The \texttt{bxcalcux} package

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1 Overview

This package allows one to create a new unit of length that can be used in length expressions of the \texttt{calc} package. For example,

\begin{verbatim}
\newcalcunit{thou}{0.07227pt}% thousandth of inch
\setlength{\lengthA}{10thou}
\end{verbatim}

will assign 0.72266 pt to $\lengthA$.\footnote{Using 0.001in instead of 0.07227pt will give rather inaccurate results, since 0.001in is evaluated to 0.7277 pt.}

**Supported format** \LaTeX{X}.

**Supported engine** Any engine with \TeX{} extension.

**Prerequisite packages** \texttt{calc}, \texttt{etoolbox}.

2 Package Loading

Use \texttt{\usepackage} as usual, with no options.

\begin{verbatim}
\usepackage{bxcalcux}
\end{verbatim}

3 Usage

- \texttt{\newcalcunit{⟨unit⟩}{⟨length⟩}} : Declares a new unit ⟨unit⟩ as equal to ⟨length⟩. The unit name must consist only of alphabets. You can use relative units such as 0.5em in ⟨length⟩, and such relative units are resolved when \texttt{calc} expressions are evaluated.

- \texttt{\DeclareCalcUnit{⟨unit⟩}{⟨text⟩}} : \texttt{(for \TeX{}nicians)} Declares a new unit ⟨unit⟩ as equal to the unit expressed by a token list ⟨text⟩, which must form a “unit of dimen” (in \TeX{} terminology). Here is an example.

\begin{verbatim}
\DeclareCalcUnit{ls}{\baselineskip}% current line skip
\end{verbatim}

4 Notices

- Usually unit names are treated as case-insensitive; but as exception, unit names with a single letter are case-sensitive.

- You must not create a unit name that coincides with a prefix of existing (built-in or created) units or any keywords that could be used in \texttt{calc} expressions (such as \texttt{plus}, \texttt{fil}, etc.); otherwise unexpected things would occur.