The lua-visual-debug package (V0.8)

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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 \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{verbatim}
\setlength{\textwidth}{10cm}
\begin{document}
\section{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\footnote{A very special note for you}.

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A short story

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

4 A plain \TeX example

\input lua-visual-debug.sty
\hspace{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 centered line with \TeX

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.

\[ e = mc^2 \]

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.
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:

Hello.

6 Copying

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