

# The `extdash` package\*

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The package implements the commands, `\Hyphdash`, `\Endash`, and `\Emdash`, to control hyphenation of compound words and ordinary words dashed by *em-dash*. Some additional commands and shortcuts are also introduced.

## 1 User Interface

`\Hyphdash`    The main purpose of the `extdash` package is to allow hyphenation of compound  
`\Hyphdash*` words. When the word **something-something** occur the only hyphenation point after the dash is available. To allow hyphenation of both words joint by dash you can write

`something\Hyphdash something` or easier `something\-/something`

(the last case is available if you use the package `extdash` with `shortcuts` option). Some times the line break immediately after the dash is inadmissible. To avoid it you can write

`something\Hyphdash* something` or easier `something\=/something`

(the last case is also shortcut). An example is the word *L-approximation* which can't be broken at the dash.

`\Endash`        Analogously, you can use `\Endash` command (may be with star) to join words  
`\Endash*` by *en-dash*. Shortcuts for it are `\--` and `\==`.

`\Emdash`        The last case is the use of *em-dash* when some glue before and after em-dash  
`\Emdash*` have to be added. The command `\Emdash` adds this glue, named `\Halfspace`,  
`\Halfspace` which natural width is equal to the half of the ordinary interword space. The  
`\Halfspace*` `\Halfspace` command produces the *elastic* horizontal space and its `*`-form produces the unbreakable elastic space. All these commands have shortcuts, named

`\---`    `\===`    `\-`,    `\=`,

Note, that `\Emdash` command removes extra space before and after it. When `\Emdash` appears at the beginning of a paragraph (the direct speech) the space after it will be rigid and unbreakable.

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The standard em-dash is longer than that required by Russian typesetting rules. To decrease its length to required one you have to use `extdash` package with `cyremdash` option.

## 2 The Package Options

The `extdash` package provides two options, `shortcuts` and `cyremdash`:

```
\usepackage[shortcuts,cyremdash]{extdash}
```

First option redefines  $\LaTeX$  commands `\-` and `\=` in such a way to recognize shortcut sequences. If no shortcut recognized the corresponding original command will be called. In other words, when no shortcut recognized the command `\-` sets extra hyphenation point and `\=` means the accent command.

The last option redefines `\Emdash` to be shorter than the standard em-dash.

## 3 The Shortcuts Table

Command	Shortcut	Command	Shortcut
<code>\Hyphdash</code>	<code>\-/</code>	<code>\Hyphdash*</code>	<code>\=/</code>
<code>\Endash</code>	<code>\--</code>	<code>\Endash*</code>	<code>\==</code>
<code>\Emdash</code>	<code>\---</code>	<code>\Emdash*</code>	<code>\===</code>
<code>\Halfspace</code>	<code>\-,</code>	<code>\Halfspace*</code>	<code>\=,</code>

*All described commands and shortcuts are robust.*

## 4 The Basic Implementation Part

`\EXD@test` First we implement the command, `\EXD@test`. It recognizes the star after the command, sets `\EXD@break` command to be equal to `\nobreak` if star is found or `\@empty` if not, and calls its parameter.

```
\EXD@break
1 \langle *package \rangle
2 \def\EXD@test#1{%
3   \@ifstar{\let\EXD@break\nobreak #1}{\let\EXD@break\@empty #1}%
4 }

\Hyphdash Now we declare user's level commands
\Endash 5 \DeclareRobustCommand{\Hyphdash}{\EXD@test{\EXD@dash-}}
\Emdash 6 \DeclareRobustCommand{\Endash}{\EXD@test{\EXD@dash--}}
\Halfspace 7 \DeclareRobustCommand{\Emdash}{\EXD@test{\EXD@emd@sh}}
8 \DeclareRobustCommand{\Halfspace}{\@tempcnta\z@
9   \@ifstar{\nobreak\EXD@space\ignorespaces}{\EXD@space\ignorespaces}%
10 }
```

`\EXD@dash` and then the basic commands  
`\EXD@emd@sh` 11 \def\EXD@dash#1{%  
`\EXD@space`

```

12 \nobreak\leavevmode\hbox{#1}\EXD@break\hskip\z@skip \ignorespaces
13 }
14 \def\EXD@emd@sh{%
15   \ifvmode
16     \EXD@emdash\nobreak\hskip.35em
17   \else
18     \unskip\nobreak\@tempcnta\m@ne
19     \EXD@space \EXD@emdash \EXD@break \EXD@space
20   \fi \ignorespaces
21 }

```

The `\@tempcnta` specifies the width of half-space. It can have the following values: -1, 0, or +1. The negative value means using the space before em-dash (the space is narrow at this point), zero value means an ordinary half space, and the positive value means a half-space after em-dash (the space is wider at this point). This trick compensates a visual effect of wider space before an em-dash especially if the punctuation mark goes before.

```

22 \def\EXD@space{%
23   \edef\@tempa{%
24     \ifnum\@tempcnta<\z@ .4\else \ifnum \@tempcnta=\z@ .5\else .6\fi\fi
25   }%
26   \hskip \@tempa\fontdimen2\font \@plus .5\fontdimen3\font
27   \@minus \@tempa\fontdimen4\font
28   \@tempcnta -\@tempcnta
29 }

```

`\EXD@emdash` The last basic command is the default *em-dash*. It could be redefined later in `cyremdash` option.

```

30 \def\EXD@emdash{\leavevmode\hbox{---}}

```

## 5 Shortcuts

```

31 \DeclareOption{shortcuts}{%

```

`\HyphOrDash` The commands `\HyphOrDash` and `\BarOrDash` will be called by `\-` and `\=` commands. They choose the corresponding shortcut or the original commands saved in `\EXD@hyph` and `\EXD@dash`.

`\BarOrDash`

```

32 \DeclareRobustCommand{\HyphOrDash}{%
33   \let\EXD@break\@empty
34   \@ifnextchar/{\EXD@d@sh}{%
35     \@ifnextchar-{\EXD@hdash}{%
36       \@ifnextchar,{\EXD@sp@ce}{\EXD@hyph}%
37     }%
38   }%
39 }
40 \DeclareRobustCommand{\BarOrDash}{%
41   \let\EXD@break\nobreak
42   \@ifnextchar/{\EXD@d@sh}{%
43     \@ifnextchar={\EXD@bdash}{%

```

```

44         \ifnextchar,{\nobreak\EXD@sp@ce}{\EXD@bar}%
45     }%
46 }%
47 }

```

Shortcuts:

```

48 \def\EXD@d@sh/{\EXD@dash-}
49 \def\EXD@sp@ce,{\EXD@space}
50 \def\EXD@hdash-{\ifnextchar-{\EXD@hhdash}{\EXD@dash{--}}}
51 \def\EXD@bdash-{\ifnextchar={\EXD@bbdash}{\EXD@dash{--}}}
52 \def\EXD@hhdash-{\EXD@emd@sh}
53 \def\EXD@bbdash-{\EXD@emd@sh}

```

We turn on the shortcuts mechanism at the beginning of the document to avoid conflict with `fontenc` package which redefines accents.

```

54 \AtBeginDocument{%
55     \let\EXD@hyph- \let\@dischyph\HyphOrDash \let\-\@dischyph
56     \let\EXD@bar= \let\@acciii\BarOrDash \let\=\@acciii
57 }
58 }

```

## 6 Cyrillic Em-dash

```

59 \DeclareOption{cyremdash}{%
60     \def\EXD@emdash{\leavevmode\hb@xt@.8\fontdimen6\font{--\hss--}}
61 }
62 \ProcessOptions\relax
63 \</package>

```