

XEROX

Xerox ViewPoint

VP PC Emulation Training

XEROX

VP PC Emulation Training

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Changes are periodically made to this document. Changes, technical inaccuracies, and typographical errors will be corrected in subsequent editions.

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Table of contents

1. Getting started	1
Hardware and software you need to begin training	2
Checking the status of applications	2
Running applications	3
2. Retrieving PCE icons and the Floppy Drive icon	4
Retrieving the PCE icons	4
Retrieving the Floppy Drive icon	6
3. Using the floppy disk drive	7
Formatting a 5¼-inch floppy disk	7
4. Setting properties of the PCE icon	9
Setting properties of the PCE icon	9
Setting the disk drive configuration for two floppy disk drives	11
5. Starting a PC emulation session	12
Booting the PC emulator	12
Copying data into the PC Emulator window	14
Copying data out of the PC Emulator window	14

6. Displaying the PCE virtual keyboard	15
Displaying the PCE keyboard	15
7. Using the Virtual Floppy icon	17
Formatting a Virtual Floppy icon	17
Moving the Virtual Floppy icon into the PC Emulator window	18
Copying files to the Virtual Floppy icon with MS-DOS	18
Removing the Virtual Floppy icon	19
Displaying Virtual Floppy icon files	19
Using the conversion facility	20
8. Using the Emulated Fixed Disk icon	21
Partitioning the Emulated Fixed disk	21
Setting the Emulated Fixed disk configuration	22
Formatting the Emulated Fixed disk partition	23
Copying MS-DOS files to the Emulated Fixed disk	24
Displaying the Emulated Fixed disk files	24
Using the conversion facility	25
9. Printing PC emulation data	26
Printing to Interpress printers	26
Using a 4045 Laser Copier/Printer (CP)	28
Using other parallel and serial printers	28

1. Getting started

Xerox ViewPoint PC Emulation is an optional software application for the 6085 Professional Computer System. Using VP PC Emulation, you can emulate the IBM Personal Computer. You can share and transfer information between MS-DOS and ViewPoint environments.

When you finish this training guide, you will be able to do the following:

- Retrieve PC emulation (PCE) icons and the Floppy Drive icon from the Directory.
- Format a 5¼-inch floppy disk in MS-DOS.
- Set the properties of the PCE icon for PC emulation.
- Start an emulation session.
- Display the PCE virtual keyboard.
- Use the Virtual Floppy icon.
- Use the Emulated Fixed Disk icon.
- Set printing options for PC output.

This training guide assumes that you have completed the *ViewPoint QuickStart Training* guide. If you have not yet worked through that guide, complete it now before continuing with this guide. You should also have experience with the IBM PC and the MS-DOS operating system commands. Throughout this training guide, the terms "PC emulation" and "PCE" are used interchangeably.

This training guide is not designed to teach you all skills possible for using VP PC Emulation software. Additional resources include:

- *Xerox VP PC Emulation and MS-DOS User Guide*
- *Xerox MS-DOS Reference*

For complete information on VP PC Emulation, refer to the *VP PC Emulation and MS-DOS User Guide* reference volume of the *VP Series Reference Library*.

Hardware and software you need to begin training

Before you begin your training, make sure you have the following hardware and software:

- An operating 6085 workstation with a desktop, a fully qualified user name, a password, and a PC Option board installed. If you have a 6085 workstation that is part of a network, you can get help from your system administrator. If your workstation is a StandAlone or Documenter, you can get help from the *Workstation Administration and System Resources Reference* volume.
- Default User Profile settings. The User Profile lists the settings that control your desktop. The procedures in this training guide are designed for desktops using the default User Profile settings. Check with your system administrator to make sure your desktop has the default User Profile settings, or refer to the *General User Reference* volume.

Check the status of your applications before you begin training; consult with your system administrator or follow the next procedure.

Checking the status of applications



1. **Open** the Directory icon.
2. **Open** the Workstation divider.
3. **Open** the Loader.

4. **Compare** the list of applications in the Loader window with the list of applications here.

- VP Document Editor
- VP PC Emulation

If the Loader lists the applications you need and their STATUS column is set to RUNNING, select [Close All] in the Loader window header.

If the applications you need are not listed in the Loader, consult your system administrator or refer to the *General User Reference* volume for information on installing, enabling, and running the applications in the above sequence.

If the applications you need are listed, but the STATUS column is set to IDLE, change the status of the applications as described next.

Running applications

If the STATUS column of an application you need is set to IDLE, change it to RUNNING.

1. **Select** the application.
2. **Select** [Run] from the Loader window header.
3. **Select** [Close All] in the Loader window header when you are finished setting applications to RUNNING.

You can also set applications to run automatically; refer to the *General User Reference* volume for this procedure.

Two final notes before you begin:

- This training guide uses underlining to indicate information that you type; however, you do not need to underline the information you type.
- As you use this training guide, you will see terms in ***bold italic*** type. You can find more information on these terms in the Glossary, which is located in the *QuickFind Reference* volume.

You are now ready to start training.

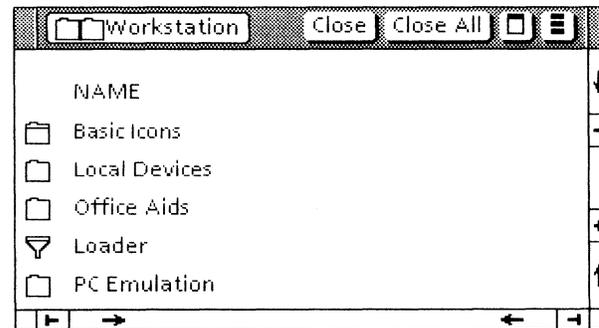
2. Retrieving PCE icons and the Floppy Drive icon

Before you can use VP PC Emulation software, you must copy the PCE icons to your desktop.

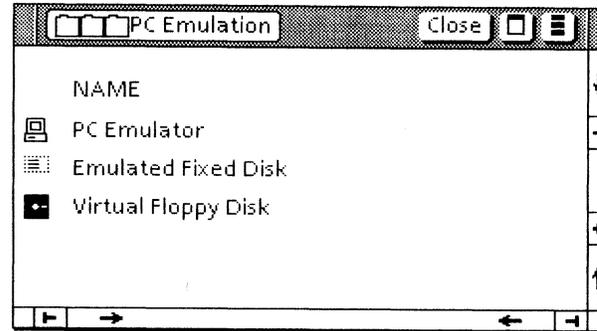
Retrieving the PCE icons



1. **Select** the Directory icon, and **press** <OPEN>.
2. **Select** the Workstation divider, and **press** <OPEN>.



3. Select the PC Emulation divider, and press <OPEN>.

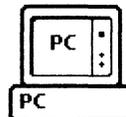


VP PC Emulation software must be running and enabled on your workstation for a PC Emulation divider to appear in the Workstation divider. If the PC Emulator divider does not appear, refer to the *VP PC Emulation and MS-DOS User Guide* reference volume.

4. Select the PCE icons and, copy them to your desktop.

5. Select [Close All] in the window header.

Here's a brief description of each icon's function in PC emulation.



- The *PC Emulation icon* is used to set the configuration details (disk drives, memory, printing, etc.) used in PC emulation. When opened, its window contains the PC emulation display area.
- The *Emulated Fixed Disk icon* is used to reserve disk space on the workstation's hard disk for PC emulation and to store DOS files.
- The *Virtual Floppy icon* is a medium used to store DOS files, allowing you to access them on your ViewPoint desktop.

Retrieving the Floppy Drive icon

The 5¼-inch floppy disk is used to store data in PC emulation. You can format a 5¼-inch floppy disk for MS-DOS applications from your ViewPoint desktop using the Floppy Drive icon. If you do not already have a Floppy Drive icon on your desktop, complete the following steps. Otherwise, proceed to the next chapter.

1. **Select** the Directory icon, and **press** <OPEN>.
2. **Select** the Workstation divider, and **press** <OPEN>.
3. **Select** the Local Devices divider, and **press** <OPEN>.
4. **Select** the Floppy Drive icon, and **copy** it to your desktop.
5. **Select** [Close All] in the window header.



3. Using the floppy disk drive

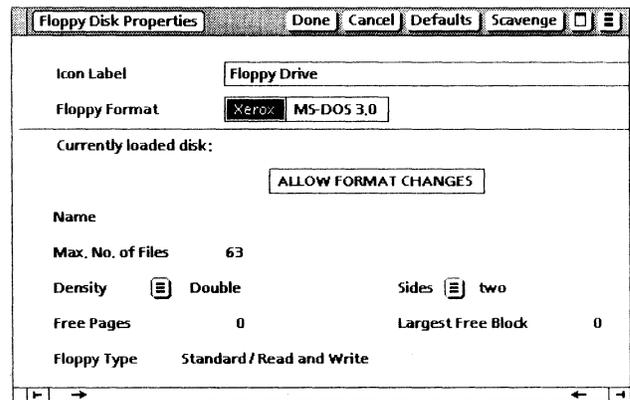


Once you format a 5¼-inch floppy disk in MS-DOS, you can examine and manipulate files stored on it using your floppy disk drive.

You need a blank 5¼-inch floppy disk to complete the disk formatting exercise which follows. Make sure the write protect tab has been removed.

Formatting a 5¼-inch floppy disk

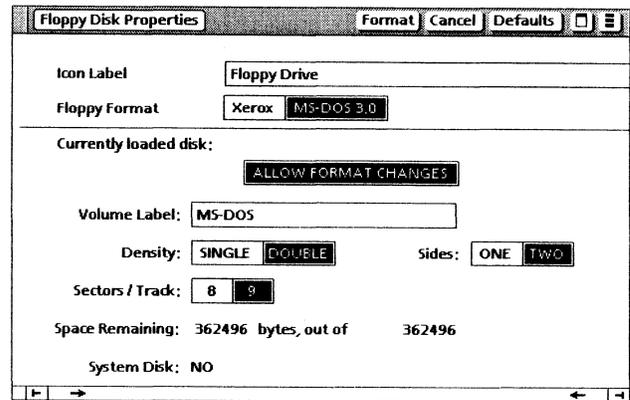
1. **Insert** the 5¼-inch floppy disk in the floppy disk drive, and **close** the latch.
2. **Select** the Floppy Drive icon, and **press** <PROP'S>.



3. **Select** [MS-DOS 3.0] for the Floppy Format option.

4. Select [ALLOW FORMAT CHANGES].

Additional options appear.



5. Select [DOUBLE] for the Density option, and Select [TWO] for the Sides option.

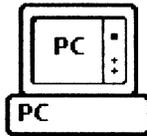
6. Select [FORMAT].

Note the status message in the desktop message area.

7. Select [Done] when formatting is complete.

When you format a disk using a property sheet, the disk can only store data and cannot be used to boot the PC emulator window when DOS system files are copied on it. You must use the DOS **FORMAT X:/S** command to create a bootable disk (where **X** designates the drive).

4. Setting properties of the PCE icon



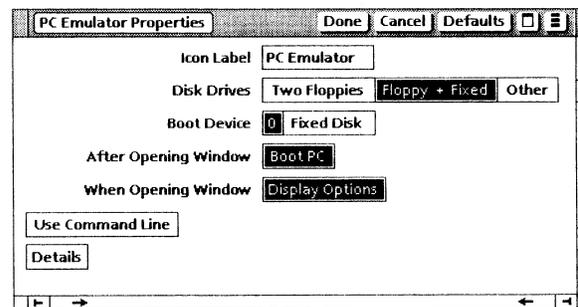
The PC Emulator Properties sheet allows you to display and modify the properties of the PCE icon. These details include memory size, floppy and rigid disk configuration, printer type, and display screen type.

Setting properties of the PCE icon

Pressing <PROP'S> displays all of the properties associated with the PCE terminal. All information you enter on the PC Emulator Properties sheet is retained until you change it or delete the icon.

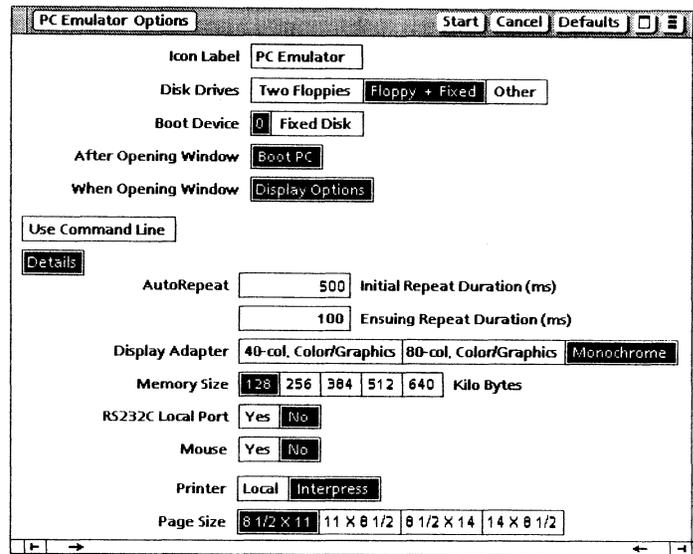
1. **Select** the PCE icon, and **press** <PROP'S>.

Study the properties.



2. Select [Details].

Review the additional settings.



Here is a description of the items found on the PC Emulator Properties sheet.

- **Icon Label** - This option is used to name the icon.
- **Disk Drives [Two Floppies/Floppy + Fixed/Other]** - This option sets the disk drive configuration to be used during the emulation session. Additional options appear when you select [OTHER].
- **Boot Device [0/Fixed Disk]** - This option is used to specify which device is used to boot the PC emulator and makes the floppy disk drive accessible to PC emulation. [0] represents the physical floppy disk drive.
- **After Opening Window [Boot PC]** - If this option is selected, the emulator boots when the icon is opened. Otherwise, you must select [BOOT] in the PC window header when the PC Emulator window is displayed.

- **When Opening Window [Display Options]** - If this option is selected, the PC Emulator Options sheet is displayed when the icon is opened. Otherwise, the PC emulator opens to the PC emulator window, and you cannot change any of the property sheet selections.
- **[Use Command Line]** - This option allows you to enter MS-DOS commands to be executed when the emulator boots.
- **[Details]** - If this option is selected, additional options on memory, display type, RS232C port, mouse cursor, and printing devices are displayed.

Refer to the *VP PC Emulation and MS-DOS User Guide* reference volume for a complete description of these property sheet items.

Setting the disk drive configuration for two floppy disk drives

1. **Select** [Two Floppies] for the Disk Drives option.
2. **Deselect** [Boot PC] for the After Opening Window option.
3. **Select** [Done].

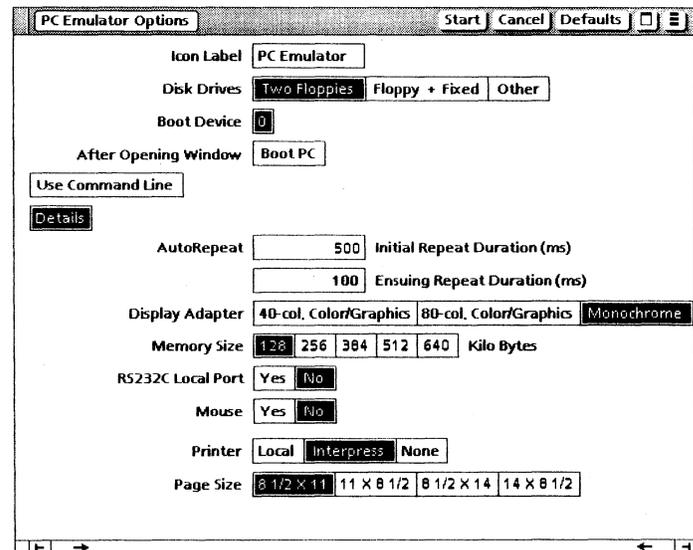
5. Starting a PC emulation session

You need to access the PC Emulator Options sheet to begin your initial emulation session. Have your MS-DOS system disk available for this chapter.

Booting the PC emulator

1. **Insert** the MS-DOS system disk in the floppy disk drive.
2. **Open** the PCE icon.

Your PC Emulator Options sheet is displayed.



3. Select [Start].

Your PC emulator window is displayed. However, the emulator window does not boot because you deselected [BOOT PC] for the After Opening Window option on the PC Emulator Properties sheet.

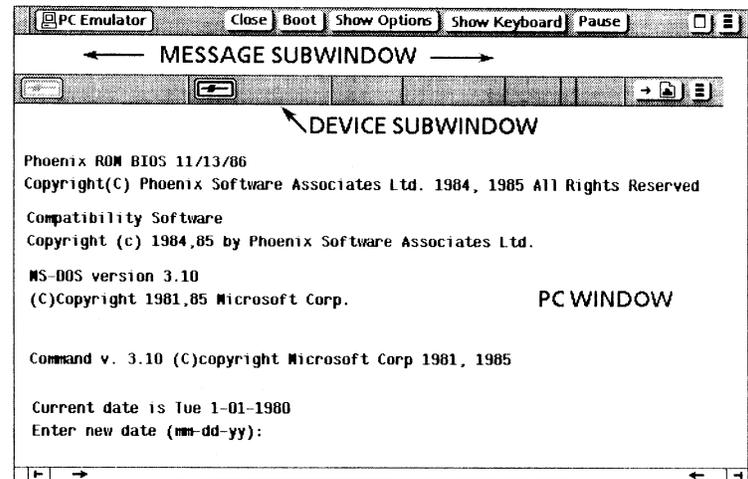
4. Select [Boot] from the PC Emulator window header.

Your PC emulator boots, and MS-DOS operating system status information is displayed.

5. Type the date and time at the MS-DOS prompt.

The A> prompt appears. The "A" is your disk drive designator.

6. Study the components of the PC Emulator window and your options.



For information on how you can set the date and time prompts automatically when you boot and for an explanation of PC emulator window components, refer to the *VP PC Emulation and MS-DOS User Guide* reference volume.

Copying data into the PC Emulator window

You can copy text in a ViewPoint document into the PC Emulator window. If the window is active, the PC virtual function keys are displayed.

1. Select the text you wish to copy.

There is a limit to the number of characters you can copy into the PC window when you are not copying data into a specific PC application package.

2. Press <COPY>.

3. Select in the PC Emulator window.

The cursor in the PC Emulator window appears as an underscore (_). Information is inserted in the window at the cursor position.

Copying data out of the PC Emulator window

Before you can copy data from the PC Emulator window, you must first select [Pause]. If you are using the RS232C communication option, make sure the transmission is complete before you select [Pause].

1. Select [Pause] in the PC Emulator window.

The window is suspended.

2. Select the data you wish to copy out.

You cannot use multiple clicking to select words, sentences, or paragraphs.

3. Press <COPY>.

4. Select in the ViewPoint document.

The data is inserted at the cursor position.

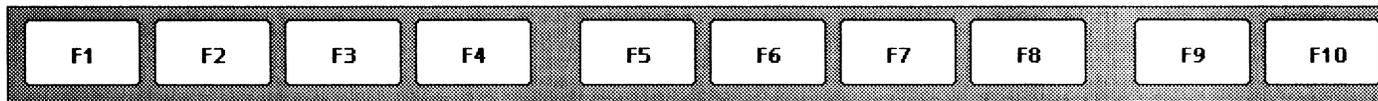
5. Select [Resume] to continue with the PC emulation session.

6. Displaying the PCE virtual keyboard

Whenever you make a selection in the PC Emulator window, your workstation's keyboard is redefined as an IBM PC keyboard. The function keys across the top of your keyboard are also redefined. This gives you full access to all characters available on the PC keyboard.

Displaying the PCE keyboard

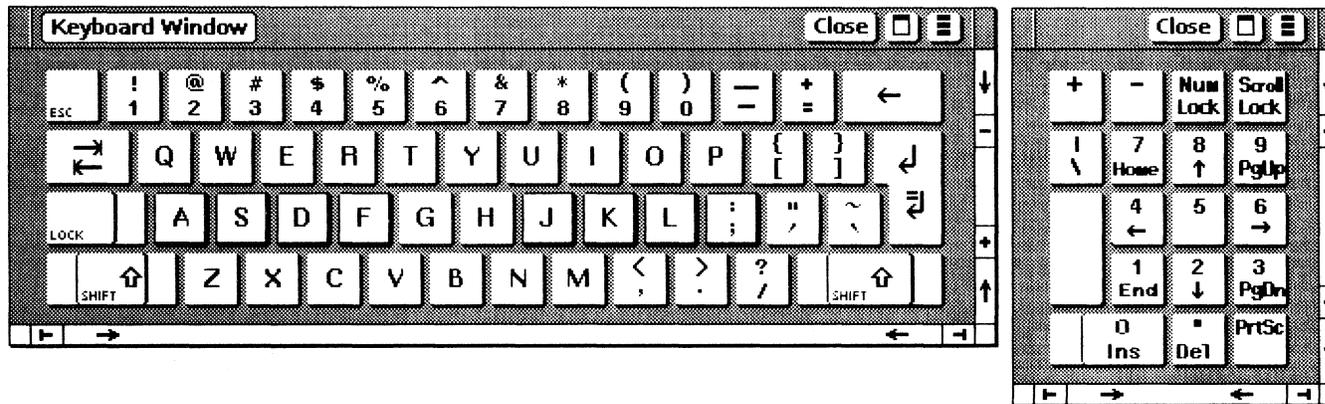
1. Select within the text area of the PC Emulator window.



The function keys are displayed when the PC emulator is successfully booted. However, they are active only when the PC Emulator window is active and a selection is made inside the window.

2. Select [Show Keyboard] in the PC Emulator window.

Your PC virtual keyboard and 10-key pad are displayed.



You can access the virtual 10-key pad window by using the mouse or the physical 10-key pad.

<KEYBOARD> and <DEFINE/EXPAND> on your workstation's keyboard are equivalent respectively to the <CTRL> and <ALT> keys found on an IBM PC. One way to reset/reboot the PCE session is to hold down <KEYBOARD>, <DEFINE/EXPAND>, and (virtual 10-key pad) simultaneously.

3. Select [Close] on the Keyboard Window and on the virtual 10-key pad window.

For additional information regarding the PCE virtual keyboard, refer to the *VP PC Emulation and MS-DOS User Guide* reference volume.

7. Using the Virtual Floppy icon



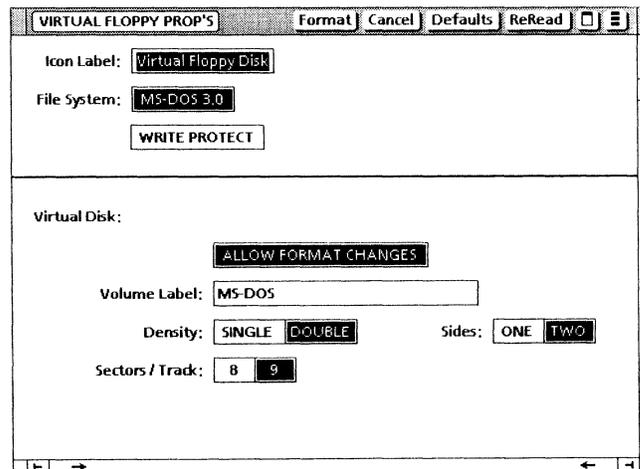
You can use the Virtual Floppy icon to transfer files from the MS-DOS environment to the ViewPoint environment. Virtual floppy disks allow you to work with several floppy disks even though your workstation has only one physical drive.

Formatting a Virtual Floppy icon

The Virtual Floppy icon, like a regular floppy disk, has to be formatted before you can store data on it.

1. **Select** the Virtual Floppy icon, and **press** <PROP'S>.

The Virtual Floppy Prop's sheet is displayed. The message: "Floppy or partition needs to be formatted" appears in your desktop message area.



2. **Select** [Format].

3. **Select** [Done] when the format operation is complete.

When you format a Virtual Floppy icon using a property sheet, the icon can only store data and cannot be used to boot the PC Emulator window when DOS system files are copied on it. You must use the DOS **FORMAT X:/S** command to create a bootable disk (where **X** designates the drive).

For additional information on the Virtual Floppy icon property sheet items, refer to the *VP PC Emulation and MS-DOS User Guide* reference volume.

Moving the Virtual Floppy icon into the PC Emulator window

1. **Select** the Virtual Floppy icon, and **press** <MOVE>.

The cursor changes into the shape of a floppy disk.

2. **Move** the cursor to the virtual floppy disk drive symbol (B:) in the device subwindow, and **press** the left mouse button.



Copying files to the Virtual Floppy icon with MS-DOS

Verify that your MS-DOS system disk is in the floppy disk drive, and the "A>" is displayed in your emulation window.

1. **Type:** COPY *.* B:, and **press** <RETURN>.

The files being copied are displayed.

2. **Type:** B:, and **press** <RETURN>.

This changes the current working drive to the virtual floppy disk drive containing the virtual floppy disk.

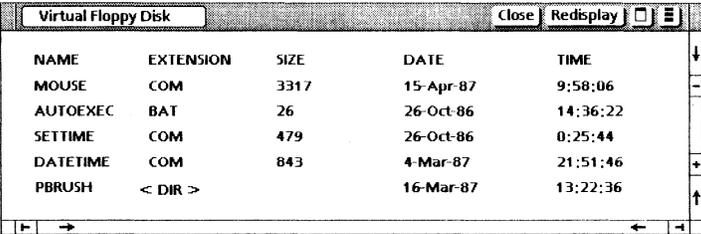
3. **Type:** DIR, and **press** <RETURN> .
This displays the files on the virtual floppy disk.
4. **Type:** A:, and **press** <RETURN> .

Removing the Virtual Floppy icon

1. **Select** the Virtual Floppy icon in the device subwindow.
The cursor changes into the shape of a floppy disk because the system anticipates a move operation. A distinct advantage of the Virtual Floppy icon is that you can remove it from the PC emulator window during a PC emulation session. This allows you to transfer and convert PC files to the ViewPoint desktop without ending the PCE session.
2. **Position** the cursor to a location on your desktop, and **press** the left mouse button.
The Virtual Floppy icon is placed on your desktop.
3. **Select** [Close] in the PC Emulator window header, and **select** [Yes] to the confirmation message.

Displaying Virtual Floppy icon files

1. **Open** the Virtual Floppy icon.
The MS-DOS files copied to the Virtual Floppy icon are displayed.



NAME	EXTENSION	SIZE	DATE	TIME
MOUSE	COM	3317	15-Apr-87	9:58:06
AUTOEXEC	BAT	26	26-Oct-86	14:36:22
SETTIME	COM	479	26-Oct-86	0:25:44
DATE TIME	COM	843	4-Mar-87	21:51:46
PBRUSH	< DIR >		16-Mar-87	13:22:36

You can copy, move, or delete files by selecting the appropriate keyboard key. You can also open directories, but you cannot copy, move, or delete them in the ViewPoint environment.

2. **Select** [Close].

For additional information on using the Virtual Floppy icon, refer to the *VP PC Emulation and MS-DOS User Guide* reference volume.

Using the conversion facility

You can use the Virtual Floppy icon to convert PC files into the ViewPoint format and vice versa. The ViewPoint conversion software enables you to convert PC files such as WordStar®, Lotus 1-2-3®, and ASCII text files. If the specified ViewPoint conversion software is installed and running on your workstation, you can copy the file(s) into the ViewPoint converter.

For additional information on using the conversion software, refer to the *File Conversions Reference* volume.

8. Using the Emulated Fixed Disk icon



The Emulated Fixed Disk icon reserves a portion of your workstation's hard disk for PC emulation. You can store application software such as WordStar, Lotus 1-2-3, and MS-DOS system files on your emulated fixed disk.

Partitioning the Emulated Fixed disk

Before you can use the Emulated Fixed Disk icon for PC emulation, you must reserve disk pages on your desktop for PC emulation functions. The minimum you need to reserve is 4080 disk pages (2 megabytes); the maximum you can reserve is 65,484 disk pages (32 megabytes). The number of disk pages you reserve ultimately depends on the total free disk pages available on your workstation.

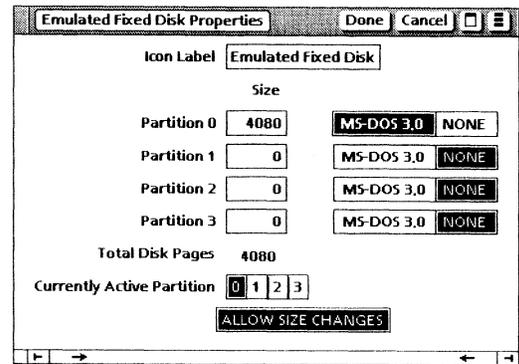
WARNING: Partitioning an Emulated Fixed disk erases all files stored on it. Therefore, do not complete this activity if the Emulated Fixed Disk icon on your workstation has already been partitioned.

1. **Select** the Emulated Fixed Disk icon, and **press** <PROP'S>.

The Emulated Fixed Disk Properties sheet appears.

2. **Select** [ALLOW SIZE CHANGES].
3. **Type:** 4080 in Partition 0, and **select** [MS-DOS 3.0].
4. **Select** [0] for the Currently Active Partition option.

Your property sheet should now look like this.

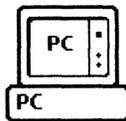


5. **Select** [Done].

The Emulated Fixed Disk icon closes when the partitioning is complete.

Setting the Emulated Fixed disk configuration

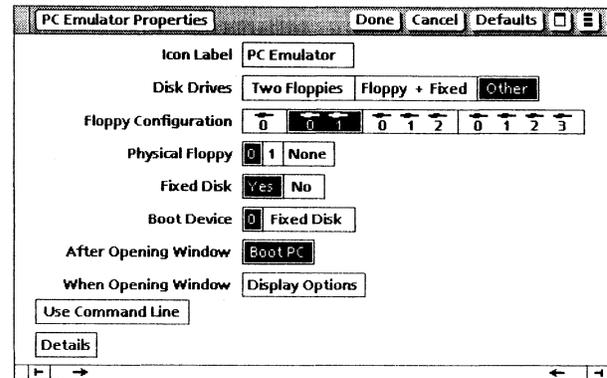
Before you can access the Emulated Fixed disk, you must access the PC emulator's property sheet and set the configuration for the fixed disk to [Yes].



1. **Select** the PCE icon, and **press** <PROP'S> .
The PC emulator properties are displayed.
2. **Select** [Other] for the Disk Drives option.

3. **Select** [01] for the Floppy Configuration option, and **select** [0] for the Physical Floppy option.
4. **Select** [Yes] for the Fixed Disk option, and **select** [0] for the Boot Device option.
5. **Select** [Boot PC] for the After Opening Window option.
6. **Deselect** [Display Options] and [Details].

Your property sheet should look like this..



7. **Select** [DONE].

Formatting the Emulated Fixed disk partition

WARNING: Formatting an Emulated Fixed disk partition erases all files stored on it. Therefore, do not complete this activity if the Emulated Fixed disk partition on your workstation has already been formatted.

1. **Insert** the MS-DOS system disk in the floppy disk drive, and **open** the PCE icon.
2. **Type** the date and the time at the MS-DOS prompt.

The "A>" now appears.

3. **Type:** FORMAT C:/S, and **press** <RETURN>.

A confirmation message appears, advising you that the files stored on the Emulated Fixed disk partition will be erased.

4. **Type:** Y, and **press** <RETURN> in response to the confirmation message.

Copying MS-DOS files to the Emulated Fixed disk

1. **Type:** COPY *.* C:, and **press** <RETURN>.

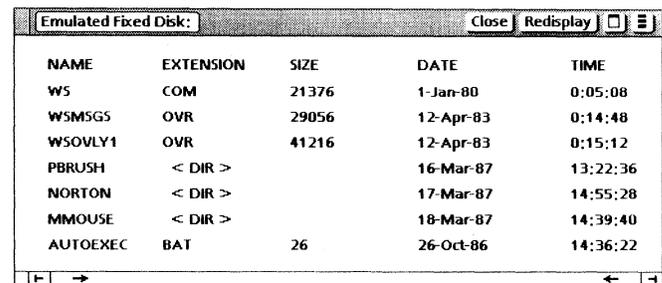
This transfers MS-DOS system files to the fixed disk partition.

2. **Select** [Close] in the PC Emulator window when the command has finished executing.

Displaying the Emulated Fixed disk files

1. **Open** the Emulated Fixed Disk icon.

You can open the Emulated Fixed Disk icon only when the PC emulator has not been booted or when the emulator session has been terminated. If you select [Pause], you cannot open the Emulated Fixed Disk icon.



The screenshot shows a window titled "Emulated Fixed Disk:" with a "Close" button and a "Redisplay" checkbox. The window contains a table with the following columns: NAME, EXTENSION, SIZE, DATE, and TIME. The table lists several files and directories with their respective attributes.

NAME	EXTENSION	SIZE	DATE	TIME
WS	COM	21376	1-Jan-80	0:05:08
WSMSG5	OVR	29056	12-Apr-83	0:14:48
WSOVLY1	OVR	41216	12-Apr-83	0:15:12
PBRUSH	< DIR >		16-Mar-87	13:22:36
NORTON	< DIR >		17-Mar-87	14:55:28
MMOUSE	< DIR >		18-Mar-87	14:39:40
AUTOEXEC	BAT	26	26-Oct-86	14:36:22

You can copy, move, or delete files by selecting the appropriate keyboard key. You can also open directories, but you cannot copy, move, or delete them in the ViewPoint environment.

2. Select [Close].

You can use the Emulated Fixed disk to boot the PC emulator, if you selected [Fixed Disk] for the Boot Device option on the Emulated Fixed Disk property sheet.

WARNING: The Emulated Fixed disk is NOT password protected like your ViewPoint desktop. All users with a desktop on the workstation have access to the Emulation Fixed Disk as a common area just like the help folder. You should never leave VALUABLE, IRREPLACEABLE files on it.

In addition, moving your desktop to a file server will not back up the files stored on the Emulation Fixed Disk.

For additional information on the items displayed when selecting the Emulated Fixed Disk icon, using the icon in PC emulation, and backing up Emulated Fixed disk files, refer to the *VP PC Emulation and MS-DOS User Guide* reference volume.

Using the conversion facility

When PC emulation is not running, you can open the Emulated Fixed Disk icon on your desktop to view the PC files that have been stored in it. You can then convert these PC files to the ViewPoint environment.

For additional information on using the conversion software, refer to the *File Conversions Reference* volume.

9. Printing PC emulation data

In PC emulation, you can use a network or a local desktop printer. You set the printing method you will use on the PC Emulator Properties or PC Emulator Options sheet, or the auxiliary menu in the device subwindow.

Printing to Interpress printers

The Interpress document format is used for documents printed on Xerox printers. You can print PC files on a Xerox network printer or Xerox® 4045 Laser Copier/Printer (CP) if [Interpress] is selected for the Printer option on the PC Emulator Properties sheet.

Details

AutoRepeat Initial Repeat Duration (ms)

Ensuing Repeat Duration (ms)

•

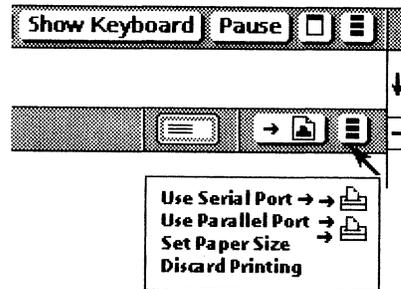
•

•

Printer Local Interpress

Page Size 8 1/2 X 11 11 X 8 1/2 8 1/2 X 14 14 X 8 1/2

When the emulator is opened and successfully booted, the Interpress printing symbol appears in the device subwindow.



The pop-up menu allows you to access a desktop printer attached to the workstation's serial port or the local printing option board's parallel port.

1. **Insert** the MS-DOS system disk in the floppy disk drive.
2. **Open** and **boot** the PCE icon.
3. **Type** the date and time prompt, if applicable.
4. **Type:** DIR/P, and **press** <RETURN> at the MS-DOS prompt.

The MS-DOS system files are displayed.

5. **Select** [Show Keyboard].

The virtual keyboard and the 10-key pad are displayed.

6. **Hold down** <SHIFT>, and **press** <PrtSc>.

The MS-DOS keyboard command prints the data displayed on the screen. Notice that the Interpress printing arrow symbol is moving in the device subwindow. This informs you that data is being collected in a print file. When movement stops, continue with the next step.

7. **Position** the cursor on the Interpress printing symbol, and **press** the left mouse button.
8. **Move** the cursor to a location on the desktop, and **press** the left mouse button.

The cursor shape changes to an Interpress document. You can mail, file, or print the Interpress document.

9. **Copy** the document to your network or 4045 printer, and **select** [Start].

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