

# Installing Desktop Environment on NetBSD

In this guide, we'll see how to install Desktop Environments on NetBSD.

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## Introduction:

Gnome, KDE, Xfce, Light-Desktop are some of the famous NetBSD desktop environments. In this guide, we will be installing Light-Desktop (quick instruction of Gnome also available) and learning what can we done once we have our working desktop. It would not be tough to install it, but yes it is going to be time consuming. After you have followed all the steps correctly, you will be having a working Desktop Environment on your system!

## Prerequisites:

- It is assumed in this guide that you already have the NetBSD OS installed on your machine. You may have a look at the guide (<http://www.netbsd.org/docs/guide/en/chap-inst.html>), if you haven't done it yet.
- You should have an Internet connection on you NetBSD machine. You can configure that just after the install is complete.

## Full detailed instructions for Light-Desktop package –

### Steps:

1. We first need to download pkgsrc. It will configure the software to your local system, compile it and install it. Type in your terminal:

```
cd /usr && cvs -q -z2 -d anoncvs@anoncvs.NetBSD.org:/cvsroot checkout -P pkgsrc
```

```
NetBSD 6.0 (GENERIC)
```

```
Welcome to NetBSD!
```

```
Terminal type is vt100.
```

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

```
# cd /usr&&cvs -q -z2 -d anoncvs@anoncvs.NetBSD.org:/cvsroot checkout -P pkgsrc
```

It will start to list some files. This would go on for about next 15-20 minutes. The last file is probably going to be 'x11/zenity-2.32.1nb9'. When it would complete listing, it would wait for your input (with a '#' sign at the beginning). If it doesn't, you might have to press 'Ctrl + z' on your keyboard.

```
U pkgsrc/devel/pwlib/patches/patch-aw
U pkgsrc/devel/pwlib/patches/patch-ax
U pkgsrc/devel/pwlib/patches/patch-ay
U pkgsrc/devel/pwlib/patches/patch-az
U pkgsrc/devel/pwlib/patches/patch-ba
U pkgsrc/devel/pwlib/patches/patch-bb
U pkgsrc/devel/pwlib/patches/patch-bd
U pkgsrc/devel/pwlib/patches/patch-ca
U pkgsrc/devel/pwlib/patches/patch-cb
U pkgsrc/devel/pwlib/patches/patch-cc
U pkgsrc/devel/pwlib/patches/patch-cd
U pkgsrc/devel/py-InlineEgg/DESCR
U pkgsrc/devel/py-InlineEgg/Makefile
U pkgsrc/devel/py-InlineEgg/PLIST
U pkgsrc/devel/py-InlineEgg/distinfo
U pkgsrc/devel/py-Optik/DESCR
U pkgsrc/devel/py-Optik/Makefile
U pkgsrc/devel/py-Optik/PLIST
U pkgsrc/devel/py-Optik/distinfo
U pkgsrc/devel/py-Pyro/DESCR
U pkgsrc/devel/py-Pyro/Makefile
U pkgsrc/devel/py-Pyro/PLIST
U pkgsrc/devel/py-Pyro/distinfo
U pkgsrc/devel/py-Pyro/patches/patch-ab
```

2. Now the next thing we need to install is pkgsrc-wip. We need this one as Light-Desktop is a part of WIP(Work in Progress). You can install it by using the following commands:

```
cvs -d:pserver:anonymous@pkgsrc-wip.cvs.sourceforge.net:/cvsroot/pkgsrc-wip login
```

(If it asks for a password, just press ENTER)

After you have typed the above command, press enter and now type the following command:

```
cvs -z3 -d:pserver:anonymous@pkgsrc-wip.cvs.sourceforge.net:/cvsroot/pkgsrc-wip checkout -P wip
```

Now press Enter and we'll move this directory to the main pkgsrc directory. Type:

```
mv wip /usr/pkgsrc/
```

Now press Enter again and we are ready to start installing Light-Desktop!

3. Next we move to the Light-Desktop Directory. Type: `'cd /usr/pkgsrc/wip/light-desktop'`. This is the directory of Light-Desktop Package. You might want to type `'cat DESC'` to read its Description.

```
# cd /usr/pkgsrc/wip/light-desktop
# cat DESC
The light-desktop meta-package provides a fast and lightweight
environment using the minimal desktop LXDE and a selection of light
applications. This is based on the Lubuntu operating system's choices.
#
```

4. It is recommended to type `'script'` in the terminal before starting the download or installation. This command will make a typescript of all the printed material. You might require this to present errors to the developers. We now want to start the download and installation. Type `'make install'` in the terminal.

```
# script
Script started, output file is typescript
# make install
```

5. When you press enter, it would start to download the files it requires. This might take 10-20 hours or maybe some days.

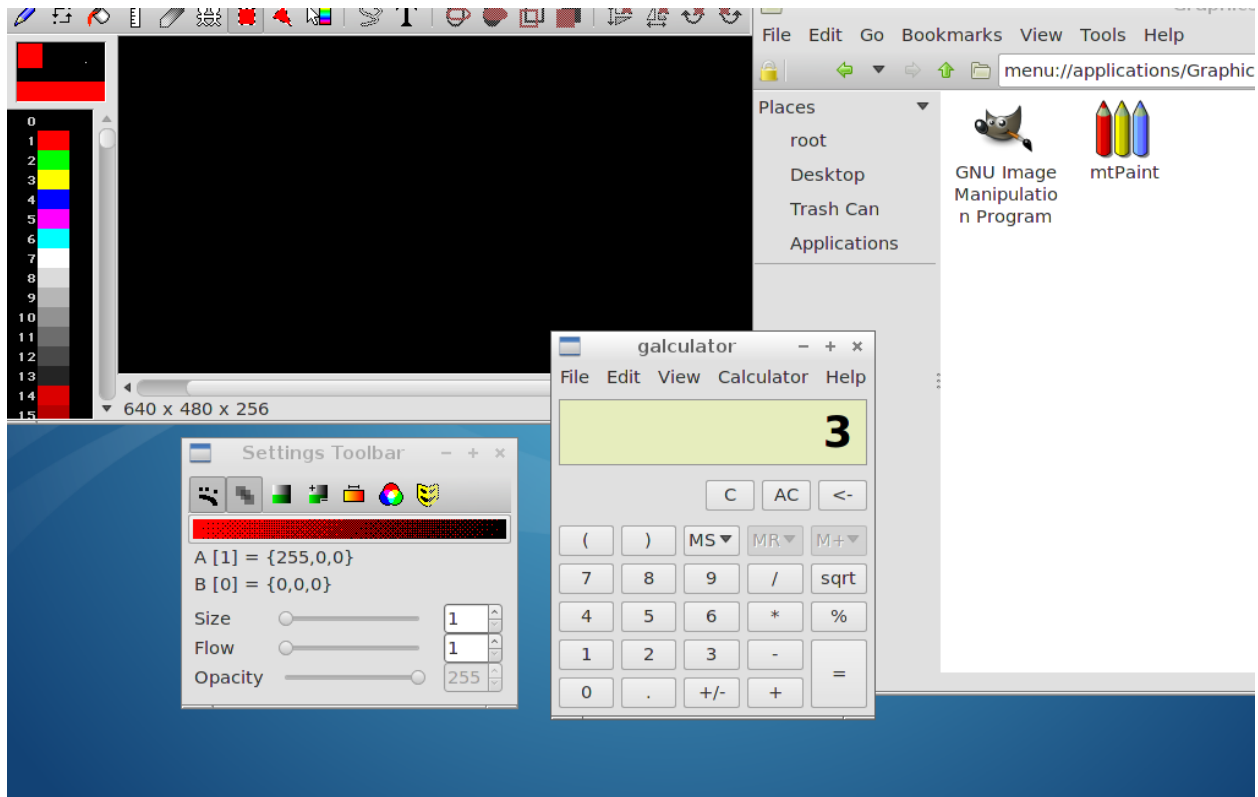
```
before continuing. Be sure to run '/usr/bin/make clean' after
the changes.
=====
=> Full dependency py27-libxml2-[0-9]*: NOT found
=> Verifying package-install for ../../textproc/py-libxml2
=> Bootstrap dependency digest>=20010302: found digest-20111104
==> Skipping vulnerability checks.
WARNING: No /var/db/pkg/pkg-vulnerabilities file found.
WARNING: To fix run: '/usr/sbin/pkg_admin -K /var/db/pkg fetch-pkg-vulnerabiliti
es'.
=> Fetching libxml2-2.9.0.tar.gz
=> Total size: 5161069 bytes
Connected to xmlsoft.org.
220 (vsFTPd 2.2.2)
331 Please specify the password.
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
200 Switching to Binary mode.
250 Directory successfully changed.
local: libxml2-2.9.0.tar.gz remote: libxml2-2.9.0.tar.gz
229 Entering Extended Passive Mode (!!!3231!).
150 Opening BINARY mode data connection for libxml2-2.9.0.tar.gz (5161069 bytes)
.
53% !*****
! 2691 KiB 26.12 KiB/s 01:29 ETA
```

6. When the install finishes, your terminal would be like –

```
=> Creating binary package /usr/pkgsrc/packages/All/xpad-4.0nb8.tgz
==> Install binary package of xpad-4.0nb8
Warning in file "/usr/pkg/share/applications/pcmanfm.desktop": usage of MIME type
"x-directory/normal" is discouraged ("x-directory" is an old media type that s
hould be replaced with a modern equivalent)
Warning in file "/usr/pkg/share/applications/nautilus-folder-handler.desktop": u
sage of MIME type "x-directory/gnome-default-handler" is discouraged ("x-directo
ry" is an old media type that should be replaced with a modern equivalent)
Warning in file "/usr/pkg/share/applications/nautilus-folder-handler.desktop": u
sage of MIME type "x-directory/normal" is discouraged ("x-directory" is an old m
edia type that should be replaced with a modern equivalent)
Warning in file "/usr/pkg/share/applications/gnumeric.desktop": usage of MIME ty
pe "zz-application/zz-winassoc-xls" is discouraged ("zz-application/zz-winassoc
xls" should be replaced with "application/vnd.ms-excel")
=> Returning to build of light-desktop-0.0nb4
==> Overriding tools for light-desktop-0.0nb4
==> Extracting for light-desktop-0.0nb4
==> Patching for light-desktop-0.0nb4
==> Creating toolchain wrappers for light-desktop-0.0nb4
==> Installing for light-desktop-0.0nb4
=> Automatic manual page handling
==> Building binary package for light-desktop-0.0nb4
=> Creating binary package /usr/pkgsrc/packages/All/light-desktop-0.0nb4.tgz
==> Install binary package of light-desktop-0.0nb4
#
```

7. Now our download and installation is complete. We are ready to start the desktop. But wait first we need to do some cleaning. Type '*make clean CLEANDEPENDS=yes*'. This command would free some space too.
8. Our system requires reboot. Type '*shutdown -r now*' and it would restart the machine. You need to login again.
9. Now we need to edit some files. Type '*cd /usr/pkg/share/examples*' and then type '*cp dbus /etc/rc.d/*'. These commands would copy dbus to rc.d directory.
10. Now type '*cd /etc*'. And then type '*vi rc.conf*'. In this file we need to make some changes. Press '*i*' to edit and then move to the last line. Type '*dbus=YES*' and '*rpcbind=YES*'. Both these should be added in two different lines. Now press *ESC* key and type '*:wq!*'.
11. We are now going to start dbus, rpcbind and Light-Desktop. Type '*/etc/rc.d/dbus start*' and then type '*/etc/rc.d/rpcbind start*'.
12. Now in the final step, type '*echo start-netbsd-light-desktop > ~/.xinitrc*' and then type '*startx*'. It would start Light-Desktop!

Congratulations!! You have successfully started a desktop-environment.



## Quick Installation instructions for Gnome:

Gnome is a nice desktop and can be used with NetBSD. Remember Gnome is a very bulky package. So it's obvious that it would require a lot of time.

- 1) The first step would be to install pkgsrc. Type:  
`cd /usr && cvs -q -z2 -d anoncvs@anoncvs.NetBSD.org:/cvsroot checkout -P pkgsrc`
- 2) After installing pkgsrc, type:  
`cd /usr/pkgsrc/meta-pkgs/gnome`
- 3) Now start the download and install by typing:  
`make install clean`
- 4) Now once it is installed, reboot. Type the following lines in `/etc/rc.conf` :  
`gdm_enable="YES"`  
`gnome_enable="YES"`

5) Type:

```
echo exec gnome-session > ~/.xinitrc  
startx
```

6) You have the Gnome desktop running! Enjoy!

Read the Message file to make you Gnome experience better:  
<ftp://ftp.netbsd.org/pub/pkgsrc/current/pkgsrc/meta-pkgs/gnome/MESSAGE>

## Applications

You can see the list of installed applications in the directory 'menu://applications' OR '/usr/pkg/share/applications'. The Light-Desktop comes with AbiWord and leafpad as text editors, Audacious as media player, GIMP and mtPaint for graphics work. It also comes with Pidgin as a chat client.

You can search for applications at <http://www.pkgsrc.se> . Explore its categories and find the application you want. Try installing the applications through the terminal. Try Vim and Emacs for editors and Firefox or Konqueror for browsing the internet. You should also try LibreOffice for Productivity and Acrobat or Xpdf for document viewing.

## What Next?

So you have successfully installed Light-Desktop and configured it. You have also looked at some of its tools. Now what to do next? You can enjoy using Light-Desktop on NetBSD or if you are too adventurous, you might want to try some more things. You can try installing KDE, Gnome and XFCE. You can also try to make a video of the installing procedure for your friends or you might want to help others on IRC. You can try installing some new packages from pkgsrc, read the NetBSD documentation or build your own package. Below are the few links that you might want to look at.

- Pkgsrc: <http://pkgsrc.se>
- NetBSD Docs: <http://www.netbsd.org/docs/>
- Gnome: <http://www.gnome.org/>
- KDE: <http://www.kde.org/>
- XFCE: <http://www.xfce.org/>

If you face any problems related to NetBSD, feel free to get in touch with the helpful NetBSD community on IRC.

## Troubleshooting:

*I am unable to download more percentage of the file. I am stuck at the same percentage for so much time.*

This might occur when you get disconnected from the internet for a moment and then you connect again or there might be some other reason. The solution is very simple. You need to note the name of the file you are stuck at. Let's say that the name of the file was 'libxml2-2.9.0.tar.gz'. You should note the file name you are at. Now press Ctrl + z, to exit from it. You must have reached terminal. Type 'cd ../../distfiles'. Now type: 'ls | less'. Press down and up key to navigate and Ctrl + z to exit. You will see the name of the file you were downloading. Here we need to remove that file. Type 'rm filename'. So for example it can be 'rm libxml2-2.9.0.tar.gz'. Now type 'make fetch-list|sh' to resume again.

*I have got some error, what to do?*

It might happen that while installing the process comes to a stop. It would mention the error which occurred and then it wouldn't move ahead. In that case, if you are unable to understand the error, contact the NetBSD support. You can contact them through IRC at Channel #NetBSD on freenode. They might require a screenshot/screendump of the process in order to help you. If they want some previous messages which aren't visible, the script command gets into use. Type 'tail -30 typescript' and it would display the transcript for the last 30 lines in the terminal. You can increase this by changing the value in the command.