This module will introduce you to the components that make up the Alto workstation. Each component is a tool designed for easy operation.

As you read through each module, you will be asked to perform tasks. These tasks are exercises designed to help you understand what you have read.

REMEMBER: Anything with a check mark (\(\square\)) in the left margin is an instruction for you to follow.

Read all passages carefully so you know and understand what you will be doing. When you come to the check mark (\(\square\)), do exactly as instructed. What you have read will make more sense after you have completed the exercise.

PREREQUISITES

Completion of Module 1: Introduction.

OBJECTIVES

At the end of this module you will have learned:

1. What a disk is.
2. Where the disk resides.
3. How to spin up the disk.
4. Where the \texttt{START} button is (to turn on the screen).
5. How to adjust the angle and brightness of the screen.
6. How to move the mouse (which moves the cursor on the screen).
7. How to spin the disk down and turn off the system.
OVERVIEW WORKSTATION

The Xerox Document System is a system that aids in creating, editing and formatting documents. Before you can use the system, you need to set up your Alto workstation and turn it on. You may be curious about the equipment that comprises the Alto workstation.

As you read about each piece of equipment, feel free to touch it, pick it up and use it as described to you.

THE DISK

There is a round, fairly flat (about one inch thick), white plastic something near your workstation. This object is a disk. The actual disk looks like an amber colored phonograph record and is housed inside the white plastic cover. The cover protects the disk from dust, dirt and scratching.

The disk is where programs and documents are stored, much the same as music is stored on a phonograph record. The space on a disk is separated into units called disk pages. A phonograph record contains grooves which circle round and round. Think of each groove on a phonograph record as a page on a disk.

A blank disk contains about 4000 blank pages. When programs are written onto the disk, they consume some of the disk pages. One page of typed information equals about 5 disk pages. Therefore, if you have 2000 blank (free) disk pages, you have space to accommodate about 400 pages of typed information.

The top of the disk has a wide bar down the center with a curved and indented portion at one end. This is how you can recognize the top of the disk.

1) Pick up the disk by holding the curved and indented portion in your hand (thumb on top, fingers on the bottom of the disk). Notice the disk weighs only a couple of pounds.

2) While you hold the disk in one hand, place your free palm on top of the wide bar in the center of the disk.

3) Now turn the disk over and rest the top of the disk on the palm of your hand. Notice the bottom of the disk.

The bottom of the disk has a round metal plate in the center, six wedge-shaped indentations around the outer edge, and a wedge-shaped metal flap on one side. The top of the disk has the wide, raised bar down the center.
) Turn the disk over and place it on the desk so the bottom of the disk is resting on the table and the top is facing up.

Now that you are familiar with the disk, you will learn where it resides in your workstation, how to put it in the workstation and how to remove it from the workstation.

THE PROCESSOR

On the floor by the desk is a large metal box. The top portion of the box has a small windowed door and a door handle (horizontal bar). The windowed door portion of the processor is where the disk goes. It is called a disk drive. The bottom (metal box) is the processor and is full of electronic parts.

Some workstations have two disk drives (windowed doors) which allow you to use two disks in the workstation. This gives you twice as much working space (disk pages) as a single disk.

DUAL DISK DRIVES ONLY

If your workstation has two disk drives, make a note that the bottom disk drive is number zero (#0). The top disk drive is number one (#1). When using a dual drive system with two disks, it is important that you put Disk #0 in the bottom drive and Disk #1 in the top drive.

SINGLE DISK DRIVES

If you are using a single disk system, you must place the disk in the bottom disk drive (the one closest to the processor). The top drive can only be used when there are two disks. For training you will use a single disk in the bottom drive.

Below the disk drive is a panel with a LOAD/RUN switch on the left and four small colored lamps on the right (LOAD is white, READY is yellow, CHECK is orange, and POWER is red). When using the disk in the processor, it will be important to note when a lamp is on or off.

When the white LOAD lamp is lit, this indicates that the switch on the left side of the drive is in the LOAD position. This will allow you to open the windowed door and insert (load) the disk into the disk drive. If the switch is not in the LOAD position (flush with the panel), the white lamp will not be lit.
When the yellow READY lamp is lit, it indicates that there is a disk inside the processor. To remove a disk from the processor when the yellow READY lamp is lit: Press the LOAD/RUN switch to the LOAD position and wait for the white LOAD lamp to light up before removing the disk.

1) Check to see if the white LOAD lamp is lit (the lamp is located on the right side of the panel). If the white LOAD lamp is not lit: Press the LOAD/RUN switch to the LOAD position and wait for the white load lamp to light up before opening the door and removing the disk.

2) Pull the handle of the disk drive toward you and down. The door will open easily when there is no disk inside.

3) Pick up the disk by holding the curved and indented portion in your hand (thumb on top, fingers on the bottom of the disk). Be sure the bottom of the disk is facing the floor and the top of the disk is facing the ceiling.

4) Slide the disk gently into the disk drive until it is all the way inside. The disk will stop when it is in position.

5) Close the door to the disk drive. If the door will not close, the disk is not inside the disk drive far enough. Open the door and push the disk firmly until it stops.

When the disk is inside the disk drive and the door is closed, press the switch to the RUN position (flush with the panel).

6) Press the LOAD/RUN switch to the RUN position. This brings the disk drive lock into position and prevents one from opening the door.

You will hear sounds (disk activity) coming from the processor. This is the disk spinning up to speed. It takes about 45 seconds for the disk to get up to the proper speed. You will then hear a clicking sound.

About 15 seconds following the click, the yellow READY lamp will light up and the white LOAD lamp will turn off. This indicates that you are ready to turn on the system (and that you cannot remove the disk from the disk drive).

THE KEYBOARD

Look at the keyboard. It looks like a standard keyboard with some special feature keys. Since you are only concerned with starting up the workstation at this time, the explanation of the special feature keys will be covered later.
Get the feel of the keyboard by typing something on it. Type your name and address. It feels like any standard keyboard.

Nothing was typed on the screen because the screen is not on. There is a special button located on the back of the keyboard which will turn on the screen.

Holding each side of the keyboard, tilt it toward you so you can see the back of the keyboard where two wires connect.

Notice the small button between these two wires.

This small button is the START button. The START button is used to turn on the system and screen.

Replace the keyboard to its original position.

Check to be sure the yellow READY lamp is lit. The READY lamp is located on the processor panel.

Locate the START button by placing your middle finger between the two wires which connect to the keyboard.

Press the START button. (When I say press, press and release.)

After pressing the START button, you will again hear some disk activity. In a few seconds text will appear on the screen.

THE SCREEN

Look at the screen. It looks like a small, rectangular television screen. The angle of the screen may be adjusted. To adjust the angle of the screen:

Place your hands on the sides of the screen and move it gently left to right until it is in a comfortable position for you.

Now place your hands on the top and bottom of the screen frame and gently push it up and down until it is comfortable for you to view.

There is a brightness control lever underneath and at the bottom left side of the screen. Locate the brightness control lever. To adjust the brightness of the screen:
Move the brightness lever slowly to the left until it stops. The screen should appear totally black.

Move the brightness lever slowly to the right until it stops. Notice the brightness increase.

Position the lever at a point where the screen brightness is comfortable for you to view.

The entire base on which the screen sits can also be moved. Try pushing it back slightly or moving it forward.

Look directly at the screen. You are viewing the EXECUTIVE level of the system.

THE EXECUTIVE LEVEL

The Executive level is where you will be when you first start the system. Think of the Executive level as a manager of the programs. The Executive level is where you type the name of the program you want to enter. Since this is an introduction to the workstation components, you will not enter any program now.

When you leave a program, you may return to the Executive level. To leave the system from the Executive level, you type the word quit or the character q followed by a RETURN (to confirm). Do not quit yet.

THE MOUSE

Look on the screen and locate the small black arrow pointing upward and slightly to the left. This is called a cursor, and it is used to point at things on the screen. It will change shape when using the Xerox document system programs.

The last item is a small rectangular box next to the keyboard. This box is ivory colored with three black buttons on the top and a wire extending from the back of the box into the back of the keyboard. We call this a mouse. The mouse is used to move the cursor on the screen.

The mouse may be placed on either side of the keyboard. If you are left-handed, you may want to place the mouse on the left side of the keyboard. It may be picked up and repositioned on the desktop.
Place your hand over the mouse so your thumb is on one side and three of your fingers are on the other. This leaves your index finger resting on one of the buttons. You use your index finger to easily identify and press the buttons. To use the mouse:

- While holding the mouse in the correct position (above), move your finger slowly from the LEFT mouse button to the MIDDLE mouse button.

- Without releasing your hold on the mouse, press the MIDDLE mouse button (press and release).

- While holding the mouse, move your index finger to the RIGHT mouse button and press it. Move your index finger back to the LEFT mouse button and press it.

Nothing will happen when you press the mouse buttons right now, but they will be used to select items on the screen. Take a closer look at the mouse itself:

- Turn the mouse over in your hand. Notice the large metal ball bearing in the center on the underside of the mouse.

This ball bearing is used to control the position of the cursor. The mouse plugs into the keyboard; the keyboard plugs into the screen. When the mouse is moved on the desk top, a signal is sent to the keyboard and transmitted to the screen.

- Roll the ball bearing with your finger and watch the cursor move on the screen. Place the mouse back on the desk with the buttons facing up (upright position for the mouse).

- Move the mouse slowly to the right and watch the cursor move to the right on the screen.

- Move the mouse slowly to the left and watch the cursor move to the left on the screen.

- Pick the mouse up and move it left or right in the air. The cursor did not move.

The cursor moves when the ball bearing on the bottom of the mouse rolls along a surface. The cursor will not move if the ball bearing is not moving.

- Move the cursor to the top of the screen, then to the bottom. Position the cursor in the middle of the screen. Release the mouse.
TURNING OFF THE SYSTEM

To leave the system, you must quit from the Executive level. Do not quit until you are instructed to do so.

Whenever you are instructed to type something, the instruction will be indented, as seen below. The word(s) you are to type will appear in all lower case characters and the keyboard key(s) you must press will appear in all upper case characters.

) Quit from the Executive level by typing the character q and pressing the RETURN key. The RETURN key confirms your command. (q RETURN )

You could type the entire word quit and press the return key.

After the quit command is confirmed, the screen will turn off (turn black again). Next, turn off the disk in the processor. To turn off the disk and remove it from the workstation:

) Press the LOAD/RUN switch to the LOAD position.

Wait for the white LOAD lamp to light up. When the white LOAD lamp is lit, remove the disk and place it on the desktop.

) Wait for the white LOAD lamp on the disk drive panel to light up.

) When the LOAD lamp is lit, open the door, remove the disk and return it to the desktop.
LOAD lamp on............... Check to be sure the white LOAD lamp is on (located on the right side of the panel on the processor).

Load disk................. Open the windowed door of the disk drive. Pick up the disk and slide it gently yet firmly inside the disk drive until it stops.

Close the door to the disk drive.

Spin the disk up......... Press the LOAD/RUN switch to the RUN position to spin up the disk.

READY ..................... When the yellow READY lamp is lit, you are ready to turn on the system.

START ..................... Press the start button (located at the back of the keyboard between the two wires).

Quit ....................... Type the character "q" or the word "quit" and a RETURN (press the RETURN key).

Spin the disk down........ When the screen turns black, press the LOAD/RUN switch to LOAD.

WAIT ....................... Do not attempt to remove the disk until the white LOAD lamp is lit.

Remove the disk.......... When the white LOAD lamp is lit, open the windowed door of the disk drive and remove the disk. Store the disk.
Load the disk into the processor and spin it up.

Start the system (turn the screen on).

Quit.

Spin down the disk.

Remove the disk from the processor.

Repeat this procedure until you are comfortable with it. Finally, load the disk and start the system. Proceed to the next module.

If you are having a problem, first check to make sure you have performed each step properly (refer to the explanation in the module or the summary). If you are still experiencing a problem, ask for assistance.