Install Fedora 8 (Werewolf) on Windows XP with Qemu.
The Complete Tutorial

1. FETCH AND INSTALL QEMU

Qemu home site is: http://fabrice.bellard.free.fr/qemu/

Last version on windows as of today is qemu-0.9.0-windows: http://www.h7.dion.ne.jp/~qemu-win/

2. FETCH THE BOOT.ISO FEDORA 8 IMAGE:

A complete list of mirrors for downloading Fedora 8 can be found here: http://mirrors.fedoraproject.org/

Select the **boot.iso** file under **i386/os/images/.**

For example:

http://ftp.funet.fi/pub/mirrors/fedora.redhat.com/pub/fedora/linux/releases/8/Fedora/i386/os/images/boot.iso

3. CREATE A BLANK VIRTUAL DISK FOR FEDORA 8

In a windows command windows use the following command:

```
qemu-img create myimage.img mysize
```

For example for a 10 G disk image:

```
..\bin\qemu-img.exe  create fedora8.img 10G
Formating 'fedora8.img', fmt=raw, size=10485760 kB
```

4. USE NETINSTALL WITH THE BOOT.ISO IMAGE

4.1 START QEMU WITH THIS IMAGE:

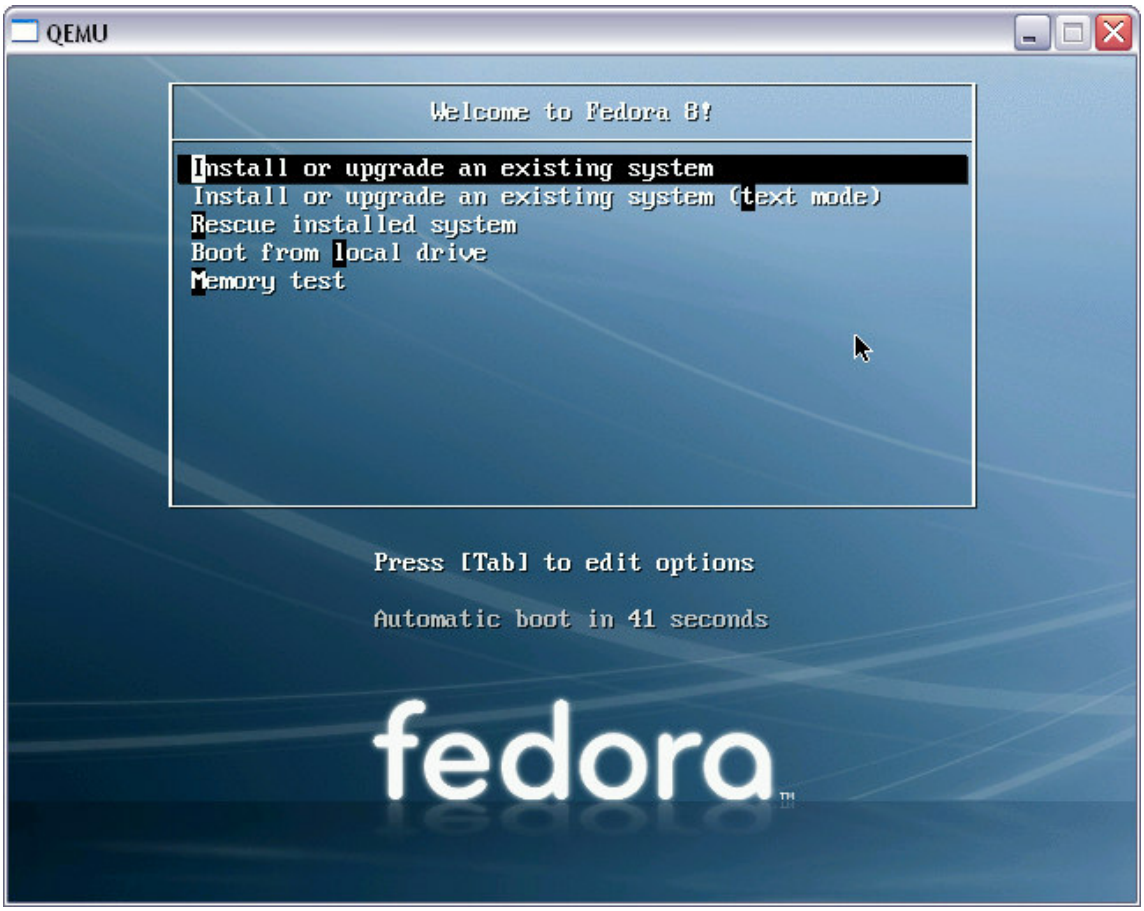
```
qemu.exe -L Bios -m 256 -hda Images\fedora8.img -soundhw all -localtime -M
pc -net nic,model=ne2k_pci -net user -no-acpi -boot d -cdrom Images\boot-
F8.iso
```

Option description:

`-L Bios`	Local path of all BIOS relatively to the Qeme.exe file
`-m 256`	Memory is set to **256 Mbytes**
`-hda Images\fedora8.img`	First hard drive is the image created in step above (warning: since Fedora 7 all drives – including ATA – are detected as SCSI. Here the disk will be **sda** in Fedora)
`-net nic,model=ne2k_pci -net user`	Network card is a NE2000-PCI in Qemu user mode

	network
`-boot d -cdrom Images\boot-F8.iso`	Boot from CDROM (d) and use the downloaded iso file as the cdrom image

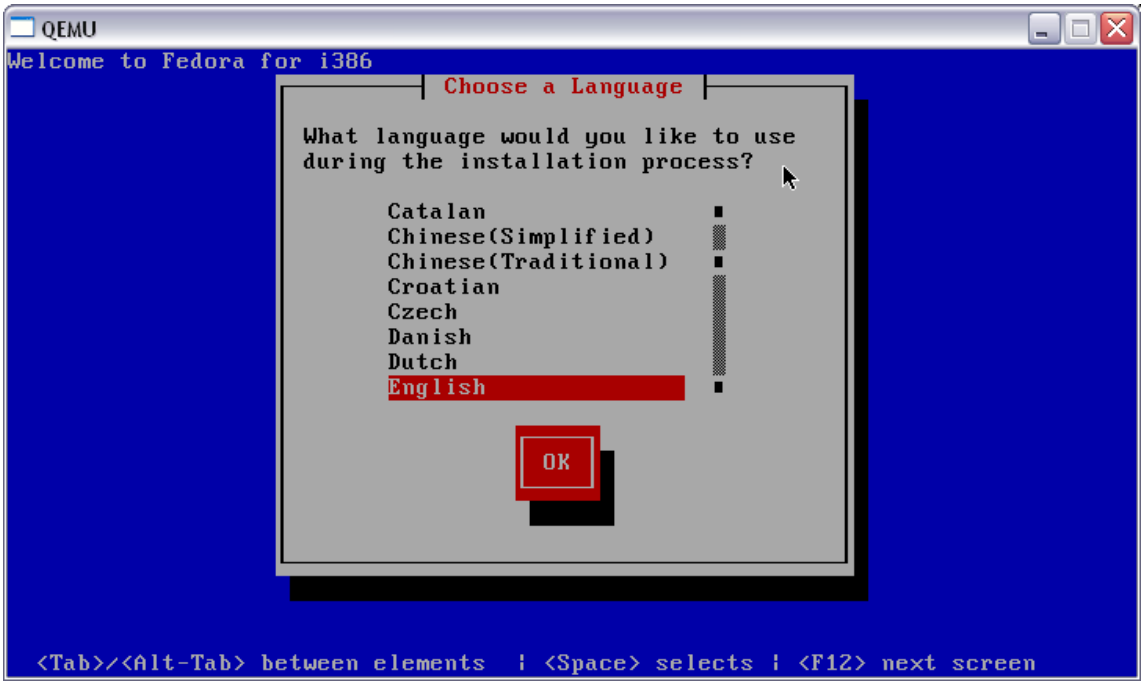
The cdrom image should start automatically:



Choose "*Install or upgrade an existing system*"

4.2 ANACONDA INSTALLER

The anaconda installer is then starting:

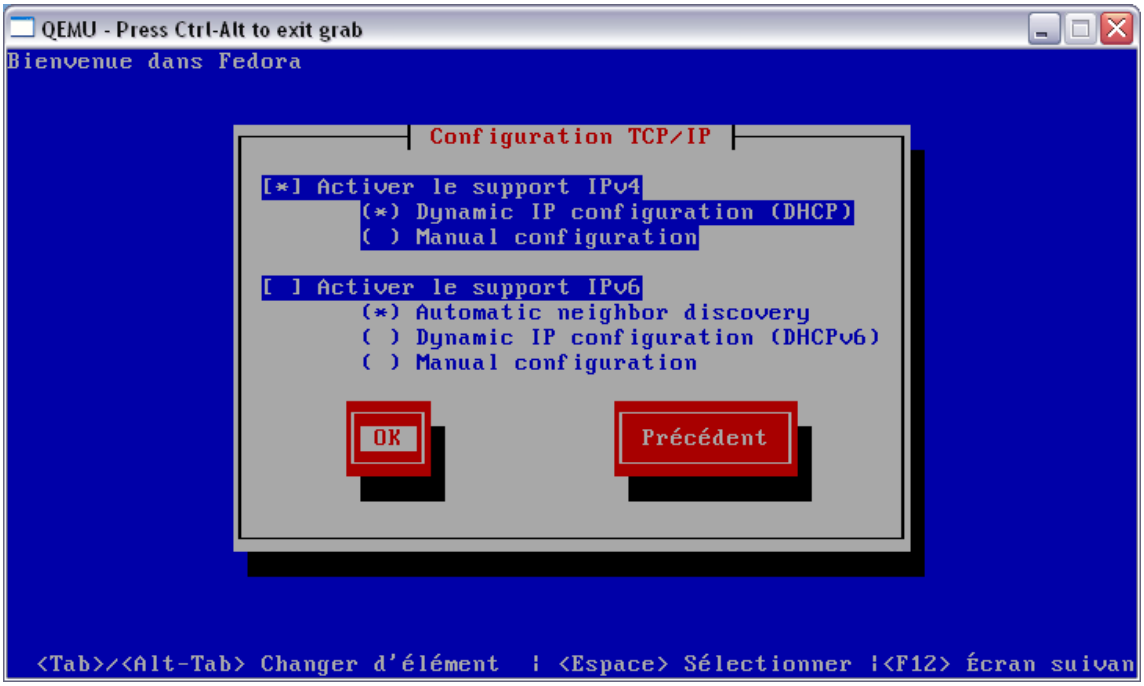


Choose your language (French for me).

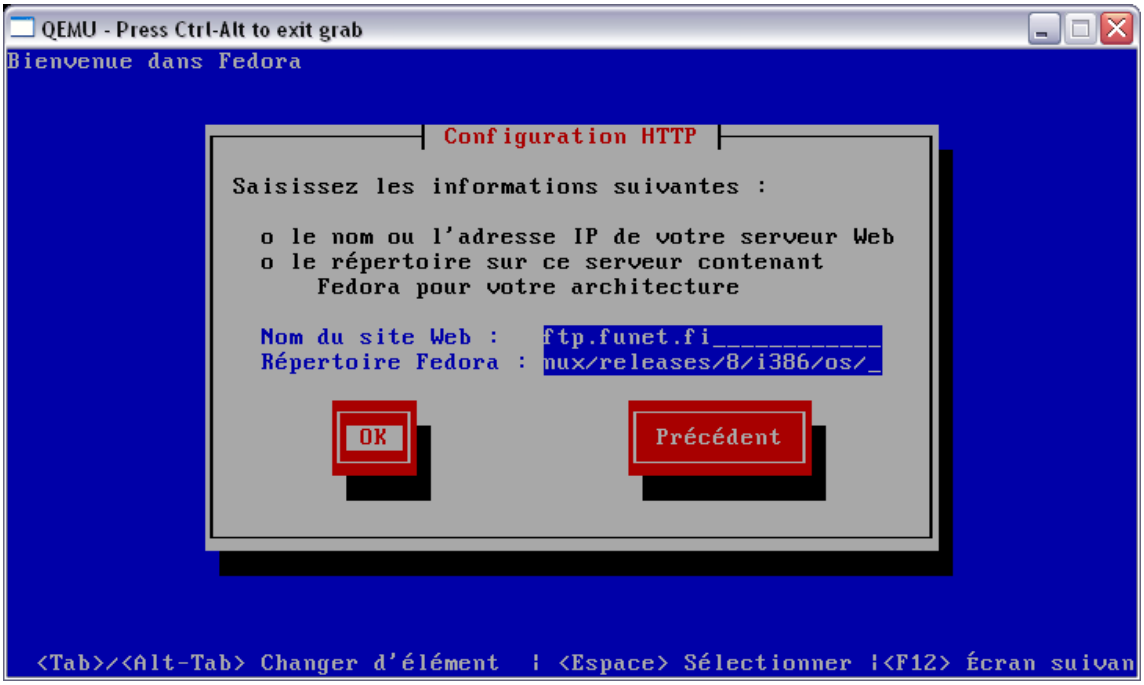
Choose the keyboard:

Installation method: choose HTTP or FTP (FTP works sometimes better):

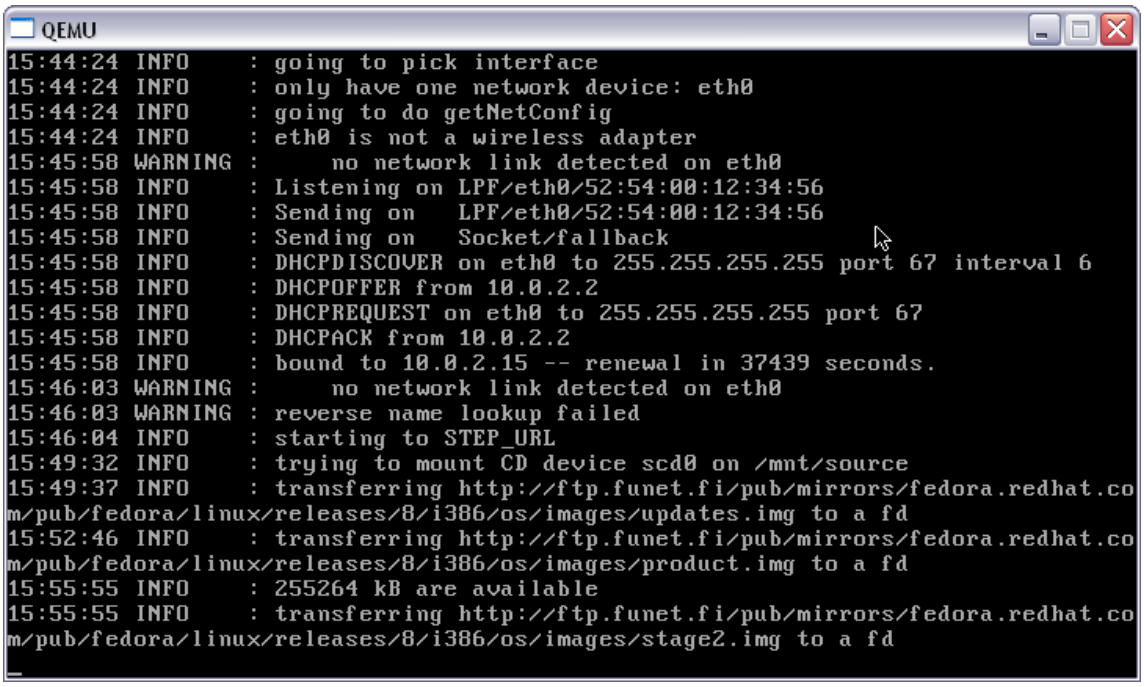
TCP/IP configuration: remove IPv6 and choose "Dynamic IP Configuration" DHCP as this will be provided to the running anaconda by Qemu (See "3.7.3 Using the user mode network stack" from the Qemu documentation):



HTTP Configuration: select the source web site (for example ftp.funet.fi) and the complete path up to "/**os**/".

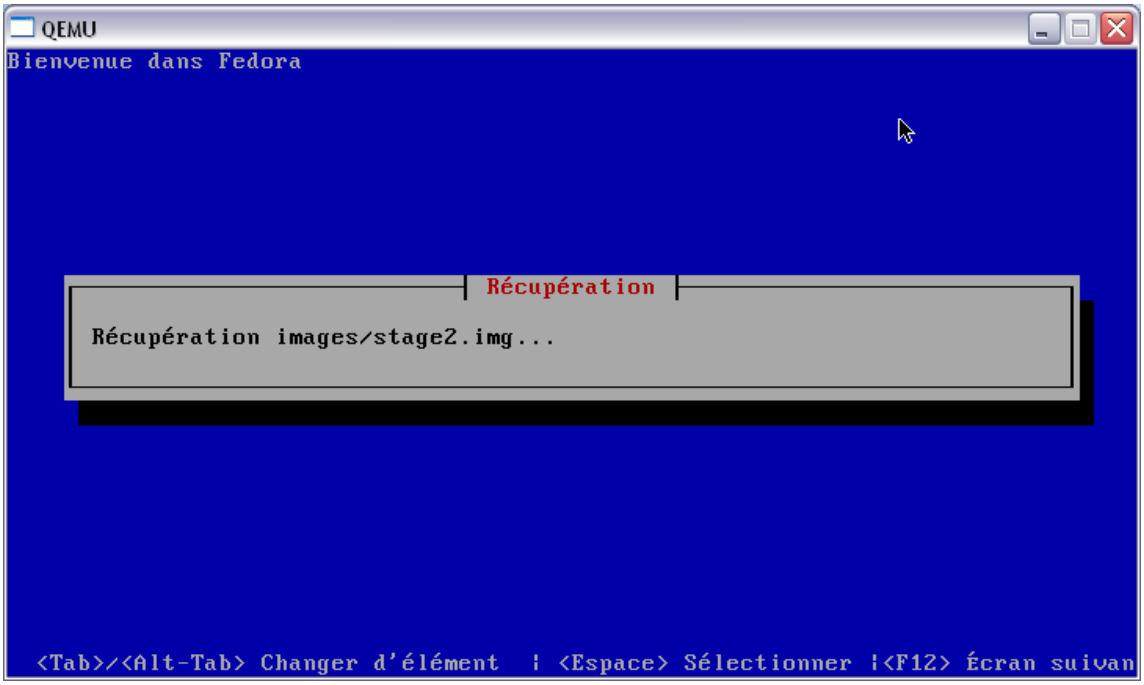


The installer is now fetching .img files from the selected web site (Alt-F3: switches to the debug screen):



Now it's a quite long process and every error from now on leads to a complete crash and you have to restart from point 4.1.

Biggest probability is a blocked stage2.img file. Here it's working well:



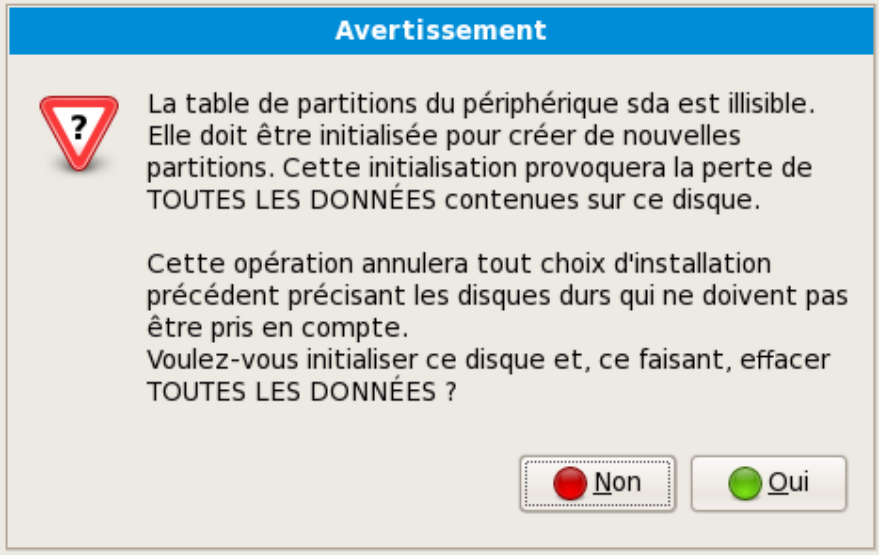
4.3 ANACONDA INSTALLER: GRAPHICAL INSTALLATION

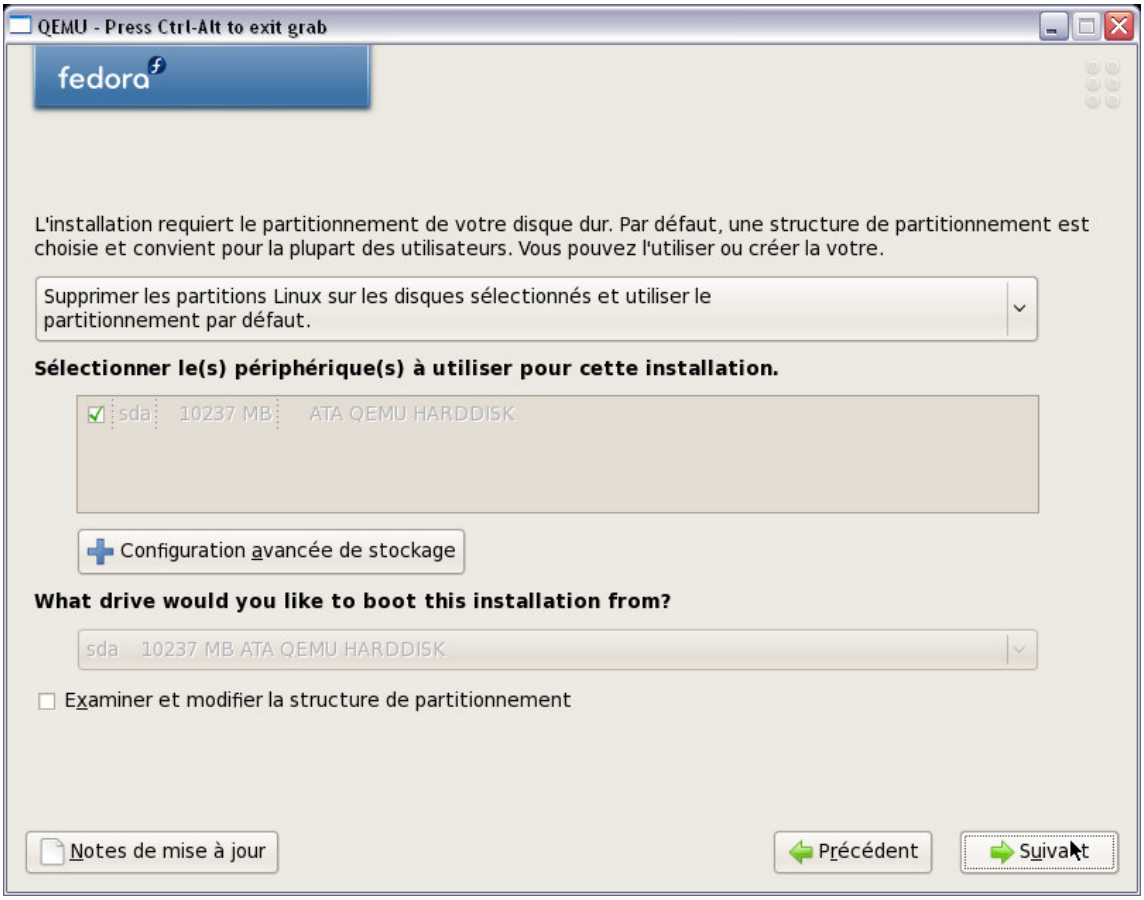
4.3.1 Start

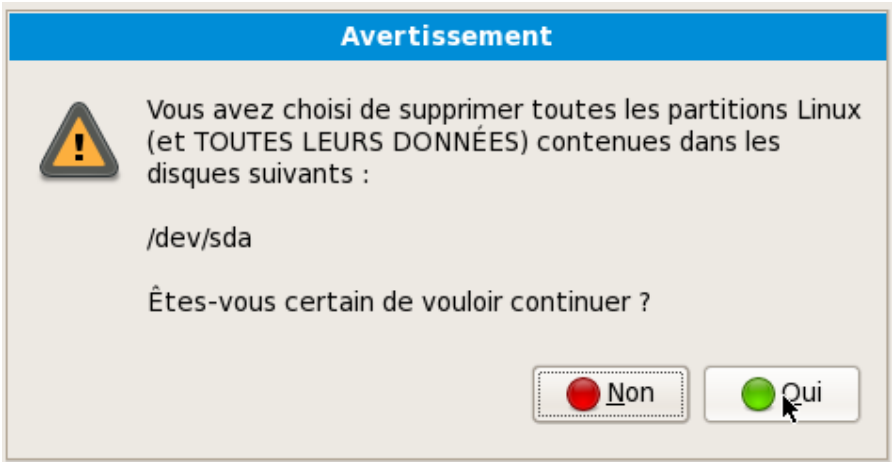
After this point the graphical (X11 version) version of anaconda is starting:

4.3.2 Format disk

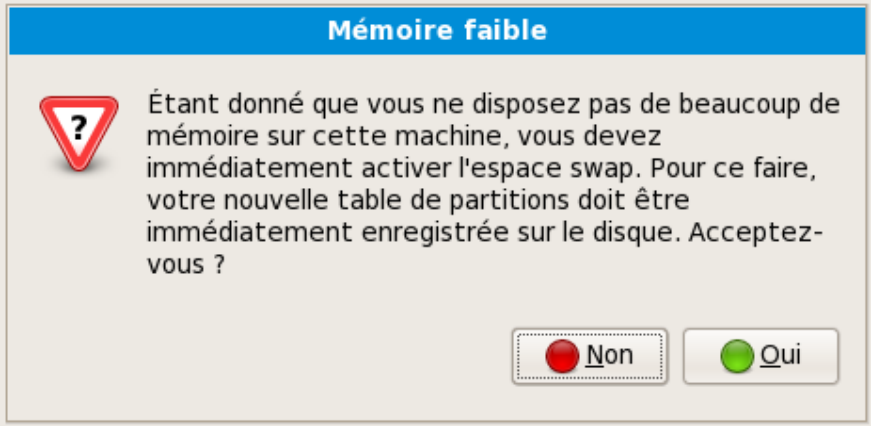
The Qemu disk image is detected and formatting is needed, click *Yes* or *Next* in the following screens:



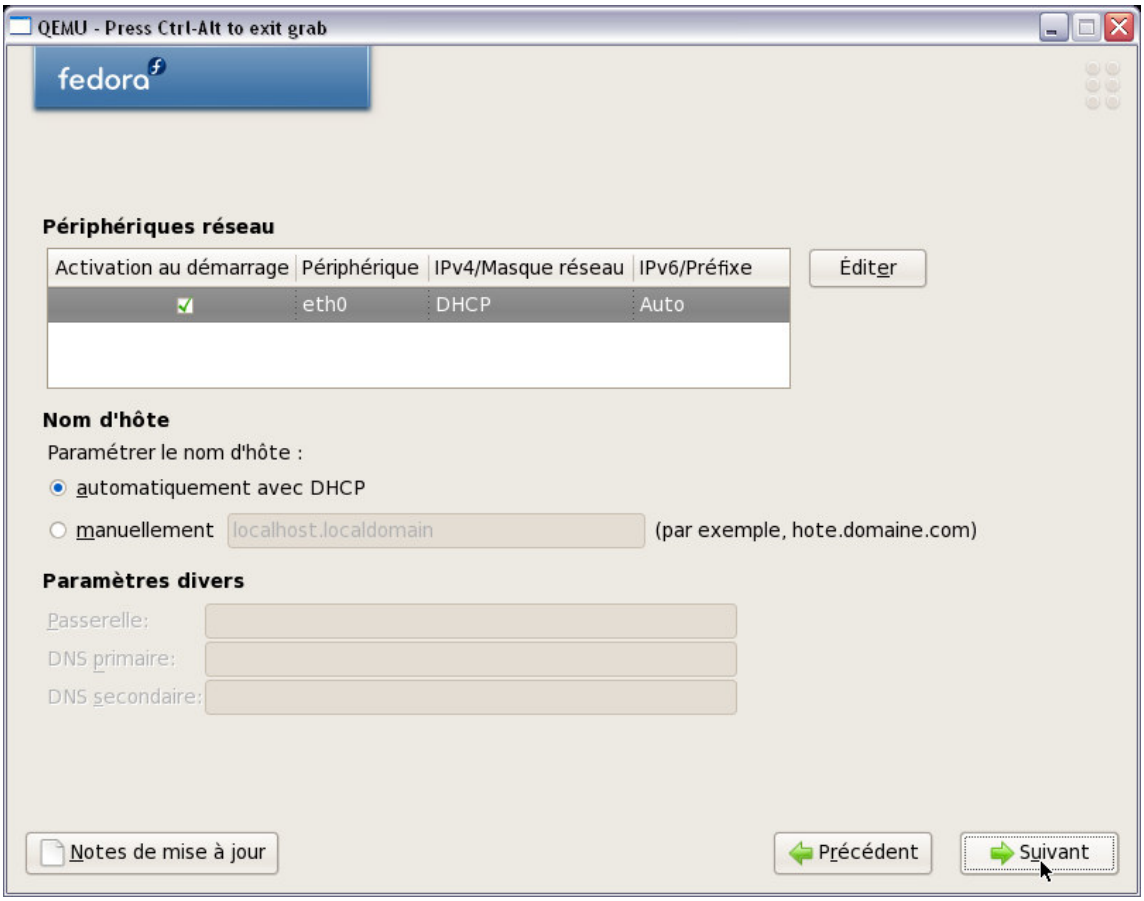

QEMU - Press Ctrl-Alt to exit grab
fedora
L'installation requiert le partitionnement de votre disque dur. Par défaut, une structure de partitionnement est choisie et convient pour la plupart des utilisateurs. Vous pouvez l'utiliser ou créer la votre.
Supprimer les partitions Linux sur les disques sélectionnés et utiliser le partitionnement par défaut.
Sélectionner le(s) périphérique(s) à utiliser pour cette installation.
sda 10237 MB ATA QEMU HARDDISK
Configuration avancée de stockage
What drive would you like to boot this installation from?
sda 10237 MB ATA QEMU HARDDISK
Examiner et modifier la structure de partitionnement
Notes de mise à jour
Précédent
Suivant


Avertissement
Vous avez choisi de supprimer toutes les partitions Linux (et TOUTES LEURS DONNÉES) contenues dans les disques suivants :
/dev/sda
Êtes-vous certain de vouloir continuer ?
Non
Oui

Small memory (remember that Qemu was launched with 256 Mb only) detected and request for enabling partition table and swap right now:

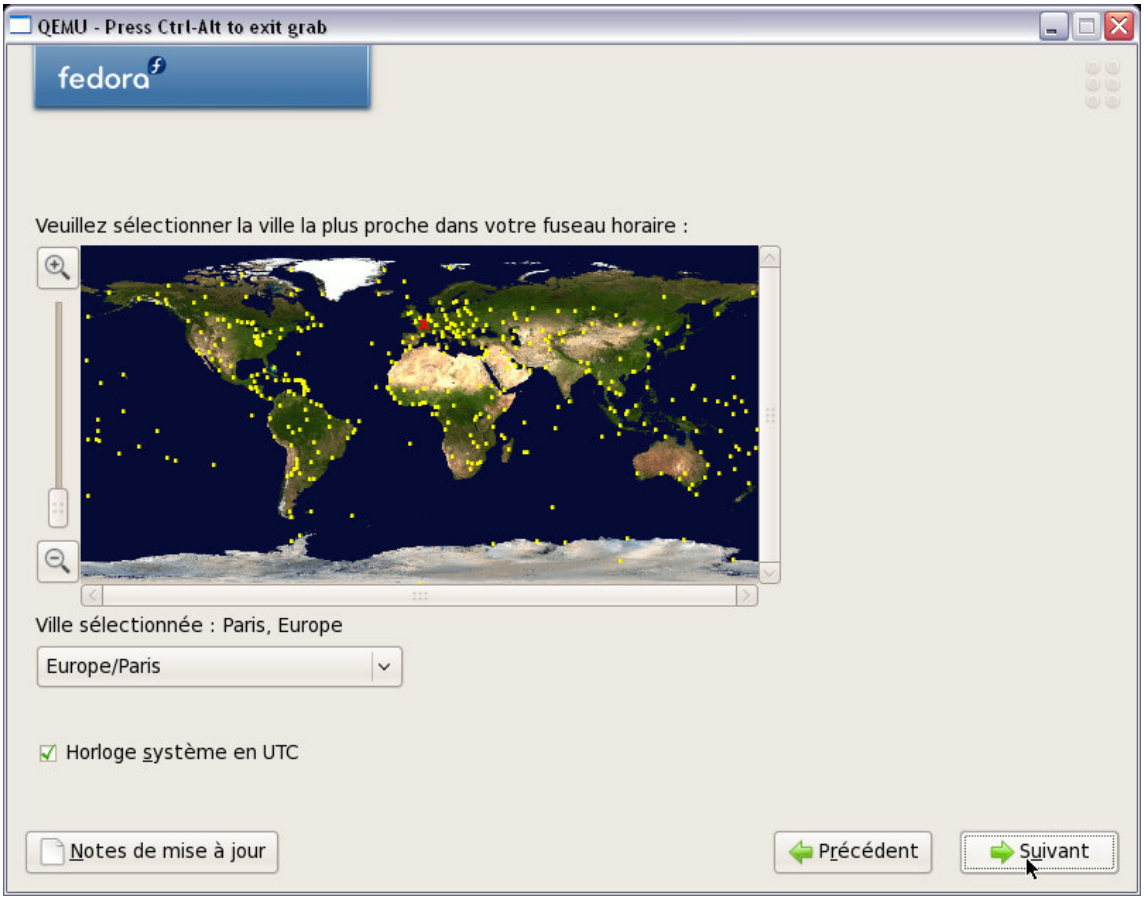


4.3.3 Network setting



All default values are OK for Qemu.

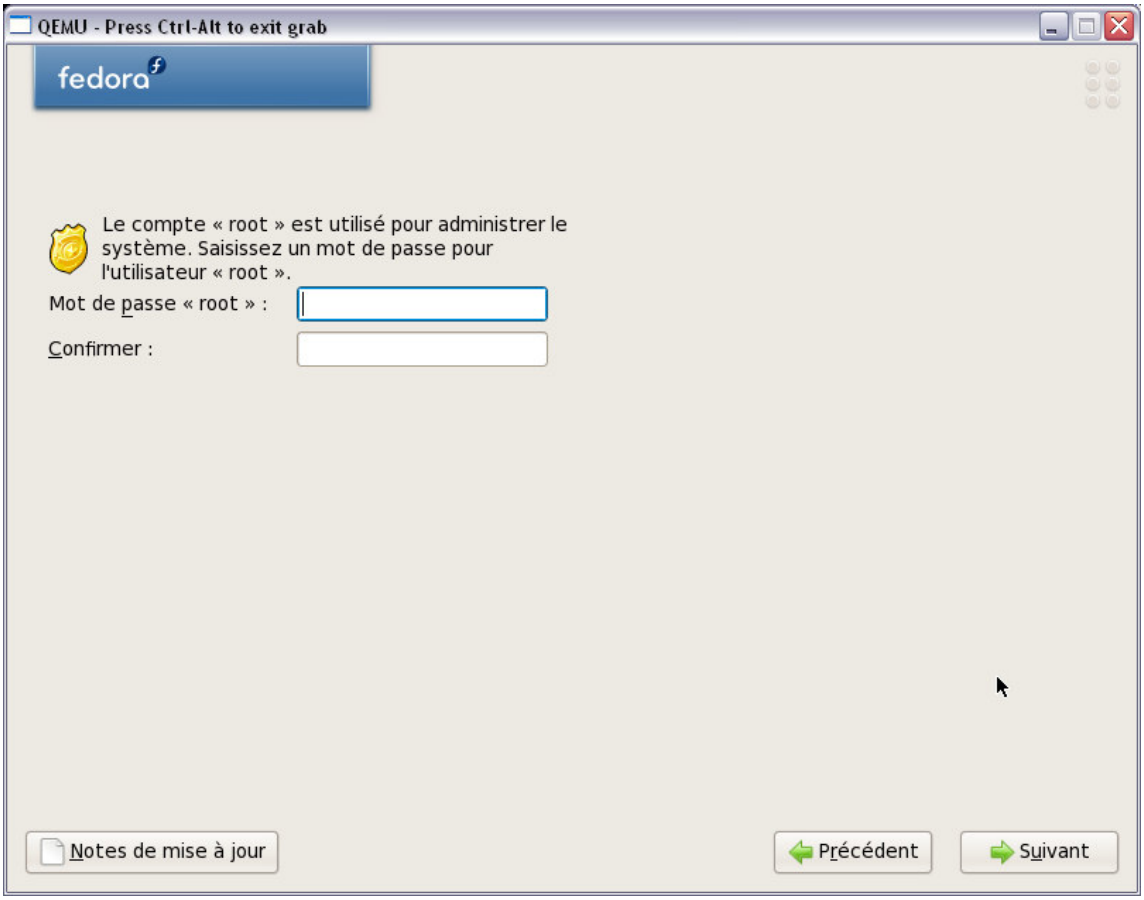
4.3.4 Time setting



All default values are OK for Qemu.

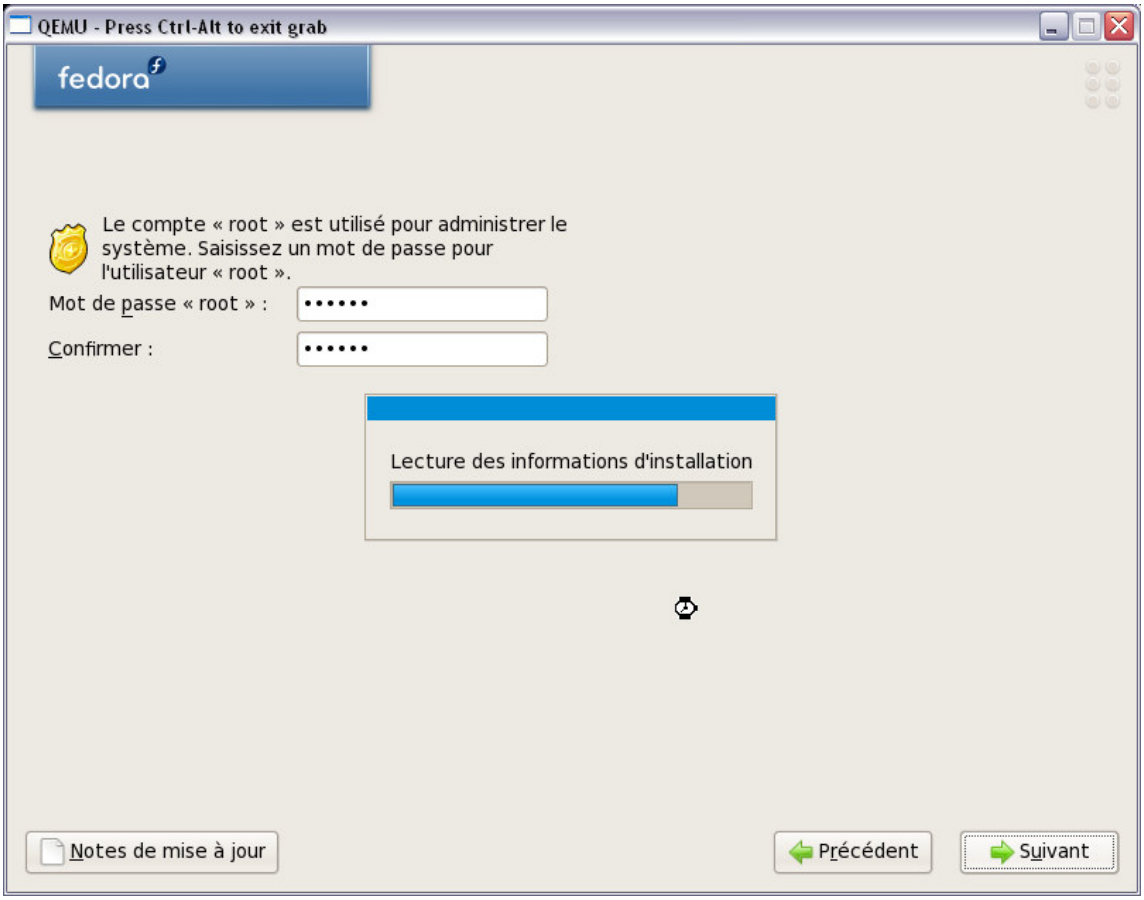
Warning: you should certainly uncheck "*system clock in UTC*", because you're using the locale corrected clock from your Windows XP host system.

4.3.5 Root password



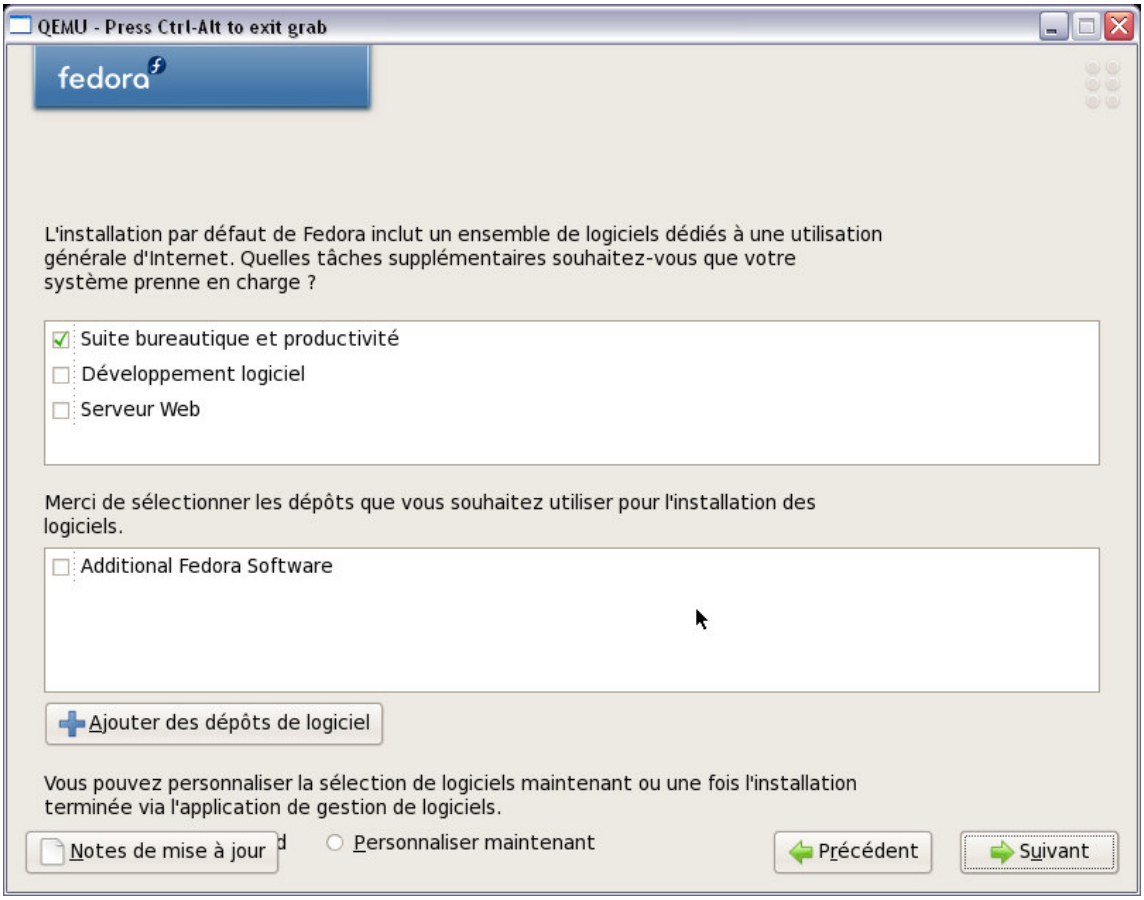
Choose a password for the root user of your guest system.

Now the installation tool is ready to fetch the list of packages from the ftp site: this could be a quite long task; depending on your network connection:

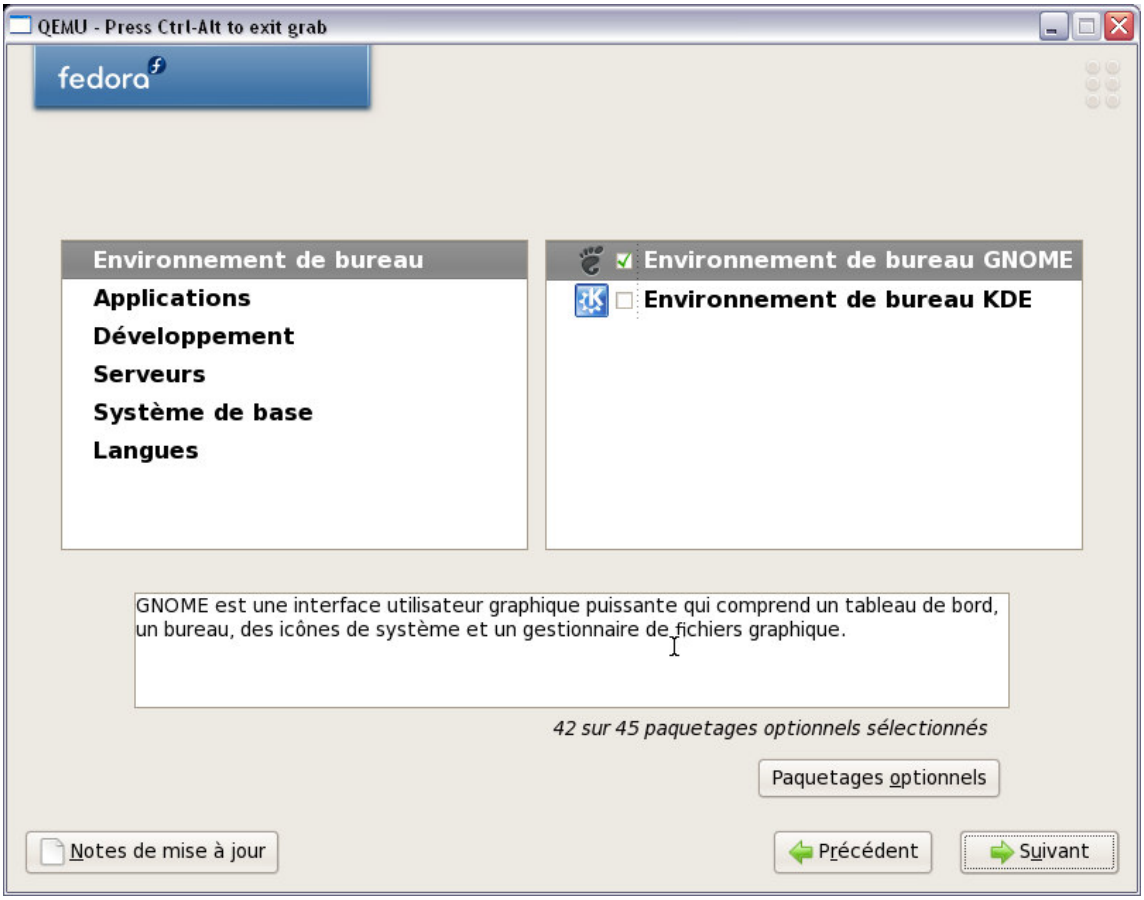


4.3.6 Packages

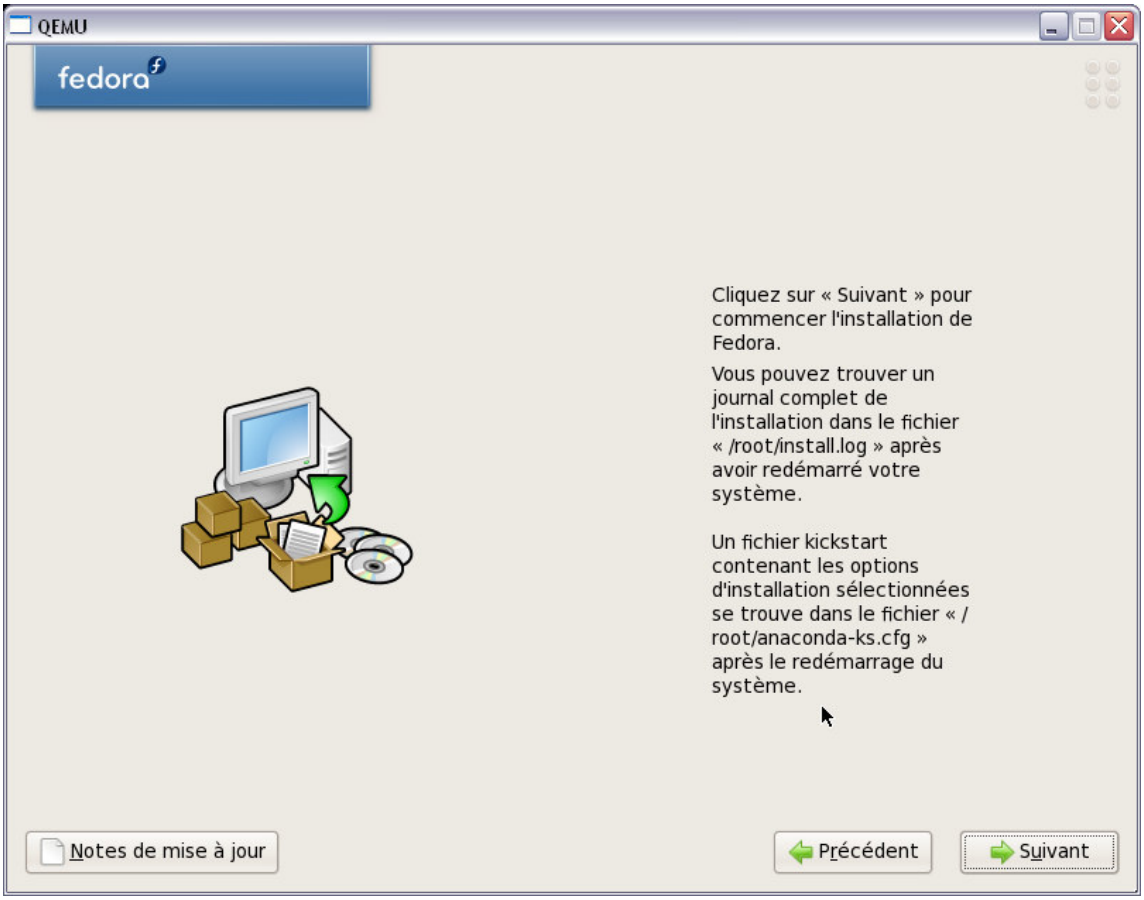
Now you can choose the type of installation: as we are using a netinstall, it's better to choose the smallest possible set (this will be updated later, on a rpm by rpm basis). Note that you can now also add custom repositories to the install step:

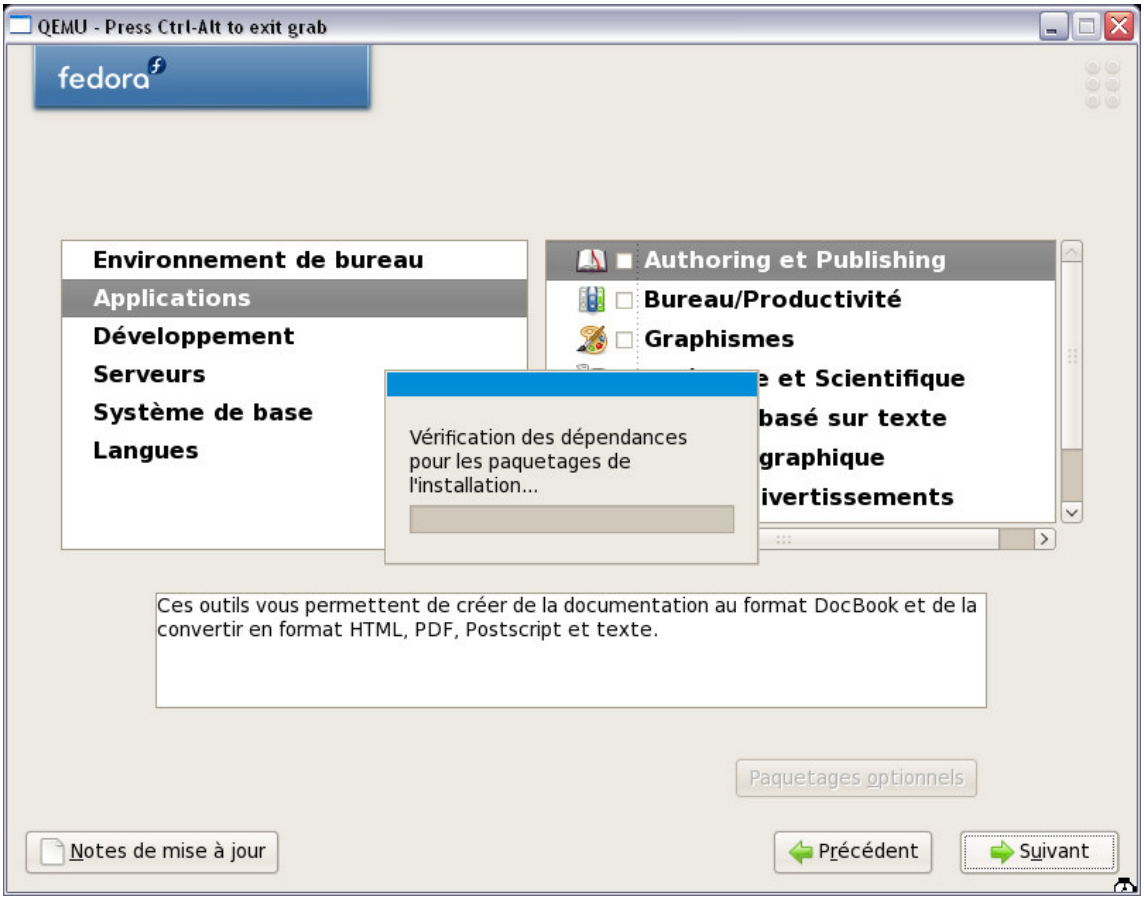


Uncheck all “supplementary tasks” and select *custom installation now* (this will be longer to setup, but the download time will be reduced) and proceed with *Next*.

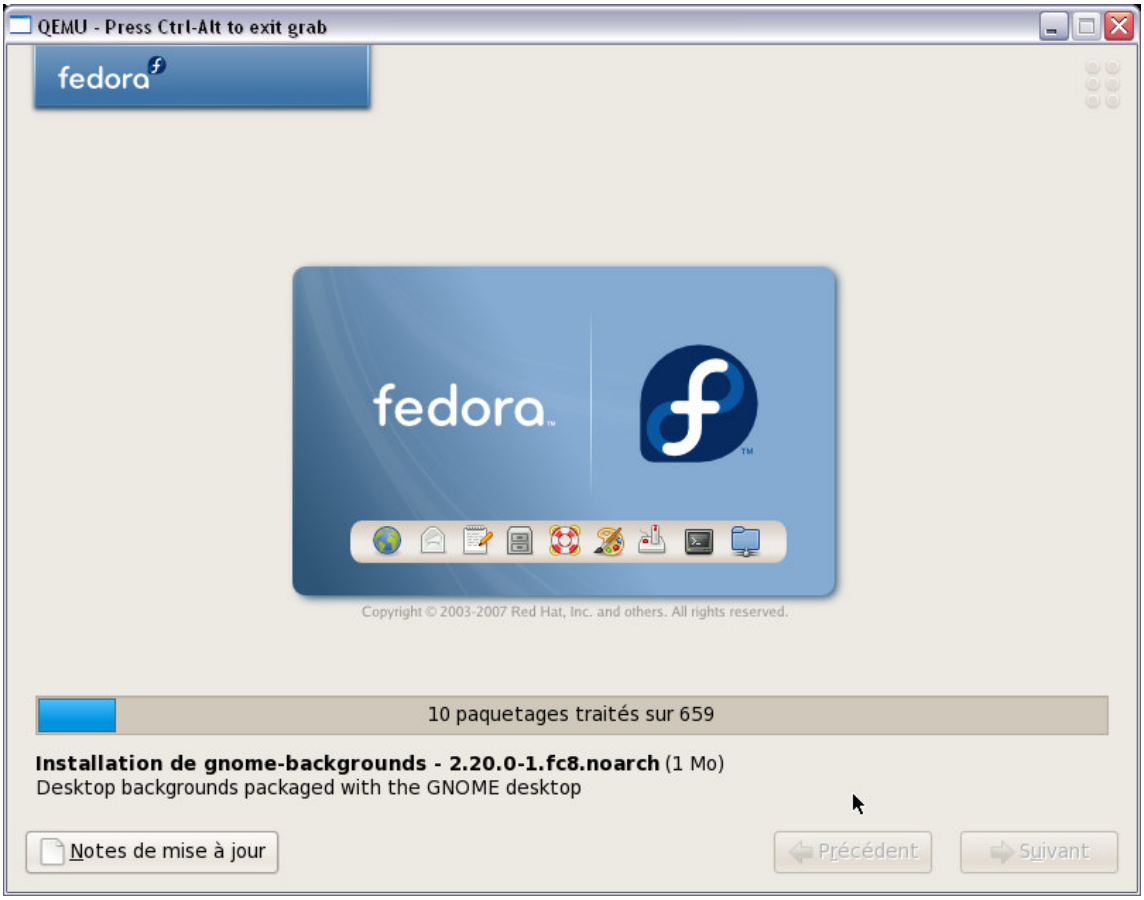


For all categories, remove what you do not need for the base install: no devel packages, no office tools, no server tools, and so on. Carefully review each category and click the "*Optional Packages*" button to review the detailed lists. When done, proceed with "*Next*" until requested to start the "real" installation:

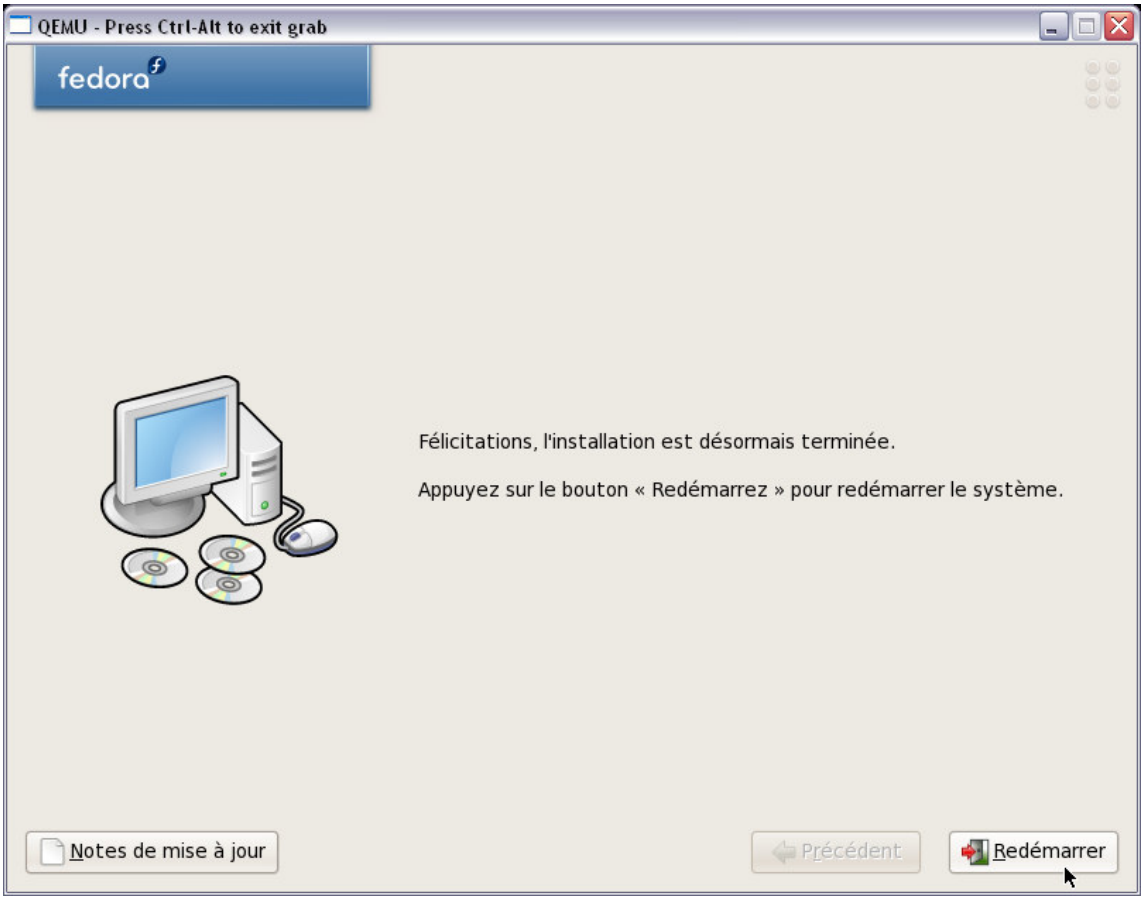

QEMU
fedora
Cliquez sur « Suivant » pour commencer l'installation de Fedora.
Vous pouvez trouver un journal complet de l'installation dans le fichier « /root/install.log » après avoir redémarré votre système.
Un fichier kickstart contenant les options d'installation sélectionnées se trouve dans le fichier « /root/anaconda-ks.cfg » après le redémarrage du système.
Notes de mise à jour
Précédent
Suivant



Now prepare a good book and several cups of coffee as you see the progress bar slowly going to the right of the screen after formatting the disk:



After up to several hours (this was my case !) you can restart the freshly installed guest Fedora 8:



Warning: when you reboot the current Qemu machine you will go again to the installer (imagine you forgot to remove the CD)…

5. FIRST BOOT

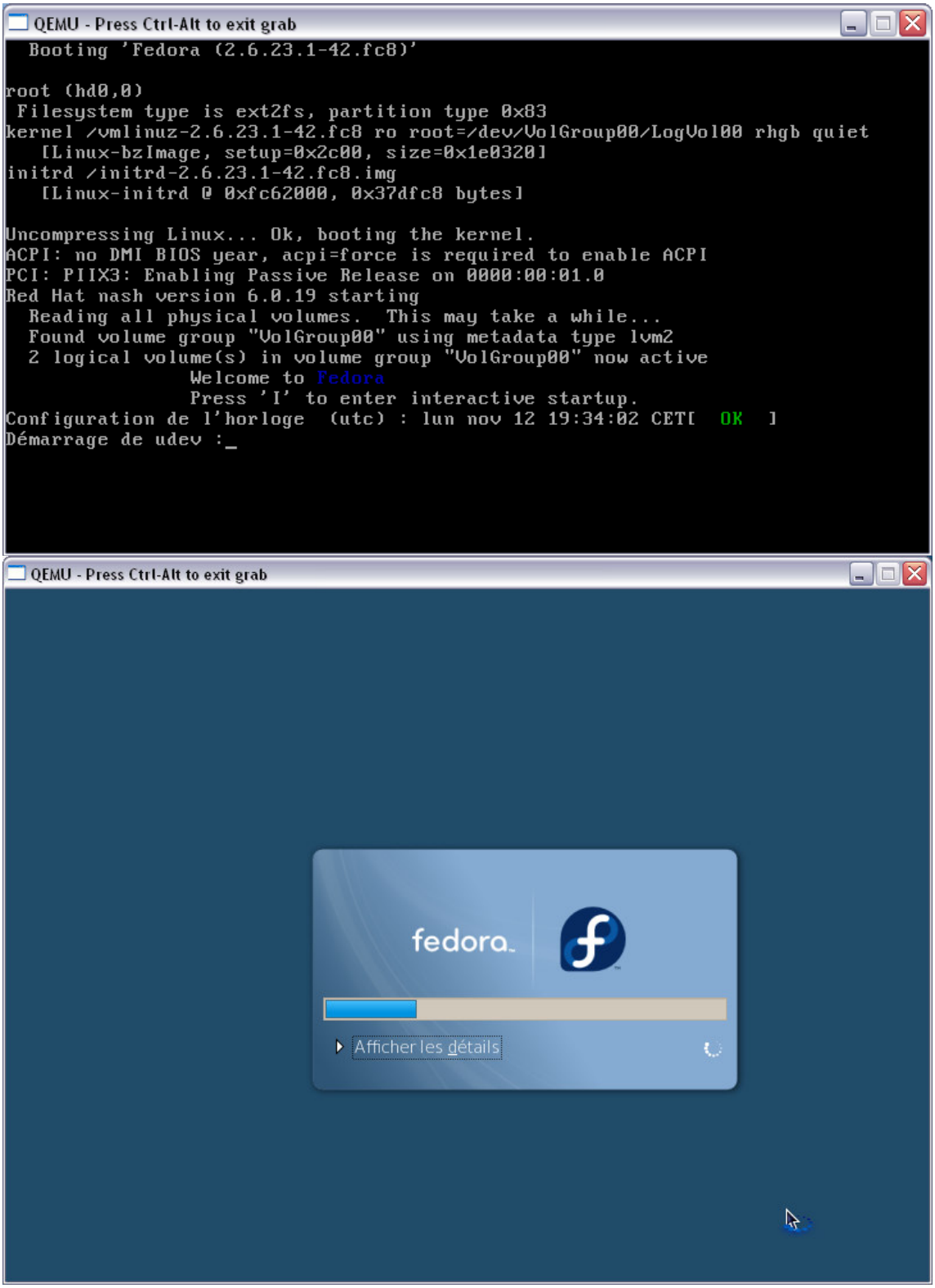
5.1 LAUNCH QEMU

For finalising the installation of the new system you must first restart qemu with this modified command line:

```
qemu.exe -L Bios -m 256 -hda Images\fedora8.img -soundhw all -localtime -M
pc -net nic,model=ne2k_pci -net user -no-acpi
```

It will then start **grub** from the freshly installed disk image:

The kernel + init + the graphical boot display are now starting:

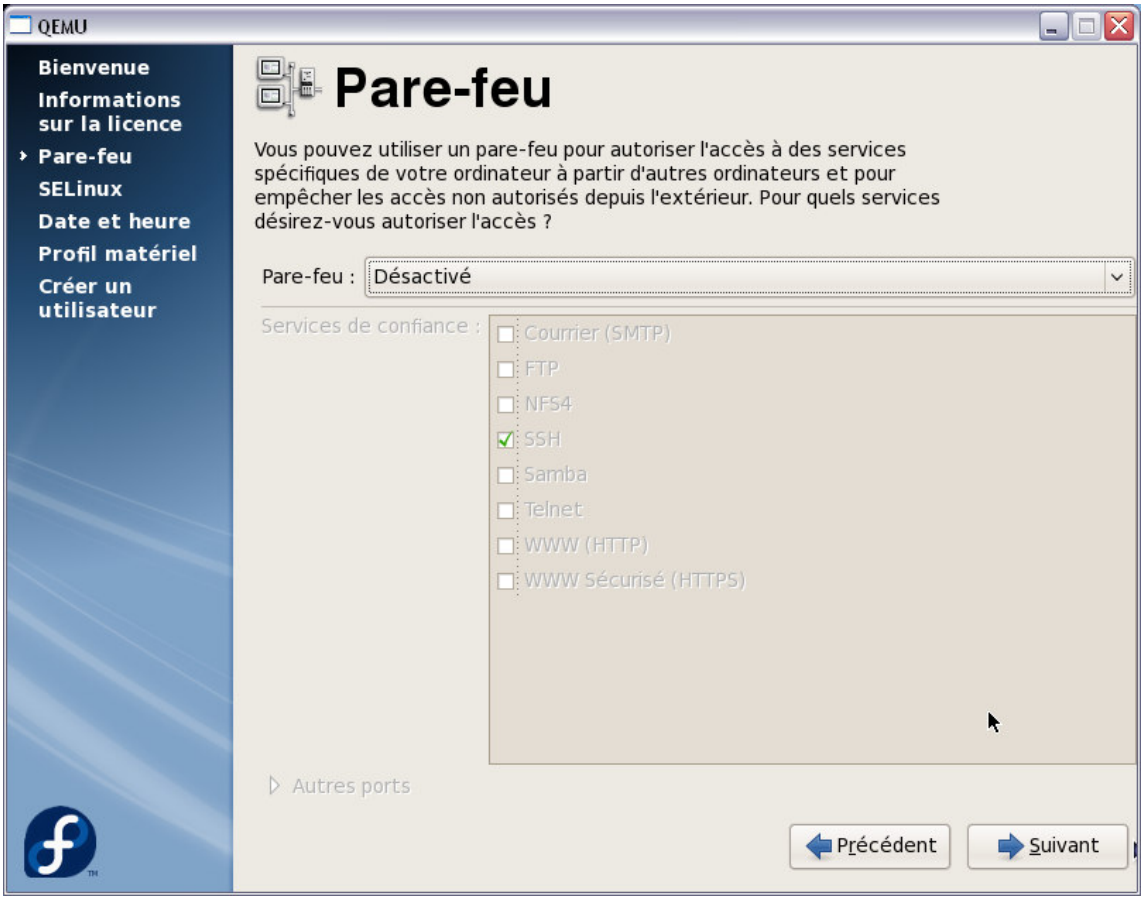


5.2 FIRSTBOOT APPLICATION

And you will need to configure for all different steps (seen on the left of the screenshot above).

5.2.1 Firewall:

In your guest machine this is not needed:

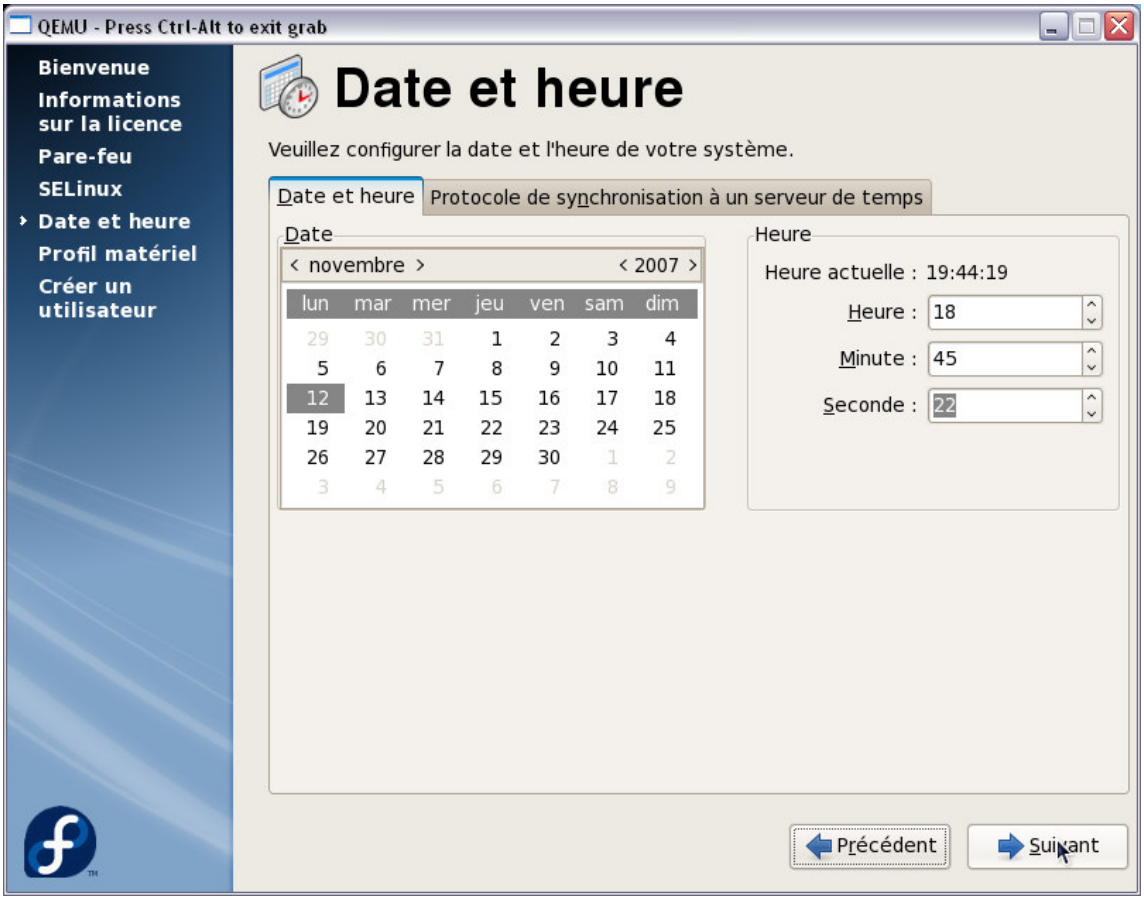


5.2.2 SELinux

In your guest machine this is not needed:

5.2.3 Date and time

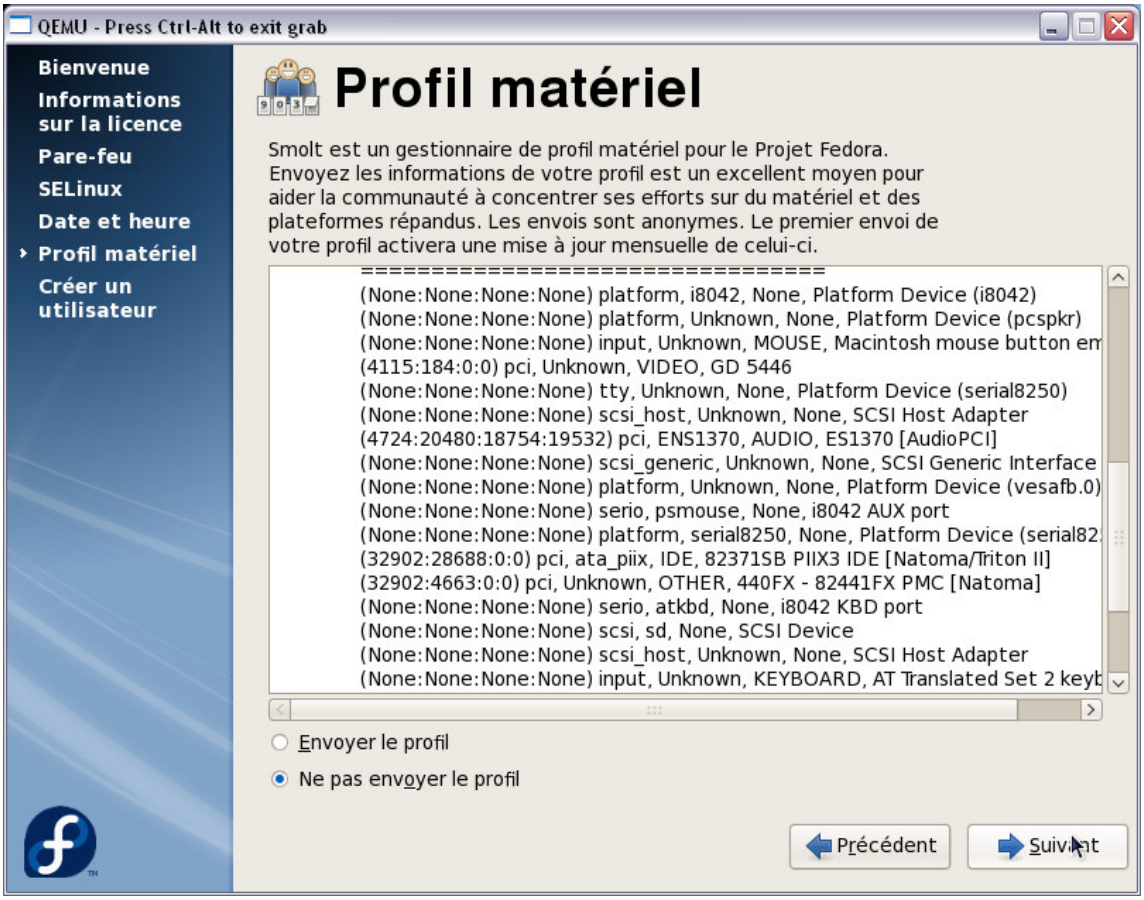
Update time if needed:



Choose to enable ntp if possible.

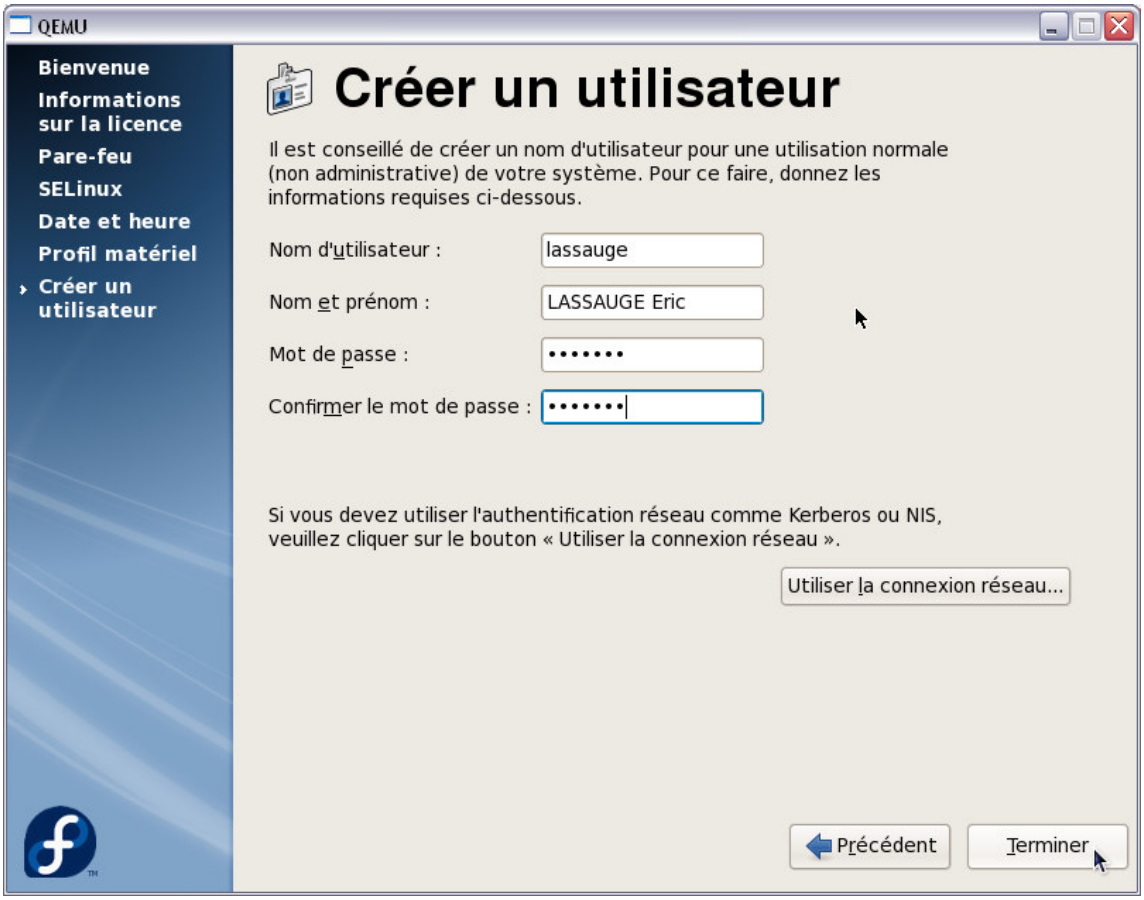
5.2.4 Hardware profile

You can check here the Qemu virtual machine:

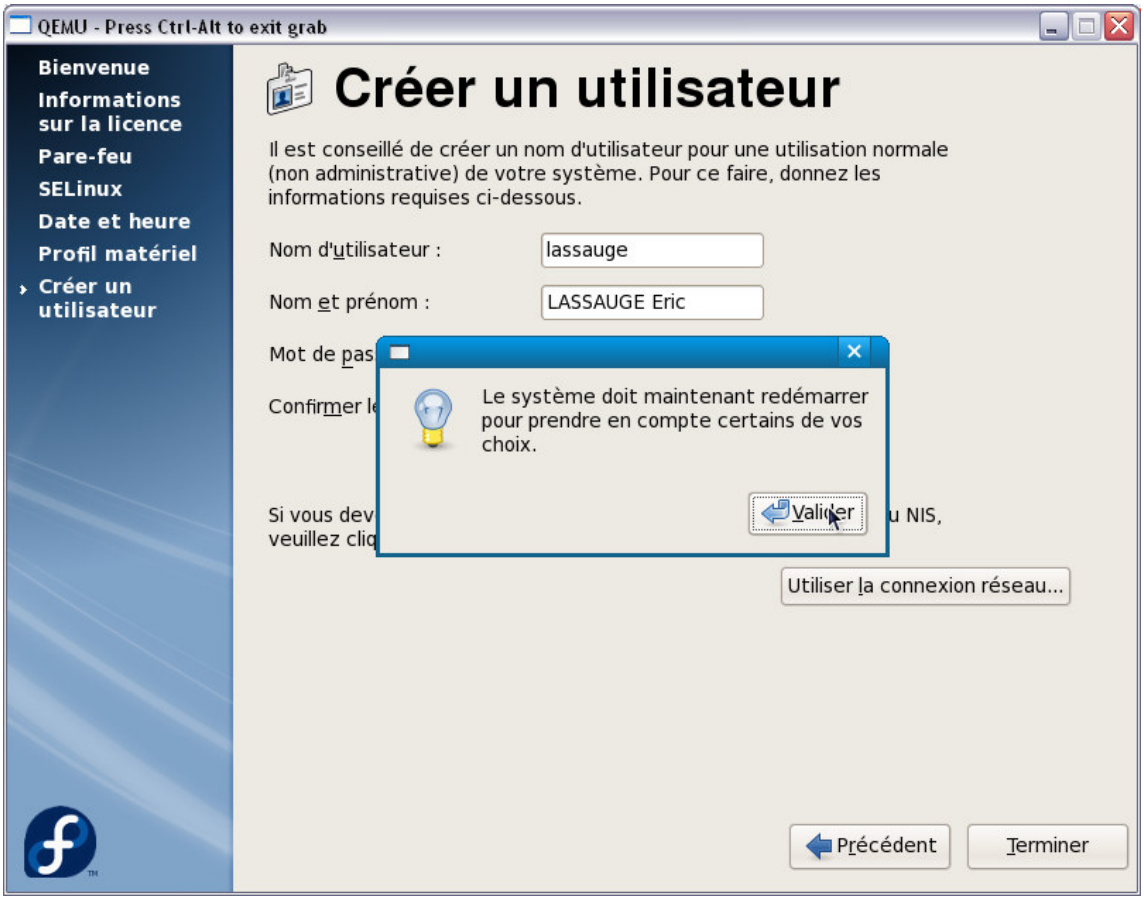


Audio device is an ES1370 and graphic card is a GD 5446. I choose not to send the profile but it's up to you.

5.2.5 Create user



Now it’s time to really restart:



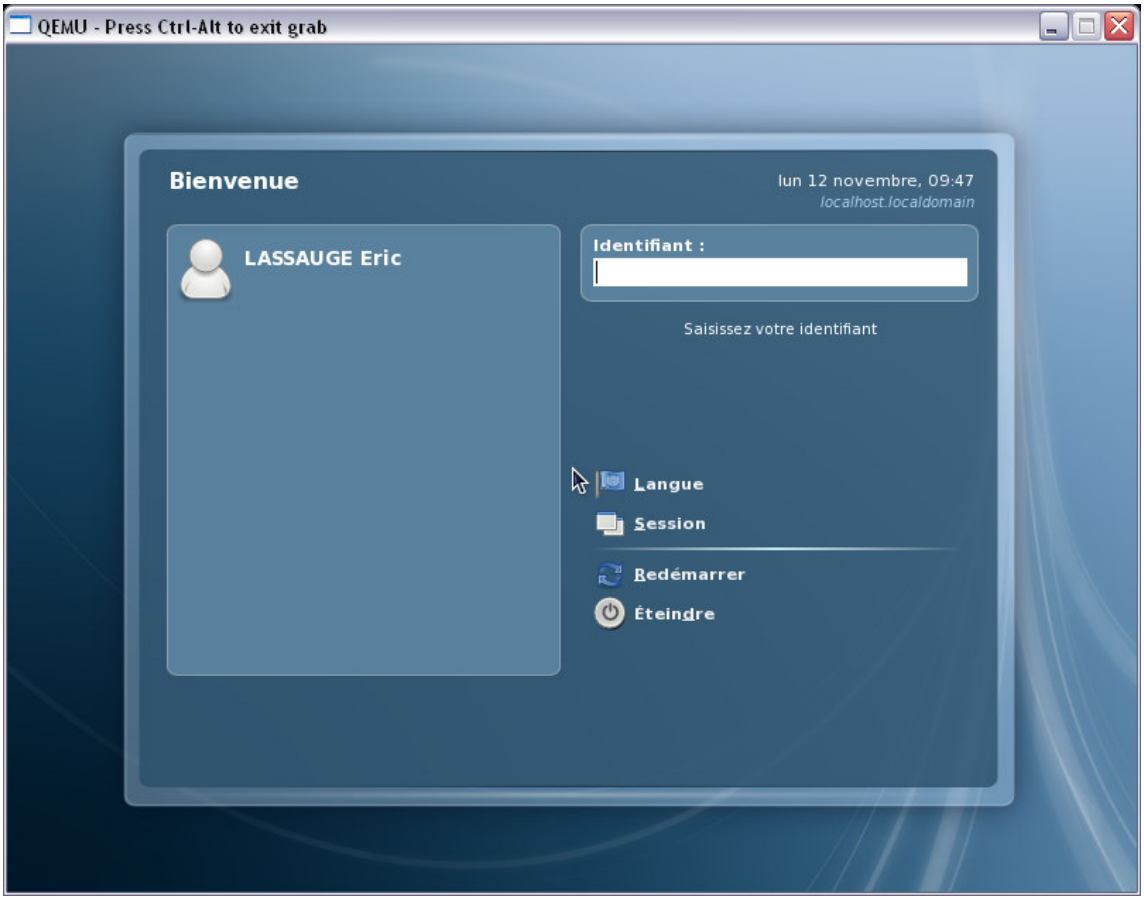
Restart and have fun with your installed Fedora 8

6. ADITIONNAL CONFIGURATIONS

Once rebooted, you can now upgrade/install the missing packets.

6.1 LOGIN SCREEN

New Fedora theme for **gdm** with face option:



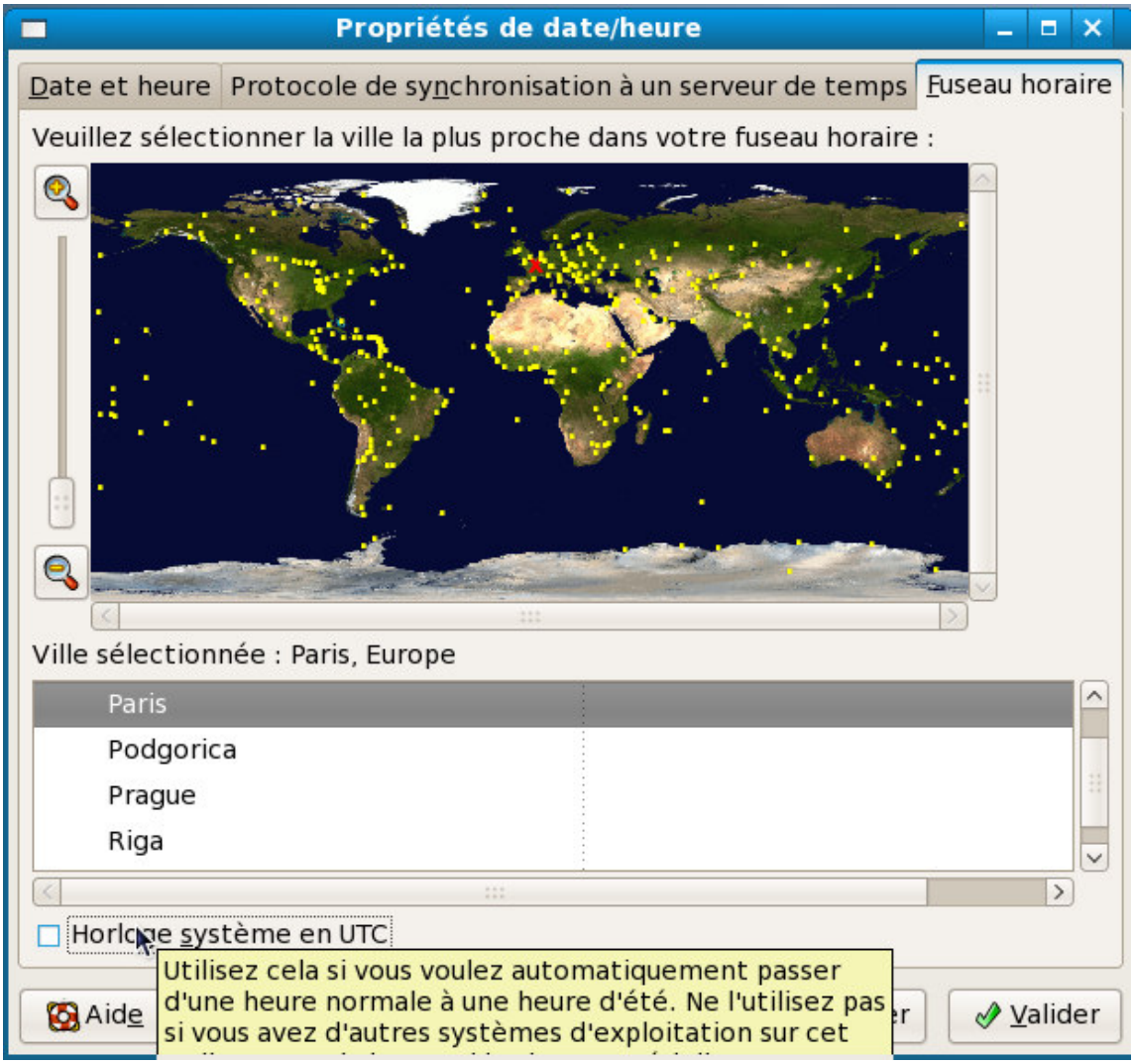
6.2 UPGRADING

For upgrade first start a yum update process (log as root in a terminal window):

```
root% yum update
```

6.3 CORRECT CLOCK SETTING

If you forgot to uncheck the box in step 4.3.4, you can use the Settings menu to uncheck it (this needs to be done as root, and you will be prompted for the root password to do this):



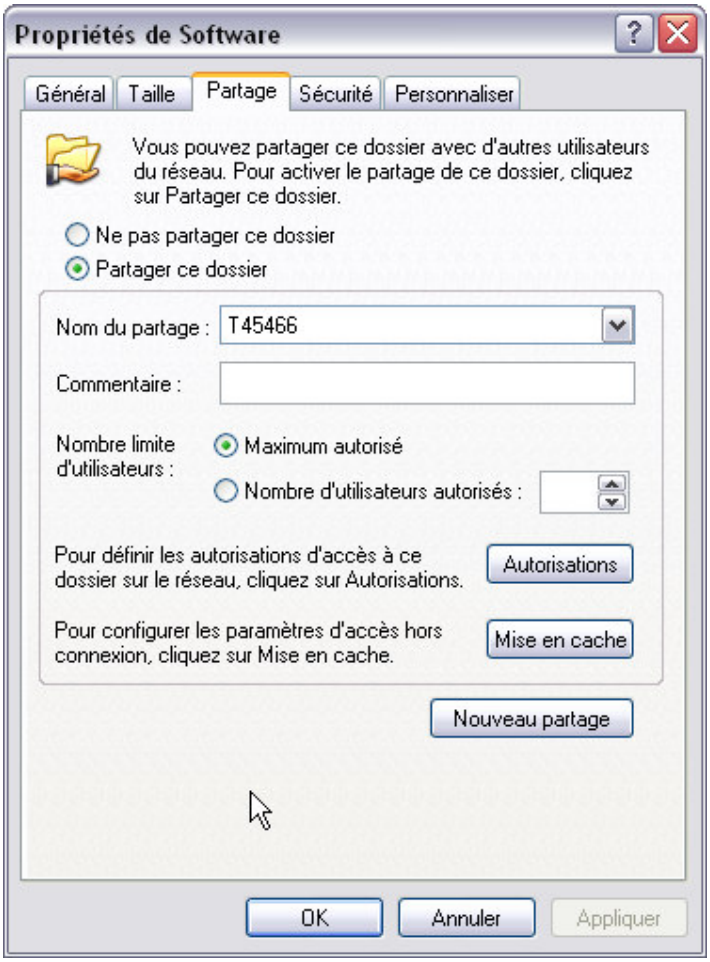
7. SHARE DATAS BETWEEN HOST AND GUEST SYSTEMS

Some definitions:

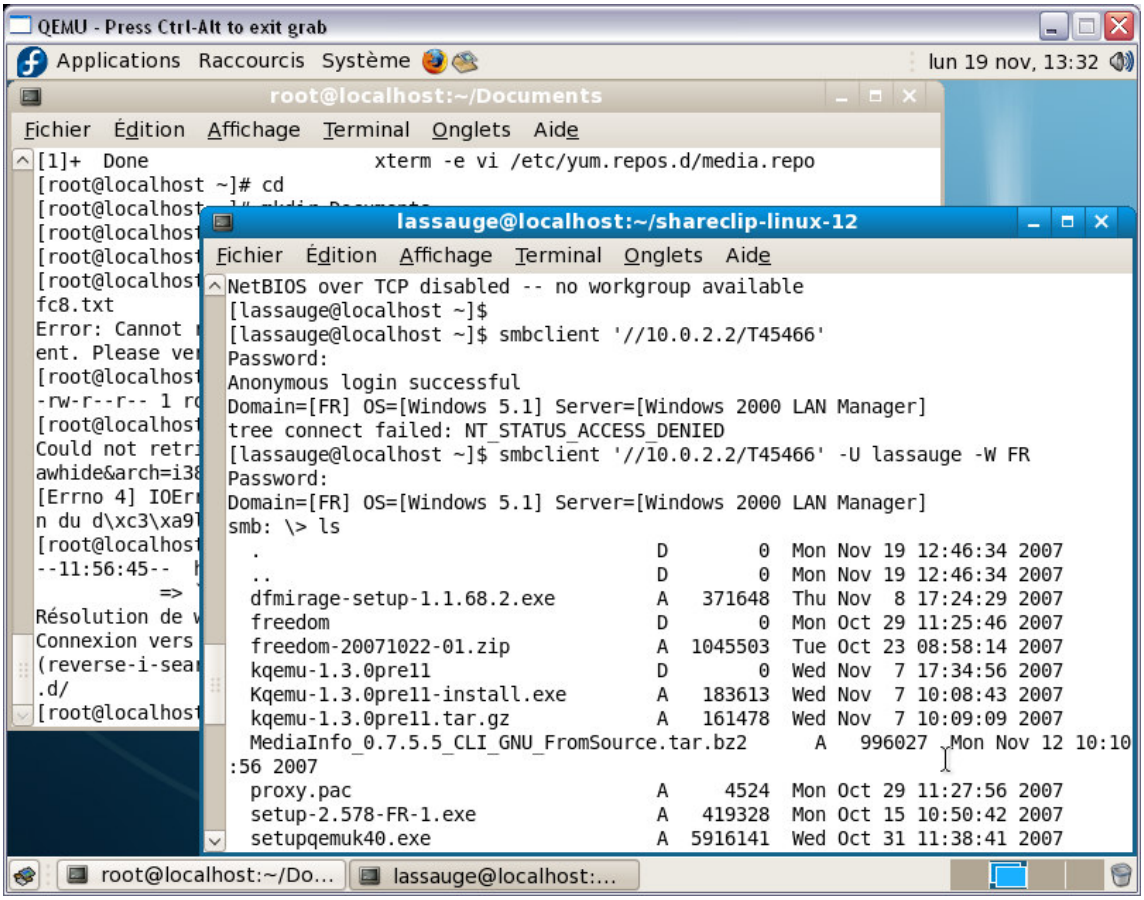
Host	System where Qemu is started : the real hardware	Windows XP
Guest	System « running under » Qemu in the virtual machine	Fedora 8

Using CIFS (windows share):

In the host system, enable folder sharing (right click on the folder) :



In the guest system, connect with **smbclient** (rpm package **samba-client-3.0.26a-6.fc8**) to be able to browse the shared directory and copy some files.



The command line in the guest Fedora 8 is:

```
smbclient '\\10.0.2.2\T45466' -U lassauge -W FR
```

Options :

`smbclient`	ftp-like to connect to windows share
`\\10.0.2.2\T45466`	Host system is seen as 10.0.2.2. T45466 is the name given to the share in host system.
`-U lassauge`	User 'lassauge' (known from host system)
`-W FR`	Workgroup of user lassauge in the real system.

Now a simple *get* is enough to copy from the shared area.

8. INTERFACE GRAPHIQUE

As the default size of the X screen is a bit too small, we can modify the X.org configuration to have some biggest resolutions:

Use a text editor to modify the file */etc/X11/xorg.conf*. Before *Device*; insert the following section:

```
Section "Monitor"
  Identifier "Monitor0"
  HorizSync 31.5 - 95.0
  VertRefresh 59.0 - 75.0
EndSection
```

In the *Screen* section, between *Device* and *DefaultDepth*, add this line:

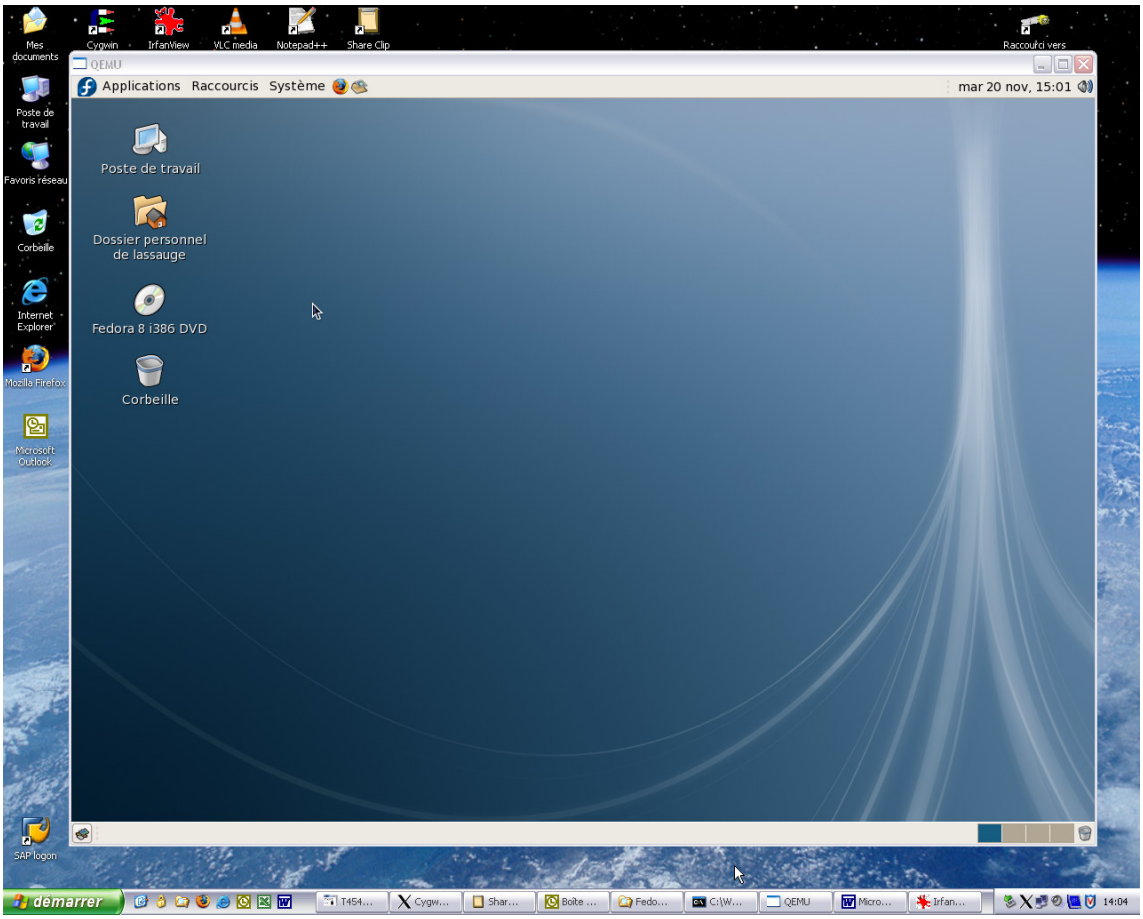
```
  Monitor "Monitor0"
```

Finally, in subsection *Display* add this list:

```
  Modes "1152x864" "1024x768" "832x624" "800x600" "640x480"
```

Log off and reconnect to see the new graphical screen. Note that the poor emulated graphics card has only 4 Mbytes of RAM an cannot reach higher resolutions (this value in confirmed by reading */var/log/Xorg.0.log* : `(--) CIRRUS(0): VideoRAM: 4096 kByte`).

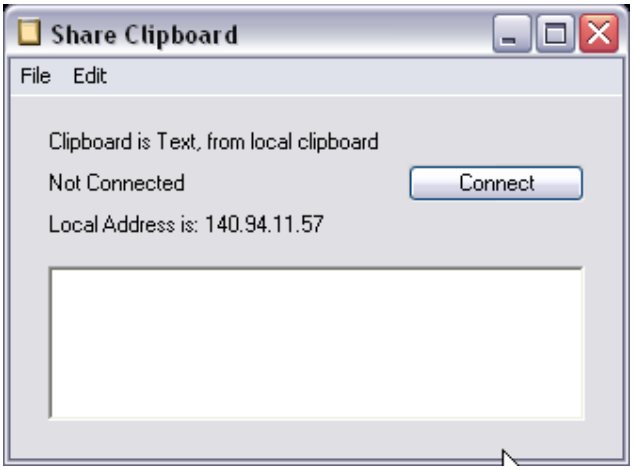
See this screen dump, after the update, and compare with the one in section 7:



9. SHARED CLIPBOARD

For exchanging between host and guest systems you can use a network clipboard. Download Share Clip for both systems.

On Windows first start Share Clipboard:



On the guest Fedora you must first ensure that *compat-libstdc++* is installed (use *yum install compat-libstdc++* if it's not the case) before starting the linux version of Share Clip. Then click on *Connect* and use the IP address of the host system (as seen from the guest): `10.0.2.2`

Now each copy paste is reflected in both Share Clips: