

The classlist package

Heiko Oberdiek
<oberdiek@uni-freiburg.de>

2006/02/20 v1.2

Abstract

This package records the loaded classes and stores them in a list.

Contents

1 Documentation	1
1.1 Background	1
1.2 Usage	1
2 Implementation	2
3 Installation	4
3.1 Some details for the interested	4
4 History	5
[2005/06/19 v1.0]	5
[2005/06/19 v1.1]	5
[2006/02/20 v1.2]	5
5 Index	5

1 Documentation

1.1 Background

This packages is an answer of a newsgroup question:

```
Newsgroup: comp.text.tex
Subject:   Finding the Document Class
From:     Herber Schulz
Date:     18 Jun 2005 13:16:49 -0500
Message-ID: <herbs-D55DB9.13170418062005@news.isp.giganews.com>
```

1.2 Usage

Load this package before `\documentclass`:

```
\RequirePackage{classlist}
\documentclass[some,options]{whatever}
```

It then records the classes with options.

If used after `\documentclass`, `\@filelist` is parsed for classes. The additional data specified options and requested version is no longer available here.

`\MainClass` contains the first loaded class.

`\ClassList` stores the class entries, eg.

```

\ClassList → \ClassListEntry{myarticle}{a4paper}{}
\ClassListEntry{article}{}{}

```

`\ClassListEntry` has three arguments:

- #1: class name
- #2: options given in `\documentclass/\LoadClass`
- #3: requested version, not the version of class

`\PrintClassList` prints the list on screen it can be configured by

`\PrintClassListTitle` for the title and

`\PrintClassListEntry` for formatting the entries. See the implementation how to use these.

2 Implementation

```

1 (*package)

Package identification.
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{classlist}%
4   [2006/02/20 v1.2 Record loaded classes (HO)]

5 \let\ClassList\@empty
6 \let\MainClassName\relax

   Test, whether we are called before \documentclass.
7 \ifx\@classoptionslist\relax
8   \let\CL@org@fileswith@pti@ns\@fileswith@pti@ns
9   \def\@fileswith@pti@ns#1[#2]#3[#4]{%
#1: \@clsextension
#2: options of \documentclass/\LoadClass
#3: class name
#4: requested version
10    \ifx#1\@clsextension
11      \@ifl@aded#1{#3}{%
12        \PackageInfo{classlist}{%
13          Skipping class ‘#3’, because\MessageBreak
14          this class is already loaded%
15        }%
16      }%
17      \@ifundefined{MainClassName}{%
18        \def\MainClassName{#3}%
19      }{}%
20      \@temptokena\expandafter{%
21        \ClassList
22        \ClassListEntry{#3}{#2}{#4}%
23      }%
24      \edef\ClassList{\the\@temptokena}%
25    }%
26    \fi
27    \CL@org@fileswith@pti@ns{#1}[{#2}]{#3}[{#4}]%
28  }
29  \let\@fileswith@pti@ns\@fileswith@pti@ns
30 \else

Called after \documentclass.
31 \PackageInfo{classlist}{Use \string\@filelist\space method}%
32
33 \let\ClassListEntry\relax
34 \expandafter\def\expandafter\CL@test
35   \expandafter#\expandafter1\@clsextension#2\@nil{%

```

```

36     \ifx\\#2\\%
Name does not contain \@clsextension
37     \else
38         \expandafter\CL@test@i\CL@entry\@nil
39     \fi
40 }%
41 \expandafter\def\expandafter\CL@test@i
42     \expandafter#\expandafter1\@clsextension#2\@nil{%
43     \ifx\\#2\\%
44         \@ifundefined{opt@\CL@entry}{%
45         }{%
46         \@ifundefined{MainClassName}{%
47             \let\MainClassName\CL@entry
48         }{%
49         }%
50         \edef\ClassList{%
51             \ClassList
52             \ClassListEntry{\CL@entry}{\}%
53         }%
54     }%
55     \else
Names with more than one \@clsextension are not supported.
56     \fi
57 }
58 \@for\CL@entry:=\@filelist\do{%
59     \expandafter\expandafter\expandafter\CL@test\expandafter
60         \CL@entry\@clsextension\@nil
61 }%
62 \fi

\PrintClassListEntry

63 \providecommand*\PrintClassListEntry[3]{%
64     \toks@{* #1}%
65     \typeout{\the\toks@}%
66 }

\PrintClassListTitle

67 \providecommand*\PrintClassListTitle{%
68     \typeout{Class list:}%
69 }

\PrintClassList

70 \providecommand*\PrintClassList{%
71     \begin{group}
72         \let\ClassListEntry\PrintClassListEntry
73         \PrintClassListTitle
74         \ClassList
75     \end{group}
76 }

\CL@InfoEntry

77 \def\CL@InfoEntry#1#2#3{%
78     \advance\count@ by \@ne
79     \def\x{#2}%
80     \@onelevel@sanitize\x
81     \edef\CL@Info{%
82         \CL@Info
83         \noexpand\MessageBreak
84         (\the\count@) %
85         #1 [\x]%
86     \ifx\\#3\\%

```

```

87     \else
88         \space[#3]%
89     \fi
90 }%
91 }

92 \AtBeginDocument{%
93     \begingroup
94         \count@=\z@
95         \def\CL@Info{Class List:}%
96         \let\ClassListEntry\CL@InfoEntry
97         \ClassList
98         \let\on@line\@empty
99         \PackageInfo{classlist}{\CL@Info}
100     \endgroup
101 }
102 \</package>

```

3 Installation

CTAN. This package is available on CTAN¹:

[CTAN:macros/latex/contrib/oberdiek/classlist.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/classlist.pdf](#) Documentation.

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

```
tex classlist.dtx
```

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

```

classlist.sty → tex/latex/oberdiek/classlist.sty
classlist.pdf → doc/latex/oberdiek/classlist.pdf
classlist.dtx → source/latex/oberdiek/classlist.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.

Refresh file databases. If your \TeX distribution (`te \TeX` , `mik \TeX` , ...) rely on file databases, you must refresh these. For example, `te \TeX` users run `texhash` or `mktextlsr`.

3.1 Some details for the interested

Attached source. The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk classlist.pdf unpack_files output .
```

¹<http://ftp.ctan.org/tex-archive/>

Unpacking with L^AT_EX. The .dtx chooses its action depending on the format:

plain-T_EX: Run docstrip and extract the files.

L^AT_EX: Generate the documentation.

If you insist on using L^AT_EX for docstrip (really, docstrip does not need L^AT_EX), then inform the autodetect routine about your intension:

```
latex \install=y\input{classlist.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 the 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 pdfL^AT_EX:

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

4 History

[2005/06/19 v1.0]

- First published version (comp.text.tex, CTAN).

[2005/06/19 v1.1]

- After \documentclass the package looks at \@filelist instead of aborting with error.

[2006/02/20 v1.2]

- DTX framework.
- Fix for \@@fileswith@pti@ns.

5 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

Symbols		
\@@fileswith@pti@ns	29	\@ne 78
\@classoptionslist	7	\@nil 35, 38, 42, 60
\@clsextension	10, 35, 42, 60	\@onelevel@sanitize 80
\@empty	5, 98	\@temptokena 20, 24
\@filelist	31, 58	\@ 36, 43, 86
\@fileswith@pti@ns	8, 9, 29	
\@for	58	
\@ifl@aded	11	
\@ifundefined	17, 44, 46	
		A
		\advance 78
		\AtBeginDocument 92

C		O	
\CL@entry	38, 44, 47, 52, 58, 60	\on@line	98
\CL@Info	81, 82, 95, 99	P	
\CL@InfoEntry	77, 96	\PackageInfo	12, 31, 99
\CL@org@fileswith@pti@ns	8, 27	\PrintClassList	70
\CL@test	34, 59	\PrintClassListEntry	63, 72
\CL@test@i	38, 41	\PrintClassListTitle	67, 73
\ClassList	5, 21, 24, 50, 51, 74, 97	\providecommand	63, 67, 70
\ClassListEntry	22, 33, 52, 72, 96	\ProvidesPackage	3
\count@	78, 84, 94	S	
D		\space	31, 88
\do	58	T	
I		\the	24, 65, 84
\ifx	7, 10, 36, 43, 86	\toks@	64, 65
M		\typeout	65, 68
\MainClassName	6, 18, 47	X	
\MessageBreak	13, 83	\x	79, 80, 85
N		Z	
\NeedsTeXFormat	2	\z@	94