

# The **telprint** package

Heiko Oberdiek  
<oberdiek@uni-freiburg.de>

2008/08/11 v1.10

## Abstract

Package **telprint** provides `\telprint` for formatting German phone numbers.

## Contents

<b>1</b>	<b>Documentation</b>	<b>2</b>
1.1	Introduction . . . . .	2
1.2	Short overview in English . . . . .	2
1.2.1	Configuration . . . . .	2
1.3	Documentation in German . . . . .	2
<b>2</b>	<b>Implementation</b>	<b>3</b>
2.1	Reload check and package identification . . . . .	3
2.2	Catcodes . . . . .	4
2.3	Package macros . . . . .	5
<b>3</b>	<b>Test</b>	<b>7</b>
3.1	Catcode checks for loading . . . . .	7
<b>4</b>	<b>Installation</b>	<b>8</b>
4.1	Download . . . . .	8
4.2	Bundle installation . . . . .	9
4.3	Package installation . . . . .	9
4.4	Refresh file name databases . . . . .	9
4.5	Some details for the interested . . . . .	9
<b>5</b>	<b>History</b>	<b>10</b>
	[1996/11/28 v1.0] . . . . .	10
	[1997/09/16 v1.1] . . . . .	10
	[1997/10/16 v1.2] . . . . .	10
	[1997/12/09 v1.3] . . . . .	10
	[2004/11/02 v1.4] . . . . .	10
	[2005/09/30 v1.5] . . . . .	10
	[2006/02/12 v1.6] . . . . .	10
	[2006/08/26 v1.7] . . . . .	11
	[2007/04/11 v1.8] . . . . .	11
	[2007/09/09 v1.9] . . . . .	11
	[2008/08/11 v1.10] . . . . .	11
<b>6</b>	<b>Index</b>	<b>11</b>

# 1 Documentation

## 1.1 Introduction

This is a very old package that I have written to format phone numbers. It follows German conventions and the documentation is mainly in German.

## 1.2 Short overview in English

L<sup>A</sup>T<sub>E</sub>X:

```
\usepackage{telprint}
\telprint{123/456-789}
```

plain-T<sub>E</sub>X:

```
\input telprint.sty
\telprint{123/456-789}
```

**\telprint**      **\telprint{...}** formats the explicitly given number. Digits, spaces and some special characters ('+', '/', '-', '(', ')', '~', ' ') are supported. Numbers are divided into groups of two digits from the right. Examples:

```
\telprint{0761/12345}      ==> 07\,61/1\,23\,45
\telprint{01234/567-89}    ==> 0\,12\,34/5\,67\leavevmode\hbox{-}89
\telprint{+49 (6221) 297}  ==> +49~(62\,21)~2\,97
```

### 1.2.1 Configuration

The output of the symbols can be configured by **\telhyphen**, **\telslash**, **\telleftparen**, **\telrightparen**, **\telplus**, **\teltilde**. Example:

```
\telslash{\,/\,}\telprint{12/34} ==> 12\,/\/,34
```

**\telspace**      **\telspace** configures the space between digit groups.

**\telnumber**    **\telnumber** only formats a number in digit groups; special characters are not recognized.

## 1.3 Documentation in German

**\telprint**      • **telprint#1**  
Der eigentliche Anwenderbefehl zur formatierten Ausgabe von Telefonnummern. Diese dürfen dabei nur als Zahlen angegeben werden (da sie tokenweise analysiert werden). Als Trenn- oder Sonderzeichen werden unterstützt: '+', '/', '-', '(', ')', '~', ' '. Einfache Leerzeichen werden erkannt und durch Tilden ersetzt, um Trennungen in der Telefonnummer zu verhindern. (Man beachte aus gleichem Grunde die **\hbox** bei '-'). Beispiele:

```
\telprint{0761/12345}      ==> 07\,61/1\,23\,45
\telprint{01234/567-89}    ==> 0\,12\,34/5\,67\leavevmode\hbox{-}89
\telprint{+49 (6221) 297}  ==> +49~(62\,21)~2\,97
```

Der Rest enthält eher Technisches:

**\telspace**      • **\telspace#1**  
Mit diesem Befehl wird der Abstand zwischen den Zifferngruppen angegeben (Default: \,). (Durch **\telspace{}** kann dieser zusätzliche Abstand abgestellt werden.)

<code>\telhyphen</code>	<ul style="list-style-type: none"> <li>• <code>\telhyphen#1</code> Dieser Befehl gibt die Art des Bindestriches, wie er ausgegeben werden soll. In der Eingabe darf jedoch nur der einfache Bindestrich stehen: <code>\telprint{123-45}</code>, jedoch NIE <code>\telprint{123--45}</code>! Kopka-Bindestrich-Fans geben an: <code>\telhyphen{\leavevmode\hbox{--}}</code></li> </ul>
<code>\telslash</code>	<ul style="list-style-type: none"> <li>• <code>\telslash#1, \telleftparen#1, \telrightparen#1, \telplus#1, \teltilde</code> Diese Befehle konfigurieren die Zeichen <code>'/'</code>, <code>'('</code>, <code>')'</code>, <code>'+'</code> und <code>'~'</code>. Sie funktionieren analog zu <code>\telhyphen</code>.</li> <li>• <code>\telnumber#1</code> Richtung interner Befehl: Er dient dazu, eine Zifferngruppe in Zweiergruppen auszugeben. Die einzelnen Zahlen werden im Tokenregister <code>\TELtoks</code> gespeichert. Abwechselnd werden dabei zwischen zwei Token (Zahlen) <code>\TELx</code> bzw. <code>\TELy</code> eingefügt, abhängig von dem wechselnden Wert von <code>\TELswitch</code>. Zum Schluss kann dann einfach festgestellt werden ob die Nummer nun eine geradzahlige oder ungeradzahlige Zahl von Ziffern aufwies. Dem entsprechend wird <code>\TELx</code> mit dem Zusatzabstand belegt und <code>\TELy</code> leer definiert oder umgekehrt. )</li> <li>• <code>\TEL...</code> interne Befehle, Technisches: <code>\TELsplit</code> dient zur Aufteilung einer zusammengesetzten Telefonnummer (Vorwahl, Hauptnummer, Nebenstelle). In dieser Implementation werden als Trennzeichen nur <code>'/'</code> und <code>'-'</code> erkannt. Die einzelnen Bestandteile wie Vorwahl werden dann dem Befehl <code>\telnumber</code> zur Formatierung uebergeben.</li> <li>• Die Erkennung von einfachen Leerzeichen ist um einiges schwieriger: Die Tokenentrennung ueber Parameter <code>#1#2</code> funktioniert nicht für einfache Leerzeichen, da TeX sie <i>niemals</i> als eigenständige Argumente behandelt! (The TeXbook, Chapter 20, p. 201)  (Anmerkung am Rande: Deshalb funktionieren die entsprechenden Tokenmakros auf S. 149 des Buches „Einführung in TeX“ von N. Schwarz (3. Aufl.) nicht, wenn im Tokenregister als erstes ein einfaches Leerzeichen steht!)</li> </ul>
<code>\telleftparen</code>	
<code>\telrightparen</code>	
<code>\telplus</code>	
<code>\teltilde</code>	
<code>\telnumber</code>	

## 2 Implementation

```
1 (*package)
```

### 2.1 Reload check and package identification

Reload check, especially if the package is not used with L<sup>A</sup>T<sub>E</sub>X.

```
2 \begingroup
3 \catcode44 12 % ,
4 \catcode45 12 % -
5 \catcode46 12 % .
6 \catcode58 12 % :
7 \catcode64 11 % @
8 \expandafter\let\expandafter\x\csname ver@telprint.sty\endcsname
9 \ifcase 0%
10 \ifx\x\relax % plain
11 \else
12 \ifx\x\empty % LaTeX
13 \else
14 1%
15 \fi
16 \fi
17 \else
18 \catcode35 6 % #
19 \catcode123 1 % {
20 \catcode125 2 % }
```

```

21 \expandafter\ifx\csname PackageInfo\endcsname\relax
22 \def\x#1#2{%
23 \immediate\write-1{Package #1 Info: #2.}%
24 }%
25 \else
26 \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
27 \fi
28 \x{telprint}{The package is already loaded}%
29 \endgroup
30 \expandafter\endinput
31 \fi
32 \endgroup

```

Package identification:

```

33 \begingroup
34 \catcode35 6 % #
35 \catcode40 12 % (
36 \catcode41 12 % )
37 \catcode44 12 % ,
38 \catcode45 12 % -
39 \catcode46 12 % .
40 \catcode47 12 % /
41 \catcode58 12 % :
42 \catcode64 11 % @
43 \catcode123 1 % {
44 \catcode125 2 % }
45 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
46 \def\x#1#2#3[#4]{\endgroup
47 \immediate\write-1{Package: #3 #4}%
48 \xdef#1{#4}%
49 }%
50 \else
51 \def\x#1#2[#3]{\endgroup
52 #2[#{#3}]%
53 \ifx#1\relax
54 \xdef#1{#3}%
55 \fi
56 }%
57 \fi
58 \expandafter\x\csname ver@telprint.sty\endcsname
59 \ProvidesPackage{telprint}%
60 [2008/08/11 v1.10 Formatting of German phone numbers (HO)]

```

## 2.2 Catcodes

```

61 \begingroup
62 \catcode123 1 % {
63 \catcode125 2 % }
64 \def\x{\endgroup
65 \expandafter\edef\csname TELAtEnd\endcsname{%
66 \catcode35 \the\catcode35\relax
67 \catcode64 \the\catcode64\relax
68 \catcode123 \the\catcode123\relax
69 \catcode125 \the\catcode125\relax
70 }%
71 }%
72 \x
73 \catcode35 6 % #
74 \catcode64 11 % @
75 \catcode123 1 % {
76 \catcode125 2 % }
77 \def\TMP@EnsureCode#1#2{%
78 \edef\TELAtEnd{%

```

```

79     \TELAtEnd
80     \catcode#1 \the\catcode#1\relax
81 }%
82 \catcode#1 #2\relax
83 }
84 \TMP@EnsureCode{33}{12}% !
85 \TMP@EnsureCode{36}{3}% $
86 \TMP@EnsureCode{40}{12}% (
87 \TMP@EnsureCode{41}{12}% )
88 \TMP@EnsureCode{42}{12}% *
89 \TMP@EnsureCode{43}{12}% +
90 \TMP@EnsureCode{44}{12}% ,
91 \TMP@EnsureCode{45}{12}% -
92 \TMP@EnsureCode{46}{12}% .
93 \TMP@EnsureCode{47}{12}% /
94 \TMP@EnsureCode{61}{12}% =
95 \TMP@EnsureCode{126}{13}% ~ (active)

```

## 2.3 Package macros

```

96 \ifx\DeclareRobustCommand\UnDeFiNeD
97   \def\DeclareRobustCommand#1[1]{\def#1##1}%
98   \def\TELreset{\let\DeclareRobustCommand=\UnDeFiNeD}%
99   \input infwarerr.sty\relax
100   \@PackageInfo{telprint}{%
101     Macros are not robust!%
102   }%
103 \else
104   \let\TELreset=\relax
105 \fi

\telspace

106 \DeclareRobustCommand*\telspace[1]{\def\TELspace{#1}}
107 \telspace{ }\$, $\{ }

\telhyphen

108 \DeclareRobustCommand*\telhyphen[1]{\def\TELhyphen{#1}}
109 \telhyphen{\leavevmode\hbox{-}}% \hbox zur Verhinderung der Trennung

\telslash

110 \DeclareRobustCommand*\telslash[1]{\def\TELslash{#1}}
111 \telslash{/}%

\telleftparen

112 \DeclareRobustCommand*\telleftparen[1]{\def\TELleftparen{#1}}
113 \telleftparen{(}%

\telrightparen

114 \DeclareRobustCommand*\telrightparen[1]{\def\TELrightparen{#1}}
115 \telrightparen{)}%

\telplus

116 \DeclareRobustCommand*\telplus[1]{\def\TELplus{#1}}
117 \telplus{+}%

\teltilde

118 \DeclareRobustCommand*\teltilde[1]{\def\TELtilde{#1}}
119 \teltilde{~}%

\TELtoks

120 \newtoks\TELtoks

```

\TELnumber

```
121 \def\TELnumber#1#2\TELnumberEND{%
122   \begingroup
123   \def\0{#2}%
124   \expandafter\endgroup
125   \ifx\0\empty
126     \TELtoks=\expandafter{\the\TELtoks#1}%
127     \ifnum\TELswitch=0 %
128       \def\TELx{\TELSpace}\def\TELy{}\%
129     \else
130       \def\TELx{}\def\TELy{\TELSpace}%
131     \fi
132     \the\TELtoks
133   \else
134     \ifnum\TELswitch=0 %
135       \TELtoks=\expandafter{\the\TELtoks#1\TELx}%
136       \def\TELswitch{1}%
137     \else
138       \TELtoks=\expandafter{\the\TELtoks#1\TELy}%
139       \def\TELswitch{0}%
140     \fi
141     \TELnumber#2\TELnumberEND
142   \fi
143 }
```

\telnumber

```
144 \DeclareRobustCommand*\telnumber}[1]{%
145   \TELtoks={}
146   \def\TELswitch{0}%
147   \TELnumber#1\TELnumberEND
148 }
```

\TELsplit

```
149 \def\TELsplit{\futurelet\TELfuture\TEldosplit}
```

\TEldosplit

```
150 \def\TEldosplit#1#2\TELsplitEND
151 {%
152   \def\TELsp{ }%
153   \expandafter\ifx\TELsp\TELfuture
154     \let\TELfuture=\relax
155     \expandafter\telnumber\expandafter{\the\TELtoks}~%
156     \telprint{#1#2}% Das Leerzeichen kann nicht #1 sein!
157   \else
158     \def\TELfirst{#1}%
159     \ifx\TELfirst\empty
160       \expandafter\telnumber\expandafter{\the\TELtoks}%
161       \TELtoks={}
162     \else\if-\TELfirst
163       \expandafter\telnumber\expandafter{\the\TELtoks}\TELhyphen
164       \telprint{#2}%
165     \else\if/\TELfirst
166       \expandafter\telnumber\expandafter{\the\TELtoks}\TELslash
167       \telprint{#2}%
168     \else\if(\TELfirst
169       \expandafter\telnumber\expandafter{\the\TELtoks}\TELleftparen
170       \telprint{#2}%
171     \else\if)\TELfirst
172       \expandafter\telnumber\expandafter{\the\TELtoks}\TELrightparen
173       \telprint{#2}%
174     \else\if+\TELfirst
175       \expandafter\telnumber\expandafter{\the\TELtoks}\TELplus
```

```

176     \telprint{#2}%
177   \else\def\TELtemp{~}\ifx\TELtemp\TELfirst
178     \expandafter\telnumber\expandafter{\the\TELToks}\TELtilde
179     \telprint{#2}%
180   \else
181     \TELToks=\expandafter{\the\TELToks#1}%
182     \TELSplit#2{}\TELSplitEND
183     \fi\fi\fi\fi\fi\fi\fi
184   \fi
185 }

\telprint

186 \DeclareRobustCommand*\telprint}[1]{%
187   \TELToks={}%
188   \TELSplit#1{}\TELSplitEND
189 }

190 \TELreset\let\TELreset=\UnDeFiNeD
191 \TELAteEnd
192 </package>

```

## 3 Test

### 3.1 Catcode checks for loading

```

193 <test1>

194 \catcode'\{=1 %
195 \catcode'\}=2 %
196 \catcode'\#=6 %
197 \catcode'\@=11 %
198 \expandafter\ifx\csname count@\endcsname\relax
199   \countdef\count@=255 %
200 \fi
201 \expandafter\ifx\csname @gobble\endcsname\relax
202   \long\def\@gobble#1{}%
203 \fi
204 \expandafter\ifx\csname @firstofone\endcsname\relax
205   \long\def\@firstofone#1{#1}%
206 \fi
207 \expandafter\ifx\csname loop\endcsname\relax
208   \expandafter\@firstofone
209 \else
210   \expandafter\@gobble
211 \fi
212 {%
213   \def\loop#1\repeat{%
214     \def\body{#1}%
215     \iterate
216   }%
217   \def\iterate{%
218     \body
219     \let\next\iterate
220   \else
221     \let\next\relax
222   \fi
223   \next
224 }%
225 \let\repeat=\fi
226 }%
227 \def\RestoreCatcodes{}
228 \count@=0 %

```

```

229 \loop
230   \edef\RestoreCatcodes{%
231     \RestoreCatcodes
232     \catcode\the\count@=\the\catcode\count@\relax
233   }%
234   \ifnum\count@<255 %
235     \advance\count@ 1 %
236   \repeat
237
238 \def\RangeCatcodeInvalid#1#2{%
239   \count@=#1\relax
240   \loop
241     \catcode\count@=15 %
242     \ifnum\count@<#2\relax
243       \advance\count@ 1 %
244     \repeat
245 }
246 \expandafter\ifx\csname LoadCommand\endcsname\relax
247   \def\LoadCommand{\input telprint.sty\relax}%
248 \fi
249 \def\Test{%
250   \RangeCatcodeInvalid{0}{47}%
251   \RangeCatcodeInvalid{58}{64}%
252   \RangeCatcodeInvalid{91}{96}%
253   \RangeCatcodeInvalid{123}{255}%
254   \catcode'\@=12 %
255   \catcode'\=0 %
256   \catcode'\{=1 %
257   \catcode'\}=2 %
258   \catcode'\#=6 %
259   \catcode'\[=12 %
260   \catcode'\]=12 %
261   \catcode'\%=14 %
262   \catcode'\ =10 %
263   \catcode13=5 %
264   \LoadCommand
265   \RestoreCatcodes
266 }
267 \Test
268 \csname @@end\endcsname
269 \end
270 </test1>

```

## 4 Installation

### 4.1 Download

**Package.** This package is available on CTAN<sup>1</sup>:

[CTAN:macros/latex/contrib/oberdiek/telprint.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/telprint.pdf](#) Documentation.

**Bundle.** All the packages of the bundle ‘oberdiek’ are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

[CTAN:install/macros/latex/contrib/oberdiek.tds.zip](#)

TDS refers to the standard “A Directory Structure for T<sub>E</sub>X Files” ([CTAN:tds/tds.pdf](#)). Directories with `texmf` in their name are usually organized this way.

---

<sup>1</sup><http://ftp.ctan.org/tex-archive/>



## 4.2 Bundle installation

**Unpacking.** Unpack the `oberdiek.tds.zip` in the TDS tree (also known as `texmf` tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

**Script installation.** Check the directory `TDS:scripts/oberdiek/` for scripts that need further installation steps. Package `attachfile2` comes with the Perl script `pdfatfi.pl` that should be installed in such a way that it can be called as `pdfatfi`. Example (linux):

```
chmod +x scripts/oberdiek/pdfatfi.pl
cp scripts/oberdiek/pdfatfi.pl /usr/local/bin/
```

## 4.3 Package installation

**Unpacking.** The `.dtx` file is a self-extracting `docstrip` archive. The files are extracted by running the `.dtx` through plain- $\TeX$ :

```
tex telprint.dtx
```

**TDS.** Now the different files must be moved into the different directories in your installation TDS tree (also known as `texmf` tree):

<code>telprint.sty</code>	$\rightarrow$ <code>tex/generic/oberdiek/telprint.sty</code>
<code>telprint.pdf</code>	$\rightarrow$ <code>doc/latex/oberdiek/telprint.pdf</code>
<code>test/telprint-test1.tex</code>	$\rightarrow$ <code>doc/latex/oberdiek/test/telprint-test1.tex</code>
<code>telprint.dtx</code>	$\rightarrow$ <code>source/latex/oberdiek/telprint.dtx</code>

If you have a `docstrip.cfg` that configures and enables `docstrip`'s TDS installing feature, then some files can already be in the right place, see the documentation of `docstrip`.

## 4.4 Refresh file name databases

If your  $\TeX$  distribution (te $\TeX$ , mik $\TeX$ , ...) relies on file name databases, you must refresh these. For example, te $\TeX$  users run `texhash` or `mktextlsr`.

## 4.5 Some details for the interested

**Attached source.** The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk telprint.pdf unpack_files output .
```

**Unpacking with  $\LaTeX$ .** The `.dtx` chooses its action depending on the format:

**plain- $\TeX$ :** Run `docstrip` and extract the files.

**$\LaTeX$ :** Generate the documentation.

If you insist on using  $\LaTeX$  for `docstrip` (really, `docstrip` does not need  $\LaTeX$ ), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{telprint.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

**Generating the documentation.** You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by the configuration file `ltxdoc.cfg`. For instance, put this line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with pdfL<sup>A</sup>T<sub>E</sub>X:

```
pdflatex telprint.dtx
makeindex -s gind.ist telprint.idx
pdflatex telprint.dtx
makeindex -s gind.ist telprint.idx
pdflatex telprint.dtx
```

## 5 History

### [1996/11/28 v1.0]

- Erste lauffähige Version.
- Nur `'-'` und `'/'` als zulässige Sonderzeichen.

### [1997/09/16 v1.1]

- Dokumentation und Kommentare (Posting in `de.comp.text.tex`).
- Erweiterung um Sonderzeichen `'(, ')`, `'+'`, `'~'` und `' '`.
- Trennungsverhinderung am `'hyphen'`.

### [1997/10/16 v1.2]

- Schutz vor wiederholtem Einlesen.
- Unter L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> Nutzung des `\DeclareRobustCommand`-Features.

### [1997/12/09 v1.3]

- Temporäre Variable eingespart.
- Posted in newsgroup `de.comp.text.tex`:  
“**Re: Generisches Markup für Telefonnummern?**”<sup>2</sup>

### [2004/11/02 v1.4]

- Fehler in der Dokumentation korrigiert.

### [2005/09/30 v1.5]

- Konfigurierbare Symbole: `'/'`, `'(, ')`, `'+'` und `'~'`.

### [2006/02/12 v1.6]

- LPPL 1.3.
- Kurze Übersicht in Englisch.
- CTAN.

---

<sup>2</sup>Url: <http://groups.google.com/group/de.comp.text.tex/msg/86b3a86140007309>

[2006/08/26 v1.7]

- New DTX framework.

[2007/04/11 v1.8]

- Line ends sanitized.

[2007/09/09 v1.9]

- Catcode section added.
- Missing docstrip tag added.

[2008/08/11 v1.10]

- Code is not changed.
- URLs updated.

## 6 Index

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			
<code>\#</code>	196, 258	<code>\csname</code>	8, 21, 45, 58, 65, 198, 201, 204, 207, 246, 268
<code>\%</code>	261	<b>D</b>	
<code>\,</code>	107	<code>\DeclareRobustCommand</code>	96, 97, 98, 106, 108, 110, 112, 114, 116, 118, 144, 186
<code>\@</code>	197, 254	<b>E</b>	
<code>\@PackageInfo</code>	100	<code>\empty</code>	12, 125, 159
<code>\@firstofone</code>	205, 208	<code>\end</code>	269
<code>\@gobble</code>	202, 210	<code>\endcsname</code>	8, 21, 45, 58, 65, 198, 201, 204, 207, 246, 268
<code>\[</code>	259	<code>\endinginput</code>	30
<code>\]</code>	255	<b>F</b>	
<code>\{</code>	194, 256	<code>\futurelet</code>	149
<code>\}</code>	195, 257	<b>H</b>	
<code>\]</code>	260	<code>\hbox</code>	109
Numbers		<b>I</b>	
<code>\0</code>	123, 125	<code>\if</code>	162, 165, 168, 171, 174
		<code>\ifcase</code>	9
		<code>\ifnum</code>	127, 134, 234, 242
		<code>\ifx</code>	10, 12, 21, 45, 53, 96, 125, 153, 159, 177, 198, 201, 204, 207, 246
		<code>\immediate</code>	23, 47
		<code>\input</code>	99, 247
		<code>\iterate</code>	215, 217, 219
		<b>L</b>	
		<code>\leavevmode</code>	109
		<code>\LoadCommand</code>	247, 264
		<code>\loop</code>	213, 229, 240
A			
<code>\advance</code>	235, 243		
B			
<code>\body</code>	214, 218		
C			
<code>\catcode</code>	3, 4, 5, 6, 7, 18, 19, 20, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 62, 63, 66, 67, 68, 69, 73, 74, 75, 76, 80, 82, 194, 195, 196, 197, 232, 241, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263		
<code>\count@</code>	199, 228, 232, 234, 235, 239, 241, 242, 243		
<code>\countdef</code>	199		

<b>N</b>		\TELrightparen	114, 172
\newtoks	120	\telrightparen	3, 114
\next	219, 221, 223	\TELslash	110, 166
<b>P</b>		\telslash	3, 110
\PackageInfo	26	\TELsp	152, 153
\ProvidesPackage	59	\TELspace	106, 128, 130
<b>R</b>		\telspace	2, 2, 106
\RangeCatcodeInvalid	238, 250, 251, 252, 253	\TELsplit	149, 182, 188
\repeat	213, 225, 236, 244	\TELsplitEND	150, 182, 188
\RestoreCatcodes	227, 230, 231, 265	\TELswitch	127, 134, 136, 139, 146
<b>T</b>		\TELtemp	177
\TELatEnd	78, 79, 191	\TELtilde	118, 178
\TELdosplit	149, 150	\teltilde	3, 118
\TELfirst	158, 159, 162, 165, 168, 171, 174, 177	\TELToks	120, 126, 132, 135, 138, 145, 155, 160, 161, 163, 166, 169, 172, 175, 178, 181, 187
\TELfuture	149, 153, 154	\TELx	128, 130, 135
\TELhyphen	108, 163	\TELy	128, 130, 138
\telhyphen	3, 108	\Test	249, 267
\TELleftparen	112, 169	\the	66, 67, 68, 69, 80, 126, 132, 135, 138, 155, 160, 163, 166, 169, 172, 175, 178, 181, 232
\telleftparen	3, 112	\TMP@EnsureCode	77, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95
\TELnumber	121, 147	<b>U</b>	
\telnumber	2, 3, 144, 155, 160, 163, 166, 169, 172, 175, 178	\UnDeFiNeD	96, 98, 190
\TELnumberEND	121, 141, 147	<b>W</b>	
\TELplus	116, 175	\write	23, 47
\telplus	3, 116	<b>X</b>	
\telprint	2, 2, 156, 164, 167, 170, 173, 176, 179, 186	\x	8, 10, 12, 22, 26, 28, 46, 51, 58, 64, 72
\TELreset	98, 104, 190		