

The `selectp` package*

Select pages for output

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based on macros in TUGBoat, 8:2 (1987), p. 217

written by Don Knuth,

and with suggestions from Hossein Saiedian.

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1 Instructions

This style file defines the command `\outputonly` which selects specific pages for output, much as `\includeonly` selects certain files for input. To use `selectp.sty` in \LaTeX , specify `selectp` as one of the document style options and give the command `\outputonly{\langle list of page numbers \rangle}` before `\begin{document}`. Only pages given in the list will be output to the DVI file. For example

```
\documentstyle[12pt,selectp,subeqn]{article}
\outputonly{1,3, 7-12 16 17}
```

which will allow only pages 1, 3, 7, 8, 9, 10, 11, 12, 16, 17 to be output. For plain \TeX , use `\input{selectp.sty}`.

The number list should consist of numbers and number ranges (7-12, e. g.) separated by commas or spaces. The order is not random but *must be the order that the pages are produced*; normally this means the numbers must always increase. If an invalid page number appears on the list, no pages will be output until the list is re-synchronized or the document ends.

Any time the document's page number does not increment normally, `selectp.sty` tries to re-synchronize the page number with the `\outputonly` list of numbers. This is necessary when `\includeonly` is used.

Pages that are labeled with roman numerals or letters should still be listed with a normal arabic number; page xi should be referred to as 6.

*This manual corresponds to `selectp` v1.0, dated Sept 25, 1992.

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In \LaTeX , unfortunately, pages i and 1 are both number 1, so it is tricky to skip over all the roman-numbered pages and then print page 1. If there are 3 roman-numbered pages,

1-3 will print pages i, ii, iii; not pages 1, 2, 3

1-3,1-5 will print pages i, ii, iii, 1, 2, 3, 4, 5

1-3,8-12 will print pages i, ii, iii, 8, 9, 10, 11, 19

1,1-5 will print i, 1, 2, 3, 4, 5

1-6 prints pages i, ii, iii only, not pages 4, 5, 6 !!!

0,2-6 prints pages 2, 3, 4, 5, 6, since there is no page 0 and the `\outputonly` page list is resynchronized when the actual page number goes back to 1)

The last example is illuminating. \LaTeX looks for page 0, but can't find it. It skips pages until the page number goes from 3 (iii) to 1, at which point it resynchronizes by reading 2 from the list, waiting for page 2 to be produced, and then writing page 2. `Selectp` then reads -6, and *Continues* outputting pages until it has done page 6. As long as the numbers of the intervening pages are less than 6 (the end of the range), those pages will be printed.

If there are no roman numeral pages, the number list is simple, because the numbers must increase monotonically.

\LaTeX will not write auxiliary files while selecting output pages, so the cross references and citations must be correct on the run *before* using `\outputonly`. Unfortunately, this means you must produce the full-size DVI file at least once.

If multiple `\outputonly` commands are given, the lists are concatenated.

In plain \TeX , specify roman numeral pages as negative numbers, but do not use ranges until getting to the ordinary (arabic) page numbers (e. g., `\outputonly{-1,-2,-3,-4,1-8}`). In plain \TeX specifying page 1 will *not* print page i.

If a page number in the list is not found, generally no more pages will be printed. For example, suppose a document has 50 pages, the list `3_5_910_13` (which perhaps should read `9_10`) causes \LaTeX to process silently through the whole document looking for page 910. Only pages 3 and 5 will be printed.

Except if the number terminating a *range* is not found `{3_5-910_13}`, \LaTeX continues outputting pages until the end.

Except if the actual page number changes discontinuously, then the number list *may* be scanned for the next number greater than the new page number. (Jumps are usually due to the numbering being changed from roman to arabic with the page reset to 1, or because an included file was skipped due to an `\includeonly` command.) The list is scanned if the page number jumps backward, or if it jumps forward *past* the current target page. ("Target page" = the end of the current range or the next number to be printed out, as appropriate.)

Numbers must be integers: 4.3 is illegal, even if some other style file is generating page numbers in that format.

Of course non-numbers are illegal. Some plausible mistakes:

page, xvii, IV, 12--16, 49ff, 49-, 5_7.

5_7 could be a typo for the range 5-7. To specify page 49 and all following (49ff or 49-), use a range ending with a non-existent page: 49-99999. The typo 12--16 prints pages 12 and 16, not the range 12 through 16 as intended.

2 Examples of use

Suppose a document has pages i, ii, iii, iv, v, vi, 1, 2, 3, . . . , 33, but pages 22 . . . 28 are absent due to `\includeonly`; here are some examples of valid uses of `\outputonly`.

- `\outputonly{15-20}` – prints only the 6 pages 15...20
- `\outputonly{1-3}` – prints pages i, ii, iii (in \LaTeX)
plain \TeX prints pages 1, 2, 3
- `\outputonly{1,1,2}` – prints pages i, 1, 2
- `\outputonly{0,1,2}` – prints pages 1, 2
- `\outputonly{1,3-6}` – prints pages i, iii, iv, v, vi
- `\outputonly{4,3-6}` – prints pages iv, 3, 4, 5, 6
- `\outputonly{5,2}` – prints pages v, 2
- `\outputonly{5-2}` – prints only page v only!
- `\outputonly{5-7}` – prints pages v, vi only!
- `\outputonly{1-33}` – prints pages i, ii, iii, iv, v, vi only!
- `\outputonly{29-99}` – prints pages 29, 30, 31, 32, 33
- `\outputonly{19-99}` – prints pages 19, 20, 21, 29, 30, 31, 32, 33
- `\outputonly{24-32}` – prints pages 29, 30, 31, 32
- `\outputonly{15-25,32}` – prints pages 15, 16, 17, 18, 19, 20, 21, 32
- `\outputonly{0,4,23-27,31-99}` – prints pages 4, 31, 32, 33

Version 0.9 (test), Sept 25, 1992: Send problem reports to asnd@triumf.ca