vpp View and (selectively) Print PDF and PostScript

doc generated from the script with gendoc — bash script, version=3.10

Synopsis

```
vpp [options] [file]
```

Options:

`-h,--help`	print a help message and exit
`-H,--Help`	print print full documentation via less and exit
`-V,--version`	print version and exit
`-b,--batch=X`	run in batch using X as the print command
`--view`	view the document (this is the default)
`--noview`	do not view the document
`--viewer=X`	specifies X as the pdf viewer to use
`--print`	offer printing interaction (this is the default)
`--noprint`	do not offer printing interaction
`-p,--printer=X`	print the printer named X
`-v,--verbose`	be verbose
`--noverbose`	don't be verbose (this is the default)
`-r,--rc=X`	set rc file to X, must be the first option! without the argument: don't read any rc-file

Arguments for short options are given without a separator, so you can write either `--rc=myrc` or `-rmyrc`.

Description

vpp is a Bash script that displays a PDF or PostScript document (after conversion to PDF). The user can use the viewer to print the document or, alternatively, leave the viewer and use vpp's facilities to print selected pages to a one- or two-sided hardcopy or an A5-booklet: see the section *Page selection and other commands* for the details. Instead of printing your selections, you can also save them into PDF files.

If `file` is specified with a `.ps` or a `.pdf` extension, **vpp** will simply use that `file`. Otherwise, **vpp** will look for `file.pdf`, `file.ps`, and `file`, in that order, and will use the first existing file. If `file` lacks, standard input is used.

In any case, the first few characters *in* the file determine whether it is treated as a PDF or as a PostScript file.

vpp needs a viewer and a printer; see the section *Printers and viewers*.

Exit value

vpp has four possible exit values:

`0`	OK
`1`	error
`2`	edit, which is a signal to the calling program that a new edit session is at order; this is used by `mk`.
`3`	re-compile; this is used by `mk`

Dependencies

`pdfpages.sty`	from texlive
`pdfinfo`	from poppler-utils
`ps2pdf`	from ghostscript

`getopt`	from util-linux
`lpoptions`	from cups-client
`lpstat`	from cups-client
`texlog_extract`	from texlive

Printers and viewers

For the operation of vpp, availability of printers and pdf viewers is important. Therefore, two associative arrays are defined:

`printers` an array available printers, where the keys are printer names

`viewers` an array of available viewers, where the keys are viewer names
and the values are the corresponding commands, with arguments if any.

For each array, an index is set: `printer` for the printers array. `viewer` for the viewers array. `printer` points to the current printer, `viewer` to the current viewer.

You can inspect the contents of these arrays either with the short help option (`-h` or `--help`) or, when you are in vpp's command mode, with the `?` command.

The `printers` array is automatically filled, using the `lpstat` and `lpoptions` commands.

The `viewers` array can be set in several ways:

- It is initially set to:
  `viewers=([xp]=xpdf [ev]=evince [gv]=gv [ac]=acroread)`
  but after that, unavailable viewers are silently removed. This may result in an empty list.
- After this, an rc file may be available, either in the form of `~/.vpprc` or specified with the `--rc` option.
- the `--viewer` option may specify a viewer.
- Finally, a viewer may be specified on-the-fly, with the `v` command (see the section on *Page selection and other commands*.

Options

vpp comes with several options. Before evaluating any options, **vpp** will try to read the user rc-file, `~/.vpprc`, where you can set defaults for most options, by assigning values to variable named after the long form of the options. For example, there are three ways to select the printer named *k550*:

- use the option `--printer=k550`.
- enter a line with `printer=k550` in your rc file (`~/.vpprc`, for example).
- in command mode, enter `pk550`.

These are the variables that can be set in `~/.vpprc`:

`batch` (string) sets the `--batch` option
`print` (true or false) sets printing interaction on or off
`printer` (string) sets the `--printer` option
`verbose` (true or false) sets the `--verbose` option
`view` (true or false) sets viewing on or off
`viewer` (string) set the viewer; arguments may be added; example:

```
viewer='acroread -geometry 1450x1150+0+0'
```

You should use a basename here, that is: the name of the viewer should contain no slashes, and it should be in your PATH.

`--help`
`--Help`
Prints synopsis and available printers and viewers, then quits.

Prints this documentation, *via* less.

`--version`
: Prints version, then quits.

`--verbose`
: Prints messages about the progress **vpp** is making. Can be reverted with `--noverbose`.

`--rc=X`
: Read the specified X, instead of the default rc-file, `~/.vpprc`. If this option is used, it must be used before any other options. If `rc-file` is an empty string, no rc-file will be read, thus skipping reading of `~/.vpprc`.

–batch=X

```
Prevents the --print option to interrogate the user about pages to be printed. Instead the document

   vpp --batch '2-3 x3' test.pdf

prints 3 copies of pages 2 and 3 of |test.pdf| without interaction
```

`--print`
: Present the print prompt. This is the default. Can be reverted with `--noprint`, normally used to suppress the print prompt, for example when using **vpp** from other scripts that generate PDF or PostScript documents that have only to be displayed or printed without even being displayed.

`--view`
: Run the file viewer. This is the default. Can be reverted with `--noview`, normally used to suppress starting the viewer, for example when using **vpp** from other scripts that generate PDF or PostScript documents that have only to be printed.

`--printer=X`
: Specifies the printer X to be used instead of the system default printer. See the section *Printers and viewers* for more information.

`--viewer=X`
: Specifies the viewer to use. This script defines an associative array `viewers` containing 4 viewers as follows:

```
viewers=([xp]=xpdf [ev]=evince [gv]=gv [ac]=acroread)
```

and the viewer is set to xp by default. However, you can define your own set of viewers in the `~/.vpprc` file or in any rc file given with the `--rc` option. For example:

```
viewers=(
[xp]='xpdf -g 970x1050+0+0 -font 8x13bold -z page -cont'
[ac]='acroread -geometry 850x890+0+0'
[ev]='evince --fullscreen --presentation'
)
viewer=xp
```

Page selection and other commands

When you select the `--print` option, and you did not also use the `--batch` option, **vpp** interrogates you about the pages you want to print. To that end the following prompt appears:

```
vpp command (? for help):
```

upon typing `?` or `h`, **vpp** displays examples of possible commands:

```
Command Examples:
  5       to print page 5
  5-      to print pages 5 through the end
  5-7     to print pages 5, 6 and 7
  7-5 ox  write the same pages, in reversed order, to x.pdf
  -7      to print the first 7 pages
  5-7 19- to print pages 5, 6, 7 and 19 through the end
  a       to print the whole document
  -       to print the whole document
  a x3    to print 3 copies of the document
```

```
    x3      the same
    5 x3    to print 3 copies of page 5
    t       print the whole document twosided
    t 2-    print twosided starting at page 2
    b       to print the whole document as an a5 size booklet
    b -12   to print the first 12 pages as an a5 size booklet
  Other commands:
    e       (if called by mk) edit the tex source and rerun mk
    c       (if called by mk) rerun mk
    v       (re)view the ps/pdf file or, with an argument, specify a viewer.
    w       list errors and warnings from the log file
    oxyz    send pdf output to file xyz.pdf instead of printer
    pxyz    print to printer xyz
    h       display this help
    ?       display this help
    q       quit
```

Sub-commands are separated with spaces or commas, so you can write either `5-7␣19␣ox` or `5-7,19␣ox` or `5-7,19,ox` see the section *Examples*. With these descriptions, no further explanation should be necessary, except for the following:

When twosided (`t`) or booklet (`b`) printing is selected for a non-duplex printer, printing will be performed in two shifts, one for the front side and one for the backside. Between the shifts, another prompt appears:

```
printer ready? then turn stack and type return
```

You will have to arrange your printer such that, with the printed sides up, the first page printed will be at the bottom of the stack, and the last page printed will be on top. Normally you will then have your output come out the back of your printer. *Turn the stack* then means: rotate it over the long side of the paper and feed it back into the printer for the other side to be printed.

When you use the `oxyz` subcommand, your selection will not be printed but instead will be saved in a PDF file named `xyz.pdf`. When you use a `t` or `b` selection, you will not, of course, be prompted to turn the paper stack. Instead, the odd and even pages of your selection will be saved in separate PDF files, `xyz_odd.pdf` and `xyz_even.pdf`.

Environment

Two environment variables may be useful in scripts using vpp:

`VPPOUTDIR`	The directory where PDF files generated with the o command will be saved; the default is the working directory.
`VPPCHECKSAVED`	If non-empty, **vpp** will check on exit that the inspected file has been saved into a pdf file and will issue a warning if it hasn't. Useful if input is from standard input or a temporary file.

Examples

Since **vpp** can read from standard input, it can be used to print (parts of) manpages. This example (we assume a printer which cannot print double sided) prints the full `ls` manpage first, followed by an A5 booklet of the first 8 pages:

```
$ man -t ls | vpp # (shows preview and is left with q)
vpp command (? for help): a
vpp command (? for help): b 1-8
printer ready? then turn pack over the long side and type enter (^D skips)
vpp command (? for help): q
$
```

If you don't need a preview, because you have seen the man page already, you can print it immediately as an A5 booklet with:

```
$ man -t ls | vpp --batch=b
```

or, to make an A5 booklet of the first 8 pages:

```
$ man -t ls |vpp --batch='-8 b'
```

If you just want to save a PDF copy of the man page in `ls.pdf`, you can say:

```
$ man -t ls |vpp -bols
```

Some PDF-documents, like the CVS manual (`cvs.pdf`), have their table of contents in their back instead of behind the title page. You can use **vpp** to rearrange such documents:

```
$ vpp --batch='1 2 153-160 3-152 ocvs' cvs.pdf
```

This overwrites the input document. Note that any links in the file will get broken, so that is only useful for documents that have to be printed. It would have been more sensible in this case to say:

```
$ vpp --batch=b,1,2,153-160,3-152 cvs
```

which prints the reordered document as an A5 booklet without replacing it. Note that we used comma's instead of spaces here, so we didn't need to quote the string.

You can even print or output page ranges in reverse order:

```
$ vpp --batch='12-1 otest' cvs.pdf
```

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Functions used:

excheck

```
synopsis:     excheck executable1 [executable2...]
description:  check if all needed execs are there and getopt is GNU
```

---

check_viewers

```
description:    Check pdf viewers
                The variable viewer is a key to the viewers array. Test viewers for executability.
globals set:    viewer
globals used:   viewer viewers
```

---

extest

```
synopsis:     extest command [arg...]
description:  test if the command is available and executable
returns:      0 if the test is ok, 1 otherwise


synopsis:     src file
description:  source a file
```

---

handle_options

synopsis: handle_options "$@"
description: Handles the options
globals set: batch input mk print printer rcfile verbose view viewer viewers writeto
globals used: Myname Version batch viewer viewers printers

---

find_pdf

description: Find the input and provide a pdf-copy;
If **vpp** had no file argument, standard input is used. If the argument has one of the extensions .pdf, .ps or .eps, or any uppercase variant, that file is used. Any other argument is used as such, if the file exists or, if not, a .pdf, PDF, PS, .ps, .eps or .EPS extension is added and the first existing file is used.
globals set: log tempdir
globals used: input tempdir

---

pdfproperties

description: Find page width, page height and the number of pages in the input file
globals set: height pagecount width
globals used: height pagecount width

---

printhelp

description: Print help for vpp-commands and show which viewer and printer are active.
globals used: Blu Nor mk batch

---

ask_selection

synopsis: ask_selection [arg...]
description: Interact with user, specifying pages to be printed or exported as pdf, or to re-view the pdf or (if called from mk) re-edit the tex-source. If called with arguments (caused by vpp's --batch option) executes those.
globals set: booklet com copies output printer saved selection twosideds viewer
globals used: Mag Myname Nor Red VPPCHECKSAVED batch booklet com compileexit viewer viewers

---

wait_for_printer

description: Wait for user typing enter, signalling that the printer is ready for next job. ^D instead skips further output.
returns: 0

---

printout

description: Print selected pages or output them to pdf.
Calls doselection for the actual output.
globals set: selection
globals used: batch booklet output printer printers selection twosided writeto

---

find_printers

description: Use lpstat to find any printers defined;
use lpoptions to detect if each printer is doublesided; create associative array printers with printer names as keys and set the values to true for doublesided printers and to false for singlesided ones. Issue a warning if no printers are found.
globals set: printer printers
globals used: printer printers

---

list_printers

description: List available printers and their sidedness; mark current printer.
globals set: printers printer
globals used: Blu Nor Red printers printer

---

list_viewers

description: List available viewers; mark current viewer
globals set: viewer viewers
globals used: Blu Nor Red viewer viewers

---

clean_viewers

description: Remove unavailable viewers, no messages
globals set: viewer viewers

description: run the current viewer
globals used: verbose viewers viewer