

OS 5.2 RELEASE DOCUMENT

XEROX

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1. Overview	1
Highlights	1
Feature description	2
Interactive Terminal Service	2
Print Service	2
Boot Service	3
Terminal Emulation	3
ViewPoint 1.0 Documents Conversion	7
Workstation software fixes	8
Deliverable items	9
System documentation	9
2. OS 5.2 installation procedures	11
Interactive Terminal Service	11
Print Service	13
Boot Service	15
8010 Star Information System	17
3. Notes and cautions	19
Interactive Terminal Service	19
Print Service	20
Boot Service	21
8010 Star Information System	22

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Highlights

The Office System 5.2 release includes enhancements to both the network services and the 8010 STAR Information System. Network services enhancements include additions to the Interactive Terminal Service, Print Service, as well as the introduction of a new service, the Boot Service. Enhancements to the 8010 STAR Information System include additions to the Terminal Emulation feature of the 8010, as well as a backward conversion capability allowing ViewPoint 1.0 created documents to be read on OS 5.0, 5.1, and 5.2 8010 workstations. In addition to these workstation enhancements, several workstation software problems were also corrected.

The Interactive Terminal Service (ITS) has been improved to include the capabilities of printing interpress files, plain ASCII text files, and documents created on Xerox Memorywriters. In addition, ITS automatically stores a profile of each user at logoff time. Information such as the user's directory path, terminal options, and print service data are retained. This eliminates the need to enter this information each time a new session is started.

The Print Service has been expanded to include support for the Laser CP Electronic Printer in addition to maintaining support for electronic and facsimile printers.

The Boot Service has been introduced to support installation of workstation software via the Ethernet.

The Terminal Emulation feature of the 8010 has been enhanced by expanding the DEC VT100 virtual keyboard to include new display keys and escape sequences. These keys may be used with PC Resource products to aid in the emulation of PC keyboards.

The backward conversion capability allows documents created with ViewPoint 1.0 software to be shared with workstations running OS 5.0, OS 5.1, or OS 5.2 software versions.

The workstation software fixes that were made in the Office System 5.2 release correct several problems in document upgrade, terminal emulation, and other areas.

Feature description

Details of the Office System 5.2 release are described below under the headings Interactive Terminal Service, Print Service, Boot Service, Terminal Emulation, ViewPoint 1.0 Documents Conversion, and Workstation Software Fixes.

Interactive Terminal Service

The Interactive Terminal Service (ITS) allows remote users of TTY-like terminals and computers acting in teletype mode to exchange information over telephone lines with users of workstations on the internet. Any personal computer or standard ASCII terminal that can initiate a dial-up communications session using Asynchronous ASCII protocols can communicate with the ITS and use the network Mail, File and Print Services.

The ITS provides users of remote terminals (using standard asynchronous protocols) with an interactive user interface to execute commands to the Xerox Network System (XNS). Using XNS protocols, ITS executes requests from terminal users, enabling them to compose, send, answer, and forward mail; to store, retrieve, move, and copy files; and to print documents. As a result, TTY-like terminals and personal computers that are not directly attached to an Ethernet network and do not have electronic print, mail and file applications, or use XNS protocols, can still be used to exchange information with computers on the internet.

Any registered user on the internet with access to a teletype device or personal computer can use ITS to access the Network Services. Nearly all computers with standard RS-232-C communication ports can be used as teletype devices to communicate with ITS. Xerox products such as the Memorywriter, 820-II Personal Computer, 850 Display Typing System, and 860 Information Processing System communicating in asynchronous protocol can take advantage of the XNS electronic printing, mailing and filing features through the ITS. Most non-Xerox TTY-like terminals can also use these features of XNS.

For more detailed information, see the Services Product Descriptions Update booklet in the System Administration Library.

Print Service

The Print Service can be configured to support either an electronic printer or a facsimile device for shared resource access by any workstation on the internet. Therefore, a server can support either facsimile printing or electronic printing, but not both. This allows users of the 8010 Star, 6085 Professional Computer System, and networked IBM PC's to distribute documents via the Print Service. The OS 5.2 Print Service has been enhanced to include support for the new Laser CP

Electronic Printer in addition to the previously supported printing devices.

In addition, the OS 5.2 Print Service software corrects a problem in inter-word spacing that produced undesirable spaces in justified text. This problem has been corrected by distributing the necessary spacing between characters as well as words.

For more detailed information, see the Services Product Descriptions Update booklet in the System Administration Library.

Boot Service

The Boot Service is new with the OS 5.2 Release. The Boot Service supports booting of processors from the Ethernet. This service is a base for the network installation utility that will provide more convenient and efficient means of installing software on workstations. This service, with the network installation utility, will reduce the need for floppy drives as it offers remote network installation of Xerox ViewPoint software.

For more detailed information on the Boot Service, refer to the Boot Service booklet in the System Administration Library.

Terminal Emulation

VT100 terminal emulation supports interactive terminal communication to DEC, Data General, and other host computers that support VT100. VT100 Emulation supports full screen addressing as compared with TTY's line-by-line cursor control. Asynchronous Communication Protocol residing on a Xerox 8000 NS Server provides auto-dial support for VT100 Emulation.

The VT100 virtual keyboard has been enhanced in Office System 5.2 (OS 5.2) to include new display keys and escape sequences. These keys may be used with PC Resource products to aid in the emulation of PC keyboards.

Note: PC Resource products are devices available in the marketplace that emulate PC products.

Figure 1 below depicts the OS 5.2 TTY Virtual Property Key window. The virtual property keys are accessed by making a selection in the emulation window after establishing connection to a host computer.

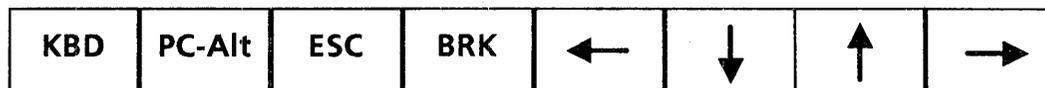


Figure 1. Office System 5.2 TTY Virtual Property Key Window

The difference between the OS 5.2 and OS 5.0 TTY Virtual Property Key window is that in OS 5.2 the <PC-Alt> key replaces the OS 5.0 <SHOW> key. The <PC-Alt> key corresponds to the Alt key on a IBM PC keyboard, and should be used only when the VT100 emulation window is interfacing with a PC-VT100 compatible computer.

Figure 2 below depicts the OS 5.2 VT100 virtual keyboard. The VT100 virtual keyboard is enabled by pressing the <KBD> virtual property key (see Figure 1). Pressing the <KBD> key a second time enables the alphanumeric virtual keyboard. The <KBD> virtual property key performs a toggle function, allowing the user to toggle between the VT100 and alphanumeric virtual keyboards.

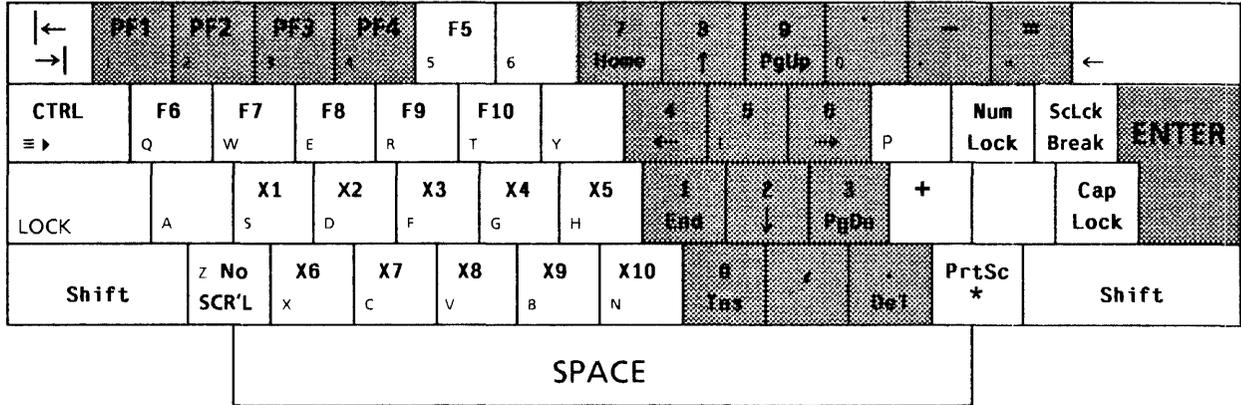


Figure 2. VT100 Virtual Keyboard

Note: The above procedure only enables the virtual keyboards. It does not result in a display of the enabled virtual keyboard. Also note that the alphanumeric virtual keyboard is the default keyboard.

To display the enabled virtual keyboard, the user must hold-down the <KEYBOARD> key located in the right function group of the keyboard, and then press <SHOW> in the resulting virtual property key window. The enabled virtual keyboard window may be closed by selecting the [CLOSE] command in the header of the keyboard window.

The shaded keys in Figure 2 represent keys found on a real VT100 keyboard. These keys remain unchanged from the OS 5.0 release. The non-shaded keys with bold faced labels represent keys found on PC keyboards but not on a VT100 keyboard. The non-shaded, PC keys, are the new VT100 virtual keyboard additions in the OS 5.2 release.

Control sequences and VT100 auxiliary keyboard keys

This section describes how the VT100 virtual keyboard relates to DEC VT100 and IBM PC keyboards. Also described are the escape sequences issued by the <PC-Alt> key and each key on the VT100 virtual keyboard.

The <CTRL>, <Left Shift,> and <Right Shift> keys on the VT100 virtual keyboard, and the <PC-Alt> property key are used as key modifiers. These keys behave differently from other keys, since while a modifier key is down, the escape sequence issued for any non-modifier key will always be preceded by the escape sequence of the modifier. For example if the <F5> and <F6> keys are pressed while the <Left Shift> key is held down, the escape sequence for <Left Shift> is sent prior to the escape sequence for the <F5 >and <F6> keys. Similarly, if <PC-Alt> is held down while the <X1> key is pressed, the escape sequences sent would be "Esc, \, A" for the <PC-Alt> key, then "Esc, \, A" and "Esc, \, H" for the <X1> key.

Note: Two sets of "Esc, \, A" are transmitted in the above example. However, the recipient host computer may or may not use one of the redundant sets.

The VT100 virtual keyboard keys can be classified into four groups:

1) Keys that are not present on a real VT100 keyboard but appear on an IBM PC keyboard. These keys issue special escape sequences and are referred to as IBM PC keys. Table 1 presents the escape sequences issued by the IBM PC keys.

Key	Escape Sequence
Num Lock	Esc, \, N
ScLck / Break	Esc, \, S
PC-Alt	Esc, \, A
PrtSc / *	Esc, \, P
F5	Esc, \, 5
F6	Esc, \, 6
F7	Esc, \, 7
F8	Esc, \, 8
F9	Esc, \, 9
F10	Esc, \, 0

Table 1. IBM PC Keys

Note: The escape sequences transmitted by the IBM PC keys may cause unpredictable results depending on the recipient host computer.

2) Keys that appear to be duplicate keys on a real VT100 keyboard but have special requirements. These keys issue special escape sequences and are referred to as special requirement VT100 keys. Table 2 presents the escape sequences issued by the special requirement VT100 keys.

Key	Escape Sequence
Shift (Left)	Esc, \, L
Shift(right)	Esc, \, R
Ctrl	Esc, \, C
Caps Lock	Esc, \, K
↔	Esc, \, T
+	Esc, \, +

Table 2. Special Requirement VT100 Keys

3) Keys that are exact duplicates of those on the real VT100 terminal keyboard. The escape sequence or character codes associated with these keys are the same as the real VT100 keyboard keys and are referred to as VT100 keys (see Table 3).

Key	Escape Sequence
PF1	See VT100 Programming Reference card.
PF2	See VT100 Programming Reference card.
PF3	See VT100 Programming Reference card.
PF4	See VT100 Programming Reference card.
Esc	See VT100 Programming Reference card.
7 / Home	See VT100 Programming Reference card.
4 / ←	See VT100 Programming Reference card.
1 / End	See VT100 Programming Reference card.
8 / ↑	See VT100 Programming Reference card.
5	See VT100 Programming Reference card.
2 / ↓	See VT100 Programming Reference card.
0 / Ins	See VT100 Programming Reference card.
9 / PgUp	See VT100 Programming Reference card.
6 / →	See VT100 Programming Reference card.
3 / PgDn	See VT100 Programming Reference card.
. / Del	See VT100 Programming Reference card.
ENTER	See VT100 Programming Reference card.
-	See VT100 Programming Reference card.

Table 3. VT100 Keys

4) Keys that do not appear on the IBM keyboard nor the VT100 keyboard. These keys issue special escape sequences and are referred to as non-IBM/VT100 keys. Table 4 presents the escape sequences issued by the non-IBM/VT100 keys.

Key	Escape Sequence
X1	Esc, \, H
X2	Esc, \, G
X3	Esc, \, U
X4	Esc, \, D
X5	Esc, \, 1
X6	Esc, \, E
X7	Esc, \, F
X8	Esc, \, Y
X9	Esc, \, Z
X10	Esc, \, 2

Table 4. Non-IBM/VT100 Keys

Note: The escape sequences transmitted by the IBM PC keys may cause unpredictable results depending on the recipient host computer.

ViewPoint 1.0 Documents Conversion

The Office System 5.2 release allows users to share documents that have been created or opened on workstations that have ViewPoint 1.0 software installed. When a document is opened on a workstation that is running OS 5.2 workstation software, and the document has been created in the newer, ViewPoint 1.0 version, the document will automatically be converted and be usable by any workstation that has OS 5.0, OS 5.1, or OS 5.2 software versions installed.

Documents that have been created with ViewPoint 1.0 software may contain objects (such as Pie Charts, Line Charts or bitmap frames) that OS 5.0, OS 5.1, or OS 5.2 workstations cannot handle. These items will be deleted from their respective frames, but the remainder of the text, and objects such as graphics objects, text frames, equations, and tables, will be preserved intact.

Workstation software fixes

The following workstation software problems have been corrected and incorporated in the Office System 5.2 release:

Document upgrade

- Documents with long names that were created with OS 4.2 software could not be read on workstations running OS 5.0 software.
- Upgrading a document containing a bar chart to OS 5.0 resulted in a system crash, when the bar chart's data was contained in a document table.
- Upgrading OS 4.2 bar charts to OS 5.0 would result in the display of black squares as the table labels on the bar chart's All Data property sheet.
- Upgrading documents from OS 4.2 to OS 5.0 would sometimes result in a system crash because of space loss.

Terminal Emulation

- Copying 8010 documents containing paragraph tabs to a TTY emulation window resulted in an appended space to each paragraph tab.
- Using Make Document to capture 3270 emulation data caused the system to crash when the 3270 screen contained very complicated field structures.
- Using Make Document to capture KSR35 emulation data resulted in incorrect character conversions. Specifically, a horizontal tab was converted to spaces, and a form feed was converted to a question mark (?).
- Using Make Document to capture terminal emulation data resulted in the 80th character of every line being placed on the next line. This resulted from the left margin of the created document (resulting from Make Document) being too wide.
- TTY's Make document feature performed unacceptably slow.
- Closing a 3270 emulation window sometimes resulted in a system crash.
- The Shift-Lock key was inoperable during TTY emulation sessions.

Other fixes

- The system would crash if data generated from fields and fill-in rules was copied into the heading and/or footing parameter of the Heading/Footing property sheet.
- Creating multiple spreadsheet print format icons would result in a loss of space with the warning message "The workspace on your disk is full. Select CONTINUE to restart system."
- A system message indicating an encountered problem was displayed when down-loading remote help documents over the network. This problem was only partially fixed in that help documents can successfully be down-loaded from a Help server residing on the local net, but not from a Help server residing on a remote net (i.e., down-loading through an IRS link).
- Editing of Records Processing files would intermittently result in a workstation crash where repeated rebooting of the workstation would fail.
- Systems running the Japanese typing facility would not display whole characters.

Deliverable items

The OS 5.2 software release is delivered on floppy disks:

8010 Standard Workstation Software (6 disks; four of which contain new software)

Standard Services Software (for Fixed and/or Removable Drives) (2 disks)

Optional Network Services Software:

Interactive Terminal Service (1 disk)

Print Service (2 disks)

Boot Service (1 disk)

Standard ether boot files (3 disks)

System documentation

The Print Service and Interactive Terminal Service booklets of the System Administration Library, and the Interactive Terminal Service User's Guide have been updated for the OS 5.2 release.

Two new booklets have also been added to the System Administration library. These are the Boot Service booklet and the Services Product Descriptions Update booklet. The Boot Service booklet supports the OS 5.2 Boot Service software, and

the Services Product Descriptions Update booklet presents product descriptions of all OS 5.2 Xerox Network System products.

Note: In the Services Product Descriptions Update booklet you will find descriptions of products and features that will be available at a later date. These descriptions are included to give the user a preview of future network services.

Also note that on the copyright page of the Interactive Terminal Service booklet, Interactive Terminal Service User's Guide, and the Services Product Descriptions Update booklet, it is stated that the booklet is based on the OS 5.1 release. These booklets are applicable to OS 5.2, and are indeed based on the OS 5.2 release.

There is no new documentation for the workstation component of the OS 5.2 release. All information relating to the expanded VT100 virtual keyboard is contained in this release document.

Interactive Terminal Service

The following sections describe the installation procedures for Interactive Terminal Service.

Preparation

The following steps should be considered before installing OS 5.2 Interactive Terminal Service software:

1. It is recommended that the Interactive Terminal Service software be loaded on a server running the External Communication Service. If the server on which you plan to install Interactive Terminal Service does not have External Communication Service running on it, you should begin by first installing External Communication Service. For installation instructions, refer to the Server Software Installation booklet of the System Administration library, and then perform tasks ECS 1 through ECS 4 described in the External Communication Service booklet of the library.
2. The OS 5.2 Interactive Terminal Service requires a file drawer named "ITS User Profiles" to be created on the users' home file service (the file service on which 8010 user desktops are stored). For instructions on creating the ITS User Profiles file drawer, refer to Task 5 in the Interactive Terminal Service booklet of the System Administration library.

Installing Interactive Terminal Service on a new server

Installing OS 5.2 Interactive Terminal Service software on a new server is a three-step process:

1. Install Services System software.
2. Install External Communication Service software.
3. Install Interactive Terminal Service software.

For instructions on installing Services System software and services (External Communication Service, Interactive Terminal Service), refer to the Server Software Installation booklet of the System Administration library.

For instructions on configuring an External Communication Service, refer to tasks ECS 1 through ECS 4 described in the

External Communication Service booklet of the System Administration library.

For instructions on configuring an Interactive Terminal Service, refer to the Interactive Terminal Service booklet of the System Administration library.

Upgrading 5.0 Interactive Terminal Service to 5.2

The following software installation steps assume that you have External Communication Service running on the server which will run Interactive Terminal Service. Also insure that Clearinghouse Service functions are available to the network.

1. Go to the server, logon, and stop all services.
2. Insert the Services System Software #1 floppy disk in the floppy disk drive.
3. Boot from 0002: Press both the B RESET and ALT B buttons, release B RESET, wait until 0002 appears on the maintenance panel, and then release ALT B. The installation utility will appear on the display.
4. Type the number corresponding to "Update Services System Software from 8.0 to 9.0." When the process is completed the installation utility will reappear on the display.
5. Remove the floppy disk from the floppy disk drive.
6. Boot from 0001: Press both the B RESET and ALT B buttons, release B RESET, wait until 0001 appears on the maintenance panel, and then release ALT B. A prompt will appear on the display.
7. Type **N** and press <RETURN> in response to the "Normal Startup? (Y/N)" prompt.
8. Type the number corresponding to "Interrupt before running services" option and press <RETURN>.

NOTE: If the only Clearinghouse serving the server's domain resides on this server, type **Run Service** <RETURN> and select the Clearinghouse Service, in order that a Clearinghouse is accessible when the Interactive Terminal Service is installed.

9. Type **Logon** and press <RETURN>.
10. Type your name and press <RETURN>.
11. Type your password and press <RETURN>.
12. Type **Enable** and press <RETURN>.
13. Insert the Interactive Terminal Service software floppy disk in the floppy disk drive.

14. Type **Install Service** and press <RETURN>.
15. Type the number corresponding to the "Interactive Terminal Service" option and press <RETURN>.
16. Type **Y** and press <RETURN> in response to the "Activate?" prompt if the service is not already activated.
17. Type **Proceed** and press <RETURN>.

Print Service

The following sections describe the installation procedures for Print Service.

Installing Print Service on a new server

Installing OS 5.2 Print Service software on a new server is a three-step process:

1. Install Services System software.
2. Install Print Service software.
3. Install fonts on the Print Service.

For instructions on installing Services System software and services (Print Service), refer to the Server Software Installation booklet in the System Administration Library, substituting the OS 5.2 Services System Software #1 disk for the OS 5.0 Services System Software #1 disk.

For instructions on installing fonts on a Print Service, refer to the Print Service booklet in the System Administration Library.

Upgrading 5.0 Print Service to 5.2

The following software installation steps assume that you have OS 5.0 Print Service running on the server which will run the OS 5.2 Print Service.

1. At the server, logon, enable, and stop all services.
2. Insert the OS 5.2 Services System Software #1 floppy disk in the floppy disk drive.
3. Boot from 0002: Press both the B RESET and ALT B buttons, release B RESET, wait until 0002 appears on the maintenance panel, and then release ALT B. The installation utility will appear on the display.

4. Type the number corresponding to "Update Services System Software from 8.0 to 9.0." When the process is completed, the installation utility will reappear on the display.
5. Remove the floppy disk from the floppy disk drive.
6. Press both the B RESET and ALT B buttons, release B RESET, wait until 0001 appears on the maintenance panel, and then release ALT B. After the copyright notice is displayed, a prompt will appear.
7. Type **N** and press <RETURN> in response to the "Normal Startup? (Y/N):" prompt.
8. Type the number corresponding to "Interrupt before running services" option and press <RETURN>.

NOTE: If the only Clearinghouse serving the server's domain resides on this server, type **Run Service** <RETURN> and select the Clearinghouse Service, in order that a Clearinghouse is accessible when the Print Service is installed.

9. Type **Logon** and press <RETURN>.
10. Type your user name and press <RETURN>.
11. Type your password and press <RETURN>.
12. Type **Enable** and press <RETURN>.
13. Insert the Print Service software floppy disk in the floppy disk drive.
14. Type **Install Service** and press <RETURN>.
15. Type the number corresponding to the "Print Service" option and press <RETURN>.
16. Type **Y** and press <RETURN> in response to the "Activate? (Y/N):" prompt if the service is not already activated.
17. If you do not wish to change the type of printer attached to the Print Service, simply type **Proceed** and press <RETURN> and the procedure is completed. If you do wish to change the type of printer attached to the Print Service, continue with Step 18.
18. Type **Run Service** and press <RETURN>.
19. Type the number corresponding to the "Print Service" option and press <RETURN>.
20. Type **N** and press <RETURN> in response to the "Normal Startup? (Y/N):" prompt.
21. Type the number corresponding to the type of printer attached and press <RETURN>.

22. If the attached printer is an 8044 Series Electronic Printer, type the number corresponding to the type of 8044 Series printer (B1, B2, etc.) and press <RETURN>.
23. Type Proceed and press <RETURN>. The procedure is completed.

Boot Service

The following sections describe the installation procedures for Boot Service.

Installing Boot Service on a new server

Installing OS 5.2 Boot Service software on a new server is a three step process:

1. Install Services System software.
2. Install Boot Service software.
3. Install Boot Service data files.

For instructions on installing Services System software, refer to the Server Software Installation booklet of the System Administration Library, substituting the OS 5.2 Services System Software #1 disk for the OS 5.0 Services System Software #1 disk.

For instructions on installing OS 5.2 Boot Service software and data files on a server that is running OS 5.2 Services System software, follow steps 8-28 given in the section below, "Installing Boot Service on a server that is running OS 5.0 software."

Installing Boot Service on a server that is running OS 5.0 software

NOTE: Be sure that at least 3000 pages are available on your server in preparation for adding the OS 5.2 Boot Service to your server configuration.

The following software installation steps assume that you have OS 5.0 software installed on your server, and that you have at least 3000 free pages.

1. At the server, logon,enable, and stop all services.
2. Insert the OS 5.2 Services System Software #1 floppy disk in the floppy disk drive.
3. Boot from 0002: Press both the B RESET and ALT B buttons, release B RESET, wait until 0002 appears on the

maintenance panel, and then release ALT B. The installation utility will appear on the display.

4. Type the number corresponding to "Update Services System Software from 8.0 to 9.0." When the process is completed, the installation utility will reappear on the display.
5. Remove the floppy disk from the floppy disk drive.
6. Boot from 0001: Press both the B RESET and ALT B buttons, release B RESET, wait until 0001 appears on the maintenance panel, and then release ALT B. After the copyright notice is displayed, a prompt will appear.
7. Type **Y** and press <RETURN> in response to the "Normal Startup? (Y/N):" prompt.

NOTE: The following software installation instructions assume that OS 5.2 Services System software is installed on the server, and that the server is in a normal startup state.

8. Type **Logon** and press <RETURN>.
9. Type your user name and press <RETURN>.
10. Type your password and press <RETURN>.
11. Type **Enable** and press <RETURN>.
12. Insert the Boot Service software floppy disk in the floppy disk drive.
13. Type **Install Service** and press <RETURN>.
14. Type the number corresponding to the "Boot Service" option and press <RETURN>.
15. Type **Y** and press <RETURN> in response to the "Activate? (Y/N):" prompt if the service is not already activated.
16. Type **Run Service** and press <RETURN>.
17. Type the number corresponding to the "Boot Service" option and press <RETURN>.
18. Type **N** and press <RETURN> in response to the "Normal Startup? (Y/N):" prompt.
19. Type the name of the Boot Service and press <RETURN>.
20. Type the description for the Boot Service and press <RETURN>.
21. Type **Boot Service** to enter the Boot Service context.
22. Insert the "Standard Ether Boot Files #1" floppy disk in the floppy disk drive.
23. Type **Retrieve Floppy Files** and press <RETURN>.

24. Press <RETURN> at the "File list: *" prompt.
25. Repeat steps 22, 23, and 24 for the "Standard Ether Boot Files #2" and "Standard Ether Boot Files #3" floppy disks.
26. Stop all services running on the server.
27. Reboot: Press both the B RESET and ALT B buttons, release B RESET, wait until 0001 appears on the maintenance panel, and then release ALT B. After the copyright notice is displayed, a prompt will appear.
28. Type Y and press <RETURN> in response to the "Normal Startup? (Y/N):" prompt. This completes the Boot Service installation procedures.

NOTE: To prepare your network to support network installation of software, refer to the "Preparing a network to support network installation" section of the Boot Service booklet in the System Administration Library.

8010 Star Information System

Procedures for installing 8010 workstation software may be found in the 8010 Star Information System booklet of the System Administration Library. The procedures contained therein may be used to install workstation software on a new 8010 workstation. These standard installation instructions will also satisfactorily install OS 5.2 on a workstation that is already running OS 5.0 or OS 5.1, provided that you DO NOT PARTITION the disk.

Special shortcut installation to upgrade from OS 5.0 or OS 5.1 to OS 5.2

If you are upgrading a workstation that is already running OS 5.0 or OS 5.1 to OS 5.2, do not partition the workstation's rigid disk. Select the option Upgrade from OS 5.0 to OS 5.2. This option will install only the new software and data files that have been changed in this release. You will save time, since font files do not need to be reloaded.

Note: The OS 5.0 to OS 5.2 upgrade procedure maintains the OS 5.0 font configuration.

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Interactive Terminal Service

- The Interactive Terminal Service configuration figures for the number of file pages per user are correct, but not enforceable, since the figures only reflect how much space is on the volume when the Interactive Terminal Service was initialized. The figures do not take into account how much space is consumed by other services.
- If a Mail Service (running on a different server) fails while the Interactive Terminal Service is performing a mail operation, the Interactive Terminal Service will freeze-up. This condition is apparent when the display shows no activity or response to user inputs.
- If a user's mailbox has more than 200 messages, the Interactive Terminal Service will not provide access to messages above 200. To access those messages, the user must delete some messages in the 1 to 200 range, log off, and log on again.
- New paragraph codes in mail notes are displayed as control-] rather than as new paragraphs. 8010 users should use <SHIFT> <RETURN>, i.e., new lines, to start new lines and paragraphs in mail notes.
- Para-tab codes in mail notes are displayed as vertical bars. To insert tabs, 8010 users should use the regular tab key (→).
- The Interactive Terminal Service editor used when creating mail messages and files sometimes fails when searching for accented characters.
- Transferring files from the Xerox 820 to the Interactive Terminal Service using the SEND command and the PROTOCOL OFF option of ASCOM is not completely reliable. Users should use a communication package that implements the XModem protocol and file transfer operations when creating files (rather than file capture).
- If the Print Service is not available, no printer status information will be displayed when logging on and retrieving user profile information.
- The centering of a word or phrase when printing Memorywriter documents is not exactly the same as the output from a Memorywriter. The difference is generally a one character deviation or less.

- If the current column in a table is a decimal column, and the content of the previous column overflows into the current column, the effect of a Tab is to move to the next column rather than decimal aligning in the current column. This condition only occurs when the content of a column exceeds the maximum length of the column.

Print Service

- When the Print Service is first installed, or at each reboot, the operator should look carefully to be sure no Clearinghouse errors are reported when the Print Service attempts self-registration. Adverse effects on the Print Service can result if Clearinghouse errors are reported.
- When installing a font that uses multiple floppies, the messages that are displayed to prompt the operator to insert the next floppy MAY fill up the display, after which the (More) prompt is displayed. This (More) prompt may occur immediately after the message to insert the next floppy disk. Installation will not proceed until the operator scrolls the screen by typing any character. If the operator had changed the floppies BEFORE scrolling the screen, the new floppy will not be noticed. To proceed, the operator must remove and reinsert the new floppy. When the (More) prompt appears, scroll the screen first, THEN insert the new floppy.
- The **Expunge Service** command is not implemented by the Print Service in this release.
- The Print Service will not recognize print request queued prior to the conversion of a server from OS 5.0 to OS 5.2. Thus, all queued documents must be either printed or deleted. It is suggested that the **Stop Queuing** command be issued prior to conversion to allow all queued documents to print while disallowing new documents to be accepted.
- The printing option should not be changed while there are documents in the printing queue. The results will be unpredictable when such documents are subsequently processed.
- The standard TC495-1 attached to Facsimile Print Service must be upgraded to the RS-232C version with a hardware and firmware kit available through and installed by Xerox IPD Field Service. The first is RSM upgrade 86S21809 and it contains RSM PWB, cables, and switches. The second is kit number 86S21810, called Network Interface, and changes the revision level of the firmware. It contains DTIM, SL11, and SL3 PWBs and EPROMs for G2DM PWB (chips GD1E and GD3G).
- The Print Service supporting the TC495-1 will accept up to 10 phone numbers associated with any print request. All phone numbers beyond the first 10 will be ignored.

- When a range of pages to print is specified by a user that is a subset of the number of actual pages in the document, the banner sheet will have the total number of pages in the document, rather than the actual number of pages printed.
- Opening the TC495-1's cabinet may turn off the unit and result in a misleading status display at the Print Service console. The message **Offline**. Please call **System Administrator** to check power supply and RS-232C cable is displayed and typing the command **Show Status** displays the error message **Offline** rather than **Close Door**.

Boot Service

- If the Boot Service software co-resides on a multi-function server running both Clearinghouse Service and File Service, and the File Service contains the Installation file drawer and the Application file drawer, then no more than three workstations can down-load software over the network simultaneously.
- In either of the floppy commands registered by the Boot Service (**List Floppy Files**, **Retrieve Floppy Files**), it is imperative to leave the floppy disk inserted in the drive for the duration of the execution of the command. Any divergences from this operating procedure can cause either a System Restart or an unresponsive server executive.
- Performance measurements show an elapsed time of approximately 20 seconds to perform all necessary steps in the etherbooting sequence. This number will increase in proportion to the number of processors attempting to etherboot simultaneously.
- As the Boot Service can respond to a single processor at any given moment, requests by additional processors will result in those workstations placed in a holding queue, with an MP code of either 0149, 0199, or 0928 displayed while processing of previous requests are fulfilled.
- If a Boot Service is not available, the Maintenance Panel will flash either 0151 or 0201. Please note this alternative when troubleshooting these particular MP codes, since these codes do have alternate meanings.
- There is no correlation between the amount of memory installed on the Boot Service and the time taken to boot a remote processor making a Boot Service request.
- The Boot Service installation instructions must be strictly observed. Any divergence may create an uninitialized "BootService.profile" file in the server's working directory. If the contents of BootService.profile appear to be empty when viewed via the **Show Files** command, the Boot Service installation instructions should be executed once again, as this file cannot be deleted via the executive's **Delete Files** command.

- The Boot Service software currently prevents operator maintenance of the BootService.profile file. If maintenance is required to this file, please re-install the BootService.profile in the following manner:
 - Type **Stop Service** and select the option corresponding to the Boot Service.
 - Type **Delete Files** and type "BootService.profile" at the "File List: *" prompt.
 - Insert "Standard Ether Boot Files #1" floppy disk into the floppy disk drive.
 - In the Boot Service context (BS!), type **Retrieve Floppy Files**, and type "BootService.profile" at the "File List: *" prompt.
 - Type **Start Service** and select the option corresponding to the Boot Service.

8010 Star Information System

- The system will crash if the Make Document command is used on a completely empty record file, i.e., one that has no column headings or field content.
- Copying sort parameters from one field to another in either the Stable View or Transient View property sheets will cause the system to crash.
- When using the "Change It" option on the Find option sheet to substitute text only, the system will crash if the text to be changed happens to be the first character string at the top of a page.
- Interactive Terminal Service allows the user to specify an 860 file type for storage on a file service. If the user has a plain text file and inadvertently responds "No" to the prompt "Do you wish to convert this file from plain text to Xerox 860 format (Y/N)?", the system will crash when the user later retrieves the file and attempts to convert it to 8000 format.