The lua-visual-debug package (V0.9)

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January 4, 2023

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1 About

This package aids debugging your \TeX{} and \LaTeX{} document by drawing rectangles around boxes and rules where glue is inserted. Other items are marked as well: kerns, hyphenation points and penalties.

2 How to use

When you load the package \texttt{lua-visual-debug} in your Lua\LaTeX{} document (or use \texttt{\input lua-visual-debug.sty} in plain \TeX{}), Lua\TeX{} will highlight boxes, penalties, glues and kerns in the PDF. This package requires you to process the document with Lua\TeX{} (plain and \LaTeX{} formats).

3 A \LaTeX{} example

\begin{verbatim}
\documentclass{article}
\usepackage{lua-visual-debug}
\usepackage{lmodern}
\setlength{textwidth}{300pt}
\end{verbatim}
A wonderful serenity has taken possession of my entire soul, like these sweet mornings of spring which I enjoy with my whole heart. I am alone, and feel the charm of existence in this spot, which was created for the bliss of souls like mine. I am so happy, my dear friend, so absorbed in the exquisite sense of mere tranquil existence, that I neglect my talents\footnote{A very special note for you}.

\begin{itemize}
\item one
\item two
\item three
\end{itemize}

\begin{centerline}{\TeX}
\end{centerline}

\vbox{\strut Hello}\kern.5cm\vbox{\strut World}

\[
\int_e^x=mc^2
\]

\end{document}

yields
A short story

A wonderful serenity has taken possession of my entire soul, like these sweet mornings of spring which I enjoy with my whole heart. I am alone, and feel the charm of existence in this spot, which was created for the bliss of souls like mine. I am so happy, my dear friend, so absorbed in the exquisite sense of mere tranquil existence, that I neglect my talents.

\[ \int e^{-x} = mc^2 \]

A very special note for you.

4 A plain TeX example

\input lua-visual-debug.sty
\hsize 3in \vsize 3in
\centerline{A centered line with \TeX}
\vskip .5in

A wonderful serenity has taken possession of my entire soul, like these sweet mornings of spring which I enjoy with my whole heart. I am alone, and feel the charm of existence in this spot, which was created for the bliss of souls like mine. I am so happy, my dear friend, so absorbed in the exquisite sense of mere tranquil existence, that I neglect my talents.

\$\int e^{-x} = mc^2\$
\bye

yields
A wonderful serenity has taken possession of my entire soul, like these sweet mornings of spring which I enjoy with my whole heart. I am alone, and feel the charm of existence in this spot, which was created for the bliss of souls like mine. I am so happy my dear friend, so absorbed in the exquisite sense of mere tranquil existence, that I neglect my talents.

\[ \int x = mc^2 \]

5 How to interpret the markers

1. A vertical glue. Beginning and end are marked with a small tick. At the mark 1, two vertical glues are connected.

2. A horizontal glue. Blue dashed lines represent stretched glues, magenta lines represent shrunk glues, gray at their natural width.
3. A negative kern. Positive kerns are yellow.

4. A possible hyphenation point.

5. Horizontal and vertical boxes are drawn with a border.

6. Penalties are marked with a square. A penalty of 10,000 is marked with a blank square, a penalty less than 10,000 is filled with a gray square (that will improve in the future, currently it is grayness of penalty / 10000).

A strut box (zero width box) is marked with a red rule:

\[
\text{Hello.}
\]

6 Copying

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