

The `fnumprint` package*

Robin Schneider

ypid23@aol.de

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Abstract

The `fnumprint` package provides a macros to decide to typeset a numbers either as number or as word name (only in German yet).

Fork me on GitHub: <https://github.com/ypid/latex-packages>

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1 Introduction

The `fnumprint` package defines two macros to decide to typeset a numbers either as number or as word name for the number. If the number is between zero and twelve (including zero and twelve) then the word name will be used. In any other cases the number will be typesetted with the `numprint` package. This package uses the `zahl2string` package to convert a number in the word name in German. So the conversion of a number (0–12) to a english word number is also implemented by `fnumprint` (not finish).

*This document corresponds to `fnumprint` v1.0, dated 2012/08/19.

2 Usage

Just load the package placing

```
\usepackage{\jobname}
```

in the preamble of your L^AT_EX 2_ε source file.

\fnumprintc The macro **\fnumprintc** $\{\langle L^A T^E X \text{ counter name} \rangle\}$ takes a name of a LaTeX counter as its only not optional parameter and typesets it.

\fnumprint The macro **\fnumprint** $\{\langle number \rangle\}$ is like the **\fnumprintc** marco but it takes a number or a marco that expands to a number. A T_EX counter can also used with this marco.

3 Examples

marco	expanded marco
\fnumprint $\{-1\}$	−1
\fnumprint $\{0\}$	null
\fnumprint $\{10\}$	ten
\fnumprint $\{12\}$	twelve
\fnumprint $\{13\}$	13
\fnumprint $\{\backslash the \backslash year\}$	2012
\fnumprintc $\{page\}$	two

4 Implementation

4.1 The Usual

First the usual things.

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesPackage{fnumprint}[2012/08/19 v1.0 Printing fancy (German) numbers]
```

The following definitions are based on these packages

```
3 \RequirePackage{xifthen}
4 \RequirePackage{zahl2string,numprint}
5
6 \renewcommand{\@numstring}[1]{%
7 \ns@numstr{#1}{\ns@neunzehn}{zero}{}}%
8 %% \ns@numstr{#1}\ns@neunzehns{zero}{}%
9 }
10 \renewcommand{\ns@neunzehn}[1]{%
11 \ifcase#1\@empty\or one\or two\or three\or four\or five\or six\or%
12 seven\or eight\or nine\or ten\or eleven\or twelve\or thirteen\or%
13 fourteen\or fifteen\or sixteen\or seventeen\or%
14 eighteen\or nineteen\fi%
15 }
16 \renewcommand{\ns@neunzehns}[1]{%
17 \ifcase#1\@empty\else\ns@neunzehn{#1}\fi%
18 }
19
```

4.2 Marco definition

`\fnumprint` Here is the `\fnumprint` marco defined. It takes one not optional parameter. The parameter must be a number or a marco which expands to a number.

```
20 \DeclareRobustCommand{\fnumprint}[1]{%
21 \ifthenelse{#1 < 13}{%
22 \ifthenelse{#1 < 0}{%
23 \numprint{#1}%
24 }{%
25 \numstr{#1}%
26 }%
27 }{%
28 \numprint{#1}%
29 }%
30 }
```

`\fnumprintc` Here is the `\fnumprintc` marco defined. It takes one not optional parameter. The parameter must be the name of a counter.

```
31 \DeclareRobustCommand{\fnumprintc}[1]{%
32 \ifthenelse{\value{#1} < 13}{%
33 \ifthenelse{\value{#1} < 0}{%
34 \cntprint{#1}%
35 }
```

```
35     }{%
36         \numstring{#1}%
37     }%
38 }{%
39     \cntprint{#1}%
40 }%
41 }
42 \endinput
```

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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.

Symbols	F	<code>\numprint</code> 23, 28
<code>\@empty</code> 11, 17	<code>\fi</code> 14, 17	<code>\numstr</code> 25
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<code>\else</code> 17	<code>\ns@numstr</code> 7, 8	<code>\value</code> 32, 33
<code>\endinput</code> 42		