Appendix A

Installing Valdraw

Installing Valdraw is a simple operation, and making it run is even simpler. The three basic steps are:

1. Plug your mouse or digitizer into the serial port of your computer.
2. Using SETUP, tell Valdocs what kind of graphics peripherals you are using with Valdraw.
3. Run Valdraw from Valdocs by pressing the **[MENU]** keyboard key, and then selecting Valdraw as an applications program.

These procedures are explained below.

STEP 1: CONNECTING A MOUSE OR DIGITIZER

Although you need nothing more than your computer keyboard to operate Valdraw, you'll enjoy greater control and flexibility if

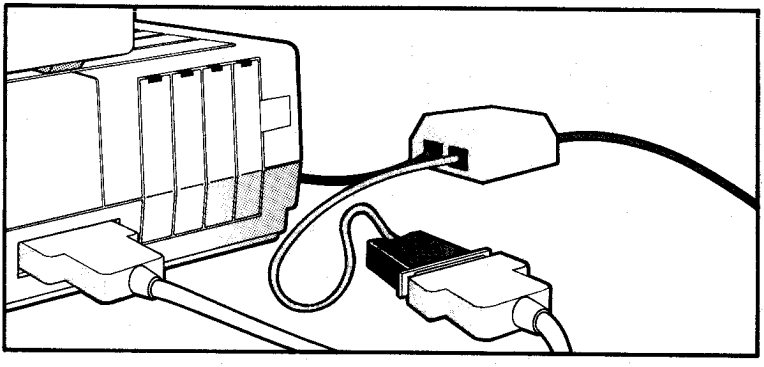

Figure 18. Connecting the mouse to the RS-232C interface

you have a mouse or digitizer. (A Rising Star mouse is included with the standard Valdraw/Valpaint package. If you want to use a different mouse or plan on buying a digitizer, make sure that it's compatible with those listed in Appendix B.) Either one functions as a graphics pointer that allows you to move the cursor rapidly around the screen. The three buttons on the mouse or digitizer wand provide you with instant fingertip control.

Follow the instructions in your mouse or digitizer manual for assembly. When the components are fully assembled, the mouse or digitizer must be connected to the RS-232C serial interface on the back of your computer, as shown in Figure 18.

If your mouse or digitizer has a male connector, you should be able to simply plug it directly into the serial socket on the back of the computer.

Should you find that you have a female (socket) connector, it will probably work if it's connected to your computer via a standard "modem" cable, such as an Epson #713 cable.

If your mouse has an adjustable baud rate, set it for 1200 baud.

Troubleshooting the Installation

If your system doesn't recognize the mouse or digitizer, first check to see that it's properly connected to your computer. Otherwise, consider the following:

1. The signals on pin 2 and pin 3 of the mouse or digitizer connector may be reversed.
2. The mouse or digitizer serial baud rate may be set incor-

rectly. The mouse baud rate should be set to 1200 baud. Digitizers should be set to the "autobaud" setting using the internal option jumpers.

3. There may be a hardware malfunction in the mouse or digitizer.

If you've checked all of the above and are still experiencing problems, contact Rising Star Customer Services at 213-373-9127 Monday through Friday between 7 a.m. and 5 p.m. Pacific Coast time.

Setting Digitizer Options

The following procedure applies only if you're using the Summagraphics MM1201 digitizer. If you're using a mouse, skip directly to "Step 2: Configuring SETUP for Valdraw."

Several options must be set before the digitizer can be used with Valdraw. The procedure is simple, but does require care.

Follow the procedures and safety precautions outlined in Appendix A of your Summagraphics manual when you make the following jumper changes inside the digitizer. Failure to do so can cause damage.

1. Remove the back of the digitizer tablet to gain access to the jumper option area.
2. Remove the jumpers at locations AC and M; make sure the jumper at AB is left in place.
3. Reassemble the tablet.

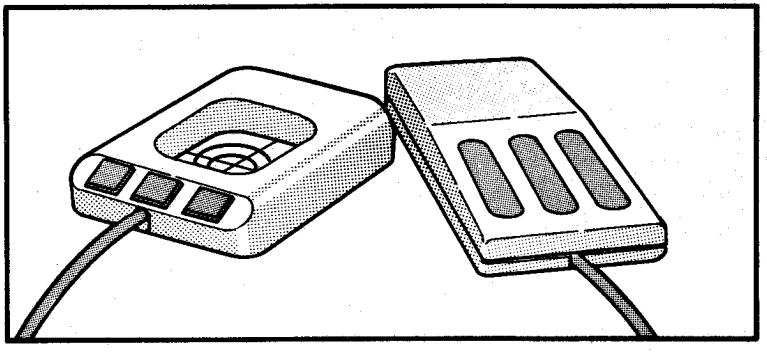

Figure 19. The digitizer wand (left) and the mouse (right)

When the jumpers are removed as described above, your digitizer will be set for auto-baud operation, packed binary formatting, and eight-bit serial data.

If you are using a digitizer that is compatible with the Summagraphics MM1201, make sure the same settings are programmed into it.

Note: Throughout this manual, we refer to your Valdraw controls as "mouse buttons." These buttons appear in the same general location as those on a digitizing wand. Since the buttons on each tool are functionally the same, we've made no distinction between digitizer and mouse buttons. (See Figure 19.)

STEP 2: CONFIGURING SETUP FOR VALDRAW

You will use the Valdocs SETUP program to inform the Valdocs system of the peripherals you have connected to your computer. This allows Valdocs to properly handle graphical input and output.

First, turn on your computer and start Valdocs in the normal manner. When Valdocs is ready, press the **[MENU]** key and select the <**M**>iscellaneous Peripherals option. Once the menu is displayed, select the appropriate item from among the following graphical output devices:

- Epson HI-80 four-color plotter
- Comrex ComScriber I single pen plotter
- DMP-42P (Houston Instruments) plotter
- None (which will cause all Valdraw output to be sent to the dot matrix printer selected in the <**P**>rinter Characteristics option in SETUP).

The "None" selection is the default value chosen automatically by Valdocs unless you indicate otherwise.

Next, select one of the following to indicate the type of graphics input device you have connected:

- None (You can still use your computer keyboard to draw Valdraw pictures if you make this selection. Unless told otherwise, Valdocs selects this setting automatically.)
- The Mouse Systems PC (or compatible) Mouse. This is

equivalent to the Rising Star Mouse applied with Valdraw.

- The Summagraphics MM1201 digitizer.

When you've made your selections, press the **[STORE]** key to save the changes (the changes will be incorporated into your computer's memory; they are not kept on the disk), then press the **[MENU]** key to return to the Valdocs menu program.

Valdraw is now installed and ready to run!

STEP 3: RUNNING VALDRAW

Start up your Valdraw program by performing these steps:

1. Press the **[MENU]** key on your keyboard and select the <**M**>enu of Applications option.
2. Place your Valdraw program disk in the disk drive you have indicated in Step 1, above.
3. Select VALDRAW from the Menu of Applications displayed on the screen.

Valdraw is up and running. You can now edit an existing drawing by using either the **[RETRIEVE]** or **[INDEX]** keys (these work exactly as they do with the Valdocs editor), or start a new design from scratch.

A SWITCH OPTION

If you are using an external modem or have both a printer and plotter, you can avoid a lot of wear and tear on both your computer and fingers by investing in a switch box. A switch box lets you change connections from one peripheral to another with the press of a button.

Comrex makes a CR-700 printer switch that lets you swap printers and plotters. Other manufacturers make RS-232C switches which can be used to switch between your mouse and external modem. Check with your local Epson dealer for information about these useful accessories.

Appendix B

Compatible Mice, Digitizers, And Plotters

The following is a list of several graphics peripherals that can be used with Valdraw. Since new equipment is announced daily, this listing is provided only as a guide to users. The left column lists those selections as they appear in the Valdocs SETUP menu (as described in Appendix A). The right column lists compatible devices.

Valdocs Mouse Selection	**Compatible Mice**
Mouse Systems PC Mouse	Mouse Systems PC Mouse Mouse Systems Field Mouse Versatech Mouse Rising Star Mouse
Valdocs Digitizer Selection	**Compatible Digitizers**
Summagraphics MM 1200	Summagraphics 1201

Valdocs Plotter Selection	Compatible Plotters
Epson	Epson HI-80 Hewlett-Packard 7000 Series
Comrex	Comrex ComScriber Sweet Pea I
DMP-42P	Houston Instruments DMP-42P Houston Instruments DMP-52P

Appendix C

Photographing Your Screen

One of the most obvious graphics output devices is your 35 mm camera. You can directly photograph your Epson high-resolution screen in either black and white or color. All you need is the following equipment:

1. A sturdy tripod.
2. A shutter cable release. (You can also use the built-in shutter delay timer if you don't have a cable release.)
3. A low-power telephoto lens that can focus on the full screen. A normal 55 mm lens, when equipped with extension tubes or a macro focusing capability introduces "barrel distortion." A 105 mm lens (or zoom equivalent) with macro focusing capability is ideal.

Screen photography is best performed in a dark or dimly lit room, in order to minimize reflections and image "washout." If you can't darken your computer area, plan to shoot at night. Use ASA 400 or faster film, and daylight color film when

shooting in color. Slide film gives all the radiant color you see on the screen, and it works well for monochrome screens, too.

METERING AND SHOOTING THE SCREEN

You won't be able to get an accurate exposure reading with your camera metering system from a computer screen, so try this approach:

1. In a dark room, turn the screen brightness up until the entire active part of the screen begins to glow. Turn the brightness down until the glow just disappears. This setting is the brightest that will still give clear images.
2. Using ASA 400 film, set your camera for manual exposure at F8 and 1/4 of a second. You'll probably have to experiment to find the best exposure for your particular computer screen.
3. Never shoot a picture of your screen with the lens "wide open." Even though the screen appear flat, there is a curve to the image. Use at least an F5.6 or F8 setting for sharpness and depth of field.
4. When setting up, make sure your camera is lined up "square on" with the screen. Then use the cable release or the shutter delay timer to take the picture. Since screen exposures are long, any camera or floor vibration will blur the image. Stand still until the shutter closes.

"NEGATIVE" PRINTS

Black and white positive pictures (white lines, black background) are usually clear and sharp, but you can also choose to make "negative" prints (white background, dark lines) if you have access to a darkroom. To do this:

1. Make a normal print, but put the negative in the enlarger upside down. Remember the enlarger exposure settings and time.

2. Process and dry the print (a hairdryer will speed up the process).
3. Make a "contact print" from the print you just dried. Put the dried print on top of a piece of unexposed print paper, emulsion sides facing each other, then clamp them together in a contact proofer or between two layers of glass. Without any film in the enlarger, expose the print paper through the positive print using about 2½ times the amount of light used to make the original print.
4. Process the print in the normal fashion.

Screen photography is an art in itself. Accurate color reproduction from the screen can be difficult because the color balance of a CRT screen often changes with the brightness setting and no two screens have exactly the same color balance or saturation.

But it can be done, and it's great fun learning the process. These few pointers should get you started on the way to enjoying Valdraw through your camera.

Rising Star Industries,

25500 Hawthorne Blvd., Suite 2000,
Torrance, CA 90505 213-373-9112