

The engsymbols package*

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1 Introduction

This document describes the `engsymbols` package, a collection of macros to facilitate the writing of common engineering symbols.

The following packages are prerequisites:

- `siunitx`

This package follows the conventions specified by ISO standards of typesetting mathematics [1].

2 Implementation

2.1 Special individual symbols

volume This macro produces a calligraphic V to indicate volume, as \mathcal{V} . This is usually done to avoid confusion with velocity.

```
1 \newcommand{\volume}{\mathcal{V}}
```

diffd This macro produces the differential d operator, as in dx . The definition is fairly complex because it tries to do an optimal spacing, as described by [1].

```
2 \newcommand{\diffd}{\@ifnextchar{\DIfF}{\DIfF~{}}}  
3 \def\DIfF~#1{%  
4   \mathop{\mathrm{\mathstrut d}}%  
5     \nolimits~{#1}\gobblespace}  
6 \def\gobblespace{%  
7   \futurelet\diffarg\ospace}  
8 \def\ospace{%  
9   \let\DiffSpace~!  
10  \ifx\diffarg<%  
11    \let\DiffSpace\relax
```

*This document corresponds to `engsymbols` v0.1, dated 2014/12/02.

```

12 \else
13   \ifx\diffarg[%
14     \let\DiffSpace\relax
15   \else
16     \ifx\diffarg\{%
17       \let\DiffSpace\relax
18     \fi\fi\fi\DiffSpace}

```

References

- [1] Claudio Beccari. Typesetting mathematics for science and technology according to iso 31/xi. *TUGboat*, 18(1):39–48, 1997.