

The classlist package

Heiko Oberdiek
<heiko.oberdiek at gmail.com>

2008/08/11 v1.3

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 Download	4
3.2 Bundle installation	4
3.3 Package installation	5
3.4 Refresh file name databases	5
3.5 Some details for the interested	5
4 History	5
[2005/06/19 v1.0]	5
[2005/06/19 v1.1]	6
[2006/02/20 v1.2]	6
[2008/08/11 v1.3]	6
5 Index	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>
```

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   [2008/08/11 v1.3 Record loaded classes (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}{\@nil}%
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\on@line\@empty
99     \PackageInfo{classlist}{\CL@Info}%
100 \endgroup
101 }

102 \endpackage

```

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 T_EX Files” ([CTAN:tds/tds.pdf](#)). Directories with `texmf` in their name are usually organized this way.

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/
```

¹<http://ftp.ctan.org/tex-archive/>

3.3 Package installation

Unpacking. The `.dtx` file is a self-extracting `docstrip` archive. The files are extracted by running the `.dtx` through plain $\mathrm{T}_{\mathrm{E}}\mathrm{X}$:

```
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 $\mathrm{T}_{\mathrm{E}}\mathrm{X}$ distribution (`te $\mathrm{T}_{\mathrm{E}}\mathrm{X}$` , `mik $\mathrm{T}_{\mathrm{E}}\mathrm{X}$` , ...) relies on file name databases, you must refresh these. For example, `te $\mathrm{T}_{\mathrm{E}}\mathrm{X}$` users run `texhash` or `mktextlsr`.

3.5 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 .
```

Unpacking with $\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$. The `.dtx` chooses its action depending on the format:

plain $\mathrm{T}_{\mathrm{E}}\mathrm{X}$: Run `docstrip` and extract the files.

$\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$: Generate the documentation.

If you insist on using $\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$ for `docstrip` (really, `docstrip` does not need $\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$), 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 `pdf $\mathrm{L}^{\mathrm{A}}\mathrm{T}_{\mathrm{E}}\mathrm{X}$` :

```
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

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

[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.

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