This is a list of all corrections made to Computers & Typesetting, Volumes A, C, and E, between 30 September 1989 (when the revisions for TeX Version 3.0 and METAFONT Version 2.0 were made) and December 31, 1990. Corrections made to the softcover version of The TeXbook are the same as corrections to Volume A. Corrections to the softcover version of The METAFONTbook are the same as corrections to Volume C. Some of the corrections below have already been made in reprints of the books. Hundreds of changes, too many to list here, have been made to Volumes B and D because of the upgrades to TeX and METAFONT. Readers who need up-to-date information on the TeX and METAFONT programs should refer to the WEB source files until new printings of Volumes B and D are issued.

Page A99, line 4 from the bottom (2/22/90)

\begin{verbatim}
be chosen because there was no feasible way to keep total demerits small.
\end{verbatim}

Page A124, lines 18–21 (9/5/90)

Floating insertions can be accommodated as a special case of split insertions, by making each floating topinsert start with a small penalty, and by having zero as the associated \texttt{\textbackslash floatingpenalty}; non-floating insertions like footnotes are accommodated by associating larger penalties with split insertions (see Appendix B).

Page A137, lines 2 and 3 from the bottom (11/9/90)

\begin{verbatim}
and you shouldn't even be reading this manual, which is undoubtedly all English to you.
\end{verbatim}

Page A141, line 15 from the bottom (10/18/90)

Thus if you type ‘$1\over2$’ (in a text) you get $\frac{1}{2}$, namely style $S$ over style $S'$; and you shouldn’t even be reading this manual, which is undoubtedly all English to you.

Page A156, line 2 (11/18/89)

\begin{verbatim}
\texttt{\textbackslash mathchardef\alpha="010B}
\end{verbatim}

Page A165, lines 2–3 (8/13/90)

Type the formula $\bar{x}^T M x = 0 \iff x = 0$, using as few keystrokes as possible. (The first ‘0’ is roman, the second is bold. The superscript ‘T’ is roman.)

Page A171, lines 24–26 (3/13/90)

\begin{verbatim}
formula produces a result exactly equivalent to \texttt{\textbackslash left(\textbackslash subformula\textbackslash right)}, when the \texttt{\textbackslash subformula} doesn't end with Punct, except that the delimiters are forced to be of the \texttt{\textbackslash big} size regardless of the height and depth of the subformula.
\end{verbatim}
line if you insert \texttt{\noalign{\break}} after the \texttt{\cr} for that line. You can prohibit all breaks in an \texttt{\eqalignno} if you set \texttt{\interdisplaylinepenalty=10000}; or you can enclose the whole works in a \texttt{\vbox}:

Page A233, bottom 9 lines, and top three on next page (12/2/89)

\begin{itemize}
    \item The \texttt{\+} macro in Appendix B works by putting the \langle text \rangle for each column that’s followed by & into an hbox as follows:
    \begin{verbatim}
    \hbox to ⟨column width⟩{⟨text⟩\hss}
    \end{verbatim}

The \texttt{\hss} means that the text is normally flush left, and that it can extend to the right of its box. Since \texttt{\hfill} is “more infinite” than \texttt{\hss} in its ability to stretch, it has the effect of right-justifying or centering as stated above. Note that \texttt{\hfill} doesn’t shrink, but \texttt{\hss} does; if the text doesn’t fit in its column, it will stick out at the right. You could cancel the shrinkability of \texttt{\hss} by adding \texttt{\hfilneg}; then an oversize text would produce an overfull box. You could also center some text by putting \texttt{\hss} before it and just ‘&’ after it; in that case the text would be allowed to extend to the left and right of its column. The last column of a \texttt{\+} line (i.e., the column entry that is followed by \texttt{\cr}) is treated differently: The \langle text \rangle is simply put into an hbox with its natural width.
\end{itemize}

Page A254, line 5 from the bottom (10/5/89)

\texttt{\vsize} hasn’t changed, and if all insertions have been held in place, the same page break reading and expanding this \texttt{\par} token, \TeX{} will see the \langle vertical command \rangle token again. (The current meaning of the control sequence \texttt{\par} will be used; \texttt{\par} might no longer stand for \TeX{}’s \texttt{\par} primitive.)

Page A290, lines 12–13 (3/24/90)

simply a single Ord atom without subscripts or superscripts, or an Acc whose nucleus is an Ord, the enclosing braces are effectively removed.

Page A317, line 17 (5/17/90)

\begin{verbatim}
\pretolerance=9999 \tolerance=9999 \parindent=0pt
\end{verbatim}

Page A321, lines 16–17 (8/13/90)

18.6. $\bf\bar{x} \sim \{\rm T\}Mx=\{\rm 0\}\iff x=0$$\$. (If you typed a space between \texttt{\rm} and 0, you wasted a keystroke; but don’t feel guilty about it.)

Page A340, nonblank line 11 (3/13/90)

\texttt{\topglue 1in \%} This makes an inch of blank space (1in=2.54cm).
\texttt{\topglue} but not \texttt{\hglue}. It does not illustrate \texttt{\raggedright} setting of para-

Page A346, lines 20–21 (12/3/89)

streams used by \texttt{\read} and \texttt{\write}, to math families used by \texttt{\fam}, to sets of hyphen-

Page A346, line 20 from the bottom (12/3/89)

manent value. These macros use registers \texttt{\count10} through \texttt{\count20} to hold the

Page A346, lines 8–13 from the bottom (12/3/89)

number was allocated. The inside story of how allocation is actually performed should be irrelevant when the allocation macros are used at a higher level; you mustn’t assume that \texttt{\plain.tex} really does allocation in any particular way.

\texttt{\count10=22} % this counter allocates \texttt{\count} registers 23, 24, 25, ...

Page A347, lines 2–5 (12/3/89)

\texttt{\count19=0} % this counter allocates language codes 1, 2, 3, ...
\texttt{\count20=255} % this counter allocates insertions 254, 253, 252, ...
\texttt{\countdef\insc@unt=20} % nickname for the insertion counter
\texttt{\countdef\allocationnumber=21} % the most recent allocation
\texttt{\countdef\m@ne=22 \m@ne=-1} % a handy constant

Page A347, new line after former line 17 (12/3/89)

\texttt{\outer\def\newlanguage{\alloc@9\language\chardef\@cclvi}}

Page A352, new line before line 6 from the bottom (3/13/90)

\texttt{\def\topglue{\nointerlineskip \vglue-\topskip \vglue}} % for top of page

Page A355, line 8 from the bottom (12/3/89)

\texttt{\noindent\bf#1.\enspace}{\sl#2}\par}

Page A363, lines 8–9 from the bottom (12/8/89)

\texttt{\if@mid \dimen@=\ht0 \advance\dimen@ by\dp\z@ \advance\dimen@ by12\p@ \advance\dimen@ by\pagetotal \advance\dimen@ by-\pageshrink}

Page A375, line 27 (10/30/89)

depending on whether or not \texttt{\t} contains an asterisk. (Do you see why?) And here’s
Shift box $x$ down by $\frac{1}{2}(h(x) - d(x)) - a$, where $a = \sigma_2^2$, so that the operator character

and this yields 'con-cate-na-tion'.

sit yourself (even in restricted horizontal mode) by saying $\setlanguage{number}$; this changes the current language but it does not change $\language$. Each what-sit records the current $\lefthyphenmin$ and $\righthyphenmin$.
Page A479, new entry (3/13/90)
\topglue, 340, 352.

Page A480, right column (3/13/90)
\vglue, 352, 408.

Page A483, the Providence lines (10/8/89)
[Change the first one to
Providence RI 02940\ kern.05em-9506, USA.
Then the second one will be
Providence RI 02940-9506, USA.
The second line will also appear on page C361.]

Page C11, replacement for second quotation at bottom of page (9/27/90)
To anyone who has lived in a modern American city (except Boston)
at least one of the underlying ideas of Descartes' analytic geometry
will seem ridiculously evident. Yet, as remarked,
it took mathematicians all of two thousand years
to arrive at this simple thing.
— ERIC TEMPLE BELL, Mathematics: Queen and Servant of Science (1951)

Page C220, top line (3/13/90)
modes you get into by hitting 'S', 'R', or 'Q', respectively, in response to error messages

Page C252, line 16 (3/13/90)
for i:=1 upto n_windows: display blankpicture inwindow i; endfor

Page C262, lines 19–21 (11/9/90)
for commonly occurring idioms. For example, 'stop "hello"' displays 'hello' on the
terminal and waits until \langle return \rangle is typed.
def upto = step 1 until enddef; def downto = step -1 until enddef;

Page C264, lines 4–6 from the bottom (3/24/90)
vardef counterclockwise primary c =
  if turningcheck>0:
    interim autorounding:=0;
  if turningnumber c <= 0: reverse fi fi c enddef;

Page C306, line 6 (3/13/90)
ligtable "\": "\": =: oct"042", % close quotes
define_whole_vertical_blacker_pixels(vair, slab, \ldots);

units of printer’s points):

which can be used to specify a nonstandard file area or directory name for the gray

\def\startfont{\font\testfont=\fontname \spaceskip=0pt

Bell, Eric Temple, 11.

Descartes, René, 6, 11, 19.

[remove the entry for Rex Stout.]

[remove the entry for Nero Wolfe.]

“AMS Euler—A new typeface for mathematics” by Donald E. Knuth and Hermann Zapf, Scholarly Publishing 21 (1989), 131–157. The story of a design project that helps bridge the gulf between mathematics and art.

“Meta-Marks: Preliminary studies for a Pandora’s Box of shapes” by Neenie Billawala, Stanford Computer Science report 1259 (Stanford, California, July 1989), 132 pp. Lavishly illustrated studies in parameter variation, leading to the design of a new typeface called Pandora.

if serifs: \[x_{3r} = \max(x_{1r}, \text{hround}(x_1 + .5\text{dot_diam} - .2\text{jut}) - .5\text{tiny})\]
else: \[x_3 = x_1 - .5\text{ fi} ;\]

% Character codes ‘000–’100 and ’133–’177 are generated.
Page E544, line 5 (3/13/90)

: (the rest of the program for ‘γ’ in \texttt{greekl} comes here)

Page E557, line 9 (3/13/90)

‘Nevermore—Ah nevermore.’

Page E558, line 21 (3/13/90)

Clasp a rare and radiant maiden whom the angels name Lenore.*

Page E570, lines 27–28 look better with proper skewchars (3/13/90)

Here’s some bold 10-point math:  $\hat{A}_0^\gamma + \hat{B}_1^\beta - \hat{C}_2^\nu \times \hat{D}_3^\lambda / \hat{E}_4^\omega \oplus \hat{F}_5^\Pi \ominus \hat{G}_6^\Sigma \otimes \hat{H}_7^\Phi \ominus \hat{I}_8^\Psi \ominus \hat{J}_9^\Omega$. 