

TEX BY TOPIC

A TEXNICIAN'S REFERENCE

TEX is a powerful computer typesetting system that offers unparalleled typographic freedom. With a detailed knowledge of TEX the user is able to create original designs and layouts. TEX has proved its value for many years and is widely used in the scientific and publishing communities.

TEX by Topic is a systematic reference manual designed as a companion to tutorial guides on the system. Packed with original, practical ideas, this book provides an invaluable information source that will give the TEX user the essential insight needed to solve TEX problems.

Victor Eijkhout is a research scientist at The University of Texas at Austin. In his spare time he relishes not having to remember anything about TEX, since it can all be found in this book.

“

A beautifully written, concise and comprehensive discussion of TEX as a programming language [...] Eijkhout's book is not a loose collection of unconnected entries but a very systematic account of how TEX works as a programming language. Not the ideal first introduction, but an absolute must-read if you want to understand the deeper foundations of the TEX language. On many occasion when one of my macros didn't work, only by consulting Eijkhout's book was I able to find the source of my problem.

”

[From a review by Martin Diedrich]

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```
\hbox(4.30554+0.0)x469.7549  
444.75497fil  
. \hbox(0.0+0.0)x20.0  
. \tenrm a  
. \glue 0.0 plus 1.0fil  
. \penalty -10000  
. \glue(\rightskip) 0.0  
. \penalty 300  
. \glue(\baselineskip) 5.0555  
\hbox(6.94444+0.0)x469.7549  
464.19943fil  
. \tenrm b  
. \penalty 10000  
. \glue(\parfillskip) 0.0 pl
```

```
\newbox\linebox \newbox\sn  
\def\eatlines{  
\setbox\linebox\lastbox %  
\ifvoid\linebox  
\else % if it's not empty  
\unskip\unpenalty % take w  
\eatlines} % above it;  
% collapse the line  
\setbox\snapbox\hbox{\unhc  
% depending on the differe  
\ifdim\wd\snapbox<.98\wd\l  
\box\snapbox % take the on  
\else \box\linebox \fi  
\fi}
```

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```
| \brokenpenalty | \clubpen  
| \defaulthyphenchar | \def  
| \delimiterfactor | \displ  
| \doublehyphordemerits | \  
\escapechar  
| \exhyphenpenalty | \fam |  
| \floatingpenalty | \global  
| \hbadness | \hyphenpenalt  
| \linepenalty | \looseness  
| \maxdeadcycles | \month  
| \newlinechar | \outputpen  
| \postdisplaypenalty | \pr  
| \pretolerance | \relpenal  
| \showboxdepth | \time | \  
| \tracingcommands | \traci  
\tracingmacros
```

```
\vbox{\hbox{a}}  
\setbox\@=\vbox{\hbox{()}}  
\ht\@=0pt \dp\@=0pt \box\@  
\hbox{ b}}}  
gives  
a  
(b  
while a slight variant  
\vbox{\hbox{a}}  
\setbox\@=\hbox{()}  
\ht\@=0pt \dp\@=0pt \box\@  
\hbox{ b}}}  
gives  
(a  
b
```

Victor Eijkhout