horizontal line just below the head line.

The purpose of this package file is to provide a way to underline a running head. This is done by redefining the `\@evenhead` and `\@oddhead` macros. To understand this you must know that whenever a given `pagestyle` (say ‘xxx’) is selected by a `\pagestyle{xxx}` command the macro `\ps@xxx` is executed. Therefore we define a macro `\ps@underline` which is called when you say `\pagestyle{underline}`. To provide for a rule with user-defined headings we also define the `pagestyle` ‘myunderline’, i.e. the macro `\ps@myunderline`.

1 Implementation

```
1 (*package)
```

`\ps@underline` The first thing the macro `\ps@underline` does is to call `\ps@headings` to set up everything like the ‘headings’ `pagestyle` does. Here we do not need to distinguish onesided and twosided printing since this is already done correctly by `\ps@headings`.

```
2 \def\ps@underline{\ps@headings
```

Then we redefine `\@evenhead`. The first part is a copy of the definition in `\ps@headings`. This has the advantage that this style option works with document styles ‘article’, ‘report’, and ‘book’.

```
3 \def\@evenhead{\thepage\hfil\slshape\leftmark\null
```

`\null` is defined to be `\hbox{}` in the L^AT_EX kernel file `ltpplain.dtx`. Additionally we include a `\vadjust` primitive. The effect of this primitive is to add its argument after the current `\hbox` to the enclosing vertical list.

```
4 \vadjust{\vskip .3ex\hrule}}%
```

The `\@oddhead` macro is constructed analogously.

```
5 \def\@oddhead{\null{\slshape \rightmark}\hfil\thepage
```

```
6 \vadjust{\vskip .3ex\hrule}}}
```

*This file has version number v1.01, last revised 1997/02/16.

`\ps@myunderline` The macro `\ps@myunderline` for underlining user defined running heads is constructed analogously.

```
7 \def\ps@myunderline{\ps@myheadings
8   \def\@oddhead{\null{\slshape\rightmark}\hfil
9     \rm\thepage\vadjust{\vskip .3ex\hrule}}%
10  \def\@evenhead{\thepage\hfil\slshape \leftmark \null
11    \vadjust{\vskip .3ex\hrule}}}
```

Well, that's all. Use it and enjoy.