# The `pagesel` package

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2008/08/11 v1.8

## Abstract

Single pages or page areas can be selected for output.

## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Usage</td>
</tr>
<tr>
<td>1.1</td>
<td>Page selecting</td>
</tr>
<tr>
<td>1.1.1</td>
<td>Options for selecting pages</td>
</tr>
<tr>
<td>1.1.2</td>
<td>Examples</td>
</tr>
<tr>
<td>1.2</td>
<td>Auxiliary files</td>
</tr>
<tr>
<td>1.2.1</td>
<td>Options for handling auxiliary files</td>
</tr>
<tr>
<td>1.2.2</td>
<td>Package <code>hyperref</code></td>
</tr>
<tr>
<td>2</td>
<td>Implementation</td>
</tr>
<tr>
<td>2.1</td>
<td>Package</td>
</tr>
<tr>
<td>2.2</td>
<td>AtBeginDvi hook support</td>
</tr>
<tr>
<td>3</td>
<td>Installation</td>
</tr>
<tr>
<td>3.1</td>
<td>Download</td>
</tr>
<tr>
<td>3.2</td>
<td>Bundle installation</td>
</tr>
<tr>
<td>3.3</td>
<td>Package installation</td>
</tr>
<tr>
<td>3.4</td>
<td>Refresh file name databases</td>
</tr>
<tr>
<td>3.5</td>
<td>Some details for the interested</td>
</tr>
<tr>
<td>4</td>
<td>Catalogue</td>
</tr>
<tr>
<td>5</td>
<td>History</td>
</tr>
<tr>
<td>[1999/03/01 v0.9]</td>
<td></td>
</tr>
<tr>
<td>[1999/04/05 v1.0]</td>
<td></td>
</tr>
<tr>
<td>[1999/04/13 v1.1]</td>
<td></td>
</tr>
<tr>
<td>[2003/06/05 v1.2]</td>
<td></td>
</tr>
<tr>
<td>[2006/02/20 v1.3]</td>
<td></td>
</tr>
<tr>
<td>[2006/03/02 v1.4]</td>
<td></td>
</tr>
<tr>
<td>[2006/03/07 v1.5]</td>
<td></td>
</tr>
<tr>
<td>[2007/04/11 v1.6]</td>
<td></td>
</tr>
<tr>
<td>[2007/04/12 v1.7]</td>
<td></td>
</tr>
<tr>
<td>[2008/08/11 v1.8]</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Index</td>
</tr>
</tbody>
</table>
1 Usage

The package \texttt{pagesel} is a \LaTeX{} package:

\begin{verbatim}
\usepackage[(options)]{pagesel}
\end{verbatim}

(For plain\TeX{} and \LaTeX{} 2.09 the similar package \texttt{selectp}\footnote{Url: ftp://ftp.ctan.org/tex-archive/macros/latex/contrib/misc/selectp.sty} from Donald Arsenau\footnote{Donald Arsenau’s email address: asnd@triumf.ca} 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 \texttt{pagesel} sets up a new counter that is incremented by each \texttt{\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

\texttt{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.\footnote{Url: ftp://ftp.ctan.org/tex-archive/macros/latex/contrib/misc/selectp.sty}

\texttt{even}: The opposite of option \texttt{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 specify a page area:

\begin{description}
\item[$\langle m \rangle$-$\langle n \rangle$]: All pages between $\langle m \rangle$ and $\langle n \rangle$ inclusive.
\item[-$\langle n \rangle$]: All pages until $\langle n \rangle$ inclusive.
\item[$\langle m \rangle$-]: The page area starts with $\langle m \rangle$ and all pages to the end of document are selected.
\item[-]: All pages (not very useful).
\item[$\langle s \rangle$]: The single page $\langle s \rangle$.
\end{description}

1.1.2 Examples

<table>
<thead>
<tr>
<th>Options</th>
<th>Output pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1, 4, 9]</td>
<td>1, 4, and 9</td>
</tr>
<tr>
<td>[7-10, 3]</td>
<td>3, 7, 8, 9, and 10</td>
</tr>
<tr>
<td>[odd, 3-6]</td>
<td>3, and 5</td>
</tr>
<tr>
<td>[-4, 3, even, 7-8]</td>
<td>2, 4, and 8</td>
</tr>
</tbody>
</table>

1.2 Auxiliary files

If a page is suppressed, the \texttt{\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

\texttt{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.

\texttt{nonofiles/files}: Auxiliary files are written.

1.2.2 Package \texttt{hyperref}

In old versions of \texttt{hyperref} [1999/04/12 v6.55] (and below) there is a bug with \texttt{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 \texttt{hypnofil.tex}, if it detects \texttt{hyperref} to get \texttt{nofiles} work.

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

2 Implementation

2.1 Package

\begin{verbatim}
\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{pagesel} [2008/08/11 v1.8 Select pages of a document for output (HO)]
\end{verbatim}

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

\begin{verbatim}
\@ifundefined{ps@makevoid}{}{%
\PackageWarningNoLine{pagesel}{Package already loaded.}%
\endinput
}
\end{verbatim}

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

\begin{verbatim}
\newcommand*{\ps@makevoid}{%\global\setbox\@cclv\copy\voidb@x
\begingroup\count@=\deadcycles\advance\count@ by -1\relax\deadcycles=\count@\endgroup}
\end{verbatim}

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

\begin{verbatim}
\newcommand*{\ps@oddpages}{0}
\DeclareOption{odd}{\renewcommand*{\ps@oddpages}{1}}
\DeclareOption{even}{\renewcommand*{\ps@oddpages}{2}}
\end{verbatim}

\begin{verbatim}
\DeclareOption{nofiles}{\let\ps@nofiles\ps@no}\DeclareOption{nonofiles}{\let\ps@nofiles\@empty}\DeclareOption{files}{\let\ps@nofiles\@empty}\ExecuteOptions{nofiles}
\end{verbatim}

\begin{verbatim}
\DeclareOption*{%
\begin{group}
\expandafter\ps@checkoption CurrentOption-\END
\edef\x{\endgroup\noexpand\ps@store{\ps@first}{\ps@last}}%\end{verbatim}

3
\ps@checkoption}
\ps@store
\ps@testlist
\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 \fi\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 \deadcycles\@relax
125 First leave the output group before ending the job.
126 \aftergroup\@@end
127 \%
128 \let\ps@next\@empty
129 \ifx\ps@testlist\@empty
130 5
\else
  \let\ps@next\ps@makevoid
  \ps@restlist
\fi
\ifnum\ps@oddpages=1 %
  \ifodd\value{ps@count}%
  \let\ps@next\ps@makevoid
\else
  \let\ps@next\ps@makevoid
\fi
\fi
\ifnum\ps@oddpages=2 %
  \ifodd\value{ps@count}%
  \let\ps@next\ps@makevoid
\else
  \fi
\fi
\ps@begindvi
\ps@next
\} \begingroup \expandafter \expandafter \expandafter \endgroup
\expandafter \ifx \csname currentiflevel \endcsname \relax
  \let\ps@cleanup@if\@empty
\else
  \def\ps@cleanup@if{%
    \ifnum\currentiflevel>\@ne
      \csname fi\endcsname
      \expandafter\ps@cleanup@if
    \fi
  }%
\fi

Because of \aftergroup it is too dangerous to perform a similar cleanup for groups.
\begingroup \expandafter \expandafter \expandafter \endgroup
\expandafter \ifx \csname currentgrouplevel \endcsname \relax
  \let\ps@group@message\@empty
  \def\ps@message@ignore{%
    \typeout{\space\@spaces\space\space
group (pagesel) \space space occurred ... can be ignored.}%
  }%
\else
  \def\ps@group@message{%
    \ifnum\currentgrouplevel>\@ne
      \def\ps@message@ignore{%
        \typeout{\space\@spaces\@spaces\@spaces
          Message (\string\end\space occurred ...) \space can be ignored.}%
      }%
    \else
      \let\ps@message@ignore\@empty
    \fi
  }%
\else
  \def\ps@group@message{%
    \ifnum\currentgrouplevel>\@ne
      \typeout{%
        \space\@spaces\@spaces\@spaces
        (pagesel) \space space \string\end\space occurred ... \space can be ignored.}%
      }%
    \else
      \let\ps@message@ignore\@empty
    \fi
  }%
\fi
\}  

2.2 AtBeginDvi hook support

The material of box \begindvibox is recorded in parallel in box \begindvibox.
\newbox\begindvibox
3 Installation

3.1 Download

Package. This package is available on CTAN:\footnote{ftp://ftp.ctan.org/tex-archive/}


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 \texttt{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 \texttt{texmf} tree) of your choice. Example (linux):

\begin{verbatim}
  unzip oberdiek.tds.zip -d ~/texmf
\end{verbatim}
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):

```bash
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:

```latex
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:

```bash
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:

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

An example follows how to generate the documentation with pdflatex:

```bash
pdflatex pagesel.dtx
makeindex \-s gind.ist pagesel.idx
pdflatex pagesel.dtx
makeindex \-s gind.ist pagesel.idx
pdflatex pagesel.dtx
```
4 Catalogue

The following XML file can be used as source for the \TeX\ Catalogue. The elements caption and description are imported from the original XML file from the Catalogue. The name of the XML file in the Catalogue is pagesel.xml.

```xml
<entry datestamp='$Date$' modifier='$Author$' id='pagesel'>
  <name>pagesel</name>
  <caption>Select pages of a document for output.</caption>
  <authorref id='auth:oberdiek'/>
  <license type='lppl1.3'/>
  <version number='1.8'/>
  <description>
    Selects single pages, ranges of pages, odd pages or even pages for output.
  </description>
  <documentation details='Package documentation' href='ctan:/macros/latex/contrib/oberdiek/pagesel.pdf'/>
  <ctan file='true' path='/macros/latex/contrib/oberdiek/pagesel.dtx'/>
  <miktex location='oberdiek'/>
  <texlive location='oberdiek'/>
  <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
</entry>
```

5 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 \(\texttt{CTAN:macros/latex/base/lppl.txt}\)
- Options \texttt{odd}, \texttt{even} added.
- \texttt{nofiles} added, bug fix for \texttt{hyperref}.
- Abort loading of package, if nothing to do.

[1999/04/13 v1.1]
- \texttt{nofiles} bug fixed removed because of \texttt{hyperref} 6.55.
- First CTAN release.

\(^4\)Dirk Kuypers’s email address: dk@comnets.rwth-aachen.de
\(^5\)Url: \texttt{http://groups.google.com/group/de.comp.text.tex/msg/6b68c7b3439fb558}
\textbf{[2003/06/05 v1.2]}
\begin{itemize}
\item \texttt{\textbackslash deadcyles} is decremented for omitted pages.
\item LPPL 1.2.
\end{itemize}

\textbf{[2006/02/20 v1.3]}
\begin{itemize}
\item Code is not changed.
\item New DTX framework.
\item LPPL 1.3
\end{itemize}

\textbf{[2006/03/02 v1.4]}
\begin{itemize}
\item Support for \texttt{\textbackslash AtBeginDvi} added.
\end{itemize}

\textbf{[2006/03/07 v1.5]}
\begin{itemize}
\item Job is aborted after last selected page.
\end{itemize}

\textbf{[2007/04/11 v1.6]}
\begin{itemize}
\item Line ends sanitized.
\end{itemize}

\textbf{[2007/04/12 v1.7]}
\begin{itemize}
\item Hard coded box number 255 replaced by macro \texttt{\textbackslash@cclv}.
\end{itemize}

\textbf{[2008/08/11 v1.8]}
\begin{itemize}
\item Code is not changed.
\item URL updated from \texttt{www.dejanews.com} to \texttt{groups.google.com}.
\end{itemize}

\section{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

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>@end</td>
<td>125</td>
</tr>
<tr>
<td>@begindvibox</td>
<td>185, 188</td>
</tr>
<tr>
<td>@cclv</td>
<td>10, 123, 208, 210</td>
</tr>
<tr>
<td>@empty</td>
<td>21, 22, 68, 70, 84, 110, 128, 129, 151, 162, 180, 200, 201, 207, 212</td>
</tr>
<tr>
<td>@ifundefined</td>
<td>5</td>
</tr>
<tr>
<td>@me</td>
<td>154, 171</td>
</tr>
<tr>
<td>@spaces</td>
<td>165, 174</td>
</tr>
<tr>
<td>\</td>
<td>32, 33, 42, 52</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>\advance</td>
<td>13</td>
</tr>
<tr>
<td>\aftergroup</td>
<td>125</td>
</tr>
<tr>
<td>\AtBeginDvi</td>
<td>191, 192</td>
</tr>
</tbody>
</table>

### A

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>\box</td>
<td>123, 210</td>
</tr>
</tbody>
</table>

### C

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>\c@ps@count</td>
<td>28</td>
</tr>
<tr>
<td>\copy</td>
<td>10</td>
</tr>
<tr>
<td>\count@</td>
<td>12, 13, 14</td>
</tr>
<tr>
<td>\csname</td>
<td>150, 155, 161</td>
</tr>
<tr>
<td>\currentgrouplevel</td>
<td>171</td>
</tr>
<tr>
<td>\currentiflevel</td>
<td>154</td>
</tr>
<tr>
<td>\CurrentOption</td>
<td>26</td>
</tr>
</tbody>
</table>

### D

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>\deadcycles</td>
<td>12, 14, 124</td>
</tr>
<tr>
<td>\DeclareOption</td>
<td>18, 19, 20, 21, 22, 24</td>
</tr>
</tbody>
</table>

### E

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>\END</td>
<td>26, 31</td>
</tr>
<tr>
<td>\end</td>
<td>166, 175</td>
</tr>
<tr>
<td>\endsname</td>
<td>150, 155, 161</td>
</tr>
<tr>
<td>\endinput</td>
<td>7, 73</td>
</tr>
<tr>
<td>\EveryShipout</td>
<td>112</td>
</tr>
<tr>
<td>\ExecuteOptions</td>
<td>23</td>
</tr>
</tbody>
</table>