

Beyond Beyond Linux from Scratch (lfs - part3)

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[4]In continuing with my Linux From Scratch series with Part 3, I present my adventures in setting up a more productive desktop system. Up until this point I have concentrated on just getting the basic [underlying system](#) [5] in place and later installing [X and a window manager](#) [6]. Today we strike out on our own some as we venture out of the docbook to go beyond Beyond Linux from Scratch.

Picking up where I left off [last time](#) [6], without kde's ksnapshot I was going to need some way to take screenshots. I remembered Imagemagick contains the "import" tool, but I also remembered scrot. Scrot is a small, easy-to-compile utility that would meet my needs. So, that was the route I took. Download [giblib](#) [7] and [scrot](#) [8].

Then it's as simple as:

```
tar -zxvf giblib-1.2.4.tar.gz
cd giblib-1.2.4
./configure --prefix=/usr && make
su to root
make install
```

And do the same with scrot:

```
tar -zxvf scrot-0.8.tar.gz
cd scrot-0.8
./configure --prefix=/usr && make
su to root
make install
```

Then at the cli, one can take screenshots using a command something like this:

```
scrot -d 6 desktop.jpg
```

In this example the option "-d" is delay in seconds. My command delays taking the screenshot for 6 seconds, giving one time to open menus or whatever.

My friend wrote me on the day, actually right about the same time, I published my [LFS: Part 2](#) [6] and sent screenshots of a window manager he installed probably more as a joke than anything. To his surprise I wrote back and said "how cuuute!" I had fluxbox installed already, but my next course of action was to install [Equinox Desktop Environment](#) [9]. I googled for the site and downloaded the required library and ede packages. I followed the [Installation How-to](#) [10] and they installed in about 5 minutes with no issue. And I can really say that I'm enjoying it. To make icons, one right clicks the desktop, chooses "New desktop item" and fills in the blanks. Ede comes with a few icons in it's package, so that's handy. To set a wallpaper, right click the desktop and choose "Background Settings," and browse to the desired wallpaper. Of course it has all these menu entries for which I don't have applications. 🌐 Actually a few have the corresponding apps and I installed a few. But just when I was thinking "if it just had some other desktops..." I find it does. In the panel there's an icon of an indistinguishable image that allows one to choose another desktop. I find that a little inconvenient as one has to click twice to reach the other desktop, but at least it's there. Included are settings for the fonts, colors and windecs. There are other themes on the website.

So, for a nice little light desktop that takes about 5 minutes to install:

Download: [the efltk library](#) [11] and the [Equinox Desktop Environment package](#) [12].

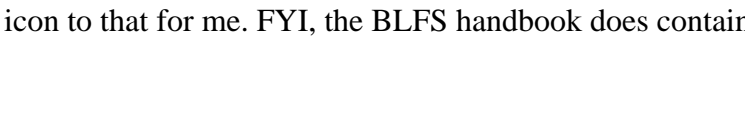
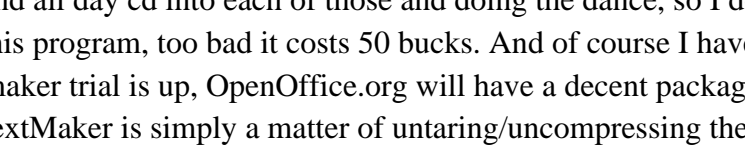
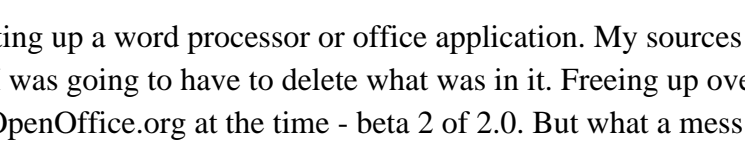
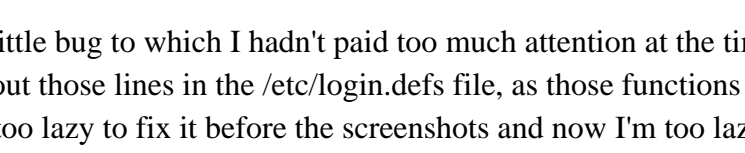
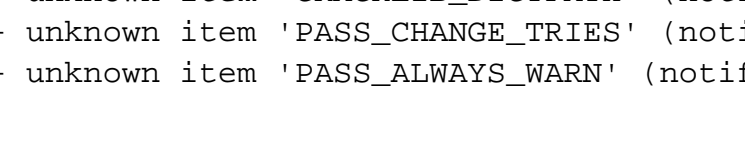
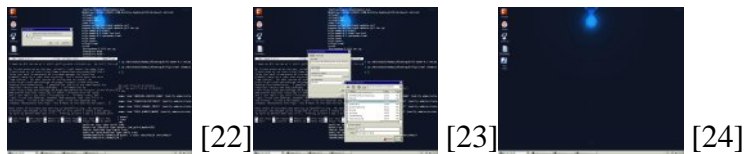
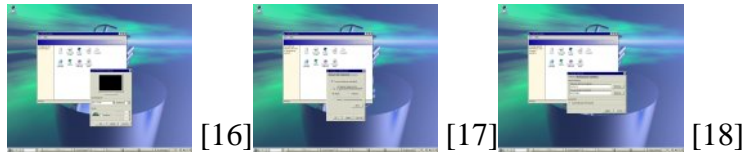
```
tar -jxvf efltk-2.0.5.tar.bz2
cd efltk-2.0.5
./configure --prefix=/usr --disable-mysql --disable-unixODBC --enable-xft &&
make
su to root
make install
```

```
tar -jxvf ede-1.0.4.tar.bz2
cd ede-1.0.4
./configure --prefix=/usr && make
su to root
make install
```

Then either type:

```
/usr/X11R6/bin/xinit /usr/bin/startede
```

or put startede in your ~/.xinitrc file to start it.



In case you noticed in my screenshots the output of:

```
configuration error - unknown item 'OBSCURE_CHECKS_ENAB' (notify administrator)
configuration error - unknown item 'CRACKLIB_DICTPATH' (notify administrator)
configuration error - unknown item 'PASS_CHANGE_TRIES' (notify administrator)
configuration error - unknown item 'PASS_ALWAYS_WARN' (notify administrator)
```



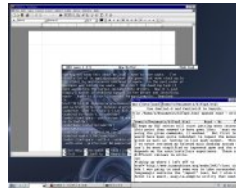
[25] That's one little bug to which I hadn't paid too much attention at the time of my [last write up](#) [6], but it's easily fixed by editing out those lines in the /etc/login.defs file, as those functions are now handled by PAM. They're harmless and I'd been too lazy to fix it before the screenshots and now I'm too laz...er... busy to redo the screenshots. 🤪

Next order of business was setting up a word processor or office application. My sources directory had become quite large and at this point I found I was going to have to delete what was in it. Freeing up over 3 GB, I preceded with the download of latest version of OpenOffice.org at the time - beta 2 of 2.0. But what a mess I found. The binary package was all rpms at the time and source package was about 100 different directories with no central configure script or makefile. I wasn't about to spend all day cd into each of those and doing the dance, so I downloaded the [30-day trial of TextMaker](#) [26]. I really like this program, too bad it costs 50 bucks. And of course I have vim and nano installed, so hopefully by the time the textmaker trial is up, OpenOffice.org will have a decent package for us who don't have rpm installed. The installation of TextMaker is simply a matter of untaring/uncompressing the downloaded tar.gz into our directory of choice and the start binary is called tml. So unless you put that directory in your path, you will need the full command to start it.

For example in my case that would be:

```
/usr/local/textmakertrial/tml.
```

...Or actually I made a desktop icon to that for me. FYI, the BLFS handbook does contain full instructions for installing OpenOffice-1.1.4.



[27]

I soon grew tired of the little xterm and decided it was time to install Eterm. It was merely a matter of installing libast and then Eterm. No problems there and now I could use my "myeterm" script to which I've grown quite spoiled. Eterm is my favorite terminal emulator because you can customize it so easily. If you wish to use Eterm:

download: [the libast library](#) [28] and

```
tar -zxvf libast-0.6.1.tar.gz
cd libast-0.6.1
./configure --prefix=/usr && make
su to root
make install
```

download: [Eterm](#) [29] and

```
tar -zxvf Eterm-0.9.3.tar.gz
cd Eterm-0.9.3
./configure --prefix=/usr && make
su to roo
make install
```

The command I use to start mine so that it'll look like the terminal is running on the background (transparent with no windec or scrollbars etc.) is this:

```
Eterm --trans -g 75x25 -f white -F '-*-lucidatypewriter-medium-r-normal-sans-16-
*-*-*-*-*-*-*' -O --tint=#ffffff --shade 0 --borderless --scrollbar-popup --
scrollbar-floating --scrollbar no --double-buffer -a "toggles buttonbar false"
```

If you are like me, there is nothing more annoying than booting a system to do some work and notice that your time is off by 15 minutes or even 6 hours. There should be a law against an OS changing anything in the bios!!! This is another petpeeve of mine. To quietly handle this problem, I enlist the services of ntpdate. The instructions for installing NTP-4.2.0 are included in the BLFS docbook and work quite well. Follow those, and then instead of running the ntpd all the time, we can just use the included utility ntpdate. You can run ntpdate as a stand alone command any time you wish in any terminal, set it up to run periodically as a cron job, or as I do as a boot time service. After your ntp package install, forego the configuration instructions unless you're needing to supply time service to your network. Instead:

```
nano /etc/rc.d/init.d/ntpdate
and simply type and save as root:

/usr/sbin/ntpdate -b time.nist.gov
```

Then as root issue the following commands to make it executable and run at boot:

```
chmod ug+rx /etc/rc.d/init.d/ntpdate
ln -s /etc/rc.d/init.d/ntpdate /etc/rc.d/rc3.d/S22ntpdate
```


You may even wish to adjust your bios time, and in which case you can add on the next line in your /etc/rc.d/init.d/ntpdate file:

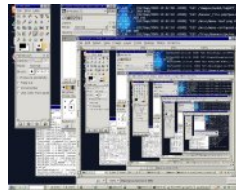
```
/sbin/hwclock --systohc
```

The `-b` switch tells `ntpd` to use `'settimeofday'` instead of the `'adjtime'`, which I'm convinced is a curse from satan himself (no hate mail please). And the `--systohc` for `hwclock` tells it to set the bios time to our new adjusted system time.

For image manipulation, Gimp is outlined in the BLFS docbook, but if you follow it word for word, it won't be able to decode jpegs. So, modify their suggestions to:

```
./configure --prefix=/usr --sysconfdir=/etc --disable-print && make
```

And as a bonus, the menu entry in Ede now works. 



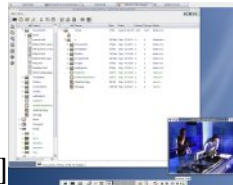
[30]

Some other applications from the [BLFS docbook](#) [31] one might need are: `unzip`, `which`, and `openssh`. The instructions work well for these.

For a backup and the availability of `xffm`, I decided to include `xfce4` as well. For the sake of brevity I don't think I'll outline each and every command used, as this is quite a collection of modules. However, download the [xfce4 package](#) [32]. With the `xfce4` package uncompressed you will find many directories containing the required library and base install as well as the different modules that you might like. Just `cd` into each one of interest and do the `configure`, `make`, `make install` routine. A graphical installer is available as well, although it installs an older version and the site is in German.



[33]

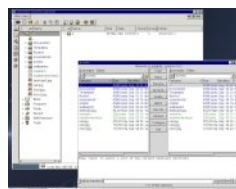


[34]

I use `bash` for my file manager, but it's always nice to have a graphical version available. A real nice and extremely useful one is [emelfm](#) [35]. You can download it [here](#) [36]. Installation is easy peasy, just

```
tar -zxvf emelfm-0.9.2.tar.gz
cd emelfm-0.9.2
make
su to root
make install
```

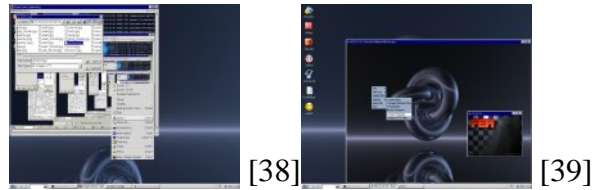
Note however, the executable will be located in `/usr/local/bin`.



[37]

So at this point we have our basic system with X and `nvidia` graphic drivers, three window managers from which to choose, `xffm` and `emelfm` for file management, `mozilla` and `opera` for browsing, `news` and `email`, `feh`, `iv`, and `gimp` for

image viewing and manipulation, and TextMaker, vim, and nano for publishing and editing. Next is multimedia. <deep breath>



You may not know this about me, but I have to have xawtv. I've tried a lot of tv applications over the years, but none stack up to the stability and resource overhead of xawtv. So the next order of business was installing xawtv. This isn't the daunting task it once was before the kernel included bttv drivers. Now it's just simply a matter of enabling support in the kernel and installing xawtv. Xawtv is a fairly straight forward compile. Download: [xawtv](#) [41] and [tv-fonts](#) [42].

```
tar -jxvf tv-fonts-1.1.tar.bz2
cd tv-fonts-1.1
./configure --prefix=/usr && make
su to root
make install
```

then:

```
tar -zxvf xawtv-3.94.tar.gz
cd xawtv-3.94
./configure --with-x --enable-gl --enable-quicktime -with-xvideo
--with-alsa --prefix=/usr && make
su to root and make install.
```

You'll need a configuration file, ~/.xawtv, and if you don't have one, here's an excerpt of mine for an example:

```
[global]
freqtab = us-cable
```

```
[defaults]
input = Television
norm = NTSC
```

```
[WKRN (2)]
channel = 2
```

```
[VMP (3)]
channel = 3
```

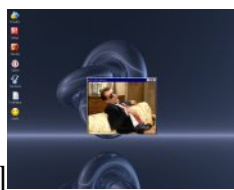
```
[WSMV (4)]
channel = 4
```

```
[WTVF (5)]
channel = 5
```

That was the easy one. Next I require mplayer, and I require mplayer to play anything it encounters. In the old days that meant downloading all the libraries and codecs from many many sources and reading a long doc to get all the flags to use during compile time. This became obsolete with distros like pcos, gentoo, and some others. All this to say, I'm a little rusty in this area. But thankfully the BLFS has the instructions in their docbook and a lot of the codecs are bundled together in one (or two) package(s). And of course, it went without a hitch. Using the information in the instruction I can now watch any movie file I run into.



[43]



[44]

Also included in the multimedia section of the docbook are xmms and cdrecording applications and tools. At the risk of repeating myself, the instructions work wonderfully in these areas as well and I recommend just following the instructions.

As of now, I have a fairly complete system all compiled from scratch and taking up about 1.3 gig of space. It boots in less than 30 seconds and performs very well. It's fast and stable. More than that is the satisfaction and sense of accomplishment that can come from completion or near completion of a daunting task. I found the whole experience quite fullfilling, educational and fun. I can't encourage you enough to visit the [Linux from Scratch website](#) [45] and download your instruction book today.

[Part 2](#) [6]

[Part 1](#) [5]



[46]

[Linux HowTos -s](#)

Source URL: <http://www.tuxmachines.org/node/2521>

Links:

- [1] <http://www.tuxmachines.org/taxonomy/term/63>
- [2] <http://www.tuxmachines.org/taxonomy/term/98>
- [3] <http://www.tuxmachines.org/taxonomy/term/102>
- [4] <http://www.tuxmachines.org/images/blfsp3/desktop01.jpg>
- [5] <http://www.tuxmachines.org/node/1715>
- [6] <http://www.tuxmachines.org/node/2482>
- [7] <http://linuxbrit.co.uk/downloads/glib-1.2.4.tar.gz>
- [8] <http://linuxbrit.co.uk/downloads/scrot-0.8.tar.gz>
- [9] <http://ede.sourceforge.net/page/>
- [10] <http://ede.sourceforge.net/page/documentation>
- [11] <http://prdownloads.sourceforge.net/ede/efltk-2.0.5.tar.bz2?download>
- [12] <http://prdownloads.sourceforge.net/ede/ede-1.0.4.tar.bz2?download>
- [13] <http://www.tuxmachines.org/images/blfsp3/ede.jpg>
- [14] <http://www.tuxmachines.org/images/blfsp3/ede6.jpg>
- [15] <http://www.tuxmachines.org/images/blfsp3/apps.jpg>

- [16] <http://www.tuxmachines.org/images/blfsp3/ede2.jpg>
- [17] <http://www.tuxmachines.org/images/blfsp3/ede3.jpg>
- [18] <http://www.tuxmachines.org/images/blfsp3/ede4.jpg>
- [19] <http://www.tuxmachines.org/images/blfsp3/menu.jpg>
- [20] <http://www.tuxmachines.org/images/blfsp3/menu1.jpg>
- [21] <http://www.tuxmachines.org/images/blfsp3/menu2.jpg>
- [22] <http://www.tuxmachines.org/images/blfsp3/icons.jpg>
- [23] <http://www.tuxmachines.org/images/blfsp3/icons1.jpg>
- [24] <http://www.tuxmachines.org/images/blfsp3/icons2.jpg>
- [25] <http://www.tuxmachines.org/images/blfsp3/menu3.jpg>
- [26] http://www.softmaker.com/english/tmldemo_en.htm
- [27] <http://www.tuxmachines.org/images/blfsp3/editors.jpg>
- [28] <http://www.eterm.org/download/libast-0.6.1.tar.gz>
- [29] <http://www.eterm.org/download/Eterm-0.9.3.tar.gz>
- [30] <http://www.tuxmachines.org/images/blfsp3/gimp.jpg>
- [31] <http://www.linuxfromscratch.org/blfs/download.html>
- [32] <http://mesh.dl.sourceforge.net/sourceforge/xfce/xfce-4.2.2-src.tar.bz2>
- [33] <http://www.tuxmachines.org/images/blfsp3/xfce.jpg>
- [34] <http://www.tuxmachines.org/images/blfsp3/xfce1.jpg>
- [35] <http://emelfm.sourceforge.net/>
- [36] <http://emelfm.sourceforge.net/emelfm-0.9.2.tar.gz>
- [37] <http://www.tuxmachines.org/images/blfsp3/filemgr.jpg>
- [38] <http://www.tuxmachines.org/images/blfsp3/iv.jpg>
- [39] <http://www.tuxmachines.org/images/blfsp3/feh.jpg>
- [40] <http://www.tuxmachines.org/images/blfsp3/net.jpg>
- [41] <http://dl.bytesex.org/releases/xawtv/xawtv-3.94.tar.gz>
- [42] <http://dl.bytesex.org/releases/tv-fonts/tv-fonts-1.1.tar.bz2>
- [43] <http://www.tuxmachines.org/images/blfsp3/mplayer4.jpg>
- [44] <http://www.tuxmachines.org/images/blfsp3/xawtv-2.jpg>
- [45] <http://www.linuxfromscratch.org/>
- [46] <http://www.tuxmachines.org/images/blfsp3/ede7.jpg>