

Keeping Linux Up-To-Date

It is important to keep the Software Team's Linux workstations up-to-date, with security fixes and bug fixes. This document describes the procedure for updating a workstation via the Internet.

Table of Contents

Introduction	1
Using the RHN Alert Notification Tool	1
After a Kernel Update	2
Removing Redundant Kernels.....	2
Downloading Packages from RHN.....	2

Introduction

For each of the Software Team's Linux workstations, RFPK has purchased a subscription to use the RedHat Network (RHN) for keeping Linux up-to-date. This subscription also enables priority downloads of any of the large number of software packages that are offered by RedHat.

It is important to make use of RHN at frequent intervals, to keep your system current. Updating does not have to take much time away from other work. While the process is going on, most of the time is spent in data transfer. During that period, you can also be using your workstation for other things. Let the files download and then go back to the updating process when all the files are there.

With the exception of a kernel update, there is no need to reboot after an update is complete. With the kernel, you first need to make a new boot diskette, and then use that to boot.

Using the RHN Alert Notification Tool

On the panel at the bottom of your desktop screen, you should have a small circle with a check-mark in it. This is the icon for the alert notification applet. When it is red, there are updates available to packages installed on your system. When it is blue, all packages are up-to-date. Green means that updates are in progress.

Whenever you notice that the alert notification icon is red, and you have a few spare moments, click on it and then click the **Launch up2date** button. It is most convenient to do this with an empty workspace on the screen, so that the up2date windows do not get mixed up with your other work.

The up2date wizard presents a list of "channels". Select the channel which corresponds to the release of Linux installed on your workstation. Generally, there will be only one choice, because up2date is smart enough to know this.

The wizard will then refresh its own information about any updates available for your system. It will give you a list to choose from. In the case of kernel updates, ask Alan Westhagen first whether or not that update is worth performing. For everything else, just select them all.

From that point on, just let up2date do its work. Occasionally check back. Since up2date is interactive, it may be waiting for an acknowledgment from you.

When up2date says that it is finished, you are done, as well. You do not have to reboot, unless you updated the kernel. The next section discusses what to do in that case,

After a Kernel Update

If you boot Linux from the hard drive, there is nothing more to do. The next time you boot, the machine will come up on the new version of Linux.

If your machine is dual-booted and you use a diskette to boot onto Linux, you will need to make a new boot diskette and a new backup boot diskette. Here is the procedure to follow.

1. Determine the version number of the new kernel. The **rpm** command can be used to list all packages installed on your workstation, and **grep** can be used to filter out every line that does not contain the text "kernel-" followed by a digit:

```
rpm -qa | grep kernel-[0-9]
```

The kernel package with the largest version number is the new one.

2. You probably have three boot diskettes. Two of the diskettes are for the version you currently are running. The third is for the version that you ran previously. Take that third diskette and insert it in your diskette drive.
3. As root, execute the **mkbootdisk** command, giving the version number as argument. For example, if you just installed the package `kernel-2.4.20-13.8`, you would enter the following command lines:

```
su
/sbin/mkbootdisk 2.4.20-13.8
```

Repeat the previous two steps, in order to make a backup copy of the boot diskette. Use one of the two diskettes containing the version you are currently running.

4. Boot onto the new kernel, using one of the diskettes you have just made.

Removing Redundant Kernels

You only need to have two kernels installed: the current kernel and the previous kernel. To reduce clutter, you can remove old kernel packages. Suppose that the **rpm -qa | grep kernel-[0-9]** command line returned the names of three kernel packages, and that `kernel-2.4.14.8.0` was the oldest of them. To remove that package, use these commands:

```
su
rpm -ev kernel-2.4.14.8.0
```

You can get a list of all kernels installed by using the rpm query function:

```
rpm -qa | grep kernel
```

Downloading Packages from RHN

When the Software Team workstations were originally set up for Linux, a large number of packages were installed, especially in the area of tools for software development. There are, nevertheless, many additional packages available.

For the great number of packages that are put together by RedHat, RHN is the most convenient as well as the most secure source. Just go to the RHN¹ site, login, and click on the **software** button. You should then be able to find packages for the release of RedHat Linux that you are running.

If RHN doesn't have it, there are a number of other sources for rpm packages. A good place to look is rpmfind², which is mirrored by speakeasy.net, in Seattle.

Notes

1. <http://www.redhat.com/software/rhn/>
2. <http://www.rpmfind.net/>

