

The **regstats** package

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2011/06/18 v1.0d

Abstract

This L^AT_EX package allows to count the number of used registers (counter, dimen, skip, muskip, box, token, input, output, math families, languages, insertions) and compare these to the maximum available number of such registers. The time needed for a compilation run can be announced.

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Save per page about 200 ml water, 2 g CO₂ and 2 g wood:
Therefore please print only if this is really necessary.

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1 Introduction

This L^AT_EX package allows to count the number of used registers (counter, dimen, skip, muskip, box, token, input, output, math families, languages, insertions). Therefore the according `\count` is read. While `\count10` should be the number of the counters, `\count11` the one of the dimens, and so on, it is possible to use option `proof`, in which case a new one of each register is used and looked at `\the\allocationnumber`, and this is compared to the number determined by reading the `\count`. The result for each register is compared to the maximum available number of the respective register (comparison independent of usage of option `proof`). With option `left` additionally the number of remaining registers of each type is given, and with option `timer` the time needed for the compilation run.

2 Usage

Just load the package placing

```
\usepackage[<options>]{regstats}
```

at the end of the preamble of your L^AT_EX 2_ε source file. When you load packages `\AtBeginDocument`, `regstats` should be the last one of those packages. The resulting message will be presented at the end of the compilation messages at the screen and in the `log` file.

2.1 Options

options The `regstats` package takes the following options:

2.1.1 proof

proof When option `proof` (or `proof=true`) is chosen, a new one of each register is used and looked at `\the\allocationnumber`, and this is compared to the number determined by reading the `\count`. The default is `proof=false`.

2.1.2 left

left When option `left` (or `left=true`) is chosen, also the number of remaining registers of each type is given. The default is `left=false`.

2.1.3 timer

timer When option `timer` (or `timer=true`) is chosen, also the the time needed for the compilation run is given. The default is `timer=false`.

3 Alternatives

- `regcount`, 1999/08/03, v1.0, by JEAN-PIERRE F. DRUCBERT, provides the command `\rgcounts`, which can write the numbers of used registers into the `log` file anywhere (not only at the end) and does this automatically `\AtBeginDocument` and `\AtEndDocument` (but not `\AtVeryVeryEnd`). The number of allocated insertions is *wrong* in my opinion, because these are not numbered 1,2,..., but start at a high number, which is then decreased. The package is compatibel with the `regstats` package (i.e. you can use both packages at the same time in one document) and available at <http://www.ctan.org/pkg/regcount>.
- One can manually search for the last appearance of `\count`, `\dimen`, `\skip`, `\muskip`, `\box`, `\toks`, `\read` (input), `\write` (output), `\mathgroup` (math familiy), `\language`, and `\insert`, and find the according number there. (This does not provide any information about the number of remaining registers, of course.)

(You programmed or found another alternative, which is available at [CTAN](#)? OK, send an e-mail to me with the name, location at [CTAN](#)., and a short notice, and I will probably include it in the list above.)

4 Example

```
1 (*example)
2 \documentclass[british]{article}[2007/10/19]% v1.4h
3 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4 %% \usepackage{etex}[1998/03/26]% v2.0
5 %% Uncomment the preceding line, if you want to use eTeX.
6 \usepackage{hyperref}[2011/04/17]% v6.82g
7 \hypersetup{extension=pdf,%
8 plainpages=false,%
9 pdfpagelabels=true,%
10 hyperindex=false,%
11 pdflang={en},%
12 pdftitle={regstats package example},%
13 pdfauthor={Hans-Martin Muench},%
14 pdfsubject={Example for the regstats package},%
15 pdfkeywords={LaTeX, registers, read, write, language, box, dimen,%
16 count, toks, muskip, skip, counter, regstats, Hans-Martin Muench},%
17 pdfview=Fit,pdfstartview=Fit,%
18 pdfpagelayout=SinglePage%
19 }
20 \usepackage[proof=false,left=true,timer=true]{regstats}[2011/06/18]% v1.0d
21 \gdef\unit#1{\mathord{\thinspace\mathrm{#1}}}%
22 \listfiles
23 \begin{document}
24 \pagenumbering{arabic}
25 \section*{Example for regstats}
26
27 This example demonstrates the use of package\newline
28 \textsf{regstats}, v1.0d as of 2011/06/18 (HMM).\newline
29 The used options were \texttt{proof=false,left=true,timer=true}.\newline
30 \texttt{proof=false} is the default, but neither \texttt{left=true}
31 nor \texttt{timer=true} are defaults (\texttt{left=false,timer=false}
32 would be the defaults).\newline
33
34 If  $\varepsilon$ -TeX is available with your LaTeX -distribution
35 and you want to use it, uncomment the\newline
36 \verb|%% \usepackage{etex}[1998/03/26]% v2.0|\newline
37 line in the preamble of this document.\newline
38 (Also \verb|\eTeX| instead of \verb| $\varepsilon$ -TeX|
39 would be available with it).\newline
40
41 For more details please see the documentation!\newline
42
43 \noindent Save per page about $200\unit{ml}$ water,
44 $2\unit{g}$ CO2$ and $2\unit{g}$ wood:\newline
45 Therefore please print only if this is really necessary.\newline
46
47 For the resulting message, please compile regstats-example.tex and
48 have a look at the end of the log-file.
49
50 Because the compilation time for this example is usually quite short,
51 option \texttt{timer} is not demonstrated very spectacular.
52
53 \end{document}
54 \end{example}
```

5 The implementation

We start off by checking that we are loading into L^AT_EX 2_ε and announcing the name and version of this package.

```
55 (*package)
56 \NeedsTeXFormat{LaTeX2e}[2009/09/24]
57 \ProvidesPackage{regstats}[2011/06/18 v1.0d
58           Counting used registers (HMM)]
59
```

A short description of the regstats package:

```
60 %% Allows to count the number of used registers
61 %% (counter, dimen, skip, muskip, box, token, input, output,
62 %%  math families, languages, insertions)
63 %% and compare these to the maximum available number of such registers.
64
```

We need the kvoptions and atveryend packages by HEIKO OBERDIEK:

```
65 \RequirePackage{kvoptions}[2010/12/23]% v3.10
66 \RequirePackage{atveryend}[2011/04/23]% v1.7
67
```

A last information for the user:

```
68 %% regstats may work with earlier versions of LaTeX and these
69 %% packages, but this was not tested. Please consider updating
70 %% your LaTeX and packages to the most recent version
71 %% (if they are not already the most recent version).
72
```

See subsection 6.1 about how to get them.

We process the options:

```
73 \SetupKeyvalOptions{family=regstats,prefix=regstats@}
74 \DeclareBoolOption{proof}% \regstats@proof
75 \DeclareBoolOption{left}
76 \DeclareBoolOption{timer}
77
78 \ProcessKeyvalOptions*
79
80 \ifregstats@proof
81   \PackageInfo{regstats}{%
82     This package will use one of each kind of register itself!\MessageBreak%
83     (And other packages used by this package\MessageBreak%
84     probably use additional resources,\MessageBreak%
85     if those packages are not used anyway.)\MessageBreak%
86   }
87 \else
88   \PackageInfo{regstats}{%
89     This package will use one counter itself!\MessageBreak%
90     (And other packages used by this package\MessageBreak%
91     probably use additional resources,\MessageBreak%
92     if those packages are not used anyway.)\MessageBreak%
93   }
94 \fi
95
```

But that counter will be created not before `\AtVeryVeryEnd`, therefore if it is the one counter too much, it should not interfere with the creation of the document. (The other kinds of registers are used not before `\AtVeryVeryEnd`, too.)

```

96 \ifregstats@timer
97   \RequirePackage{intcalc}[2007/09/27]% v1.1
98 \fi
99

```

We try to determine, whether ε -TeX is available in the L^AT_EX distribution used to compile the document and really loaded by the user. Because it is possible to load packages `\AtBeginDocument`, but `\@ifpackageloaded` cannot be used after `\AtBeginDocument`, we check for ε -TeX `\AtBeginDocument` (and herewith ask the user to please load `regstats` as very last package, at least after the `etex` package):

```

100 \AtBeginDocument{%
101   \newif\ifetex
102   \begingroup\expandafter\expandafter\expandafter\endgroup
103   \expandafter\ifx\csname eTeXversion\endcsname\relax
104     \etexfalse
105   \else
106     \@ifpackageloaded{etex}{\etextrue}{\etexfalse}
107   \fi
108   \ifetex
109     \PackageInfo{regstats}{e-TeX found.}
110   \else
111     \PackageWarning{regstats}{Could not find e-TeX.\MessageBreak%
112       That can mean that e-TeX was disabled or\MessageBreak%
113       that your distribution of TeX does not contain e-TeX\MessageBreak%
114       or that you forgot to say \string\usepackage{etex}\MessageBreak%
115       in the preamble of \jobname.tex.\MessageBreak%
116       Some packages will not work without e-TeX,\MessageBreak%
117       but should give according messages.\MessageBreak%
118     }
119   \fi
120 }
121

```

`\AtVeryEndDocument` we write to `\AtVeryVeryEnd`, thus the code will be executed quite late during the compilation. (Please load `regstats` as very last package!) We define a new command to determine the singular/plural form, maximum of available registers, and (if option `left` was chosen) the number of remaining registers of that type.

```

122 \AtVeryEndDocument{%
123   \AtVeryVeryEnd{%
124     \def\regstats@lft{}%
125     \newcommand{\regstats@regstat}[5]{%

```

The five parameters are: number of used registers of that type, singular ending, plural ending, number of available registers without ε -TeX, number of available registers with ε -TeX (in this order).

```

126     \setcounter{regstatscount}{#1}
127     \ifnum \value{regstatscount}=0
128       \setcounter{regstatscount}{2}
129     \fi
130     \ifnum \value{regstatscount}>1
131       \gdef\regstats@pl{#3}
132     \else

```

```

133     \gdef\regstats@pl{#2}
134   \fi
135   \ifetex\edef\regstats@max{#5}\else\edef\regstats@max{#4}\fi
136   \ifregstats@left
137     \setcounter{regstatscount}{\regstats@max}
138     \addtocounter{regstatscount}{-#1}
139     \ifnum \value{regstatscount}>0
140       \edef\regstats@lft{, left: \arabic{regstatscount}}
141     \else
142       \ifnum \value{regstatscount}=0
143         \edef\regstats@lft{, left: \arabic{regstatscount} !!!}
144       \else% \value{regstatscount}<0
145         \edef\regstats@lft{, left: \arabic{regstatscount} *****}
146       \fi
147     \fi

    \else \regstats@lft will stay \empty.

148   \fi
149 }
150 \newcounter{regstatscount}
151 \edef\regstats@counter{\the\allocationnumber}

```

When option proof was chosen, a new register of the named types is used and its number compared with the according count number. We give a warning about the use of additional registers.

```

152 \ifregstats@proof
153   \PackageWarning{regstats}{%
154     Package regstats loaded with option 'proof'.\MessageBreak%
155     This package itself will now use\MessageBreak%
156     one of each register for testing!%
157   }%
158   \def\regstats@proof{1}
159   \edef\regstats@test{\the\count10}
160   \ifx\regstats@counter\regstats@test
161     \else \message{Discrepancy when counting count registers.^^J}
162     \def\regstats@proof{0}
163   \fi
164   \newdimen{\regstatsdimen}
165   \edef\regstats@dimen{\the\allocationnumber}
166   \edef\regstats@test{\the\count11}
167   \ifx\regstats@dimen\regstats@test
168     \else \message{Discrepancy when counting dimen registers.^^J}
169     \def\regstats@proof{0}
170   \fi
171   \newskip\regstatsskip
172   \edef\regstats@skip{\the\allocationnumber}
173   \edef\regstats@test{\the\count12}
174   \ifx\regstats@skip\regstats@test
175     \else \message{Discrepancy when counting skip registers.^^J}
176     \def\regstats@proof{0}
177   \fi
178   \newmuskip\regstatsmuskip
179   \edef\regstats@muskip{\the\allocationnumber}
180   \edef\regstats@test{\the\count13}
181   \ifx\regstats@muskip\regstats@test
182     \else \message{Discrepancy when counting muskip registers.^^J}
183     \def\regstats@proof{0}
184   \fi

```

```

185 \newbox\regstatsbox
186 \edef\regstats@box{\the\allocationnumber}
187 \edef\regstats@test{\the\count14}
188 \ifx\regstats@box\regstats@test
189 \else \message{Discrepancy when counting box registers.^^J}
190 \def\regstats@proof{0}
191 \fi
192 \newtoks\regstatstoks
193 \edef\regstats@toks{\the\allocationnumber}
194 \edef\regstats@test{\the\count15}
195 \ifx\regstats@toks\regstats@test
196 \else \message{Discrepancy when counting toks registers.^^J}
197 \def\regstats@proof{0}
198 \fi
199 \newread\regstatsread
200 \edef\regstats@read{\the\allocationnumber}
201 \edef\regstats@test{\the\count16}
202 \ifx\regstats@read\regstats@test
203 \else \message{Discrepancy when counting read registers.^^J}
204 \def\regstats@proof{0}
205 \fi
206 \newwrite\regstatswrite
207 \edef\regstats@write{\the\allocationnumber}
208 \edef\regstats@test{\the\count17}
209 \ifx\regstats@write\regstats@test
210 \else \message{Discrepancy when counting write registers.^^J}
211 \def\regstats@proof{0}
212 \fi
213 \newfam\regstatsfam
214 \edef\regstats@fam{\the\allocationnumber}
215 \edef\regstats@test{\the\count18}
216 \ifx\regstats@fam\regstats@test
217 \else \message{Discrepancy when counting fam registers.^^J}
218 \def\regstats@proof{0}
219 \fi
220 \newlanguage\regstatslanguage
221 \edef\regstats@language{\the\allocationnumber}
222 \edef\regstats@test{\the\count19}
223 \ifx\regstats@language\regstats@test
224 \else \message{Discrepancy when counting language registers.^^J}
225 \def\regstats@proof{0}
226 \fi
227 \newinsert\regstatsinsert
228 \edef\regstats@insert{\the\allocationnumber}
229 \edef\regstats@test{\the\count20}
230 \ifx\regstats@insert\regstats@test
231 \else \message{Discrepancy when counting insert registers.^^J}
232 \def\regstats@proof{0}
233 \fi

```

When there was a discrepancy somewhere, we give the according message.

```

234 \edef\regstats@test{0}
235 \ifx\regstats@proof\regstats@test
236 \message{Regstats test for register numbers failed.^^J}
237 \message{Therefore option 'proof' is necessary to get the %
238 right numbers.^^J}
239 \fi
240 \else

```


Without option `proof`, we just take the values of the various `counts`.

```
241 \edef\regstats@dimen{\the\count11}
242 \edef\regstats@skip{\the\count12}
243 \edef\regstats@muskip{\the\count13}
244 \edef\regstats@box{\the\count14}
245 \edef\regstats@toks{\the\count15}
246 \edef\regstats@read{\the\count16}
247 \edef\regstats@write{\the\count17}
248 \edef\regstats@fam{\the\count18}
249 \edef\regstats@language{\the\count19}
250 \edef\regstats@insert{\the\count20}
251 \fi
```

`inserts` are used starting with a high number and moving downward.

```
252 \setcounter{regstatscount}{233}
253 \addtocounter{regstatscount}{-\regstats@insert}
254 \addtocounter{regstatscount}{+1}
255 \edef\regstats@insert{\arabic{regstatscount}}
```

The number of used registers of each type and the number of available ones (estimated, probably dependent on distribution and its version, here just distinguished according to availability of ε -TeX) is written to screen and log file. (Additional spaces are just for increased ease of readability of the code and will appear neither at the scree output nor in the log file.)

```

256 \message{^^J}
257 \message{Here is how much of TeX's registers you used^^J}%
258 \message{\space (numbers of available registers are estimated!):^^J}%
259 \regstats@regstat{\regstats@counter}{s}{233}{32767}
260 \message{ \regstats@counter\space counter register\regstats@pl\space out of \regstats@max \regstats@lft ^^J}
261 \regstats@regstat{\regstats@dimen}{s}{233}{32767}
262 \message{ \regstats@dimen\space dimen register\regstats@pl\space out of \regstats@max \regstats@lft ^^J}
263 \regstats@regstat{\regstats@skip}{s}{233}{32767}
264 \message{ \regstats@skip\space skip register\regstats@pl\space out of \regstats@max \regstats@lft ^^J}
265 \regstats@regstat{\regstats@muskip}{s}{255}{32767}
266 \message{ \regstats@muskip\space muskip register\regstats@pl\space out of \regstats@max \regstats@lft ^^J}
267 \regstats@regstat{\regstats@box}{s}{233}{32767}
268 \message{ \regstats@box\space box register\regstats@pl\space out of \regstats@max \regstats@lft ^^J}
269 \regstats@regstat{\regstats@toks}{s}{255}{32767}
270 \message{ \regstats@toks\space toks register\regstats@pl\space out of \regstats@max \regstats@lft ^^J}
271 \regstats@regstat{\regstats@read}{s}{15}{15}
272 \message{ \regstats@read\space input stream\regstats@pl\space (read) out of \regstats@max \regstats@lft ^^J}
273 \regstats@regstat{\regstats@write}{s}{15}{15}
274 \message{ \regstats@write\space output stream\regstats@pl\space (write) out of \regstats@max \regstats@lft ^^J}
275 \regstats@regstat{\regstats@fam}{y}{ies}{15}{15}
276 \message{ \regstats@fam\space math famil\regstats@pl\space (fam) out of \regstats@max \regstats@lft ^^J}
277 \regstats@regstat{\regstats@language}{s}{255}{255}
278 \message{ \regstats@language\space language code\regstats@pl\space out of \regstats@max \regstats@lft ^^J}
279 \regstats@regstat{\regstats@insert}{s}{101}{124}
280 \message{ \regstats@insert\space insertion\regstats@pl\space out of \regstats@max \regstats@lft ^^J}

```

When option `timer` (or `timer=true`) was used, the `regstats` package additionally gives the time, which was needed for the compilation. If `\pdfelapsedtime` was reset by another package, the result is not correct, of course, but unfortunately it is not possible to check for this. You could say `\def\pdfresettimer{\relax}` immediately after `\documentclass[...]{...}` to prevent this. Better use `\long\def\pdfresettimer{%
\PackageError{regstats}{\string\pdfresettimer\space used}}{}` to be notified thereof. This redefinition could be implemented in this `regstats` package, but this would have no effect for the use of `\pdfresettimer` before this package is called. Because this package should be called immediately before `\begin{document}`, this would mean that resetting would be possible during the whole loading of all packages.

```

281   \ifregstats@timer
282     \message{^^J}
283     \setcounter{regstatscount}{\the\pdfelapsedtime}
284     \edef\regstatselapsedtime{\arabic{regstatscount}}
285     \divide \value{regstatscount} by 65536% scaledseconds -> seconds
286     \edef\regstatsseconds{\arabic{regstatscount}}
287     \ifnum \value{regstatscount} > 59
288       \edef\regstatsseconds{\intcalcMod{\value{regstatscount}}{60}}
289       \divide \value{regstatscount} by 60% seconds -> minutes
290     \else
291       \setcounter{regstatscount}{0}% minutes = 0
292     \fi
293     \ifnum \regstatsseconds < 10
294       \message{Time elapsed: about \arabic{regstatscount}:0\regstatsseconds%
295         \space (m:ss; \regstatselapsedtime /65536 s).^^J}
296     \else
297       \message{Time elapsed: about \arabic{regstatscount}:\regstatsseconds %
298         \space (m:ss; \regstatselapsedtime /65536 s).^^J}
299     \fi
300   \fi
301 }
302 }
303
304 \end{package}

```

That's it!

6 Installation

6.1 Downloads

Everything is available at CTAN: <http://www.ctan.org/tex-archive/>, but may need additional packages themselves.

`regstats.dtx` For unpacking the `regstats.dtx` file and constructing the documentation it is required:

- T_EXFormat L^AT_EX 2_ε: <http://www.CTAN.org/>
- document class `ltxdoc`, 2007/11/11, v2.0u,
[CTAN:macros/latex/base/ltxdoc.dtx](http://www.ctan.org/macros/latex/base/ltxdoc.dtx)
- package `pdflscape`, 2008/08/11, v0.10,
[CTAN:macros/latex/contrib/oberdiek/pdflscape.dtx](http://www.ctan.org/macros/latex/contrib/oberdiek/pdflscape.dtx)
- package `holtxdoc`, 2011/02/04, v0.21,
[CTAN:macros/latex/contrib/oberdiek/holtxdoc.dtx](http://www.ctan.org/macros/latex/contrib/oberdiek/holtxdoc.dtx)
- package `hypdoc`, 2010/03/26, v1.9,
[CTAN:macros/latex/contrib/oberdiek/hypdoc.dtx](http://www.ctan.org/macros/latex/contrib/oberdiek/hypdoc.dtx)

`regstats.sty` The `regstats.sty` for L^AT_EX 2_ε (i. e. all documents using the `regstats` package) requires:

- T_EXFormat L^AT_EX 2_ε, <http://www.CTAN.org/>
- package `kvoptions`, 2010/12/23, v3.10,
[CTAN:macros/latex/contrib/oberdiek/kvoptions.dtx](http://www.ctan.org/macros/latex/contrib/oberdiek/kvoptions.dtx)
- package `atveryend`, 2011/04/23, v1.7,
[CTAN:macros/latex/contrib/oberdiek/atveryend.dtx](http://www.ctan.org/macros/latex/contrib/oberdiek/atveryend.dtx)

When option `timer` is used, additionally

- package `intcalc`, 2007/09/27, v1.1,
[CTAN:macros/latex/contrib/oberdiek/intcalc.dtx](http://www.ctan.org/macros/latex/contrib/oberdiek/intcalc.dtx)

is needed.

`regstats-example.tex` The `regstats-example.tex` requires the same files as all documents using the `regstats` package, i. e. the ones named above and additionally:

- class `article`, 2007/10/19, v1.4h, from `classes.dtx`:
[CTAN:macros/latex/base/classes.dtx](http://www.ctan.org/macros/latex/base/classes.dtx)
- package `regstats`, 2011/06/18, v1.0d,
[CTAN:macros/latex/contrib/regstats/regstats.dtx](http://www.ctan.org/macros/latex/contrib/regstats/regstats.dtx)
(Well, it is the example file for this package, and because you are reading the documentation for the `regstats` package, it can be assumed that you already have some version of it – is it the current one?)

Alternative As possible alternative in section 3 there is listed

- `regcount`, 1999/08/03, v1.0:
<http://www.ctan.org/pkg/regcount>

oberdiek All packages of HEIKO OBERDIEK's bundle 'oberdiek' (especially holtxdoc,
 holtxdoc kvoptions, atveryend, intcalc, and pdfscape) are also available in a TDS compliant
 kvoptions ZIP archive:
 atveryend [CTAN:install/macros/latex/contrib/oberdiek.tds.zip](http://mirror.ctan.org/install/macros/latex/contrib/oberdiek.tds.zip).
 intcalc It is probably best to download and use this, because the packages in there are
 pdfscape quite probably both recent and compatible among themselves.

hyperref hyperref is not included in that bundle and needs to be downloaded separately,
<http://mirror.ctan.org/install/macros/latex/contrib/hyperref.tds.zip>.

Münch A hyperlinked list of my (other) packages can be found at <http://www.Uni-Bonn.de/~uzs5pv/LaTeX.html>.

6.2 Package, unpacking TDS

Package. This package is available on [CTAN](http://mirror.ctan.org):

[CTAN:macros/latex/contrib/regstats/regstats.dtx](http://mirror.ctan.org/macros/latex/contrib/regstats/regstats.dtx)
 The source file.

[CTAN:macros/latex/contrib/regstats/regstats.pdf](http://mirror.ctan.org/macros/latex/contrib/regstats/regstats.pdf)
 The documentation.

[CTAN:macros/latex/contrib/regstats/regstats-example.pdf](http://mirror.ctan.org/macros/latex/contrib/regstats/regstats-example.pdf)
 The compiled example file, as it should look like.

[CTAN:macros/latex/contrib/regstats/README](http://mirror.ctan.org/macros/latex/contrib/regstats/README)
 The README file.

[CTAN:install/macros/latex/contrib/regstats.tds.zip](http://mirror.ctan.org/install/macros/latex/contrib/regstats.tds.zip)
 Everything in TDS compliant, compiled format.

which additionally contains

regstats.ins	The installation file.
regstats.drv	The driver to generate the documentation.
regstats.sty	The .style file.
regstats-example.tex	The example file.
regstats-example.log	A log file for the example.

For required other packages, see the preceding subsection.

Unpacking. The .dtx file is a self-extracting docstrip archive. The files are extracted by running the .dtx through plain T_EX:

```
tex regstats.dtx
```

About generating the documentation see paragraph 6.4 below.

TDS. Now the different files must be moved into the different directories in your installation TDS tree (also known as texmf tree):

regstats.sty	→ tex/latex/regstats.sty
regstats.pdf	→ doc/latex/regstats.pdf
regstats-example.tex	→ doc/latex/regstats-example.tex
regstats-example.pdf	→ doc/latex/regstats-example.pdf
regstats-example.log	→ doc/latex/regstats-example.log
regstats.dtx	→ source/latex/regstats.dtx

If you have a `docstrip.cfg` that configures and enables `docstrip`'s TDS installing feature, then some files can already be in the right place, see the documentation of `docstrip`.

6.3 Refresh file name databases

If your \TeX distribution (`teTeX`, `mikTeX`,...) relies on file name databases, you must refresh these. For example, `teTeX` users run `texhash` or `mktextlsr`.

6.4 Some details for the interested

Unpacking with \LaTeX . The `.dtx` chooses its action depending on the format:

plain \TeX : Run `docstrip` and extract the files.

\LaTeX : Generate the documentation.

If you insist on using \LaTeX for `docstrip` (really, `docstrip` does not need \LaTeX), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{regstats.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

Generating the documentation. You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by a configuration file `ltxdoc.cfg`. For instance, put this line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with `pdf \LaTeX` :

```
pdflatex regstats.dtx
makeindex -s gind.ist regstats.idx
pdflatex regstats.dtx
makeindex -s gind.ist regstats.idx
pdflatex regstats.dtx
```

6.5 Compiling the example

The example file, `regstats-example.tex`, can be compiled via
`(pdf)latex regstats-example.tex`.

7 Acknowledgements

I would like to thank HEIKO OBERDIEK for providing the `hyperref` as well as a lot (!) of other useful packages (from which I also got everything I know about creating a file in `.dtx` format, ok, say it: copying), JEAN-PIERRE F. DRUCBERT for his `regcount` package, ROBIN FAIRBAIRNS for pointing me to the `regcount` package, and the `news:comp.text.tex` and `news:de.comp.text.tex` newsgroups for their help in all things \TeX .

8 History

[2011/05/14 v1.0a]

- Upload to [CTAN](#).

[2011/05/16 v1.0b]

- Name clash with `regcount` package, fixed.
- `regcount` package listed as possible alternative.
- Bug: `skip` and `muskip` mixed up, fixed.
- Counting of skips, math families, and insertions added.
- Bug fix: insertions are numbered high to low.
- Option `proof` added.
- Diverse details.

[2011/06/08 v1.0c]

- Bug Fix: Number of available `\skip` registers with ε -TeX.
- Change in ε -TeX-detection.
- New option `left`.
- Minor details.

[2011/06/18 v1.0d]

- Bug Fix: Information about used registers/counter fixed.
- New option `timer`.
- Some details.

When you find a mistake or have a suggestion for an improvement of this package, please send an e-mail to the maintainer, thanks! (Please see BUG REPORTS in the README.)

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