

## Lab 5.4.2: Hard Drive Preparation Using FDISK and FORMAT

**Estimated time:** 30 Minutes

### Objective

Upon completion of this lab, students will be able to partition the hard drive. Students will also be able to install the three system files onto the hard drive to make it a bootable drive.

### Equipment

The following equipment is required for this exercise:

- A lab computer
- Bootable floppy disk with DOS FDISK and FORMAT commands

### Scenario

You have installed a new hard drive in your computer and need to prepare it for an operating system. In order to do this, you will need to use the DOS *FDISK* and *FORMAT* commands.

### Procedures

After installing a hard drive into a computer, it must be prepared in order for the computer to communicate with it during the boot process. Using the DOS commands FDISK and FORMAT, the hard drive can be partitioned and prepared for communication and usage.

#### Step 1

Boot up the computer using a bootable floppy disk with the FDISK and FORMAT commands on it.

#### Step 2

To create and remove partitions, first start the FDISK program. Type FDISK at the prompt and then press **Enter**. Once the application starts, select option 4 to check and verify current partitions before attempting to delete any partitions.

Now select the partition type to delete from the menu that displays. They are Primary DOS partition, Extended DOS partition, Logical DOS drives in the Extended partition, or a Non-DOS partition.

If there are logical drives defined in the extended partition, they need to be removed before the Extended partition is removed. To delete any partition, simply select the option that correlates with the partition to be removed and follow the directions on the screen.

#### Step 3

Once all the partitions have been removed from the drive, return to the main menu and select option 1 to create a DOS partition. Then from the next menu, select option 1 to create a Primary DOS partition. From there, follow the on-screen directions to finish creating the Primary DOS partition.

At this point, exit FDISK and then restart the computer with the floppy disk still in the drive.

**Note:** Make sure to set the Primary Drive to “Active”.

#### Step 4

Once the computer has restarted, it is time to format the partition that was just created. To do this, type “format C: /s” from the command prompt. This tells the format program to make the C drive usable for DOS. The “/s” copies system files to the hard drive during formatting, so it is bootable.

The program will give the option of formatting the drive. This will erase anything that is on the drive. Since the drive is empty, type “Y” and press **Enter** to continue.

#### Step 5

When the format is complete, enter your name when asked to enter a “volume label”. When the format is complete and the command prompt is returned, restart the computer without the bootable floppy inserted to make sure that the computer will boot from the hard drive.

#### Troubleshooting

Sometimes a third party formatting application is necessary when dealing with certain partition types. If a hard drive will not let you remove a partition, consider purchasing a third party product such as Power Quest’s Partition Magic. It is available in most computer software stores.

#### Reflection

List the three files required for booting a DOS formatted disk.

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What other DOS commands will transfer these system files from one drive to another?

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