

etextools examples

Examples for some macros provided by the etextools package

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1 \expandnext examples

1.1 Test if the replacement text of macro is really empty

```
\def\xx{ }
```

✂ → \edef \expandnextTest {\string \xx \ is \expandnext \ifempty {\xx }{{not} empty}
\expandnextTest= macro:->\xx\ is not empty

```
\def\xx{}
```

✂ → \edef \expandnextTest {\string \xx \ is \expandnext \ifempty {\xx }{{not} empty}
\expandnextTest= macro:->\xx\ is empty

1.2 Test if the replacement text of a macro is blank (empty or spaces)

```
\def\xx{something}
```

→

```
\edef \expandnextTest {\string \xx \ is \expandnext \ifblank {\xx }{{not} blank}
\expandnextTest= macro:->\xx\ is not blank
```

```
\def\xx{ }
```

→

```
\edef \expandnextTest {\string \xx \ is \expandnext \ifblank {\xx }{{not} blank}
\expandnextTest= macro:->\xx\ is blank
```

1.3 Detokenize the replacement text of a named-sequence

```
\def\detokenizecs#1{\expandnext \expandnext \detokenize {\csname #1\endcsname }}
```

→

```
\edef \expandnextTest {\detokenizecs {document}}
\expandnextTest= macro:->\@latex@error {Can be used only in preamble}\@eha
```

2 Testing characters

2.1 \ifsinglechar versus \iffirstchar

→

```
\edef \ifsinglecharTest {\ifsinglechar **hello*}{ single star }{ something else }}
\ifsinglecharTest= macro:-> something else
```

→

```
\edef \ifsinglecharTest {\ifsinglechar *{ *}{ single star }{ something else }}
\ifsinglecharTest= macro:-> something else
```

→

```
\edef \ifsinglecharTest {\ifsinglechar *{ * }{ single star }{ something else }}
\ifsinglecharTest= macro:-> something else
```

Note the space **after** the star ↑.

→

```
\edef \iffirstcharTest {\iffirstchar **hello*}{ first char is star }{ something else }}
\iffirstcharTest= macro:-> first char is star
```

2.2 Fully Expandable starred macros

```
\def\starmacro#1{\FE@ifstar {#1}\starred \notstarred }
```

```
\def\starred#1{your "#1" will be processed by the STAR form}
```

```
\def\notstarred#1{your "#1" will be processed by the NORMAL form}
```

→

```
\edef \FE@ifstarTest {\starmacro {sample text}}
\FE@ifstarTest= macro:->your "sample text" will be processed by the NORMAL form
```

→ `\edef \FE@ifstarTest {\starmacro *{sample text}}`
`\FE@ifstarTest= macro:->your "sample text" will be processed by the STAR form`

2.3 Fully Expandable macros with options

```
\def\optmacro#1{\FE@testopt {#1}\OPTmacro {Mr.}}  
\def\OPTmacro[#1]#2{#1 #2}
```

→ `\edef \FE@testoptTest {\optmacro {Woody Allen}}`
`\FE@testoptTest= macro:->Mr. Woody Allen`

→ `\edef \FE@testoptTest {\optmacro [Ms.]{Vanessa Paradis}}`
`\FE@testoptTest= macro:->Ms. Vanessa Paradis`

3 Lists management

3.1 \csvloop and \csvloop* examples

3.1.1 \makequotes

```
\def\makequotes#1{"#1"\space }
```

→ `\edef \csvloopTest {\csvloop *[\makequotes]{hello,world}}`
`\csvloopTest= macro:->"hello" "world"`

3.1.2 \detokenize

→ `\edef \csvloopTest {\csvloop *[\detokenize]{\un ,\deux }}`
`\csvloopTest= macro:->\un \deux`

3.1.3 \numexpr

```
\def\mylist{1,2,3,4,5}  
\def\BySeven#1{$#1\times 7 = \number \numexpr #1*7\relax $\par }
```

→ `\edef \csvloopTest {\csvloop [\BySeven]\mylist }`
`\csvloopTest= macro:->$1\times 7 = 7$\par $2\times 7 = 14$\par $3\times 7 = 21$\par $4\times 7 = 28$\par $5\times 7 = 35$\par`

3.1.4 protected \textbf

→ `\protected\edef \csvloopTest {\csvloop *[\textbf]{hello ,my ,friends}}`
`\csvloopTest= macro:->\protect \textbf {hello }\protect \textbf {my }\protect \textbf {friends}`

3.2 Index in lists and items by index

3.2.1 \getlistitem

```
\csvtolist*\mylist{one,two,three,four,five,alpha,beta,gamma}
```

→

```
\edef \getlistitemTest {\getlistitem {4}\mylist }  
\getlistitemTest= macro:->four
```

3.2.2 \getlistindex

Require the \pdfstrcmp primitive (pdfTeX):

```
\csvtolist*\mylist{one,two,three,four,five,alpha,beta,gamma}
```

→

```
\edef \getlistindexTest {\getlistindex {alpha}\mylist }  
\getlistindexTest= macro:->6
```

Require the \pdfstrcmp primitive (pdfTeX):

→

```
\edef \getlistindexTest {\getcsvlistindex *{alpha}{one,two,three,four,five,alpha,beta}}  
\getlistindexTest= macro:->6
```

```
→ \getlistindex[\myindex]{alpha}\mylist
```

```
\myindex= macro:->6
```

```
\newcount\myindex
```

→

```
\getcsvlistindex*[\myindex]{alpha}{one,two,three,four,five,alpha,beta}  
\the\myindex= 6
```

3.2.3 \xgetlistindex

Require the \pdfstrcmp primitive (pdfTeX):

```
\csvtolist*\mylist{one,two,three,four,five,alpha,beta,gamma}
```

```
\def\x{beta}
```

→

```
\edef \xgetlistindexTest {\xgetlistindex {\x }\mylist }  
\xgetlistindexTest= macro:->7
```

3.2.4 \getlistindex with \ifcase

Always purely expandable (no need of \pdfstrcmp, comparison done by \ifx):

→

```
\ifcase \gettokslistindex*{D}{LRDF\relax 0}  
    Problem  
    \or What do to if L  
    \or What do to if R  
    \or What do to if D  
    \or What do to if F  
    \or What do to if \relax  
    \or What do to if 0  
    \fi  
Result= What do to if D
```
