

ProPrint Version 1.5

The Protext Print Enhancer

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Written By G.Denyer

For: 6128 Plus
464 Plus + Disc Drive
CPC 6128
CPC 664
CPC 464 + Disc Drive

CUSTOMER SUPPORT: 041 - 554 - 4735
Mondays to Fridays 7.00 to 10.00 PM

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This manual was written using ProPrint, Protext, Promerge Plus, Prospell and an Amstrad CPC 6128 with a KDS 8 Bit port and printed on a 9-pin Printer.

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● INTRODUCTION ●

ProPrint is a print enhancer which provides Prottext users with access to an unlimited number of high quality fonts. Facilities are provided which allow the use not only of the supplied ProPrint fonts, but also those from Stop Press, MicroDesign, the Advanced Art Studio, and ones you may design with the ProPrint Font Designer.

It will work equally well with the ROM, Disc or Tape version of Prottext and also operates with Promerge and Promerge Plus. It is compatible with all CPC computers including the 6128^{plus} and 464^{plus}, with the proviso that at least one disc drive is fitted. The programs will work with any EPSON compatible¹ dot matrix printer (9 or 24-pin²) and will also detect ROMDOS for the benefit of users of three and a half inch disc drives.

ProPrint has been designed to be as flexible as possible and will adapt to suit your system whatever extra peripherals you may have connected. Whether you want an unusual font for titles, or you are simply tired of your printer's own font(s), ProPrint has the answer.

● GETTING STARTED ●

Your ProPrint disc has been configured so that you can use it straight away. The default set-up is as follows:

● Printer Port	Internal 7 Bit
● Fonts in BOOT.PPF	3
● Font 1	ROMAN-L
● Font 2	ROMAN-LB (Bold)
● Font 3	ROMAN-LI (Italic)

This set-up allows instant access, from any point in a document, to the three fonts listed but will not initialise any 8-bit printer port you may have connected.

● CUSTOMISATION ●

It is very likely that at some time you will want to alter some or all of ProPrint's default settings. Users of PLUS machines in particular will want to take advantage of their machine's built-in 8-Bit Printer Port. To carry out the alterations, insert side A of your ProPrint disc in the drive, type RUN*CUSTOMIZ and press [RETURN].

The program is menu driven and will prompt for your selections. However, if you make any changes, do not forget to select Option 3 on the main menu (Save Selections) before selecting Option 4 (Quit), which resets the computer. The options available from the menu are described overleaf.

¹ The Printer Control Codes which ProPrint uses are listed on page 7.

² If you intend to use ProPrint with a 24-pin printer please read the section entitled 24-Pin Printers on page 7.

Option 1. Select Default Fonts

This option allows you to select the font(s) which ProPrint automatically loads every time you run the program. There can be from one to five fonts, each of which can be switched on at any point in your Protext documents by inserting a Printer Control Code in the text.

Bear in mind that each default font reduces the space available to Protext by 3081 characters. It may be wise to have less than five default fonts if you are dealing with large documents. In any case, ProPrint allows fonts to be loaded from disc either from Protext's Command Line or by use of an embedded command in the text.

There are over forty fonts provided on your disc...

3D-L	EXTRAS-1	ROMAN-S	SANS-SB	SANS2-L	THIN-LI
BLOCK-L	EXTRAS-2	ROMAN-SB	SANS-SI	SANS2-LB	TYPE-L
BLOCK-LB	HITECH-L	ROMAN-SI	SANS-SUB	SANS2-LI	TYPE-LB
BLOCK-LI	HOLLO-L	ROUND-L	SANS-SUP	SERF-SUB	TYPE-LI
BRDWAY-L	OLDENG-L	ROUND-LB	SANS1-L	SERF-SUP	TYPE-S
CAPS-L	ROMAN-L	ROUND-LI	SANS1-LB	THIN-L	TYPE-SB
CAPS-LB	ROMAN-LB	SANS-S	SANS1-LI	THIN-LB	TYPE-SI
CAPS-LI	ROMAN-LI				

All ProPrint fonts have the filetype .PPF. The letters after the dash in the filename indicate the font style. We recommend that you use these conventions if you produce your own fonts with the ProPrint Character Designer.

L...Large S...Small B...Bold I...Italic
SUB...Subscript SUP...Superscript

Whenever Option 1 displays the available fonts on a disc, it always adds the words **No Font** at the end of the list. If at some point you want to reduce the number of default fonts, then select **No Font** in place of the font in the highest position. The default fonts are stored in the file BOOT.PPF which must contain at least one font for ProPrint to function correctly. DO NOT ERASE this file.

Option 2. Identify Printer Port

A total of seven 8-Bit Printer Ports are supported...

- The Goldmark Mark 1 Port
- The KDS Mark 1 Port
- The KDS Mark 2 and 3 Ports
- The Electric Studio Port
- The ACU Project Port
- The BrunWord Elite Port
- The PLUS Machines' Port

If you are using a PLUS machine then it will be detected automatically and the code to operate the built-in 8-Bit Port installed without any further input. The other Ports must be selected manually from the menu. If you have accidentally selected an 8-Bit Port, you can reselect the internal 7-Bit or another 8-Bit Port by re-selecting this Option from the main menu and answering **No** to the question "Is There An 8 Bit Port Connected?".

Option 3. Save Selections To Disc

Select this option to update your ProPrint disc with any changes you have made via Options 1 or 2.

Option 4. Quit

Resets your computer.

● **RUNNING PROPRINT** ●

If you are new to Protex, we recommend that you familiarise yourself with it thoroughly before attempting to use it in combination with ProPrint.

It is wise to reset your computer before using ProPrint, either by switching it off then on, or by holding down [CONTROL]+[SHIFT] then pressing [ESC].

If you have either the disc or tape versions of Protex, then **before** running ProPrint, you must run Protex as normal and then quit to Basic, by pressing [Q] then [RETURN] from the Command Line.

If you are using the ROM version of Protex, then you should merely check that Protex has signed on.

Insert your ProPrint disc in the drive and type RUN*DISC [RETURN]. After ProPrint has loaded, it will boot up Protex as normal. To check that ProPrint has installed correctly, type INFO [RETURN] from the Command Line. This will display the ProPrint information page.

● **USING PROPRINT** ●

ProPrint controls the way text is printed by means of 20 commands. 11 of these are accessed via Printer Control Codes which may be entered anywhere in a document. The remaining 9 commands are External Commands which must be entered either from Protex's Command Line or on a line in the text which begins with Protex's >ex stored command.

ProPrint also defines an extra character... ● which is available at all times no matter which font is in use. To use it, hold down [CONTROL] and press [2]. The character will appear on screen as ~.

The Printer Control Codes

Font selection: Code Effect

a	switch on font 1
b	switch on font 2
i	switch on font 3
s	switch on font 4
t	switch on font 5

These codes correspond to the default Protex Control Codes for normal, **bold**, *italics*, *subscript* and *superscript*. For convenience, we recommend that fonts are loaded in such a way that entering, for example, the Printer Control Code **i** (switch on font 3) will indeed switch on an italic font. Of course you can load any font irrespective of its attributes, into any of the font positions, if that is your wish!

ProPrint's use of the above five codes differs slightly from that of Protex. Where Protex uses them to toggle on and off the particular effect, ProPrint uses them only to switch the particular font on.

For example, the normal Protex method used to print in italics is to insert the **i** Control Code immediately before and after the word(s) to be printed in italics (**iitalicsi**). To achieve the same effect in ProPrint it is necessary to insert the **i** Control Code immediately before and the **n** Control Code immediately after.... **iitalicsn**.

Of course, this example assumes that the normal and italics version of a font are loaded into font positions 1 and 3 respectively.

Style selection: Code Effect

c	toggle condensed
l	toggle enlarged
p	toggle proportional
a	toggle NLQ
r	toggle reversed
u	toggle underline

These codes toggle on and off the particular effect, acting on whichever font is currently switched on. For example, **l**enlarged**l** on screen appears as **enlarged** on paper.

The **r** Control Code causes subsequent characters to be printed "white on black" as seen in the section headings of this manual. Bold fonts produce the best results when printing in reversed inks mode.

Note that ProPrint's default setting is NLQ ON, so the first use in a document of the **a** Control Code will switch ProPrint to Draft Mode. We recommend that Draft Mode is used to check page layouts because it prints twice as fast as NLQ, but do remember to reselect NLQ before final printing.

The External Commands

These commands may be used directly from Protex's Command Line by typing the command (and any required parameters) then pressing [RETURN]. Alternatively, they may be included in your documents by the use of Protex's **>ex** Stored Command (See page 33 of your Protex Manual and the example .DOC files on the ProPrint disc).

GAP *n* Set the gap between characters in proportional printing to *n* dots. *n* can be in the range 1 to 100 (The default is 2). This is a global command which is to say it affects all the fonts.

SPACE <i>f n</i>	Sets the width of the space character in font number <i>f</i> to <i>n</i> dots wide. <i>f</i> must be in the range 1 to 5 and <i>n</i> must be in the range 1 to 100.
WIDTH <i>f n</i>	Sets the width in <i>n</i> dots at which characters in font number <i>f</i> will be printed in non-proportional mode. <i>f</i> must be in the range 1 to 5 and <i>n</i> must be in the range 1 to 16.
LFEED <i>n</i>	Sets the size of a line feed to <i>n</i> x 216 for 9-pin printers or <i>n</i> x 180 for 24-pin printers. <i>n</i> must be in the range 0 to 255.
INFO	Displays the current state of all the above settings and the currently loaded fonts.
REVERSE <i>n</i>	Performs a reverse line feed <i>n</i> times. Uses the current <code>lfeed</code> setting for each reverse line feed.
FONT <i>n filename</i>	Loads a file into font position <i>n</i> . The .PPF filetype may be omitted from the <i>filename</i> . Please note that settings for both Width of Space and Non-Prop. Width will be automatically updated by this operation.
RESET	Performs a complete reset of all ProPrint's settings to their default values and switches on font 1. It is wise to include the stored command <code>>ex reset</code> at the beginning of documents to ensure your machine will respond correctly to ProPrint commands encountered later in the text.
PROPRINT <i>n</i>	Switches ProPrint off if <i>n</i> is 0 (allows use of printer's own fonts). Switches ProPrint on if <i>n</i> is 1.

● TROUBLESHOOTING ●

Included on the disc are several document files (EXAMPLE-.DOC) which demonstrate the use of the various ProPrint commands. A print-out of these files is included at the end of this manual where you will also find print-outs of the supplied fonts. The examples attempt to show you how to get the best from ProPrint, but for your convenience, listed below are some of the most common errors and their remedies.

Problem Text on the right of a document is "lost" over the edge of the page when printed.

Remedy

1. Shorten the length of the printed line by using the **space** command to reduce the width of the space character and/or the **gap** command to decrease the space between characters.
2. Decrease the width of the document by inserting a new Protext Ruler and reformatting the text.
3. Use a narrower font.

Problem Printhead reaches the bottom of the paper before the page break in the document even though the page length has been correctly set.

Remedy Use the **lfeed** command to reduce the space between lines. A value of 36 on a 9-Pin Printer or 30 on a 24-Pin will produce line spacing of 6 lines per inch. Refer to the table on page 15 to see the effect of reducing the **lfeed** value.

Problem During printing, an **>ex font ...** command embedded in the middle of the text gives the file not found error message, but ProPrint continues to print using the font already in memory.

Remedy Insert the **>wt** stored command (see below) on the line before the **>ex font ...** command. This will cause ProPrint to wait while you check that the correct disc is in the drive.

>wt Insert Font Disc Then Press a Key

Printer Compatibility

ProPrint uses the following Printer Control Code sequences...

Code	Decimal	Hex	Function
ESC @	27 64	1B 40	Reset Printer
ESC 3 + parameter	27 51 n	1B 33 n	Set n/216* paper feed rate
ESC J + parameter	27 74 n	1B 4A n	One-shot n/216* forward feed
ESC j + parameter	27 106 n	1B 6A n	One-shot n/216* reverse feed
ESC Z + parameters	27 90 n..	1B 5A n..	Select Quad Density Graphics

If you are having problems with printing from ProPrint, please check these codes against those given in your printer manual.

NB. If you are using a 24-pin printer then the above codes will produce n/180 inch paper feeds, in place of n/216.

24-Pin Printers

ProPrint is supplied to run with a 9-pin printer. If you wish to use it with a 24-pin printer then simply reset your computer, insert your ProPrint disc and type:

RUN*24PIN [RETURN]

If you should want to restore ProPrint for use with a 9-pin printer then reset your computer, insert your ProPrint disc and type:

RUN*9PIN [RETURN]

Both these programs simply adjust the default **lfeed** value. After running either of them you can resume using RUN*DISC to run ProPrint.

● THE PROPRINT CHARACTER DESIGNER ●

The ProPrint character designer is a versatile tool which contains many features....

- Produces ProPrint or Stop Press format fonts
- Accepts Stop Press, Art Studio and MicroDesign fonts
- Holds two fonts in memory - allows cross-editing
- Comprehensive editing facilities
- Includes Disc Manager

● RUNNING THE DESIGNER ●

To run the designer, reset your machine either by switching it off then on, or by holding down [CONTROL]+[SHIFT] whilst pressing [ESC]. At the Ready prompt type RUN*DESIGN [RETURN].

Once loaded, the designer screen appears, which includes the following:

The 16 x 16 cell character editing grid, which contains an enlarged representation of the currently selected character.

The normal ASCII representation of the currently selected character together with it's numerical value in decimal and hexadecimal.

A graphic representation of the current character as it will appear on the printer in Normal and Compressed modes.

The Character Set number and name.

The complete Character Set (94 characters) with a box cursor around the currently selected Character.

A reminder that the help page can be summoned by pressing the [?] key.

● USING THE DESIGNER ●

The Designer uses the concept of global and non-global functions. Global functions are those which affect all 94 characters in the currently selected character set whilst a non-global function is one that will affect only the character displayed in the 16 x 16 cell editing grid.

All movement is controlled by the Cursor Keys....

Pressing a Cursor Key moves the cursor inside the 16 x 16 editing grid.

Pressing a Cursor Key whilst holding down the [SHIFT] key scrolls the contents of the editing grid. Scrolling part of a character off one edge of the editing grid will cause it to reappear on the opposite edge.

Pressing a Cursor Key whilst holding down [CONTROL]+[SHIFT] scrolls all 94 characters of the currently selected character set

Pressing a Cursor Key whilst holding down [CONTROL] moves the box cursor around the Character Set, allowing the selection of characters for editing. Note that the editing grid is constantly updated.

● THE DESIGNER KEYS ●

Some keys are dual-purpose in that they can be used to select either a global or non-global function. Pressing a dual-purpose key on it's own will invoke the non-global function. Pressing the key whilst holding down [CONTROL] invokes the global function.

Key	Function
[?]	Displays the HELP PAGE which gives a brief description of the available keys and their functions.
[SPACE]	Toggles the cell beneath the cursor in the 16 x 16 editing grid between black and white.
[CLR]	Clear editing grid.
+ [CONTROL]	Clear the currently selected character set. Confirmation is requested.
[COPY]	Copies contents of editing grid to character set. Cursor Keys move box cursor to destination. [RETURN] fixes the operation.
[R]	Rotates the contents of the editing grid 90 degrees clockwise.
+ [CONTROL]	Rotates the contents of the currently selected character set 90 degrees clockwise.
[N]	Normalize Character. Resets the contents of the editing grid to its original form.
+ [CONTROL]	Resets the contents of the currently selected character set to the form in which they were loaded. Confirmation is requested.
[P]	Sends the contents of the editing grid to the printer.
+ [CONTROL]	Sends the contents of the currently selected character set to the printer. Compressed, normal or expanded printing is supported.
[X]	XOR the contents of the editing grid. ie. reverse inks.
+ [CONTROL]	XOR the contents of the currently selected character set. NB. This function should not be used until justification has been carried out (see [J]).
[G]	Goto Character. Cursor keys move box cursor around character set. [RETURN] copies selected character to the editing grid.
[M]	Merge contents of the editing grid onto one of the 94 characters in the currently selected character set. Cursor keys move box cursor to destination. [RETURN] fixes the operation and updates editing grid with the result of the merge.

- [J] Justify the character in the editing grid. Requires secondary input to select type of justification which can be either left, right, or centred.
- + [CONTROL] Justifies the contents of the currently selected character set in the manner specified by the secondary keypress.
Centred characters which are wider than the current width setting (see [W]) will cause a warning tone to sound.
NB. This function will not work on characters which have been XORed to white on black. Use the [X] function again to reverse the inks before using [J].
- [H] Flip the contents of the editing grid horizontally from left to right.
- + [CONTROL] Flip the contents of the currently selected character set horizontally from left to right.
- [V] Flip the contents of the editing grid vertically from top to bottom.
- + [CONTROL] Flip the contents of the currently selected character set vertically from top to bottom.
- [D] Selects the Disc Menu for loading/saving fonts etc. Refer to The Disc Manager on page 11 for details.
- [B] Embolden the contents of the editing grid.
- + [CONTROL] Embolden the contents of the currently selected character set.
- [T] Thin out the contents of the editing grid. ie. the opposite of the [B] command.
- + [CONTROL] Thin out the contents of the currently selected character set.
- [I] Italicise the contents of the editing grid.
- + [CONTROL] Italicise the contents of the currently selected character set.
- [W] Sets the width markers at the top and bottom edges of the editing grid to the desired width. Numerical input required. The width setting is used when printing in non-proportional mode. It defines how much the printhead will move after printing a character. Maximum setting is 16.
- [Y] Swap the character identified by the box cursor with the character in the other character set which occupies the same position in that character set. The contents of the editing grid are updated accordingly.
- + [CONTROL] Selects the other character set and updates the screen accordingly.
- [U] Copy the contents of the editing grid to the other character set. Cursor Keys move box cursor to destination. [RETURN] fixes the operation.
- + [CONTROL] Copy the contents of the currently selected character set to the other character set. ie. Duplicate the currently selected character set. Confirmation is requested.

- [O] Merge the contents of the editing grid onto one of the 94 characters in the other character set. Cursor Keys move box cursor to destination. [RETURN] fixes the operation and updates the editing grid.
- + [CONTROL] Merges the contents of the currently selected character set onto the other set. Confirmation is requested.
- [ESC] Aborts current operation. If no operation in progress requests confirmation before quitting to Basic.
- [/] Displays the HELP PAGE which gives a brief description of the available keys and their functions.

● THE DISC MANAGER ●

The Disc Manager, which supports the ROMDOS 3½" disc operating system, provides all the basic functions needed to organise your ProPrint font discs. Calling up the Disc Manager from the Designer (via the [D] key) presents you with the following menu:

- [C] Catalogues the disc in the current drive.
- [D] Toggles the current drive between A and B. The current drive is displayed at the bottom of the screen.
- [U] Cycles through the user numbers between 0 and 15. The current user number is displayed at the bottom of the screen.
- [L] Loads a font into the designer. Requests further keypress to select Stop Press, ProPrint, Art Studio or MicroDesign font type.
 Selecting Art Studio requires a further keypress to select conversion size which can be full ProPrint size, subscript or superscript.
 After selection of font type, displays all files on the disc in the current drive of the selected type. Cursor Keys highlight filenames. [RETURN] loads selected file.
 NB. MicroDesign .IC files do not contain the full 94 characters.
- [S] Saves the currently selected character set to disc.
 Requests a further keypress to select ProPrint or Stop Press format.
 Selecting Stop Press format will invoke a request for a descriptive name and date to save with the font. Enter the name (16 characters max.), press [RETURN] then enter the date and press [RETURN] once more.
 Both formats request a filename.
 NB. When a font is saved in ProPrint format, the name of the font is saved inside the file so changing the filename in the disc directory will not change the name displayed either in the designer or on the ProPrint information page. If you wish to change the name of a font, load it into the designer and then re-save it with a different name.

- [E] Catalogues the disc in the current drive and then asks for a filename to erase.
- [R] Catalogues the disc in the current drive and then asks for the current filename and the new one before renaming the file.
- [ESC] Aborts the current operation or returns you to Character Designer.
-

● QUICK CONVERSION OF STOP PRESS FONTS ●

Stop Press fonts can be converted to ProPrint format quickly and simply as follows. Insert side A of your ProPrint disc and at the Ready prompt type RUN*CREATE [RETURN]. Follow the on screen instructions and it will convert a Stop Press .FNT file into a ProPrint .PPF file.

Whilst this program will do the job effectively, we recommend that you use the ProPrint Character Designer which will give you far greater control over font conversion. The Designer's features are described on the following pages.

● THE EXAMPLES ●

The following five pages show the results of printing the .DOC files from side one of your ProPrint disc. They are designed for use with the supplied version of ProPrint (3 default fonts) and a 9-pin printer. To convert them for use with a 24-pin printer it is necessary to reduce all the **lfeed** values by a factor of 6. For example, all occurrences of the stored command **>ex lfeed 36** must be altered to **>ex lfeed 30**.

● ProPrint - Example One

Please run ProPrint then load the file EXAMPLE1.DOC from your ProPrint disc.

You will see that the top line of the document is a Comment Line which states how many fonts the document requires. Page 3 of this manual explains that ProPrint can be customised to store from 1 to 5 fonts in memory. It is good practice to include font requirements at the start of all your documents.

The `>ex reset` command (line 2) ensures that ProPrint is in its default state before you begin printing. This is particularly important when printing several documents in succession, to avoid unwanted effects being carried over from one document to the next. Include it at the start of all your documents.

The Protext stored command `>wt Insert Font Disc Then Press a Key` (line 3) should always be inserted before any ProPrint embedded command to load a font from disc. If ProPrint cannot find the font on the disc, the **file not found** message will be displayed and printing will continue, using the font(s) already stored in memory. The `>wt OK?` command (line 7) prevents this possibility by giving you the opportunity to press the [ESC] key to return to Protext's command line, if an error has occurred.

The `>ex space 2 12` command (line 8) sets the width of the space character in font 3 (block-lb) to 12. Whenever this command is used to change a font's default setting, it must be used **AFTER** that particular font has been loaded, because the value for **Width of Space** is automatically set from the value contained in each font file.

The same rule applies to the use of the `>ex width 1 12` command (line 9) which sets the width of all characters in font 1 (block-l) to 12. This is the value which will be used when printing in non-proportional mode. This command can be used to improve the appearance of non-proportional text by reducing the width setting slightly. But please remember that reducing the width setting to less than the width of the widest character in the font, will result in that character being only partially printed. By way of example, the following line was printed with a width setting of 9....

F non-proportional line printed in BLOCK-L at width 9.

Notice that Protext's page layout commands have been kept separate from ProPrint's commands. Organising the commands in this way will help you learn the relationships between the Protext commands you are familiar with, the ProPrint commands you now have at your disposal, and the finished result when the document is printed. You may also find it useful to build up a library of 'templates' for different page layout/font combinations by saving to disc as separate files, blocks of commands such as those used at the start of this document, including the ruler line. These can then be used to set up page layouts, avoiding the tedium of re-typing them.

There are several factors which you should take into account when creating a ruler line, apart from the usual considerations of non-proportional or proportional, condensed or enlarged, and paper size. Firstly, ProPrint's fonts vary in overall width, so a ruler line which is suitable for one font may not be suitable for another. In particular, you should note that in general, bold and italic versions of a font are wider than the normal version. Secondly, the settings for gap between characters, width of space character, and non-proportional width of characters will all have an influence on the most suitable ruler length....see EXAMPLE2.DOC.

● ProPrint - Example Two

Please run ProPrint then load the file EXAMPLE2.DOC from your ProPrint disc.

This page deals with the **gap**, **space** and **width** commands all of which will affect the printed width of the text.

The **gap** command affects text printed in proportional mode only. It is used to alter the amount of white space between adjacent characters. The default value is 2, which is the value in use for this paragraph by way of the **reset** command in line 2. This command is not font specific. That is to say that the current value will be used for all fonts until it is changed either by another **gap** command or by the **reset** command. It is not affected by the loading of fonts.

It may be that you prefer the look of text printed with a **gap** value of 3 as in this paragraph. However, it must be remembered that increasing the **gap** value will add to the printed length of lines, and may alter the visual balance of the page. If this is the case, then it may be desirable either to shorten the ruler line by a few characters (as in this paragraph) or to adjust the side margin with a **>sm** stored command.

On some occasions when printing in proportional mode, a single line may benefit from an increased **gap** value simply to improve the appearance of the right-hand 'ragged' edge of the text, as in the first line of this paragraph.

And so to the **space** command. This command affects text printed in both proportional and non-proportional modes and is used to alter the amount of white space between words. Every ProPrint font has a default **space** value which is loaded with the font. As with the **gap** between characters, the size of the **space** between words is generally a matter of personal taste. However, there are one or two points to remember when altering a font's **space** value.

Firstly, do not forget that the **space** command affects only the font specified. If you are using a *combination of fonts* (say normal, bold and italic) it would be wise to alter the **space** value of all of them by a similar amount, as has been done for this paragraph.

Secondly, as you can see, altering the **space** value also alters the left margin so it is wise not to make alterations in the middle of a page! But it is worth remembering that reducing the **space** value, increasing the length of the ruler line by a character or two and reformatting the text, may be the answer when you find yourself with one line too many to fit on the page.

And lastly, when printing in non-proportional mode (to take advantage of Protext's Right-Justify formatting), altering the **space** value so that it does not match the **width** value will have the effect of making the right margin 'ragged', as the right-hand margin of this Right-Justified paragraph serves to demonstrate.

The **width** command affects text printed in non-proportional mode only. It defines how much the printhead moves after printing each character (except spaces). It is similar to the **gap** command in that it is used to alter the amount of white space between characters, but differs in as much as it is font specific like the **space** command (every ProPrint font has a default **width** value which is loaded with the font). When altering the **width** value, do not forget to alter the **space** value to match. And don't forget that, as you can see, doing so will alter both the margins! ●

● ProPrint - Example Three

Please run ProPrint then load the file EXAMPLE3.DOC from your ProPrint disc.

This page deals with line lengths and the lfeed command.

When using Prottext alone, printing a line of text that is longer than the printer's carriage width causes the printer to print an extra line to accommodate the excess characters. This not only destroys the vertical proportions of the page but can often cause the printer to reach the bottom of the paper before the whole of the page has been printed. ProPrint deals with lines that are longer than the printer's capacity by discarding the excess characters. The advantage of this method is that the vertical proportions of the page remain intact and, consequently, you can continue to print the rest of the page (for error-checking purposes), without fear of your printer running out of paper. However, this does mean that extra care must be taken to check for lines which are too long and have therefore been cut short.

ProPrint can set the size of line feeds in 216ths of an inch on a 9-pin printer or 180ths of an inch on a 24-pin. The default values are 36 and 30 respectively which equate to 6 lines per inch. These were chosen to give maximum compatibility between Prottext's default Print Options and ProPrint. However, there is no reason to stick to these values providing you alter Prottext's page length to accommodate any change you make to the lfeed value.

Let's suppose that we have the following setup:

Page Length	66
Top Margin	0
Bottom Margin	6
Printer Pins	9

This will give us 60 lines of text per page. If we were to change the lfeed value to 35 then the last line of the page would be printed 60/216ths of an inch nearer the top of the paper. In other words, reducing the lfeed value by just one point means that we can print our 60 lines in the space it previously took to print between 58 and 59 lines. It follows that we can increase the Page Length to 67 or 68 (61 or 62 lines of text) without corrupting the top or bottom margins by any significant amount. If you find this confusing then the table below lists suitable lfeed value/Page Length combinations.

lfeed value	Page Length	
	9-pin	24-pin

23	99/100	84/85
24	96	81
25	92/93	78
26	89/90	75/76
27	86	72/73
28	83/84	70/71
29	80/81	68/69
30	78	66
31	75/76	64/65
32	73/74	62/63
33	71/72	60/61
34	69/70	58/59
35	67/68	57/58
36	66	56

It is advisable when adopting any of these combinations to set the top margin to zero and manually to position the paper so that printing will begin at the desired distance from the top edge.

It should be noted that if you are printing several pages, using different lfeed value/Page Length combinations for each page may result in fractional differences in the size of the bottom margin. Fine tuning can be achieved by altering the lfeed value for the blank lines between paragraphs, such as in lines 18/19 and 25/26 of this document.

● ProPrint – Example Four

Please run ProPrint then load the file EXAMPLE4.DOC from your ProPrint disc.

This page deals with tables, columns and the reverse command. And last but not least, the proprint command.

Under normal circumstances, the use of tab markers in a Protext ruler line requires the use of non-proportional printing in order to ensure that the columns remain in line. If you are producing columns of figures then this is still the best method. However, if you are using tabs to align columns of text then ProPrint offers the facility to successfully combine both tabs and proportional printing by way of the reverse command.

Suppose we have a list of ProPrint's features which we want to display in two columns. Normally we would insert a ruler line with tabs at the desired positions and then we would select non-proportional mode before typing in the list:

- Over 40 quality fonts
- Can use Stop Press fonts
- Works on all CPC's
- Supports 9 & 24-pin printers
- Micro-variable line spacing
- Versatile font designer included
- ROMDOS compatible
- Comprehensive manual

Not bad, but by using the reverse command we can use proportional printing to improve the appearance thus:

- Over 40 quality fonts
- Can use Stop Press fonts
- Works on all CPC's
- Supports 9 & 24-pin printers
- Micro-variable line spacing
- Versatile font designer included
- ROMDOS compatible
- Comprehensive manual

The reverse command is very simple to use. However, it is important to remember that whenever it is used the page length must be increased by the total number of reverse line feeds on the page, otherwise the page breaks will occur earlier than they should. Note the >pl 64 stored command at the beginning of this document which takes account of the >ex reverse 4 stored command on line 32.

The proprint command, like all other ProPrint commands can be used either as a stored command within the body of your text or from the Protext command line. It's function is to switch ProPrint on or off. It is perhaps most useful to users whose printers have features such as double height printing, which they might wish to use in conjunction with ProPrint. Should you wish to access any of your printer's features you must first switch ProPrint off, and then use Protext's >oc command to send the necessary codes to the printer. A simple example of how to do this, which merely sounds the printer's beeper, is included here:

Switching ProPrint off then on in this way does not affect any of ProPrint's settings. Printing will continue to use the font which was selected immediately before ProPrint was turned off. However, please note that using an >oc command while ProPrint is switched on will give unpredictable effects.

And finally, if you are a Promerge user who is in the habit of using the TW (Typewriter) command, you should know that selecting TW whilst ProPrint is switched on will result in whatever you type at the keyboard being printed in the currently selected ProPrint font.

● Unusual Characters

There is no reason why the character sets you design should all be in normal ASCII format. The Designer is equally suitable for designing sets of symbols for special purposes. As an example, there are two fonts supplied with ProPrint called EXTRAS-1 & EXTRAS-2 which contain many varied symbols instead of characters. The tables below show which keys correspond to which symbol and beneath them are examples of how these symbols might be used in practice. The file EXTRAS.DOC demonstrates how this example was produced.

EXTRAS-1

!	=	☺	"	=	☹	#	=	#	\$	=	⌘	%	=	↗	&	=	⊗	'	=	↕
(=	▲)	=	▼	*	=	√	+	=	↑	,	=	×	-	=	↕	.	=	↗
/	=	◀	0	=	⊙	1	=	①	2	=	②	3	=	③	4	=	④	5	=	⑤
6	=	⊙	7	=	⑦	8	=	⊙	9	=	⊙	:	=	↔	:	=	⊗	<	=	↖
=	=	*	>	=	➤	?	=	▲	@	=	⊗	A	=	⊗	B	=	⊗	C	=	⊗
D	=	↖	E	=	—	F	=	↖	G	=	—	H	=	↖	I	=	↖	J	=	↑
K	=	—	L	=	⊥	M	=	⊥	N	=	⊥	O	=	+	P	=	⊥	Q	=	⊥
R	=	≡	S	=	⊥	T	=	≡	U	=	⊥	V	=	≡	W	=	⊥	X	=	⊥
Y	=	≡	Z	=	≡	[=	≡	\	=	➤	J	=	⊗	↑	=	△	_	=	↕
.	=	°	a	=	⊗	b	=	⊗	c	=	⊗	d	=	↓	e	=	Σ	f	=	↗
g	=	↖	h	=	↖	i	=	⊗	j	=	↖	k	=	⊗	l	=	↑	m	=	↖
n	=	↖	o	=	⊗	p	=	π	q	=	↓	r	=	→	s	=	⊗	t	=	⊗
u	=	↑	v	=	⊗	w	=	⊗	x	=	⊗	y	=	↖	z	=	↑	{	=	⊗
	=	○	}	=	⊗	£	=	~	●	=	●									

EXTRAS-2

!	=	⊗	"	=	⊗	#	=	⊗	\$	=	⊗	%	=	⊗	&	=	⊗	'	=	⊗
(=	⊗)	=	⊗	*	=	⊗	+	=	⊗	,	=	⊗	-	=	⊗	.	=	⊗
/	=	+	0	=	○	1	=	○	2	=	●	3	=	●	4	=	□	5	=	⊗
6	=	■	7	=	■	8	=	■	9	=	■	:	=	:	:	=	⊗	<	=	↖
=	=	≈	>	=	➤	?	=	⊗	@	=	□	A	=	⊗	B	=	≡	C	=	⊗
D	=	≡	E	=	⊗	F	=	≡	G	=	⊗	H	=	≡	I	=	⊗	J	=	⊗
K	=	⊗	L	=	⊗	M	=	⊗	N	=	⊗	O	=	⊗	P	=	⊗	Q	=	⊗
R	=	⊗	S	=	⊗	T	=	⊗	U	=	↖	V	=	—	W	=	↖	X	=	—
Y	=	↖	Z	=	↖	[=	⊥	\	=	⊥	J	=	⊥	↑	=	⊥	_	=	—
.	=	⊗	a	=	↑	b	=	⊗	c	=	⊗	d	=	↓	e	=	⊗	f	=	⊗
g	=	⊥	h	=	⊗	i	=	⊗	j	=	⊗	k	=	⊗	l	=	↑	m	=	⊗
n	=	⊗	o	=	⊗	p	=	⊗	q	=	□	r	=	⊗	s	=	⊗	t	=	↖
u	=	↑	v	=	⊗	w	=	⊗	x	=	⊗	y	=	⊗	z	=	⊗	{	=	⊗
	=	⊗	}	=	⊗	£	=	⊗	●	=	●									

BOXING TITLES

BOXING TITLES 2

FANCY BORDERS

3D-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

BLOCK-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

BLOCK-LB

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

BLOCK-LI

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

BRDWAY-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

CAPS-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

CAPS-LB

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

CAPS-LI

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

HITECH-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

HOLLO-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

0123456789-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
0123456789abcdefghijklmnopqrstuvwxyz

ROMAN-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

ROMAN-LB

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

ROMAN-LI

!"#\$%&'()*+,-./0123456789:;<=>?@[\]^_`{|}£●
ABCDEFGHIJKLMNopqrstuvwxyz

ROMAN-S

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

ROMAN-SB

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

ROMAN-SI

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

ROUND-L

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

ROUND-LB

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

ROUND-LI

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

SANS-S

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

SANS-SB

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

SANS-SI

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

SANS-SUB

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

SANS-SUP

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

SANSI-L

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

SANSI-LB

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

SANSI-LI

!"#\$%&'()*+,-./0123456789;:<=>?@[\\]_`{|}~€●
ABCDEFGHIJKLMNopqrstuvwxyz

SANS2-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

SERP-SUP

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

THIN-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

THIN-LB

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

THIN-LI

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

TYPE-L

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

TYPE-LB

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

TYPE-LI

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

TYPE-S

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

TYPE-SB

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz

TYPE-SI

!"#\$%&'()*+,-./0123456789:;<=>?@[\\]^_`{|}£●
ABCDEFGHIJKLMN**OPQRSTUVWXYZ**abcdefghijklmnopqrstuvwxyz