

NetBSD package manager configuration

Summary

In this part i'm going to enable built-in package manager and install pkgin. Pkgin is the recommended package manager for NetBSD. For more information see: [PKGIN Website](#)

This part requires active internet connection.

Instructions

1- Start and login to your system.

```
/etc/rc.d/postfix exited with code 1
Starting inetd.
Starting cron.
The following components reported failures:
  /etc/rc.d/postfix
See /var/run/rc.log for more information.
Thu Mar  3 06:51:27 UTC 2022

NetBSD/i386 (Ammesiac) (constty)

login: a
Password:
Mar  3 03:53:01 login: a on tty constty
Last login: Wed Mar  2 09:26:38 2022 on constty
Copyright (c) 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005,
  2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017,
  2018, 2019, 2020 The NetBSD Foundation, Inc.  All rights reserved.
Copyright (c) 1982, 1986, 1989, 1991, 1993
  The Regents of the University of California.  All rights reserved.

NetBSD 9.2 (GENERIC) #0: Wed May 12 13:15:55 UTC 2021

Welcome to NetBSD!

$ █
```

2- Switch to **root** user with **su** command.

```
$ su
Password:
Mar  3 03:53:45 su: a to root on /dev/constty
# █
```

3- Go to root's **homefolder** with **cd** command. Check with **ls** command that you're in **homefolder**. Open **.profile** dotfile with **vi** program.

```
localhost# cd
localhost# ls
.cshrc  .klogin  .login   .profile .shrc
localhost# vi .profile █
```

4- In this file find and uncomment `export PKG_PATH` line by deleting the `#` character at the start of the line. Save it using `:w!` command because this file is read-only.

```
# $NetBSD: dot.profile,v 1.30 2018/03/01 06:12:09 snj Exp $
export PATH=/sbin:/usr/sbin:/bin:/usr/bin:/usr/pkg/sbin:/usr/pkg/bin
export PATH=${PATH}:/usr/X11R7/bin:/usr/local/sbin:/usr/local/bin

# Uncomment the following line(s) to install binary packages
# from cdn.NetBSD.org via pkg_add. (See also pkg_install.conf)
export PKG_PATH="http://cdn.NetBSD.org/pub/pkgsrc/packages/NetBSD/$(uname -p)/$(uname -r|cut -f 1 2 -d.|cut -f 1 -d_)/All"

export BLOCKSIZE=1k

export HOST="$(hostname)"

umask 022
#ulimit -c 0

export ENU=/root/.shrc

# Do not display in 'su -' case
if [ -z "$SU_FROM" ]; then
    echo "We recommend that you create a non-root account and use su(1) for
root access."
fi
```

```
# $NetBSD: dot.profile,v 1.30 2018/03/01 06:12:09 snj Exp $
export PATH=/sbin:/usr/sbin:/bin:/usr/bin:/usr/pkg/sbin:/usr/pkg/bin
export PATH=${PATH}:/usr/X11R7/bin:/usr/local/sbin:/usr/local/bin

# Uncomment the following line(s) to install binary packages
# from cdn.NetBSD.org via pkg_add. (See also pkg_install.conf)
export PKG_PATH="http://cdn.NetBSD.org/pub/pkgsrc/packages/NetBSD/$(uname -p)/$(uname -r|cut -f 1 2 -d.|cut -f 1 -d_)/All"

export BLOCKSIZE=1k

export HOST="$(hostname)"

umask 022
#ulimit -c 0

export ENU=/root/.shrc

# Do not display in 'su -' case
if [ -z "$SU_FROM" ]; then
    echo "We recommend that you create a non-root account and use su(1) for
root access."
fi
.profile: 22 lines, 700 characters.
```

5- This configuration don't require a system restart. It requires a re-login. So logout from all the logged-in users with `exit` command.

```
localhost$ su
Password:
Mar  3 05:53:18 localhost su: a to root on /dev/constty
localhost# cd
localhost# ls
.cshrc      .klogin    .login     .profile   .shrc      .viminfo
localhost# exit
```

```
localhost$ su
Password:
Mar  3 05:53:18 localhost su: a to root on /dev/constty
localhost# cd
localhost# ls
.cshrc      .klogin    .login     .profile   .shrc      .viminfo
localhost# exit
localhost$ exit
```

6- Login with `root` user. (Installing programs requires root privileges)

```
localhost$ su
Password:
Mar  3 05:53:18 localhost su: a to root on /dev/constty
localhost# cd
localhost# ls
.cshrc      .klogin    .login     .profile   .shrc      .viminfo
localhost# exit
localhost$ exit
```

NetBSD/i386 (localhost) (constty)

```
login: root
Password: █
```

```
Mar  3 05:53:18 localhost su: a to root on /dev/constty
localhost# cd
localhost# ls
.cshrc      .klogin    .login     .profile   .shrc      .viminfo
localhost# exit
localhost$ exit
```

NetBSD/i386 (localhost) (constty)

```
login: root
Password:
```

```
Mar  3 05:54:06 localhost login: ROOT LOGIN (root) on tty constty
Last login: Thu Mar  3 04:15:34 2022 on constty
Copyright (c) 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005,
 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017,
 2018, 2019, 2020 The NetBSD Foundation, Inc.  All rights reserved.
Copyright (c) 1982, 1986, 1989, 1991, 1993
  The Regents of the University of California.  All rights reserved.
```

NetBSD 9.2 (GENERIC) #0: Wed May 12 13:15:55 UTC 2021

Welcome to NetBSD!

```
We recommend that you create a non-root account and use su(1) for root access.
localhost# █
```

7- First, install `pkgin` package manager using command `pkg_add -v pkgin` .

```
localhost# pkg_add -v pkgin
```

```
localhost# pkg_add -v pkgin
```

```
localhost# pkg_add -v pkgin
pkg_add: Warning: package 'pkgin-21.12.0nb1' was built for a platform:
pkg_add: NetBSD/i386 9.0 (pkg) vs. NetBSD/i386 9.2 (this host)
pkg_add: Warning: package 'pkg_install-20211115' was built for a platform:
pkg_add: NetBSD/i386 9.0 (pkg) vs. NetBSD/i386 9.2 (this host)
Running install with PRE-INSTALL for pkg_install-20211115.
man/man1/pkg_add.1
man/man1/pkg_admin.1
man/man1/pkg_create.1
man/man1/pkg_delete.1
man/man1/pkg_info.1
man/man5/pkg_install.conf.5
man/man5/pkg_summary.5
man/man7/pkgsrc.7
man/man8/audit-packages.8
man/man8/download-vulnerability-list.8
sbin/audit-packages
sbin/download-vulnerability-list
sbin/pkg_add
sbin/pkg_admin
sbin/pkg_create
```

```
man/man1/pkg_info.1
man/man5/pkg_install.conf.5
man/man5/pkg_summary.5
man/man7/pkgsrc.7
man/man8/audit-packages.8
man/man8/download-vulnerability-list.8
sbin/audit-packages
sbin/download-vulnerability-list
sbin/pkg_add
sbin/pkg_admin
sbin/pkg_create
sbin/pkg_delete
sbin/pkg_info
Running install with POST-INSTALL for pkg_install-20211115.
Package pkg_install-20211115 registered in /usr/pkg/pkgdb/pkg_install-20211115
Running install with PRE-INSTALL for pkgin-21.12.0nb1.
bin/pkgin
man/man1/pkgin.1
share/examples/pkgin/preferred.conf.example
share/examples/pkgin/repositories.conf.example
Running install with POST-INSTALL for pkgin-21.12.0nb1.
pkgin-21.12.0nb1: copying /usr/pkg/share/examples/pkgin/repositories.conf.examp
le to /usr/pkg/etc/pkgin/repositories.conf
Package pkgin-21.12.0nb1 registered in /usr/pkg/pkgdb/pkgin-21.12.0nb1
localhost#
```

8- From now on we can use pkgin. Update pkgin database with command `pkgin update` .
Always update `pkgin` before installing programs.

```
localhost# pkgin update
```

```
localhost# pkgin update
reading local summary...
processing local summary...
processing remote summary (https://cdn.netbsd.org/pub/pkgsrc/packages/NetBSD/i386/9.0/All)...
pkg_summary.gz          43% 2368KB 420.2KB/s   00:07 ETA
```

9- Let's test `pkgin` by installing `vim` program. Use command `pkgin install vim` to install `vim`. Type `Y` to continue install. This will download and copy all the necessary files for `vim` program.

```
localhost# pkgin install vim
calculating dependencies...done.

2 packages to install:
vim-8.2.3172nb1 vim-share-8.2.3172nb1

0 to refresh, 0 to upgrade, 2 to install
6102K to download, 26M to install

proceed ? [Y/n] Y
```

```
localhost# pkgin install vim
calculating dependencies...done.

2 packages to install:
vim-8.2.3172nb1 vim-share-8.2.3172nb1

0 to refresh, 0 to upgrade, 2 to install
6102K to download, 26M to install

proceed ? [Y/n] Y
vim-share-8.2.3172nb1.tgz          47% 2320KB 331.9KB/s   00:07 ETA
```


11- You can also delete installed programs. Remove `vim` with using `pkgin remove vim` command.

```
localhost# pkgin remove vim
```

```
localhost# pkgin remove vim
```

```
1 packages to delete:
```

```
vim-8.2.3172nb1
```

```
proceed ? [Y/n] Y
```

```
localhost# pkgin remove vim
1 packages to delete:
  vim-8.2.3172nb1

proceed ? [Y/n] Y
removing vim-8.2.3172nb1...
pkg_install warnings: 0, errors: 0
reading local summary...
processing local summary...
localhost#
```

12- After removal of a program you should also remove unnecessary packages by using `pkgin autoremove` command.

```
localhost# pkgin autoremove
```

```
localhost# pkgin autoremove  
1 packages to be autoremoved:  
vim-share-8.2.3172nb1
```

```
proceed ? [Y/n] Y
```

```
localhost# pkgin autoremove  
1 packages to be autoremoved:  
vim-share-8.2.3172nb1
```

```
proceed ? [Y/n] Y
```

```
removing vim-share-8.2.3172nb1...
```

```
pkg_install warnings: 0, errors: 0
```

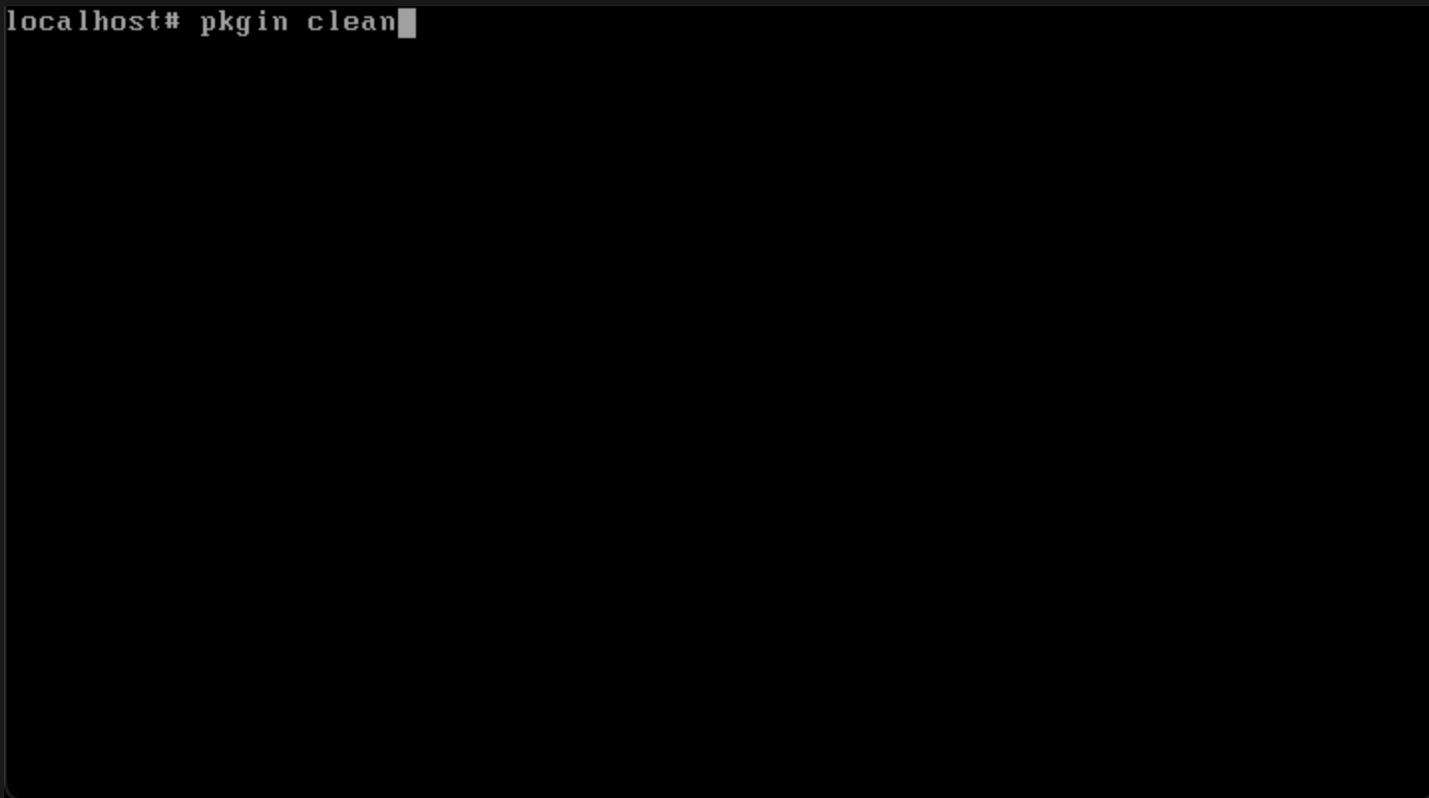
```
reading local summary...
```

```
processing local summary...
```

```
localhost#
```

13- Also use `pkgin clean` command to clean the cache after an install or uninstall operation.

```
localhost# pkgin clean
```



By the way you should always think programs as potential security vulnerabilities. Especially if you are running your system as a server. So never install any unnecessary programs to a server. Best is always use the programs those come with your operating system. For example use `vi` instead of `vim`.

This is the end of NetBSD guide. Now you have a fully functioning minimal NetBSD system. Next is up to you. You can install a Graphical User Interface or configure a Firewall. For more information about NetBSD use the official guide here: [NetBSD Guide](#)