

Lab 2.3.2: Motherboard Identification

Estimated time: 30 Minutes

Objective

This lab will focus on identifying motherboards, removing motherboards, replacing motherboards, and using the motherboard manuals to identify a number of the system's components.

Equipment

The following equipment is required for this exercise:

- A system board (either mounted in a case or not)
- Internet access
- Motherboard manuals
- ID software or local vendor contact

Scenario

You have just been hired by a PC repair center and have begun your training. PC technicians need to be able to remove and replace motherboards either in an upgrade situation or due to a motherboard failure.

Procedures

If the system board has been diagnosed as needing replacement, there are a few guidelines that must be followed. Place the system on an anti-static mat and use an anti-static wrist strap. Verify that the system's power cord is not attached.

All necessary safety precautions need to be followed carefully concerning power supplies and electro-static discharge.

Step 1

Gain access to the motherboard. If the motherboard is installed in a case, remove the case cover.

Step 2

If needed, remove components and/or cabling to gain access to the motherboard manufacturer's name and ID number. Be sure to carefully record these connections so they can be properly replaced.

Note: These numbers may be difficult to find and hard to read, so look carefully. As you become familiar with different manufacturers, it will become easier.

Due to variations in motherboards, not all of the following information may be available. On others, additional information may be available. Check with the instructor about your system.

Step 3

Record the following information from the computer's motherboard.

Components	Available? (Y/N)	Name/ Type (if applicable)
1. Motherboard Manufacturer		
2. Motherboard Model Number		
3. Form Factor (physical size and layout)		
4. Type of CPU Installed		
5. Types of CPUs Supported (socket or slot)		
6. Chipset		
7. BIOS Manufacturer		
8. BIOS Battery		
9. ISA or EISA (number and type)		
10. PCI (number and type)		
11. AGP or AGP Pro (number and type)		
12. Jumpers		
13. DIP settings		

Troubleshooting

A quick check on the motherboard manufacturer's website will provide information regarding the motherboard BIOS and whether there is an upgrade available.

Reflection

The ability to properly identify all the components of a motherboard will prove to be very useful when troubleshooting in the field.

Where is the first place to look to determine the manufacturer of a motherboard?
