

# **uspace user manual**

**v0.03**

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October 29, 2016

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## 1 Introduction

This  $\text{\LaTeX}$  package gives useful meaning to various Unicode space characters so that they fulfill their intended function when used in  $\text{\LaTeX}$  source. It uses `\newunicodechar` macro to do it. Its source is hosted on GitHub in [wilx/project-uspace](https://github.com/wilx/project-uspace) repository.

Here is a list of the implemented characters and their implementations:

ZERO WIDTH SPACE (U+200B)	<code>\hspace{0pt}</code>
NARROW NO-BREAK SPACE (U+202F)	<code>\leavevmode\,</code>
NON-BREAKING SPACE <sup>1</sup> (U+00A0)	<code>~</code>
SOFT HYPHEN <sup>1</sup> (U+00AD)	<code>\-</code>
EM QUAD <sup>2</sup> (U+2001)	<code>\quad</code>
EM SPACE <sup>2</sup> (U+2001)	<code>\quad</code>
EN QUAD <sup>3</sup> (U+2000)	<code>\enskip</code>
EN SPACE <sup>3</sup> (U+2000)	<code>\enskip</code>
THREE-PER-EM SPACE (U+2004)	<code>\hspace{0.33333em}</code>
FOUR-PER-EM SPACE (U+2005)	<code>\hspace{0.25em}</code>
SIX-PER-EM SPACE (U+2006)	<code>\hspace{0.16667em}</code>
FIGURE SPACE (U+2007)	<code>\leavevmode\hphantom{0}</code>
PUNCTUATION SPACE (U+2008)	<code>\hspace{\fontcharwd \font `\",}</code>
THIN SPACE (U+2009)	<code>\leavevmode\allowbreak\,</code>
HAIR SPACE (U+200A)	<code>\hspace{0.08333em}</code>

## 2 History

This package would not be what it is without help and comments from people of [T<sub>E</sub>X](#), [L<sup>A</sup>T<sub>E</sub>X](#) and [Friends](#) StackExchange chat room and the [T<sub>E</sub>X.SE](#) site itself.

- v0.03**      Change implementation for PUNCTUATION SPACE and THIN SPACE to fix issues with line wrapping when using these characters.
- v0.02**      Round lengths to five digits after decimal point. List also Unicode code point values beside character names.
- v0.01**      First published version of this package.

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<sup>1</sup>This already defined for pdf $\text{\TeX}$  because we use `inputenc` with `utf8` option when compiling with pdf $\text{\TeX}$ , therefore this is only defined for Lua $\text{\TeX}$  and Xe $\text{\TeX}$ .

<sup>2</sup>According to Unicode, these two are canonically equivalent. See <http://unicode.org/notes/tn5/> for explanation of the term.

<sup>3</sup>These two are also canonically equivalent. See previous footnote.