

The classlist package

Heiko Oberdiek*

2016/05/16 v1.5

Abstract

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

Contents

1	Documentation	1
1.1	Background	1
1.2	Usage	2
2	Implementation	2
3	Installation	4
3.1	Download	4
3.2	Bundle installation	5
3.3	Package installation	5
3.4	Refresh file name databases	5
3.5	Some details for the interested	5
4	History	6
[2005/06/19 v1.0]	. . . . .	6
[2005/06/19 v1.1]	. . . . .	6
[2006/02/20 v1.2]	. . . . .	6
[2008/08/11 v1.3]	. . . . .	6
[2011/10/17 v1.4]	. . . . .	6
[2016/05/16 v1.5]	. . . . .	6

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>

*Please report any issues at <https://github.com/ho-tex/oberdiek/issues>

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.

`\MainClassName` 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   [2016/05/16 v1.5 Record classes used in a document (H0)]
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   \begingroup
72     \let\ClassListEntry\PrintClassListEntry
73     \PrintClassListTitle
74     \ClassList
75   \endgroup
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]% hash-ok
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\online\@empty
99     \PackageInfo{classlist}{\CL@Info}%
100   \endgroup
101 }
102 \end{package}

```

3 Installation

3.1 Download

Package. This package is available on CTAN¹:

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

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

Bundle. All the packages of the bundle ‘oberdiek’ are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

[CTAN:install/macros/latex/contrib/oberdiek.tds.zip](#)

TDS refers to the standard “A Directory Structure for \TeX Files” ([CTAN:tds/tds.pdf](#)). Directories with `texmf` in their name are usually organized this way.

¹[CTAN:pkg/classlist](#)

3.2 Bundle installation

Unpacking. Unpack the `oberdiek.tds.zip` in the TDS tree (also known as `texmf` tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

Script installation. Check the directory `TDS:scripts/oberdiek/` for scripts that need further installation steps. Package `attachfile2` comes with the Perl script `pdfatfi.pl` that should be installed in such a way that it can be called as `pdfatfi`. Example (linux):

```
chmod +x scripts/oberdiek/pdfatfi.pl
cp scripts/oberdiek/pdfatfi.pl /usr/local/bin/
```

3.3 Package installation

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`.

3.4 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`.

3.5 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{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: CTAN and newsgroup `comp.text.tex`: “Re: Finding the Document Class”²

[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`.

[2008/08/11 v1.3]

- Code is not changed.
- URLs updated.

[2011/10/17 v1.4]

- Documentation fix: `\MainClass` → `\MainClassName`.

[2016/05/16 v1.5]

- Documentation updates.

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; plain numbers refer to the code lines where the entry is used.

Symbols	<code>\@classoptionslist</code>	7
<code>\@@fileswith@pti@ns</code>		29

²Url: <https://groups.google.com/group/comp.text.tex/msg/8ee9523c2dc13666>

\@clsextension	10, 35, 42, 60	M	
\@empty	5, 98	\MainClassName	6, 18, 47
\@filelist	31, 58	\MessageBreak	13, 83
\@fileswith@pti@ns	8, 9, 29	N	
\@for	58	\NeedsTeXFormat	2
\@ifl@aded	11	O	
\@ifundefined	17, 44, 46	\on@line	98
\@ne	78	P	
\@nil	35, 38, 42, 60	\PackageInfo	12, 31, 99
\@onelevel@sanitize	80	\PrintClassList	70
\@temptokena	20, 24	\PrintClassListEntry	63, 72
\\	36, 43, 86	\PrintClassListTitle	67, 73
A		\providecommand	63, 67, 70
\advance	78	\ProvidesPackage	3
\AtBeginDocument	92	S	
C		\space	31, 88
\CL@entry	38, 44, 47, 52, 58, 60	T	
\CL@Info	81, 82, 95, 99	\the	24, 65, 84
\CL@InfoEntry	77, 96	\toks@	64, 65
\CL@org@fileswith@pti@ns	8, 27	\typeout	65, 68
\CL@test	34, 59	X	
\CL@test@i	38, 41	\x	79, 80, 85
\ClassList ...	5, 21, 24, 50, 51, 74, 97	Z	
\ClassListEntry	22, 33, 52, 72, 96	\z@	94
\count@	78, 84, 94		
D			
\do	58		
I			
\ifx	7, 10, 36, 43, 86		