

href-ul: L^AT_EX Package That Makes Underscored Links*

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2026-09-17, 0.5.4

1 Introduction

This package renders hyperlinks with an underscore through the `\href` command:

Go to Google!

```
1 \documentclass{article}
2 \pagestyle{empty}
3 \usepackage{href-ul}
4 \begin{document}
5 Go to
6   \href{https://google.com}{Google}!
7 \end{document}
```

The package does not support line breaking within the title of the link.
Altering the colour of the text simultaneously alters the colour of the underline:

Go to Google!

```
1 \documentclass{article}
2 \pagestyle{empty}
3 \usepackage{href-ul}
4 \usepackage{xcolor}
5 \begin{document}
6 Go to {\color{red}
7   \href{https://google.com}{Google}}!
8 \end{document}
```

Altering the size of the text simultaneously alters the thickness of the underline:

*The sources are in GitHub at [yegor256/href-ul](https://github.com/yegor256/href-ul)

You can always find anything in Google, but it's better to learn something from a school too!

```

1 \documentclass{article}
2 \pagestyle{empty}
3 \usepackage{href-ul}
4 \begin{document}
5 You can always find \! anything in
6 {\Large \href{https://google.com}{Google}},
7 but \! it's better to learn
8 something \! from a school too!
9 \end{document}

```

By means of the `plain` package option, the underscores may be suppressed:

This link has no underscore: Google.

```

3 \usepackage[plain]{href-ul}
4 \begin{document}
5 This link has no underscore: \!
6 \href{https://google.com}{Google}.
7 \end{document}

```

2 Implementation

First, we process package options:

```

1 \RequirePackage{pgfopts}
2 \pgfkeys{
3   /href/.cd,
4   plain/.store in=\href@plain
5 }
6 \ProcessPgfPackageOptions{/href}

```

Then, we include the `ulem` package in order to enable underscores. We pass the `normalem` option so that `ulem` does not replace italics with underlining in text emphasized by `\emph`. The option is passed via `\PassOptionsToPackage` rather than `\RequirePackage[normalem]{ulem}`, so that no “option clash” occurs if the document already loads `ulem` itself:

```

7 \makeatletter
8 \ifdefined\href@plain\else
9 \PassOptionsToPackage{normalem}{ulem}
10 \RequirePackage{ulem}
11 \fi
12 \makeatother

```

Then, we define our own underlining command. The `\ULthickness` of `ulem` is the absolute dimension `.4pt`, which keeps the rule equally thin in a footnote and in a title, where the heavier glyphs make it look faint. We express the thickness in `em` instead, so that it follows the size of the font, the way `\ULdepth` already does. At the default ten-point size, `0.04em` is the `.4pt` that `ulem` would have used anyway. The redefinition stays inside a group, because the document may load `ulem` on its own and expect `\uline` and `\sout` to keep their usual weight:

```

13 \makeatletter
14 \ifdefined\href@plain\else
15 \newcommand\href@underline[1]{\renewcommand\ULthickness{0.04em}\uline{#1}}

```

```

16 \fi
17 \makeatother

    Then, we include the hyperref package for PDF hyperlinks:
18 \PassOptionsToPackage{hidelinks}{hyperref}
19 \PassOptionsToPackage{hyphens}{url}
20 \RequirePackage{hyperref}
21 \RequirePackage{url}

    Then, we re-define the default \href command:
22 \makeatletter
23 \begingroup
24 \catcode'\$=6
25 \catcode'\#=12
26 \gdef\href@split$1#$2#$3\\$4{%
27   \hyper@@link{$1}{$2}{%
28     \ifdefined\href@plain$4\else\href@underline{$4}\fi%
29   }%
30   \endgroup%
31 }
32 \endgroup
33 \makeatother

```

Change History

0.4.0	General: Package options processing introduced with a single <code>plain</code> option. 2	0.5.3	General: Passed the <code>normalem</code> option to <code>ulem</code> (via <code>\PassOptionsToPackage</code> , to avoid option clashes) so that <code>\emph</code> keeps italicizing instead of underlining. 2
0.5.0	General: Enhanced URL breaking functionality to improve handling of long URLs. 2	0.5.4	General: Made the thickness of the underline proportional to the size of the font, instead of the fixed <code>.4pt</code> of <code>ulem</code> 2
0.5.1	General: Added text breaking capabilities to the second argument of <code>\href</code> and shifted from <code>ulem</code> to <code>soul</code> package. . . . 2	v0.2.0	General: Initial version 2
0.5.2	General: Decided not to use <code>soul</code> package, because it's too fragile, and returned back to <code>ulem</code> 2	v0.3.0	General: We started using "docshots" package for better rendering of examples. 2

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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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