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RISOGRAPH® COMPUTER INTERFACE

OPERATION GUIDE

September 1, 1995

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!! WARNING !!

FCC CLASS A computing device Information to User

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manuals, may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

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Features of the RISO Computer Interface printer

The RISO Computer Interface allows the use of selected Risograph models either as a standalone duplicator or as a

or scanner controlled by a computer. The Computer Interface not only expands the capability of a Risograph but also provides the latest electronic and software technology for printing and scanning. Its special features, depending on model may include:

- High speed printing, made possible by the use of Intel RISC microprocessors
- Support for common printer languages: PCL 5 (PeerlessPrint5) and PostScript (TrueImage)
- Switching between printing and scanning operations
- True 400 X 400 dpi resolution
- Scalable fonts
- Multiple print directions on the same page
- Auto rotation for fonts and raster graphics
- 5 MB of RAM expandable to 8 MB
- Emulates HP LaserJet III and/or Apple LaserWriter printers
- Scan images on the Risograph and import the TIFF 5.0 files into your computer
- Apple LocalTalk interface for Macintosh computers
- Standard Parallel, RS232, and RS422 interfaces for other computers
- A special user interface program for PC users
- Paper sizes 4"X 6" to 11" X 17"
- Print area 8.2" X 13.8" with standard memory and 10.5" X 16.5" with expanded memory
- 256 Shades of gray
- Scan images up to 8.3" X 13.5"

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Internal Fonts

Microsoft TrueImage PostScript Interpreter:

Scalable TrueType Fonts:

Arial - Upright, *Oblique*, **Bold**, **BoldOblique**
 Arial Narrow - Upright, *Oblique*, **Bold**, **BoldOblique**
 AvantGarde Book - Upright, *Oblique*, **Bold**, **BoldOblique**
 Bookman - Light, *LightItalic*, **Demi**, **DemiItalic**
 Century Schoolbook - Roman, *Italic*, **Bold**, **BoldItalic**
 Courier New - Upright, *Oblique*, **Bold**, **BoldOblique**
 Symbol - Υπριγητ
 Times New-Roman - Upright, *Italic*, **Bold**, **BoldItalic**
 Zapf Calligraphic - Roman, *Italic*, **Bold**, **BoldItalic**
ZapfChancery - MediumItalic
 Zapf Dingbats - † □ □ ×) ♂ ☼ ◆

LaserWriter Equivalent:

Helvetica
Helvetica Narrow
 Avant Garde
 Bookman
 NewCentury Schoolbook
 Courier
 Symbol
 Times
 Palatino
ZapfChancery-MediumItalic
 ZapfDingbats

PeerlessPrint5 HP PCL 5 Interpreter: LaserJet III Fonts

Scalable Intellifont Fonts:

CG Times - Medium, *Italic*, **Bold**, **Bold Italic**
 Univers - Medium, *Italic*, **Bold**, **Bold Italic**

Bitmapped Fixed-Pitch Fonts

Courier Upright
Courier Italic
Courier Bold
 Courier Upright
Courier Italic
Courier Bold
 Line Printer

Pitch / Point Orientation

10 / 12	P & L
10 / 12	P
10 / 12	P & L
12 / 10	P
12 / 10	P
12 / 10	P
16.65 / 8.5	P & L

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RISO Computer Interface

The RISO Computer Interface contains the electronics and control programs that enable a computer to print directly to most Risographs. Direct computer printing is selected from the Risograph control panel by pressing the "Interface" button. When Interface is not selected, the Risograph operates as a standalone duplicator. (See also Risograph Operation Guide)

When operating in Interface Mode, the Risograph accepts commands from a computer via the RISO Computer Interface. Under computer control, the Risograph can print files or application output from a computer, scan documents and return the scanned images to the computer.

The RISO Computer Interface electronics include an Intel i960 Microprocessor, Control Logic, and several types of memory devices. The hardware includes 5 MB of random access memory (RAM) and PeerlessPage, a Printer Operating System, which controls the internal operation and communication between the computer and the Risograph.

Both printing and scanning capabilities depend on the particular model of RISO Computer Interface and the particular model of Risograph to which it is connected. The available software includes PeerlessPrint5, a PCL 5 interpreter for the printer control language of the Hewlett Packard LaserJet III Printer; Microsoft TrueImage, an interpreter for the PostScript language; and two scan control programs: RISO Control software for IBM and IBM compatible computers and RISOScan for Macintosh computers.

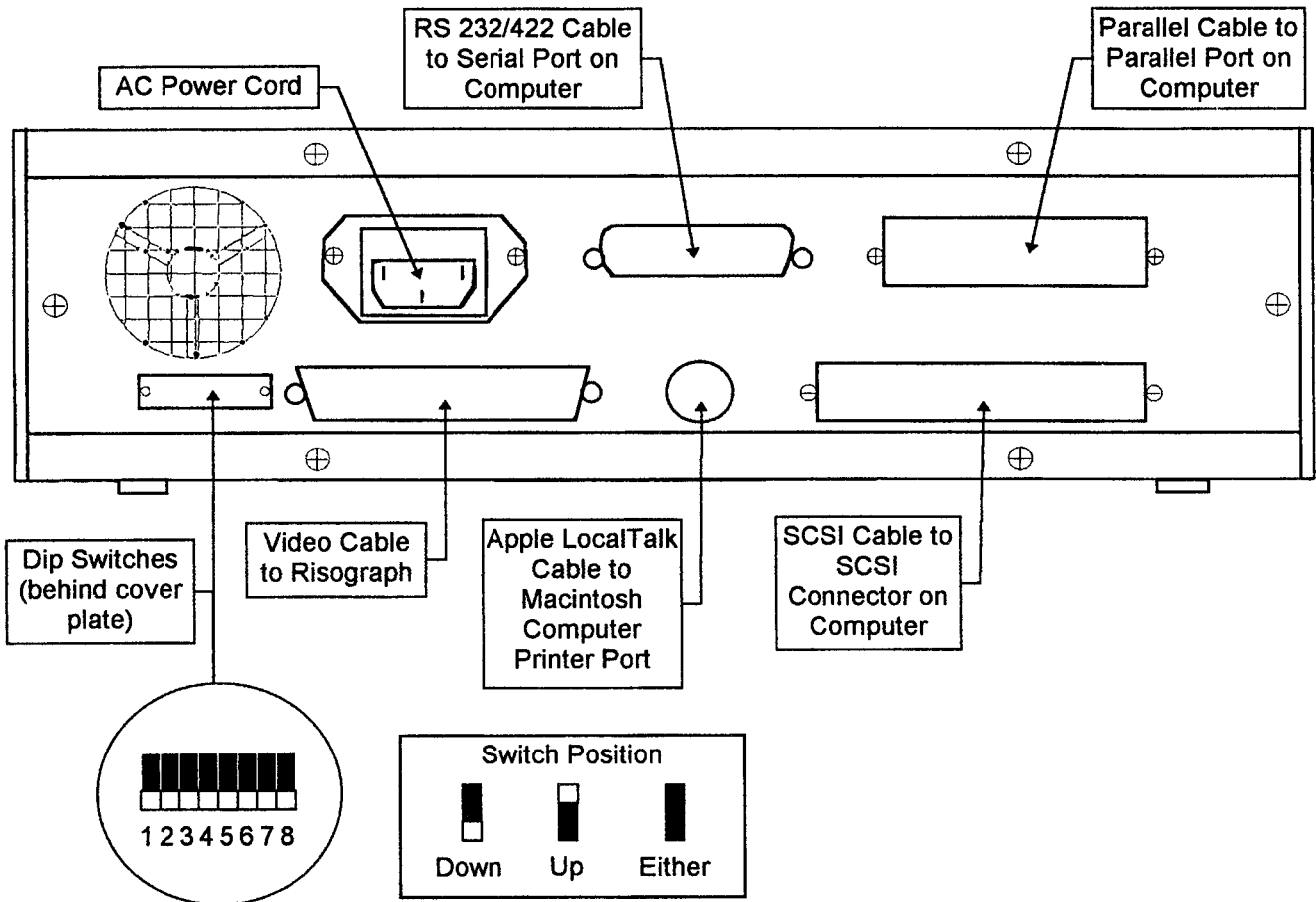
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Rear Panel

Cable Connectors:

The diagram below shows the location of the cable connectors you will need to connect your Computer Interface to the Risograph and your computer and the DIP switches used to control communication.



DIP Switch Setup



Printing:

Connect the appropriate cable (Parallel, LocalTalk, or Serial) to the Computer Interface and to your computer. Adjust the DIP switch to match the corresponding diagram at the left. If you will print through either the RS-232C or RS 422 serial port, configure the DIP Switches as shown on the next page to match the communication protocol to your computer.

Connect the video cable to the video port on the connection kit you installed in your Risograph.

Scanning:

Connect a SCSI cable to the Computer Interface and to your computer.

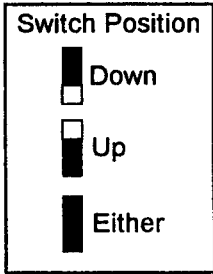
Electrical Power

Connect the power cord to a source of AC electrical power. The Computer Interface will automatically adjust to line voltages between 85 VAC and 265 VAC and to line frequencies from 50 through 60 Hz.

Rear Panel

Dip Switch Setup:

The DIP switches are used to configure serial port communication between the Computer Interface and your computer. The diagrams below give the switch settings for the various serial communication options.



Baud rate:

4800 Baud



1 2 3 4 5 6 7 8

9600 Baud



1 2 3 4 5 6 7 8

19200 Baud



1 2 3 4 5 6 7 8

Data Bits:

7-Bit Data



1 2 3 4 5 6 7 8

8-Bit Data



1 2 3 4 5 6 7 8

Parity:

No Parity



1 2 3 4 5 6 7 8

Odd Parity



1 2 3 4 5 6 7 8

Even Parity



1 2 3 4 5 6 7 8

XON/XOFF:

Enabled



1 2 3 4 5 6 7 8

Disabled



1 2 3 4 5 6 7 8

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Printing From a Computer

Using the Risograph as a Printer

Once Interface Mode is selected from the Control Panel of the Risograph, the Risograph can be used as any other printer connected to the computer. How it appears to the software of the computer depends upon the choices made when the switches were set and the cables were connected.

Apple LocalTalk Connection

When using Apple LocalTalk, the Macintosh will talk to the Risograph just as it would to an Apple LaserWriter. From a Macintosh, this means that the "Chooser" will see the Risograph and allow you to select it for printing. To open the Chooser and select the RISOGRAPH as the current printer, pull down the Apple menu and select **Chooser** from the list of desk accessories. Select the **LaserWriter** icon. The word "RISOGRAPH" should appear in the window titled "Select a LaserWriter" (other printers may also appear if they are attached to the Apple LocalTalk network.) Click on "RISOGRAPH" to select it. Next look at the lower right-hand side of the Chooser window and verify that AppleTalk is active. Close the Chooser window by clicking on the close box in the top left corner of the window. Now the Risograph can be used as an Apple LaserWriter or LaserWriter Plus printer.

Parallel (Centronics) Connection

If using the parallel connection, the Risograph is recognized as a parallel printer by the computer and can be accessed through one of the computers parallel ports (LPT1, LPT2, ...) Documents can be printed by using a copy or print command or an application can output to it directly. Be sure to select a printer driver which is compatible with the printer language you have selected in RISO Control software for the CI to interpret. If you have selected Truelmage printer language in the RISO Control software Options menu, choose "PostScript Printer" or "LaserWriter" drivers. If you have selected PeerlessPrint5 printer language in the RISO Control software Options menu, choose a "LaserJet III" driver in your application. If an application does not offer LaserJet III as an option, select an earlier LaserJet printer, such as LaserJet II.

Serial Connection

If using the serial connection, communication to the printer can be accessed through one of the computer's serial ports. (COM1, COM2, ...) Documents can be printed by using a "copy" or "print" command or by using the "print" dialog box built into your application software to control printing. (NOTE : Serial Connections are approximately twenty times slower than a Parallel Connection, and therefore, should be avoided if bi-directional communication is not required and a Parallel Port is available or can be added to a computer.)

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Installing RISO Software

Installing RISO Control Software (IBM PC and Compatible Computers)

The RISO Control software application for DOS is provided on one 3½" diskette. To install the software, turn on your computer and select the DOS directory. Unlock the diskette and insert it into the A: drive of the computer. Type **A: <ENTER>** then type **INSTALL <ENTER>**. You will be prompted to select one of six languages. Select the language you want to use for the menus and dialog boxes. When prompted to enter the path for installation of RISO Control software, use the default **C:\RISO** or enter an alternative directory for storage of the RISO program. To Exit the Install Program at any time, select Cancel to exit to DOS. If the Directory needs to be created, the Install Program will ask if it should create the Directory. Select **YES** to create it, or select **NO** to specify a new directory. When asked which drive to install from, type **A:**. The Install Program will now copy the RISO Control software Program onto the hard disk. When asked if **AUTOEXEC.BAT** should be modified to include **C:\RISO** in the path, select **YES**. A backup file named **AUTOEXEC.OLD** will be automatically created to hold the old **AUTOEXEC.BAT** file. If the install program detects an extended memory manager using the memory location block **DC00-DFFF**, which must be reserved for the RISO scanning software, you will be asked if you want the install software to automatically exclude that block of memory from the extended memory manager. If you say no, you will not be able to import documents scanned on the Risograph into your computer. This completes the RISO Control software installation and the Install Program returns the system to DOS. To run the RISO Control software, restart the computer to update the system and then type **RISO** at the prompt (ex. **C:\RISO>** .) If you ever want to deinstall RISO Control software or change the language, you will have to delete all **RISO.INI** files which were created each time you quit RISO Control software. You should search all directories, including the root directory of the drive on which RISO Control software is installed.

If you are running Microsoft Windows and want to use the RISO scan software from within Windows, go to the **[EMM386]** section of the Windows **SYSTEM.INI** file and add:

EMMExclude=DC00-DFFF

Installing RISOScan Software (Macintosh Computers)

The RISOScan software application is provided on one 3½" diskette. RisoScan is only needed for scanning an image on the Risograph and importing it into your Macintosh. You do not need to install RISOScan if you only want to print. To install the software, place the diskette into the drive of the Macintosh.

System version 6.x and older:

Create an Empty folder on the hard disk by pulling down the "File" menu and selecting New Folder. Click on the words "Empty Folder" in the hard drive window and change the folder name to "RISOScan". Drag the "RISOScan" Disk icon into the "RISOScan" Folder to copy the program files.

Installing RISO Software

System 7.x:

Drag the diskette icon and drop it onto the hard disk icon. Your Macintosh will automatically create a RisoScan folder on that hard disk and copy the program file into that folder.

Launch the RISOScan application by double clicking on the "RISOScan" Folder and then on the "RISOScan" Icon in the now open "RISOScan" Window.

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Application Software

Setting Up Application Software

Most software applications available today use "printer drivers" to control the printing of documents. Each **DOS** software application has its own unique way of naming and selecting these drivers. Consult your application software users guide or contact the software vendor in order to set the application software to use an HP LaserJet III, HP LaserJet II, Apple LaserWriter, or generic "PostScript Printer" driver. Also set the printer port in the application software to correspond to the correct Physical Port being used. (LPT1 , LPT2 ... COM1 , COM2 .)

When printing from a Microsoft **Windows** application, try the following drivers first:

Windows Level 1 PostScript applications:

Agfa Compugraphic 400PS or Apple LaserWriter Plus PostScript printer drivers furnished with Windows 3.1.

Windows Level 2 PostScript applications:

The generic PostScript printer driver 3.56 furnished with Aldus PageMaker 5.0.

When printing from a **Macintosh** application, try the following drivers first:

Macintosh Level 1 PostScript applications:

LaserWriter 7.1.2 or newer available from Apple Select the Apple LaserWriter PPD file.

Macintosh Level 2 PostScript applications:

LaserWriter 8.1.1 and the Generic PPD, both furnished with Aldus PageMaker 5.0.

A Quick Guide to Printing (Macintosh)

On the Macintosh, once the Computer Interface is physically connected to the Macintosh with a LocalTalk cable, set all DIP switches to the down position. **First turn on the Risograph and press the "interface" button on the control panel, then turn on the CI, and then the Macintosh computer.** Open CHOOSE under the Apple menu and click on the LaserWriter icon. In the window of available printers, click on "RISOGRAPH" to select the RISO Computer Interface and Risograph for printing. Make sure AppleTalk is active, then click on the close box. Now any document can be printed directly to the Risograph just as any other LaserWriter printer.

A Quick Guide to Printing (IBM PC)

On IBM PC and IBM PC compatible computers using Parallel port communication and PostScript (Truelmage,) CI language, install RISO Control software and connect all cables. Set DIP switch 7 to the UP position (all other switches down.) **Turn on the Risograph and press the "interface" button on the control panel, then turn on the CI, and then the Computer.** Enter the following command at the DOS prompt (ex. C:\riso>):
RISO <ENTER>

Use the arrow keys to select Options from the main menu and select Truelmage. Now select the number of copies to print by

selecting the **Job Menu** then the **Copies Item**. Enter the number of copies to be printed and press <ENTER>. Exit RISO Control software by selecting the **File** menu and selecting **Exit**. Launch the application program in which the document to be printed was composed and open the file to be printed. Check the application **File** menu **printer setup** to see that it is set for a PostScript printer. Instruct the application to print one copy of the file. TheRisograph should print the number of copies of the document as you selected in the RISO Control software. If using IBM Parallel and PeerlessPrint5 (PCL 5) CI language, follow the same procedure but select PeerlessPrint5 in the RISO Control software options menu and select a LaserJet III or II printer in the application **File** menu **printer setup**.

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Risograph Operation

Operation of the Risograph

Additional information on the use of the Risograph can be found in the Operation Guide furnished with your Risograph, including:

- Paper loading and the operation of paper input and output bins
- Print position
- Print density
- Adjusting the print speed
- Multi-color Printing
- Automatic document feed
- Sorter operation
- Replacing ink bottles
- Replacing master rolls
- Disposing of masters
- Error messages
- Problem solutions
- Cleaning / Preventative Maintenance Schedules

Using the Risograph as a Scanner

To use the scanning option, a SCSI cable must also connect the connector on the Computer Interface labeled "SCSI" to a SCSI connector on the computer. IBM and IBM compatible computers need a unique, bus compatible SCSI board (Rancho Technology RT-1000 or RT-1000MCA) while Macintosh Computers have SCSI ports built in and only need the cable and a terminator.

Note to Macintosh Users

The next several sections cover information specific to the IBM PC and compatible computers. Macintosh users should proceed directly to the section titled **Using RISOScan Software** on page 30.

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Using RISO Control Software

RISO Control Software

The RISO Control software for IBM PC and compatible computers provides a series of menus for control of printing and scanning operations. When the RISO Control Software is launched (by typing **RISO** <ENTER>,) the main menu appears at the top of the screen as shown below. The line under the main menu displays the current selections of printer language and PC communication port. The rest of the screen gives instructions for moving between menus and selecting options.

Menu Navigation

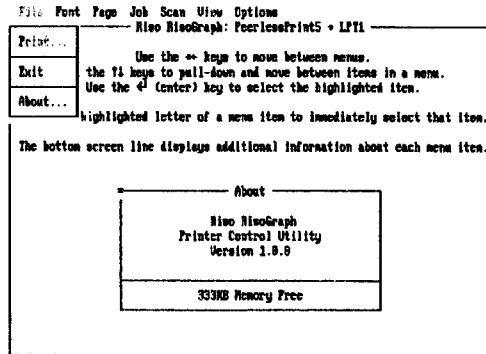
To select a submenu from the main menu use the right and left arrow keys or TAB and BACKTAB keys to move among the main menu items. Use the up and down arrow keys to pull-down and move between items in a submenu. Use the <ENTER> (return) key to select the highlighted item. Another way to select a menu item is to type the highlighted letter of a menu item to immediately select that item. A mouse can be used in place of the arrow keys to select menu items. Just move the mouse cursor over the menu item to be selected and click to select the item.

When an item from the main menu is selected, a submenu will appear to give a list of choices. To select the **File** submenu type "f". Or, if the **File** option is highlighted, press <ENTER> key to see the File submenu. If File is not highlighted, use right arrow or left arrow until it is highlighted, and then press <ENTER> to see the **File** submenu.

Using RISO Control Software

File Menu

This menu offers three options: Print, Exit, and About. If Print is selected, a menu called "File to Print" appears. You can select Exit or About, either by typing "x" for Exit or "a" for About or by using the arrow keys to highlight the desired option and pressing <ENTER>.



Print file to RisoGraph

To exit from the RISO Control software, highlight Exit, and press <ENTER>. To see the version number of the RISO Control Software, highlight About, and press <ENTER>.

Selecting Print opens the "File to Print" menu with the cursor in the File Name field. Type the name of the file to be printed. (NOTE: If PeerlessPrint5 has been selected in the Options submenu, only unformatted text files can be sent to the printer. If Truelmage has been selected in the Options submenu, only PostScript files can be sent to the printer; all other file formats must be printed from the application program which created them using a printer driver supplied with the application which is compatible with the CI language you have selected.) The three action buttons listed at the bottom of the menu are <OK>, <Cancel>, and <List>. If you have named the file and <OK> is highlighted, pressing <ENTER> will print the file. If <OK> is not highlighted, use the TAB or BACKTAB to highlight it.

If you don't want to print the file, highlight <Cancel> and press <ENTER>. If you have selected <OK> by mistake, you can cancel printing from the next dialog box.

Selecting <List> displays a list of files and subdirectories in the current directory, the symbol for the parent directory, and available disks. If you select a file name from this list, it is automatically displayed in the File Name field of the "File to Print" menu so that it can be sent to print immediately. If you select a different directory or disk, the contents of that directory or disk is displayed.

Using RISO Control Software

Font Menu (LaserJet emulation only)

If PeerlessPrint5 is the current Computer Interface language, fonts can be selected and downloaded to the Computer interface by selecting Font from the main menu. Selecting Font opens a submenu with the following options:

- Select Primary - select primary font
- Select Alternate - select secondary font
- Selection - select a font by characteristics
- Download - download a soft font
- Make Permanent - make a soft font permanent
- Make Temporary - make a soft font temporary
- Delete - delete soft fonts
- Manage Primary - manage primary font
- Manage Alternate - manage alternate font

Based on the choices made, the RISO Control software sends LaserJet III PCL 5 commands to the RISO Computer Interface. The commands generated are standard PCL 5 sequences like those a LaserJet III printer driver sends to control font selection and downloading. Most applications such as word processors, drawing packages, and spread sheets, include such commands in the print files they create. When working with a software application that permits you to specify the fonts used to compose documents created within that application, font selection can be performed directly from the program. However, when printing documents by other means (such as a simple editor) this menu can be used to set up the fonts for printing to your Risograph. Also see the Page section for page formatting options and the Options menu for setting the copy count.

Select Primary (LaserJet emulation only)

"Select Primary" selects the primary font as the current font.

Using RISO Control Software

Select Alternate

(LaserJet emulation only)

"Select Alternate" selects the alternate font as the current font.

Selection

(LaserJet emulation only)

To select a font by characteristics, choose this option. This menu allows the selection of a font by specifying one or more characteristics. Once characteristics have been selected, highlight <Select> and press <ENTER> to send the font selection to the RISO Computer Interface.

Font selection by characteristic is a good way to choose a font, if the Font ID is not known. If the PeerlessPrint5 Interpreter in the RISO Computer Interface cannot find an exact match for the characteristics chosen, it will select the closest match among the fonts that are present.

Download

(LaserJet emulation only)

This option can be used to cause the RISO Control software to download one or more soft fonts to the RISO Computer Interface.

Selection of Download opens a dialog box which asks for the file name of the font you want to download and the ID to be assigned to that font. Downloading a font does not automatically select it for use. See Select Primary, Select Alternate, and Selection above.

When Downloading bit map fonts to the RISO Computer Interface be sure to use fonts created for use on a 400 dot per inch (dpi) printer. If 300 dpi bit map fonts (which are the most popular) are downloaded, they will print on the Risograph 25% smaller in size than the user specified when creating the document. If 300 dpi fonts must be used, then create the document using a point size 133% of the final printed point size you desire (create with 12 point to print 9 point.) Enlarging the point size may affect page formatting in some applications such as word processing.

Using RISO Control Software

Make Permanent

(LaserJet emulation only)

Selecting "Make Permanent" sends a Command to the RISO Computer Interface to make a previously downloaded soft font permanent. Once a font is made permanent, it can not be deleted from the memory of the RISO Computer Interface. To delete a permanent font, use the Make Temporary Option to mark it as Temporary. The CI automatically deletes temporary fonts whenever it receives a "Reset" Command. Note : see Job, for a way to send a reset command. Fonts can also be deleted using the Delete Option.

Delete

(LaserJet emulation only)

Selecting "Delete" erases a temporary font from the memory of the RISO Computer Interface.

Manage Primary

(LaserJet emulation only)

When Manage Primary is selected, the Selection, Download, Make Permanent, Make Temporary, and Delete Options from the font menu will apply to the Primary Font.

Manage Alternate

(LaserJet emulation only)

When Manage Alternate is selected, the Selection, Download, Make Permanent, Make Temporary, and Delete Options from the font menu will apply to the Alternate Font.

Using RISO Control Software

Page Menu

(LaserJet Emulation only)

The Page menu enables you to set up the page format for printing:

Size - paper size

Orientation - arrangement of text and graphics on the paper

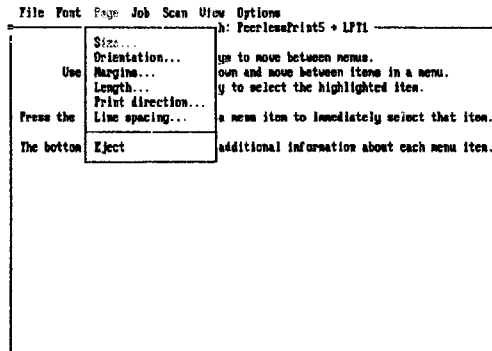
Margins - top, left, right margins, and lines per page

Length - the length of the text on the page

Print Direction - the orientation of text on the page

Line Spacing - lines per inch

Eject - form feed



Set paper size

Most software applications enable you to set the page format from within the application using the Page Setup submenu under the File menu. However, to print files created with a simple text editor, or other program that does not allow you to control page formatting, use the RISO Control software Page submenu to format pages for printing.

Size

(LaserJet Emulation only)

When Size is selected from the Page menu, the next menu offers choices of letter, legal, executive, A4, B4, and other sizes. Choose the paper size you want to print onto. The choices available are limited to those supported by LaserJet III and LaserJet II printers.

Using RISO Control Software

Orientation

(LaserJet Emulation only)

Four possible orientations exist: Portrait, Landscape, Reverse Portrait, and Reverse Landscape. Orientation controls the basic orientation for all text and graphics on the page. To change the direction of printing on the page temporarily, see Print Direction below. The four orientations operate as follows:

Portrait (the default) orients the paper to read correctly with the short edge of the paper horizontal and prints text from left to right beginning at the upper left-hand corner of the page.

Landscape orients the paper to read correctly with the long edge of the paper horizontal and prints text from left to right beginning at the upper left-hand corner of the page.

Reverse Portrait produces an upside down Portrait page. Both paper and text are rotated 180 degrees from normal portrait.

Reverse Landscape produces an upside down landscape page. Both paper and text are rotated 180 degrees from normal landscape.

Margins

(LaserJet Emulation only)

When Margins is selected, the next menu enables you to set the top, left, and right-hand margins. You set the bottom margin by typing the number of lines between the top margin and the bottom margin.

Length

(LaserJet Emulation only)

Page Length is expressed in lines per page. The number of lines in a given page length depends upon the current setting for Line Spacing.

Print Direction

(LaserJet Emulation only)

Print Direction can change the direction of printing on the page locally until another Print Direction command changes it again. Changing Print Direction does not change the nominal orientation of the page. The possible print directions are:

Portrait - left to right printing from the current cursor position on the page.

Landscape - bottom to top printing from the current cursor position on the page.

Reverse Portrait - right to left printing with upside-down text from the current cursor position on the page.

Reverse Landscape - top to bottom printing with upside-down text from the current cursor position on the page.

Using RISO Control Software

Line Spacing

(LaserJet emulation only)

Sets the number of lines per inch.

Eject

(LaserJet emulation only)

Prints the last partial page stored in the print buffer. (This is useful when printing files less than one page in length.)

Using RISO Control Software

Job Menu

Parameters include the copy count and page offsets. The Job menu can also reset the current printer language environment to a default or known state and run a diagnostic.

Copies

Windows applications and most DOS applications enable you to set the copy count in the application PRINT dialog box (disable the collated copies option.) When that is not possible or when you want a larger copy count than the application permits you to select, use RISO Control software to set the copy count. Then the file should be printed from the application program PRINT menu with the copy count set to one. The Risograph can be set to print up to 9999 copies from a single master, but due to degradation of copy quality of runs over 5000 copies, a more practical limit is 5000 copies.

Page Offsets

The Page Offsets submenu enables you to add additional margin to the short or long page dimension for binding.

Reset

Selecting Reset cancels any outstanding print jobs and sets the RISO Computer Interface to the PostScript language.

Test

Test is intended for use by a service technician. Selecting Test will run a print and scan test. The test menu will ask for a sample page to be inserted into the scanner. The choices are <Continue> and <Cancel>. To continue with the print and scan test select <Continue>. Select <Continue> when the print and scan test has been completed. The test will first print out a pattern. It then will scan the sample page and print it.

Using RISO Control Software

Scan Menu

To activate the Scan menu; open the Options menu and select the SCSI board installed in your IBM or IBM compatible computer. The Scan menu enables you to first specify the size of the document you will scan, then the type of image, Line or Photo, to be scanned, then the location and name of the file in which you want to store the scanned image. Type in a file name that is up to 8 characters in length and ends with the extension .TIF (e.g. test.TIF) and specify the drive and directory path for the desired location of the file on your computer. Scanned images are delivered in Tagged Image File Format (TIFF) format version 5.0 and compressed as you specify in the TIFF Compression submenu under the Options menu. Many word processing, imaging, graphics, and desktop publishing applications can accept TIFF files as graphic input.

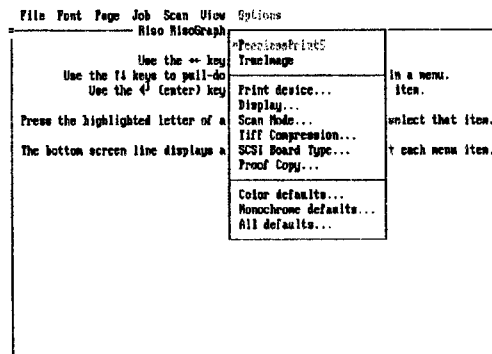
The File Name Dialog Box offers the action items: <OK>, <Cancel>, and <List>. Use the <List> action to bring up a list of the file names and subdirectories in the current directory, the symbol for the parent directory, and available disks.

Using RISO Control Software

Options Menu

The Options menu enables you to configure your RISO Computer Interface and computer. Configuration options include:

- Printer Language - PeerlessPrint5 (LaserJet emulation) or Truelmage (PostScript interpreter)
- Print Device - the printer port or file to receive output
- Display - configures the RISO Control software display for your monitor
- Scan Mode - select Line or Photo original
- TIFF Compression - select scan file compression
- SCSI Board Type - select your SCSI board
- Proof Copy - specify whether or not you want the first (test) print included in the copy count.
- Defaults - restores factory defaults for the RISO Control software display on your monitor



Select PeerlessPrint5

Printer Language

The RISO Computer Interface supports both *LaserJet III* printer emulation (PeerlessPrint5 emulation of Hewlett Packard PCL 5) and Microsoft *Truelmage* PostScript page description language. The power-up default is Truelmage.

If your DOS software application lacks a PostScript printer driver, configure the application to print to a LaserJet III printer and select PeerlessPrint5 language in this menu. The RISO Computer Interface will then emulate the LaserJet III printer to which you configured your application to print. The resident fonts will be fully compatible with those in the LaserJet III. If you download LaserJet scalable fonts, they will print correctly. If you download 300 dpi LaserJet bit map fonts, they will print too small.

When you change to an application configured to print to a PostScript printer, remember to use this menu to switch the language of the Computer Interface to Truelmage.

Using RISO Control Software

Print Device

Selecting Print Device, opens the following submenu:

- Parallel Port 1 (LPT1)
- Parallel Port 2 (LPT2)
- Parallel Port 3 (LPT3)
- Parallel Port 4 (LPT4)
- Communications Port 1 (COM1)
- Communications Port 2 (COM2)
- Communications Port 3 (COM3)
- Communications Port 4 (COM4)
- Disk File
- Null Device (NULL)

Select the communication port you are using to print documents on the Risograph. RISO Control software assumes that the RISO Computer Interface is connected to the selected port. Once a port is selected, the RISO Control Software will send all subsequent commands and files to that port.

Display

Experiment with the Display Options. These change the RISO Control software display parameters for your monitor. The box, "Sample Colors", summarizes the current colors. Select the Modify option to change colors, The change will be reflected in the "Sample Colors" box and on your computer display.

Scan Mode

The Scan Mode menu enables you to characterize originals to be scanned as either Line (text or line drawings) or Photo (photographs or fine art.) When Photo is selected, the Risograph will process the scan to retain gray scale information before it is exported to your computer. The factory default is Line.

Using RISO Control Software

TIFF Compression

The TIFF Compression menu enables you to conserve disk capacity on your computer by reducing the size of scan files exported to your computer from the Risograph. Uncompressed TIFF files occupy 1.6M bytes of hard disk space. To reduce the space required to store the TIFF images use CCITT (600K bytes disk space) or Packbits (300K bytes disk space) if possible. The three file compression options may also facilitate compatibility of the TIFF 5.0 file format with the widest variety of application software. If the application into which the scanned image is being imported is unable to "read" your TIFF file, then re-scan the original using one of the other compression options and try again.

SCSI Board Type

This menu enables you to select the SCSI board you have installed in your IBM or IBM compatible computer. If none is selected the Scan menu will remain disabled.

Proof Copy

This menu allows the user to specify whether or not the first (test) copy printed from each new master by the Risograph will be counted as a usable copy. The factory default (<YES>) is that the first copy will not be counted as one of the set copy count. Select <NO> if you want the first copy included in the set copy count. Typically the first copy printed from a new master is more heavily inked and/or less uniformly inked than the rest. Thus, the quality of the first copy is sometimes not as good as the rest.

Color Defaults

Selecting "Color Defaults" resets the RISO Control software display to the factory color defaults.

Monochrome Defaults

Selecting "Monochrome Defaults" resets the RISO Control software display to the factory monochrome defaults.

All Defaults

Selecting "Defaults" resets all the current RISO Control software settings to the factory default settings.

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Using RISOScan Software

RISOScan Software (for Macintosh only) RISOScan is an application for Apple Macintosh computers which enables you to scan documents on the Risograph and store the scan files in your Macintosh computer.

The application works under both Finder and MultiFinder enabling you to scan a document into a previously selected output file.

The RisoScan program is launched by double clicking on the RISOScan icon. The menu bar has five selections:

- Apple Icon
- File
- Edit
- Settings
- Scan

Apple Icon

This is the standard little black (or colored) Apple symbol that should be the leftmost selection in all Macintosh applications. When dragged, a pull-down menu appears. Selection off the first entry, "About RISOScan," opens a window displaying the name and version of the application.

The Apple menu also lists all the installed Desktop Accessories. Clicking on any accessory will launch it.

File Menu

"File" is a pull-down menu with two entries: Select and Quit. Both selections have quick keys, which are S and Q, respectively.

Select

"Select" enables the user to select the name and location of the file which will store the scan. Selecting "Select" opens a dialog window containing the list of files in the current folder. You are prompted to enter name of the file in which the scan will be stored. The file name window has the name "ScanOut.tif" as a default. If the user types in a file that already exists in the present folder, the application beeps and asks the user to confirm. The user can continue by confirming or canceling. Confirming will overwrite the existing file. Once a file name and folder have been selected, the previously disabled "Scan" selection on the main menu becomes enabled.

Quit

This is the standard application exit for the Macintosh family. Selecting "Exit" closes all the windows and exits to the desktop. The quick key is the standard Q.

Using RISOScan Software

Edit Menu

Selecting Edit opens a pull-down menu that is standard for Macintosh applications:

- Undo (Z)
- Cut (X)
- Copy (C)
- Paste (V)
- Clear

All of the above are disabled. (gray instead of black) They are there for Desktop Applications that need them while running under Finder. (These Desktop Applications all have their own menus under the MultiFinder, but can only add to the host application's menu bar in the Finder environment) Under the Finder, these selections become enabled as soon as a Desktop Accessory is activated.

Settings Menu

The Settings menu enables you to specify the following scanning control parameters:

- Paper Size
- Imaging
- Compression

Each of these selections has a black triangle at the right-hand side indicating that multiple choices exist.

Paper Size

You can specify one of four sizes of document to be scanned: Letter, Legal, A4, B4. The powerup default is Letter.

Imaging

You can specify the type of information on the document to be scanned. Select Line Art if the document contains only text or line drawings. Select Photo if the document is a photograph or a gray scale rendering. The powerup default is Line Art. When you select Photo, the Risograph processes the scan data to retain gray scale information before it exports the data to the Macintosh computer.

Compression

The three file compression options are: No Compression, Group 3, and Packbits. In all three cases, the result will be a TIFF 5.0 file, but each compression option gives a different file size :

No Compression	1.6 MB for a letter size page
Group 3	0.6 MB " "
Packbits	0.3 MB " "

The three compression formats of TIFF are provided to minimize disk memory requirements and to facilitate compatibility with the widest variety of application software. If the application into which the scanned image is being imported cannot read your file, select a different compression option and re-scan the original.

Using RISOScan Software

Scan Menu

The Scan selection is enabled only after an output file has been created from the File-Select menu. There is only one entry in the Scan Menu and that is "Activate" (with the quick key A).

Selecting "Activate" opens a dialog window displaying the name of the output file, and prompting the user to verify that the document to be scanned has been placed in the document feed tray of the Risograph. The dialog window has two buttons: Activate and Cancel. If you select "Cancel" the application cancels the scan and returns you to the main menu. The output file selection remains valid, and the Scan menu remains enabled. Selecting "Activate," opens a window which displays the status of the scanning operation and shows the output file name and location. After the physical scan has been completed, the scan data are compressed (if compression is selected) to the designated file in the Macintosh computer. File compression to CCITT format takes approximately 90 seconds. While the file is being transferred, a horizontal status bar tracks transfer progress. Upon completion of file transfer, RISOScan returns you to the main menu and disables the "Scan" selection.

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Solving Problems

This section describes a few simple problem solving procedures. This page gives suggestions for a newly installed RISO Computer Interface. The next page gives suggestions for other problems.

New Installation

If you cannot print to the Risograph after initial installation of the RISO Computer Interface, take the following steps in order:

1. Try the Risograph in stand-alone (non-interface) mode to see if it will copy a document. If not, check error indicators on the Risograph Control Panel, and refer to Risograph documentation. If the Risograph does not operate in stand-alone mode, it will not print or scan under computer control.
2. Verify that the POWER light on the front panel of the RISO Computer Interface is on. If it is off, check the power cord connections and verify that it is connected to a live electrical power outlet conforming to the voltage and frequency ranged printed on the serial number label located on the bottom of the enclosure.
3. Look at the error light on the RISO Computer Interface front panel. Is it on? If it is, turn the power off and back on again. If the error light remains on, your Computer Interface has an internal problem. Call a RISO Service Technician.
4. Check the cable connection between Computer Interface and computer. Is the cable solidly connected to the connector sockets on both the RISO Computer Interface and the computer?
5. Inspect the DIP switches on the back of the interface enclosure. Refer to the Connections section and make sure that the switches are set correctly. If using a serial connection, make certain that the baud rate, data bits, parity and other serial options match those of the computer. To set or verify the parameters of the computer, use the DOS Command Mode. If you change the DIP switch settings, you must restart the Computer Interface by turning the power off and back on again.
6. Is "Interface" selected on the Risograph Control Panel? If not, select it.
7. If your computer is an IBM or IBM compatible, compare the Computer Interface language selected in the RISO Control software Options menu with the printer driver selected in your software application. They must be compatible. For example, if you selected a LaserJet III or LaserJet II printer in your application software, you must select PeerlessPrint5 in the RISO Control software Options menu. If you selected a LaserWriter printer or PostScript printer in your application software, you must select Truelmage in the RISO Control software Options menu.
8. Try printing a simple text file. If still unable to print, turn off your computer, the Computer Interface, and the Risograph. Restart the Risograph and select "Interface." Restart the Computer Interface and

Solving Problems

wait for the Ready light to glow. Restart your computer and repeat step 7. Try printing a simple text file.

The Risograph Stops Printing Under Computer Control

If the you were able to print under computer control before, but now you cannot, try the following:

1. Make sure that there are no error messages on the Risograph Control Panel. If the Risograph indicates an error, follow the Risograph's instructions for correcting the error.
2. If the RISO Computer Interface error light is on, turn off the power on the RISO Computer Interface, and then turn it back on.
3. Make sure the Risograph is in "Interface" Mode.
4. Try again.

The Printed Output Is Not Formatted Correctly

It could be that you have selected some options that do not make sense for the documents being sent to the printer. Try the following:

1. Launch RISO Control software, go to the Job menu and select Reset.
2. Go to the Options Menu and select the printer language desired.
3. Try printing the file.
4. If using LaserJet emulation (PeerlessPrint5), and the printed output is still incorrect, it may be because of the Reset Command from step 1 has changed your formatting and font settings. Reselect formatting and Font options and try again.

PeerlessPrint5 Output Does Not Have the Font or Fonts You Expected

The RISO Computer Interface may run out of memory if too many soft fonts are downloaded, especially if they are all made permanent. Try the following:

1. Go to the Job Menu and select Reset. This will delete any temporary soft fonts.
2. Download the fonts, and try again.
3. If the output is still incorrect and too many fonts have been downloaded, delete some. Or, if you cannot remember what fonts were made permanent, start over. Turn the power off and back on at the RC Computer Interface. This will delete all previously loaded soft fonts.
4. Now download the desired fonts, and try again.
5. If some downloaded fonts are still missing, install the Memory Upgrade Kit (contact your RISO dealer.)

Attempts to Start Scanning Produce Error Messages

A memory conflict may exist in your computer between the RISO SCSI adapter and other system resources. The RISO SCSI adapter and

scanning control software require reservation of the memory block DC00-DFFF for their exclusive use. Some **potential** sources of memory conflict are:

1. Extended memory manager installed.
2. Windows virtual memory 32-bit access turned on.
3. Video BIOS shadowed in memory.
4. Network card installed.

Memory conflicts from those resources can be avoided by excluding them from the DC00-DFFF block of memory address locations.

At times changing the video board has solved a scanning problem.

On computers with video built into the mother board, scanning conflicts have been resolved by disabling the mother board video and installing a generic VGA card.

Some hardware conflicts cannot be resolved. IBM PS/2 models 56 and 57, which have SCSI built onto the mother board, are incompatible with the RISO scanning hardware and software. They cannot be made to work. It is possible that other computer hardware will exhibit similar fundamental incompatibility.

Other potential sources of scanning problems are:

1. No SCSI board installed in the computer.
2. SCSI cable not connected between SCSI board and Computer Interface.
3. Defective SCSI cable.
4. Defective Risograph video cable (between Computer Interface and Risograph.)
5. Defective parallel cable (one occasion.)
6. Cable disconnected inside Risograph.

**Cannot Remember What Was
Interface
Done The Last Time**

In this case the best thing to do is to restart the RISO Computer by turning power off and back on. Then start over with the powerup default settings.

Appendix I (Technical Training Manual & Troubleshooting Handbook)

Appendix II (Course Overheads)

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Technical Information

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Appendix V (Network Connections & Guide)

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Glossary

Miscellaneous Material

RISOGRAPH COMPUTER INTERFACE

TECHNICAL TRAINING MANUAL

AND

TROUBLESHOOTING HANDBOOK

May 3, 1995

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Product Specifications

PC Compatibility	IBM and compatibles and Standard Apple compatibility.
Process	Digital, Thermal Screening Ink System
Printing Speed	Variable 60-130 sheets per minute (60 - 120 RC6300 + GR3750)
Print Resolution	400 dots per inch
Duty Cycle	Up to 500,000 pages per month
Controller Type	Intel i960KB 20MHz RISC Processor
Memory	4MB ROM; 5MB RAM expandable to 8MB
Printer Language	HP-PCL V , HP-GL/2, and Microsoft TrueImage PostScript Interpreter
Printer Emulations	HP LaserJet Series II & III, Apple LaserWriter II
Resident Typefaces	8 scalable typefaces in CG Times and Univers and 14 fixed-pitch bitmapped fonts in Courier and Line Printer. 35 TrueImage scalable fonts
Interfaces	Parallel, RS-232C, RS422, AppleTalk, SCSI
Paper Sizes	4"x6" to 11"x17"
Image Size	8.2"x13.7" (10.5"x16.5" for RC6300 + GR3750 with 8MB)
Paper Capacity	1000 sheets (feed & receiving trays)
Paper Weight	14 to 110 lbs.
Special Stocks	Cover stock, NCR, vellum, postcard, envelopes
Input Scanner	Feed Through with ADF or Flat Bed with optional ADF
Resolution	400 dots per inch
Grayscale	256 1 bit ("non-editable")
Original Size	4"x6" to 8.5"x14"
Electrical	85-265V, 0.6A, 47-63Hz
Regulatory Compliance	FCC, UL, CSA, VDE, TUV

Models, Upgrades, and Options

Model 300:

PRINTING

- Parallel, Serial and Apple Talk input

SCANNING

-SCSI

EMULATION

- PeerlessPrint5 (PCLV Emulation)
 - Truelmage

MEMORY

- 4MB ROM
 - 5MB RAM standard expandable to 8MB

RISOGRAPH CONNECTION

-Video cable and I/F kit (RC S-994 , RA/GR S-737)

*NOTE: I/F Kit does not include the Video Cable

Configurations:

	PeerlessPrint5	Truelmage	AppleTalk	Parallel	Serial	Scanning	Standard RAM	Standard ROM
Model 300	X	X	X	X	X	X	5MB	4MB
Risographs		Print	Scan					
RC 4500		Y	Y					
5600		Y	Y					
5800		Y	Y					
6300*		Y	Y					

*NOTE: For Printing 11"x17" on a RC 6300 a 8MB Memory up-grade is **NEEDED!**
 6300 Original size for SCANNING - **MAX 8.5"x14'**

RA 4200	Y	N				4200 PRINT ONLY		
4900	Y	Y						
5900	Y	Y						
GR1700	Y	N				1700 PRINT ONLY		
1750	Y	Y						
2750	Y	Y						
3750*	Y	Y						

*NOTE: **SAME SPECS. AS 6300 FOR PRINTING AND SCANNING!**

Documentation

Operations Manual 5 Languages - Item #1126

Technical Training and Troubleshooting Manual - Item #363

Riso Publisher Tech. Reference Guide - Item #352

Riso Publisher Tech. Video & Reference Guide - Item #351

Computer Interface Product Guide - Item #272

CI Operation Guide - Item #284

Troubleshooting Computer Hardware

Incorrect Printer Path (IBM)

To determine that the computer is directing the data to the port correctly execute the following steps:

1. At the prompt (ex. C>) type **MODE ENTER** this will tell if any ports are rerouted and where they are rerouted to.
 - a. To reset the routing of LPT#: type **MODE LPT#:
ENTER** where # is the # of the parallel port that is being used.
 - b. enter the control program and try a test print again setting the port to LPT#:

Incorrect Chooser Setup (Macintosh)

To determine that the computer is directing the data over the AppleTalk Network correctly execute the following steps:

1. Select the Chooser Desk Accessory from the Apple Menu to open the Chooser Dialog Box. Click on the Apple LaserWriter AppleTalk printer icon in the group of device driver icons on the left side of the Chooser Dialog Box. Select "RISOGRAPH" from the list of printers displayed on the right hand side of the Chooser Dialog Box. Close the Chooser Dialog Box.

Bad Computer Port

(The Power On Self Test should detect this)

Testing a computer port can be preformed by way of a computer program (ex. CheckIt by Touchstone) that tests the ports chips or sends data out of the port through a "wrap plug" and back into the computer. A test can also be preformed by using a logic probe to test if a signal is coming out of the port when a test print is sent. If one is available using another printer to test the port can also be helpful.

Troubleshooting The Computer Interface

No Power LED

If the Power LED is not on check the following items:

1. Check power cord for proper connection and operation.
2. Check internal connection from CI Main PCB to LED cluster, and operation of LEDs.
3. Check operation of power supply. (internal fuse, fan running, test point voltages (see wire harness diagram))
4. If power supply not working replace Power Supply PCB.
5. If power supply working replace CI Main PCB.

No READY LED

If the Ready LED is not light then check the following areas:

1. Check internal connection from CI Main PCB to LED cluster, and operation of LEDs.
2. Turn CI off and back on to reset.
4. If no Ready LED, replace CI Main PCB.

Ready LED Does Not Blink When Data Is Sent

If the Ready LED does not blink when data is sent to the CI then check the following areas:

1. Check connection of Parallel, Serial or AppleTalk connections.
2. Check for correct Dip Switch settings.
3. Check port setting of application program sending data, or on the Apple check the Chooser settings.
4. Check the internal connection form the I/O port being used to the CI Main PCB.

Error LED Is On

If the Error LED is on then take the following steps

1. Turn CI off and back on to reset.
2. If Error LED is still on, replace CI Main PCB.

Troubleshooting The Computer Interface

Failed (Inside Unit) LED Is On

If the Failed LED is on the take the following steps:

1. Turn CI off and back on to reset.
2. If Failed LED is still on, replace CI Main PCB.

Dip Switch Settings

Parallel - Switch 7 UP All the rest DOWN
MAC - ALL SWITCHES DOWN
SERIAL - Refer to Operations Guide Pg. 9 + 10

Incorrect Switch Settings

If the Switch Settings are incorrect you will see;

Parallel - " Error on LPT#1 "
MAC - Will not show up in CHOOSER
Serial - " Error on Printer Port # "

Troubleshooting From RISO Control Software

Running Riso Control Software

At the prompt (ie. C>) type **RISO** ENTER. If "invalid command" error is produced then **goto Installing RISO Control Software**.

Running The Self Test

Pull down the Job menu. Select test and press ENTER. Place a test document on/in the scanner and press ENTER to continue. The Ready LED on the CI should blink shortly and the Risograph should print a test pattern of vertical lines an then scan and print the document on the scanner.

NOTE: The printout from the scanned image from a CI300 will look strange at the top 3 inches. **THIS IS NORMAL!!!**

Ready LED Not Blinking And No Print Out

If the Ready LED is not blinking and no printout is produced then check the following:

1. Parallel / Serial Cable not connected or malfunctioning (**goto Testing Cables**)
2. Incorrect dip switch settings (**go to Dip Switches**)
3. Incorrect communications port settings. To correct, select the correct port for the current setup under the **OPTIONS** menu.
 - a. If parallel -- normally Parallel Port 1 (LPT1) in most setups.
 - i. If the user has more than one printer port try (LPT2..4)
 - ii. If using a printer switch box and selected the RISO printer
 - b. If serial -- normally Communications Port 1 (Com1) in most setups.
 - i. If the user has more than one serial device (ie mice,plotters....) try (Com2..4)
 - ii. If using a serial switch box select the Riso printer.

Troubleshooting From The RISO Control Software

4. Malfunction computer or bad printer path.

a. Exit the control program and at the prompt (ex. C>) type **MODE ENTER** this will tell if any ports are rerouted and where they are rerouted to.

i. To reset the routing of LPT#: type **MODE LPT#: ENTER** where # is the # of the parallel port that is being used.

ii. Reenter the control program and try a test print again setting the port to LPT#:

b. Test hardware with another printer or suggest that the computer be serviced.

Ready LED Blinking But No Print Out

If Ready LED Blinks but no print out is generated then check the following areas:

1. Bad Video Cable (**goto Testing Cables**)

2. Bad I/F PCB Kit

a. Check I/F PCB Cable Connections

b. Replace I/F PCB Kit

Troubleshooting From The RISO Control Software

Ready LED Blinks But Not Scanning

1. No/bad SCSI connection or computer board (if unit printing but not scanning)
 - a. Follow cable from the SCSI connector on the CI back to the computer checking the connection.
 - b. Test the SCSI cable **goto Testing Cables**.
2. If unit prints but does not scan then check the settings for the SCSI Board under the Options Menu, and set them to the current board being used.

Troubleshooting From The Macintosh Finder

Printing From Finder

Pull down the Apple menu. Select "chooser" and release the mouse button, now click on AppleTalk Active and on the LaserWriter Icon. Click on the "RC RISOGRAPH" to select it. Close the Chooser menu. Pull down the file menu and select Page Setup... and release the mouse button. Pull down the file menu and select Print Window... and release the Mouse Button. Press the OK button.

Ready LED Not Blinking And No Print Out

If the Ready LED is not blinking and no printout is produced then check the following:

1. AppleTalk Cable not connected or malfunctioning (**goto Testing Cables**)
2. Incorrect dip switch settings (all switches Down)
3. Malfunction computer.
 - a. Test hardware with another printer or suggest that the computer be serviced.

Ready LED Blinking But No Print Out

If Ready LED Blinks but no print out is generated then check the following areas:

1. Bad Video Cable (**goto Testing Cables**)
2. Bad Interface Kit
 - a. Check I/F PCB Cable connections
 - b. Replace I/F PCB Kit

Ready LED Blinks But Not Scanning

1. No/bad SCSI connection (if unit printing but not scanning)
 - a. Follow cable from the SCSI connector on the CI back to the computer checking the connection.
 - b. Test the SCSI cable **goto Testing Cables**.
3. If unit prints but does not scan then check for proper SCSI termination and ID settings.

Troubleshooting Application Software

Printer Type Selection (IBM)

Check the printer driver being used to see if it corresponds to the CI model being used.

1. HP LaserJet II or III for PCL V/PeerlessPrint
2. Apple LaserWriter, Agfa Compugraphic 400 PS or generic postscript printer for PostScript/TrueImage

Printer Port Selection (IBM)

Check the printer or comm port setting to see if it corresponds to the physical port being used.

1. For parallel normally LPT1 (for multiple printers LPT2,LPT3, or LPT4 may be in use)
2. For serial normally COM1 (for multiple serial devices COM2,COM3,COM4 may be in use)

Also set the protocol settings to correspond to the dip switch settings. (**see Troubleshooting Serial Setups**)

Printing Graphics

If text is printing but graphics are not then set the options for graphic printout to the highest quality. (some programs do not print graphics in draft mode) Also try reducing the size of the graphic and printing again. On the Macintosh turn off the Graphics Smoothing Option this option will work with the Apple LaserWriter only.

Printing Multiple Copies

Windows applications and most DOS applications enable you to set the copy count in the application PRINT dialog box. When that is not possible or when you want a larger copy count than the application permits you to select, use RISO Control software to set the copy count. Then the file should be printed from the application program PRINT menu with copy count set to one. The Risograph can be set to print up to 9,999 copies from a single master, but due to degradation of copy quality of runs over 5,000 copies, a more practical limit is 5,000 copies.

Creating Master For Each Copy

If masters are being created for each copy of a page make sure that the number of copies set under the application is set to one (1) copy and that multiple copy settings are selected only through the RISO Control Software Job Menu or are set on the Risograph Panel.

Most common with a CI Model 300, check in the PRINT dialog box and make sure that the COLLATE COPIES is turned OFF. With Collate turned on, the number of copies is the number of masters that the Risograph will make.

Testing Cables

Simple Method Of Testing Cables

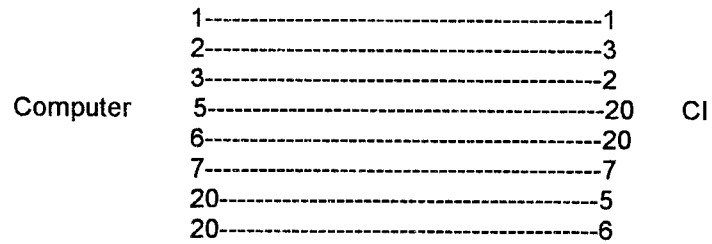
Replace cable and see if the setup runs.

Tester Method Of Testing Cables

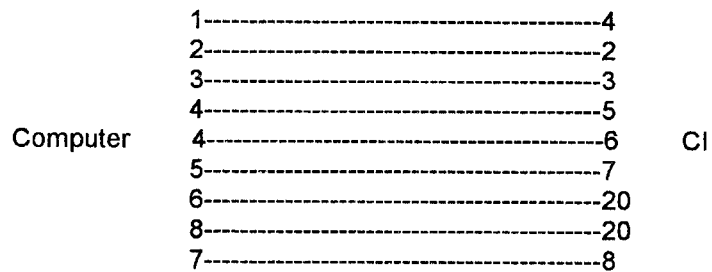
Test the cable with a continuity tester using pin connection charts. note: check for proper connection and cross connections

Wiring Diagrams For Popular Cables

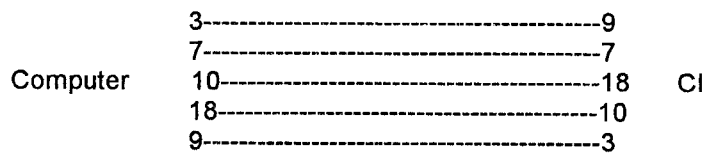
RS-232 25 pin Female to 25 pin Male



RS-232 9 pin female to 25 pin male



RS-422 25 pin male to 25 pin male



Testing Cables

Centronics Parallel (15' MAX)

DB-25 Male

Centronics 36 pin Male

	1-----	1
	2-----	2
	3-----	3
	4-----	4
	5-----	5
	6-----	6
	7-----	7
	8-----	8
	9-----	9
Computer	10-----	10 CI
	11-----	11
	12-----	12
	13-----	13
	14-----	14
	15-----	32
	16-----	31
	17-----	36
	18-25 ground	16,19-30,33 ground

SCSI Cable (6' MAX)

DB-25 Male

BR-50 Male

	1-----	49
	2-----	46
	3-----	50
	4-----	45
	5-----	44
	6-----	43
	7-----	16,18,19
	8-----	26
	9-----	20,21,22
	10-----	29
	11-----	31
	12-----	32
Computer	13-----	33 CI
	14-----	1,2,3
	15-----	48
	16-----	4,5,6
	17-----	41
	18-----	7,8,9,11
	19-----	47
	20-----	34
	21-----	27
	22-----	28
	23-----	30
	24-----	23,24,25
	25-----	38

Video Cable (4' MAX)

Straight-through except pins (2,4,11,12,13,19,21,23,30,31,32)
which are not connected
Connectors - DB37 to DB37

Recommended Test Equipment, Tools and Manuals

Tools

Needle nose pliers
Diagonal pliers
3/16" Nut driver
Wire cutter
Philips screwdriver -- small
VOM meter
Chip puller
Jewellers slotted screwdriver
Contact Cleaner Spray

Logic probe

For testing output of ports, and operation of cables

Computer hardware test program

For testing computer ports and operations
examples:

- Check-it by Touchstone
- MSD by MicroSoft
- Win Sleuth by Delriana
- MAC Sleuth by Delriana

Manuals

- Hewlett Packard PCL5 Printer Language Technical Reference Manual, Hewlett Packard
- The LaserJet Handbook, Bennett and Randall, Brady, 1990
- Adobe PostScript Reference Manual, "The Red Book" Adobe Press
- Running MS-DOS, Van Wolverton, MicroSoft Press, 1989
- Macintosh Bible, Aker and Naiman, G&B, 1987

Replacement Parts

Description	Part #
Computer Interface Main System PCB (Phase 1 serial #06484800 and below)	CIP-001
Computer Interface 4MB Memory Upgrade Kit (Phase 1 - 4 Boards)	CIP-002
Computer Interface Power Supply	CIP-007
Computer Interface Video Cable	CIP-008
Computer Interface Primary Power Harness	CIP-009
Computer Interface Secondary Power Harness + Fan Assy.	CIP-010
Computer Interface LED Harness	CIP-012
Computer Interface Power Switch	CIP-013
Computer Interface Internal RS232 Cable	CIP-014
Computer Interface Internal Parallel	CIP-015
CI Main PCB (Phase 2 Serial #06484801 and ABOVE)	CIP-021
CI 4Meg Upgrade Kit (Phase 2 - 1 Memory Board)	CIP-022
Computer Interface Model 300	S-662
Interface Connection Kit (RA + GR)	S-737
Interface Connection Kit (RC)	S-994
SCSI Terminator (Mac)	CI-002
Parallel Cable	CI-003
Serial Cable (RS232)	CI-004
AppleTalk Cable	CI-005
SCSI Cable	CI-006
Serial Cable (RS422)	CI-008
SCSI RT-1000A	CI-301
SCSI Cable	CI-006
SCSI PCB RT-1000	CI-301
SCSI PCB RT-1000MCA (Micro Channel)	CI-302
CI Model 300 Diskette Kit (Riso Control + Riso Scan)	CI-504

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Glossary

Miscellaneous Material

CI INSTALLATION

GUIDE LINES

1. SITE SURVEY

- A. CHECK INSTALLATION AREA**
- B. CHECK RISOGRAPH - NON-GA or GA (4500 + 5600)**
- C. CHECK COMPATABILITY OF ROMs**
- D. PRINT OUT THE REPORT FROM MSD AND ANALYZE**

2. INSTALLATION

A. CHECK RISOGRAPH

- 1. HAVE THE SYSTEM PRINT AND SCAN BEFORE REMOVING COVERS.**
- 2. INSTALL CI INTERFACE KIT INTO THE RISOGRAPH
MAKE SURE THE CORRECT KIT IS ORDERED FOR THE SYSTEM - RA (S-737) or RC (S-994)**
- 3. SELECT INTERFACE MODE**

***NOTE-**

RC6300 AND THE RA PRODUCTS WILL NOT GO INTO INTERFACE MODE IF THE CABLES OR INTERFACE PCB ARE BAD!!

ALSO, IF 11X17 PRINTING IS TO BE USED, INSURE 8MEG UPGRADE IS INSTALLED

B. CHECK CUSTOMER COMPUTER

- 1. HAVE THE CUSTOMER BRING UP THEIR COMPUTER.**
- 2. HAVE THE CUSTOMER RUN THEIR PROGRAMS.**
- 3. HAVE THE CUSTOMER BACK-UP HARD DISK DRIVE**

***NOTE-**

IF THE CUSTOMER DOES NOT WANT TO BACK-UP THE SYSTEM DISK THEY SHOULD SIGN A DISCLAIMER THAT YOU ARE NOT RESPONSIBLE FOR THEIR SOFTWARE IF SOMETHING SHOULD GO WRONG!!

B. COMPUTER CHECK AND INSTALL (cont.)

4. **CREATE A BOOT DISK USING PAGES 24+ 25 FOR IBM AND 26+27 FOR MAC (ITEM #352) FOR SAFETY PURPOSES.**
5. **INSTALL RT1000 SCSI PCB (IF SCANNING)**
6. **INSTALL RISO CONTROL.**
7. **CHECK PUBLISHER SWITCH SETTINGS.
7 UP-IBM / ALL DOWN-MACINTOSH**

C. CHECKING INSTALLATION

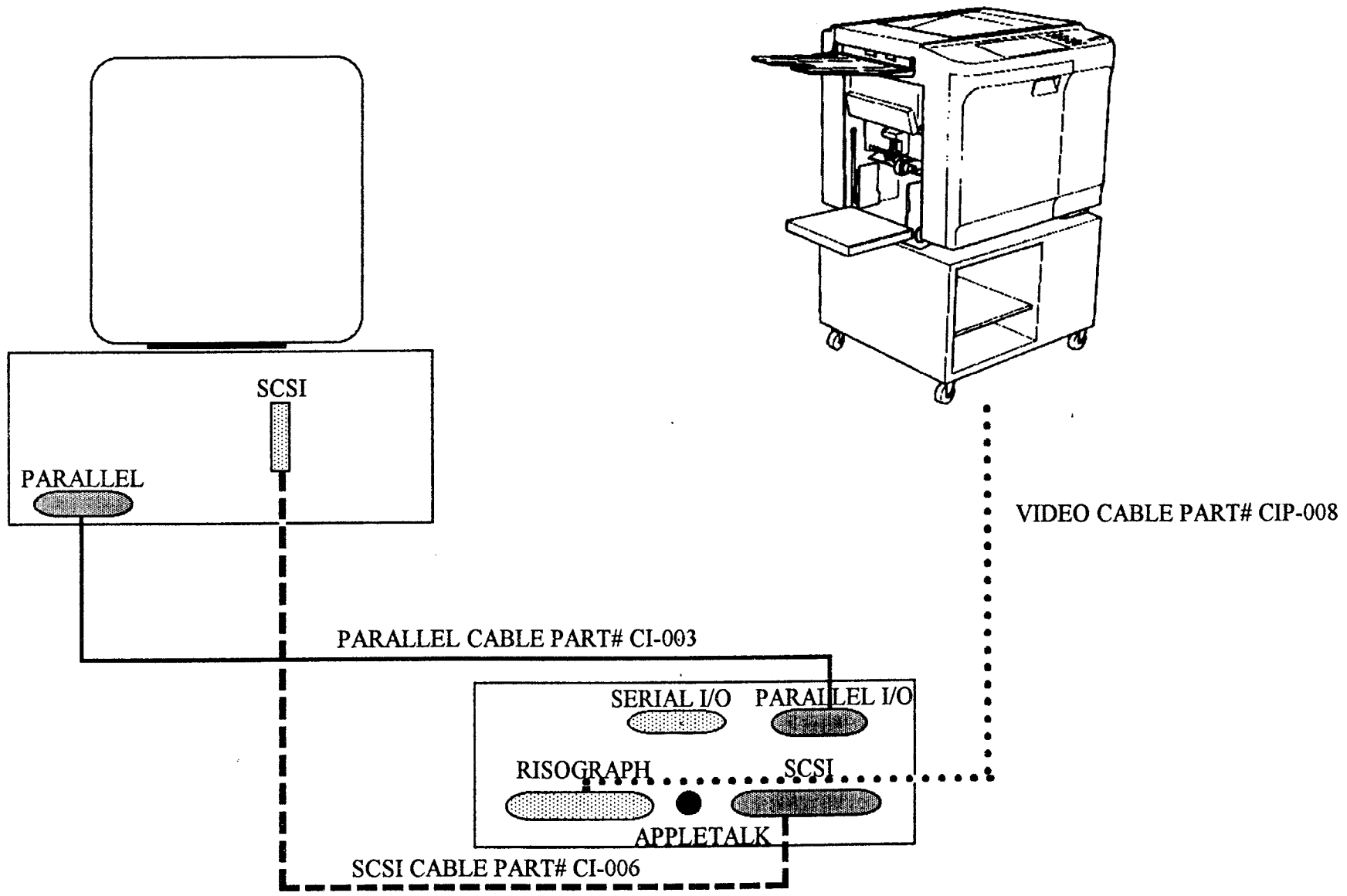
1. **TURN EVERYTHING OFF**
2. **POWER UP RISOGRAPH**
3. **SELECT INTERFACE MODE**
4. **POWER UP CI PUBLISHER (WAIT FOR GREEN READY)**
5. **POWER UP COMPUTER**
6. **IF DURING POWER UP THE COMPUTER COMES UP IN WINDOWS OR A MENU SCREEN, CLOSE WINDOWS OR THE MENU AND GET TO YOUR DOS PROMPT C:> .
TYPE RISO TO ENTER RISO CONTROL.**
7. **SELECT JOB AND THEN TEST. PUT AN ORIGINAL IN THE ADF OR ON THE GLASS AND FOLLOW THE PROMPTS. THE RISO WILL PRINT LINES FIRST THEN SCAN THE ORIGINAL AND PRINT IT.**

***NOTE-**

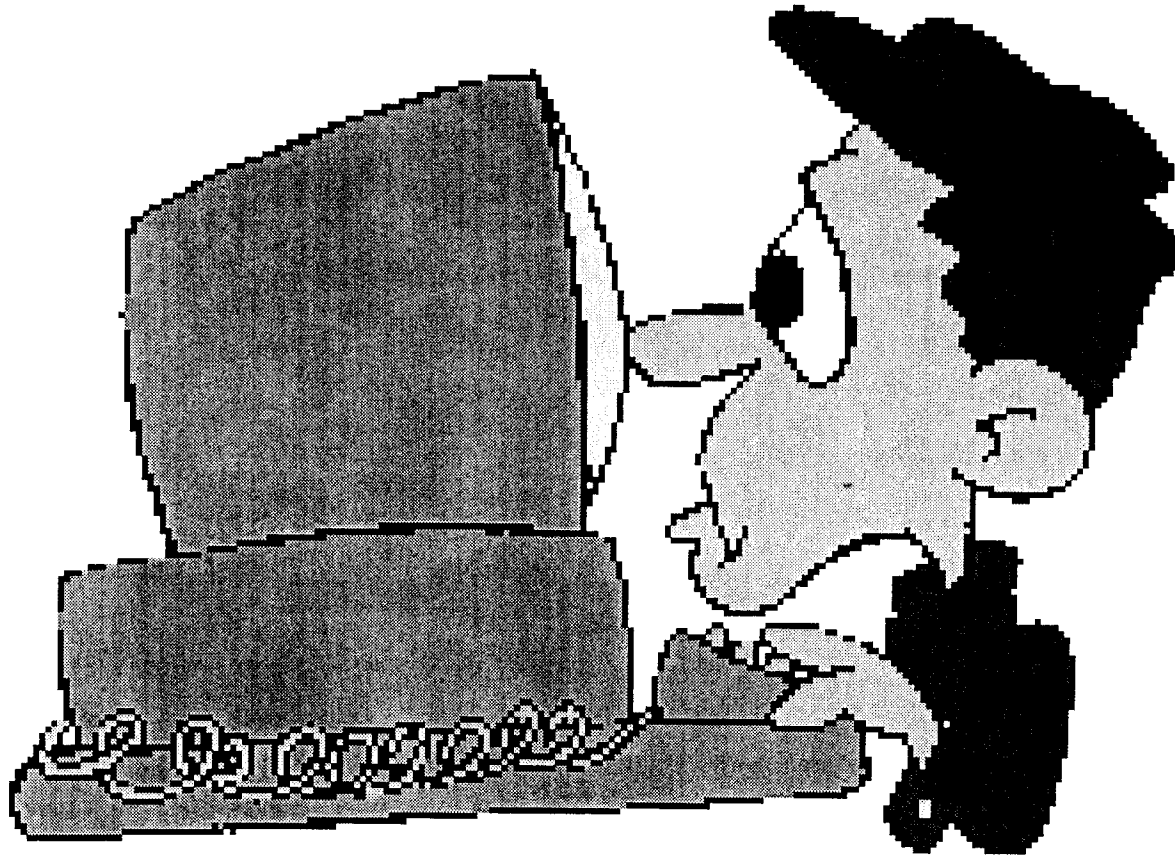
THIS DOES NOT TEST THE SCSI PCB!!

8. **TO CHECK COMMUNICATION BETWEEN THE CI AND OPERATING SYSTEM, SELECT OPTION AND THEN SELECT PeerlessPrint5 PRINT DRIVER. THEN GO TO FILE AND SELECT PRINT. WHEN YOU ARE PROMPTED FOR THE FILE TYPE C:\AUTOEXEC.BAT THIS WILL SEND YOUR AUTOEXEC.BAT FILE TO THE RISOGRAPH.**
9. **SET-UP SCAN SELECTIONS, PUT ORIGINAL ON GLASS OR IN ADF. SELECT SCAN, AND FOLLOW THE PROMPTS.**

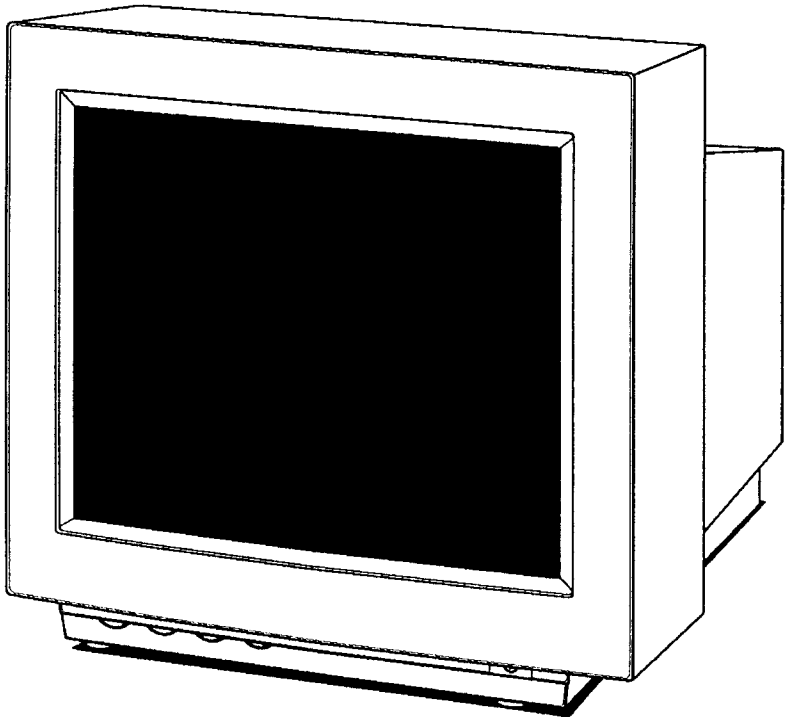
IBM/PC COMPATIBLE CABLES



Welcome to Computer Basics



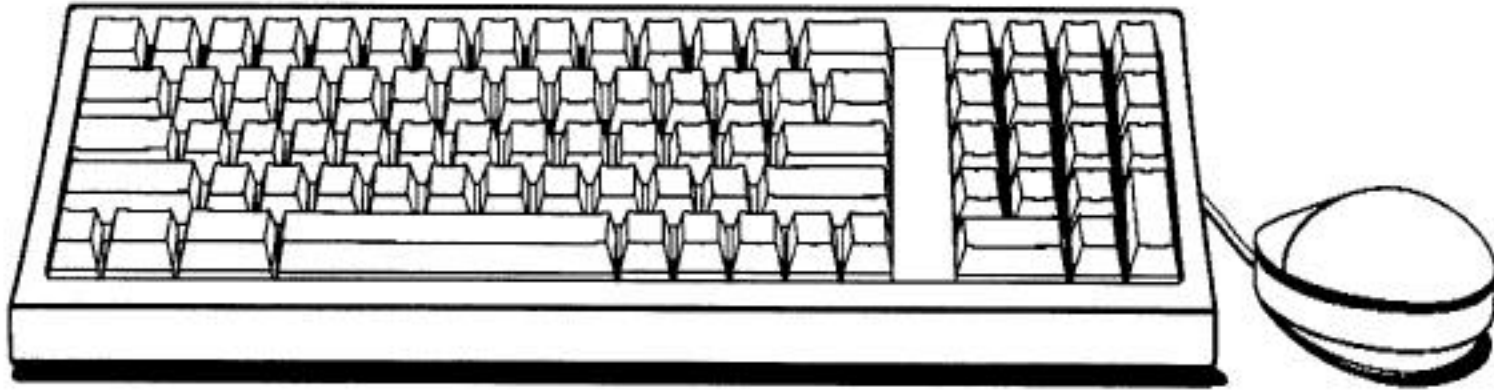
MONITOR



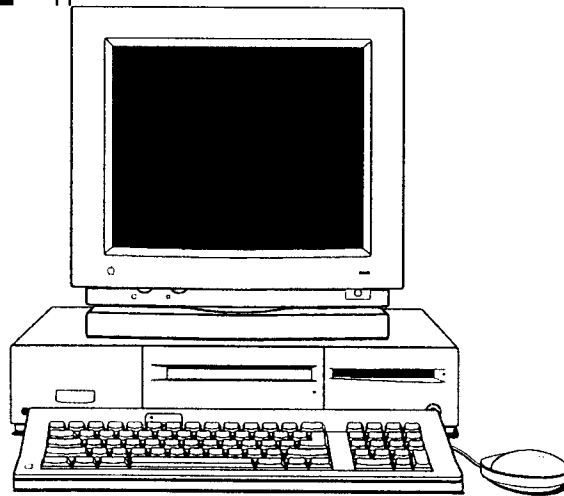
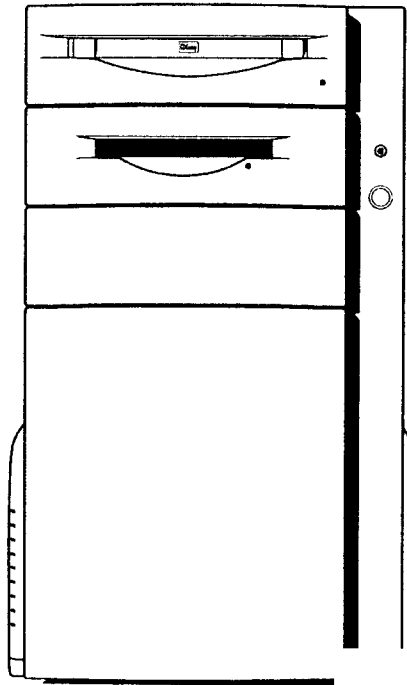
- The Monitor also known as the CRT is the visual output device of the computer. This handles the interaction between the user and the computer.

KEYBOARD and MOUSE

- The Keyboard and Mouse are the input devices between the user and the computer.



CPU



- The CPU also known as the Central Processing Unit is the brains of the computer. It holds the Disk Drives, I/O PCBs and the Mother Board.

FONTS

- A complete assortment of letters, numbers, punctuation marks and typeface of a given weight, style and width in a specific size.
- *Times New Roman size 40 Italic*
- **Bookman size 32 Bold**
- Arial size 20
- Century Gothic size 14
- *Brush Script MT size 12*

FILES



- Any collection of information stored on a disk:
application
program document,
directory, etc..

DOS - Disk Operating System

- DOS is the main program that controls the PC, all the programs that run and anything that saves information to or loads it from a disk.

Prompts and Commands

- C: - The main disk drive
- A: or B: - The removable disk drive
- \ - Root Directory
- CD - Change Directory
- Format - To set up a new disk
- Copy - To transfer files
- Install - To install a program

DOS Main Files

- Autoexec.bat - A batch file executed automatically whenever the computer is turned on.
- Config.sys - A file created to tell DOS how to configure itself when the computer starts up

Windows 3.1

- Program Manager
- Main Icon
- Accessories
- Applications
- Minimize Window
- Maximize Window

Windows 95

- Start
- My Computer
- Control Panel
- Recycle Bin
- Settings
- Making Icons

PageMaker 5.0 or 6.0

- Menu Bar
 - File
 - Edit
 - Layout
 - Element
 - Windows

RISO Publisher

- High Speed Digital Printer
- Integrated Utility Scanner
- Stand-Alone Duplicator
- Simple Operation

High Speed Digital Printing

- High Speed - 130 Pages Per Minute
- Digital Quality - 400 Dots Per Inch
- Fast Imaging - INTEL i960 Processor
- Compatibility - PC/MS-DOS and Mac
- Emulation - PostScript Level 1+PCL V
- Print Area - Letter, Legal + Tabloid

PDL

Page Description Languages

- PostScript Mode Language
 - LaserWriter Emulation - Printer
 - Microsoft TrueImage PostScript Interpreter - Dialect
 - 35 PostScript Scaleable Fonts - Fonts
 - Slow and Pretty - Aspect

PDL

Page Description Languages

- HP PCL V
 - HP LaserJet III Emulation
 - PeerlessPrint 5
 - 8 Scaleable Fonts and 14 Bitmap
 - Fast and Ugly
 - Language
 - Printer
 - Dialect
 - Fonts
 - Aspect

Publisher Scanning Features

- Imaging - 256 Halftones at 400dpi
- Image Feeders- Automatic and Flatbed
- File Format - Tagged Image File Format
TIFF
- Image Sizes - 4"x 6" to 8.5"x 14"

TIFF File Format

	Line Mode	Photo Mode
Non-Compressed	1.68M Bytes	1.68M Bytes
CCITT Group 3	.20M Bytes	>1M Byte
Packbits	.30M Bytes	.40M Bytes

Publisher Model 300 Connections

- **Ports**

- Parallel	-IBM	-400-1200Kb/s	-15 Feet
-AppleTalk	-Mac	-240Kb/s	-3000 Feet
-Serial	-XXX	-4.8-9.6Kb/s	-150/400 Feet
-SCSI	-M/I	-5000Kb/s	-6 Feet

- **Functions**

-Printing	-Requires AppleTalk or Parallel
-Scanning	-Requires SCSI Cable

Publisher Systems Troubleshooting Zones

- Computer Hardware
- Computer Application
- Computer Cables
- Interface
- Risograph Cables
- Risograph I/F PCB
- Risograph I/F PCB Cables
- Risograph

Computer Zones

- **Computer Cables**
 - Check Connections
 - Replace if Suspect
- **Computer Hardware**
 - Test I/O Ports
 - Macintosh: Snooper
 - PC/MS-DOS: Check-it
- **Computer Applications**
 - Obtain help from Application Developer - Vendor
 - TrueImage**
 - Agfe Compugraphic 400PS, PostScript Printer, Apple LaserWriter, Linotronic 200/230
 - PeerlessPrint5**
 - HP LaserJet III

Interface Zone

- Dip Switches
- Power Light
- Ready Light
- Error Light
- Fail Light

Interface Zone Dip Switches

- IBM / PC
 - Dip Switch **7 UP**
- Macintosh
 - All Dip Switches **DOWN**
- Serial
 - As Needed

Interface Zone Power Light (OFF)

- Power Outlet
- Power Cable
- Light Harness
- Primary + Secondary Power Cables
- Fuses (2)
- Power Supply

Interface Zone Ready Light (OFF)

- Light Harness
 - Voltage Meter
 - Replace Light Harness
- Interface Main PCB
 - Error or Fail ON
 - Replace Publisher Main PCB

Interface Zone Error Light (ON)

- Publisher Main PCB
 - Try Power Up Cycle
 - Replace Publisher Main PCB

Interface Zone Fail Light (ON)

- Publisher Main PCB
 - Try Power Up Cycle
 - Replace Publisher Main PCB

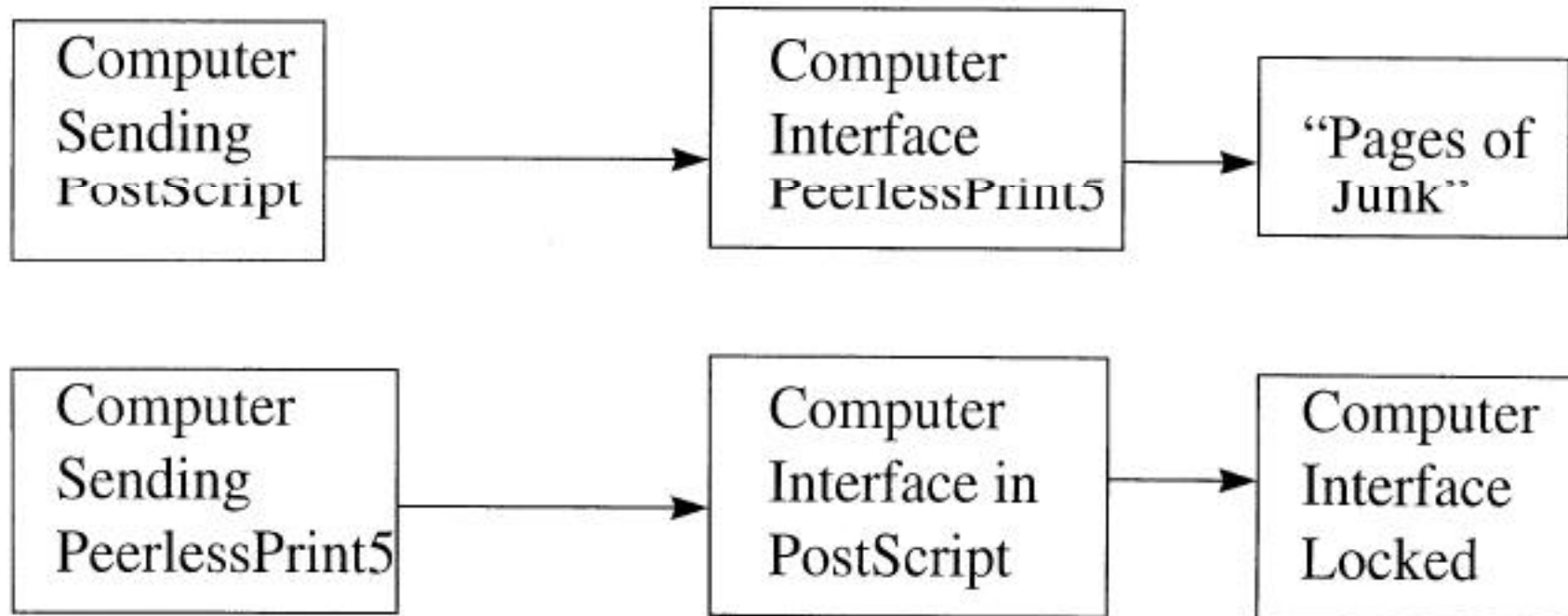
Risograph Zones

- Risograph Cable (Video)
 - Bent Pins
 - Replace if Suspect
- Risograph I/F PCB
 - Replace if Suspect
- Risograph I/F Cables
 - RC- Check Connections
 - Replace if Suspect
- Risograph
 - Standard Troubleshooting Procedure

Publisher Troubleshooting IBM / PC

- Run RISO Control
- Pull Down Job Menu and Select Test
- Watch for Flashing Ready Light
 - If **READY** Light Flashes But **NO** Output - Check:
 - Risograph Cable (Video Cable)
 - Interface PCB
 - Interface PCB Cables
 - Risograph
 - If **READY** Light **DID NOT FLASH**, Check:
 - Computer Cables and Hardware
 - If **OUTPUT IS** Created, Then Check:
 - Computer Application

Incorrect Printer Settings



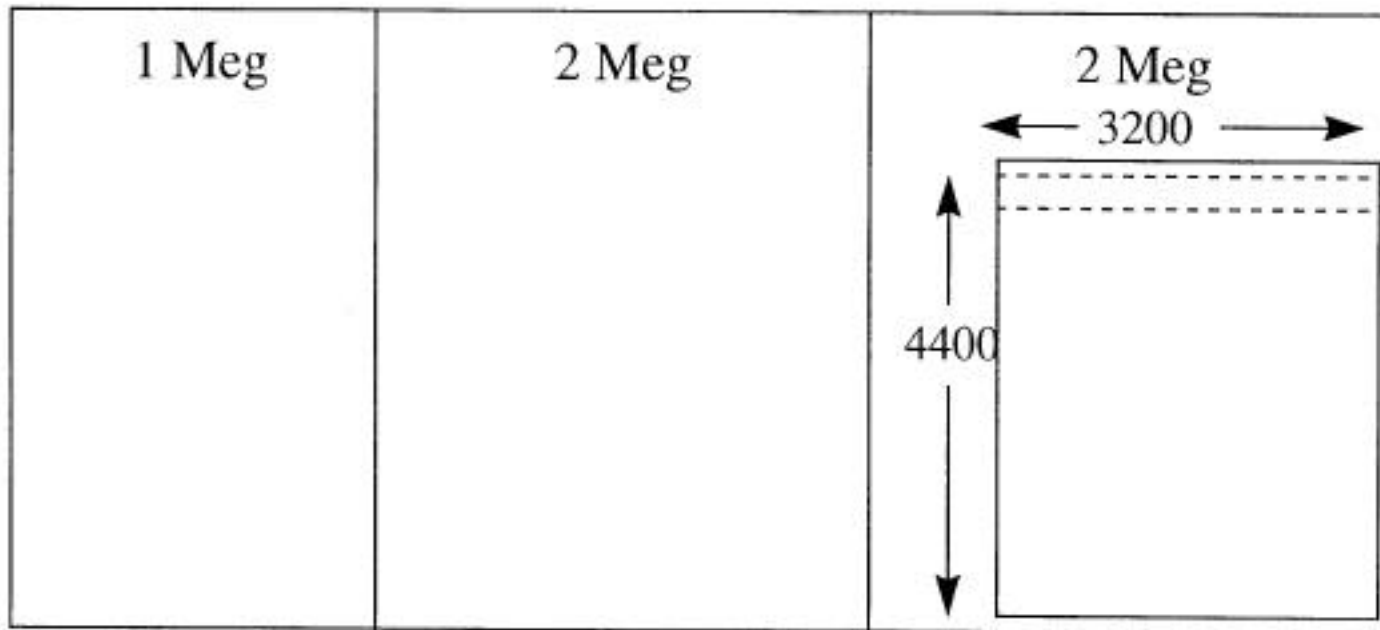
Memory Operation

Program

Work Area

Output Area

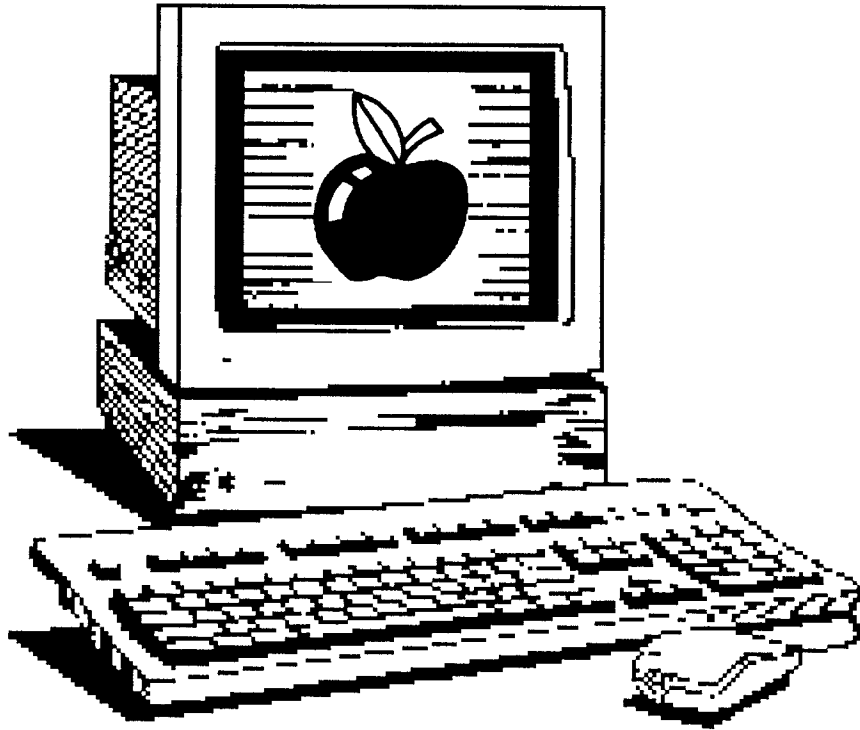
**Data
In**




**Data
Out**

$10.5'' = 4200$
 $\times 3200$
 $13,440,000$
 $- 8\text{bits}$
 $= 1.6\text{MB}$

Macintosh



Menu Bar

- Apple Symbol 
 - About this Mac
 - Chooser / Selecting the Printer
 - Control Panel / Settings
 - List of Programs
- File
 - New Folder
 - Page Setup
 - Print Desktop or Window
- Special
 - Clean up Desktop
 - Empty Trash
 - Restart
 - Shut Down

Mac Print Drivers

LaserWriter - ver 7.1.2 or 7.2

LaserWriter 8


Macintosh Programs

PageMaker 5.0 + 6.0

QuarkXpress

Illustrator 3 + 5

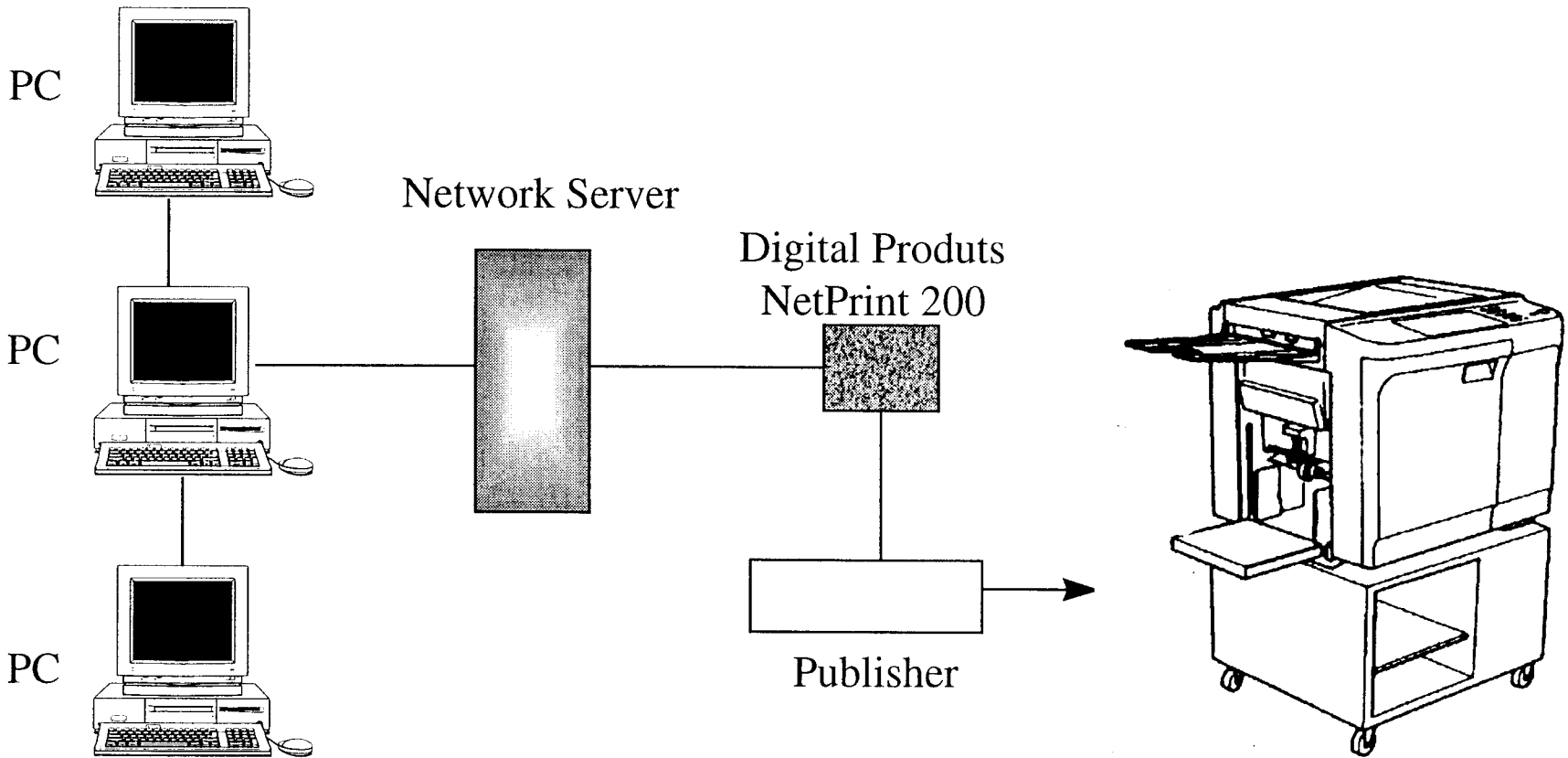
Macintosh Troubleshooting

- Pull down the  and select Chooser
- Click on the LaserWriter Icon
- Look for RISOGRAPH in the List of LaserWriter Printers
 - If **RISOGRAPH DID NOT** appear then Check:
 - Computer Hardware
 - Computer Cables
- Click on RISOGRAPH, and Close Chooser Window
- Pull Down File and Select **Print Desktop** (or Window)
- Click on Print
 - If there is **NO OUTPUT** then Check:
 - Publisher Ready Light Blinking (Receiving Data)
 - Risograph Cable
 - I/F PCB and Cables and Risograph
 - If **OUTPUT IS NOT** Correct then Check:
 - Computer Application

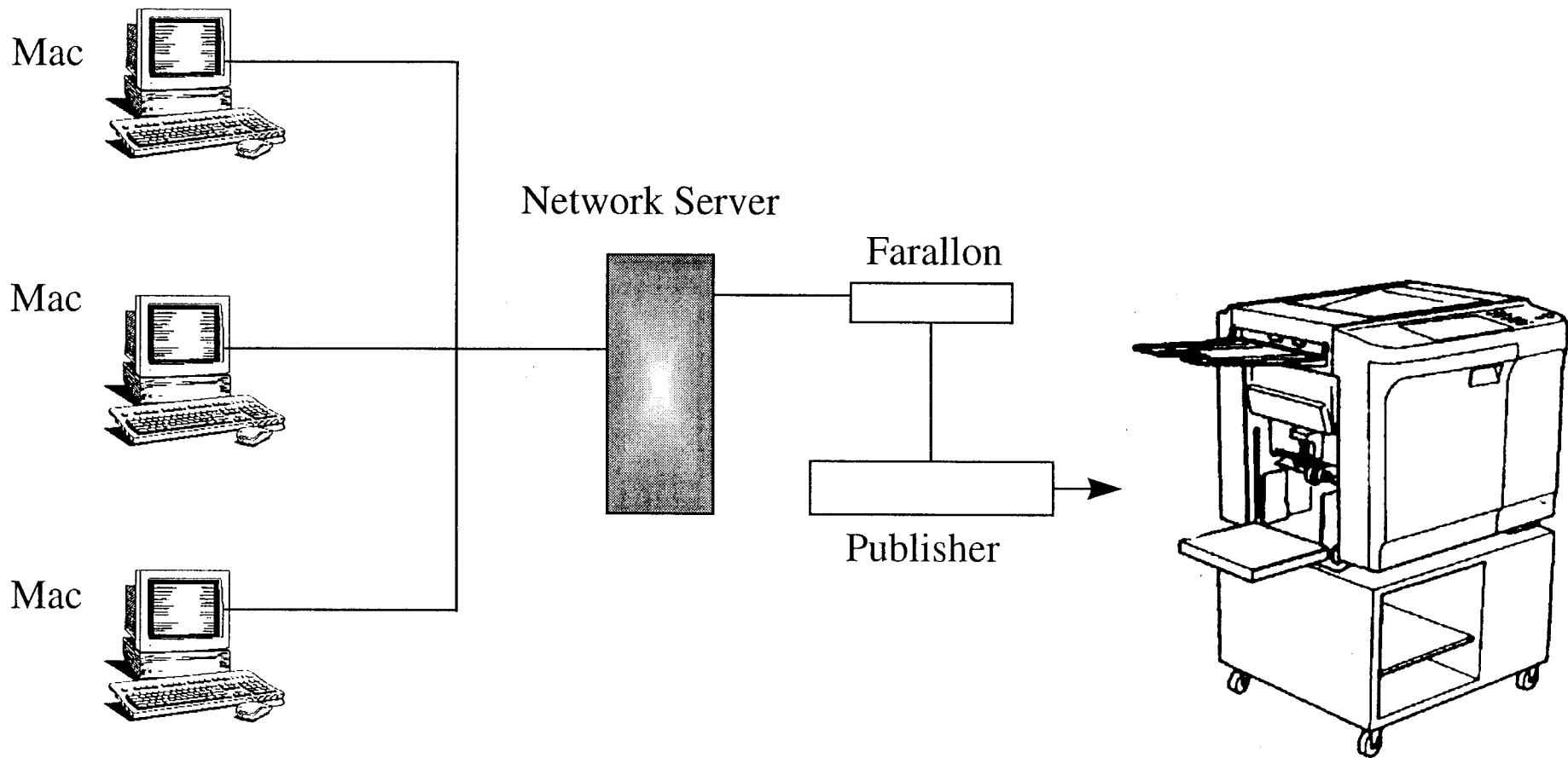
Networking



PC Network



Macintosh Network



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DOS Command Lab
LAB #1

1. What is the first DOS prompt you see? _____

2. Change the directory to Windows. What is the prompt now?

3. List the directory. What is the first three directories?

4. Change back to the root directory. What command did you use?

5. Using the diskette provided, install it into the appropriate disk drive and access the drive by using the command _____

6. Format the diskette as a system disk. What command did you use?

7. Copy autoexec.bat and config.sys to the diskette. What command did you use? _____

8. Perform a directory of the diskette. Write down the files, their sizes and the amount of free space on the diskette. _____

9. With a copy of RISO control, install it on the hard drive. What command did you use? _____

10. Start Riso control and inform the Instructor.

Making an Icon and Program Group in Windows 3.1

CREATING A PROGRAM GROUP

These are the steps that have to be taken to create a Program Group:

1. Make sure that there are **NO** Program Groups **OPEN** in Program Manager.
2. Select File
3. Select New
4. Select Program Group and click on OK.
5. At the Program Group Properties window, in the Description Area, type RISO.
6. For the Group File, type C:\RISO.EXE and click on OK.

The RISO group window should appear on your screen.

CREATING AN ICON

These are the steps that have to be taken to create an Icon for Riso Control.

1. Select the Program Group in which the RISO icon will be stored.
2. From the Program Manager menu select **File** and then **New**.
3. From the New Program Object Box select **Program Item** and then **OK**.
4. In the Description Box type **RISO** and in the Command Line Box type **RISO.EXE**.
5. The Working Directory Box allows the specification of the current directory while the RISO program is running. This should be **\RISO**.

RISO ICON

The Program Manager selects a default icon for non-windows applications. However, a small alternative selection is available from the PROGMAN.EXE file by selecting **Change Icon**. For Windows 3.1 and above a further choice of icons is available in \WINDOWS\MORICONS.DLL. When all the above selections are made click **OK** and the chosen icon titled RISO will appear in the currently selected Program Group.

PageMaker Operations Lab

LAB #2

1. Start PageMaker.
2. Make a new page with the margins set at ½ inch areas all around the page.
3. Select Times New Roman font with a 18 point size, Bold and Italic.
4. At the top of the page type 'PageMaker Operations' with the centering of page selected.
5. Enter down 2 lines and using Left Justified type 'This is a test' with 24 point size, Bold and Underlined.
6. Select the square in the Tool Box and make a box starting at the left hand side at 3 inches and go 3 inches and down 3 inches. Fill in the box with a 30% fill and the type your name in the box using Helvetica 18 point Reverse starting at 4 ½ inches.
7. Place the logo.pcx file from the diskette provided by your instructor. This image is an oversized RISO logo. Position the logo at the bottom of the page. Reduce the logo proportionately so it will fit correctly on the bottom of the page from side to side.

When you have finished your exercise inform your instructor so he/she can check your work.

New Installation Testing
IBM/PC
LAB #3

1. Start systems up in the correct order (Risograph, CI and Computer).
2. Exit Windows or any Menu program that the computer may come up in.
3. At the DOS prompt C:\> enter RISO to get into Riso Control.
4. Put an original in the ADF or on the glass.
5. Select JOB and then select TEST.
6. The Risograph should print wide lines and then scan the original. The scanned image will go to the CI and back to the Risograph and print the image.

NOTE: When performing the TEST the scanned image will look distorted on the top part of the page. THIS IS NORMAL!!!!!!

If this procedure works, your connections and communications between the CI and Risograph are good. If there is a problem running this check the cables between the CI and Risograph and also the interface card and cables inside the Risograph.

NOTES:

**New Installation Testing
Macintosh
LAB #3a**

1. Start up the systems in the correct order (Risograph, CI and Computer)
2. Pull down the Apple Menu.
3. Select Chooser.
4. Click on the LaserWriter Icon.
5. Select Risograph from the list of LaserWriter Printers.
6. Close Chooser.
7. Pull down the File Menu.
8. Select Print Desktop or Print Window Item.
9. Observe the Ready Light flashing.
10. An image of the desktop/window will be printed to the Risograph. In most cases it will print 2 pages.

If this procedure works, your connections and communications between the Macintosh, CI and Risograph are good. If there is a problem performing this check your cables, terminators, CI switch settings, Risograph interface card and interface cables.

NOTES:

**Using MSD
Windows 3.0 + 3.1
LAB #4**

1. Close Windows.
2. Enter RISO Control.
3. Switch to PeerlessPrint5.
4. Exit RISO Control.
5. At the C:> prompt type MSD.
6. Select Print Report from the File Menu.
7. Select Print All to LPT1:.

Using the MicroSoft Diagnostic Program to Solve Scanning Problems

The following information from MSD will help in the troubleshooting of SCSI/Scanning problems: **“Mode Select Command Error”**.

-Summary Information-

Computer-If 486 or above and if the computer runs faster than 60 Mhz/may have to run in Non-Turbo Mode.

Is the computer a 486 or higher? _____

Video-If Paradise, may need to be forced to 16-bit mode. May be incompatible.

Is the Video card a Paradise? _____

Network-Must not occupy computer addresses DC00-DFFF. Check documentation for setup.

Is a Network installed? _____

LPT Ports-If two ports are available then make sure to select the correct port.

What printer ports are available? _____

-Computer-

Bus Type-If ISA, use RT 1000. If MCA use RT 1000MCA.

What type of bus is in the computer? _____

Memory-Check the DC00 area. This line should indicate a ROM block through address DFFF. If not, check the setup of EMM386.EXE in the CONFIG.SYS file.

What is indicated on the DC00 line? _____

**Using MSD
Windows 3.0 + 3.1
LAB #4 (cont.)**

-OS Version-

Operating System-Always know the MS-DOS version while troubleshooting.

What version of DOS is running in the computer? _____

-Environment String-

Path- Check for RISO in the path Command.

What is the Path setting for the computer? _____

-ROM BIOS-

Check for devices which have an address in the DC00 to DFFF range.

What ROM Bios is at DC00? _____

-AUTOEXEC.BAT-

Check for MODE LPT1:,,P command in the AUTOEXEC.BAT file.

Is the command in the AUTOEXEC.BAT file? _____

-CONFIG.SYS-

Look for EMM386.EXE or QEMM386.SYS and check that the addresses DC00-DFFF are excluded.

Is EMM386 in the CONFIG file and are the addresses excluded? _____

-SYSTEM.INI-

In the 386ENH section check for EMMEXCLUDE=DC00-DFFF, if not add the command.

In the 386ENH section check for 32BitAccess=off.

Is the 386ENH section modified? _____

Windows 3.1 Setup LAB #5

SETUP-

1. Setup Windows using the setup procedure listed on pages 54-56 of The RISO Publisher Reference Guide.
2. Add a RISO Control Icon to the Program Manager.
3. Turn off the 32-Bit addressing in the 386ENH section of the Control Panel.
4. Edit the SYSTEM.INI files in 386ENH section to exclude the DC00-DFFF memory area.

USING WRITE-

1. Open the Write program by double clicking on the Write Icon in the Program Managers Accessories Window.
2. Type a few lines of text to be printed from Write.
3. Select Print from the File Menu.
4. Verify that the Default Printer is the one of the mentioned PostScript Printers. If not return to the Control Panel and adjust the settings.
5. Deselect the Collate Copies Options.
6. Select a copy count of 5 to 10 copies.
7. Click on OK to print.
8. The text will now print out.
9. Exit the Write program.

RISO Control Menus

Enter RISO Control and examine the following menus and items using the Computer Interface Operators Guide as a reference:

Options Menu:

- TrueImage** > Places the CI in PostScript Mode
- PeerlessPrint5** > Places the CI in PCL V Mode
- Print Device** > Selects the active printer port (usually lpt1)
- Scan Mode** > Selects the default imaging mode for scanning
- TIFF Compression** > Selects the TIFF compression Mode (Packbits)
- SCSI Board Type** > Sets up the SCSI RT-1000 board for scanning.
NOTE: The Scan Mode will not become active until a SCSI board type is selected.
- Proof Copy** > Sets Risograph up for an extra test copy.

Job Menu

- Copy Count** > Allows the selection of copies for applications with limited copies capabilities.
- Test** > Sends a Print and Scan job to the Risograph.

File Menu

- Print** > Basic print function:
Will print text files in PeerlessPrint5 Mode
Will print PostScript files when in TrueImage
- About** > Displays the Version of RISO Control being used
- Exit** > Exit RISO Control

RISO Control Set-up for PostScript:

Select TrueImage Mode
Select LPT1: as the active printer port
NOTE: The Status Bar should now read TrueImage>LPT1:
Set the Scan Mode to Line Mode
Set TIFF Compression to Packbits
Set SCSI Board Type to RT-1000
NOTE: Scan Menu should now be available
Set Proof Copy ON
Set Copy Count to 1
Verify that the correct version of RISO Control is being used

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TECHNICAL SUPPORT CENTER

TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY C.I. TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 03 / 17 / 92
MODELS:	CI 100, 150 AND 200	ISSUE NO. CI-001
SUBJECT:	CONCERNS AND PROBLEMS AS SEEN IN INITIAL PRODUCT INSTALLATIONS	PAGE 1 OF 4
DISTRIBUTION:	ALL DISTRIBUTORS	

COMPUTER INTERFACE INSTALLATION:

The average Computer Interface installation should take approximately one hour.

WARRANTY INFORMATION:

The RC Series 13 Month from Date-of-Invoice Warranty has been extended to cover the C.I. hardware. Riso, Inc. has also suggested the cost of a one year maintenance agreement at \$400.00 per year.

HARDWARE AND SOFTWARE CONFIGURATIONS

GATE ARRAY IMAGE PROCESSOR BOARD: *ONLY!*

[The Computer Interface is compatible with GA RC4500s (S/N 91500879 and above) and RC5600s (S/N 91419451 and above.)]

Non-Gate Array RC4500 / 5600s

For older, non-gate array type systems, a Gate Array Image Processor Board can be ordered from Customer Service, (P/N 011-51030-102, cost; \$521.50) to upgrade the Risograph. Be sure to use the ROMs provided with the Computer Interface when performing the upgrade. Also, the Thermal Print Head Resistance Value set switches will now be labeled SW3 (SW5) and SW4 (SW8), in reference to the older style board.

SYSTEM ROM CONFIGURATIONS:

RC4500 / 5600 Rom Compatibility

Some RC4500s (S/N 91514228 and above) and RC5600s (S/N 91420778 and above) have been shipped to the field with C.I. compatible, Control Panel Roms. If you have one of these systems, you need only replace the System Main Rom to the current version; Ver 5.17, at system setup. *+ Panel VER 5.08*

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SYSTEM ROM CONFIGURATIONS CONTINUED:

RC5800 Rom Compatibility

In order for the RC5800 to be compatible with the Computer Interface, the System Main Rom must be upgraded to version; SP22G/V 1.14 (P/N 012-70004) and the Control Panel to version; P22/V 5.03 (P/N 012-70101.)

The following are hardware concerns, in regards to Computer Interface Assemblies and Harnessing, that should be noted during Product Installation.

RT1000 SCSI BOARD:

Model RT1000 SCSI Board is required for scanning on the IBM and IBM PC compatibles. It is the only board that will work with Computer Interface Software.

NOTE: Printed circuit board installation requirements are provided with each computer system. (Please reference; OEM Equipment Installation Manuals.)

Since all MACs come standard with a SCSI Port, Model SCSI RT1000 is not needed, however, a SCSI Terminator will be required. (Terminators are not required for IBM compatibles.) The RT1000 SCSI Board for MCA (IBM PS/2 Models; 70, 80,...) Computers, is currently being tested and will be made available at a later date. (TBD)

MEMORY MODULES:

Computer Interface Model 200 Ram Memory can be expanded to 8MB by purchasing four; standard 1Mbit X 8bit - 80ns SIMM Memory Modules and installing them into the Computer Interface.

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MEMORY MODULES CONTINUED:

Prior to installation, remove four; 256Kbit X 8bit - 80ns SIMM Memory Modules from the C.I. at positions; SIMM5 through SIMM8. Install the new SIMMs into the now vacant

SIMM Holders. (Pay special attention when inserting the new SIMMs. The holding assemblies are constructed of fragile plastic components and extra care should be given when spreading the retaining clips).

The following are Cable and Wire Harness concerns that should be noted during a Computer Interface Installation.

CABLES AND WIRE HARNESSSES:

If cables are not making good connections, tighten and secure with the fasteners provided. NOTE: Do not over-tighten the Video Cable to either the Risograph of the Computer Interface. This may cause breakage and detachment.

When attaching Wire Harness DB-37 to the back of the Risograph, use the ISA "Inch Studs" provided with the Computer Interface. (If the metric studs, provided with the I/F Kit are used, the screws on the Video Cable will strip and disconnect easily).

Connection of Wire Harness CN7 to the System Main PCB can be extremely difficult. Ensure connection firmness when installing the C.I.

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The following are Computer Interface Software concerns that should be considered at the time of Product Installation.

PRINTER EMULATION MODES (IBM):

Riso Control Software must be set for either PeerlessPrint5 or TrueImage. When set to PeerlessPrint5, all software using the C.I., must be set to use the Printer Driver for the HP LaserJet III. When set to TrueImage, all software using the C.I., must be set to use the Printer Driver for the Apple LaserWriter II NT. If the C.I. is not configured properly, the data from the personal computer may appear garbled or the Computer Interface may lock up.

CALERA WORDSCAN:

When installing the Calera Wordscan for the IBM, select; [NONE] for the Scanner being used. The document to be scanned, should first be scanned onto the computer's disk as a TIFF File, by using the Riso Control Software. This File can then be read by Wordscan, by selecting the file from the disk. (Calera Wordscan for the MAC will no longer be available from the Riso Distribution Center. It did not perform correctly with C.I. created TIFF Files).

If the need arises for an OCR Package for a MAC System, we suggest; OmniPage, by Caere Corporation. (1-800-535-7226)

In the meantime, we will be looking for a recommendation and stocking a new MAC OCR as soon as possible.

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MODELS:	CI MODEL 200	ISSUE NO. CI-002
SUBJECT:	CI TECHNICAL UPDATE	
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Macintosh Systems Installation

The following are some notes relative to CI / Macintosh installations:

1. Due to "Bugs" in the Macintosh Finder System 7.0.0 , problems with printing can be experienced by the CI and many other printers. Apple currently does not recommend the use of System 7.0.0 and has provided an upgrade to the most current version 7.0.1 for a nominal fee. Only about 60% of the Macintoshes in the field are currently using System 7 (many Macintoshes are still using System 6) and many have already upgraded to System 7.0.1
2. Although the CI is not recommended in a network configuration, some people have tried. It is important to know that when connecting to a Macintosh Network, all Macintoshes on the network must have the same version of printer driver in the System Folder (as noted in the Macintosh reference guide).
3. A new cable is now available from RISO for the Macintosh CI-009. This cable, in most cases, can replace a set of two CI-005's (needed only for multiple printers or multiple Macintosh setups). Cable cost is one fourth of the price of a set of CI-005's.

RT-1000A (CI-301) SCSI Boards

The following is a new, more detailed setup procedure for the RT-1000 SCSI that may help in some more difficult computer environments, ie. 486's and some high end 386's :

1. Install the RT1000 SCSI Board into an open slot in the PC.
2. Turn on the PC and watch the screen for the RT-1000 SCSI Board's initialization message. If the message is not seen at this time, a conflict may exist between the RT-1000 Board and other computer hardware in the system. To solve this problem, use the following procedure:

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1. Move the Memory Address of the RT-1000. This can be done by moving or adding jumpers at positions; X4 - X6 (top center of the RT-1000). The following jumper setting will create the listed addresses:

X6	X5	X4	Address Segment
ON	ON	ON	D4000
ON	ON	OFF	CC000
ON	OFF	ON	D0000
ON	OFF	OFF	C8000
OFF	ON	OFF	DC000(Factory Default)
OFF	OFF	OFF	D8000

By moving the jumper setting to the various configurations and rebooting a particular setting, it should be possible by trial and error, to find a setting that allows the RT-1000 system to initialize. A faster, more scientific method of finding an open address, is to use a program that can display a memory map of the computer system, ie. CheckIt by Touchstone Software. An open address can be found and the RT-1000 set up to use the open address.

Some computer hardware, that sets aside large areas of extended memory, will cause problems disabling the RT-1000 to operate at any address setting. The most notable of these are; Video Boards using Video Caching, or sometimes called Turbo Video. When setting up the RT-1000, this Option should be disabled from the computers BIOS Setup or from the Setup Software supplied with the Video Card. If a problem is experienced, technical assistance can be obtained from the RISO Technical ETR Line, or in extreme cases, from Dan Nguyen of Rancho Technologies.

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2. On very high speed computer platforms, (mainly 486's and 386 with clock speeds greater than 33Mhz) it may be necessary to adjust the bus clock speed or wait states. This procedure can be performed from the computers; BIOS Setup Procedure, by setting the number of wait states to a higher setting, (ex. change the number of wait states from 3 to 6) or by slowing the bus clock speed, (ex. on a 486-25Mhz with a bus speed equal to CPUCLOCK/2 to CPUCLOCK/3, will change the bus clock from 12.5Mhz to 8.33Mhz). The ability to change these settings depends on the BIOS of Computer and may or may not be accessible to the user. If it is not accessible the same effect can be achieved by turning off the Turbo Mode of the computer itself.

3. Upon completion of the RT-1000 Self Test, the RT SCSI Card will send a initializing command to the CI over the SCSI Cable. This will cause the READY LED on the CI to flash once, quickly, confirming the operation of the RT-1000 and connection of the SCSI card to the CI. If the READY LED fails to flash, then check the connection of the SCSI Cable at the computer and the CI.

4. Check the operation of the CI Scanning function, by going into the Scan Menu of RISO Control Software and running a scan operation. If the CI scan operation fails, (may display the message "MODE SELECT COMMAND ERROR" or will stop scanning), the probable cause is a conflict between an MS-DOS Driver and the RT-1000 Card. The most common conflict is caused by the Extended Memory Manager (EMM386.SYS) for MS-DOS Version 5.0. This Device Driver, set up in the CONFIG.SYS File of the computer, must be modified to exclude certain areas of memory when the CI is installed in the following way:

DEVICE=C:\EMM386.EXE x=C800-DFFF

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5. A similar problem may occur if the RT-1000 is installed in a computer using Windows in 386 Enhanced Mode, (Common on 386's and 486's). To solve any problems here, add the following line to the [386 ENH] section of the Windows SYSTEM.INI File:

EMMEXCLUDE=C800-DFFF

6. At this point the Scan Function of the CI should be functional. If not, contact the RISO ETR Line for further instructions.

RT-1000MCA (CI-302) SCSI Boards

The following are installation instructions for the RT-1000MCA SCSI Board, for use with IBM PS/2 Models 55 and up and the few clones that also support the MCA Bus Specification:

1. Boot the MCA Computer System using the Reference Disk included with the system. At the first menu hit "return" to enter the Main Menu.
2. Select Option Two, "Backup Reference Disk" and follow the on screen instructions.
3. When the backup is complete, store the original disk and use the backup for all further steps.
4. Now, select Option Five, "Copy Option Diskette" and use the RT-1000MCA Disk included the with RT-1000MCA Package as the Options Disk. Follow the screen instructions until the data from the Options Diskette is transferred to the Reference Disk Backup.
5. Power down the computer and install the RT-1000MCA SCSI Board into an empty slot in the Computer.
6. Place the Reference Disk Backup into drive A: and turn on the computer.

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MODELS:	CI MODEL 200	ISSUE NO. CI-002
SUBJECT:	CI TECHNICAL UPDATE	
DISTRIBUTION:	ALL DISTRIBUTORS	<i>PAGE 5 of 6</i>

7. Press "return" at the first menu. When the system comes up with a configuration error hit, "Y".
8. Go to menu three, "Set Configuration Menu". Then go to sub-menu number two, and "Change Configuration Menu" and set SCSI Pass-through Option to; "ENABLED".
9. Exit the "Configuration Menu" and reboot the computer using a MS-DOS Systems Disk or Hard Disk.
10. Follow all of the software setup procedures for the RT-1000A. (Steps 4 - 6 in the RT-1000A Installation Instructions above.)

NOTE: Certain MCA Bus computer setups may create a line of "Image Noise" at the trail edge of compressed TIFF Image Files. They will appear when the TIFF is displayed or printed. To solve this problem, use non-compressed TIFF Imaging or crop or delete this noise from the Image File from within a software application program that can handle TIFF images.

ERROR LED on CI's serial numbers > 06451201

The Power On Self Test Procedure, has now added a test for the ERROR LED. This test will now will flash the ERROR LED briefly on power up. The ERROR LED will also flash briefly to confirm a soft reset, for example when switching between Postscript and LaserJet emulation. The flash of the ERROR LED is normal operation and should not be a source of concern if seen during startup or during operation. Only an ERROR LED that is "on steady", is an indication of a problem in the Main PCB of the CI.

TECHNICAL SUPPORT CENTER

TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY C.I. TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 06 / 02 / 92
MODELS:	CI MODEL 200	ISSUE NO. CI-002
SUBJECT:	CI TECHNICAL UPDATE	
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*Page 6 of 6****Sorter Operation***

The RC sorter can be used in conjunction with the CI and the IBM PC in the following way:

1. Turn on the Risograph, the CI, and then the PC.
2. Select the Sort Mode from the Risograph Sub-Panel. (ie. Sort, Group, Stack.)
3. Select Interface Mode from the Risograph Panel.
4. Enter the RISO Control Software on the PC and select the number of copies desired. **NOTE** : When in Group Mode, select a quantity less then 80 or an error will be created by the Risograph.
5. Enter the application and print one copy of the document. If reverse print order is an option, select it so that the pages will be printed in the correct order.

If this procedure is followed the, multi-page document will be printed and sorted into the sorter bins.

Operation of Cancel and the ESC Key in RISO Control Software

When the ESC Key or Cancel is selected from a menu in the RISO Control Software the menu's setting will return to the **FACTORY SET DEFAULT**, rather than the settings that were set when the menu was opened. This behavior is unlike many standard programs and may cause confusion for users. Future versions of RISO Control will conform to the accepted behavior, but until then, be aware of the function of the ESC Key and Cancel.

TECHNICAL SUPPORT CENTER

TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY C.I. TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE 09 / 14 / 92
MODELS:	CI MODEL 200	ISSUE NO. CI-003
SUBJECT:	CI TECHNICAL UPDATE	
DISTRIBUTION:	ALL DISTRIBUTORS	

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Windows 3.1 Setup

Windows 3.1 provides several options which can optimize the operation of the CI. The following is a setup procedure for Windows 3.1:

When using Windows, a Postscript Printer Driver should be used. We have found that the best standard driver for use with the CI, is the AGFA Compugraphic 400PS. This driver provides proper WYSIWYG in all applications, since it is a 400 dpi printer. To install this printer driver, use the following procedure:

1. Select the control panel from the Main Program Group and double click on the Printers Icon. Then click on the Add button.
2. In the list of printers double click on the AGFA Compugraphic 400PS listing and provide Windows with the printers disk if needed. This will add the AGFA Printer to the list of Installed Printers and connect it to LPT1:.
3. Double Click on the AGFA printer listing in the Installed Printers window in order to make it the Default Printer.
4. First click on Setup then Options and then Advanced to display the Advanced Options Window. In this window the printer driver can be customized to work with the RC CI.
5. Select the Virtual Memory setting and set it to 148KB. (This is the amount of "Extra Memory" in the CI.)
6. Set Half Tone Frequency to 50 lpi, (This setting it can be any value between 20 - 85 lpi. A lower setting will produce a greater number of grayscales, but at a lower resolution. A higher setting will produce a lower number of grayscales, but at a higher the resolution.) this will provide a 64 grayscale output at a medium resolution. Set Half Tone angle to 45 degrees.
7. Click the OK button three times to return to the printer window and then select Close to close the Control Panel. The current Printer Driver for Windows is now set

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PRODUCT:	COMPUTER INTERFACE	DATE 09 / 14 / 92
MODELS:	CI MODEL 200	ISSUE NO. CI-003
SUBJECT:	CI TECHNICAL UPDATE	
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to the AGFA Copugraphic 400PS and has been optimized for use with the CI. It is now important that you set the CI to Truelmage Mode for correct operation with this setup. If the CI is not set in this mode, go into RISO Control and set it to Truelmage.

To setup RISO Control to Run from Windows use the following procedure:

1. Create an Icon for RISO Control by double clicking on the Main Program Group and Selecting New... from the File Menu, click on Program Item and then OK. Type RISO Control into the Description field and in the Command Line field type; C:\RISO\RISO.EXE (if RISO Control is on a different drive or directory, substitute the correct path) and click on OK to create the RISO Control Icon.

2. To configure Windows to run RISO Control run Notepad from the Accessories Group. Select File Open and type in C:\WINDOWS\SYSTEM.INI, (if Windows is on a different drive or directory, substitute the correct path) and then OK. Read through the SYSTEM.INI file using the scroll bar and find the section marked [386 ENH] and add the following line:

EMMEXCLUDE=C800-EFFF

3. Close and Save the modified SYSTEM.INI file.
4. Run Control Panel from The main menu group.
5. Double Click on the 386 Enhanced Icon if it is available. If not, proceed to step 8. Click on the Virtual Memory button in the 386 Enhanced Window.
6. Click on the Change button in the Virtual Memory Window. Make sure that the 32-bit disk accessing is not selected and press the OK button.
7. Press the OK button in the 386 Enhanced Window
8. Close the Control Panel Window.

RISO Control Software can now be run by double clicking on the Icon.

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TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY C.I. TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 11 / 02 / 92
MODELS:	CI MODEL 200	ISSUE NO. CI-004
SUBJECT:	CI TECHNICAL UPDATE	
DISTRIBUTION:	ALL DISTRIBUTORS	

*PAGE 1 of 4***RISO RC4500/5600/5800**

All Risographs currently being shipped from RISO Distribution Centers contain CI compatible versions of System and Panel ROMs. This means that new Risographs **DO NOT** need ROM upgrades in order to work with the CI. Because of this, CI compatible ROMs will no longer be shipped with the CI, as a ROM change is not needed for new Risographs. If you have an older Risograph which needs a ROM upgrade, order the following part numbers:

5600/4500	:	881-13510 and 886-17707
5800	:	881-23504 and 886-27307
6300	:	881-33502 and 886-37103

RISO RC6300

Current CI's may be installed on current RISO RC6300s with the following limitations:

1. Current CI's can only print 8.5" x 14" maximum
2. Current and future CI's will only print 8.5" x 11" along the 17" long axis using a full 11" x 17" master.
3. Current and future CI's scan 8.5" x 14" image area maximum.

In the future, we expect to produce a CI that will support 11" x 17" printing, but upgrading a current version of CI to support full 11" x 17" printing may be difficult or next to impossible. Also note, that the 6300 will not enter Interface Mode until the I/F Kit is properly installed and connected.

Quark Express and PageMaker for the Macintosh

In applications that use custom printer drivers like, Quark Express or PageMaker for the Macintosh, it is very important to use a printer driver that is compatible with PostScript Level 1 Version 47. The simplest way to do this is to select the basic Apple LaserWriter driver from the appropriate menu. If this operation is not preformed the application may cause a PostScript Error or "VM Error" to occur in the CI.

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TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY C.I. TECHNICAL SUPPORT	
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MODELS:	CI MODEL 200	ISSUE NO. CI-004
SUBJECT:	CI TECHNICAL UPDATE	
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*PAGE 2 of 4***Macintosh LocalTalk Networks**

Support of LocalTalk Networks in the current version CI is very limited. The CI may be connected to small LocalTalk Networks and operate correctly. These Networks may consist of up to 34 nodes (Printers, Macintoshes, ect...) and may be spread over a 1000' cable length. They may **NOT** contain the following advanced network devices: Bridges, Routers, Repeaters or Active Hubs. They must also be laid out in a bus style architecture. (**NO** Stars or Rings)

Carbon Copy

A Remote Diagnostic service is now available to RC CI certified technicians. This service allows a RISO CI Technical Specialist to control and troubleshoot a customer's IBM compatible computer through a telephone connection. In order to use this service, the dealer must purchase a copy of Carbon Copy Plus version 6.x and an external Modem capable of running at 2400 bps. The host program of Carbon Copy should then be installed on a floppy diskette for use in Customer's Computers. To connect to the service call the CI ETR Hotline at 1-800-949-RISO and inform the Technical Specialist of the problem being experienced and the phone number that the modem is attached to. The Technical Specialist will help the RISO Technician setup the communication session and take over troubleshooting of the computer.

SCSI Installation Update

The ETR line is still receiving a large number of calls from technicians having problems with installing the RT-1000 SCSI Board. Since the new RT-1000B has replaced RT-1000A, the following is an updated installation procedure:

1. If using **DOS Version 5.X** and the command **DEVICE=EMM386.EXE** is in the **CONFIG.SYS** file, you must modify the command to:

DEVICE=EMM386.EXE X=DC00-DFFF

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MODELS:	CI MODEL 200	ISSUE NO. CI-004
SUBJECT:	CI TECHNICAL UPDATE	
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2. If using **Windows 3.1**, the following command must be added to the **SYSTEM.INI** file under the **[386 Enh]** section:

EMMEXCLUDE=DC00-DFFF

3. Install the RT-1000B and boot the computer

4. If the following messages:

RTBios V-8.10 (c) Copyright....

RT1000 Host Adapter Initializing...

are not displayed, disable or move any of the following ROM BIOS based device that are addressing memory between DC00-DFFF:

**Hard Drive Controllers
Network Adaptor Cards
Terminal Emulation Controllers
Other Scanner Controller Cards
Video BIOS Shadows
ROM BIOS Shadows**

To find such a conflict, remove the RT-1000 and use the program Check-It's (available from Touchstone Software for \$149) Memory Map feature or use the MSD.EXE utility's (shipped with Windows 3.1) Memory Browse feature. Look at the area between DC00-DFFF for any ROM BIOS device's name and move the device out of that section of memory.

4. If the computer contains a SCSI Hard Disk Controller, move the address of the **Hard Disk Controller** to an address **below and clear of DC00-DFFF** by changing the **Hard Disk Controller's** settings. This will allow the continued use of the hard disk to boot the computer.

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MODELS:	CI MODEL 200	ISSUE NO. CI-004
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5. If using a 16-bit VGA Video Adapter Card, set the card to; **autosense 16-bit mode**. If the VGA Card does not allow this setting, the Video Card **MUST** be set to force **8-bit mode**.

6. Unless specifically told to do so by a RISO CI Technical Specialist, **DO NOT** move any of the jumpers on the RT-1000B SCSI Card.

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TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY C.I. TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 02 / 19 /93
MODELS:	CI MODEL 200, 210	ISSUE NO. CI-005
SUBJECT:	CI TECHNICAL UPDATE	
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Please note the following procedural changes to the RISOGRAPH RC CI OPERATION GUIDE:

PAGE - 12:**A Quick Guide to Printing (Macintosh)**

Once the Computer Interface is connected to the Macintosh, **Turn on the Risograph, select Interface Mode, turn on the CI and then the Computer.** Select Chooser from the Apple Menu. Click on the Apple LaserWriter Icon. (If it is not available, install the LaserWriter Driver from the Apple Systems Printers Disk into the Extensions Folder of the Macintosh). Select the "RC Risograph" from the list of available LaserWriter Printers. Close the Chooser Window. Enter the application and select Print from the File Menu. Set the copy count between 0-9999. (applications not written to use System 7.X will only accept a copy count between 0-99) Turn off the Collate Output option if available. Set any other options desired and select Print. The Risograph will now print, copy count + 1 ("Test Copy"), copies of the file.

NOTE: WITH APPLICATIONS THAT COLLATE OUTPUT, THIS ENHANCED FEATURE CANNOT BE USED!

A Quick Guide to Printing (IBM, Preferred Method < 100 copies)

Using PostScript (TrueImage), after connecting all cables and installing the software, **Turn on the Risograph, select Interface Mode, turn on the CI and then the Computer.** Start the application program which will be printed from and load the file to be printed. Check the printer setup to see that it is set for a PostScript Printer, ie, LaserWriter Plus. Select Print from the application. Set the copy count between 0-99. Turn off the Collate Output option if available. Set any other options desired and select Print. The Risograph will now print, copy count + 1 ("Test Copy"), copies of the file. If using IBM and PeerlessPrint5 (HP LaserJet Mode) follow the same procedure but use the HP LaserJet II or III printer Driver.

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TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY C.I. TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 02 / 19 /93
MODELS:	CI MODEL 200, 210	ISSUE NO. CI-005
SUBJECT:	CI TECHNICAL UPDATE	
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NOTE: WITH APPLICATIONS THAT **COLLATE OUTPUT**, THIS ENHANCED FEATURE **CANNOT BE USED!**

A Quick Guide to Printing (IBM > 100 copies)

Using PostScript (TrueImage), after connecting all cables and installing the software, **Turn on the Risograph, select Interface Mode, turn on the CI and then the Computer.** Enter the following command at the DOS prompt (ex. C>):

C:\riso\riso.exe ENTER

Use the arrow keys to select Options from the main menu, and select TrueImage. Now select the number of copies to print by selecting the **Job Menu**, then **Copies Item**. Enter the number of copies to be printed and press **ENTER**. Exit Riso Control Utility by selecting **Exit** from the **File Menu**. Start the application program which will be printed from, and load the file to be printed. Check the printer setup to see that it is set for PostScript, ie. LaserWriter Plus. Instruct the application to print one (1) copy of the file and select **Print**. If **Test Copy** is set in RISO Control, the Risograph will now print, copy count + 1 ("Test Copy") of the file; If **Test Copy** is not set in RISO Control, the Risograph will now print copy count copies of the file. If using IBM and PeerlessPrint5 (HP LaserJet Mode), follow the same procedure but use the HP LaserJet II or III printer Driver.

Page - 23 and Page - 29:

SCAN

Note: When scanning with a RC5800, a RISO Carrier Sheet should be used in order to avoid a black line from appearing at the bottom of the scanned image.

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REPORTED BY:	LANCE PERRY C.I. TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 02 / 19 /93
MODELS:	CI MODEL 200, 210	ISSUE NO. CI-005
SUBJECT:	CI TECHNICAL UPDATE	
DISTRIBUTION:	ALL DISTRIBUTORS	

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In Addition to the Copy Count feature of the CI-210 the following items have also been modified:

1. AppleTalk-Support improvements for AppleTalk have been Stabilized
2. Black Line-at bottom of scan fixed on 4500/5600/6300. See new Scan instructions for 5800 above.
3. MacScan Software-bug fixed. Allows print after scan without reset.
4. Automatic Error Recovery - for master and paper jams.

Windows 3.1 Setup (revised)

Windows 3.1 provides several options which can optimize the operation of the CI. The following is a setup procedure for Windows 3.1:

Note: When using Windows, a Postscript Printer Driver should be used. We have found that the best standard driver for use with the CI is the Apple LaserWriter Plus. To install this printer driver use the following procedure:

1. Select the Control Panel from the Main Program Group and double click on the Printers Icon. Then click on the Add button.
2. In the list of printers, double click on the Apple LaserWriter Plus listing and provide Windows with the printers disk (if needed). This will add the LaserWriter Printer to the list of Installed Printers and connect it to LPT1:.
3. Double Click on the LaserWriter Plus printer listing, in the Installed Printers window, in order to make it the Default Printer.
4. First click on Setup, then Options, and then Advanced to display the Advanced Options Window. In this window, the printer driver can be customized to work with the RC CI.
5. Select "Bitmap (Type 3)" in the "Send to Printer As:" in the TrueType section. (This will allow large point size TrueType Fonts to print on the CI.)

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TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY C.I. TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 02 / 19 /93
MODELS:	CI MODEL 200, 210	ISSUE NO. CI-005
SUBJECT:	CI TECHNICAL UPDATE	
DISTRIBUTION:	ALL DISTRIBUTORS	

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6. Set Half Tone Frequency to 50 lpi, This will provide a 64 grayscale output at a medium resolution. (This setting it can be any value between 20 - 85 lpi. A lower setting will produce a greater number of grayscales, but at a lower resolution. A higher setting will produce a lower number of grayscales, but at a higher the resolution.) Set Half Tone angle to 45 degrees.

7. Click the OK button three times to return to the printer window and then select Close to close the Control Panel. The current Printer Driver for Windows is now set to the Apple LaserWriter Plus and has been optimized for use with the CI. It is now important that you set the CI to TrueImage Mode for correct operation with this setup. If the CI is not set in this mode, go into RISO Control and set it to TrueImage.

System ROMs and RC Sorters

A **Special** Risograph System Main and Panel ROM are required when connecting a CI to all Risographs with any RISO Sorter. If you have a customer with an RC Series Sorter who is also purchasing a CI, order the following parts:

5600/4500	:	881-13510 and 886-17704
5800	:	881-23504 and 886-27304
6300	:	881-33502 and 886-37102

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TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY PUBLISHER TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 08 / 05 / 93
MODELS:	CI MODEL 300	ISSUE NO. CI-006
SUBJECT:	CI TECHNICAL UPDATE	
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*PAGE 1 of 6***RISO CI MODEL 300**

A new model of Computer Interface, CI Model 300 (S-662) is now available for distribution . The following is a listing of special features or changes to the CI-300 from the CI-210

NEW FEATURES:***11" X 17" Support for the RC6300***

The most notable new feature of the CI-300 is the support for 11" X 17" Image size when used in conjunction with the RC6300. To provide this support some setup conditions must first be met:

1. The CI must be upgraded to a full 8MB RAM size in order to print 11" X 17" printouts. A memory upgrade kit can be ordered from Customer Service under the part number CIP-002.
2. The RC6300 must contain either the 1.05A or 1.07A (P/N 886-37107) System ROM. All other ROMS, including the new 1.08, will not print the full 11" X 17" print area. If ordering a new Model 300 CI, specify the Risograph model that is being connected.

TECHNICAL SUPPORT CENTER

TECHNICAL ALERT NOTIFICATION		
REPORTED BY:	LANCE PERRY PUBLISHER TECHNICAL SUPPORT	
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MODELS:	CI MODEL 300	ISSUE NO. CI-006
SUBJECT:	CI TECHNICAL UPDATE	
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Macintosh EtherTalk Network Support

The limitation of the CI Models 200 / 210 in regards to Macintosh networks have been removed. The CI Model 300 will support the following network structures:

1. Up to 255 Subnetworks (AppleTalk Zones) with up to 256 Nodes on each network.
2. Routers, Bridges, Repeaters, Active Hubs, and Passive Hubs.

Larger VM for More Fonts and Graphics

In the Model 300 the VM (the temporary storage location for Fonts and Graphics in the CI) has been increased from 148K to 400K. This increases the number of fonts, as well as the size and complexity of the graphic files that the CI can print.

Better/Faster Printing Support for Graphics

In general, the amount of time it takes the CI to print graphic files has been reduced. This is mainly due to the increased size of VM, and a new version of the TrueImage Postscript Interpreter.

TECHNICAL SUPPORT CENTER

TECHNICAL ALERT NOTIFICATION

REPORTED BY:	LANCE PERRY PUBLISHER TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 08 / 05 / 93
MODELS:	CI MODEL 300	ISSUE NO. CI-006
SUBJECT:	CI TECHNICAL UPDATE	
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SPECIAL OPERATION NOTES :***RISO Control Software***

Always use the new versions of RISOControl ver.1.00.6 and RISOScan ver.2.00.3, with the CI Model 300. The other versions of RISO software should only be used with the following CI Models:

MODEL	RISOControl	RISOScan
200:	Ver. 1.00.0	Ver. 2.00.0
210:	Ver. 1.00.4	Ver. 2.00.2

Do not mix CI Models and RISO Software versions.

TrueType Fonts

You may have the unlikely occasion to experience the loss of one or more downloadable characters while printing a complicated document. In this case a complicated document would be one with many fonts as well as size changes.

We have found that this only occurs while using downloadable TrueType soft fonts in point sizes larger than 18 point after you have already made many font and size changes on one page.

To avoid this problem convert any TrueType fonts to Postscript Type 1 fonts using the following software:

Macintosh : Altsys' Metamorphosis Professional
 Windows 3.1 : Ares' Font Monger

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MODELS:	CI MODEL 300	ISSUE NO. CI-006
SUBJECT:	CI TECHNICAL UPDATE	
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*PAGE 4 of 6***Windows 3.1 Printer Driver**

In order to print 11" X17" paper sizes from Windows 3.1, select the AGFA Compugraphic 400PS Printer Driver for use with the CI-300.

Macintosh PageMaker and Quark XPress

For most Macintosh programs the operation of the CI-300 is identical to that of the CI-210. In the special cases of PageMaker and Quark XPress use the following printer types:

Quark XPress 3.1: LaserWriter
PageMaker 4.2: Color General

When printing 11"X17" output, select Tabloid paper size from the print dialog boxes.

300 Upgrade Kits

To convert an older CI to a Model 300s, order the following Field Conversion Kit through Customer Service:

Model 300 Field Conversion Kit	Part #: CI-503
4 MB Memory Upgrade (for 11"X17" Printing)	Part #: CIP-002

CI-300 Upgrades are also available through RISO Technical Repair, with a 10 working day turnaround.

TECHNICAL SUPPORT CENTER

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REPORTED BY:	LANCE PERRY PUBLISHER TECHNICAL SUPPORT	
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MODELS:	CI MODEL 300	ISSUE NO. CI-006
SUBJECT:	CI TECHNICAL UPDATE	
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Windows 3.1 Setup (for CI-300)

Windows 3.1 provides several options which can optimize the operation of the CI. The following is a setup procedure for Windows 3.1:

Note: When using Windows, a Postscript Printer Driver should be used. We have found that the best standard driver for use with the CI is the Agfa Compugraphic 400PS. To install this printer driver use the following procedure:

1. Select the Control Panel from the Main Program Group and double click on the Printers icon. Then click on the Add button.
2. In the list of printers, double click on the Agfa Compugraphic 400PS listing and provide Windows with the printers disk (if needed). This will add the Compugraphic 400PS Printer to the list of Installed Printers and connect it to LPT1:.
3. Double Click on the Compugraphic 400PS printer listing, in the Installed Printers window, in order to make it the Default Printer.
4. Next click on Setup, then Options, and then Advanced to display the Advanced Options Window. In this window, the printer driver can be customized to work with the RC CI.
5. Select "Bitmap (Type 3)" in the "Send to Printer As:" in the TrueType section. (This will allow most large point size TrueType Fonts to print on the CI.)
6. Set Half Tone Frequency to 50 lpi, This will provide a 64 grayscale output at a medium resolution. (This setting it can be any value between 20 - 85 lpi. A lower setting will produce a greater number of grayscales, but at a lower resolution. A higher setting will produce a lower number of grayscales, but at a higher the resolution.) Set Half Tone angle to 45 degrees.

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REPORTED BY:	LANCE PERRY PUBLISHER TECHNICAL SUPPORT	
PRODUCT:	COMPUTER INTERFACE	DATE: 08 / 05 / 93
MODELS:	CI MODEL 300	ISSUE NO. CI-006
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7. Click the OK button three times to return to the printer window and then select Close to close the Control Panel. The current Printer Driver for Windows is now set to the Agfa Compugraphic 400PS. It is now important that you set the CI to TrueImage Mode for correct operation with this setup. If the CI is not set in this mode, go into RISO Control and set it to TrueImage.

TECHNICAL SUPPORT CENTER

TECHNICAL ALERT NOTIFICATION

REPORTED BY:	Publisher Technical Support	DATE: 01/19/94
PRODUCT:	All Publisher Systems	ISSUE NO. CI-007
MODELS:	CI Model 200, CI Model 210, CI Model 300	PAGE: 1 of 17
SUBJECT:	Publisher Frequently Asked Questions	
DISTRIBUTION:	All Distributors	

RISO PUBLISHER FREQUENTLY ASKED QUESTIONS***1. How do I upgrade my CI Model 200 or Model 210 to a CI Model 300?***

To upgrade a CI, send the CI and a Riso Traveler Form, to the Riso Repair Center (the address is on the Traveler Form). On the Traveler Form note the symptom as "UPGRADE TO MODEL 300.", and if the memory upgrade for 11 X 17 printing is also required then add "AND ADD 4MB MEMORY UPGRADE KIT" to the symptom description. An upgrade charge of \$400 will be billed for the basic Model 300 Upgrade, an additional charge of \$199 will be billed for the 4MB Memory Upgrade Kit.

2. How do I upgrade the memory of my CI Model 300 so that I can print an 11 X 17 image?

To upgrade a CI Model 300 so that it will print 11 X 17 image when connected to a RC 6300 the first step is to upgrade the memory to the full 8MB limit. To perform the Upgrade order Riso Part Number CIP-002 - 4MB Upgrade Kit, this is a kit of 4 - 1 MB Single In-Line Memory Modules (SIMMs). To install the memory take the following steps:

1. Remove the CI top cover.
2. Remove the 4 - 256K SIMMs from SIMM positions SIMM5, SIMM6, SIMM7, SIMM8.
3. Install the 4 - 1MB SIMMs in the CIP-002 package into the now open SIMM positions.
4. Replace the CI top cover.

3. What should I do if my CI Model 300 will not print 11 X 17 on the RC 6300?

- | | |
|-----------------------------------|--|
| 1. UPGRADE MEMORY | - See Question 2 above. |
| 2. CHECK ROMS | - Upgrade the Risograph RC 6300 to 1.07A System Rom Version. |
| 3. Use an 11 X 17 capable program | - Like most desktop publishing programs. |
| 4. Check Printer Driver | - Must enable 11 X 17 page size. |

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TECHNICAL SUPPORT CENTER

TECHNICAL ALERT NOTIFICATION

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4. If I receive a CI without a Interface Kit (S-994 or S-737) what should I do?

An Interface Kit should be included with every Computer Interface. When ordering a Computer Interface from Customer Service, specify whether Computer Interface will be connected to a RC Series or a RA Series Risograph. The Riso Distribution Department will then ship the appropriate Interface Kit for the Risograph, S-994 for the RC series and S-737 for the RA series. If the Interface Kits is not received, AND a backorder is not indicated, then call Riso Customer Service at 1-800-995-7476 with the Computer Interface's Invoice number to resolve the problem.

5. I tried to print a scanned TIFF image from Riso Control print function and nothing printed. What am I doing wrong?

Riso Control is designed only to store scan images as TIFF format files on a desktop computer. Although Riso Control can not print TIFF format files, it can print PostScript and Encapsulated Postscript files when in TrueImage Mode and Print basic text files (sometimes called ASCII files) when in PeerlessPrint5 Mode. To print a TIFF Image the image must be imported or placed into a application program that can print TIFF files, such as PageMaker or MS-Word for Windows.

6. What ROM Version do I need to in my RA or RC Series Risograph to make the Publisher system operate?

A Current ROM Configuration Chart can be found in the following two places:

<u>The Riso Publisher Technical Reference Guide</u>	- Part Number 352
<u>Riso Technical Information Bulletin #94</u>	- Part Number 320

7. Is the Computer Interface compatible with the Adobe Postscript Language and at what level?

The Computer Interface uses an emulation of the Adobe Postscript called Microsoft TrueImage. TrueImage is Microsoft's PostScript Interpreter. TrueImage is compatible with Adobe PostScript Version 47 LEVEL 1 which is the version used in the Apple LaserWriter Plus Printer.

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8. Will My applications work with the Publisher System?

Most likely; although there is no guarantee that all application program will work with the Publisher System. If the program can print to a Postscript Printer or a HP Laserjet Printer then the Publisher System should be able to print the output. During the last three years of CI Development and Production not a single application has been found that would not produce output to the Publisher System; as long as the applications could print to either a HP LaserJet or an Apple LaserWriter.

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9. Will My Hardware work with the Publisher System?

Probably; although there is no guarantee that the Publisher System will connect to all types of computer hardware. Note the following information:

PC/MS-DOS Computers : Printing - Should work with out any problems (see also Question #8) through the Parallel Port.

Scanning - May be difficult to set-up with some hardware configurations but should work with all but a few systems (ie. PS/2 Models 56 and 57).

Macintosh Computers : Printing - Should work with a properly configured AppleTalk installation with out any problems (see also Questions #8).

Scanning - May be difficult to set up with a few hardware configurations but should work with all but the most complex systems.

Other Computers : These systems include systems like the AS/400, Sun, Amiga, Atari, ect... Riso Technical can only give very basic support to technicians connecting to this type of equipment, since we can not verify correct operation of the Publisher System in this type of environment. NOTE: Some of our dealers have had some success with Sun systems and other minis.

Printing - Can work, usually through a properly configured serial port.

Scanning - Will not work.

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10. Will the new Macintosh LaserWriter 8.0 or PSPrinter Driver work with the Publisher System?

Yes, Use the Color General Postscript Printer Driver. But, When printing the desktop set the Page Setup to Black and White. (see Question 20 below) Currently PageMaker 5.0 is the only application that is fully compatible with the LaserWriter/PSPrinter 8.0 Driver. Until new versions of application software are written, incompatibilities may be experienced with the 8.0 drivers. LaserWriter 8.0 can be purchased from Apple for a nominal charge, it is also bundled with PageMaker 5.0. PSPrinter 8.0 is available from Adobe.

11. Can I operate the Publisher System over My Novell Local Area Network?

A Publisher system can be connected to a Local Area Network through a Print Server. A Print Server is a networked computer which is connected to the Riso Publisher from which a number of users can send their print jobs directly to the Publisher.

Reference: Printing on NetWare

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12. Can I connect one Computer Interface to two Risographs?

One Computer Interface can **NOT** be connected to two Risographs at the same time. If the user has a demand to produce Computer Interface output on two Risographs we would suggest the following configuration/procedure:

Configuration: One computer connected to one Publisher System.
An additional Risograph (or several additional Risographs) of the same drum type (RC 6300 or RC 45/56/58 or RA)

Procedure: Use the first Risograph as a master creation unit, create the first drum, move the drum and master to the second Risograph, place another drum in the first Risograph, create another plate and continue printing.

Result: Two Risographs printing images created from one Computer Interface - twice the output. Great way to create two sided and multi-color output in an assembly line fashion.

IMPORTANT NOTE: From a production standpoint, this is not only cumbersome, but inefficient as well. Anyone who can really use this much output potential can certainly afford two complete Publisher Systems, so how the system is configured depends on the dealer/customer relationship.

13. How is Publisher scanning best used?

Scanning with the Risograph Publisher is fairly limited, but can be very handy for certain types of applications. The Publisher will scan in black and white images and half-toned images in a 1 bit format and is limited to an 8.5 X 14 original. This type of imaging is perfect for quick scans of black and white line art and some limited grayscale images. This means that the Risograph Publisher is a great scanner for scanning in logos and a good scanner for some grayscale photos. If the user has a need for higher quality imaging, be sure to mention that the Riso Publisher is also capable of producing output from images created by other scanners, such as the HP ScanJet IIc.

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14. Can I connect the Publisher Model 300 to a Macintosh LocalTalk or EtherTalk Network?

YES; The Publisher Model 300 has been tested and used in many Macintosh LocalTalk and EtherTalk Networks, some with hundreds of Macintoshes. If more information is required about Macintosh Networking refer to the MacWorld Networking Handbook available from IDG Press, San Mateo, CA 94402.

15. Can I use a parallel cable longer than 15 feet?

Yes, but we can not guarantee that the system will work with a cable longer than the industry accepted cable limit for parallel cables. Riso would suggest that if this type of installation is going to be attempted that a high quality parallel cable be used such as the Super Cables from Rose Electronics (800) 333-9343 which are sold in incremental lengths up to 200' at a cost of approximately \$2.00 / ft.

16. Why Can't I use a SCSI cable longer than 6 feet?

Although SCSI cables with lengths of 9 ft and 12 ft have been used successfully with the Computer Interface, the problem with this type of cable is that reliable operation is very dependent on the environment in which the system is being used. In an electronically noisy environment like most offices, (computers, florescent lights, elevators, press equipment, ect...) the reliability of long SCSI Cables is severely suspect. Therefore the use of long SCSI Cable can **NOT** be recommended by the Riso Technical Department and should be used with caution.

17A. Can I connect two computers to one CI?

MAC - Yes, connect as many as possible (see Question 14)

PC - Yes, With two different options:

Switch Box : Use a standard manual or automatic Parallel Switch Box.

2nd Parallel Port : Install a second parallel port into the computer and connect the Computer Interface to the second port.

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19. What printers does the Model 300 Publisher Emulate?

PC in TrueImage Mode - Apple LaserWriter Plus or Agfa Compugraphic 400PS
Also use Apple LaserWriter or Generic Postscript.

PC in PeerlessPrint 5 Mode - HP LaserJet III or HP LaserJet II

Macintosh - Apple LaserWriter, Apple LaserWriter Plus and
Color General

20. My Encapsulated PostScript file is not printing, why not?

If a document contains a image which is composed of Binary PostScript Data, the CI can not print the document. Binary data must be converted to ASCII format in order to print on the Computer Interface.

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Top Ten Publisher Computer Application Information

1. Microsoft Windows Version 3.1

PC/MS-Dos

Product Support Phone Number

- 1 (206) 637-7098 -

For best results, use a PostScript Printer Driver, with the Computer Interface in TrueImage Mode. Use one of the following standard drivers:

AGFA CompuGraphic 400PS	(for use with the Model 300)
Apple LaserWriter Plus	(for use with older Model 200/210)
PostScript Printer Driver	(best with PageMaker 5.0)

2. Aldus PageMaker 5.0

Windows And Macintosh

Product Support Phone Numbers

- 1 (206) 628-4531 PC/MS-DOS -

- 1 (206) 628-4501 Macintosh -

Windows:

Use the Postscript Printer Driver that comes with PageMaker 5.0 and loads off the last disk in the distribution disk set. Set Printer Type to Color General (Letter and Tabloid - 300) or General (Letter and Legal sizes - 300/200/210)

Macintosh:

Choose LaserWriter 8.0 in the Macintosh Chooser. Select the Risograph and select the Color General PPD.

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3. Quark Xpress

Windows And Macintosh

Product Support Phone Numbers
- 1 (303) 894-8822 PC/MS-DOS -
- 1 (303) 894-8899 Macintosh -

Windows:

For best results, use a PostScript Printer Driver, with the Computer Interface in TrueImage Mode. Use one of the following standard drivers:

AGFA CompuGraphic 400PS (for use with the Model 300)
Apple LaserWriter Plus (for use with older Model 200/210)

Macintosh:

Choose LaserWriter in the Macintosh Chooser and select Risograph. Select LaserWriter in the Print Setup dialog box .

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4. Aldus PageMaker 4.0 and 4.2

Windows And Macintosh

Product Support Phone Numbers

- 1 (206) 628-4531 PC/MS-DOS -

- 1 (206) 628-4501 Macintosh -

Windows:

For best results, use a PostScript Printer Driver, with the Computer Interface in TrueImage Mode. Use one of the following standard drivers:

AGFA CompuGraphic 400PS (for use with the Model 300)
Apple LaserWriter Plus (for use with older Model 200/210)

Macintosh:

Choose LaserWriter in the Macintosh Chooser and select Risograph. Select LaserWriter Plus Ver. 42.2 in the Print dialog box.

5. Word Perfect 5.1 and 6.0 Dos Version

PC/MS-Dos

Product Support Phone Number

- 1 (800) 541-5096 -

Use the Apple LaserWriter Plus Driver

6. Microsoft Word 5.5 Dos Version

PC/MS-Dos

Product Support Phone Number

- 1 (206) 635-7210 -

Use the PostScript Printer Driver

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7. Microsoft Word 6.0**PC/MS-Dos****Product Support Phone Number****- 1 (206) 635-7210 -**

Use the PostScript Printer Driver

8. Lotus 1-2-3 for Windows**Windows****Product Support Phone Number****- 1 (617) 253-9150 -**

For best results, use a PostScript Printer Driver, with the Computer Interface in TrueImage Mode. Use one of the following standard drivers:

AGFA CompuGraphic 400PS	(for use with the Model 300)
Apple LaserWriter Plus	(for use with older Model 200/210)

9. Calera WordScan Plus Version 2.0**Windows Only****Product Support Phone Number****- 1 (408) 720-0999 -**

Select None as the scanner type. Scan document into Riso Control then load as a disk file into Wordscan.

10. Claris OmniPage Pro Version 2.0**Macintosh****Product Support Phone Number****- 1 (408) 727-9054 -**

Scan documents into Riso Scan and then load as a disk file into OmniPage.

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Other Notable Hardware And Software Support Phone Number

<i>Apple Technical Support</i>	<i>1 (408) 879-0220</i>
<i>Bitstream (Fonts)</i>	<i>1 (617) 497-6222</i>
<i>Back Box (Data Comm. Devices)</i>	<i>1 (412) 746-5530</i>
<i>Farallon (PhoneNet / LocalTalk)</i>	<i>1 (415) 849-2331</i>
<i>Shiva (EtherTalk / LocalTalk)</i>	<i>1 (617) 864-8100</i>

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NOTE: The following information will not display in MSD but should also be checked in the BIOS setup:

- BIOS SETTINGS -

ROM BIOS Shadows - Disable any ROM BIOS shadows that may be enabled at the DC00 Address.

BUS Clock Speeds - on 386 / 486 / Pentium systems the BUS clock speed must be set as follows:

20 MHz computers:

CPUCLOCK/3 or slower (ex. CPUCLOCK/4)

25 Mhz computers and 486DX/2-50 computers:

CPUCLOCK/4 or slower. (ex. CPUCLOCK/5)

33 and 40 MHz computers including 486DX/2-66 and 386DX-40computers:

CPUCLOCK/5 or slower (ex. CPUCLOCK/6)

Pentium-60 MHz computers:

CPUCLOCK/8 or slower (ex. CPUCLOCK/9)

Pentium-66 MHz computers:

CPUCLOCK/9 or slower (ex. CPUCLOCK/10)

If this setup is not user selectable, try running the computer in non-turbo mode.

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33 and 40 MHz computers including 486DX/2-66 and 386DX-40computers:

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If this setup is not user selectable, try running the computer in non-turbo mode.

Appendix I (Technical Training Manual & Troubleshooting Handbook)

Appendix II (Course Overheads)

Appendix III (Labs)

Appendix IV (Technical Information)

Technical Information

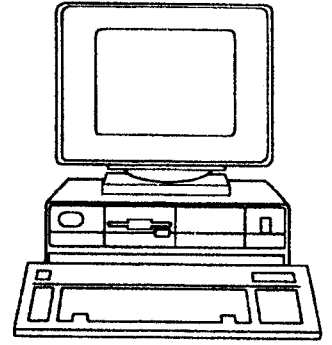
Technical Alert Notifications

Appendix V (Network Connections & Guide)

Appendix VI (Glossary & Misc. Material)

Glossary

Miscellaneous Material



Publisher UPdate

March 8, 1994

94-003

We have been receiving many inquiries concerning network installations of the RISO Publisher. This paper will help to clarify how the Publisher can be installed on a network. This market presents a huge opportunity for Risograph placements. Let's take advantage of it! Please direct any questions, comments, or observations to Bob Gregorowicz.

NETWORK GUIDE

As companies everywhere strive for increased productivity, one of the most significant tools has become networked computers. In the United States today nearly 45% of desktop PCs and MACs and nearly all workstations are connected to networks; it is estimated that within the next few years over 80% of the PCs and MACs will be networked. Microsoft is putting enormous resources behind Microsoft At Work, which connects digital copiers, fax machines, printers, computers, telephones, and just about everything else found in an office.

There are already a number of RISO Publisher systems installed in network environments, and as we continue to penetrate both traditional and new markets, an increasing percentage of installations will be on networks. This guide is intended to familiarize you with networks, and respond to questions about how the Publisher system will fit into the customers network. While this guide is not intended to be a technical manual, it can be used when holding discussions with a technology director, network administrator or MIS director.

What is "connectivity" all about? The Personal Computer has literally changed the way people work. Managers no longer dictate to a secretary who prepares documents; they type and print it themselves. The products have become so reliable that buyers no longer rely on the comfort of buying from a "safe" vendor; multiple vendor installations are commonplace. Connecting all of these products through local area networks (LANs) and wide area networks (WANs) allows users to share information, like files, applications and databases, send messages quickly and easily (E-Mail) and share printers and other peripherals. For example, at RISO headquarters we have approximately 50 PC users sharing 7 laser printers and applications like Microsoft WORD, Lotus 123, Harvard Graphics and Avery Label Pro.

There are many different kinds of networks, and they all have one thing in common - a network administrator who either knows, or can quickly find out, how to place the Publisher system in his particular network. This guide contains a glossary, and gives you an overview of the different types of networks, and how the Publisher fits in each. There is no need for a RISO representative to be a network expert, but it is important to be conversant.

CONNECTING

**THE RISOGRAPH
PUBLISHER**

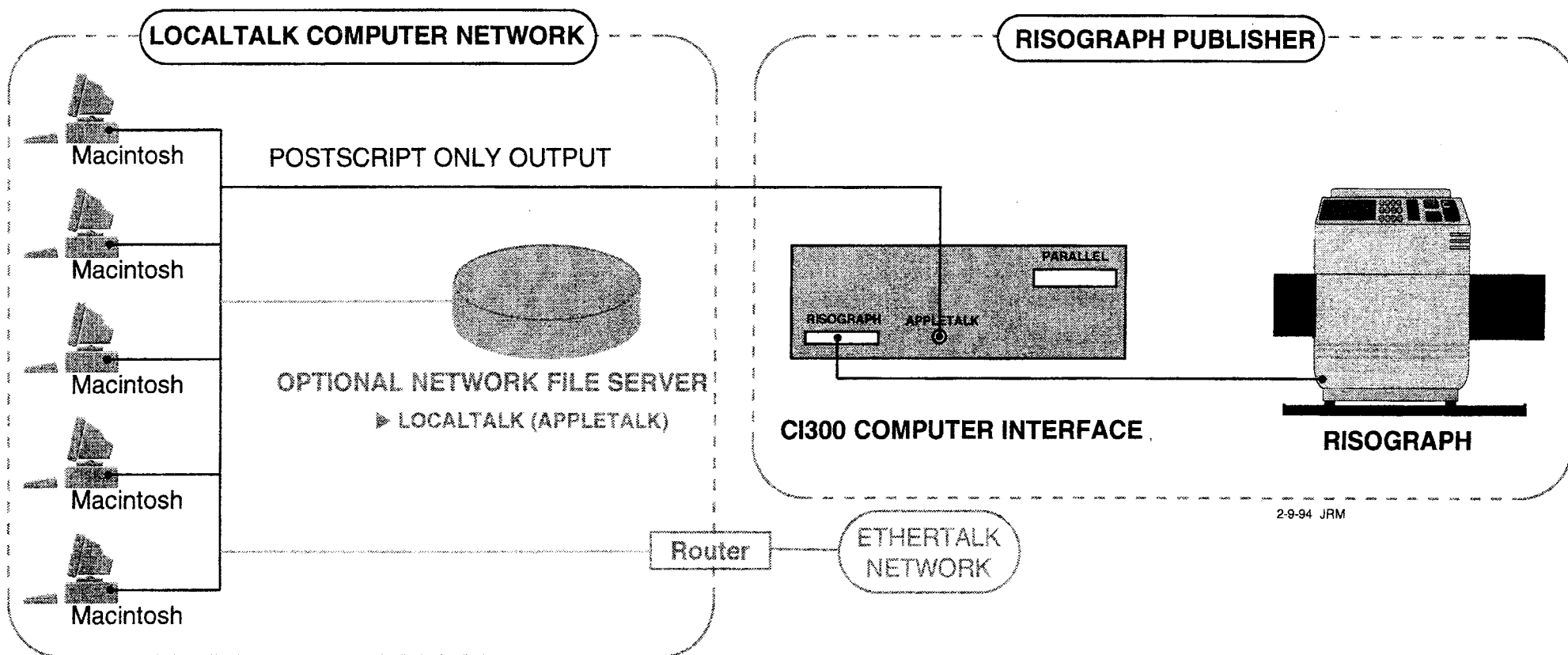
TO

**COMPUTER
NETWORKS**

2-2-94 JRM

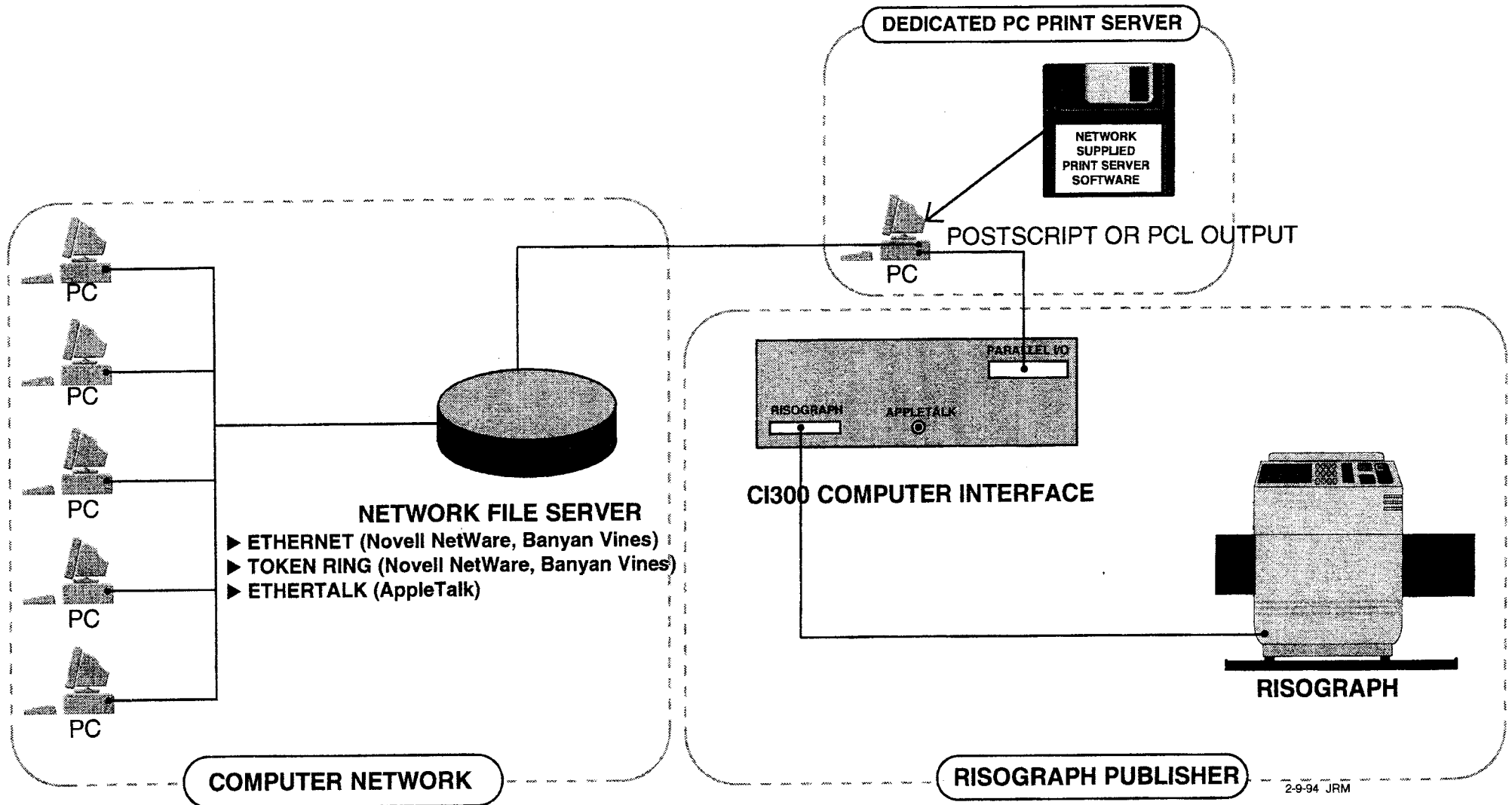
AppleTalk Networks

USE BUILT-IN DIRECT APPLE LOCALTALK NETWORK CONNECTION



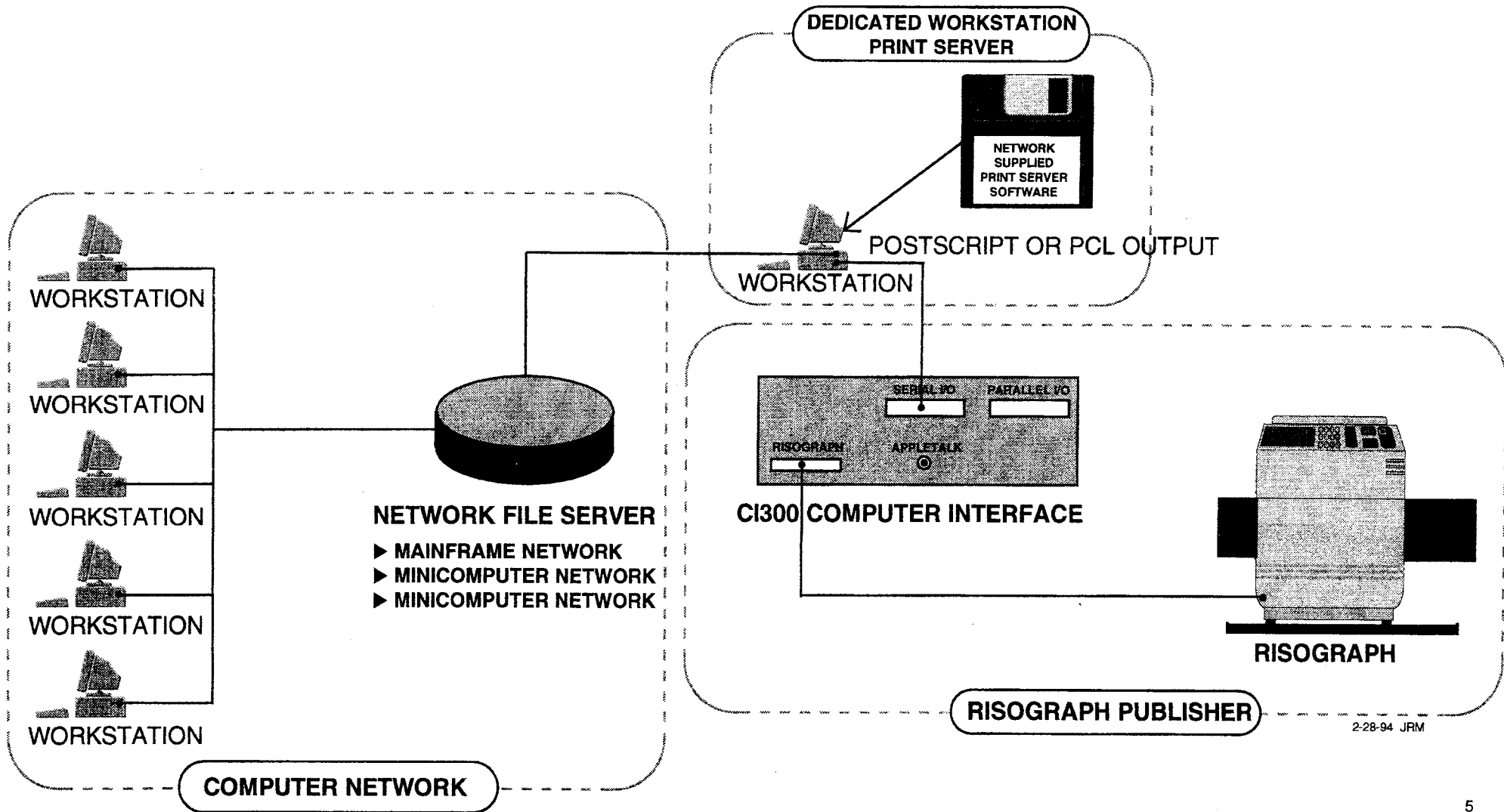
General Purpose Ethernet and Token Ring PC Networks

USE A DEDICATED PC AS A PRINT SERVER



Proprietary Networks

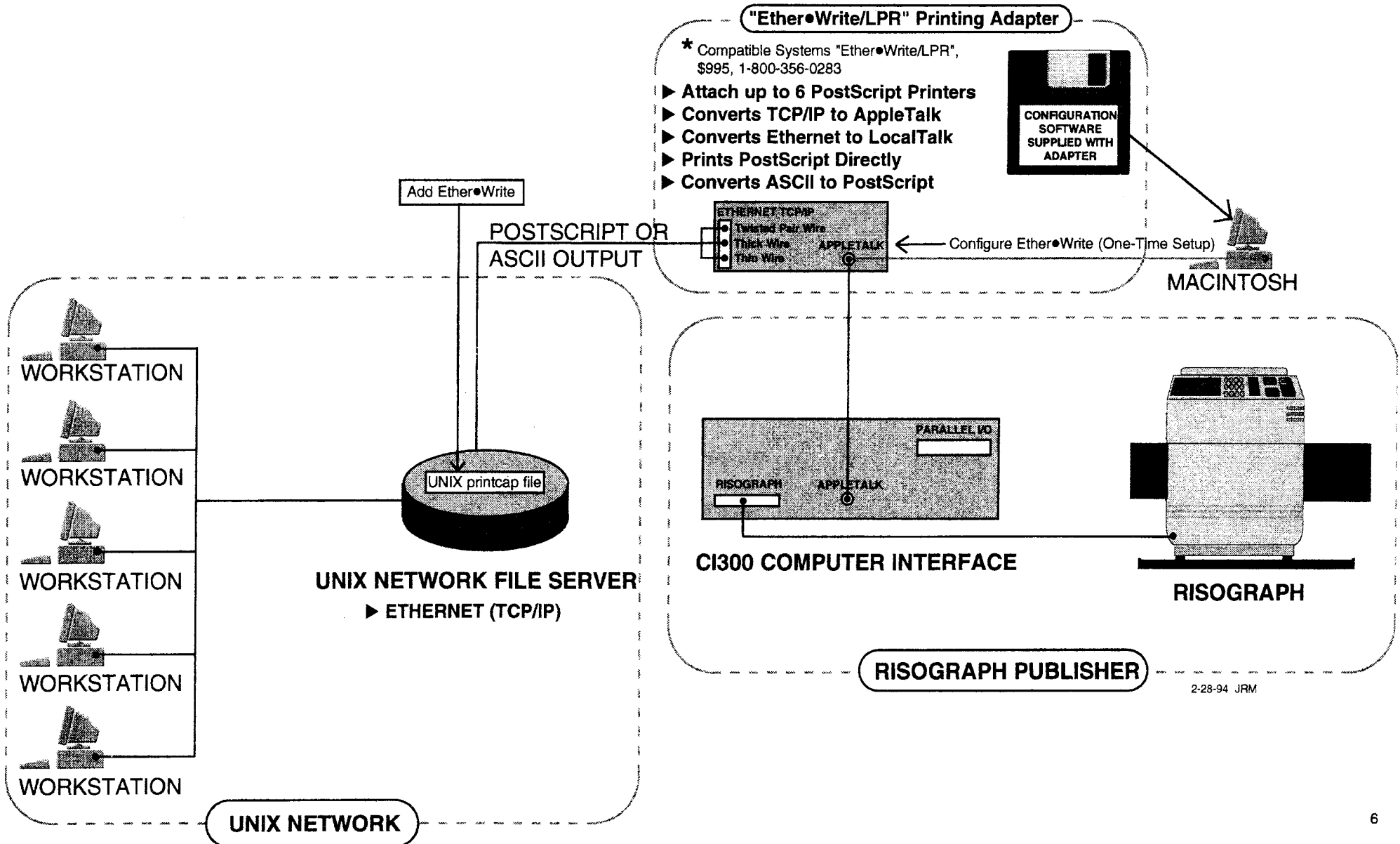
USE A DEDICATED POSTSCRIPT WORKSTATION AS A PRINT SERVER



2-28-94 JRM

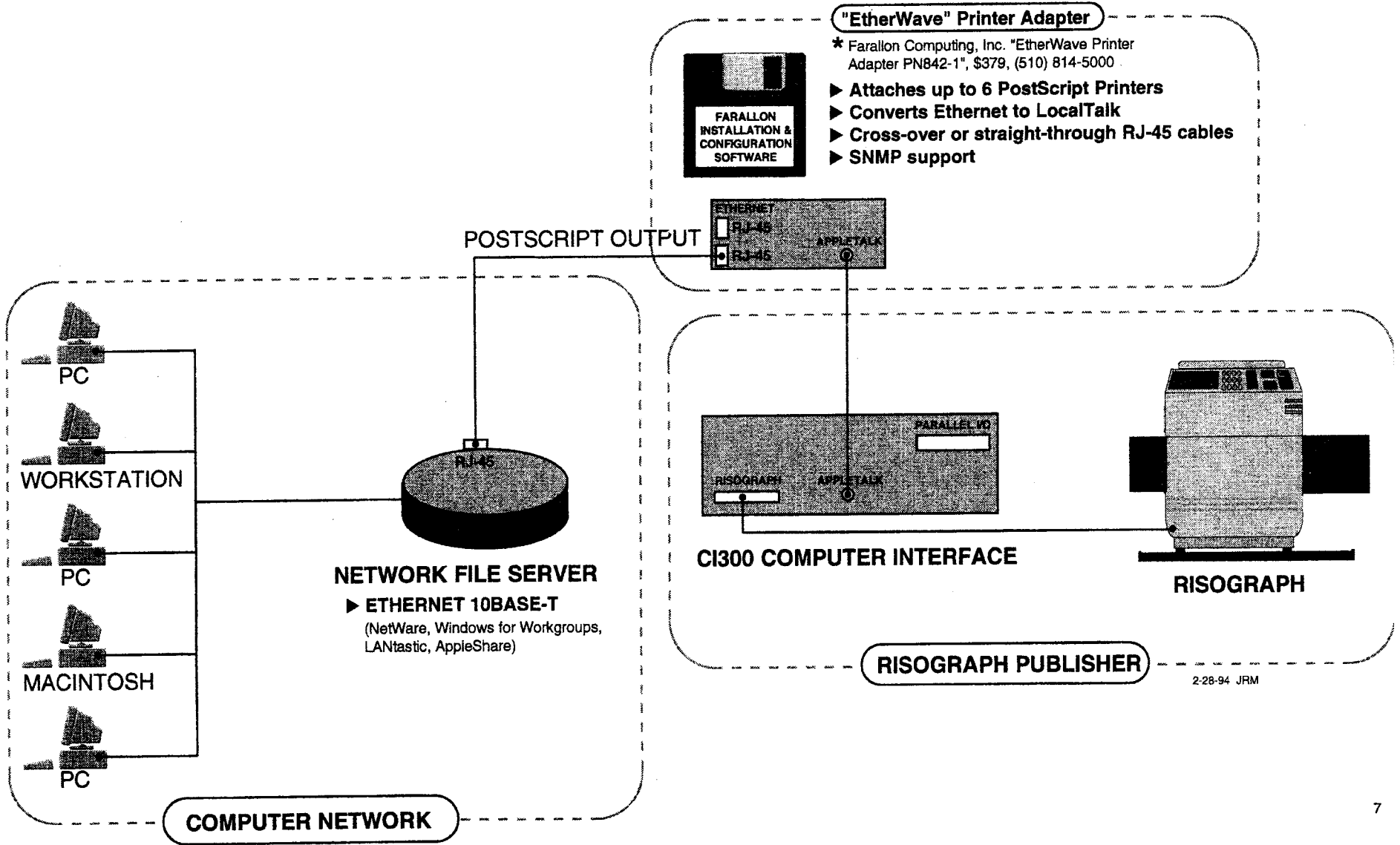
UNIX Ethernet TCP/IP Networks

USE A PRINTING ADAPTER GATEWAY*



Ethernet 10BASE-T Networks

USE A PRINTING ADAPTER GATEWAY*



INTERNAL PRINT-SERVER ADAPTERS

COMPANY	PRODUCT	SHIP DATE	PRINTERS SUPPORTED BY INTERNAL CARD; EXTERNAL HARDWARE UNIT; NUMBER OF PORTS; TYPES OF CONNECTORS	NETWORK CONNECTIONS SUPPORTED: ETHERNET MEDIA	NETWORK CONNECTIONS SUPPORTED: ETHERNET FRAME TYPES	NETWORK CONNECTIONS SUPPORTED: TOKEN-RING	NETWORK OPERATING SYSTEMS/PROTOCOLS SUPPORTED	PAGE DESCRIPTION LANGUAGE USED	REGISTRATION WITH NETWORK PRINTER CONTROL CONSOLE CAPABILITIES; BUFFER MEMORY PROVIDED (IN BYTES)	Bidirectional communications support with printer Support for IPX (Network Printing Manager) protocol Multiple printer support with load balancing Software-configurable Language switching for individual print jobs Simultaneous network protocol or language switching	NOTIFICATION OPTIONS	PRICE PER DEVICE; WARRANTY; FREE TECHNICAL SUPPORT
ASP COMPUTER PRODUCTS INC. Sunnyvale, Calif. (408) 746-2965 (800) 445-6190	JetLAN	8/92	HP II, III, III, Canon LPF II series, Brother HL6V, 8D, 10V, 10D (series JL100 and JL200), HP L4, III SL, IV SL, DesignJet 600 plotter, DeskJet 1200C color printer (series JLS100 and JLS200); N/A; 1; XIO interface to printer (series JL100 and JL200), MIO interface to printer (series JLS100 and JLS200)	10Base2 (thin-net) series JL100 and series JLS100, 10Base1 (unshielded twisted-pair), series JL200 and series JLS200	Ethernet II, Novell (8137), 802.3	none	Novell NetWare (IPX/SPX)	HP PCL, HPGL, Epson, Post-Script	requires manual update by manager; none	•	notifies job sender	\$595; one year; toll call (unlimited)
	JetLAN 2P JL2P300	4/93	N/A; supports any printer with DB25 parallel port; 2; 2 DB25-pin parallel ports	10Base2 (thin-net), 10Base1 (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3	none	Novell NetWare (IPX/SPX)	HP PCL, HPGL, Epson, Post-Script	requires manual update by manager; none	•	notifies job sender	\$695; one year limited; toll call (unlimited)
CASTELLE INC. Santa Clara, Calif. (408) 496-0474 (800) 289-7555	LAMpress 1+1 version 3.1	2/93	N/A; yes; 2; 1 serial, 1 parallel	10Base2 (thin-net), 10Base1 (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3, 802.2	shielded twisted-pair	Novell NetWare (IPX/SPX), TCP/IP	HP PCL 4 and 5, HPGL and HPGL/2, Post-Script Levels 1 and 2	automatic; 256K	•	broadcast message (Novell notify list)	\$595 (10BaseT only), \$695 (10BaseT/BNC), \$895 (Token-Ring); two years, extended warranty available for additional three years; toll call (unlimited)
	JetPress MIO Plus version 3.1	5/93	HP LaserJet 4 (MIO port), Epson LQ 2500 (serial port), OMS 1725 (parallel port); N/A; 3; 1 MIO port, 1 serial, 1 parallel	10Base2 (thin-net), 10Base1 (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3, 802.2	shielded twisted-pair	Novell NetWare (IPX/SPX), TCP/IP	HP PCL 4 and 5, HPGL and HPGL/2, Post-Script Level 1 and 2	automatic; 256K	•	broadcast message (Novell notify list)	\$449 (JetPress MIO Ethernet), \$549 (JetPress MIO Plus Ethernet), \$749 (JetPress MIO Token-Ring); two years, optional 5-year extended warranty; toll call (unlimited)
BATACHON TECHNOLOGIES INC. Everett, Wash. (206) 355-0590 (800) 468-5557	Series 8000	4/91	N/A; yes; 1 or 2; parallel (1 or 2 ports available)	10Base2 (thin-net), 10BASE5 (thick-net), 10Base1 (unshielded twisted-pair)	Novell (8137)	none	Novell NetWare (IPX/SPX)	supports any page-description language	automatic; N/A	•	through network printer control consoles	\$495 (one port), \$595 (2 parallel ports); one year; toll-free call (unlimited)
DIGITAL PRODUCTS INC. Waltham, Mass. (617) 647-1234 (800) 243-2333	NetPrint/100	12/92	N/A; yes; 2; 1 parallel, 1 universal I/O (serial, parallel output, serial input)	10Base2 (thin-net), 10Base1 (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3	shielded twisted-pair, unshielded twisted-pair	Novell NetWare (IPX/SPX)	supports any page-description language	automatic; 512K dynamic RAM	•	broadcast message (Novell notify list)	\$695 (Ethernet), \$995 (Token-Ring); one year parts and labor; toll-free call (unlimited)
	NetPrint/150	5/93	N/A; yes; 4; 3 parallel (DB25); 1 universal uniprot I/O (serial, parallel output, serial input)	10Base2 (thin-net), 10Base1 (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3	shielded twisted-pair, unshielded twisted-pair	Novell NetWare (IPX/SPX)	supports any page-description language	automatic; 512K dynamic RAM	•	broadcast message (Novell notify list)	\$895 (Ethernet), \$1,395 (Token-Ring); one year parts and labor; toll-free call (unlimited)
EARLE TECHNOLOGY San Jose, Calif. (408) 441-7453 (800) 733-2453	NPE 400	5/93	N/A; yes; 1; attaches to parallel port on any printer	10Base2 (thin-net), 10Base1 (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3, 802.2	none	Novell NetWare (IPX/SPX)	HP PCL (any level with banner pages printed), Post-Script (any level if banner pages printed)	automatic; N/A	•	broadcast message	\$499; five years; toll-free call (unlimited)
EMBLEX CORP. Costa Mesa, Calif. (714) 662-5600 (800) 854-7112	NetOne version 4.01	4/93	N/A; yes; 2; parallel, serial	10Base2 (thin-net), 10Base1 (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3, 802.2	N/A	Novell NetWare (IPX/SPX), TCP/IP, LAT, AppleTalk	N/A	automatic; 512K	•	SNMP alert	\$529; two years, one-year advance replacement; toll call (unlimited)
EXTENDED SYSTEMS Boise, Idaho (406) 587-7575 (800) 235-7576 (cont. on Page 142)	Pocket Print Server ESI-2832A	5/93	N/A; yes; 1; parallel	10Base2 (thin-net), 10Base1 (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3, 802.2	none	Microsoft LAN Manager (NetBEUI)	HP PCL, HPGL, Epson, Post-Script, (supports all versions)	automatic; 128K	•	broadcast message	\$595; three years standard, five years optional; toll call (5 years)

Continued on Page 142

Chart Notes

This chart includes only adapters that are compatible with more than one brand of printer. ASP's JetLAN JLS series will support language switching for individual print jobs. Lantionix declined to provide information. All information was provided by the manufacturers. N/A

means not applicable. This chart is representative, not all-inclusive. A WK1 version of this chart is available in Library 4 of the PC Week Extra! forum on ZiffNet. Look for ZIP files by issue date.

—Chart compiled by Caryn Converse

INTERNAL PRINT-SERVER ADAPTERS

FROM PAGE 139

COMPANY	PRODUCT	SMP DATE	PRINTERS SUPPORTED BY INTERNAL CARD; EXTERNAL HARDWARE (MPT; NUMBER OF PORTS; TYPES OF CONNECTORS)	NETWORK CONNECTIONS SUPPORTED; ETHERNET MEDIA	NETWORK CONNECTIONS SUPPORTED; ETHERNET FRAME TYPES	NETWORK CONNECTIONS SUPPORTED; TOKEN-RING	NETWORK OPERATING SYSTEMS/PROTOCOLS SUPPORTED	PAGE DESCRIPTION LANGUAGE USED	REGISTRATION WITH NETWORK PRINTER CONTROL CAPABILITIES; SCHEDULING CAPABILITY PROVIDED (IN BYTES)	<ul style="list-style-type: none"> • Bidirectional communication support with printer • Support for IBM (Advanced Printing Function) protocol • Multiple printer support with load balancing • Software-configurable • Language switching for individual print jobs • Simultaneous network protocol or language switching 	NOTIFICATION OPTIONS	PRICE PER DEVICE; WARRANTY; PRICE TECHNICAL SUPPORT
EXTENDED SYSTEMS (cont. from Page 139)	Pocket Print Server ESI-2830A	11/92	N/A; yes; 1; parallel	10Base2 (thin-net), 10BaseT (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3, 802.2	N/A	Novell NetWare (IPX/SPX)	HP PCL, HPGL, Epson, PostScript, (supports all versions)	automatic; 128K	•	broadcast message	\$495; three years standard, five year optional; toll call (2 years after product discontinuation)
HEWLETT-PACKARD CO. Palo Alto, Calif. (800) 752-0900	HP JetDirect EX for Ethernet	5/93	N/A; yes; 1; parallel (bitronics)	10Base2 (thin-net), 10BaseT (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3, 802.2	none	Novell NetWare (IPX/SPX)	HP PCL (JetDirect card is independent of PDL), HPGL (JetDirect card is independent of PDL), PostScript (JetDirect card is independent of PDL)	automatic (using SAPs); 256K of RAM, 64K for LAN buffering	•	broadcast message (Novell notify list)	\$499; one year, return to HP; toll call (unlimited)
	HP JetDirect EX for Token-Ring	5/93	N/A; yes; 1; parallel (bitronics)	N/A	N/A	shielded twisted-pair, unshielded twisted-pair; optional based on customer supplied media filter	Novell NetWare (IPX/SPX)	HP PCL (JetDirect card is independent of PDL), HPGL (JetDirect card is independent of PDL), PostScript (JetDirect card is independent of PDL)	automatic (using SAPs); 256K (64K for LAN buffering)	•	broadcast message (Novell notify list)	\$699; one year, return to HP; toll call (unlimited)
INTEL CORP. Hillsboro, Ore. (800) 538-3373	NetPort II Print Server	4/92	N/A; yes; 3; parallel, serial	10Base2 (thin-net), 10Base5 (thick-net), 10BaseT (unshielded twisted-pair), AUI	Ethernet II, Novell (8137), 802.3, 802.2	shielded twisted-pair, optional based on customer supplied media filter	Novell NetWare (IPX/SPX)	HP PCL, Epson, Postscript	automatic; 128K	• • • • •	broadcast message	\$699 Ethernet, \$999 token-Ring; \$999 toll call (unlimited)
LEDMARK INTERNATIONAL INC. Lexington, Ky. (606) 232-2000	IBM LAN Connection Model 1 version 1.1	3/92	N/A; yes; 2; parallel, serial (RS-232C)	N/A	N/A	shielded twisted-pair	Microsoft LAN Manager (NetBEUI), IBM LAN Server	HP PCL 3, 4 and 5, HPGL, Epson FX, LQ, PostScript Levels 1 and 2	automatic; 20K	•	standard printer notification of OS/2 LAN Server, Microsoft LAN Manager, IBM AIX	\$945; one year, return to factory; toll call (unlimited)
	IBM 4033 LAN Connection Model 2 version 1.1	3/92	N/A; yes; 2; parallel, serial (RS-232C)	10BaseT (unshielded twisted-pair)	Ethernet II, 802.3	shielded twisted-pair	Microsoft LAN Manager (NetBEUI), IBM LAN Server	HP PCL 3, 4 and 5, HPGL, Epson FX, LQ, PostScript Levels 1 and 2	automatic; 20K	•	standard printer notification of OS/2 LAN Server, Microsoft LAN Manager, IBM AIX	\$845; one year, return to factory; toll call (unlimited)
MICROPLEX SYSTEMS LTD. Vancouver, British Columbia (604) 675-1461 (800) 665-7798	M200 4.0	5/93	N/A; yes; 3; 1 parallel 100,000cps, 2 serial 38.4K bps	10Base2 (thin-net), 10Base5 (thick-net), AUI	Ethernet II, 802.2	none	Novell NetWare (IPX/SPX), TCP/IP	HP PCL, HPGL, Epson, PostScript (transparent all versions of all languages)	through PC console for Novell and Telnet for TCP/IP; 50K (queuing flow control)	•	through SNMP and remote-shell queries	\$795; three years parts and labor; toll-free call (3 years)
	M201 4.0	5/93	N/A; yes; 3; 1 parallel 100,000cps, 2 serial 38.4K bps	10Base5 (thick-net), 10BaseT (unshielded twisted-pair), AUI	Ethernet II, 802.2	N/A	Novell NetWare (IPX/SPX), TCP/IP	HP PCL (all versions), HPGL (all versions), Epson (all versions), PostScript (all versions)	through PC console for Novell and Telnet for TCP/IP; 50K (queuing flow control)	•	through SNMP and remote-shell queries	\$795; three years parts and labor; toll-free call (3 years)
MOSE ELECTRONICS Houston, Texas (713) 933-7673 (800) 333-9343	MicroServ	2/92	N/A; yes; 4; coax, Centronics 36 (parallel), RJ11 (RS-232C)	10Base2 (thin-net), 10BaseT (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3	shielded twisted-pair, unshielded twisted-pair	Novell NetWare (IPX/SPX), TCP/IP	N/A	automatic; N/A	• • •	broadcast message	\$495-\$595; one year parts and labor; toll call (unlimited)
XEROX INC. Calabasas, Calif. (818) 678-7600 (800) 438-4526	Pocket Ethernet Print Server version 1.03	2/93	N/A; yes; 1; parallel	10Base2 (thin-net), 10BaseT (unshielded twisted-pair)	Ethernet II, Novell (8137), 802.3, 802.2	none	Novell NetWare (IPX/SPX)	HP PCL, HPGL, Epson, PostScript	automatic; 128K	•	broadcast message	\$499; 2 years unconditional; toll-free call (unlimited)

Appendix I (Technical Training Manual & Troubleshooting Handbook)

Appendix II (Course Overheads)

Appendix III (Labs)

Appendix IV (Technical Information)

Technical Information

Technical Alert Notifications

Appendix V (Network Connections & Guide)

Appendix VI (Glossary & Misc. Material)

Glossary

Miscellaneous Material

GLOSSARY

AppleTalk

The proprietary network operating system used by Apple Computer Inc. *LocalTalk* and *EtherTalk* networks.

ASCII

Acronym for *American Standard Code for Information Interchange*. A 7-bit code set commonly used for data representation in computers and on communication lines. For example, when you type the letter A, the computer stores the keystroke as ASCII hex value 41. To display that character on a monitor or printer, the computer sends ASCII hex 41; the monitor or printer electronics decodes ASCII hex 41 and displays the letter A on the monitor or prints it.

Banyan Vines

Banyan Systems is a company which sells the proprietary *Vines* network operating system.

Bridge

A device which connects two homogeneous local area networks.

DEC

Acronym for *Digital Equipment Corporation*, a computer company.

"Dumb" Terminal

A "dumb" input/output device. The combination of keyboard and monitor able to communicate with a remote computer across a network, but having no computing power of its own. All of the computing is performed by the network host computer, typically a mainframe or mini computer.

Ethernet

A type of high-speed LAN originated by DEC, Intel Corp., and Xerox Corp. and evolved by the Institute of Electrical and Electronic Engineers into a family of LAN standards.

EtherTalk

A form of Ethernet specific to Apple Macintosh networks. It uses the *AppleTalk* network operating system.

File Server

A data storage device, usually a hard disk drive, accessible by user(s), on which files are stored. Stored files typically consist of applications, documents, and images.

Gateway

A device which connects two heterogeneous systems by performing appropriate protocol and format conversions at all or most layers of the network architecture.

IBM LAN Server

IBM is a company which sells the proprietary *LAN Server* network operating system.

LAN

Acronym for *Local Area Network*. The term is generally used to refer to a general-purpose network in a limited geographic area that can serve a wide variety of devices. LANs support mainframe, mini, and micro computers, "dumb" terminals, and other peripherals, such as printers. In many cases, these networks can also carry not only data, but voice, video, and graphics. Your telephone is connected to a voice LAN. If you have cable, your TV is connected to a video LAN.

LocalTalk

A low-speed LAN specific to Apple Macintosh networks. It uses the *AppleTalk* network operating system.

Mainframe

A high-cost computer which fills a large room.

Microcomputer

A low-cost computer which fits on a desktop. Personal computers (PCs,) and notebook computers are microcomputers.

Microsoft LAN Manager

Microsoft Corporation is a company which sells the proprietary *LAN Manager* network operating system.

Minicomputer

A computer whose cost and size is in-between a mainframe and a microcomputer.

Network

A collection of computers which are connected together in a way that enables them to communicate with one another.

Network Architecture

An overall framework for data communications that includes protocols for all aspects of communication from the physical wire up to the application that performs the desired function for the user.

Network File Server

A file server accessible to anyone on the network. Networks may have multiple file servers. In addition to files found on other file servers, network file servers may have an electronic mailbox for every user and may have a print queue (space reserved for storing a line of jobs waiting to print) for each printer on the network.

Network Operating System

An control program that manages communication on a network. It may be built into a computer operating system, as in *Unix* and *Macintosh*, or it may be dedicated solely to networking as in *NetWare*, *Vines*, *Lan Manager*, and *LAN Server*.

Novell NetWare

Novell is a company which sells the proprietary *NetWare* network operating system.

Operating System

A control program that manages the memory, file system, and processor activity in a complex computer system. The operating system for *IBM PC* and compatible computers is *DOS* (Disk Operating System.)

PCL

An acronym for *Printer Control Language*. A proprietary language for controlling printers controlled by Hewlett Packard, used in its printers, and emulated by most general purpose laser printers.

PostScript

Adobe Systems, Inc. powerful, proprietary language for describing pages. *PostScript* is widely used or emulated in laser printers, color printers, and image setters for printing the highest quality hard copy.

Print Server

A device used to connect a printer to a network when the printer itself cannot be connected directly to the network. The print server functions as the network interface for the printer, detecting when the printer is ready for the next job, requesting the next print job from the network file server print queue, and buffering the print data. It also informs the network print manager when the printer needs attention.

A print server may range from an outdated PC-AT with a network expansion card and running network print server software and connected to a printer's parallel port to compact, low-cost print server adapters, which provide greater flexibility in printer location. Compact, moderate-cost gateway adapters provide additional flexibility for connecting printers.

Print Server Adapter

A compact, low cost device, which attaches to a serial or parallel port on a printer and connects it to a network. The combination functions as a network printer and can be located anywhere because the total footprint (desk space occupied) is little more than that of the printer. These devices are not universal; they must be selected with care to insure that they will physically connect to both the printer and network and that they will communicate successfully with both printer and network.

Protocol

A set of rules for communicating data.

Router

A device used to connect two unlike networks by performing required protocol and format conversions at the network layer and below.

SNMP

Acronym for *Systems Network Management Protocol*. A set of rules for communicating device management messages over a network.

TCP/IP

An acronym for *Transmission Control Protocol/Internet Protocol*, protocols developed in the U.S. Department of Defense community for communication among multiple vendors' computers across dissimilar networks. TCP enables communication among multiple vendors' computers. IP enables simple internetworking for multiple vendors' computers connected across multiple networks.

Token Ring

A ring-shaped local area network that uses an access technique called token passing.

Unix

A computer operating system which has built-in networking capabilities. Unix has evolved many proprietary versions. Some examples are IBM *AIX*, DEC *Ultrix*, Apple *AUX*, Sun *Unix*, Santa Cruz Operation *SCO Unix*.

Workstation

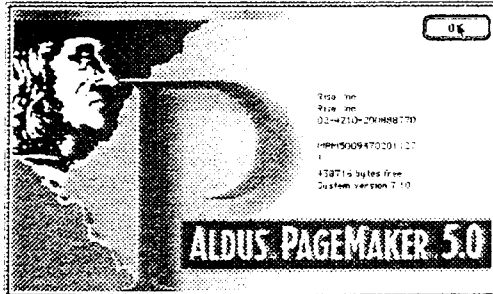
An unusually high-powered desktop computer. The computing power is usually specified in esoteric terms such as megaflops, whetstones, and dhrystones. Characterized by a high-powered microprocessor (often of RISC architecture), huge RAM and hard disk capacities, and an Ethernet network connection, workstations represent the maximum computing power available in a desktop package at any given point in time. Since technology evolves, a 1994 mainstream desktop PC has roughly the same capabilities as a 1990 workstation.

10BASE-T

A type of network connection cable constructed of unshielded, twisted pairs of wires.

A PUBLISHERS GUIDE TO PAGEMAKER 5

PageMaker 5 is quickly becoming one of the most popular applications for use with the Publisher System. PageMaker's powerful set of features takes full advantage of the Publisher System. This power of function can also create a steep learning curve for any one wishing to use this application. To assist students of PageMaker 5, the



following instruction should be helpful and answer some questions about setting up and using PageMaker.

SETTING UP AND PRINTING

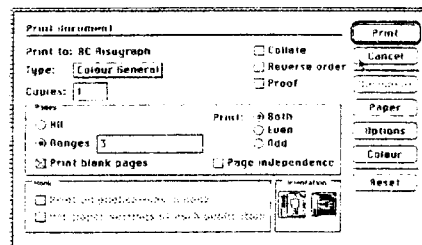
PageMaker 5 is one of the first applications to take advantage of the new PostScript printer driver from Adobe Systems. This driver integrates the printer drivers of the Macintosh and Windows Systems, and creates a universal printer driver for both platforms. The new driver is essential to the proper operation of the PageMaker System and must be loaded when installing PageMaker 5.

Two versions of the new driver are shipped with PageMaker 5. LaserWriter 8; the new LaserWriter driver for the Macintosh, and the Postscript Printer Driver Version 3.56; the new printer driver for Windows. Detailed instructions for installing the correct driver for each system can be found in the **PageMaker 5 Getting Started** booklet. One of the major difference in the

new universal printer driver is the use of PostScript Printer Description (PPD) files in both Windows and on the Macintosh. PPD files allow PageMaker and other applications to access specialized information for

specific printers. When working with the Riso Publisher System Model 300, two PPDs can be used; General for Letter and

Legal size images, and Color General for Tabloid size images. To select the correct PPD when printing use the following procedure:



1. Select Print
2. In the Print Dialog Box Select PostScript Printer in the Print To: selection.
3. Select either General or Color General in the Type: selection.
4. Click on the Paper Button and select the correct paper size for the document.
5. Select any other options desired and click on print to process the job.

CONVERTING PAGEMAKER 4 FILES TO PAGEMAKER 5

Converting old PageMaker 4 files is very simple with one limitation. PageMaker 5 will automatically create a copy of a PageMaker 4 file and convert it to PageMaker 5 format document, when it is opened using the Open item in the File menu. The limitation of this feature is, that the Macintosh version of PageMaker 5 can not understand Windows PageMaker 4 files and Windows PageMaker 5 can not understand Macintosh PageMaker 4 files. Therefore, documents can not be translated from one platform to the other without going through the PageMaker 4 version on the same platform.

SCANNED IMAGES

PageMaker 5 is also a very powerful program for producing graphic images. Many users scan images with high quality grayscale image scanners but still get poor quality output. The following tips can help:

1. Scan Grayscale images at around 150 lines per inch.
2. In the Print Dialog box select Color and set the Screen Angle to 45, and set Ruling to 65.
3. When scanning black and white line art, use the highest possible scan resolution.

Setting Up LaserWriter 8 and Mac TIPS

Please follow these steps when using the LaserWriter on the C.I for the first time.

1. Under the apple, pull down menu select CHOOSER.
2. In chooser select LASERWRITER 8.
3. Choose the Risograph (C.I.).
4. Once the Risograph (C.I.) is selected press the AUTO SETUP button.
5. In the setup dialog box press the AUTO SETUP button.
6. When the message "Unable to locate 'TrueImage v1.1' of 'TrueImage'. Use 'Select PPD' to choose another description." appears press the SELECT PPD button.
7. Locate the COLOR GENERAL Print Driver. It should reside in the PPD folder in your System folder. Press SELECT. If you are unable to locate COLOR GENERAL, go to the desktop and do a FIND (command-F). If this fails to locate the file see your Macintosh Dealer.
8. When the message "COLOR GENERAL is locked you will not be able to save any changes" appears press OK.
9. Press OK in the Set Up dialog box.
10. Check to see if there is a mini icon next to the selected printer name (i.e., the Risograph) if there is, then quit out of chooser. If the mini icon does not appear, a step was omitted. Retry steps 4 thru 8. If this still is unsuccessful you may have bad software. Contact your Macintosh Dealer.

The following are some general guidelines on printing from the Mac to the CI.

- * Avoid using Binary data flow to the C.I. Use ASCII or Hex.
- * Select the LaserWriter (v7.1.2 or 7.2) Printdriver in the Chooser whenever possible.
- * For PageMaker 5.0, select the LaserWriter 8 (v8.1.1 or above) Printdriver in Chooser.
- * Always save Illustrator v5.0 and above documents as v3.0.
- * Beware of TrueType Fonts as they can cause a variety of problems. Also fonts from small foundries, such as Opticivt by Castcraft as they use an unusual naming convention that confuses the C.I.
Problems with TrueType and font like Opticivt can be overcome by using the proper utilities. Utilities like Fontmonger, Fontgrahper or Metamorphosis Pro, can be used to fix these problems.