

Tabular figures

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1 Purpose

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Traditionally, there has not been any concept of proportional figures (0123456789) versus tabular figures (0123456789) in \LaTeX . Effectively, the commonly used fonts only included figures that are equally wide. That is why, with fonts like `MinionPro` that use proportional figures by default, you have to specifically adapt your document class or even the \LaTeX kernel to this new task of using tabular figures in the right places such as the table of contents, enumerations or other material where numbers should line up vertically. This package tries to assist you in the most common situations.

2 Effects

This package is a collection of patches that inject `\figureversion{tabular}` into the involved formatting commands in the right places. You have to explicitly enable those patches by using one or more of the following package options, like this:

```
\usepackage[toc,eqno]{tabfigures}
```

This way, you can always turn the patches off and see for yourself if things break. (While this package tries to be as robust as possible, it has to touch the internals of other classes and packages.)

Throughout this document, tabular figures are colored `green`.

toc Use tabular figures for the numbering and for the page numbers in the table of contents, list of tables/figures, and similar lists.

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eqno Use tabular figures in equation numbers.

$x = y$	$X = Y$	$a = b + c$	(19)
$x' = y'$	$X' = Y'$	$a' = b$	(20)
$x + x' = y + y'$	$X + X' = Y + Y'$	$a'b = c'b$	(21)

enum Use tabular figures in enumerations.

- 39. The world's fastest supercomputer will have its speed measured in "petaflops", which represent 1,000 trillion calculations per second.
- 40. The medical name for the part of the brain associated with teenage sulking is "superior temporal sulcus".
- 41. Some Royal Mail stamps, which of course carry the Queen's image, are printed in Holland.

bib Use tabular figures for the labels in the bibliography. (The previous examples have been taken from the following sources.)

- [19] Leslie Lamport. *L^AT_EX: A Document Preparation System*. Addison-Wesley, Reading, MA, 2nd Edition, 1994.
- [20] American Mathematical Society. User's Guide for the *amsmath* Package (Version 2.0). Revised, 2002.
- [21] BBC News. 100 Things We Didn't Know Last Year. 28 December 2006.

lineno Use tabular figures for line numbers. Only the *doc* package is supported for now; other line-numbering packages might be added later.

```
49 \DeclareOption{eqno}{%
50   \AtBeginDocument{%
51     \ifpackageloaded{amsmath}{%
```

3 Compatibility

This package has been designed to work with the default settings of the standard document classes *article*, *report*, and *book*; their KOMA-Script counterparts; the *memoir* class; the *amsmath* package; and the standard bibliographic styles *numeric* and *alphabetic* of *bibtex* v0.6a.

4 Implementation

Ease patching of commands. We store the original meaning of `\cmd` in a safe place and access it later (in the redefinition) with `\Tf@\cmd`.

```
1 \newcommand*\Tf@[1]{\Tf@{\expandafter\@cdr\string #1\@nil}}
2 \newcommand*\Tf@[1]{\csname \Tf@{#1}\endcsname}
3 \newcommand*\Tf@name{}
4 \newcommand*\Tf@save[1]{%
5   \edef\Tf@name{\expandafter\expandafter\expandafter
6     \noexpand\Tf@{#1}}%
7   \expandafter\newcommand\Tf@name{}%
8   \expandafter\let\Tf@name #1%
9 }
```

Just a shorthand.

```
10 \newcommand*\Tf@def[1]{%
11   \Tf@save{#1}%
12   \def#1%
13 }
```

Patch $\backslash l@<level>$ commands. These commands always take two arguments, the second of which is the page number.

```
14 \newcommand*\Tf@pname{}
15 \newcommand*\Tf@patch@l[1]{%
16   \ifundefined{l@#1}{}{%
17     \edef\Tf@pname{\expandafter\noexpand\csname l@#1\endcsname}%
18     \expandafter\Tf@save\Tf@pname
19     \expandafter\edef\Tf@pname##1##2{%
20       \noexpand\Tf@
21       \expandafter\noexpand\Tf@pname
22       {##1}\noexpand\Tf@font ##2}%
23   }%
24 }%
25 }
```

Debugging.

```
26 \newif\ifTf@debug \Tf@debugfalse
27 \DeclareOption{debug}{\Tf@debugtrue}
```

4.1 Equation numbers

We distinguish between the two most frequent cases: `amsmath` and standard \LaTeX . All of the following patches work by injecting `\Tf@font` in the right place. They try to do this as robustly as possible by reusing the original definition.

```
28 \DeclareOption{eqno}{%
29   \AtBeginDocument{%
30     \ifpackageloaded{amsmath}{%
31       \Tf@def\maketag@@@#1{\Tf@maketag@@{\Tf@font #1}}%
32     }{%
33       \CheckCommand*\eqnnum{{\normalfont \normalcolor (\theequation)}}%
34       \def\eqnnum{{\normalfont \Tf@font \normalcolor (\theequation)}}%
35     }%
36   }%
37 }
```

4.2 Table of contents

And similar lists such as list of figures and list of tables.

```
38 \DeclareOption{toc}{%
39   \AtBeginDocument{%
```

Generic. First two command that are using in formatting the lists by default.

```
40   \Tf@def\dottedtocline#1#2#3#4#5{%
```

```

41 \Tf@{\dottedtocline{#1}{#2}{#3}{#4}{\Tf@font #5}}%
42 }%
43 \Tf@def\numberline#1{%
44 \Tf@{\numberline{\Tf@font #1}}%
45 }%

```

Then a bunch of `\l@{level}` commands for usually available entry types, which might not use the commands from above.

```

46 \Tf@patch@l{part}%
47 \Tf@patch@l{chapter}%
48 \Tf@patch@l{section}%
49 \Tf@patch@l{subsection}%
50 \Tf@patch@l{subsubsection}%
51 \Tf@patch@l{paragraph}%
52 \Tf@patch@l{subparagraph}%
53 \Tf@patch@l{figure}%
54 \Tf@patch@l{table}%

```

Special support for parts and chapters in memoir.

```

55 \ifclassloaded{memoir}{%
56 \Tf@def\cftchapterpresnum{\Tf@font \Tf@\cftchapterpresnum}%
57 \Tf@def\cftpartpresnum{\Tf@font \Tf@\cftpartpresnum}%
58 }{}%
59 }%
60 }

```

4.3 Enumerations

Labels in enumerations.

```

61 \DeclareOption{enum}{%
62 \AtBeginDocument{%
63 \Tf@def\labelenumi{\Tf@font \Tf@\labelenumi}%
64 \Tf@def\labelenumii{\Tf@font \Tf@\labelenumii}%
65 \Tf@def\labelenumiii{\Tf@font \Tf@\labelenumiii}%
66 \Tf@def\labelenumiv{\Tf@font \Tf@\labelenumiv}%
67 }%
68 }

```

4.4 Bibliography

Labels in the bibliography.

```

69 \DeclareOption{bib}{%
70 \AtBeginDocument{%
71 \Tf@def\@biblabel{\Tf@font \Tf@\@biblabel}%
72 \ifpackageloaded{biblatex}{%
73 \DeclareFieldFormat{labelnumberwidth}{\mkbibbrackets{\Tf@font #1}}%
74 \DeclareFieldFormat{labelalphawidth}{\mkbibbrackets{\Tf@font #1}}%
75 }{}%
76 }%
77 }

```

4.5 Line numbers

```
78 \DeclareOption{lineno}{%
79   \AtBeginDocument{%
80     \@ifpackageloaded{doc}{%
81       \CheckCommand*\theCodeLineNo{%
82         \reset@font\scriptsize\arabic{CodeLineNo}}%
83       \def\theCodeLineNo{%
84         \reset@font\Tf@font\scriptsize\arabic{CodeLineNo}}%
85     }{}%
86   }%
87 }
88 \ProcessOptions\relax
```

4.6 Auxiliary macros

This command is used for switching to tabular figures. This can be redefined to allow debugging, disabling, etc.

```
89 \newcommand*\Tf@font{\figureversion{tabular}}
```

Visual debugging: Set tabular figures (produced by this package) in green.

```
90 \ifTf@debug
91   \RequirePackage{xcolor}%
92   \colorlet{Tf@debug}{green!50!black}%
93   \renewcommand*\Tf@font{\figureversion{tabular}\color{Tf@debug}}%
94 \fi
```

Check if figure versions are supported at all. If not, we cannot do anything useful.

```
95 \AtBeginDocument{%
96   \ifundefined{figureversion}{%
97     \PackageWarning{tabfigures}{There is no
98       \string\figureversion\space to support tabular figures}%
99     \let\Tf@font\@empty
100   }{}%
101 }
```

That's it for now.