Teron Board Series

Mai Logic

Yellow Dog Linux 3 Installer Manual

This manual outlines a clean install of Yellow Dog Linux 3.0 on a Teron Series PPC board.

Required Software:

You will need to download 4 installer CD images and burn them on CD media to perform the installation. The images are listed below, along with the checksums to verify a successful download.

```
YDL3 – Bootdisk
ftp://ftp.mai.com/maitest/Linux/ydl3/installer/ydl3boot.iso

YDL3 – Disk #1
ftp://ftp.mai.com/maitest/Linux/ydl3/installer/ydl3-d1.iso

YDL3 – Disk #2
ftp://ftp.mai.com/maitest/Linux/ydl3/installer/ydl3-d2.iso

YDL3 – Disk #3
ftp://ftp.mai.com/maitest/Linux/ydl3/installer/ydl3-d3.iso

Mai Application Install CD
ftp://ftp.mai.com/maitest/Linux/ydl3/installer/mai-app-install.iso

MD5 checksums
ftp://ftp.mai.com/maitest/Linux/ydl3/installer/instmd5sums.txt
```

U-boot Setup:

Changes need to be made to the U-boot environment variable to enable the installer to boot correctly. Press 'ESC' after booting the Teron board to get a command prompt in U-boot. Once at the command line, do:

Insert the YDL3 – Bootdisk in the CD tray

Enter the follow commands, pressing return after each:

```
] setenv ide reset
] setenv bootargs root=/dev/ram rw ramdisk=22000 l2cr=0x80000000
] diskboot 1000000 X:0
] bootm
```

(Where X is the CDROM device number.)

Linux Installer:

The installer will initially begin in text mode. Select your language, and CD install. Insert YDL3 – Disk #1 when prompted.
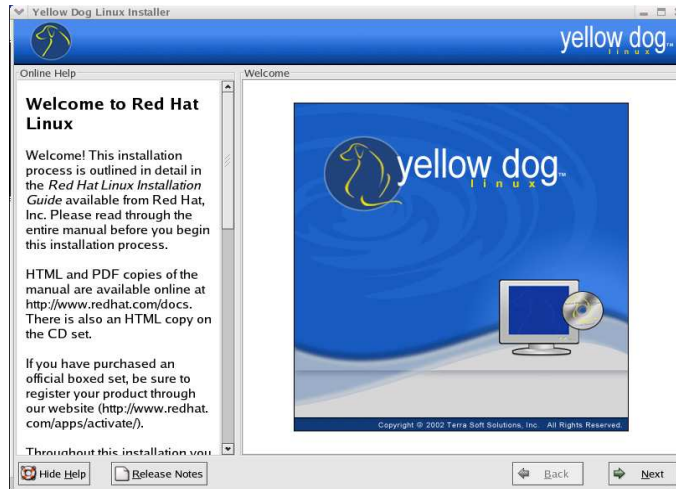
***NOTE ! When prompted if you wish to test CD media, select Skip.

The graphical installer will start after selecting Skip.

This is the Welcome Screen you will see after the Graphical installer Loads.

There is a help section on the left hand side of the screen.

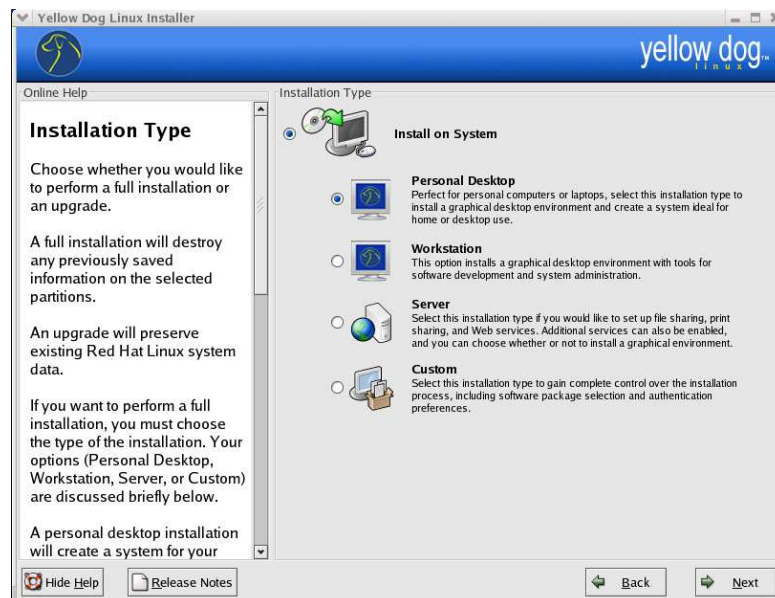This manual will cover the tricky parts of the installer as pertains to the Teron Board.

This installer is supported by Mai Logic Labs, and is not an supported by Yellow Dog Linux.
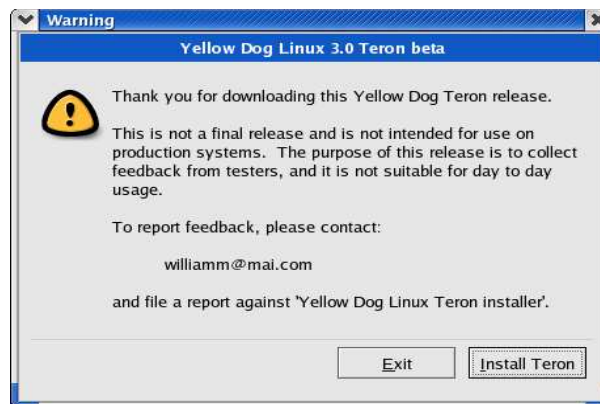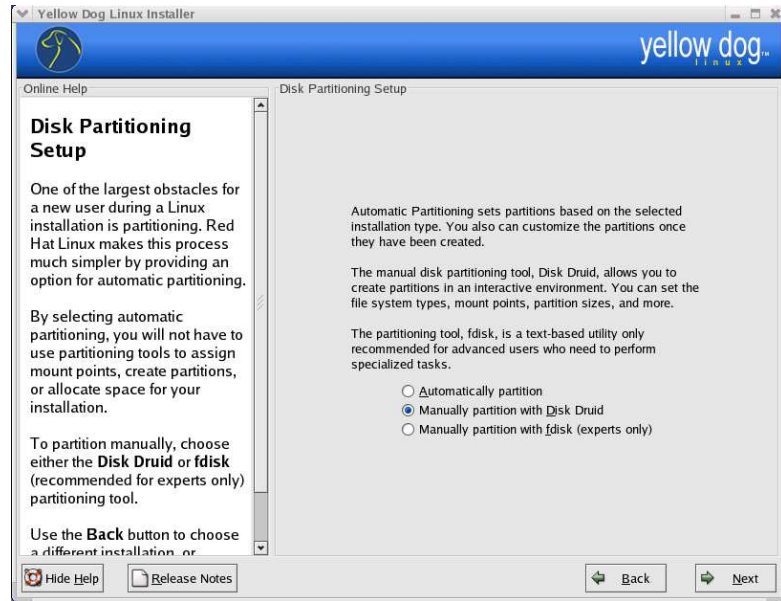
The installation type selection is important because it decides which features to install by default.

We recommend the "Workstation" selection.

Disk partitioning will very upon hard disk size, previous installations, and the formating of the disk.

We recommend using the Disk Druid because of easy use without giving up control.

Disk Partitioning Setup

One of the largest obstacles for a new user during a Linux installation is partitioning. Red Hat Linux makes this process much simpler by providing an option for automatic partitioning.

By selecting automatic partitioning, you will not have to use partitioning tools to assign mount points, create partitions, or allocate space for your installation.

To partition manually, choose either the **Disk Druid** or **fdisk** (recommended for experts only) partitioning tool.

Use the **Back** button to choose a different installation, or

Automatic Partitioning sets partitions based on the selected installation type. You also can customize the partitions once they have been created.

The manual disk partitioning tool, Disk Druid, allows you to create partitions in an interactive environment. You can set the file system types, mount points, partition sizes, and more.

The partitioning tool, fdisk, is a text-based utility only recommended for advanced users who need to perform specialized tasks.

○ Automatically partition
● Manually partition with Disk Druid
○ Manually partition with fdisk (experts only)

Select the hardisk to use Fdisk on and select 'Next'.

Needed Fdisk commands :
    p – print partition table
    n – create new partition
    w – write new partition table
    q - quite fdisk
    d – delete partitions

Skip this Section if you are not using a brand new disk, or do not need greater control over the locations of the partitions.

To delete a partition:
    - Press 'd'
    - Type in partition number

Choose the Manually Partition with fdisk if you need greater controll.

To add a partition:
    - Press 'n' for new partition
    - Press 'p' for primary partition
    - Press the number of the partition

The instructions to the right are for using fdisk.

    - Press 'Enter' to accept the starting block default
    - Type "+<size>M" where <size> is the size you want the partition.

To finish, and write partition.
    - Press 'w' to write the partition and exit.
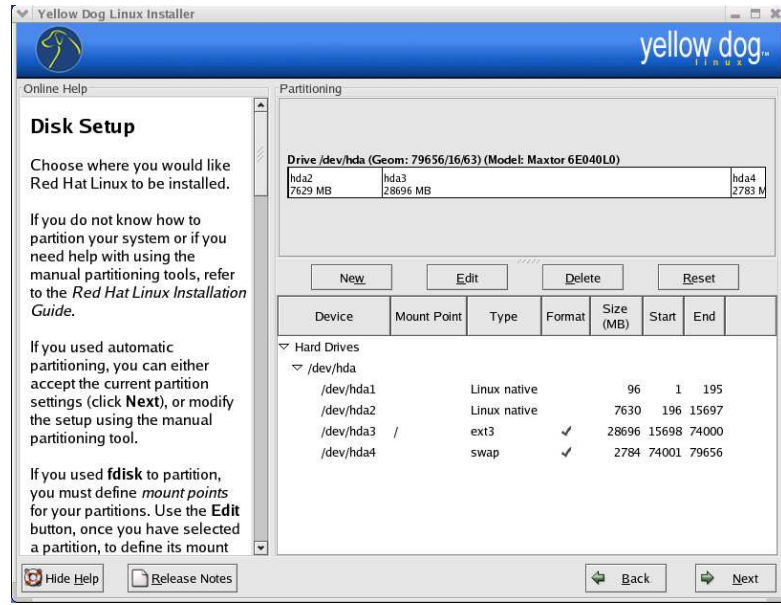   - Continue onto the Disk Druid section to define file system.

This is the recommended partition map for the Teron Series boards.

/dev/hda1 will be used to install a 2.4.22 kernel to later in the process.

/dev/hda2 will be used for data storage

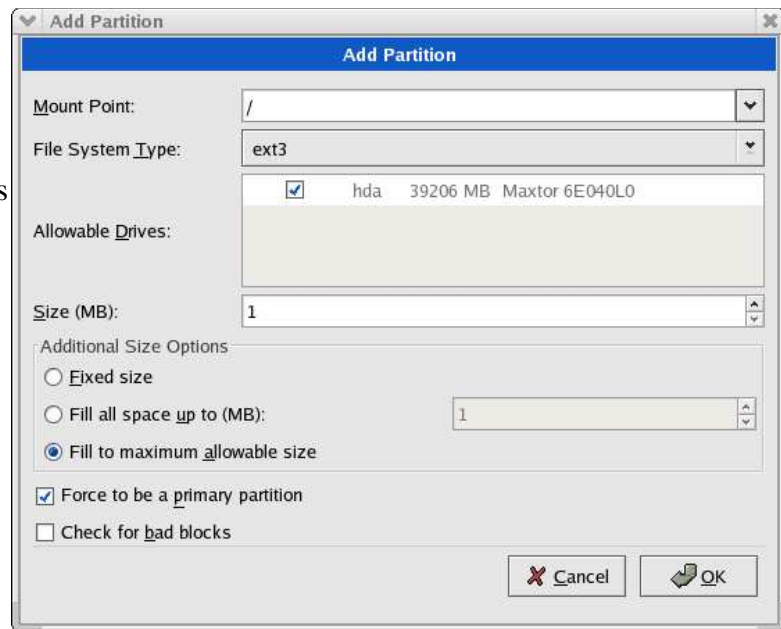/dev/hda3 will be used for the YDL3 operating system *(mount point '/' is required)*

/dev/hda4 will be used for swap space.

From the screen above, creating a new partition pops up a screen like this.

Every partition table requires one partition to have the '/' mount point to install Linux.

This screen allows you to select the mount point, size, and type of partition.

The boot loader the Teron boards use is the same as the bios, U-boot.

The only action required on this screen is the top button to change the bootloader.

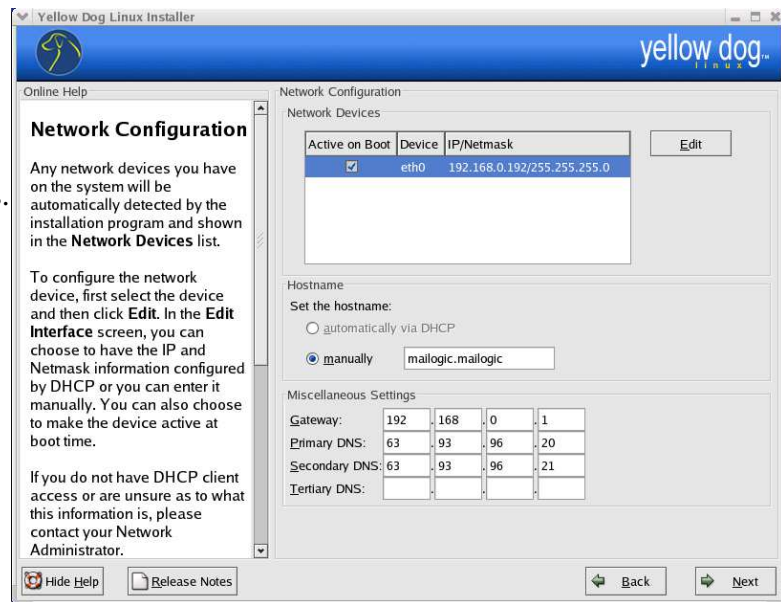The default configuration is to install a bootable 2.4.22 kernel to /dev/hda1.

You can disable this by selecting the 'change boot loader' button.
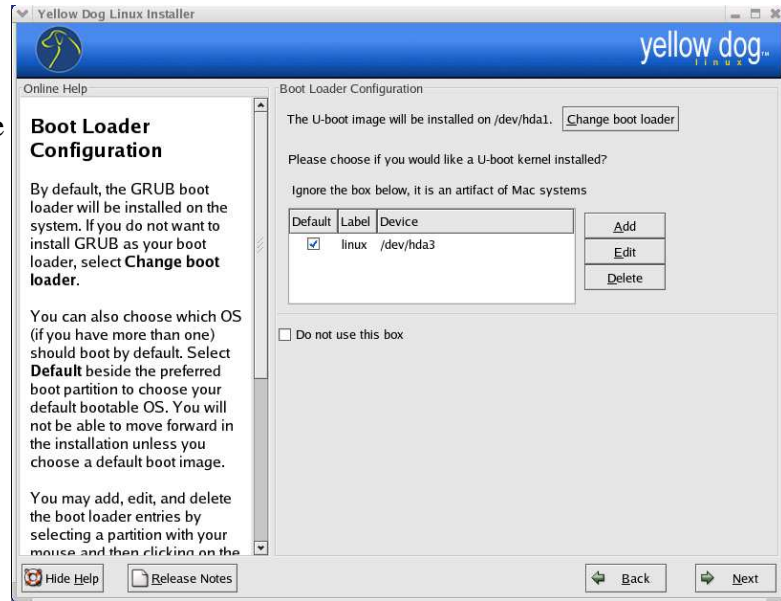
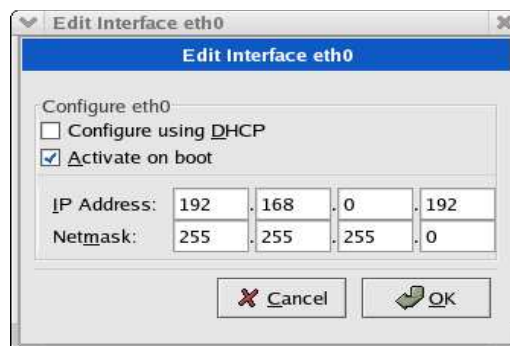This screen allows you to define your network settings.

To edit the IP configuration, highlight eth0 in the upper box and press edit.

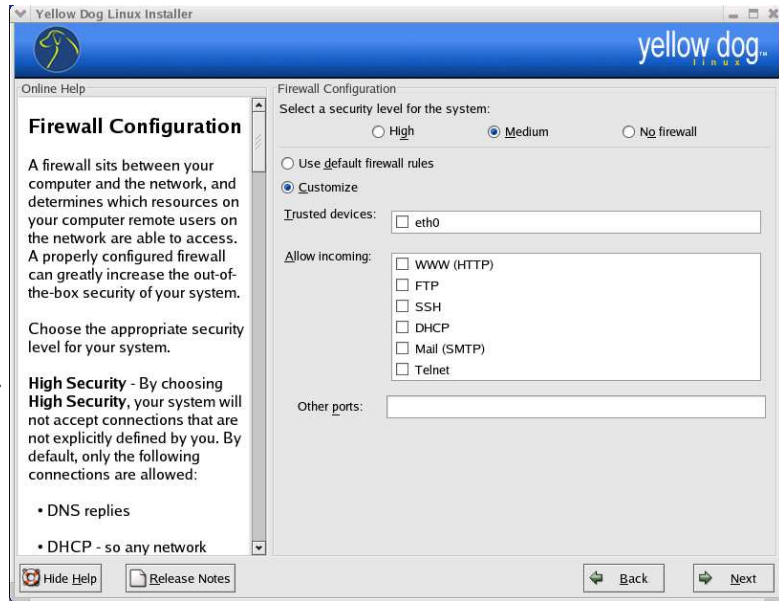The host name, Gateway/ router, DNS, or DHCP settings can be defined on this screen.

After pressing 'Edit' above, this screen appears.

You can either enable DHCP or define a static IP for your computer.
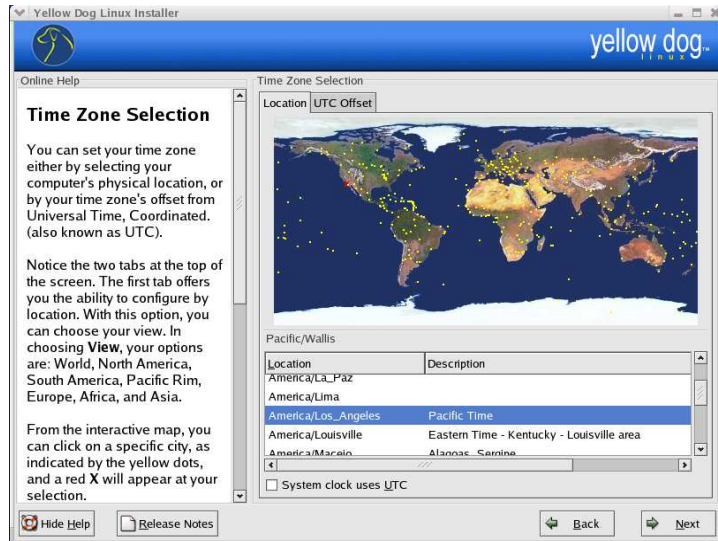
This screen allows you to define and configure the firewall for your system.

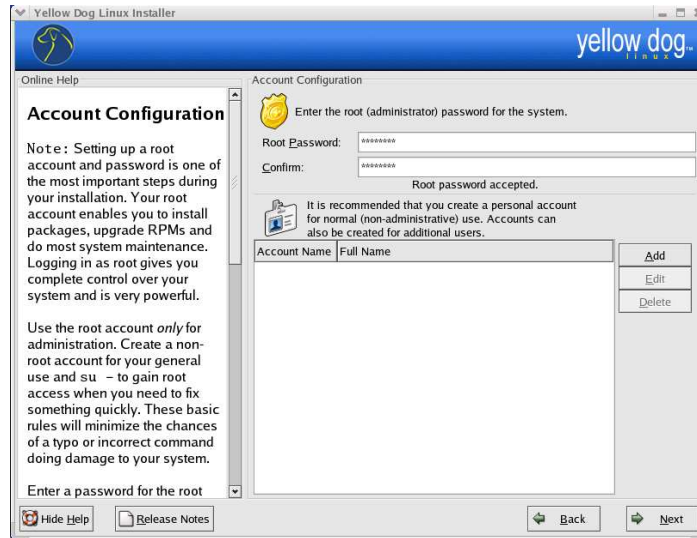Refer to the help section on the left side of the screen for details.

This screen allows you to set your current time zone.

This screen allows you to set up the initial accounts for the system.

A root password is required.

A personal account is recommended for security reasons and can be added by selecting the 'Add' button.

To add a personal account, all you need is to input a user name and password.

The last sections are selecting any added components and installing.

Booting the New Installation:

- Reboot the board and press 'ESC' to get a Uboot prompt.
- Type in the following commands *(assumes recommended partition map)* :
  -] setenv bootargs root=/dev/hda3 l2cr=0x80000000
  -] setenv bootcmd "diskboot 1000000 0:1; bootm"
  -] saveenv
- Reboot the board once again, and it should boot into Linux automatically.

Finishing Up :

Yellow Dog Linux will load and bring up a Graphical Login screen, from here it is easy to work with.

If it does not load the graphical interface, then the default configuration is incorrect. When you are able to log in the text mode, type:

```
bash# Xautoconfig
bash# startx
```

The other possible bug is in first starting the Mozilla Web Browser. If it fails to load, open a shell and type the following:

```
bash# /usr/lib/mozilla-1.2.1/mozilla-rebuild-databases.pl
```

Application CD Install

Once the system is up and running, insert the Mai Application CD.

- Right click the desktop, Select 'Drives' -> 'Cdrom'
- Double click the 'Mai_application_installer.py' icon
- Select 'Run in Terminal' so you can watch the progress
- Check the packages you wish to install, and click install
    ** Recommend installing Manuals **
- Once finished, exit and enjoy.

Any other issues should be sent to:

williamm@mai.com
With Subject = "YDL3 Installer"