

安装 fedora14, 只有 100 多个文件被安装, 一个最基本 (mini) 的 Linux 系统。下面是在其上安装 gnome 的过程。

1. 安装 gnome

```
#yum install @gnome-desktop
```

2. 还需要安装 Xorg。

否则, 启动会出现错误。

```
[root@localhost yum.repos.d]# startx
xauth:  creating new authority file /root/.serverauth.2214
xauth:  creating new authority file /root/.Xauthority
xauth:  creating new authority file /root/.Xauthority

xinit:  No such file or directory (errno 2):  no server "/usr/bin/X" in PATH

Use the -- option, or make sure that /usr/bin is in your path and
that "/usr/bin/X" is a program or a link to the right type of server
for your display.  Possible server names include:

    Xorg          Common X server for most displays
    Xvfb          Virtual frame buffer
    Xfake         kdrive-based virtual frame buffer
    Xnest         X server nested in a window on another X server
    Xephyr        kdrive-based nested X server

giving up.
xinit:  Connection refused (errno 111):  unable to connect to X server
xinit:  No such process (errno 3):  Server error.
[root@localhost yum.repos.d]#
```

安装 Xorg

```
#yum install Xorg
```

3. 再次输入 startx, 出现下面的错误

```
[root@localhost yum.repos.d]# startx
xauth:  creating new authority file /root/.serverauth.2285

X.Org X Server 1.9.0
Release Date: 2010-08-20
X Protocol Version 11, Revision 0
Build Operating System: x86_05 2.6.32-72.el6.bz634452.x86_64
Current Operating System: Linux localhost.localdomain 2.6.35.6-45.fc14.i686 #1 SMP Mon Oct 18 23:56:17 UTC 2010 i686
Kernel command line: ro root=/dev/mapper/VolGroup-lv_root rd_LVM_LV=VolGroup/lv_root rd_LVM_LV=VolGroup/lv_swap rd_NO_LUKS rd_NO_MD rd_NO_DM LANG=en_US.UTF-8 SYSFONT=latarcyrheb-sun16 KEYTABLE=us rhgb quiet

Build Date: 13 October 2010 03:29:59PM
Build ID: xorg-x11-server 1.9.0-15.fc14
Current version of pixman: 0.18.4
    Before reporting problems, check http://wiki.x.org
    to make sure that you have the latest version.
Markers: (--) probed, (**) from config file, (==) default setting,
        (++) from command line, (!!) notice, (II) informational,
        (WW) warning, (EE) error, (NI) not implemented, (??) unknown.
(==) Log file: "/var/log/Xorg.0.log", Time: Thu Jan 27 23:35:26 2011
(==) Using system config directory "/usr/share/X11/xorg.conf.d"
(EE) Failed to load module "vmware" (module does not exist, 0)
(EE) Failed to load module "vesa" (module does not exist, 0)
(EE) Failed to load module "fbdev" (module does not exist, 0)
(EE) No drivers available.
```

```

Fatal server error:
no screens found

Please consult the Fedora Project support
    at http://wiki.x.org
    for help.
Please also check the log file at "/var/log/Xorg.0.log" for additional informati
on.

giving up.
xinit: Connection refused (errno 111): unable to connect to X server
xinit: No such process (errno 3): Server error.
[root@localhost yum.repos.d]#

```

4. 大概可以猜测到，是因为还没有显示器的驱动

#yum install vmware\*

```

Dependencies Resolved

=====
Package                        Arch      Version           Repository        Size
=====
Installing:
xorg-x11-drv-vmware           i686      11.0.1-1.fc14     dvd_repo          29 k

Transaction Summary
=====
Install      1 Package(s)

Total download size: 29 k
Installed size: 53 k
Is this ok [y/N]:

```

#yum install vesa\*

```

Dependencies Resolved

=====
Package                        Arch      Version           Repository        Size
=====
Installing:
xorg-x11-drv-vesa             i686      2.3.0-1.fc14     dvd_repo          19 k

Transaction Summary
=====
Install      1 Package(s)

Total download size: 19 k
Installed size: 23 k

```

#yum install xorg-x11-drv\*

Package	Arch	Version	Repository	Size
=====				
Installing:				
xorg-x11-drv-acecad	i686	1.4.0-4.fc14	dvd_repo	15 k
xorg-x11-drv-aiptek	i686	1.3.0-4.fc14	dvd_repo	19 k
xorg-x11-drv-apm	i686	1.2.3-1.fc14	dvd_repo	57 k
xorg-x11-drv-ast	i686	0.89.9-1.fc12	dvd_repo	24 k
xorg-x11-drv-ati	i686	6.13.1-0.3.20100705git37b348059.fc14	dvd_repo	371 k
xorg-x11-drv-cirrus	i686	1.3.2-3.fc14	dvd_repo	36 k
xorg-x11-drv-dummy	i686	0.3.4-1.fc14	dvd_repo	12 k
xorg-x11-drv-elographics	i686	1.2.4-2.fc14	dvd_repo	15 k
xorg-x11-drv-evdev	i686	2.5.0-1.fc14	dvd_repo	31 k
xorg-x11-drv-fbdev	i686	0.4.1-4.fc14	dvd_repo	16 k
xorg-x11-drv-fpit	i686	1.3.0-11.fc14	dvd_repo	14 k
xorg-x11-drv-geode	i686	2.11.4.1-4.fc14	dvd_repo	120 k
xorg-x11-drv-glint	i686	1.2.4-3.fc14	dvd_repo	83 k
xorg-x11-drv-hyperpen	i686	1.3.0-5.fc14	dvd_repo	13 k
xorg-x11-drv-i128	i686	1.3.3-3.fc14	dvd_repo	29 k
xorg-x11-drv-i740	i686	1.3.2-3.fc14	dvd_repo	27 k
xorg-x11-drv-intel	i686	2.12.0-6.fc14.1	dvd_repo	194 k
xorg-x11-drv-keyboard	i686	1.4.0-5.fc14	dvd_repo	17 k
xorg-x11-drv-mach64	i686	6.8.2-3.fc14	dvd_repo	89 k
xorg-x11-drv-mga	i686	1.4.11-3.fc14	dvd_repo	83 k

可以看到，在安装包中有众多的 xorg-x11 的驱动，那么，我们应该怎么选择呢？

下面只安装 vesa 驱动，结果，可以启动到图形界面，但是鼠标，键盘都没有了响应。最后只好重启虚拟机。

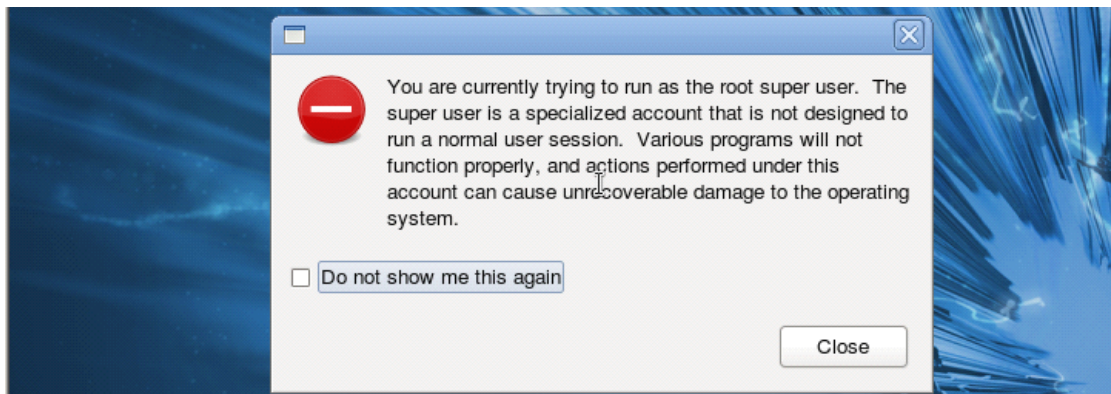
##### 5. 安装 keyboard 和 mouse 驱动

```
#yum install xorg-x11-drv-mouse
```

```
#yum install xorg-x11-drv-keyboard
```

```
#startx
```

结果还是无法使用键盘和鼠标，出现下面的提示：



##### 6. 创建一个普通用户再做尝试

```
#useradd ny
```

```
#passwd ny
```

创建用户 ny，并且需要设置用户密码

然后再次启动 startx，还是无法使用鼠标和键盘

##### 7. 干脆安装所有的 xorg-x11-drv\*

再次启动，终于可以启动到桌面并且正常使用。

上面是一个从上到下的分析，安装过程，从最上层的 **gnome** 开始，然后再到 **X** 服务器，最后到显示驱动。下面就 **Linux** 中的窗口系统总结如下：

首先是和硬件相关的驱动，**X** 服务器就是使用了这些驱动来和硬件打交道。例如，有显示器驱动，鼠标键盘驱动等等。安装命令如下：

```
#yum install xorg-x11-drv-*
```

在上面由于不知道各个驱动的区别，在尝试单独安装几个不起作用之后，干脆一股脑都安装上。

然后是安装 **X** 服务器，也就是 **X-Server** 端，当然，在这里有多个 **X-Server** 可供选择。例如 **Xorg**, **Xvfb**, **Xfake** 等等。在上面我只安装了 **Xorg** 这个通用的 **X-Server**。

```
#yum install Xorg*
```

最后，就是安装 **gnome** 桌面，其实就是 **X-Client** 端。安装使用命令

```
#yum install @gnome-desktop
```

当然，这里可能安装了很多自己不想要的内容，例如 **gnome** 自带的游戏，多媒体软件等等。如果对 **gnome** 进行定制，以后再做单独研究。