

Pipe Viewer

Current version: 1.6.6 (30 June 2017)

pv - Pipe Viewer - is a terminal-based tool for monitoring the progress of data through a pipeline. It can be inserted into any normal pipeline between two processes to give a visual indication of how quickly data is passing through, how long it has taken, how near to completion it is, and an estimate of how long it will be until completion.

Additional support is available for multiple instances working in tandem, to given a visual indicator of relative throughput in a complex pipeline:

```
kulik:~$ pv -cN source < linux-2.2.20.tar.bz2 | bzip2 | pv -cN bzip2 \
| gzip -9 | pv -cN gzip > linux-2.2.20.tar.gz

source: 4.48MB 0:02:01 [ 9.84kB/s] [=====>] 29% ETA 0:04:44
bzip2: 26MB 0:02:01 [ 192kB/s] [=====>] 29% ETA 0:04:44
gzip: 5.58MB 0:02:01 [ 64kB/s] [=====>] 29% ETA 0:04:44
```

Source for all systems and RPMs for RPM-based systems are available in the download area.

Comments, bug reports, and patches can be sent using the Contact Form.

Packages and ports

CentOS / RHEL: Set up my YUM repository or use RepoForge, then do "yum install pv".
Fedora: Run "yum install pv"; the "extras" repository may be required. (Fedora package status here.)
Debian / Ubuntu: Run "apt-get install pv" to get the latest packaged version from "unstable" / "testing". (Debian QA page here.)
Slackware: Use this SlackBuild script.
Cygwin: Available as a package. (*Christian Franke*)
FreeBSD: Listed on FreshPorts.
OpenBSD: Listed under ports.
Solaris: Download binary packages from OpenCSW.
OpenSolaris: Includes pv version 1.1.4 in the "/dev" repository (as of build 119). Install with "pkg install SUNWpipe-viewer". (*Menno Lageman*)
AIX: An RPM from Pawel Piatek is in the downloads section.
MacPorts: Run "port install pv" to get the latest version. (*Brandon Crawford*)
Mac HomeBrew: Run "brew install pv" to get the latest version. (*Justin Campbell*)
Exherbo: Run "cave resolve -x app-misc/pv" to get the latest version. (*Wulf C. Krueger*)
Gentoo: Run "emerge sys-apps/pv" to get the latest version. (*S. Lockwood-Childs; update from Peter Broadwell*)
IRIX Nekoware: Available in the Nekoware "beta" repository. (*Mark Round*)
Syabas PopcornHour: Someone posted this port in a forum.
Nix: Run "nix-env -i pv". (*Erick Ochoa*)
Spack: Run "spack install pv" to get the latest version. (*Christoph Junghans*)

Notes

- (29 Nov 2013) - *Lee Yiu Chung writes:*

I tried to compile pv under SmartOS (a fork from OpenSolaris), but I found a compiler error that struct stat is redefined.

After some tracing I found that /usr/include/sys/stat.h have BOTH "struct stat" and "struct stat64" defined, and the "define stat64 stat" macro in autoconf/header.in happily replacing stat64 to stat, thus causing the compiler error.

As a result I have to modify autoconf/header.in so that the offending macro is disabled in Solaris platform. Below is the diff file:

```
--- autoconf/header.in.orig      2013-08-01 03:39:15.000000000 +0800
+++ autoconf/header.in          2013-11-29 20:07:21.697885164 +0800
@@ -70,6 +70,7 @@
 #   define stat64 stat
 #   define fstat64 fstat
 # endif
+# elif defined(__sun) && defined(__SVR4)
 # else
 #   define stat64 stat
 #   define fstat64 fstat
```

Author notes: Large file support is not implemented very portably at the moment. I will try to fix it so it does not do things like redefining stat in future, so this should be fixed in a future version. In the meantime please try the above patch that has been kindly supplied.

News

1.6.6 - 30 June 2017

- (r161) use %llu instead of %Lu for better compatibility (Eric A. Borisch)
- (r162) (#1532) fix target buffer size (-B) being ignored (AndCycle, Ilya Basin, Antoine Beaupré)
- (r164) cap read/write sizes, and check elapsed time during read/write cycles, to avoid display hangs with large buffers or slow media; also remove select() call from repeated_write function as it slows the transfer down and the wrapping alarm() means it is unnecessary
- (r169) (#1477) use alternate form for transfer counter, such that 13GB is shown as 13.0GB so it's the same width as 13.1GB (André Stapf)
- (r171) cleanup: units corrections in man page, of the form kb -> KiB
- (r175) report error in "-d" if process fd directory is unreadable, or if process disappears before we start the main loop (Jacek Wielemborek)

1.6.0 - 15 March 2015

- fix lstat64 support when unavailable - separate patches supplied by Ganael Laplanche and Peter Korsgaard
- (#1506) new option "-D" / "--delay-start" to only show bar after N seconds (Damon Harper)
- new option "--fineta" / "-I" to show ETA as time of day rather than time remaining - patch supplied by Erkki Seppälä (r147)
- (#1509) change ETA (--eta / -e) so that days are given if the hours remaining are 24 or more (Jacek Wielemborek)
- (#1499) repeat read and write attempts on partial buffer fill/empty to work around post-signal transfer rate drop reported by Ralf Ramsauer
- (#1507) do not try to calculate total size in line mode, due to bug reported by Jacek Wielemborek and Michiel Van Herwegen
- cleanup: removed defunct RATS comments and unnecessary copyright notices
- clean up displayed lines when using --watchfd PID, when PID exits
- output errors on a new line to avoid overwriting transfer bar

1.5.7 - 26 August 2014

- show KiB instead of incorrect kiB (Debian bug #706175)
- (#1284) do not gzip man page, for non-Linux OSes (Bob Friesenhahn)
- work around awk bug in tests/016-numeric-timer in decimal "," locales
- fix "make rpm" and "make srpm", extend "make release" to sign releases

1.5.3 - 4 May 2014

- remove SPLICE_F_NONBLOCK to fix problem with slow splice() (Jan Seda)

1.5.2 - 10 February 2014

- allow --watchfd to look at block devices
- let --watchfd PID:FD work with --size N
- moved contributors out of the manual as the list was too long (NB everyone is still listed in the README and always will be)

1.5.1 - 23 January 2014

- new option --watchfd - suggested by Jacek Wielemborek and "fdwatch"
- use non-block flag with splice()
- new display option --buffer-percent, suggested by Kim Krecht
- new display option --last-written, suggested by Kim Krecht
- new transfer option --no-splice
- fix for minor bug which dropped display elements after one empty one
- fix for single fd leak on exit (Cristian Ciupitu)

1.4.12 - 5 August 2013

- new option --null - patch supplied by Zing Shishak
- AIX build fix (add -lc128) - with help from Pawel Piatek
- AIX -c fixes - with help from Pawel Piatek
- SCO build fix (po2table.sh) - reported by Wouter Pronk
- test scripts fix for older distributions - patch from Bryan Dongray
- fix for splice() not using stdin - patch from Zev Weiss

1.4.6 - 22 January 2013

- added patch from Pawel Piatek to omit O_NOFOLLOW in AIX

1.4.5 - 10 January 2013

- updated manual page to show known problem with "-R" on Cygwin