

## OpenBSD UNIX INSTALLATION

There are some niche set of direct UNIX Operating System usages. One of the indispensable advantages of BSD OS'es is quite low amount of necessary hardware requirements for setting up whole environment (older versions of OpenBSD run at below 8MB of RAM). One must start with bootable data carrier. Firstly download OpenBSD for your hardware (typically amd64=x86-64), from **installXX.fs** files set:

<https://www.openbsd.org/faq/faq4.html#Download>

Secondly erase unmounted pendrive, and copy OpenBSD image, with already included boot+esp flags:

```
#sudo umount /dev/penUSB
#sudo mkdosfs -F32 -I /dev/penUSB
#sudo dd if=openBSD.fs of=/dev/penUSB bs=1M
```

Thirdly restart PC, and set up boot device.

1) go quite straightforward through installation wizard, one could take into consideration few simplifications:

- strong root password – pseudorandom are best,
- set 'yes' for „X Window System to be started by xenodm”,
- do not set up additional user ( it is enforced by small amount of programs, and typically it is a lot more convenient to work as administrator – the cost is: a lot smaller security ),
- allow root ssh login 'yes'

2) remove bootable pendrive and restart PC,

3) login: root  
password: admin1

4) configure packages mirror ( just use the nearest, for example Poland mirror ), and install essential packages:

<https://www.openbsd.org/ftp.html>

```
#vi /etc/installurl
```

```
https://ftp.icm.edu.pl/pub/OpenBSD/
```

```
#pkg_add vim bash geany git htop ffmpeg w3m odt2txt g++ gcc
```

gcc, and g++ is already included in OpenBSD, but without direct support for C++11 features at gcc v4.2 – it must be separately enabled, by installing packages ( name aliases are: eg++, egcc ), with gcc version of 4.8 at least,

heavyweight packages (at thunderbird set configured accounts at settings windows at „Synchronization&Storage”, for remote access to email: just unset checkbox „Keep messages for this account on this computer”, for preserving a lot of disc space):

```
#pkg_add firefox thunderbird libreoffice
```

start any application by just typing name:

```
#w3m https://www.google.com
```

configure vim:

```
#vim /root/.vimrc
    if has(„syntax”)
        syntax on
        set ts=4
        set sw=4
        set autoindent
        set number
        set mouse=a
    endif
```

reboot:

```
#reboot
```

shutdown:

```
#halt -p
```

watch movie:

```
#ffplay movieFile.mp4 -vf scale=320x240
```

set up geany color scheme:

```
#git clone https://github.com/codebrainz/geany-themes.git && cd geany-themes/ && bash
```

```
#!/install.sh && geany
```

```
View->Change Color Scheme-> Retro
```

xfce configuration:

```
#pkg_add xfce slim slim-themes
```

```
#vim /root/.xinitrc
```

```
exec startxfce4
```

```
#vim /etc/slim
```

```
#!/bin/sh
```

```
case $1 in
```

```
start)
```

```
    /usr/local/bin/slim -d
```

```

;;
stop)
    pkill slim xfce
    exit
;;
*)
    echo „usage $0 [start|stop]”
;;
esac
#chmod +x /etc/slim
#vim /etc/rc.local
    /etc/slim start
start xfce session:
    #/etc/slim start
    #startx
stop xfce session:
    #/etc/slim stop
change default SLiM login background:
    #mv someWallpaper.jpg /usr/local/share/slim/themes/default/background.jpg
5) above mentioned configuration was checked, and run smoothly with small exception for YT;) on:
    - single core i586 ( IA32 / x86 ) CPU,
    - 512 MB of RAM ( with usage of w3m instead of firefox: 256MB of RAM is reasonable amount ),
    - 4GB SSD.

```

Post Scriptum: it is convenient way for obtaining fast ( it depends on subjective „fast” definition:D ), cheap and fully equipped thin clients, as ordinary Personal Computers ( for example: Dell Wyse, HP t5740 / t510, et cetera... ).