SOFTWARE BULLETIN

ANSWERS TO OFTEN-ASKED QUESTIONS

ABOUT KAYPRO PRODUCTS

JULY 1983

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Answers to Often-asked Questions about the KAYPRO Products

Can I use files on the 4 which have been created on the II?

The KAYPRO 4, when booted using a single-sided, double-density diskette, will run as a KAYPRO II. The KAYPRO 4, when booted with a double-sided, double-density diskette, will operate as a KAYPRO 4.

Files created on a KAYPRO II cannot be copied by a KAYPRO 4, unless the KAYPRO 4 is booted as a KAYPRO II. But, the KAYPRO 4 can PIP files created on a KAYPRO II onto a disk that has been formatted for a KAYPRO 4.

As a rule of thumb, never copy files from one diskette to another if you are using different models of machines. Use the PIP function instead of the Copy function.

EXAMPLE:

1. Turn on or reset KAYPRO 4.

2. Insert into drive A a formatted, sysgened KAYPRO 4 diskette that has PIP.COM on it.
    Insert into drive B the KAYPRO II diskette to be copied.

3. To copy all files from the "II" diskette to the "4" diskette, enter the command line: PIP A:=B:*.*[OV]
    Press RETURN.

4. To copy a single file, <filename.ext>, enter the command line: PIP A:=B:filename.ext[OV]
    Press RETURN.

5. Press RETURN to end the PIP function.

Can I use files created on a KAYPRO II on a 1Ø?

Files can be 'PIP-ed' onto the hard drive (from the appropriate user area).

> **EXAMPLE:** B4>A:PIP B:=C:filename.ext[OVGØ]

The KAYPRO 1Ø BACKUP program must be used to copy data files from the hard disk to floppy diskettes when the files are too large to fit on one floppy.

Can I run KAYPRO II or 4 software on the KAYPRO 10?

The software that is not dependent on the special characteristics of the II or 4, such as WordStar and Perfect Writer, will normally work on the 10. However, the machine-dependent software, such as COPY and UNIFORM on the KAYPRO II, will not function properly.

What are KAYPRO 10 "User Areas"?

The KAYPRO 10 hard drive is logically segmented into 16 user areas. The user areas are handled as any CP/M user areas. User area 0 houses the system files. Areas 1 through 5 house other "bundled" software. User area 15 is not to be touched. You have 10 megabytes to use in user areas 0 to 14. User Areas vary in size according to need. When formatted, total useable memory is 8.9 megabytes.

My KAYPRO 10 won't boot. Why?

If a diskette is partially in the disk drive, the system will be unable to boot. Remove the diskette entirely and reboot.

How are KAYPRO 10 drives designated?

When booting from the hard disk, the hard drive takes the values of drive 'A' and 'B'. The floppy disk drive is then drive 'C'.

When booting from the floppy disk drive, the floppy drive takes on the value of drive 'A', and the hard disk becomes drives 'B' and 'C'.

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CP/M: General Description

An operating system is a program that handles all of the hardware of a computer at the command of the user. There is a tutorial file called KAYPRO.LRN on the Perfect Writer Lessons diskette which will teach you about CP/M.

The KAYPRO CP/M diskette now features some modifications of the operating system and new utility programs:

* a new 'COPY' program (all menu-driven), that includes an AUTOBOOT option. This option allows the user to create a disk that will automatically run a specified program when the computer is turned on at reset.

* a modified CONFIG program which allows the user to permanently set the BAUD RATE on a disk for communications or serial printers.

* a modification to CP/M that turns off the disk drive motors when they are not in use.

* a new program(on the KAYPRO II only) called UNIFORM that allows the computer to read and write Osborne, Xerox 82Ø and TRS-8Ø Model I CP/M diskettes.

CP/M: Questions and Answers

What do "cold boot" and "warm boot" mean?

A "cold boot" occurs when you put a disk with CP/M on it in the A drive and then turn on the KAYPRO or press the red RESET button on the back panel. Either of these operations will cause the computer to read the entire CP/M operating system (located on the first two tracks of the disk in drive A) into its memory. Then the KAYPRO is ready to use.

A "warm boot" occurs when you press CTRL--C. The warm boot "refreshes" part of the CP/M system by re-loading it into memory from the disk. It also resets the disk drives so that CP/M knows what disks are in each drive. It is important to do a warm or cold boot whenever you change disks, otherwise CP/M may give a BDOS error message.

What are "built-in" commands and what do they do?

"Built-in" commands are those commands included in CP/M but are not shown as file names on the directory.

DIR: requests a directory of all the files on the disk.

TYPE: will print text files on the screen.
If CTRL--P (CP/M's print mode) is on, TYPE will print text on the printer and screen.

ERA: erases filenames from the directory.

REN: renames files.

What are 'transient' commands and what do they do?

A 'transient' command is a program with a .COM extension.

The most commonly used transient commands are:

PIP: (Peripheral Interchange Program) transfers files from one disk to another.

Example: PIP B:=A:COPY.COM[V]

STAT: (Statistics) gives information regarding disk space.

Example: STAT B:

CONFIG: changes the I/O byte (whether output goes to the serial port or the parallel port), changes the numeric keypad and cursor keys, and sets the baud rate. This program is used to make the above changes on a diskette.

Does the KAYPRO support any other operating systems?

No, KAYPRO does not support any other operating systems.

Perfect Filer: Getting Started

With Perfect Filer you can create a custom data base or use either of two preprogrammed data bases. Perfect Filer contains three programs: Filer, Create, and Move to execute its records management functions.

Perfect Filer DOES NOT INCLUDE A CALCULATION FUNCTION

Examine the illustrations in the Perfect Filer Manual, pp. 18 and 20 (I: 14 or 16 in the 1982 edition) to decide if you will use the Individual Members data base or the Organizational data base.

Perfect Filer: Questions and Answers

How do I prepare a diskette for my Individual Member or Organizational data base?

To prepare the Perfect Filer Individual Member data base diskette:

1. Insert CP/M into drive A.

2. Insert a blank, formatted diskette into drive B.

3. TYPE: PIP
   Press   RETURN
   KAYPRO   will display the asterisk sign (*).

4. Remove the CP/M diskette from drive A and replace it with the Perfect Filer working diskette.

5. Type EXACTLY WHAT FOLLOWS!   At the end of each line, press RETURN.   Pay attention to all colons and periods.   Make the lines look exactly like this:

```
*B:=A:HASHTAB
*B:=A:MEMBER.H
*B:=A:DATABASE
*B:=A:DB.DEF
*B:=A:DB.TXT
*B:=A:LABEL.TXT
*B:=A:LABEL2.TXT
*B:=A:SS.SAV
*B:=A:LFORMDSC.SAV
*B:=A:SSLIST.SAV
*B:=A:MAILFORM.SAV
*B:=A:SSDESC.SAV
.*B:=A:MFORMDSC.SAV
*B:=A:LISTFORM.SAV
*B:=A:MAILTEST.MSS
```

To prepare a diskette for the Organizational data base, execute steps 1-3. For step 4, replace CP/M with the Perfect Writer Installation diskette, then continue as above.

6. To stop the PIP function, press RETURN.

How do I make selections from the menus?

To make selections from the Perfect Filer menus, use the following keys:

RETURN: moves the selector down the list of options.

BACKSPACE: moves the selector up the list.

X: implements the selection, EXCEPT for menus with ON/OFF options, which are implemented by pressing ESCape.

How many records can I put on a diskette?

Here is a simple formula for approximating space requirements for your data base:

```
NEW DISKETTE          19Ø+K      (APPROX)
SUBTRACT:             -55 K      (FORMATTING FILES)
                      13̄5̄ K̄      (APPROX)
                      -15 K̄      (APPROX) [SORTING]
                      12̄Ø K̄      divide K remaining for data
                                 by number of bytes per
                                 data record.
```

Perfect Filer gives no warning when the diskette is full. It simply overwrites the diskette and garbage appears on the screen. Use STAT function to check on space remaining on the diskette. When you add and delete frequently, you also take up room that could be used for more data. You free up this space by using the MOVE function, as described in the Perfect Filer Manual.

How do I get Perfect Filer to print a form letter?

Perfect Filer merges with files written in Perfect Writer to create form letters or invoices, placing specific information culled from data records in place of tags written into the body of the text. Perfect Filer uses its own printer functions and commands. No extra printer configuration is necessary, but you must:

1. Define the printer form or use one of the preprogrammed printer forms: "Single Sheet Letters" or "Continuous Letterhead"

2. Use Perfect Writer to create a letter using the Perfect Filer formatting commands listed in the <u>Perfect Filer Manual</u>.

3. Put the created file on the data base diskette. In Generating Mail, when the prompt asks: Enter Input File name: use this filename.

<u>What does the message "Command Not Recognized" mean?</u>

The error message "Command Not Recognized" usually refers to a tag name spelled incorrectly, written in upper case, or enclosed in the wrong brackets. Tags written in the text must follow a specific format. Any tag must be written in <u>lower case</u>, be one word (no spaces between characters) and <u>be fewer</u> than 16 alphanumeric characters. Tags must be enclosed in the angle brackets: Example--<dtenter>.

<u>How do I print an envelope or label?</u>

The input file name containing the format for mailing labels is LABEL.TXT. The input file for envelopes is LABEL2.TXT. When generating mail, after selecting a printer form for envelopes or labels, the prompt: "enter input file name" is answered with one of these two file names, not with the document file name.

<u>I'm using the Organizational data base and can't print labels. Why?</u>

The LABEL.TXT and LABEL2.TXT files included with the Organizational data base must be modified, using Perfect Writer. The <name> field within this file must be deleted. The screen should include <address> only. These files within the Individual Member data base need no modification.

<u>What does "Label Buffer Overflow" mean?</u>

The error message "Label Buffer Overflow" indicates that the specification for the label is too large. This can be adjusted by defining a new printer form with different (corrected) specifications, or by using Perfect Writer to make a new LABEL.TXT file which is input at "enter input file name:".

<u>I have so much trouble with list formatting. Are there any tricks</u>
<u>to help me get the lists to come out right?</u>

You have eighty characters per line to break into whatever fields
you need. Assume you may use seventy-nine for whatever purposes
you like, but the eightieth or last character per line <u>must</u> be a
carriage return.   This way Perfect Filer can count the number of
lines per page which have been printed.

<u>How do I sort by date?</u>

The date template contains three fields: date.month, date.day,
and date.year.   To sort by date, each of the fields (or at least
the relevant field[s]) must be specified.   Records are sorted in
the sequence: year, month, day.

<u>ADDENDA TO MANUALS</u>

Perfect Filer will   not   underline on printers that have no
backspace function.

This command deletes a field when the cursor is placed at the
beginning of the field. This command must often be used in
conjunction with CTRL-D for deletion, as CTRL-D will not delete
a line until the fields on it are cleared.

In   operations   where   a screen scrolls   while   displaying
information, CTRL-S stops the scroll; press any key to continue.

Perfect Calc: Getting Started

Perfect Calc is an electronic spreadsheet management system. Users can create their own spreadsheet or may use a number of pre-written spreadsheets, such as the checkbook manager included with the Perfect Calc disk. Perfect Calc allows the user to work with up to seven spreadsheets at one time and work with split screens to manipulate data. The maximum file size (or, if multiple files are in use, the sum of the files in memory) is 64K. Perfect Calc includes a lessons diskette with Perfect Calc version 1.1Ø. The manual tutorials are most helpful in practicing particular Perfect Calc features.

Perfect Calc Questions and Answers

Why won't the lookup function work for me?

The lookup function is designed to work within a range of values. It is a tabular lookup function and expects the range of values it is "looking up" in to be sequential. For example, lookup would work well in a table of integers and their square roots. However, many people try to use lookup on a range of values which is randomly ordered, and lookup will not work under these conditions.

Why do I keep getting the "Unknown Command" message

Perfect Calc commands should be entered in lower case letters. Check to see if your CAPS LOCK key is on.

If my spreadsheet is in "$" format, can I have one cell that isn't?

Perfect Calc allows for a number of display formats. These include "$" formats, decimal formats (Ø-9 decimal places) and scientific notation. You can have an entire spreadsheet displayed in a particular format, or you can select a single row or column to display in a specified format (the default format is two decimal places). The precedence is column, row, global. Therefore, if you select the "$" format for a column, you cannot override this by selecting a different format for a new row and have the intersecting cell display the new format.

Does Perfect Calc provide a "%" format?

Perfect Calc does not allow you to select a "%" format. However, you can imitate a "%" format by opening a single-character wide column. Then replicate "%" characters down that column.

Does Perfect Calc allow me to keep running totals?

Unfortunately, formulas such as the following: a2=a1+a2 are invalid. As a result, you cannot create a running total on a single data cell which is updated every time the cell gets updated.

Is there any way to lock in Manual Mode when I save my spreadsheet?

In the default mode, Perfect Calc recalculates the entire spreadsheet every time an entry is made. To avoid this, select the manual mode for recalculation. Then the spreadsheet will only recalculate when you ask it to. This manual recalculation mode must be selected every time you call up a spreadsheet. Perfect Calc automatically defaults into automatic recalculation mode whenever you enter a spreadsheet file.

Can a spreadsheet be associated with more than one other spreadsheet?

The Associate File command in Perfect Calc allows you to link one spreadsheet to another so that, when one spreadsheet is called up, the linked spreadsheet is also read into memory. You cannot link two spreadsheets to the same master spreadsheet directly. However, you can link MASTER.PC to SLAVE1.PC; and SLAVE1.PC to SLAVE2.PC (this is known as "daisy chaining"). With the appropriate linkages, Master will call up Slave1, and Slave1 will call up Slave2, enabling you to bring up all three spreadsheets with a single file call.

How can I keep my formulas from displaying ERROR?

Referencing an empty cell in a formula will produce an ERROR message. This can present a problem if you want to print out a spreadsheet which only has a portion of the data cells filled (for example, if you wanted to print the first quarter of an annual sales report, first quarter sales figures would be available, but the remaining sales figures would not have been entered yet). You can get around this problem by temporarily deleting the region which displays "ERROR" and printing a copy of the spreadsheet.

A related problem occurs whenever you work with dependent spreadsheets. If a formula cell in one spreadsheet refers to a cell in another spreadsheet, both spreadsheets need to be in memory; otherwise the formula cell will display an error message. There is no way to make the information on the first spreadsheet "stick" so that you can delete the second or linked spreadsheet from memory. As soon as you do this, the formula cell displays "ERROR" again.

Perfect Writer: Getting Started

Perfect Writer is a word-processing system particularly suited to creating book manuscripts. Many formatting operations are processed automatically, and chapter, section, and outline formats are easily done. The Perfect Writer software has a Lessons diskette with beginning and advanced tutorials that make learning this word processing system convenient.

Perfect Writer Questions and Answers

How do I get started with the Perfect Writer Lessons?

1. Turn on your KAYPRO or press the reset button.

2. Insert the working copy of the Perfect Writer Edit diskette into drive A.

3. Insert the working copy of the Perfect Writer Lessons diskette into drive B.

4. At the A> type: MENU
    Press RETURN.

5. When the Perfect Writer menu appears, type: E

6. When you see the prompt at the bottom of the screen -- What is the name of the file you wish to edit? -- type:
    B:LESSONØ
    Press RETURN.

How do I avoid getting the BDOS error message?

BDOS error messages indicate that there is some operation error concerning the use of diskettes or the CP/M file system. Keep the following things in mind to avoid this common error message:

1. BDOS errors are displayed when:

   CP/M tries to write to a write-protected diskette (covered write-protect notch).

   CP/M tries to read from or write to a drive with no diskette in it.

   CP/M finds a bad sector on the diskette.

   CP/M finds that there is no room left on the disk when it tries to write a file.

2. Use the program diskette (e.g. EDIT) in drive A, the data diskette (blank, formatted; or file-holding) in drive B.

3. Clear the memory by doing a reset or warm boot (CTRL--C) whenever you change diskettes. The machine will display the BDOS error message whenever the operation in process asks the machine to write onto a diskette that is different from the one it has logged into its memory (the one in the drive when the machine was most recently booted).

4. Do not try to save files on the Edit diskette; there is no room. Preface the file name with B: to address the B drive. Use the CP/M function, STAT, to determine whether there is room on the data diskette for the file(s).

5. Do not use the CP/M diskette to boot the machine for a program. When you make working copies of the programs, SYSGEN them (which puts CP/M in an already reserved space on the diskette so that they boot up from the program diskette and there is no changing of diskettes.

How do I turn off page numbering, adjust page numbering to begin at a number other than 1, or change the location of the page number?

To stop page numbering, enter the command, @PAGEFOOTING() at the beginning of the document. Notice the lack of spaces and the use of ALL CAPITAL LETTERS.

To begin at a page other than page 1, at the beginning of the document, enter the command, @SET(PAGE=X), where X equals the desired beginning page number.

To change the location of the printed page number from centered at the bottom to centered at the top, enter the command:

    @PAGEHEADING (CENTER=@VALUE[PAGE])

To have the page numbers appear at the upper right of the page, enter the command line: @PAGEHEADING (RIGHT=@VALUE[PAGE]).

How do I check spelling on a large file?

To put a large swap file onto the Perfect Speller diskette, perform the following procedure:

1. Turn on the computer or reset.

2. Insert CP/M into drive A.

3. Insert the working copy of Perfect Speller into drive B.

4.   Reset or warm boot (CTRL--C).

5.   Type: PIP B:=A:PIP.COM[OV]
      Press RETURN.

6.   Replace the CP/M diskette in drive A with the Perfect Writer
      EDIT diskette.

7.   Enter the command: CTRL--C

8.   Type: B:
      Press RETURN.

9.   Type: PIP B:=A:PW.SWP[OV]
      Press RETURN.

Questions and Answers regarding printing with Perfect Writer

<u>Why aren't the typeface commands (e.g., boldface,
underscore) having any effect when I print my document?</u>

Perfect Writer has two different print modes, quick print and
fully-formatted print.   If you print a document from the Format
menu (quick print), it will not recognize **ANY** typeface commands.

You must print with the P option (fully formatted print) using a
previously-formatted file (B:<filename>.**fin**) to utilize the
typeface commands.

Remember that Perfect Writer defaults to the TEXT mode for
printing.   If you want the printout to be exactly as it is
written on the screen, you must choose the Verbatim option from
the format menu, or include the @VERBATIM command in the file.
The best way to enter the verbatim mode into the file is to use:

      @BEGIN(VERBATIM) at the beginning and then @END(VERBATIM) at
      the end.

<u>What about error messages concerning formatting?</u>

Formatting creates a different (.fin) file, equal to or greater
in size than the original.   There must be room to do the
formatting on the data diskette (the B drive diskette).   The CP/M
function, STAT, allows you to check the space on the diskette
before writing files onto it.   See KAYPRO.LRN on the Perfect
Writer Lessons diskette for instructions concerning STAT.

The formatting error message "Can't open B:filename.mss
                                    Error was on line ∅"
is caused by not originally creating your file with the extension
(filename).MSS.

<u>I have some trouble with STYLE commands.</u> <u>Why?</u>

Style commands must be entered EXACTLY as printed in the Manual.
Pay close attention to: spacing
                          abbreviation
                          punctuation
                          singular/plural forms.
                          COMMANDS IN CAPS

Printer Configuration

Printer configuration means setting up the printer (switches and
cable) and the word processing software (Perfect Writer or
Wordstar) so that the printer will execute the desired function.

Printer Configuration: Questions and Answers

<u>What port(s) (outlets) does the computer use to send signals to</u>
<u>a printer? Can I change it?</u>

The computer default port for printing signals is the parallel
port.   To change to the other (serial) port, use the CONFIG
program on your CP/M diskette.   Once this change is made (the
diskette is REconfigured), the instruction to send signals to
the serial port becomes a permanent part of the system on
the diskette.

EXAMPLE: I have a dot-matrix printer connected to the parallel
port of my KAYPRO, and a daisy-wheel printer connected to the
serial port.   My WORDSTAR sends the signal to the dot matrix out
the parallel port, but I want to print a letter-quality document
using the serial port.

1.   Put CP/M into the A drive and another copy of WORDSTAR into
      the B drive.
      At the A>   Type: Config
                   Press RETURN

2.   Select #1 from the config menu.   (I/O Byte cold boot
      defaults)

3.   Select #2 from the next menu. (Change the I/O Byte)

4.   Move the cursor which looks like a blinking = sign, with the
      LINE FEED key until it's on the line:
      LST:=TTY:
      Press RETURN to confirm the choice.

5.   Press ESCape three (3) times.

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6.   Prompt will ask: Do you want to update the disk in B?
      Press Y.

The disk in B will then be reconfigured permanently for serial
port output.   Disks copied from this one will also send signals
to the serial port EXCEPT if the CP/M that is written onto them
is from memory or another diskette.   **When you use the new COPY
program, and you write the system onto the copy, the KAYPRO
uses the system from CP/M,   not from the copied diskette.
Choose the option "DUPLICATE" instead of "COPY" to write the
reconfigured system onto the copy**

Now that I have the output going to the serial port, I find the
serial printer will run faster if I use a higher baud rate than
the KAYPRO 3ØØ baud default. What should I do about this?

See the printer manual for the baud rate switch settings for
the Printer.   Use the CONFIG program to change the computer
baud rate.

1.   Turn on or reset the computer.

2.   Insert the NEW CP/M diskette into drive A.
      Insert the (Wordstar or Perfect Writer) edit diskette into
      drive B.

3.   At the A> type: Config
      Press RETURN.

4.   Select #5. Do not press RETURN.

5.   Select #2. Do not press RETURN.

6.   Move the blinking cursor with the LINE FEED key until it is
      on the line with the appropriate BAUD rate. See printer
      manual for the baud rate you need. (3ØØ and 12ØØ baud are
      typical.)

7.   Press RETURN to set this baud rate.

8.   Press ESCape twice.

9.   On the lower part of the screen you will see two options:
       Type: Y-------> update diskette in drive B.
       Type: N-------> get back to CP/M (Abort changes).

How do I make my printer do what I want?

Perfect Writer comes with the "Plain" printer definition which
supports boldface and underline functions, but does not include
all codes needed to do all specific printer functions. If your
printer is not responding to your satisfaction, you must adjust
the printer configuration, using the program PFCONFIG on the
Perfect Writer Installation diskette.

Use the following procedure:

1. Turn on or reset the KAYPRO.

2. Insert the Perfect Writer Edit diskette into drive A.
    Insert the Perfect Writer Installation diskette into drive
    B.

3. At the A> type: B:PFCONFIG
    Press RETURN.

4. Display shows the installation message. At the bottom of
    the screen a prompt asks: Do you want to exit and change
    disks?
    Type: N

5. Display shows the introduction to the Perfect Formatter
    configuration program. You are prompted to type any key to
    continue.
    Type: any key.

6. Master menu appears.
    Type: 2 (Define printer types)
    Press RETURN.

7. Display shows Printer type definition menu.
    Type: 1 (list the currently defined printer types)
    Press RETURN.

8. Display lists all printers Perfect Writer can operate. If
    your printer is listed, then:
    Type: any key.
    The Printer definition menu will appear.

9. Type: 5 (Select the default printer type)
    Press RETURN.

1Ø. You are prompted to enter the default printer type. The
    default printer you wish to use should be entered **EXACTLY** as
    it was listed on the currently defined printer list.
    Enter: Your printer type.
    Press RETURN.

11. You will be prompted to enter printer type for console output.
Enter your printer type (or console)
Press RETURN.

12. Display shows Printer type definition menu.
Type: 6 (Return to main menu)
Press RETURN.

13. To write these changes permanently to diskette, type: 6
Exit Configuration program)
Press RETURN.

This configuration will become part of the PF.DAT file on the Perfect Writer Edit Diskette.

MODEMS: General Description

Modems are used to convert the information in the KAYPRO into a
form that can be transmitted over telephone wires.   A modem is
needed on the receiving end to convert the transmitted signals
back into a form that the receiving computer can understand.

On the KAYPRO II and 4, modems are connected to the SERIAL I/O
port (J4) on the rear panel. On the KAYPRO 1Ø, modems are
connected to the MODEM I/O port (J3). At present, the SUPRTERM
communications program (from KAYPRO) is supported only on the
KAYPRO II. Versions for the 4 and 1Ø are in preparation. Right
now the available way to use the modem port on the KAYPRO 1Ø is
the TERM program (in User Area Ø).

MODEMS: Questions and Answers

What baud rate is acceptable for use with a Modem?

To prevent character loss, use a baud rate of 3ØØ or less. This
is true of all communications packages.   Use your CP/M disk to
set the appropriate baud rate.

What is the difference between a smart Modem and a dumb Modem?

A smart Modem will dial, detect receipt of information, and
answer incoming communication automatically. With a dumb modem
you must perform the above functions manually.

How can I stop Dow Jones information from overwriting itself?

Use the MITE program instead of SUPRTERM. (We are currently
working with Dow Jones to correct this problem).

How do I use Dial, Hangup and Answer features with SUPRTERM?

These features operate only with a Hayes SmartModem.

Set SmartModem switches to settings listed on page 4A of the
SUPRTERM Manual.

Using SUPRTERM, how do I dial an outside line from an inhouse phone system?

First, tell the modem the type of phone in use (P=pulse or dial phones; T=touchtone), dial the outside number, a comma or two to tell the modem to pause for a dial tone, and then the actual phone number.

For example, if the in-house outside access number is 9 and the phone is touch-tone, type T9,,1(area code)phone#. No punctuation is necessary within the body of the phone number.

Example: T9,,16194813424

Communications: Networking

The term "networking" applies to conditions when multiple computers use shared resources like a hard-disk drive or a printer, but each terminal runs on its own CPU. Typical use is in a classroom setting where programs can be "downloaded" from a central hard disk to networked terminals.

Communications: Multi-user Systems

The term "multi-user system" applies to conditions where many machines are sharing the same CPU and resources. All terminals use the same CPU and act as dumb terminals, sending and receiving information to and from the host terminal. The host requires large memory capacity (256K or larger) to house operating systems capable of multi-tasking (keeping track of the needs of many terminals).

SOFTWARE BULLETIN

This bulletin contains answers to the most-asked questions from KAYPRO dealers and users worldwide.

A great deal of EXPENSE AND FRUSTRATION CAN BE AVOIDED by reading this bulletin before contacting KAYPRO Field Support.

We suggest that this bulletin be placed behind a "Software Bulletin" divider of the KAYPRO Dealer Reference Manual binder.

WE STRONGLY RECOMMEND THAT:

1. All KAYPRO reference materials be placed in the Dealer Reference Manual binder.

2. All dealer sales and technical staff become familiar with this bulletin.

3. All dealer sales and technical staff have constant access to this bulletin.

Updates will be distributed to you as the need arises. They will be on green paper to merge with this bulletin.

SOFTWARE BULLETIN

MENU

1.0 CP/M--CONFIGURING FOR PERIPHERALS

AND OTHER IMPORTANT GENERAL INFORMATION

1.1 THE CP/M OPERATING SYSTEM

1.1.1 The SYSGEN Utility

SYSGEN is a CP/M program that copies system information from one disk to another. It differs from COPY in that it <u>only</u> copies the system information, while COPY makes an exact duplicate of <u>the entire</u> disk <u>including the system information</u>. The system area holds the programming that makes a disk "boot up" the system. It also holds the information that CONFIG modifies (see section on CONFIG). This means that, if CONFIG has been used to adapt one disk for a serial printer, any disk SYSGENed from it will also be "CONFIGed" for a serial printer.

1.1.2 CP/M CONFIG

The CONFIG Utility Program:

CONFIG is a program on the CP/M disk which allows the user to change certain features of the KAYPRO system operation. Most users will only need to deal with two of the possible changes: the IOBYTE defaults and the Baud Rate. Some people may also want to define the numerical keypad keys especially for Perfect Writer or other programs.

The IOBYTE can be changed and saved on the user's disk with the CONFIG program. This is the best thing to do for customers with Perfect Writer and a serial printer. It will cause printer data to go out the serial port. To do this:

1. Turn on or reset the computer.

2. Put the CP/M disk in drive A.

3. Put the Perfect Writer EDIT disk in drive B.

4. At the A> prompt, type: CONFIG

5. Press the RETURN key.

6. Select #1 on the CONFIG menu.

7. Select #2 on the next menu.

8. Move the cursor with the Line Feed Key until it is on LST:=TTY:

9. Press the RETURN key.

10. Press ESC three times.

11. When it asks you if you want to update the disk in B, press Y.

The baud rate can also be changed with the CONFIG program. The procedure is very similar to the IOBYTE change. However, the change cannot be saved on the disk. The change is no longer in effect after pressing RESET or turning the machine off. Thus, for users with 1200 baud modems or printers, the baud rate must be set each time the KAYPRO is turned on. After RESET or power-down, the baud rate defaults to 300. The baud rate can also be changed with the BAUD program on the CP/M disk. Just type BAUD, press RETURN, and type a letter in uppercase to select the rate.

1.1.3 Disk Space and the STAT Command

A. There is no command in Perfect Writer to display space remaining on a disk. Use the STAT program on the CP/M disk instead.

B. If you intend to edit files stored on a diskette, it is advisable to leave 25K of space unused in case your edited file is larger than the original.

C. If you intend to print files from a diskette, slightly more than half the diskette should be left free. This space is needed because application programs like Perfect Formatter create a second finished file which has the extension, .FIN, on the end of the filename. The text file is loaded into the .FIN file during formatting before printing. This .FIN file requires slightly more space than the first.

1.1.4 Further Reading on CP/M

The CP/M Handbook by Rodney Zaks (Sybex Books)

Inside CP/M by David Cortesi (Holt, Rinehart, and Winston)

The CP/M Users Guide by Thom Hogan (McGraw Hill)

1.2 CONFIGURING FOR PERIPHERALS

1.2.1 Making Cables for Serial Printers

Remember:

Transmit Data (Pin 2) of the KAYPRO usually must be connected to Receive Data (usually Pin 3) of the printer. Pin 3 (Receive Data) on the KAYPRO should be connected to Pin 2 (Transmit Data) on the printer. Pin 5 (CTS) on the KAYPRO is the "printer busy" line and must have a high signal, or the KAYPRO will not transmit data. This pin is usually connected to Pin 4, Pin 20, or, on a few printers, Pin 11. If your printer does not need a busy line, you may connect pin 5 on the KAYPRO to Pin 6 on the KAYPRO. Pin 7 (Signal Ground) is always connected to Pin 7 (Signal Ground) on the printer. The above is very general. More information may be required for specific printers--see the Dealer Reference Manual, pages 12-13, 20.

1.2.2 Cables Required to Hook Up a Modem to the KAYPRO

Normally an RS-232C-type cable with Pins 1 through 8 and 19-20, straight across, will work. It must have DB-25 (25-pin) male connectors on each end. If above does not work, it may be necessary to jumper pins 5, 6, and 8 together on the KAYPRO side of the cable.

1.2.3 Connecting the KAYPRO to a Time-sharing System, Such as The Source (TM)

Connect the modem to the KAYPRO serial port with the above cable. Connect the modem to the phone line according to the modem instruction manual. The default baud rate is 300, so for a 300-baud modem, no change is necessary. If the modem is faster, the baud rate must be changed through the BAUD or CONFIG program on the CP/M disk. (See section 1.1.2 in this document.)

Some kind of communications program is necessary to connect with a remote computer.

There is a program called TERM on the CP/M disk. It is a very simple program, which only allows the KAYPRO to act as a dumb terminal in full duplex mode. There are no special features, such as file transfer and protocol change.

KAYPRO is coming out with a modem program called SUPRTERM which allows more sophisticated communications with other computers.

It includes file transfer, different protocols, and other options.

1.3 IMPORTANT GENERAL INFORMATION

1.3.1 Diskette Compatability With KAYPRO Computers

1.3.2 Transferring Xerox (TM) 820 Programs to KAYPRO diskettes

To use Xerox 820 programs on the KAYPRO, purchase 5- 1/4-inch, soft-sector, single-sided, single-density Xerox program diskettes.

THESE XEROX DISKETTES CANNOT BE PUT INTO THE KAYPRO AND USED.

The Xerox disk files must be brought over to a blank, FORMATed and SYSGENed double-density diskette using the PIP utility. The procedure is:

1. Put the KAYPRO CP/M system disk in drive A.

2. Put a blank, FORMATed, diskette in drive B.

3. After the A>, type: PIP B:=A:PIP.COM[OV]

4. Press RETURN.

5. SYSGEN the diskette in drive B.

6. Remove the disk from drive A.

7. Put the diskette which is in drive B into drive A.

8. Put the Xerox 820 diskette into drive B.

9. Push the reset button.

10. After A> type: PIP A:=B:*.*[OV]

11. Press RETURN.

The Xerox 820 program is now on the diskette in drive A.

1.3.3 KAYPRO Keyboard Cord

The KAYPRO keyboard is connected to the rest of the computer by a special low-impedance cord. This cord allows the keyboard to move independently of the computer chassis at a distance of up to 6 feet. A low-impedance cord is necessary to the proper functioning of the KAYPRO.

Contrary to appearance, a telephone handset cord will not work reliably.

2.0   PERFECT FILER VERSION 1.0

2.1 OVERVIEW

Perfect Filer, a computerized records management system, facilitates the storage of information in files and the retrieval of this information as desired.

This software package offers the user the option of creating a custom data base or using either of two predefined data bases. The use of either of the two predefined data bases requires that all files for each be transferred to separate diskettes, utilizing the CP/M program titled PIP.

The files that comprise each of the data bases have the same names but are located on separate diskettes. The Individual Member Data Base files, which manage information about individuals, are located on the Perfect Filer diskette. These files must be transferred to a blank, FORMATed diskette, using the PIP function. Then SYSGEN the disk.

The file names are as follows:

MEMBER.H;   SS.SAV;   LFORMDSC.SAV;   LABEL.TXT;   DB.TXT;   DB.DEF;
SSLIST.SAV;   MAILFORM.SAV;   LABEL2.TXT;   DATABASE;   SSDESC.SAV;
MFORMDSC.SAV;   HASHTAB;   LISTFORM.SAV;   MAILTEST.MSS.

THE Organizational Data Base files, which manage information about companies or organizations, are located on the Perfect Writer Installation diskette. These files must also be transferred to a separate data diskette. The file names for this data base are the same as those for the individual member data base, except the organizational data base does not include the MAILTEST.MSS file.

The Perfect Filer program is to be used as follows:

1. Put the FILER diskette in drive A.

2. Put the DATABASE diskette in drive B.

3. Reset the system.

4. Type one of the following:

    FILER   to enter member information or print

    CREATE   to create a new data base or modify an
             existing one

MOVE   to move information from one diskette
                    to the other

2.2 AREAS OF CONCERN

2.2.1 Record Modification

A. If the data base information is to be retained, a backup copy
of the data base must be made before a record is modified in the
Create mode.

B. Modification of data records occurs in the Create mode.

C. When deleting a line within a record, all data fields on a
line must be deleted, using the CTRL-S, before that line may be
deleted, using CTRL-D.

D. When many deletions have occurred within a data base:

   1. The data base should be copied.

   2. Re-initialize the data base to fill the spaces.

   3. Move all member information from the copy back to the data
       base diskette [page IX-2, 1982 edition].

   4. Make a backup.

2.2.2 Labels

A. When labels or envelopes are generated, the information to be
included on the form must be defined   in   the   "address
specification" (page III-13, 1982 edition).

An address specification has been predefined for labels and
envelopes within both of the prestructured data bases.   This
specification is located within the LABEL.TXT and LABEL2.TXT
files. (See Discrepancies, 2.4.3, for information concerning
these files.)

For a custom data base, the "address specification" must be
defined according to the design of the database (page III-13,
1982 edition.)

B. When the "Label Buffer Overflow" message appears on the
screen, the dimension specified in the label printer form
definition is too large. Large labels may be printed, using
Perfect Writer or by defining a printer form other than a label

(page VIII-2, 1982 edition).

2.2.3 Letter Generation

A. Letters that are to include data base information may be printed, using Perfect Filer.

B. The creation of letters for use with Perfect Filer is accomplished with the Perfect Writer program (page III-1, 1982 edition). Perfect Writer FORMAT commands (@STYLE, etc) MAY NOT be included in a letter to be printed with Perfect Filer, except by using the special procedure listed in section 2.5 of this document.

Perfect Filer's special format commands are listed in Appendix B, page B-1.

C. The letter to be printed with Perfect Filer must be stored on the data base diskette.

2.2.4 List Formatting

A. To generate a list or report, the format of the list must first be defined. Within the list format definition, both the page format and member format must be specified. Other sections of the list format definition are optional.

B. Lists or reports may be printed to the screen. The scrolling of the list on the screen may be paused by using CTRL-S.

C. Within the member format definition, each field defined will be printed horizontally across the page until a <CR> is specified within a field or as a <string> field. This <CR> will cause the printer to move down one line vertically and print the next field that has been specified, or print the first field specified from the next member record, if subsequent fields have not been defined (VI-27, 1982 edition).

2.2.5 Printing Documents

A. Printer configuration is not necessary for Perfect Filer.

When printing data base information in the form of LISTS, the format of the printed document will be determined by the following (references are to the 1982 edition):

Page heading (page VI-4).

Page format (page VI-3).

Member format (page VI-5).

Sortkeys (page VI-6).

When printing data base information in the form of MAIL, the format of the printed document will be determined by the chosen or defined printer form (pages VIII-2 and VIII-3, 1982 edition).

C. If the printer being used with Perfect Filer is not capable of single-character backspace, the UNDERLINE facility will not function properly. See: List Format Definition screen shown under "Specify Field Characteristics". (page VI-18, 1982 edition)

2.2.6 Subsets

A. The definition of subsets is accomplished by entering actual member information onto a subset record. The computer will, when the defined subset is called, compare the defined subset record to all records in the database to select those specific members.

B. The conditions of "either/or" as criteria for subset selection is NOT possible.

2.2.7 Templates

A. Templates may not be altered.

B. The "salutation" portion of the name template is limited to 12 characters. This field must contain information in each data record or, when used in printing a document, the default salutation will be printed instead. (Example: Salutation:{Dear} Mr. Dunn) [page III-6, 1982 edition])

2.3 COMMONLY-ASKED QUESTIONS

2.3.1 How many records can I enter into a single data base?

The number of records that may be entered is totally dependent upon the amount of information included in each record. The record size is limited by the screen size (page V-2, 1982 edition).

2.3.2 How might all of the records in the data base be printed?

The records may be printed individually, using CTRL-W (page F-7, 1982 edition). Also, all information within the data base may be

printed in the form of a list.

2.3.3 How might multiple copies of labels be printed?

Perfect Filer will not allow the printing of multiple copies of the same information in any form.

2.3.4 Is Perfect Filer capable of internal data calculation?

Perfect Filer does not include a calculation function.

2.4 DISCREPANCIES

2.4.1 CONTROL-U Is Not Functioning Properly.

2.4.2. The terms LOGICAL FIELD and DATA FIELD are synonymous.

The Perfect Filer manual references "Data Field" (page VI-31, 1982 edition) while the screen displays "Logical Field".

2.4.3 The LABEL.TXT and LABEL2.TXT files included with the ORGANIZATIONAL DATABASE must be modified, using Perfect Writer. The <name> field within this file must be deleted. The screen should include <address> only. These files within the INDIVIDUAL MEMBER database DO NOT need to be changed.)

2.4.4 The date template does not always function properly when specified as a sort key.

2.5 USING PERFECT WRITER FORMATTED FILES WITH PERFECT FILER

2.5.1 DEFINE A NEW PERFECT FILER PRINTER FORM

1. Place the Perfect Filer disk in drive A.

2. Place the data diskette with the data base in drive B.

3. Push the reset button.

4. Type: filer

5. Choose: Define printer form.

6. Choose: Add a printer form.

7. Enter description (example: "formatltr")

8. Choose: Set left margin.

9. Enter desired margin width.

10. Choose: Set right margin.

11. Enter desired margin width.

12. Choose: Save printer form.

2.5.2 CREATE LETTER

1. Place Perfect Writer Edit disk in drive A.

2. Place Perfect Filer data base data diskette in drive B.

3. Push the reset button.

4. Type: menu

5. To edit a file, choose: E

6. Enter the name of the letter. Example: B:NEWLET.MSS

7. Set the left margin to 0. Example: @STYLE(leftmargin 0 lines)

8. Set the desired line length. Example: @STYLE(linewidth 65 chars)

9. Include other style commands, as desired.

10. Enter tags (<name>) from data base in appropriate places. Exception: Tags may not be buried within sentences.

11. Save the letter.

2.5.3 FORMAT THE CREATED LETTER

From the Perfect Writer main menu:

1. To format a file, choose: F

2. Type the name of the file that contains the new letter. Example: B:NEWLET.DOC

From the Formatter selection menu:

1. To format for a different device, choose: D

2. Enter as the device name: FILE

3. To start formatting now, choose: G

Note: The formatted letter file will appear on the directory of the data diskette with a new extension. Example: The formatted version of NEWLET.DOC will appear as NEWLET.FIN. This new name must be referenced when the formatted file is to be printed later with Perfect Filer.

2.5.4 PRINTING THE LETTER WITH PERFECT FILER

1. Place the Perfect Filer diskette in drive A.

2. Place the Perfect Filer data diskette containing the new formatted letter, the new printer form, and the data base in drive B.

3. Type: FILER

4. From the main menu, choose the option: Generate Mail

5. From the Printer Form Menu, choose the new printer form that was created earlier. Example: Formatltr

6. Enter the input file name (the name of the formatted, new letter file) Example: NEWLET.FIN

    Note: The formatted file name must include the extension: .FIN

7. From the Main Target Selection Menu, turn the printer on.

8. Press ESCape to move to the next menu.

9. From the Specify Recipients Menu, choose the desired method
    of specifying recipients.

10. Follow the screen prompts for printing.

EXAMPLE OF AN UNFORMATTED FORM LETTER

THAT WAS CREATED USING PERFECT WRITER

AND THAT IS PRINTABLE WITH THE ABOVE PROCEDURES

USING PERFECT FILER


```
@STYLE(topmargin 0 lines, leftmargin 0 lines, linewidth 65 chars)
@ADDRESS(533 Stevens Avenue
Solana Beach, CA   92075)
@BEGIN(FLUSHLEFT)
<name>
<address>



<salutation(name)>,
@END(FLUSHLEFT)
```


Thank you for your recent letter and comments about Perfect
Writer. We are delighted to receive such comments, and as you can
tell, we too are pleased with the software engineering advances
of Perfect Writer.

You mentioned an interest in Perfect Speller and our family of
related software. I will be sending you information about these
packages.


```
@CENTER(Again, we appreciate your kind words.)
@CLOSING(
Sincerely,



\  Fred R. Smith)
```

3.0 PERFECT CALC VERSION 1.0

3.1 OVERVIEW

Perfect Calc effects the rapid tabulation of a spreadsheet of interrelated numbers.

The program disk contains the two files required to run the program, PC.COM and PC.OVL, various sample spreadsheet files, and an introductory tutorial, called TEACH.PC.

3.2 GENERAL POINTS

3.2.1 PAYFACTS.PC

The sample spreadsheet file, PAYFACTS.PC, was deleted because of a software error. Perfect Software, Inc. is expected to re-issue this file to us, and we intend to make it available at that time to dealers. See the "Software Errors" section of the Procedures Bulletin.

Because PAYFACTS.PC interacts with PAYROLL.PC, the deletion of PAYFACTS renders PAYROLL unusable.

Please note that these and other sample files were meant to be used as examples of how the Perfect Calc spreadsheet could be designed for specific applications. The absence of a particular format does not mean that Perfect Calc spreadsheets cannot be designed to handle that particular data field. Thus, the deletion of PAYFACTS.PC does not preclude the design of such a format by the user.

3.2.2 TEACH.PC

This tutorial file makes reference at the end to further lessons. Those lessons are still being evaluated and may be released in the future on a separate disk. See the "Software Enhancements" section of the Procedures Bulletin.

3.2.3 Loading Time

Perfect Calc does require more time than one might expect to load files from storage disk to active file buffers. Times of 2 or 3 minutes are not uncommon. KAYPRO knows of no plans at present to re-write the program for a shorter load time.

3.2.4 The Extra Sheet at the End of a Printed File

Perfect Calc places a form feed command at the end of files. This instructs the printer to feed a blank sheet of paper at the end of a printed file.

If you wish to delete this command from the file, save the file to your storage disk, and then call it back under Perfect Writer.

Delete the command under Perfect Writer, and then write it over the original file when returning it to storage.

3.2.5 The User-extendable Functions Library

This library, referenced in section I, page 7, of the first manual is nothing more than a separate Perfect Calc spreadsheet file in which each cell has been given a "function formula". This file may be brought into an active buffer and referenced from other active buffer spreadsheets.

3.2.6 Commands Should Be Lower Case

Control commands are not reliable when entered in upper case. Be sure that the cap lock is off when entering these commands.

3.2.7 Sequence of Recalculation

The default sequence of recalculation is from left to right and from top to bottom on the spreadsheet. When creating a formula, be sure that the terms in it make reference to only those cells that are recalculated before the formula you are creating (section VI, page 21, 1982 edition).

3.3 SOFTWARE LIMITATIONS AND ERRORS

3.3.1   Data and Formula Dropouts and Problems Calling Large Spreadsheets into Active Buffers

"Dropout" and "Callup" problems can be lessened in two ways:

A. Create a stripped-down program disk. This creates more space for the dynamic swap file as it expands off the CPU memory and onto the program disk. To create a stripped program disk, PIP PC.COM and PC.OVL from your existing program disk onto a blank, formatted diskette and then SYSGEN the disk. Use this new disk

to run your new or existing Perfect Calc files.

B. Divide your file by placing the second part of your spreadsheet into a second active buffer and associating it with the first. If you need to see the two parts simultaneously, split the screen between the two buffers.

3.3.2 Raising a Number (X) to a Power (Y)

Reference section VI, page 5, of the 1982 edition.

The 1.0 version of Perfect Calc does not give accurate answers to the "raise to a power" command (^) if the power is a decimal number (i.e., in x raised to the power y, the answer is generally not reliable if y is of the form a.b.)

The answers appear to be generally reliable, if the power is a positive integer.

3.3.3 Net Present Value Function

Reference section VI, page 11 of the 1982 edition.

In the 1.0 version of Perfect Calc, the NPV[x, range] function does not give the net present value calculated for year end. Strictly speaking, this function gives the PRESENT VALUE CALCULATED AT THE BEGINNING OF THE YEAR. The following table will help you correct the answer given by this function to the answer you desire.

	Present Value	NET Present Value
Calculated at Beginning Year	Current answer	Current answer $-$ Original Investment
Calculated at Ending Year	$\dfrac{\text{Current answer}}{x + 1}$	$\dfrac{\text{Current answer}}{x + 1} -$ Original Investment

3.4 DOCUMENTATION ERRORS

3.4.1 The Lock Formulas in Region Command

Reference section 6, page 19 in the 1982 edition.

Control-X 1 is unclear. The command is CONTROL-X- lowercase L.

4.0   PERFECT WRITER VERSION 1.03

and PERFECT SPELLER VERSION 1.1

4.1 PRINTER CONFIGURATION

4.1.1 Proper Operation of a Printer with Perfect Writer Depends on Four Things:

A. Proper switch settings in the printer. [See printer manual.]

B. Proper cable configuration.

Parallel printer operation is relatively simple. A parallel printer can usually be hooked up to the 36-pin Centronics (J2) connector on the back of the KAYPRO with a standard parallel cable. For details on parallel port pin-outs, see your Printer Manual; KAYPRO User's Guide, page 41; and Dealer Reference Manual, pages 22, 24, and 25. For details on serial port pin-outs, see your printer manual; the KAYPRO User's Guide, pages 42 and 43; and the Dealer Reference Manual, pages 13, 22, and 23. See also the "Configuring Peripherals" section in this bulletin.

C. Proper port setting on the KAYPRO (serial or parallel).

The default setting causes printer data to go out the parallel port. For serial printers, the data must be redirected out the serial port by using STAT or the CONFIG program on the CP/M disk. See KAYPRO User's Guide, pp. 42-43, and the KAYPRO Dealer Reference Manual, page 12. See also section 1.1.2 on "CP/M CONFIG" in this bulletin.

D. Proper configuration of Perfect Writer with the PFCONFIG program.

(See pp. A21-A41 in the Perfect Writer manual.)

4.1.2 Perfect Writer comes with the "Plain" printer definition as the default. This definition does not include all the codes needed to do special printer functions. However, this may be all you need to operate your printer satisfactorily. In most cases, this definition supports both boldface and underline functions. To try out your printer with this definition, see section 4.2 on How to Print a Test Document.

4.1.3 If Perfect Writer is not printing properly, you probably
need to configure your working copy of the Perfect Writer EDIT
disk for your particular printer. To do this:

1. Turn on the computer.

2. Put your working copy of the EDIT disk in drive A.

3. Put your working copy of the Perfect Writer INSTALLATION
    disk in drive B.

4. Press the reset button.

5. After the A> prompt, type: B:PFCONFIG

6. Press RETURN.

7. Read the display, and answer "No" when it asks if you want
    to change disks.

8. Follow the prompts to the master menu.

9. Choose #2 (Define printer types) by typing 2 and pressing
    RETURN.

1Ø. When the printer menu appears, choose #1. If your printer
    is listed, you will use it in the next step.

11. Choose #5 from the printer menu to define the default
    printer. The current default printer and the default
    console type will be displayed.

12. If your printer was listed in the last step, enter that
    name. If your printer was not listed, enter PLAIN or
    TELETYPE.

         PLAIN works for most dot-matrix printers and for
         letter-quality printers that do a carriage return
         without a line feed. TELETYPE works for most letter-
         quality printers that are capable of backspacing.

    For the name of the type for console output, enter CONSOLE.

13. When the printer menu comes up, choose #6 to exit to the
    main menu.

14. From the main menu, choose #6 to exit from PFCONFIG. Now
    the changes that you have made will be saved on the EDIT
    disk in the PF.DAT file.

    Note: If your printer was not on the list that comes up when
    you choose #1 on the printer menu and, if the PLAIN,

TELETYPE or VANILLA printer types do not work your printer,
you will either have to define a new printer type (#2 on the
printer menu) or update an existing printer definition (#3
on the printer menu) such as PLAIN. If you define a new
printer type, you will be asked several detailed questions
concerning your printer. So, either have your printer
manual handy, or get competent technical assistance.

Another note: A common problem that crops up with
letter-quality printers using the PLAIN definition is a
number "5" being printed at the top of a document. This is
remedied by updating the PLAIN definition through option #3
on the printer menu of the PFCONFIG program. The update
consists of deleting the bold face and italics strings (#21
and #23 in the definition) by pressing RETURN when asked for
the strings.)

For your information, we are supplying a list of printers not specifically supported by Perfect Writer. The list includes suggested definitions and the features supported by these definitions.

	PRINTER NAME	DEFINITION	FUNCTIONS SUPPORTED
1.	Brother HR-1	Plain	Boldface, Underscore
2.	C. ITOH Prowriter	Plain	Boldface, Underscore
3.	C. ITOH Starwriter	Teletype	Boldface, Underscore
4.	Comrex CR-1	Plain	Boldface, Underscore
5.	Daisywriter	Diablo 10,12, PS	All functions
6.	Diablo (all models)	Diablo 10,12, PS	All functions
7.	Epson (all models)	Epson G+	All except micro-justification, sub/superscript
8.	Gemini 10,15	Teletype	Boldface, Underscore
9.	I.D.S. 460	IDS 460	All functions
10.	Microprism	Plain	Boldface, Underscore
11.	NEC PC-8023A	Plain	Boldface, Underscore
12.	NEC Spinwriter (All models except 3500 series)	Spin 10,12,PS	All functions
13.	NEC Spinwriter 3500 series	Teletype	Boldface, Underscore
14.	Okidata (all models)	Plain	Boldface, Underscore
15.	Olivetti	Teletype	Boldface, Underscore
16.	Qume Sprint Series	Teletype	Boldface, Underscore

4.2 HOW TO PRINT A TEST DOCUMENT

This procedure allows you to test your printer to see if it works with Perfect Writer.

1. FORMAT two blank disks, using the CP/M disk (for this and the next step, see the KAYPRO User's Guide, pp. 23-26.)

2. COPY the Perfect Writer EDIT and LESSONS disks, and then SYSGEN the Perfect Writer EDIT disk.

3. Put the EDIT disk in the A drive.

4. Put the LESSONS disk in the B drive.

5. Enter CTRL-C or press the reset button.

6. From the A> prompt, type: MENU.

7. Press RETURN.

8. From the menu, type F to choose the formatting option.

9. When asked for the filename, type: B:TEST.MSS

10. Press RETURN.

11. When the format option menu comes up, press G to start formatting. This creates a file called TEST.FIN, which is a finished, formatted file.

12. When formatting is finished, the main menu will come up again.

13. From the main menu, type P for print.

14. When asked for the filename, type B:TEST.FIN

15. Press RETURN

16. When the print option menu comes up, type G to start printing the formatted file.

17. When the question "Printing 'B:TEST.FIN' on device 'PLAIN' OK?" comes up, if it is correct, press Y for yes.

18. Then the file, B:TEST.FIN, should start printing and give you an indication of what features you can get on your printer with the default printer definition. (See the previous section on printer configuration.)

4.3 SOFTWARE AND DOCUMENTATION ERRORS

4.3.1 Perfect Writer

A. ESC...K (delete to end of sentence) sometimes hangs up the system. Use CTRL-C instead.

B. CTRL-K (delete a line) does not function. Use CTRL-C instead.

C. CTRL-L (text command) has been changed to ESC...CTRL-L.

D. CTRL-J (indent new line) does not function. There is no other command for this.

E. CTRL-G does not abort printing in the Quick Print mode. There is no command to do this.

F. CTRL-G in Formatted Print mode aborts printing, but there may be some delay before the printer stops. The user may want to stop printing quickly by turning the printer off-line.

G. On page XIV-2 of the Perfect Writer manual, it says that VERBATIM is the default print mode of Perfect Writer. This is incorrect. The TEXT environment is the default mode. The VERBATIM mode must be specifically selected by typing the command in the document or using the V option on the format menu.

H. There is a discrepancy between page XIX-24 in the Perfect Writer manual and what is on the LESSONS disk in the file TEXT6.MSS. The file on the disk is correct.

I. Contrary to what is in the Perfect Writer manual (pages A-2 to A-20), the program PWCONFIG is not supplied with the KAYPRO. The license agreement with Perfect Software does not allow KAYPRO to distribute this program. Normal operation of Perfect Writer does not require this program.

J. As PWCONFIG is not supplied with the KAYPRO, the size of the PW.SWP swap file cannot be increased beyond 64K (about 30-40 typewritten pages). Also the features of the PWBINDINGS program are not available.

K. An @ command or carriage return must occur on the very first line of any document in order for the indentation of the first line to be correct when it is printed. This step will also help to avoid other print problems such as improper placement of spaces.

4.3.2 Perfect Speller

4.3.2.1 The M option on the Perfect Speller menu (change marker character) does not function. The marker character cannot be changed.

4.3.2.2 Perfect Speller checks spelling by roots and suffixes and will not catch certain misspellings. For example, the word "meet" and the suffix "ting" are perfectly legitimate in Perfect Speller. Thus, if you spell the word "meeting" as "meetting," it will pass through a Perfect Speller run without being marked.

4.4 COMMON MISTAKES AND QUESTIONS

There are certain errors and questions that come up repeatedly. The following are the most common ones we hear about at KAYPRO Technical Support:

4.4.1 Perfect Writer disks are often placed in the wrong disk drives. The end-user should be made aware that normal operation of Perfect Writer requires that the EDIT disk be in A and the document disk [a blank formatted disk] in B.

4.4.2 Many users make the mistake of trying to save their files on the EDIT disk in the A drive. There is virtually no space left on the EDIT disk as it comes from KAYPRO (1K is it), and thus the user will get a 'Disk Write' error and lose his files if he tries to save them on A. The user should always save on and retrieve his files from the B disk. Thus he should always precede his filenames with B: in order to avoid losing work.

4.4.3 Some users think that they must put the CP/M disk in A to boot the system and then put in the EDIT disk. This can result in BDOS R/O errors. They do not realize that they need to SYSGEN their EDIT disk after copying it. Then they can boot up with the EDIT disk.

4.4.4 BDOS Error on A:R/O (or BDOS Error on B:R/O) is perhaps the most common error message end-users get. There are several reasons for this:

> A. The user changes disks in either the A or B drives and does not do a CTRL-C [Warm Boot] or press the RESET button before trying to save a file to the changed disk. In this case, CP/M looks for the directory of the disk that was in the drive previously, does not find it, and gives a BDOS Error.

B. BDOS Errors also occur when the user tries to save a file on a disk that has a write-protect label on it.

C. BDOS Errors happen when there is no disk in the drive that the user is trying to write to.

4.4.5 The "Can't open file 'filename'" error message comes on screen sometimes when the user tries to format a file with Perfect Formatter. The error occurs if the user has not opened the file with an extension of .MSS and tries to format the file without its extension. For example, a file named B:TEXT.MSS is written and saved. If the user tries to format that file and types in the name of the file to be formatted as: B:TEXT, then Perfect Formatter assumes the default extension of .MSS and looks for the file named G:TEXT.MSS.

If, however, the user tries to format the file named B:TEXT.DOC, and types in the name of the file to be formatted as: B:TEXT, Perfect Formatter will still assume the default extension of .MSS, and the "Can't open file 'B:TEXT.MSS'" will be seen.

So, if no extension is desired, place a period (.) at the end of the filename when creating (editing) and formatting the file. And, if you are using an extension other than .MSS, when asked for the name of the file to be formatted, type in the whole file name, including the extension.

For Perfect Printer, the default extension of .FIN is assumed. The text file is put into a .FIN file when formatted. It is the .FIN file which gets printed. So, when asked for the name of the formatted file to print, type in only the name. Using the example above, when asked for the name of the file to be printed, the user would type: B:TEXT

4.4.6 There are certain Perfect Writer functions that people ask about:

A. How do I turn off the page numbering?

Insert an @Pagefooting() at the beginning of the document. Note that there is nothing between the parentheses.

B. How do I set the page number of a document to start with other than 1?

At the beginning of the document, put the command @SET(PAGE=X), where X equals the desired beginning page number.

C. How do I change the location of the printed page number?

Use the @PAGEHEADING command at the beginning of the document. The form is @PAGEHEADING (CENTER=@VALUE{PAGE}). The page number will then be printed at the top of the page in the center. It can also be printed at the left or right by using LEFT or RIGHT instead of CENTER.

D. How do I get a bigger swap file on the Perfect Speller disk so I can check spelling on a big file?

The following procedure will put the large swap file on the Perfect Speller disk:

1. Turn on the computer.

2. Put the CP/M disk in drive A.

3. Put PERFECT SPELLER in drive B.

4. Enter the command: CTRL-C

5. Type: PIP B:=A:PIP.COM[V]

6. Press RETURN. This transfers the PIP file to the Perfect Speller disk.

7. Now put the EDIT disk in drive A, and leave the Perfect Speller disk in drive B.

8. Enter the command: CTRL-C

9. Type: B:

10. Press RETURN.

11. Type: PIP B:=A:PW.SWP[V]

This transfers the big swap file to the Perfect Speller disk.

5.0 S-BASIC VERSION 5.4b

5.1 GETTING STARTED WITH S-BASIC

1. Place the CP/M S-BASIC master diskette in drive A.

2. Place a blank disk in drive B.

3. FORMAT the disk in drive B.

4. SYSGEN the disk in drive B.

5. COPY S-BASIC onto this blank diskette by typing the underlined portions.

```
A>PIP
*B:=A:PIP.COM[OV]         <RETURN>
*B:=A:SBASIC.COM[OV]      <RETURN>
*B:=A:OVERLAYB.COM[OV]    <RETURN>
*B:=A:USERLIB.REL[OV]     <RETURN>
*B:=A:BASICLIB.REL[OV]    <RETURN>

*                         <RETURN>
```

6. Take the disk from drive B, and put it into drive A.

7. Place the Perfect Writer EDIT disk into drive B.

8. Press the reset button on the back of the machine.

9. Copy Perfect Writer onto the S-BASIC diskette by typing the underlined portions.

```
A>PIP
*A:=B:PW.COM[OV]      <RETURN>
*A:=B:PW.SWP[OV]      <RETURN>
A>
```

Label the disk in drive A: PW/SBASIC

5.2 To Use the PW/SBASIC Disk:

1. Put the PW/SBASIC in drive A.

2. Put a blank, formatted disk labeled "SBASIC PROGRAMS" in

drive B.

3. Press the reset button.

4. Enter an S-BASIC program into the computer by typing the underscored portion:PW B:TRYOUT.BAS <RETURN>

5. When the Perfect Writer screen appears, type: "THIS IS MY FIRST S-BASIC PROGRAM"

6. Save by using the command: CTRL--X CTRL--S

7. Then exit Perfect Writer by using the command: CTRL--X CTRL--C

8. When the A> appears, type: SBASIC TRYOUT.BBX

This command will compile the program (see pages 3 to 6 of the beginner's section of the SBASIC Manual).

To run this program, type: B:TRYOUT

5.3

S-BASIC has no specific commands for clearing the screen or moving the cursor. However, S-BASIC can do these things on the KAYPRO. This is done by printing codes to the screen. For example:

PRINT CHR$(26);   Would clear the screen and move the
                        cursor to the upper left corner.

PRINT CHR$(7)   Would "BEEP" the KAYPRO.

All of the KAYPRO II codes are listed on the last page of the KAYPRO User's Guide and on page 27 (table 2-6) of the Dealer Reference Manual.

This S-BASIC routine may better help you use the cursor positioning.

Place these lines near the top of your program:


```
        PROCEDURE GOTORC (r,c=CHAR)
            REM UPPER-LEFT CORNER IS 0,0
            PRINT CHR(27); '='; r+32; c+32;
        END GOTORC
```

Then, when you want to move the cursor in your program, simply do

this:

GOTORC 3,4   to move the cursor to row 3, col 4

GOTORC 12,45   to move to row 12, col 45 (numbered from 0)

5.4 THERE ARE A FEW ERRORS IN S-BASIC:

1. The EXP(X) function may be inaccurate for increasingly large values of X.

2. A ^X is inaccurate if X>32767.

3. Array names cannot be more than 32 characters long.

4. The XOR function does not work for integers.

5. The SQR(X) function may be inaccurate for increasingly large and small values of X.

5.5

Many people have asked if values can be "poked" into the screen memory. The KAYPRO, although memory-mapped, does not allow the screen memory to be accessed during normal memory operations. Access to the screen memory requires "switching off" a portion of normal memory. Characters may be placed on the screen, using the screen codes in section 7.3.