



A Companion to Installing  
**YELLOW DOG LINUX 4.0.1**

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## INTRODUCTION

It is advised that you refer to [www.yellowdoglinux.com/support/](http://www.yellowdoglinux.com/support/) for updates, issues specific with unique computer configurations, and engineering notes.

Please note that *this Companion to Install is an addendum* to that which is presented on-screen during the installation process. It is not meant to be used as a stand-alone document. Instead, it is designed to provide extra guidance for those portions of the installation process that may otherwise be confusing.

### Drive Configurations

You may use either a single drive for both Yellow Dog Linux and Mac OS or you may use two or more drives. If you do install at least two drives, one for YDL and the second drive for Mac OS, it is advised that the Yellow Dog Linux drive be placed first in the ATA or SCSI chain (at the time of this writing, neither USB nor FireWire drives are supported as targets for the installer).

To install both operating systems on a single drive, you will require a minimum of two primary partitions. Unless you have a drive properly configured as such, you must either boot from the Mac OS CD and reformat then reinstall Mac OS (using the Drive Setup application) or use a 3rd party, non-destructive partitioning tool prior to installing Linux.

Be certain to back-up all important Mac OS applications and data before working with any partitioning tool or reformatting your drive.

## PREPARATION

### Single Drive, Multi-Boot System

You are now going to use Apple's Drive Setup application to format and partition your drive. Please note that this procedure completely reformats and DESTROYS ALL DATA on your drive.

These instructions are for the partitioning of Mac OS X. For OS 9.x partitioning, please download the YDL 2.3 Guide to Installation located at [www.yellowdoglinux.com/support/installation/guide2.3.shtml](http://www.yellowdoglinux.com/support/installation/guide2.3.shtml)

1. Insert the Mac OS Software Install CD or DVD.
2. Restart your computer.
3. Hold the "C" key until you have booted from the Mac OS Software Install

## TECHNICAL NOTES

### Funky colors half-way through install?

With some ATI graphics cards, the Installer may revert to a less than pretty display of colors. This is a known bug that we were not able to fully resolve in time for the YDL v4.0 launch. It is easily fixed by switching terminals, as follows:

CTRL-OPTION-F2

... and then back again to the Installer on terminal 7:

CTRL-OPTION-F7

### Rev A iMacs

The Rev A iMac firmware was not designed to recognize drives over 30GB. If you have upgraded your iMac with a larger drive, it is VERY important to create a 100MB /boot partition immediately following the Apple bootstrap and swap partitions when creating partitions, as follows:

apple_bootstrap	1MB
swap	xxxMB
/boot	100MB
/root	(remaining space)

This forces the location of the kernel to reside on a portion of the drive that firmware will recognize and be able to use. If you do not do this, your system will hang immediately following the yaboot prompt.

4. Select the Install menu at the top of the screen.
5. Select 'Open Disk Utility'.
6. Select Mac HD.
7. Click the Partition tab.
8. Under the Volume Scheme menu, choose "2 Partitions," one for OS X and one for Yellow Dog Linux.
9. Select the first (top) partition, "Untitled". It should be gray.
10. Use the Format menu to the right and choose "Free Space." This will be your YDL partition.
11. Move the slider at the bottom of the partition to increase or decrease its size or, alternatively, enter your preferred size in the Size text box to the right.
12. Select the second partition. This should be your MacOS X partition. Keep it Mac OS Extended, and resize as desired.
13. Name this partition "OS X" or whatever you like.
14. Click the "Partition" button at the bottom of the screen and then again at the prompt.
15. Quit Disk Utility.
16. Resume your OS X install.

Your OS X installer may reorder the partition numbers from what you originally created. This is a logical (as compared to physical) reorder and is normal.

### Dual Drive, Multi-Boot System

It is recommended that YDL be placed on the first (master) drive and Mac OS on the second. This is to ensure that if the PRAM (firmware) settings are lost, firmware will locate the yaboot bootloader as it scans the disks from first to last, top to bottom. If Mac OS is first, you will have to reset the boot partition from firmware.

If this occurs, review the HOWTO: [www.yellowdoglinux.com/support/solutions/ydl\\_general/boot\\_functions.shtml](http://www.yellowdoglinux.com/support/solutions/ydl_general/boot_functions.shtml)

### Single Drive for YDL without Mac OS

You may install YDL as the only operating system on NewWorld ROM computers.

## NewWorld ROM Computers

Yellow Dog Linux no longer officially supports OldWorld ROM computers (pre USB G3; ie: beige G3 desktops and towers). While this does not mean this version of Yellow Dog Linux does not function with these systems, the required BootX bootloader ([www.penguinppc.org/bootloaders/bootx/](http://www.penguinppc.org/bootloaders/bootx/)) must be installed.

*NewWorld*: USB G3s and forward; ie: Blue & White G3s, iMacs, '99 G3+/G4 PowerBooks, iBooks, G4s, and G5s use the ROM-in-RAM technology commonly referred to as "NewWorld ROM" and therefore require yaboot ('yet another bootloader') to boot YDL. 'yaboot' configured systems may maintain both Mac OS and YDL as a dual-boot, or with YDL as the only installed operating system.

## INSTALLATION

As mentioned in the first page of this document, this *Companion to Install* is an addendum to that which is presented on-screen during the installation process. It is not meant to be used as a stand-alone document. Instead, it is designed to provide extra guidance for those portions of the installation process that may otherwise be confusing or tricky.

1. Insert the Yellow Dog Linux Install CD #1.
2. Restart your computer.
3. Hold the "C" key until you have booted from the Install CD.
4. At the white text on a black background *boot prompt*, press RETURN for the GUI installer; or type:  

```
install-text [ENTER]
```

... for the non-graphical, text-based installer which uses the TAB, ARROW, and RETURN keys instead of a mouse, which must be used on certain computers whose graphics cards or monitors are not readily supported.  
**Note:** for G5 computers use "install-g5" and "install-g5 text"
5. Follow the on-screen instructions and this guide for particular sections.

## Language & Keyboard Selection

It is assumed at this point that you have selected your preferred Language and Keyboard configurations. Therefore, the following text assumes you are following the on-screen text and help functions and serves as a guide with additional information.

## Additional CDs

You may install additional, individual packages from this menu.

## GUI VS COMMAND LINE LOGIN

### Graphical Login

Yellow Dog Linux now defaults to a graphical login unless you chose a set of packages that do not include the X windows environment. You will be presented with a place to enter your username (Login; do NOT login as root unless you have need to do so). Choose your preferred default window manager. Enter your password. You may also reboot or shutdown your computer.

### Command Line (text) Login

If you did not install an X windows environment, you will be presented with a "login:" prompt. Enter your account name and passwd.

If you desire to change your GUI login to a text login, login as 'root' and then the root password. You may change the login from GUI to text as follows:

```
nano /etc/inittab [ENTER]
```

Change the run-level from '3' to '5' (located a dozen or so lines from the top of the file). You may save this file by following the instructions presented at the bottom of the 'pico' text editor window. When you restart your computer:

```
reboot [ENTER]
```

... YDL will now automatically boot to a text login. You may change this back to a graphical login by changing the 3 back to a 5.

If you maintain the text login but do have X windows installed, you may launch the GUI (from the command line) by typing:

```
startx [ENTER]
```

If this fails to launch a graphical environment and you are returned to the command line prompt, enter:

```
Xautoconfig [ENTER]
```

This will generate a base monitor setting that will at least get you into a graphical environment whereby you may select the Display configuration tool from the System Settings of the Yellow Dog Linux menu. You should then log-out and log back in again to test the new settings.

boot with a non-supported video card.

5. A penguin icon will appear in the upper left corner of your screen (or two if your system has two processors) followed by a stream of messages. These are analogous to the loading of Classic Mac OS Extensions.

## FIRSTBOOT

Firstboot will walk you through Acceptance of the License Agreement, Date and Time settings, Display Configuration, User Accounts, Sound settings, and then queries if there are any additional packages you desire to install.

### License Agreement

Please read and accept this document.

### Date and Time

Make certain the date and time are correct.

### Display

This version of the Yellow Dog Linux Installer automatically detects your graphics card and monitor and prepares a configuration which it believes is appropriate. While this configuration is most often usable, it does default to the "fbdev" (frame buffer device) driver which will not offer the same speed as the native driver. You may experiment with these settings once up and running.

YDL Menu -> System Settings -> Display

### User Account

Add those users whom you desire to have immediate access to your system. Additional users may be added later. Choose a password that is at least 8 characters, both letters and numbers and is not based on a dictionary word. Do not use your birthday, your child's name spelled backward, nor the name of your favorite golf course. The security of your computer is only as strong as your passwords. Do not forget this password. Never login as root, but instead, use "sudo" at the command prompt in order to temporarily gain root access.

### Sound Card

Sound is not supported on all modern systems. If your system is not immediately supported, stay tuned to the Announce list at [lists.terasoftsolutions.com](http://lists.terasoftsolutions.com) or the Yellow Dog Linux Support pages at [www.yellowdoglinux.com/support/](http://www.yellowdoglinux.com/support/)

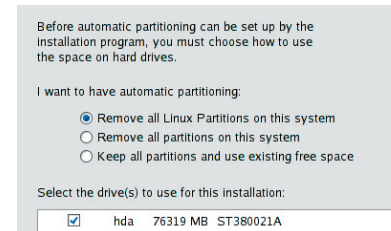
## Partition Disks

Partitioning creates logical (as compared to physical) sections on your drive, each of which serves a defined purpose. While you may create additional partitions for your own needs, there are a minimum of 3 partitions that must be created in addition to the Mac OS partition—if you have one. This is typically done using the Free space created through use of the Drive Setup application in Mac OS.

If you are using a drive which contains existing Linux partitions, you may instruct the Installer to use these partitions. However, to do so, you must allow the Installer to reformat them which COMPLETELY DESTROYS ALL DATA.

You may either allow the Installer to create the partitions for you by selecting Automatic Partitioning, or conduct this effort manually via Disk Druid.

If you elect to use the Automatic Partitioning feature, you may choose from one of three schemes:

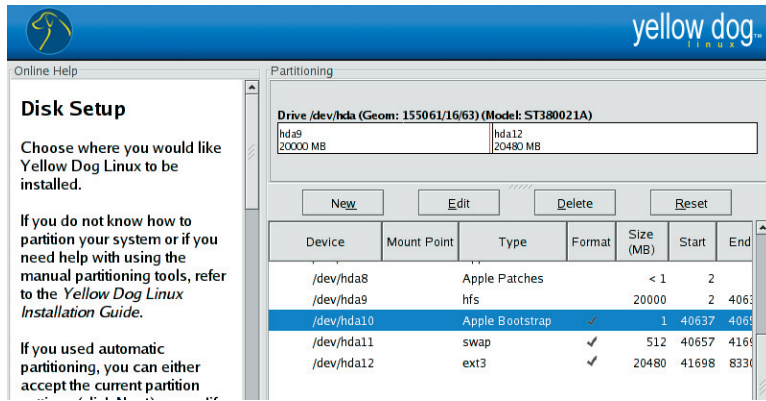


*Remove all Linux partitions:* this will delete and then replace only existing Linux partitions. Please note this procedure will **destroy all data**.

*Remove all partitions:* this may be done ONLY on a NewWorld ROM computer with no Mac OS. This procedure **deletes all partitions, including those**

**that contain Mac OS.** With an OldWorld ROM, Mac OS will be destroyed, forcing a reformat and re-installation.

*Keep all partitions and use existing free space:* most often used if you prepared your drive using Drive Utility under Mac OS or are not installing Mac OS on this drive.



If you elect to use Disk Druid, the following will guide you through a basic partitioning scheme:

1. Select the drive on which you wish to install YDL. If you have only one drive, only one will appear on this screen.
2. Select *New*. Then select *Apple bootstrap* from the *File System Type* menu, *1MB* partition size, and *Fixed Size*.
3. Select *New* again. Then select *swap* from the *File System Type* menu, *512MB*, and *Fixed Size*. The MB quantity may be as much as the amount of RAM you have installed, but 512 is usually more than adequate.
4. Select *New* a third and final time. Then select */root* from the *Mount Point* menu and then *Fill all available space* to utilize the remaining portion of your drive. The root partition should be no smaller than 2GB and truly should be greater than 6GB to provide ample room for an Everything install (if you elected to install all of the available packages on a previous screen).

### Bootloader Configuration

With the current version of Yellow Dog Linux, the Installer automatically detects Mac OS partitions and modifies the yaboot settings. When you reboot, you should be prompted with an "L" for Linux, "C" for CD, and if present, "M" for Classic Mac OS or "X" for Mac OS X.

### Package Selection

The Yellow Dog Installer has pre-defined package installation groups. The "select individual packages" feature allows you to add or remove packages from the pre-defined groups. The required space on your drive is as follows:

*Personal Desktop*: 2GB required drive space. This set of packages is for a home or office setting with the OpenOffice suite, Mozilla web browser, Evolution email client, Mac-On-Linux, and hundreds more. Do note that Kmail and the KOffice suite are not included by default. You may select these individually by Customizing the package selection.

*Workstation*: 3GB required drive space. This set includes those packages found in the Personal Desktop (above) and then includes programming utilities for code development.

*Server*: 1GB required drive space. This set of packages does not include XFree86 (the windowing server) as it is designed instead to build an email, FTP, NFS, HTTP, and Appletalk or Samba server.

*Everything* (all packages): 6GB required drive space. This includes every package available on the 4 Install CDs.

*Good time for a beverage break ...*

## BOOTING UP!

1. Press the power button and you will hear the Macintosh chime.
2. 'yaboot' will present a list ('Linux', 'M'ac OS 9.x, 'X' for OS X, and 'C'D-ROM) in the upper left corner of your screen, white text on a black background. 'yaboot' will time-out and default to the OS that you designated during installation.

To multi-boot with 'yaboot', select the OS you wish to boot into by pressing the appropriate key. Please note 'M' and 'X' will be present ONLY if Mac OS 9.x and/or X were available and designated during installation.

**Do NOT use the Mac OS Startup Disk** Control Panel as this will reset the firmware and 'yaboot' will no longer be presented. If this occurs, review [www.yellowdoglinux.com/support/solutions/ydl\\_general/boot\\_functions.shtml](http://www.yellowdoglinux.com/support/solutions/ydl_general/boot_functions.shtml)

3. You will be welcomed by 'firstboot'. See the next section for details.
4. When presented with the "Welcome to Yellow Dog Linux" white text on a black background, you will notice a "boot:" prompt. You may press the TAB key to view the various kernel options or just wait for this boot sequence to time-out and auto-boot the default (denoted with an \*) kernel, typically labeled "linux". If you choose to try a different kernel, linux-novideo for instance, you may do so by typing that name verbatim and then pressing the return key. This should be done only by advanced users who are experimenting with home-grown kernels or in an effort to