

Bio-Linux 6 Installation Guide

Bio-Linux 6 marks the transition of Bio-Linux from a 32 bit system to a 64 bit system.

For Bio-Linux 5 users, this means you need to install the new system, rather than just upgrading in place.

Backing up your existing files

You must **save all your up important files and databases** on your system **before installing** Bio-Linux 6.0. The default installation will remove all data on the system.

Information about backing up Bio-Linux machines can be found on our website at: <http://nebc.nerc.ac.uk/tools/bio-linux/other-bl-docs/backing-up-and-restoring>. We draw your attention specifically to the sections about identifying what files to back up, compressing data into a tarball, saving the data, and the database section.

Starting the installation process

- 1 – Insert the DVD into the DVD drive or the USB stick into a free USB port.
- 2 – Make sure the computer is set to boot first from DVD or from a USB port as appropriate.
- 3 – Reboot/Boot the computer.
- 4 – On the screen you will have 2 options to choose from. **Try Bio-Linux** or **Install Bio-Linux**. Choose **Install Bio-Linux**.

If you chose to run the live session by choosing the option “*Try Bio-Linux*”, you can choose to install Bio-Linux from within the Live session by clicking on the Install icon that appears on the Live session desktop.

An installation wizard will appear to guide you through the rest of the process.

Installation wizard steps

The installation process starts with some simple choices of your time zone and keyboard setting of choice. The first complex decision is that of:

Disk space

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- If you want to run Bio-Linux 6 as the sole operating system, choose the option to **Erase and use the entire disk**.
- If you have two disks, choose one of them to install Bio-Linux onto. An icon on the desktop of the administrative account will allow you to configure the backup system to save backups to the the second drive.
- If you want to install Bio-Linux 6 on a machine already running another operating system and you wish to keep that system on your computer, then choose the option **Install them side by side, choosing between them each at startup**.
- If you want any more complex setup than the above, you can choose the option to **Specify partitions manually**.

Administrative User

You are required to create an account during the installation process. This account will automatically be given administrative privileges. Please refer to our user guide for more on this topic. All future accounts can be created by this user.

Ready to install

After you create the administrative user, you will be presented with a summary of all the choices you have made. You can also click on the Advanced button to provide information about the location of the boot loader or Network proxy.

Once you are happy with your choices, press the **Install** button to start the installation process.

Restart computer

Once the installation process is complete, you will be prompted to reboot your computer. After it shuts down, but before it has booted to Bio-Linux again, remove the DVD or USB stick from the drive. If you don't do this, you will again be presented with the menu offering you the choice of trying Bio-Linux live, or installing it. If this happens, just choose to **Try Bio-Linux** and then use the menu at the right of the top taskbar to shutdown the machine again, so you can remove the USB stick or DVD.

Your new Bio-Linux 6 system is now fully installed and ready to use.

Please refer to the Bio-Linux Userguide (available on your Bio-Linux desktop) if you need to configure your network settings to a static IP address.

Appendix 1 - Setting up your network

Your local network settings will be particular to your university or institution so please consult your local IT support regarding your settings. If your local network uses DHCP the **Roaming network** mode should detect your network. However, if you have a static IP address you will need to ask your IT people for an **IP address hostname, domain, gateway and DNS addresses**.

To reconfigure your network settings open **System -> Administration -> Network**. To modify the settings for any of your network devices you will first need to click **Unlock** and enter your root or administration (manager) password.

To setup a wired ethernet connection click on **Wired Connection** and then **Properties**. Firstly, unclick Roaming network and select **static IP** and enter the details of your network. Under the **General** tab you can enter your hostname and network domain, and under the **DNS** tab enter the addresses of your DNS servers. Clicking OK will save your settings and restart the network automatically.

Further information on setting up your network can be found on the [Ubuntu documentation](#) pages.

Appendix 2 – booting from USB on Dell 650 machines

The NEBC supplied many researchers with Dell machines to run Bio-Linux on. Many of those funded under the NERC Environmental Genomics Programme received Dell 650 machines. While most Dell machines will boot off a USB key or DVD in preference to the hard drive by default, the Dell 650 machines did not come with DVD drives, and the extra steps outlined below may be necessary to configure them to boot off a USB key.

From fresh boot, wait for a message on the top right-hand corner saying:

F2 = BIOS setup
F12 = Boot Menu

Hold down F2 until you are directed to the BIOS setup screen.

Go to Hard-Disk Drive Sequence and press Enter. Make sure the order is:

1. System BIOS boot devices
2. USB device (not installed)

Next go down to Boot Sequence and tick all options with the space-bar. Make sure the order is:

1. IDE CD-ROM Device
2. Hard-Disk Drive C:
3. Diskette Drive

Now go down to Integrated Devices (LegacySelect Options). Make sure that USB Emulation and USB Controller are set to On.

Finally, select PCI IRQ Assignment and make sure that the last Intel Corp USB adapter is set to IRQ 9. Use the cursor keys (← and →) to change this setting.

Quit the BIOS and save.

When the computer reboots, hold down the F12 key to get the boot menu and select the device to boot from.