# Installing Red Hat Linux version 9

## 1   Aim

The aim is to perform a network installation of Red Hat 9 Linux with all updates.

## 2   Background

You may read the *The Official Red Hat Linux Installation Guide* for Red Hat 9 at `http://nicku.org/doc/rhl-ig-x86-en-9/`. There is also *The Official Red Hat Linux Getting Started Guide* at `http://nicku.org/doc/rhl-gsg-en-9/` and *The Official Red Hat Linux Reference Guide* at
    `http://nicku.org/doc/rhl-rg-en-9/`.

However, we will perform a network install over NFS using a boot disk made from the file `bootdisk.img`. You will also need a network card driver disk made from `drvnet.img`.

## 3   Procedure

### 3.1   Installation

1. As before, get a boot disk, network card driver disk and hard disk from your supervisor, carefully insert your hard disk into the mount, and push it in firmly. Boot the computer from the boot disk.

2. When you see the startup screen with the `boot:` prompt at the bottom, press (Enter).



**Figure 1:** Select `English` here.

3. Accept the defaults for Language (English) (see figure 1), and then for the keyboard (us). See figure 2 on the next page.

4. At the screen shown in figure 3 on the following page, select NFS Image.

5. Use the spacebar to put a "*" as shown in figure 4 on the next page, then press (Tab) to OK, and press (Enter).

**Figure 2:** Selecting the keyboard.



**Figure 3:** Selecting network installation by NFS (**n**etwork **f**ile **s**ystem).

6. Enter the server name `nicku.org` and directory `/var/ftp/pub/rh-9-updated`.

   There may be a long delay while the installation program goes into graphics mode.

7. If your mouse does not have three buttons, select Emulate 3 buttons in the screen shown in figure 5 on the following page.

8. Click past the welcome screen.

9. **Important:** Select Custom when you see the screen in figure 6 on the next page.

10. If you need to partition your hard disk, refer to the handout "Partitioning the hard disk".

11. You need to mount `/dev/hda9` (the last partition) on `/`. *Make sure you only select partions that start with* `/dev/hda`, otherwise you will format a partition that the technician has lovingly installed. He will not be your friend anymore. Take great care.

12. Go through the list of partitions on `/dev/hdc` that say "yes" to format them, and click on Edit, and ensure that you leave the partition unchanged.

13. If (and *only* if) you have installed Windows 98 on `/dev/hda1`, then edit this point and enter "`/win98`'' as the mount point.
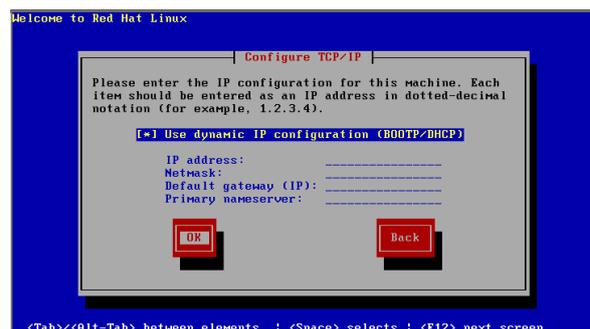


**Figure 4:** Selecting to use DHCP.

**Figure 5:** Make sure you select Emulate 3 buttons if your mouse does not have three buttons.
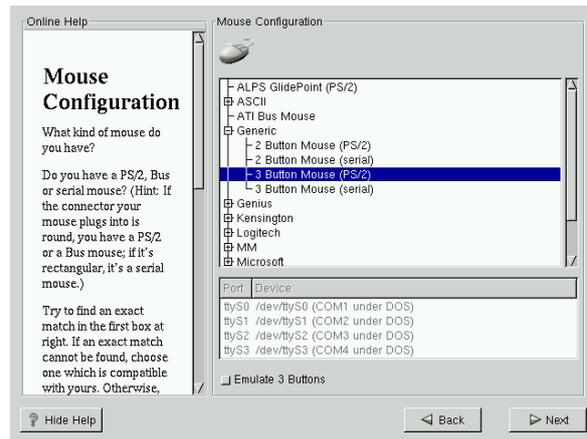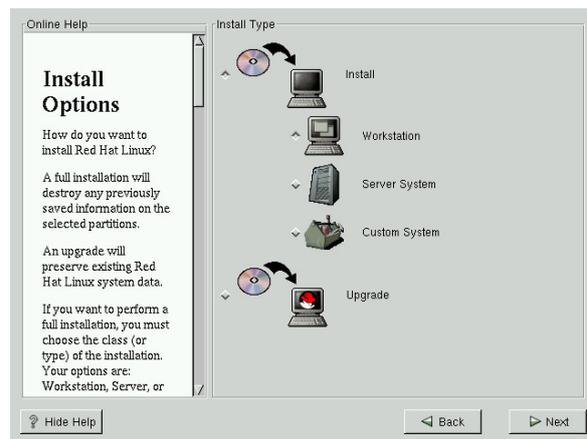
**Figure 6:** Select Custom here.

14. At the screen "Choose Partitions to Format", *make sure* that only your root partition and your swap partitions are selected, or our technicians will not be your friends.

> If you see a message box that says, "Warning: Boot Partition / man not meet booting constraints for your architecture. Creation of a bootdisk is highly encouraged", that's oaky: it is warning you that the root partition goes beyond cylinder 1024, as we discussed in the lab sheet about partitioning. Press the button, "Add Anyway", and do not skip creating the boot disk at the end of installation!

**Figure 7:** Select the Hong Kong time zone here; click on the map.
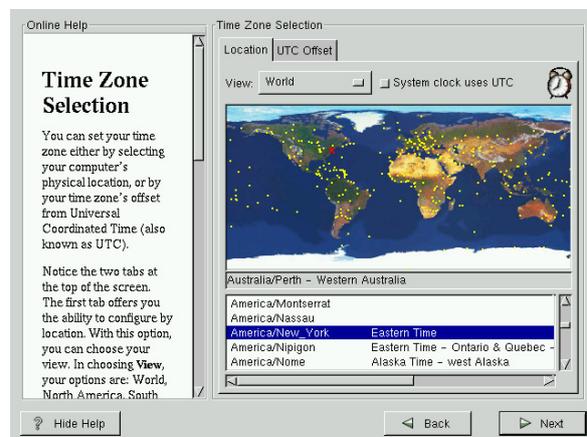
15. Select Hong Kong for the time zone when you see the screen in figure 7. Click on Hong Kong on the map.

16. At the Account Configuration screen, enter a root password. It should be at least

eight characters long, and easy for you to remember, but hard for others to guess. I suggest use a funny phrase and take the first letter from each word, and add some punctuation and number characters. Remember your root password. You could write it on a small piece of paper and put it in your wallet or purse (not on this lab sheet!)

17. There is no need (just in the College) to enter a normal user account for yourself. You will use the LDAP account that already exists for you. Your personal account is the account you should use most often.

> The *root* account is used to administer the system. The root user is sometimes called the *superuser*. The root account has the power to delete any file, destroy anything, and to stop the whole computer from working with only a few keystrokes.

> Your normal user account is what you should use for day-to-day use of the computer. It does not allow you to delete system files, or to do things that will destroy the Linux installation.

18. Make sure that *there is **no** firewall*, or you will be unable to log into your system.

19. At the Authentication Configuration screen, select "Enable LDAP". For "LDAP Server", enter: `ldap.tyict.vtc.edu.hk`; for "LDAP Base DN" enter `dc=tyict, dc=vtc,dc=edu,dc=hk`

   Also, check the box: "Use TLS lookups." This ensures that your password information is encrypted before being sent over the network.

> LDAP is an open protocol that provides what is known as a *directory service*. Proprietary directory services include Microsoft's "Active Directory" and Novell's NDS (Novell Directory Services). Both of these are based on LDAP, which stands for "Lightweight Directory Access Protocol." The "base DN" is the starting point in the directory tree where searches for user and other such information begin.

> Your lecturer will explain some of this during the class.

20. At the stage where you select what packages to install, I suggest that you select *all* the options, except for the last option labelled "Everything".

> In practice, you should restrict what you install to the services that are required. We are installing most things today so that you can investigate what is provided.

21. Accept defaults for most other options. Your lecturer will tell you of any exceptions.

22. When you see the final screen, make sure that you leave "Create a boot disk" checked. You will need *your own* floppy disk for this later.

## 3.2 Some important points of the installation

- No need to make an account for yourself; you will use your LDAP account, which already exists.

- Remember your root password.

- When asked if you want to create a boot disk, *do so*. You *will need it* later, probably in Albert's class.

- If time runs out, and you really need to abort the installation, then press
  (Alt–Ctrl–Delete) to stop the program. Do not just turn off the power. Perhaps the
  partition table of your disk may be damaged if you turn it off while it is writing
  data.