

Getting Started with the EMAC LDC

This page covers the initial steps required to begin using the EMAC LDC. Since the EMAC LDC is built from a standard Debian Lenny GNU/Linux installation, additional details can be found on the Debian project documentation pages.

Hardware Setup

The EMAC LDC hardware should be connected just like any other computer system. Follow the brief steps below to make all required hardware connections and power-on the LDC.

1. Connect the monitor(s) to the video port(s) on the rear panel of the LDC.
2. Connect the USB mouse and keyboard to USB ports in the back of the LDC.
3. Connect the Ethernet port on the LDC to the local network using an Ethernet patch cable.
4. Connect the AC power cord to the back of the LDC, making sure that it is unplugged from the outlet first.
5. Plug the AC power cord into a 120V outlet on a power strip or surge protector.
6. Check that the monitor(s) are plugged into AC power and switched on.
7. Make sure the power switch on the back of the LDC is in the on position.
8. Push the power button on the front of the LDC. The LDC should begin to boot and a signal should be detected by the monitor in a few seconds.

If everything is connected properly, the LDC should continue booting and eventually display a login screen for the window manager. If this does not occur, double check all connections and contact EMAC technical support if additional help is required. Once the hardware set up has been completed, proceed by logging in to the LDC as described in the next section.

Logging In

The login screen for the LDC requires a valid username and password to be entered before the window manager will load. The LDC is configured with a single desktop user. Additional users may be added for allowing multiple developers to access the LDC while maintaining permission separation. The root user is also configured on the system, but root's credentials should never be used to login to the window manager. The default user accounts and passwords are shown in table 1 below.

Table 1. Default Accounts

Username	Password
developer	emac_inc
root	emac_inc

Never log in to the window manager as the root user!

The desktop will be loaded after logging in as the developer user. The default LDC installation is set up to use KDE (<http://www.kde.org>) as the window manager. Several common applications are accessible from the desktop and KDE panel, such as Firefox, Konqueror, Konsole, and EMAC Eclipse. The "K Menu" in the lower left corner of the panel provides menu-based access to most of the graphical applications installed on the system.

Basic Configuration

After successfully logging in, some basic system configuration should be performed such as setting the time zone, networking, appearance, and other preferences. To begin the configuration process, start the KDE *Control Center* by clicking on the K Menu and selecting *Control Center*. The initial page of the control center is shown in figure 1 below.

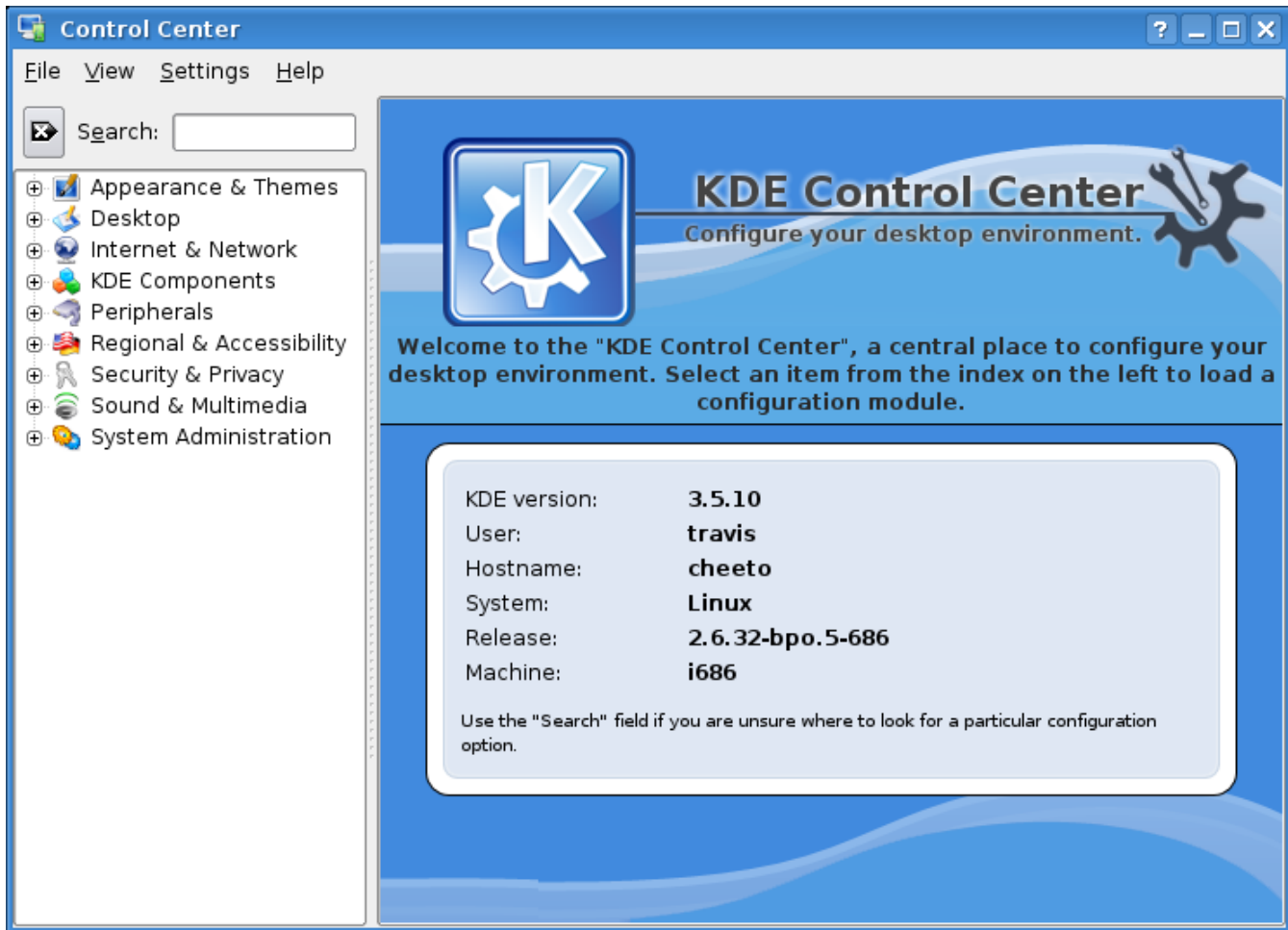


Figure 1. KDE Control Center

Each section in the index on the left of the *Control Center* window controls several configuration options. For example, the *Appearance & Themes* section includes settings for the desktop background, screen saver, themes, styles, icons, fonts, and other options. Some options require root privileges in order to change the value. If any option is grayed out due to insufficient permission, there will be a button labeled “Administrator Mode” in the bottom of the *Control Center* window. Pressing this button will prompt for the root password and allow changing administrative options.

Time zone

The system date and time is set by EMAC before shipping. The time zone will be set to Central time by default. Changing the password to the correct time zone for the region that the LDC will be used in will automatically effect the system time. Furthermore, the system time will be synchronized with NTP (Network Time Protocol) servers assuming that access to the Internet is available.

To set the time zone, select the *System Administration* → *Date & Time* option from the *Control Center* index. Although the current settings will be displayed, you will need to switch to Administrator mode as described above to be able to change the settings. Select the correct area matching the desired time zone from the menu. Note that it is helpful to sort the list by region by clicking on the *Region* column label.

After the time zone has been selected, click *Apply* to save the changes. The clock in the KDE panel should change to reflect the new time zone.

Networking

EMAC configures the LDC to automatically configure the network settings via DHCP. Most networks will support this configuration and it may not be necessary to change any of the network settings. If a static network configuration is desired or required, follow the procedure in this section to modify the network configuration. Note that it is often more convenient to use a static network configuration for development purposes so that the same IP address may be used for downloading software images and other common tasks.

Contact your IT department for more information if you are not sure what network settings to use for the local network.

Follow the steps below to change the LDC networking connections:

1. Select *Internet & Network* → *Network Settings* in the *Control Center* index. This should bring up a new page with the *eth0* device shown as enabled with an IP address if a successful lease has been obtained.
2. Click the *Administrator Mode* button and enter the root password to escalate permissions so that the settings may be changed.
3. Select *eth0* on the *Network Interfaces* tab and press the *Configure Interface..* button.
4. When the *Configure Device eth0* window appears, the TCP/IP address can be changed from DHCP to manual. Enter the desired IP address and Netmask and leave the *Activate when the computer starts* option selected. The default gateway and broadcast will be detected based on the IP address and netmask as well as other settings; they may be specified explicitly by pressing the *Advanced Settings* button. Press *OK* when all settings are correct. An example of a completed configuration is shown in Figure 2 below.

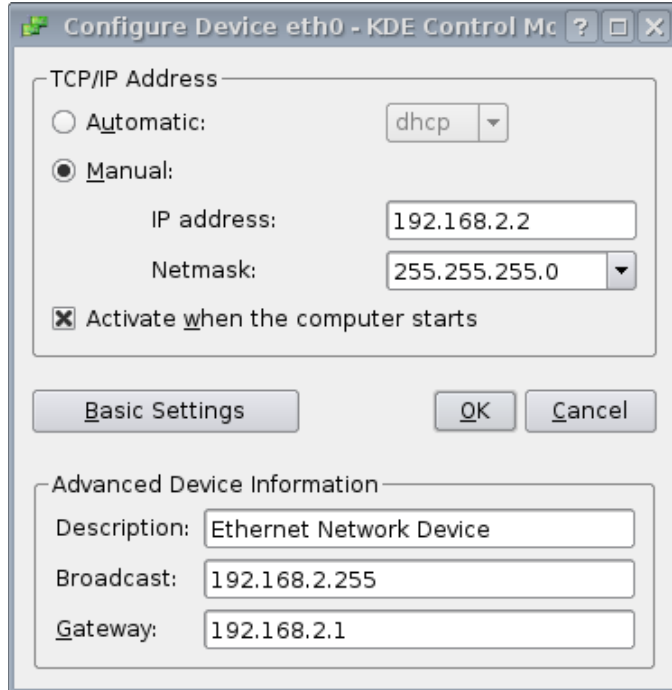


Figure 2. Static Network Configuration

5. Select the *Routes* tab and set the default gateway for the network.
6. Select the *Domain Name System* and make sure that the domain and all name servers are entered correctly. The host name may also be changed through this tab. If any static routes are required, they may be added or changed through the *Static Hosts* section on this window.
7. The *Network Profiles* tab may be used to create different configuration profiles for easily recalling settings. Refer to the KDE documentation for more information on this feature.
8. Once all settings have been made, press *Apply* to save the configuration. The system networking will be reset and loaded with the new configuration.

Changing the Password

Changing the default password for the developer user account can increase system security. This can be accomplished easily using the *Security & Privacy* → *Password & User Account* menu in the KDE Control Center. Once the *Password & User Account* configuration window has been opened, click the *Change Password...* button and follow the prompts to enter and verify the new password.

Changing the Root Password

Changing the root password is extremely important for system security. If a careless or malicious user gains access to the root password, they can render the system unusable by changing or deleting important system files. EMAC strongly recommends changing the root password from the default value during the initial configuration process.

The best way to change the root password is directly through the system console. Follow the steps below to change the root password:

1. Select the K Menu in the lower left of the KDE panel and open *System → Terminal Program (Konsole)*.
2. In the new console that opens up, use the `sudo` command to run the `passwd` utility as root. After entering the password for the developer user, enter and verify the new root password as shown below:

```
developer@emac-ldc:~$ sudo passwd root
[sudo] password for developer:
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
```

It is difficult to recover a system if the root password is lost or forgotten.

Other Preferences

» esdk » esdk » getting_started » install » import » qt » install » eclipse » linux_start » getting_started

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- linux/ldc/getting_started.txt · Last modified: 2011/05/11 08:11 by tstratman
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