Bio-Linux 5 Installation Guide

Backing up your existing files

You must ***save all your up important files and databases*** on your system ***before installing*** Bio-Linux 5.0. 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.nox.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.

(Instructions for Dell 650 machines can be found in Appendix 2 of this document)

3 – Reboot/Boot the computer.

4 – On the screen you will have 5 options to choose from.

To immediately install Bio-Linux 5 on your system, choose option 2:

Install Bio-Linux 5

If you chose to run the live session by choosing the option "*Try Bio-Linux 5 without any change to your computer"*, 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. Depending on your machine, it may take a few moments before the wizard window pops up.

Installation wizard steps

An installation wizard will guide you through the steps needed to install Bio-Linux 5.

1 – Welcome – Choose the language to be used by your system.

2 – Where are you – Select the location of your computer.

3 – Keyboard layout - Choose the layout of your keyboard.

4 – Prepare disk space – Choose option **a** or option **b:**

a) If you want to run Bio-Linux 5 as the sole operating system on your machine (recommended for upgrading Bio-Linux 4 systems), choose the second option:

Guided partitioning(Erase entire disk)

If you have two disks, choose one of them to install Bio-Linux onto. An icon on the desktop of the administrative (manager) account will allow you to configure the backup system to save backups to the the second drive.

b) If you want to install Bio-Linux 5 on a machine already running another operating system and you wish to keep that system on your computer, then choose option 1:

Guided partitioning (Resize IDE1 master, and use free space)

5 – Who are you – You are required to set the details for the first account on this machine. This will be an administrative account, which means this user will have *sudo* privileges This account is similar to the manager account in Bio-Linux 4. All NEBC documentation assumes this user will be called ***manager***. All future accounts will be created by this user.

6 – Migrate Documents and Settings – Chances are that you will not have any users of operating systems suitable for importing. If you do, then choose the options appropriate for you.

7– Ready to install – You will be presented with a summary of all the choices you have made.

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

8 **– Restart computer –** Once the installation process is complete, you will be prompted to remove the DVD/USB stick from the Drive/USB port. Press **Enter** for the computer to reboot. Please refer to Appendix 1 if you need to configure your network settings.

Your new Bio-Linux 5 is now fully installed and ready to use.

Appendix 1 - Setting up your network

Your local network settings will be particular to your university or institution so please consult you local IT support regarding your settings. If you local network uses DHCP the **Roaming network** mode should detect your network. However, if you have 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.