

rtex.rb: run (La)TeX

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1 Preamble

The script checks, how often a \TeX -file must be translated to create a document with correct references, all indexes, bibliographies etc. All messages are suppressed, at the end you get an overview on all errors, sorted by programs.

Similar programs for the same problem:

- texexec (Con \TeX t)
- latexmk
- texify (Mik \TeX)

Why I wrote another script and what are the differences to the other programs?

- I wrote a program in ruby which created a \TeX -File. This file should be translated and I wanted to have some ruby-methods to control the action.

- No tool I checked provided "rail"
- Some packages like index.sty or gloss.sty are not supported.
- I wanted to have an overview on all problems in one list. I didn't want to check different logs or search problems in a long log.

2 Userinterface

2.1 Usage

rtex.rb [switches] source[.tex]

2.2 Options

-h type out an overview

-l set the level of informations you get.

0 No information at all

1 Tool-Error + Summary information from TeX

2 Level 1 + Summary information from tools

3 Level 2 + Executed steps + Statistics + Errors

4 Level 3 + Warnings

5 Level 4 + hints from process

6 Level 5 + detailed hints from process

9 Everything

All levels are reported in the Log-File

-a Define the "action chain". A chain defines the steps from source to the target. The following chains are supported:

pdfLaTeX calls pdfLaTeX and creates the PDF-File. [default]

LaTeX calls L^AT_EX and creates the DVI-File.

LaTeXPS Call L^AT_EX and then create a Postscript file (dvips)

LaTeXPSPDF Call L^AT_EX and then create a PDF via dvips and ghostscript

LaTeXPDF Call L^AT_EX and then create a PDF with dvi_{pdfm}

htlatex Call htL^AT_EX and creates a HTML-version.

Remark: Each step may define a "subchain". (pdf)LaTeX calls bib_{tex}, make_{index} and rail if necessary

-o Set the limit, from which overfull boxes are reported

- u** Set the limit, from which underfull boxes are reported
- w** Wait after finishing the script. (helpfull, when started by another programm)

3 Programs and Packages

3.1 Support of programs

Following programs are supported:

- bibTeX
see Gloss.sty, section 3.2.2
- makeindex see Index.sty, section 3.2.1
- Rail, see section 3.2.3

The programs are called, if the T_EX-File requires it.
Some L^AT_EX-styles may change the usage of programs. See the next section.

3.2 Support of packages

There are styles, which will require a special treatment of rtex.rb. Below you find, how different styles are supported. Not supported are:

- glosstex
- nomencl.sty
- multibib

3.2.1 Index.sty: Multiple Indexes

Index.sty is not supported. But there is a corrected version index2.sty which is supported by rtex.rb. I hope my correction will be added to the original. The differences of index2 and index:

- index.sty requires article or a class with the command `\chapter`. index2 allows all article- and book-like classes (e.g. scrartcl.cls)
- Source and Target-file of each index are in the log-file. So rtex.rb is able to call makeindex correctly.

3.2.2 Gloss.sty: Glossaries

Gloss.sty is supported, for each glossary bibTeX is called. In the log they are listed as "bibTeX/–" where – is the glossary name.

3.2.3 Rail.sty: Rail-Diagramms

Rail is a tool to create "Rail"-diagrams. It requires a call of the program rail.exe.

3.3 Known Problems

- Not tested on different systems (PS2PDF will work only on windows)
- The errors statistic count some errors twice (but that is better then loosing some errors)