

This heading was prepared with the `\thispageheading` command.
It allows long multi-line headings!

The `watermark` package*

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1 User Interface

`\watermark` The package provides watermarks on output pages. A watermark is some text or
`\leftwatermark` picture printed at the background of paper. A watermark is prepared in a picture
`\rightwatermark` box stored at the beginning of header. So, you should place the watermark material
`\thiswatermark` with LaTeX's `\put` and `\multiput` commands. Allowed watermark commands are
shown in the table:

Command	Meaning
<code>\watermark{<body>}</code>	Set the same watermark for all pages
<code>\leftwatermark{<body>}</code>	Set the even-page watermark
<code>\rightwatermark{<body>}</code>	Set the odd-page watermark
<code>\thiswatermark{<body>}</code>	Set a watermark for the current page only

In one-side mode, the `\leftwatermark` is ignored and the `\rightwatermark` is applied to all pages.

`\thispageheading` The package also provides the command `\thispageheading{<heading>}` which replaces a heading for the current page to the specified multi-line heading. The heading is prepared in the parbox of the `\textwidth` width aligned on the top line. This command does not suppress watermarks.

Examples of using watermarks are shown in the `ncccropmark` package.

2 The Implementation

`\@begindvi` To support watermarks, we use the `\@begindvi` hook from the output routine. This hook works only once at the beginning of dvi, but some packages (e.g. `hyperref`) also use it for their own needs. So, we redefine it at the beginning of document in such a way to accurately save its behaviour after the first call when it can be redefined by other packages. All the we need from this hook — to

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call the `\WMK@insert` command every time when the output routine composes a new page.

```
1 <*package>
2 \AtBeginDocument{
3   \let\WMK@begindvi\@begindvi
4   \def\@begindvi{%
```

Apply saved `\@begindvi` hook and then call the `\WMK@insert` command:

```
5     \WMK@begindvi
6     \WMK@insert
```

After that we must redefine the `\@begindvi` hook, because it is already redefined here to the `\@empty` value (or to something else if another package using this hook is loaded). We save its new meaning in the `\WMK@begindvi` command and redefine the `\@begindvi`:

```
7     \global\let\WMK@begindvi\@begindvi
8     \gdef\@begindvi{\WMK@begindvi\WMK@insert}%
9   }%
10 }
```

`\WMK@insert` The command redefines the current header and inserts the `\WMK@hook` at the beginning of header. A box produced by this hook has zero natural sizes.

```
11 \def\WMK@insert{%
12   \let\WMK@head\@thehead
13   \def\@thehead{\WMK@hook\WMK@head}%
14 }
```

`\WMK@hook` The command applies this watermark (`\WMK@this`), odd watermark (`\WMK@odd`), or even watermark (`\WMK@even`). The watermarks are prepared within the picture environment:

```
15 \def\WMK@hook{%
16   \begin{picture}(0,0)\relax
17     \ifx\WMK@this\relax
18       \if@twoside
19         \ifodd\c@page\WMK@odd\else\WMK@even\fi
20       \else
21         \WMK@odd
22       \fi
23     \else
24       \WMK@this \global\let\WMK@this\relax
25     \fi
26   \end{picture}%
```

After that we test the header. At the first, we test the `\WMK@thishead` command. If it is specified, we let `\WMK@head` to `\WMK@thishead`.

```
27   \ifx\WMK@thishead\relax \else
28     \let\WMK@head\WMK@thishead
29   \global\let\WMK@thishead\relax
30   \fi
```

The original `\@thehead` command saved in `\WMK@head` can be defined with `\@oddhead` content or can be let to `\@oddhead` or `\@evenhead`. We test all these cases to recognize when the head is really empty. A head prepared with `\thispageheading` can be also empty. If the empty case is recognized, we insert the `\hfil` command to avoid underfull.

```

31 \ifx\WMK@head\@empty \hfil
32 \else
33   \def\@tempa{\@oddhead}%
34   \ifx\WMK@head\@tempa
35     \ifx\@oddhead\@empty \hfil \fi
36   \fi
37 \fi
38 }

```

Set defaults for this heading and watermarks.

```

39 \let\WMK@thishead\relax
40 \let\WMK@this\relax
41 \let\WMK@odd\@empty
42 \let\WMK@even\@empty

```

`\watermark` Define watermark producing commands:

```

\leftwatermark 43 \newcommand{\watermark}[1]{\leftwatermark{#1}\rightwatermark{#1}}
\rightwatermark 44 \newcommand{\leftwatermark}[1]{\gdef\WMK@even{#1}}
\thiswatermark 45 \newcommand{\rightwatermark}[1]{\gdef\WMK@odd{#1}}
46 \newcommand{\thiswatermark}[1]{\gdef\WMK@this{#1}}

```

`\thispageheading` Finally, define the `\thispageheading{<heading>}` command. We especially test the case of empty heading and set `\WMK@thishead` to the `\@empty` value in this case. This allows avoiding underfull in the `\WMK@hook`.

```

47 \newcommand{\thispageheading}[1]{%
48   \def\@tempa{#1}%
49   \ifx\@tempa\@empty
50     \global\let\WMK@thishead\@empty
51   \else
52     \gdef\WMK@thishead{\parbox[t]{\textwidth{#1}}%
53   \fi
54 }
55 </package>

```