

## 2.4 Lab: Set up an A/V Workstation

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Time Spent: 11:02

Score: 100%



## Task Summary

## Required Actions

- ✓ Select and install a dual monitor capable video card
- ✓ Install three hard drives
- ✓ Connect the original monitor to the new video card
- ✓ Connect a second monitor
- ✓ Set the SATA Operation mode in the BIOS to RAID on
- ✓ Create a RAID5 array with three disks

## Explanation

Complete this lab as follows:

1. Select and install the video card.
  - a. Above the computer, select the change view icon, then select **Motherboard** to switch to the motherboard view of the computer.
  - b. Under Inventory, expand **GPUs/Expansion Cards**.
  - c. Drag the **Video Adapter, DVI-I, HDMI, Crossfire, PCIe** to the PCIe slot on the computer.
  - d. Select the **power supply**.
  - e. From the Selected Item pane, drag the **Connector, Power Supply, 6-pin PCIe** power connector into the video card power slot.
  - f. Select **GPUs/Expansion Cards** to return to the main Inventory list.
2. Install three hard drives (the minimum needed) for the RAID5 array.
  - a. Under Inventory, expand **Storage**.
  - b. Drag all three **hard drives** to a free 3.5" drive bay.
  - c. Under Inventory, expand **Cables**.
  - d. Select a **Cable, SATA**, and from the *Selected Item* pane:
    - Drag an unconnected **SATA connector** to a hard drive.
    - Drag the other unconnected **SATA connector** to an open SATA port on the motherboard.
  - e. Repeat these steps to connect cables to the other two hard drives.
  - f. Select the *partial Connections* icon by the computer, then select the **power supply**.
  - g. From the Selected Item pane, drag an unconnected **SATA power connector** to a hard drive.
  - h. Repeat the process for the remaining drives.

- i. Select **Cables** under Inventory to return to the main list.
3. Connect the original monitor to the new video card.
  - a. Above the computer, select the change view icon, then select **Back**.
  - b. On the computer, drag the **DVI connector** from the built-in video connector to the new video card in the computer.
4. Connect a second monitor.
  - a. Under Inventory, expand **Peripherals**.
  - b. Drag the **Monitor** to the left of the desktop.
  - c. Above the left monitor, select the change view icon, then select **Back**.
  - d. Under Inventory, expand **Cables**.
  - e. Select the **HDMI to HDMI Cable**.
  - f. From the Selected Item pane:
    - Drag an **HDMI Connector** to the new video card in the computer.
    - Drag the unconnected **HDMI Connector** to the HDMI port on the left monitor.
  - g. Under Inventory, select the **AC Power Cable**.
  - h. From the Selected Item pane:
    - Connect the **Female AC Power Connector** to the left monitor.
    - Connect the **Male AC Power Connector** to a wall outlet.
  - i. Above the left monitor, select the change view icon, then select **Front**.
  - j. Select the **Power button** to power on the left monitor.
5. Power on the computer and enable RAID in the BIOS settings.
  - a. Above the computer, select the Change View icon, then select **Front**.
  - b. Select the **power** button to turn on the computer.
  - c. As the computer boots, press **F2** (or **Delete**) to enter the BIOS setup program.
  - d. From the left menu, expand **System Configuration**.
  - e. Select **SATA Operation**.
  - f. From the right pane, select **RAID On**.
  - g. Select **Apply**.
6. Exit BIOS and configure the RAID array.
  - a. Select **Exit** to restart the system.
  - b. After the system boots and the BIOS loads, the RAID controller will load.
  - c. When the RAID message screen displays, press **Ctrl + I** (i).
  - d. With *Create RAID Volume* highlighted, press **Enter**.
  - e. On the *Name* field, press **Enter**.
  - f. On the RAID Level field, use the **up and down arrow keys** to select **RAID5 (Parity)**.
  - g. Press **Enter**.
  - h. With *Select Disks* highlighted, press **Enter**.
    - i. Use the **up and down arrow keys** to traverse the list and the **spacebar** to select a drive.
    - j. Select all three drives with the *model number WD800JD* and press **Enter**.
    - k. Press the **Tab** key.
      - l. Verify that the *Strip size* is **128 KB**. If needed, use the up and down arrows to set the value.
    - m. Press **Enter**.
    - n. Press **Enter** to accept the default capacity.
    - o. With *Create Volume* highlighted, press **Enter**.
    - p. Press **Y** to continue creating the volume.
    - q. Press the escape key (**Esc**).
    - r. Press **Y** to exit.