The **pagesel** package

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Abstract

Single pages or page areas can be selected for output.

Contents

1 Usage

The package `pagesel` is a LaTeX 2_ε package:

> `\usepackage[`⟨*options*⟩`]{pagesel}`

(For plainTEX and LATEX 2.09 the similar package `selectp`[1] from Donald Arsenau[2] can be used.)

Depending on the options the package works in two modes:

1. If no page selecting option is present, so the package ignores the other options and finishes itself. So no page will be suppressed by the package and auxiliary files will be written.

2. With at least one page selecting option the specified pages are selected and the other are suppressed. The default for this mode is that auxiliary will not be overwritten. (This can be changed by an option.)

1.1 Page selecting

The package `pagesel` sets up a new counter that is incremented by each `\shipout`. In this way the package counts the output pages regardless the value of the page counter. So each page can individually by addressed, even if there are several pages with the same page number.

1.1.1 Options for selecting pages

odd: The output pages must have an odd number. All even output pages are suppressed. If there are no page areas specified so all odd pages are print. With page areas only the odd pages in this areas are selected.

even: The opposite of option `odd`.

Page area: A page area consists of three elements: the starting output page number, an "area" hyphen, and the output page number of the last page in this area. Each component is optional, so there are four kinds to spezify a page area:

$\langle m \rangle$-$\langle n \rangle$: All pages between $\langle m \rangle$ and $\langle n \rangle$ inclusive.

-$\langle n \rangle$: All pages until $\langle n \rangle$ inclusive.

$\langle m \rangle$-: The page area starts with $\langle m \rangle$ and all pages to the end of document are selected.

-: All pages (not very useful).

$\langle s \rangle$: The single page $\langle s \rangle$.

1.1.2 Examples

Options	Output pages
[1, 4, 9]	1, 4, and 9
[7-10, 3]	3, 7, 8, 9, and 10
[odd, 3-6]	3, and 5
[-4, 3, even, 7-8]	2, 4, and 8

1.2 Auxiliary files

If a page is suppressed, the `\write` commands are not performed. Labels, index entries, or entries for the table of contents aren't written. So it is likely that the table of contents, registers, and lists are incomplete.

1.2.1 Options for handling auxiliary files

nofiles: This is the default. Auxiliary files are read but not written or changed. Also the job is aborted after the last selected page for saving time.

nonofiles/files: Auxiliary files are written.

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[1]Url: ftp://ftp.ctan.org/tex-archive/macros/latex/contrib/misc/selectp.sty
[2]Donald Arsenau's email address: asnd@triumf.ca

1.2.2   Package `hyperref`

In old versions of `hyperref` [1999/04/12 v6.55] (and below) there is a bug with `\nofiles`:

- Some "garbage" appears on terminal and in the log file. This is harmless and can be ignored.

- The outline auxiliary file `\jobname.out`, however, is opened and truncated to zero bytes. Version 1.0 of this package had loaded a patch file `hypnofil.tex`, if it detects `hyperref` to get `\nofiles` work.

  With the new version of `hyperref` [1999/04/13 v6.56] `\nofiles` works now. Therefore the workaround code is no longer needed and removed.

2   Implementation

2.1   Package

```
1 ⟨*package⟩
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{pagesel}
4   [2008/08/11 v1.8 Selecting shipout output pages (HO)]%
```

If the package is loaded twice, the package code does not work. So stop loading the package, if it is already loaded.

```
5 \@ifundefined{ps@makevoid}{}{%
6   \PackageWarningNoLine{pagesel}{Package already loaded.}%
7   \endinput
8 }
```

`\ps@makevoid`   Macro `\ps@makevoid` clears the output box. Because nothing is shipped out and this is intended, we reduce the counter `\deadcycles` in order to avoid problems, if more than `\maxdeadcycles` pages are omitted.

```
 9 \newcommand*{\ps@makevoid}{%
10   \global\setbox\@cclv\copy\voidb@x
11   \begingroup
12     \count@=\deadcycles
13     \advance\count@ by -1\relax
14     \deadcycles=\count@
15   \endgroup
16 }
```

`\ps@oddpages`

```
17 \newcommand*\ps@oddpages{0}
18 \DeclareOption{odd}{\renewcommand*\ps@oddpages{1}}
19 \DeclareOption{even}{\renewcommand*\ps@oddpages{2}}

20 \DeclareOption{nofiles}{\let\ps@nofiles\nofiles}
21 \DeclareOption{nonofiles}{\let\ps@nofiles\@empty}
22 \DeclareOption{files}{\let\ps@nofiles\@empty}
23 \ExecuteOptions{nofiles}

24 \DeclareOption*{%
25   \begingroup
26     \expandafter\ps@checkoption\CurrentOption-\END
27     \edef\x{\endgroup\noexpand\ps@store{\ps@first}{\ps@last}}%
28   \x
29 }
```

`\ps@checkoption`

```
30 \newcommand\ps@checkoption{}
31 \def\ps@checkoption#1-#2\END{%
32   \ifx\\#2\\%
```

```
33        \ifx\\#1\\%
34          % empty option
35          \def\ps@first{\maxdimen}%
36          \def\ps@last{\maxdimen}%
37        \else
38          \edef\ps@first{#1}%
39          \edef\ps@last{#1}%
40        \fi
41      \else
42        \ifx\\#1\\%
43          \def\ps@first{-\maxdimen}%
44        \else
45          \edef\ps@first{#1}%
46        \fi
47        \ps@checklast#2%
48      \fi
49    }
```

\ps@checklast

```
50 \newcommand\ps@checklast{}
51 \def\ps@checklast#1-{%
52    \ifx\\#1\\%
53      \def\ps@last{\maxdimen}%
54    \else
55      \edef\ps@last{#1}%
56    \fi
57 }
```

\ps@store

```
58 \newcommand*{\ps@store}[2]{%
59    \expandafter\def\expandafter\ps@testlist\expandafter{%
60      \ps@testlist\ps@pagetest{#1}{#2}%
61    }%
62 }
```

\ps@testlist

```
63 \newcommand*\ps@testlist{}

64 \ProcessOptions

65 \begingroup
66    \edef\x{%
67      \ifnum\ps@oddpages>0 \relax\fi
68      \ifx\ps@testlist\@empty\else\relax\fi
69    }%
70    \ifx\x\@empty
71      \endgroup
72      \PackageInfo{pagesel}{Nothing to do}%
73      \expandafter\endinput
74    \fi
75 \endgroup

76 \RequirePackage{everyshi}

77 \ps@nofiles
```

\c@ps@count

```
78 \newcounter{ps@count}
79 \setcounter{ps@count}{0}
```

\ps@ReturnAfterElseFi
\ps@ReturnAfterFi

```
80 \long\def\ps@ReturnAfterElseFi#1\else#2\fi{\fi#1}
81 \long\def\ps@ReturnAfterFi#1\fi{\fi#1}
```

```
82 \newcommand{\ps@lastpage}{\maxdimen}
83 \ifx\ps@nofiles\nofiles
84   \ifx\ps@testlist\@empty
85   \else
86     \def\ps@lastpage{0}%
87     \newcommand*{\ps@pagetest}[2]{%
88       \ifnum#2>\ps@lastpage\relax
89         \def\ps@lastpage{#2}%
90       \fi
91     }%
92     \ps@testlist
93     \let\ps@pagetest\relax
94   \fi
95 \fi
```

\ps@ifinset

```
96 \newcommand*{\ps@ifinset}[4]{%
97   \ifnum#1>\value{ps@count}%
98     \ps@ReturnAfterElseFi{#4}%
99   \else
100     \ps@ReturnAfterFi{%
101       \ifnum#2<\value{ps@count}%
102         \ps@ReturnAfterElseFi{#4}%
103       \else
104         \ps@ReturnAfterFi{#3}%
105       \fi
106     }%
107   \fi
108 }
```

\ps@pagetest

```
109 \newcommand*{\ps@pagetest}[2]{%
110   \ps@ifinset{#1}{#2}{\let\ps@next\@empty}{}%
111 }
```

```
112 \EveryShipout{%
113   \stepcounter{ps@count}%
114   \ifnum\value{ps@count}>\ps@lastpage\relax
115     \global\output{%
116       \ps@cleanup@if
117       \ps@group@message
118       \typeout{%
119         Package pagesel Notice: Aborting LaTeX job %
120         after last selected page (\ps@lastpage).%
121       }%
122       \ps@message@ignore
123       \global\setbox\@cclv\box\voidb@x
124       \deadcycles0\relax
```

First leave the output group before ending the job.

```
125     \aftergroup\@@end
126   }%
127   \fi
128   \let\ps@next\@empty
129   \ifx\ps@testlist\@empty
130   \else
131     \let\ps@next\ps@makevoid
132     \ps@testlist
133   \fi
134   \ifnum\ps@oddpages=1 %
135     \ifodd\value{ps@count}%
136     \else
137       \let\ps@next\ps@makevoid
```

```
138      \fi
139    \fi
140    \ifnum\ps@oddpages=2 %
141      \ifodd\value{ps@count}%
142        \let\ps@next\ps@makevoid
143      \else
144      \fi
145    \fi
146    \ps@begindvi
147    \ps@next
148 }

149 \begingroup\expandafter\expandafter\expandafter\endgroup
150 \expandafter\ifx\csname currentiflevel\endcsname\relax
151    \let\ps@cleanup@if\@empty
152 \else
153    \def\ps@cleanup@if{%
154      \ifnum\currentiflevel>\@ne
155        \csname fi\endcsname
156        \expandafter\ps@cleanup@if
157      \fi
158    }%
159 \fi
```

Because of `\aftergroup` it is too dangerous to perform a similar cleanup for groups.

```
160 \begingroup\expandafter\expandafter\expandafter\endgroup
161 \expandafter\ifx\csname currentgrouplevel\endcsname\relax
162    \let\ps@group@message\@empty
163    \def\ps@message@ignore{%
164      \typeout{%
165        (pagesel) \space\space\@spaces\@spaces\@spaces
166        Messages (\string\end\space occurred ...) can be ignored.%
167      }%
168    }%
169 \else
170    \def\ps@group@message{%
171      \ifnum\currentgrouplevel>\@ne
172        \def\ps@message@ignore{%
173          \typeout{%
174            (pagesel) \space\space\@spaces\@spaces\@spaces
175            Message (\string\end\space occurred ...) %
176            can be ignored.%
177          }%
178        }%
179      \else
180        \let\ps@message@ignore\@empty
181      \fi
182    }%
183 \fi
```

2.2   AtBeginDvi hook support

The material of box `\@begindvibox` is recorded in parallel in box `\ps@begindvibox`.

```
184 \newbox\ps@begindvibox
185 \ifvoid\@begindvibox
186 \else
187    \global\setbox\ps@begindvibox\vbox{%
188      \unvbox\@begindvibox
189    }%
190 \fi
191 \let\ps@org@AtBeginDvi\AtBeginDvi
192 \def\AtBeginDvi#1{%
```

```
193    \global\setbox\ps@begindvibox\vbox{%
194      \unvbox\ps@begindvibox
195      #1%
196    }%
197    \ps@org@AtBeginDvi{#1}%
198 }
```

\ps@begindvi   Macro \ps@begindvi is called the similar way as \@begindvi. If the first page is
                printed, then \AtBeginDvi should work as usual. Otherwise the contents of box
                \ps@begindvibox is set on the first selected page.

```
199 \def\ps@begindvi{%
200    \ifx\ps@next\@empty
201      \global\let\ps@begindvi\@empty
202    \else
203      \global\let\ps@begindvi\ps@begindvi@do
204    \fi
205 }
206 \def\ps@begindvi@do{%
207    \ifx\ps@next\@empty
208      \setbox\@cclv\vbox{%
209        \unvbox\ps@begindvibox
210        \box\@cclv
211      }%
212      \global\let\ps@begindvi\@empty
213    \fi
214 }
```

```
215 ⟨/package⟩
```

3 Installation

3.1 Download

Package.   This package is available on CTAN[3]:

CTAN:macros/latex/contrib/oberdiek/pagesel.dtx The source file.

CTAN:macros/latex/contrib/oberdiek/pagesel.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 docu-
mentation 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.

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]ftp://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-TeX:

```
tex pagesel.dtx
```

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

```
pagesel.sty → tex/latex/oberdiek/pagesel.sty
pagesel.pdf → doc/latex/oberdiek/pagesel.pdf
pagesel.dtx → source/latex/oberdiek/pagesel.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 `mktexlsr`.

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 pagesel.pdf unpack_files output .
```

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{pagesel.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 pdfLaTeX:

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

4 History

[1999/03/01 v0.9]

- The first version was built as a response to a question of Dirk Kuypers[4], published in the newsgroup de.comp.text.tex: "Re: pdflatex nur fuer bestimmte Seiten?!?"[5]

[1999/04/05 v1.0]

- Documentation added in dtx format.
- Copyright: LPPL (CTAN:macros/latex/base/lppl.txt)
- Options odd, even added.
- \nofiles added, bug fix for hyperref.
- Abort loading of package, if nothing to do.

[1999/04/13 v1.1]

- \nofiles bug fix removed because of hyperref 6.55.
- First CTAN release.

[2003/06/05 v1.2]

- \deadcyles is decremented for omitted pages.
- LPPL 1.2.

[2006/02/20 v1.3]

- Code is not changed.
- New DTX framework.
- LPPL 1.3

[2006/03/02 v1.4]

- Support for \AtBeginDvi added.

[2006/03/07 v1.5]

- Job is aborted after last selected page.

[2007/04/11 v1.6]

- Line ends sanitized.

[2007/04/12 v1.7]

- Hard coded box number 255 replaced by macro \@cclv.

[2008/08/11 v1.8]

- Code is not changed.
- URL updated from www.dejanews.com to groups.google.com.

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[4]Dirk Kuypers's email address: dk@comnets.rwth-aachen.de
[5]Url: http://groups.google.com/group/de.comp.text.tex/msg/6b68c7b3439fb658

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.