

The lua-visual-debug package (V0.6)

Patrick Gundlach

January 4, 2019

Contents

| | | |
|----------|--|----------|
| 1 | About | 1 |
| 2 | How to use | 1 |
| 3 | A L^AT_EX example | 1 |
| 4 | A plain T_EX example | 2 |
| 5 | How to interpret the markers | 4 |
| 6 | Copying | 5 |

1 About

This package aids debugging your T_EX and L^AT_EX 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 `lua-visual-debug` in your LuaL^AT_EX document (or use `\input lua-visual-debug.sty` in plain T_EX), LuaT_EX will highlight boxes, penalties, glues and kerns in the PDF. This package requires you to process the document with LuaT_EX (plain and L^AT_EXformats).

3 A L^AT_EX example

```
\documentclass{article}
\usepackage{lua-visual-debug}

\usepackage{lmodern}
\setlength\textwidth{300pt}
```

```

\setlength\textheight{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}.

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

\bgroup\fontsize{30}{34}\selectfont
\centerline{\TeX}
\egroup

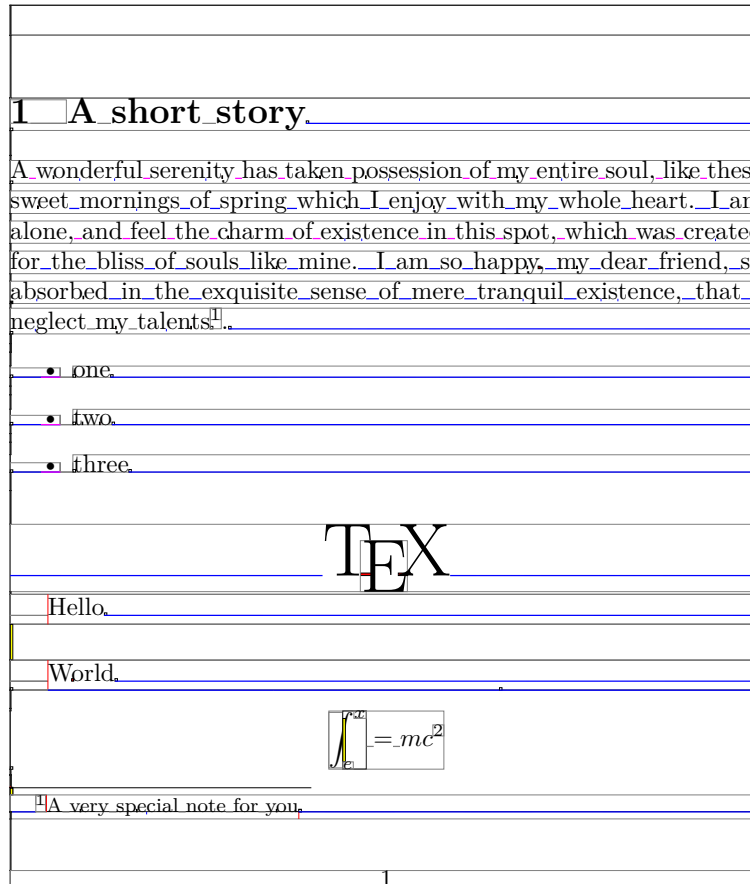
\vbox{\strut Hello}\kern .5cm\vbox{\strut World}

\[ \int_e^x mc^2 \]

\end{document}

```

yields



4 A plain TeX example

```

\input lua-visual-debug.sty

\hsize 3in \vsize 3in
\centerline{A centered line with \TeX}

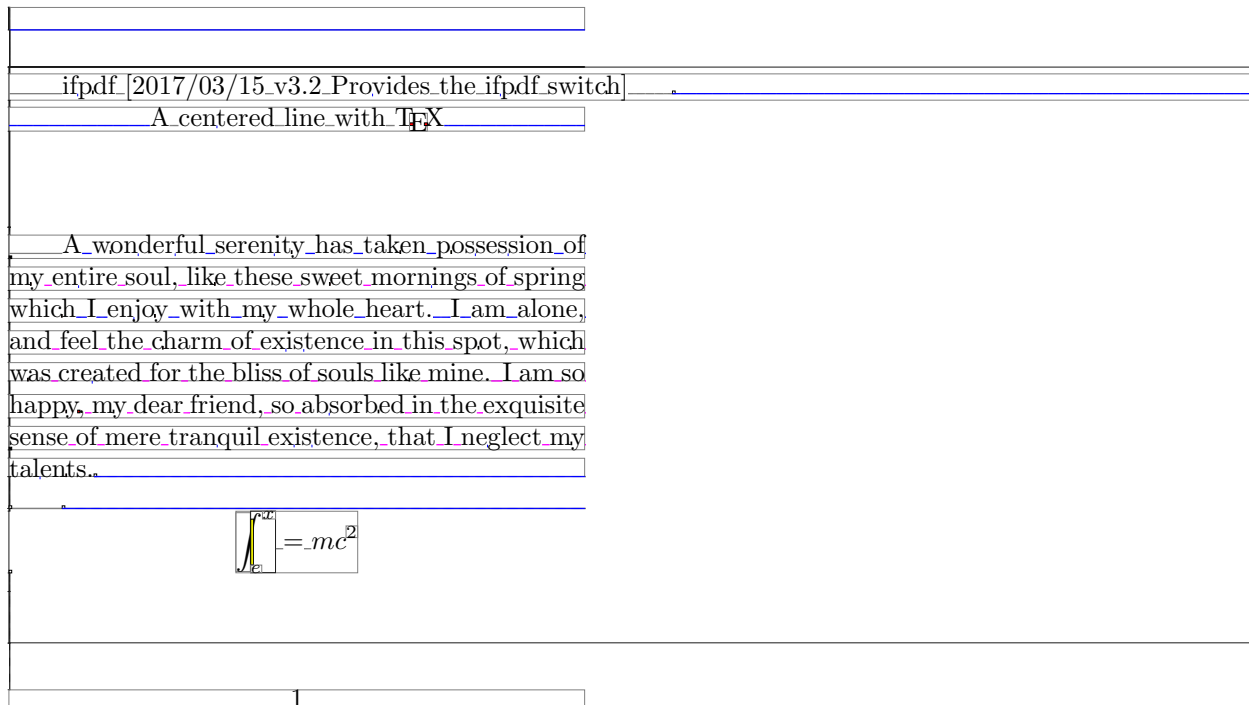
\vskip .5in

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.

$$\int_e^{\infty} \frac{1}{x^2} dx = mc^2$$

\bye
yields

```



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:



6 Copying

Copyright 2012–2016 Patrick Gundlach (patrick@gundla.ch) and other authors (see Git for information), licensed under the MIT license. See the Lua file for details.