

# The `realscripts` package

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OpenType fonts provide the possibility of using specially-drawn glyphs for subscript and superscript text.  $\text{\LaTeX}$  by default simply uses a smaller font size, which is acceptable if the font has optical sizes. Most fonts don't, however.

If you are using the `fontspec` package<sup>1</sup> to select OpenType fonts (or other sorts of fonts with the necessary font features), then loading this package will provide versions of the `\textsuperscript` and `\textsubscript` commands that take advantage of the OpenType font features.

This package will also patch the default  $\text{\LaTeX}$  footnote mechanism to use `\textsuperscript` automatically.

Here is an example using the 'Skia' font of Mac OS X: (surrounded by 'A' and 'Z' for visual context)

```
\textsuperscript      A abcdefghijklmnopqrstuvwxyz1234567890 Z
\textsubscript        A abcdefghijklmnopqrstuvwxyz1234567890 Z
```

The original definitions are available in starred versions of the commands: (compare this example to that above to see why using these features is often desirable)

```
\textsuperscript*     A abcdefghijklmnopqrstuvwxyz1234567890 Z
\textsubscript*       A abcdefghijklmnopqrstuvwxyz1234567890 Z
```

When the glyphs are not available the commands will fall back on the standard technique of scaling down the text font: (this is Mac OS X's 'Didot')

```
\textsuperscript      A abcdefghijklmnopqrstuvwxyz1234567890 Z
\textsubscript        A abcdefghijklmnopqrstuvwxyz1234567890 Z
```

But beware fonts that contain the necessary font features but lack the full repertoire of glyphs: (this is 'Adobe Jenson Pro')

```
\textsuperscript      A abcdefghijklmnopqrstuvwxyz1234567890 Z
\textsubscript        A abcdefghijklmnopqrstuvwxyz1234567890 Z
```

The functionality of the starred and non-starred commands can also be accessed using the macros `\realsubscript`, `\real superscript`, `\fakesubscript`, and `\fake superscript`, in case another package (or you wish to) redefine the original `\text...` commands

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<sup>1</sup>The `fontspec` package requires  $\text{\XeTeX}$  or  $\text{\LuaTeX}$ .

## File I

# The realscripts package

This is the package implementation.

```
1 \RequirePackage{fontspec}[2010/05/14 v2.0]
2 \ExplSyntaxOn

\textsubscript These commands are either defined to create fake or real sub-/super-scripts if they
\textsubscript* are starred or not, respectively.
\textsuperscript
\textsuperscript*
3 \DeclareDocumentCommand \textsubscript {s} {
4   \IfBooleanTF #1 \fakesubscript \realsubscript
5 }
6 \DeclareDocumentCommand \textsuperscript {s} {
7   \IfBooleanTF #1 \fakesuperscript \realsuperscript
8 }

\fakesubscript The old ('fake') methods:
\fakesuperscript
9 \DeclareDocumentCommand \fakesubscript {m} {
10   \@textsubscript{\selectfont#1}
11 }
12 \DeclareDocumentCommand \fakesuperscript {m} {
13   \@textsuperscript{\selectfont#1}
14 }

\realsubscript The new subscript command to use OpenType features if possible.
15 \DeclareDocumentCommand \realsubscript {m} {
16   \fontspec_if_fontspec_font:TF {
For OpenType fonts, the subscript feature (subs) is used, but if that doesn't
exist then the scientific inferior feature (sinf) is used on the assumption that
something's better than nothing.
17     \fontspec_if_opentype:TF
18     { \fontspec_if_feature:nTF {+subs}
19       { {\addfontfeature{VerticalPosition=Inferior}#1} }
20       { \fontspec_if_feature:nTF {+sinf}
21         { {\addfontfeature{VerticalPosition=ScientificInferior}#1} }
22         { \fakesubscript{#1} }
23       }
24     }
25     { \fontspec_if_aat_feature:nnTF {10} {2}
26       { {\addfontfeature{VerticalPosition=Inferior}#1} }
27       { \fakesubscript{#1} }
28     }
29   }
```

Non-fontspec fonts:

```
30 { \fakesubscript{#1} }  
31 }
```

`\realsuperscript` The new superscript command to use OpenType features if possible.

```
32 \DeclareDocumentCommand \realsuperscript {m} {  
33   \fontspec_if_fontspec_font:TF  
34   {
```

OpenType fonts:

```
35     \fontspec_if_opentype:TF  
36     { \fontspec_if_feature:nTF {+sup} }  
37     { {\addfontfeature{VerticalPosition=Superior}#1} }  
38     { \fakesuperscript{#1} }  
39   }
```

ATSUI fonts:

```
40     { \fontspec_if_aat_feature:nnTF {10} {1}  
41     { {\addfontfeature{VerticalPosition=Superior}#1} }  
42     { \fakesuperscript{#1} }  
43   }  
44 }
```

Non-fontspec fonts:

```
45 { \fakesuperscript{#1} }  
46 }
```

Patching footnotes:

`\@makefnmark` This is the command used to typeset the ‘footnote mark’.

```
47 \cs_set:Npn \@makefnmark {  
48   \mbox{\normalfont\textsuperscript{\@thefnmark}}  
49 }
```