

In Black Lab Enterprise Linux, you don't need to download and install packages separately. Instead, repositories contain sets of packages. These repositories are then accessed with package managers in order to add, remove or update the packages.

Black Lab Enterprise Linux comes with three package managers installed:

Synaptic, the traditional Debian package installer

Gnome Software, a simple graphical user interface to install new software.

apt-get, a command-line tool that can be used for advanced package management. For more information on apt-get, see the Debian apt manual.

### **Individual Package Installers**

gdebi - The traditional Debian individual package installer

[Note]

You will need administrative access to add and remove software.

[Caution]

In most cases you can only use one package manager at a time. If you start another package manager while one is already open, you may receive an error message. In this case it is likely the second package manager will not function correctly.

### **Using Gnome Software**

You can launch Gnome Software from → Software.

### **Installing new software**

Search for an application or select a category to find an application you want to install

From the application page, click Install

You will be asked to enter your password; once you do that, installation will begin

A shortcut to your application will added to the Applications menu

[Note]

To be able to install new software from the repositories, you need to

be connected to the Internet. See Chapter 10, Offline Package Management for information on using apt-offline.

## Removing software

Click Installed on the top panel

Find the application that you want to remove by using the search box or looking through the installed applications

Select the application and click Remove

You may be asked to enter your password; once you do that, the application will be removed

### [Caution]

Some applications depend on others being installed in order to work properly. If you try to remove an application which is needed by another application, both of them will be removed. You will be asked to confirm that this is what you want to happen before the applications are removed.

### [Note]

Gnome Software does not remove dependencies installed with a package. To remove any dependencies no longer needed, run `sudo apt-get autoremove` in a terminal. Before agreeing to the command continuing, check that the packages being marked for removal are as expected.

## Additional software repositories

### *Enabling more repositories*

It is possible to add extra repositories, such as those provided by third parties. To enable more software repositories:

Open → Settings Manager → Software & Updates or → Software → Software & Updates and go to the Other Software tab

Press Add... to add a new repository.

Enter the APT line for the extra repository. This is available from the website of the repository in the majority of cases and it should look something like the following: `deb http://ftp.debian.org etch main`

Press Add Source and then click Close to save your changes.

You will be notified that the information about available software is out-of-date. Press Reload.

Most software repositories use a GPG key to digitally sign the files they provide, which makes it easy to check that the files have not been tampered with since their creation. In order for apt to be able to check this, you need the public key that corresponds to the signatures. The key should be available for download on the repository's website. Once you have downloaded the GPG key, import the key by selecting the Authentication tab, clicking on Import Key File, and then selecting the GPG key to be imported.

#### [Caution]

Be careful when installing software from third-party repositories. It may not have been officially tested with Black Lab Enterprise Linux and could cause your system to break.

### **Installing packages without an Internet connection**

#### *Adding discs as software sources*

To add a disc as a software source for your system:

Insert a disc which contains packages; e.g., the Black Lab Enterprise Linux installation disc which comes with a limited selection of packages

Open → Settings Manager → Software & Updates and go to the Other Software tab

Press the Add Volume... button; you will be prompted for your password

After adding the disc to the software sources, you will be able to install packages from the disc.

### **Helpful application**

If you have less than optimal Internet access, apt-offline allows you to use another computer with better access to download packages and check for package updates like security fixes. All you need is time, patience, and a portable USB storage device.

### **Changing update frequency and behavior**

You can change the frequency of the check and the way in which updates are handled. When Software Updater runs and presents you with its dialog, there is a Settings button at the bottom. Pressing this will open the Software Sources dialog at the Updates tab.

Alternatively, you can access the settings dialog by going to → Settings Manager → Software & Updates and opening the Updates tab.

The following settings can be changed from this dialog:

### *Update Sources*

Important security updates - Updates that fix critical security flaws are made available through this source. It is recommended that all users leave this source enabled (it should be enabled by default).

Recommended updates - Updates that fix serious software problems (which are not security flaws) are made available through this source. Most users will want to leave this source enabled as common and annoying problems are often fixed with these updates.

#### [Caution]

The following updates should be used with some caution.

Pre-released updates - Updates that are currently being tested before being released to everyone are provided through this update source. If you would like to help test new updates (and get fixes for problems more quickly), enable this source. Be aware that these updates may not yet be well tested; it is not recommended that you enable this source unless you are prepared to experience occasional problems.

Unsupported updates - When new versions of popular software are released they are sometimes "backported" to an older version of Black Lab Enterprise Linux so that users can benefit from new features and fixes for problems. These backports are unsupported, may cause problems when installed and should only be used by people who are in a real need of a new version of a software package that they know has been backported.

### **Other options**

Package updates can be scheduled from the desktop and you can change how and when the system updates itself.

Frequency of check - Allows you to schedule when to check for updates

Checking and installing updates automatically - Allows you to define if the system downloads and install updates without confirmation or downloads all updates in the background but waits for you to manually install them

Displaying notifications about security updates - Allows you to define when will the system notify you about available security updates