LAT_EX vs. LAT_EX — a modification of the logo

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There are at least two approaches to the $T_{E}X$, IATEX, etc. logos. First, that the font used in them is a part of a logo and should not be changed, and the other, that a logo should be typeset in the same font as its context. If you choose the first approach, this article is irrelevant. In this article I suggest a slight modification of the IATEX logo to make it work better with various fonts, which is relevant if we choose the second approach.

The first change is the offset of the letter A: in the original LATEX definition it's -0.36 em so it does not depend on the width of the L or the A, which differ in different fonts. In mine it's $-0.57 \langle width \ of A \rangle$ which makes it come out noticeably better.

Another change is adding one more kern between A and T if the font is slanted, that is, if its \fontdimen1 is nonzero. The kern is $0.5 \text{ ex} \times \langle slant \text{ in } \% \rangle$.

The original LATEX definition of the logo is

```
\DeclareRobustCommand{\LaTeX}{%
L\kern-.36em%
{\sbox\z@T%
 \vbox to\ht\z@{\hbox{%
    \check@mathfonts
    \fontsize\sf@size\z@
    \math@fontsfalse\selectfont A}%
    \vss}%
}%
\kern-.15em%
\TeX}
```

and mine

```
\DeclareRobustCommand{\LaTeX}{%
 {%
 L%
 \setbox\z@\hbox{\check@mathfonts
 \fontsize\sf@size\z@
 \math@fontsfalse\selectfont
 A}%
 \kern-.57\wd\z@
 \sbox\tw@ T%
 \vbox to\ht\tw@{\copy\z@ \vss}%
 \kern-.2\wd\z@}%
```

{%

```
\ifdim\fontdimen1\font=\z@
\else
  \count\z@=\fontdimen5\font
  \multiply\count\z@ by 64\relax
  \divide\count\z@ by\p@
  \count\tw@=\fontdimen1\font
  \multiply\count\tw@ by\count\z@
  \divide\count\tw@ by 64\relax
  \divide\count\tw@ by tw@
  \kern-\the\count\tw@ sp\relax
  \fi}%
 \TeX}
```

Here are a few examples. Enjoy.

$_{\rm Imr}$ IATEX vs. IATEX & (IA)TEX
Imss &TEX vs. &TEX & (A)TEX
$_{Imr}$ IAT_EX vs. IAT_EX & (IA) T_EX
$_{\rm Imr}$ BTEX vs. BTEX & (B)TEX
$_{\rm qpl}$ LATEX vs. LATEX & (LA)TEX
$_{qpl}$ $\&T_E X vs. \&T_E X & (\&) T_E X$
$_{\mbox{\tiny qtm}}$ LATEX vs. LATEX & (LA)TEX
qtm ETEX vs. ETEX & (E)TEX
$_{\rm qbk}$ ${\it BT}_{E\!X}$ vs. ${\it LAT}_{E\!X}$ & (LA) $T_{E\!X}$
$_{^{qbk}}$ BTEX vs. BTEX & (B)TEX
gze ETEX vs. ETEX & (E)TEX
^{qhv} LATEX vs. LATEX & (LA)TEX
anv ETEX vs. ETEX & (E)TEX
iwona ATEX vs. ATEX & (A)TEX
iwona ETEX vs. LATEX & (LA)TEX