

# **plus4 publisher**

(publisher's pack)

## **User's Guide**

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## Introduction

**plus4 publisher** is the combination of **plus4** and **LINEdesign** using the components in **publisher's pack**. The two programs are multitasked on the Gold Card. On the Trump Card, the programs should be EXECuted separately as memory will be limited.

**LINEdesign** has many powerful commands for producing drawing and handling small amounts of text, but limited text formatting capabilities. **plus4** fills the gap and allows you to produce the text for composite text and graphic publications.

There are two ways in which the text is combined with **LINEdesign** output. One method involves printing the text directly with any of **plus4** printer drivers and later adding the **LINEdesign** output by overprinting. This allows you to use the high resolution founts of your printer and get much faster text output. For this, **plus4** version 4 includes a command to save the layouts of the document as a guide for positioning the graphic elements and headlines in **LINEdesign**.

The other method involves sending the output to **LINEdesign** via a ram or disk file for merging into the page. This method is used when you want to use the **LINEdesign** founts for the main text, in addition to the headlines. For this method, any one of the three drivers, **MICRDRIV**, **MINIDRIV** or **MAXIDRIV**, is loaded into **plus4**. This allows the text to be prepared and formatted with **plus4** before merging into the **LINEdesign** page. Another command in **plus4** allows this method of transfer once the driver has been loaded.

**LINEdesign** is a Pointer Environment program which can be used with a mouse or the keyboard. **plus4** has been designed to work within the Pointer Environment although it does not use the environment. The Pointer Environment is created on the QL once a few 'resident extension' files have been loaded when starting the QL. These files remain resident until you turn the QL off so that you can run different programs using the Environment.

## Setting Up

The **LINEdesign** Master Disk 1 contains all the basic components necessary for running that program. Once you have made your Working Copy of that disk and set the Master Disk aside, you should copy the **BOOT** file from the **publisher's pack** Master Disk to the **LINEdesign** Working Copy, writing over the existing **BOOT** file. The new **BOOT** file adds the command for loading the **plus4** Spell Device.

You should also copy the **qtyp\_spell** file from your **plus4** Working Copy to the **LINEdesign** Working Copy. If you use ED or HD drives, you can copy all the files from your **plus4** Working Copy to the **LINEdesign** Working Copy with the exception of the **BOOT** file. The **BOOT** file on the **plus4 publisher** disk should always be used.

One important aspect to bear in mind is the different ways in which you set up the default drives and directories of **plus4** and **LINEdesign**. For **plus4**, you set the Program Device with the **plus4setup** program and the Text Storage Device within **plus4** itself. For **LINEdesign**, the setting for the drive/directory used for loading its founts can be changed with the **config** program. The setting for the default drive/directory for clip-art and drawings produced by the user is made from SuperBASIC as a general setting for all similar (usually Pointer Environment) programs. The **BOOT** program does this job with the **DATA\_USE** command.

On a dual disk system, we recommend that you use **flp1\_** for **plus4** and **LINEdesign** programs, founts and drivers; **flp2\_** can then be used for **text** files and **LINEdesign** pages and clip-art. For this type of setup, you should set up **plus4** with the **<F3> |Config| |Parameters| |Text|** command and select **flp2\_**. **LINEdesign** can be set up with the **DATA\_USE flp2\_** command in the boot file and there will be no need to use the **LINEdesign** **config** program.

If you have ED disks, the Working Copy of **plus4** and **LINEdesign** can be on the same disk. This disk is used in **flp1\_** for booting. There will be enough space on the Working Copy to add most of the **\_pff** fonts supplied with **LINEdesign**. The majority of the clip-art **\_ldp** files can be copied onto another disk, leaving out the ones that you are unlikely to use. This will be placed in **flp2\_** when you want to use clip-art. A third disk, normally on **flp2\_**, will be used for your own text and graphic files.

If you already use the Pointer Environment, use the **PTR\_GEN**, **WMAN** and **HOT\_REXT** files supplied with **LINEdesign** as these are the latest versions. Atari QL Emulator users with E series drivers will not need any of these files as they have been built into the Emulator software.

## Executing the Programs

After resetting the QL, insert the **LINEdesign** Working Copy in **flp1\_** then press **<F1>**. The Pointer Environment files and the Spell Device will be loaded.

The **BOOT** program will EXECute **LINEdesign**. You can delete the relevant line from the **BOOT** program and issue the following command when you want to use **LINEdesign**:

### EX linedesign

After this, press **<CTRL> <C>** to go to SuperBASIC. Insert your Working Copy of **plus4** in **flp1\_** then EXECute **plus4** as usual.

## Configuring your plus4 printer drivers

A very important setting in **plus4** is the Printer Offset command: **<F3> |Config| |Driver| |printer Offsets|** (see the **plus4** manual under SETTING UP THE PRINTER page 33). If this setting does not correspond to the real offsets, you will not get correct positioning when you use **plus4** in conjunction with **LINEdesign**. The setting should be made on the driver you use for printing and on **MINIDRIV** and **MAXIDRIV** drivers. The drivers should then be saved with **<F3> |Config| |Driver| |Save|** command so that the settings remain in force next time the driver is loaded.

# Producing Documents with plus4 publisher

The page layout(s) of the document should always be designed in **plus4**. Areas to hold the graphics should be left free in the layout. The text of the document is then produced and previewed in **plus4**. Depending on the method you choose, either only the **|Linedesign| |Layout transfer|** command is used or else a file, containing formatted text, is produced with **|Linedesign| |Text transfer|** while either of **MINIDRIV** or **MAXIDRIV** drivers is loaded. The resulting output files are then **|Loaded|** or **|Merged|** into **LINEdesign**.

## Layout Transfer

The **<F3> |Print| |Linedesign| |Layout transfer|** command produces a file which contains the Frames (rectangles) of one of the page layouts of the current document in **plus4**. When you want to print the main text directly from **plus4** and then add graphics and headlines in **LINEdesign**, you need to know where the text printed with **plus4** is located on the page, so that you can place the graphics and headlines correctly. Using the **|Layout transfer|** command, you send the layout to a file which you then **|Load|** or **|Merge|** into the **LINEdesign** page. In **LINEdesign**, the Frames are visible on the screen but will not print, as their outline colour has been set to white and they are not filled. You can change the outline colour of any Frame to black (using the **|Attribute| |Colour|** command) if you want it to appear in print. Layout transfer is helpful even when you use text transfer (see below), since frame guidelines can still be used for positioning the graphics.

After issuing the **|Layout transfer|** command, **plus4** asks you to specify the layout to send only if there are more than one layout in the document. It then asks you for the name of the file. You can enter any name, such as **flp1\_my\_first\_layout**, or **ram1\_layout2** and then press **<ENTER>**. The program will add the extension **\_ldp** to the name when it creates the file.

If you want the output to go to the **plus4** Text Storage Device, leave out the device name (type only **my\_first\_layout** or **layout2** for the aforementioned files).

## Text Transfer: MICRDRIV, MAXIDRIV and MINIDRIV

These drivers produce output that can be |Merged| into **LINEdesign**. They can be configured with the founts supplied with **LINEdesign**. **MAXIDRIV** contains slots for 256 fount/size combinations, whereas **MINIDRIV** contains 64 slots and **MICRDRIV** only 16.

Load either of the drivers with the <F3> |Config| |Driver| |Load| command. You can then select any of the Typefaces for your text. Please note that the screen representation of the Typefaces will not look like the actual **LINEdesign** founts listed in its manual. As there are up to 256 Typefaces in the driver, there is no point loading screen founts into **plus4** for all of the Typefaces. Once you have found your favourite Typefaces, you can load a few screen founts into **plus4** and attach them to the Typefaces for better screen representation.

However, regardless of the screen founts (in **plus4**), **MAXIDRIV**, **MINIDRIV** and **MICRDRIV** know the exact widths and the approximate heights of the characters (in **LINEdesign**). The image will be correct once the output has been |Merged| into the **LINEdesign** page. Justification, centring and tabs will all be maintained. You can think of **LINEdesign** as an advanced printer which supports all the Typefaces in the two drivers. The print preview in **plus4** will give you a good idea of what the resulting page will look like.

If the text is more than one page, select the page of the text to be printed with the |paGes| command.

Once you are happy with the page(s), you can produce the output for merging into **LINEdesign**. From the <F3> |Print| menu, select |Linedesign| and then |Text transfer|.

The program will ask you for the name of the file to use for the output. It will add the extension **\_ldp** to the name when it creates the file.

Type a name (eg. **ram1\_text\_one**, or **flp1\_printout**) and press <ENTER>.

If you want the output to go to the **plus4** Text Storage Device, leave out the device name (type only **text\_one** or **printout**).

**plus4** will send the text to the file you have specified. The file can then be **[Merged]** into **LINEdesign**.

**MAXIDRIV** and **MINIDRIV** will produce output for one page at a time. The first page number in the **[paGes]** range will be used even if there are more than one pages in the range. These drivers do not support underlined, bold or italic text. Outline text highlighting is available and can be selected by using the **Bold** command in **plus4**. Some effects can be added to the text once it has been **[Merged]** into **LINEdesign**.

## An Overview of Document Production

As documents are primarily designed in **plus4**, it is important to master the concepts related to Text Sections and Page Layouts. In addition to the following information, you should read the **plus4** manual on this subject.

Any document in **plus4** contains Text Sections and Page Layouts. A new document, created with the **<F3> [File] [New]** or **[Import]** commands contains only one of each. This type of document is suitable only for letters and other simple publications. A newsletter or a magazine is a far more complex document, containing several Text Sections and Page Layouts.

The **<F3> [Doc] [text Sections]** menu contains the commands for managing the Text Sections. The text of the document is subdivided into Sections, with solid red lines on the screen representing the Section divisions. Each Section is an independent piece of text. For example, in a newsletter with several stories, each story occupies one Section.

The **<F3> [Layout]** menu contains the commands for managing the Page Layouts. A Page Layout contains Frames which indicate where text and graphics are put on the page. A simple document may have just one Page Layout which is used for all the pages. A complex document will contain different Page Layouts for different pages.

A newsletter type publication has a fixed number of pages. Each Layout is used once or a fixed number of times. With the **[Repetition]** command, the Repetition Mode of each Layout is set to 'fixed-repeat' and the number of repeats is selected. Adding up the repeat counts of all the Layouts will result in the number of pages in the document.

The link between Text Sections and Page Layouts is made as follows: For each Frame in each Layout you should select the Text Section that is to be printed in that Frame. One Text Section can be selected for several Frames. Text Sections are normally of the 'flowing' type. With such Text Sections, text will flow from the first Frame onto the next and so on. The order in which text flows is the Layout number and then the Frame number with each Layout.

For text that is printed repeatedly without change, such as headers and footers, you should select the 'repeated' type. The **|Text type|** command in the **<F3> |Doc| |text Sections|** menu allows you to do this. Page numbers, generated automatically by the program, can be placed in 'repeated' Sections.

If you want to use a Frame to place graphics, you should still select a Text Section for it. Create only one empty Text Section (i.e. no text in it) and Select it for all such frames.

## Sample Document 1

**sample\_one\_ldp** is a **LINEdesign** page produced the Text Transfer method. It uses **Dixon**, **Tempus** and **Style** founts (**\_pff** founts). Before you **|Load|** this page into **LINEdesign** make sure that disk containing the three founts is in the **LINEdesign** fount device.

This page was produced by taking the following steps:

(in **plus4**)

1. The **plus4** document (**sample\_one\_T91**) was produced with the **MAXIDRIV** driver loaded. The details are as follows:

- The driver offset was set to 0 horizontal and 0 verticals for the particular printer in use. You should set a value appropriate to you printer, but a 0 horizontal offset is desirable.
- The length unit was set to 1/6" with **<F3> |Config| |Parameters| |Length unit|**.

- The layout was designed with 6 frames of text using <F3> |Layout| |Edit|.
  - After creating an empty line by pressing <ENTER>, two new text sections were created with <F3> |Doc| |text Sections| |New section| commands.
  - The headline was typed in Section 0 using **Dixon 72pt** and **Tempus 16pt** typefaces. For this section, Ruler 0 was edited with left and right margins set 1 unit inside the edges of Frame 0.
  - Ruler 1 was designed with right margin set at 13 units and line spacing at 16pt. After inserting the ruler in Section 1, the **Tempus 16pt** typeface was used for the main text.
  - Ruler 2 was designed with right margin set at 27 units and line spacing at 16pt and inserted in Section 2. The text was entered using **Tempus 16pt** for the main text.
  - The <F3> |Layout| |Edit layout| command was used. Moving the red Selector Box over Frames 1, 2, 3 and 4, the |text Section| command was used to select Section 1 for each frame. Similarly, Section 2 was selected for Frame 5. The section for Frame 0 was not changed.
  - The <F3> |Print| preview was used to check how the text looks on the page. Any necessary changes were made to the document until it looked satisfactory.
2. The layout of **sample\_one\_T91** was sent to the file **layout\_one\_ldp** using the <F3> |Print| |Linedesign| |Layout transfer| command.
  3. The text was sent to the file, **text\_one\_ldp**, using the <F3> |Print| |Linedesign| |Text transfer| command.

**plus4 publisher**

**(in LINEdesign)**

4. **layout\_one\_ldp** was **|Loaded|**.

- The **|Display| |Unit|** command was used to set the unit to points. The **|Display| |Grid|** command was then invoked to enter a grid of 12 units (1/6") which would correspond to the **plus4** unit.

5. The Line Tool was selected to draw the lines between the columns.

6. The clip-art **pirate\_ldp** was **|Merged|**, moved to position and scaled slightly to fit.

- Before merging the clip art, the Zoom Tools and arrows were used to make a large part the page visible on the screen. After moving the picture, the area where the clip-art was placed was enlarged for precise positioning and scaling.

7. The outline colour of the two frames around the main headline at the top and the box containing the 'plus4 and LINEdesign work together' text were changed to black. The second box was stretched by one grid unit to the left.

8. **text\_one\_ldp** was **|Merged|** into the page.

- Before the merge, the disk containing the three founts (typefaces) used in the text was placed in the drive for **LINEdesign** founts.

9. Fount sizes for the headline texts were fine-tuned to fit correctly.

- Using Tab or Shift Tab, the strings of text were each highlighted. The **|Attributes| |Size of font|** command was used by trial and error until a perfect fit was achieved.

## **Sample Document 2**

**sample\_two\_ldp** is similar to **sample\_one\_ldp** but contains no body text. The text has to be printed directly from **plus4**. The steps taken are quite similar to those used for production of **sample\_one\_ldp** with the following differences:

plus4 publisher

(in plus4)

1. The document (**sample\_two\_T92**) was produced with the normal **plus4** driver for the printer loaded.

- The layout was the same as in **sample\_one\_T91**.
- Text Section 0 was left empty as the headlines were to be entered directly in **LINEdesign**.
- Instead of the titles for text in Sections 1 and 2, a few lines were left blank. The first 'blank' line of each section contains a couple of space characters; otherwise the blank lines will not be reproduced in print or preview.

2. The layout was sent to file. The file is not included as it is the same as **layout\_one\_ldp**

3. The text was printed on a sheet of paper.

(in **LINEdesign**)

4., 5. The same steps as in the previous example were taken.

6. A different clip-art, **diamond\_ldp** was **|Merged|**. The image was rotated slightly and its outline colour was changed to black.

7. The same steps were taken.

8., 9. As the headlines and titles were to be entered within **LINEdesign**, the Text Tool was used to enter the text. The **|Attributes|** **|Typeface|** and **|Fount size|** commands were used to select the founts. The main title was turned into italics by selecting **|Edit|** **|Slant object|** and entering 10 degrees. The **|Attributes|** menu was also used to change the **|Outline colour|** to black and the **|Filled|** attribute to **|No|**.

The **LINEdesign** page was then printed over the same sheet of paper.

## Sample Document 3

This document contains 4 pages. The text (**sample\_three\_T91**) was produced with **MAXIDRIV** loaded. We have included the **LINEdesign** file for the first page only, **sample\_three\_ldp**. We have not included the output files generated by **plus4** for layout transfer and text transfer as you should be able to produce them yourself. The following is not a full step-by-step guide as many steps are the same as in the production of **sample\_one\_ldp**.

(in plus4)

The document contains three different layouts. In the Layout Editor, the following actions were taken to produce the Layouts:

- The **|Repetition|** command was invoked to make the default Layout 0 a **|Fixed repeat|** layout. The number of repeats was entered as 1.
- Layout 0 was **|Edit|**ed to produce the Frames.
- The **|New layout|** command was issued once. The **|Repetition|** command was invoked to make it a 'fixed-repeat' Layout with two repeats.
- Using the **|Edit|** command, Layout 1 was redesigned for the second and third pages.
- With Layout 1 highlighted in the list, The **|New layout|** was issued once again. The resulting Layout 2 was set to 'fixed repeat' with one repetition. It was edited to set the Frames.

Five pieces of independent text were to be placed in the layouts, so four new text sections were produced with the **<F3> |Doc| |text Sections| |New section|** command. One of the sections was to hold the header which appears on all the pages apart from page 1 and contains a page number. The Text Type for this section (Section 4) was changed from the default 'flowing' to 'repeated', as the same text is repeated on each page.

Going back to the Layout Editor, each Layout was **|Edited|**. The only change that was made to the Frames was by invoking the **|text Section|** command to attach the right Text Section to each Frame.

## Boxes

In **LINEdesign**, simple hairline rectangle can be drawn with the Square Tool and then stretching one side with the Scale Tool. Rectangles with shadows are a combination of hairline rectangles. Two examples are included on the disk. **Box1\_Idp** is a rectangle with a 2pt outline. **Box2\_Idp** is the same rectangle with an added shadow. The black outline or shadow is in fact a large rectangle filled in black. This rectangle is then covered with a rectangle filled in white. The **|Edit| |Back (move to)|** and **|Front (move to)|** commands are used on the individual rectangles to determine the order in which they are drawn when the page is printed.

After **|Merging|** one of the boxes into your page, you should use the Scale Tool on one side of each component in order to resize the box without changing the thickness of the outline.

## LINEdesign Tips

- These tips apply to version 2.00 of **LINEdesign**. They may not apply to later versions.

### Text Print Quality

In general, text in large sizes always prints well. The print resolution shows up only in the degree of jaggedness of curved or slanted strokes of characters. In smaller sizes, quality and legibility depend heavily on the output resolution. Laser, Deskjet and Bubblejet resolutions (300 x 300 or 360 x 360) produce excellent results with small type. Other resolution are suitable only for larger text. Quality varies with different founts. As a general rule, founts with thicker strokes comes out better in small sizes than those with thinner strokes.

## Selection of Printer Driver

Before printing the page, **LINEdesign** allows you to select the printer driver. For any printer, higher resolutions always take much longer to print.

The Canon BJ driver works with Canon BJ10-ex and BJ20 etc. with dip-switches set to the Canon BJ-130e mode, rather than the Epson mode. (When you print to those printers directly from **plus4**, using the **2488** driver, the setting should be the Epson mode).

## Printing Times

The times taken for printing depend on two factors: The speed of image generation and the throughput of the printer port.

Since the program draws the output (text and graphics) while printing, processor speed determines the time. The complexity of the drawing contributes to the time taken. Text is actually a collection of complex drawings and will take longer to print than most pictures.

The printer port imposes another constraint which comes into play once a part of the page has been generated by the program and is being sent to the printer. With the QL connected via the serial port to the printer (as is the case with most QL's) the maximum throughput has been measured at about 600 bytes per second at 9600 baud. This means the print data from a full A4 sheet with margins would take at least 8 minutes to print at the resolution of 180 x 180. Laser and Deskjet printers accept compressed data and **LINEdesign** takes advantage of this fact to reduce the actual number of bytes transmitted to those printers by a significant percentage. For example, the number of bytes transmitted for printing the **sample\_one\_ldp** page on different printers was as follows: 24-pin double density: 590K; Deskjet: 270K; Laserjet: 120K.

If the printer is connected through the parallel port (in the case of Atari ST's with QL emulators), the output component of printing times is reduced by a large factor due to the much higher throughput. Converters which turn the QL's ROM port into a parallel printer port have been produced in the past but are not currently available as far as we are aware.

One possibility worth considering is printing to a disk file and later sending the contents of the file to the printer. Although total printing time will be increased slightly, the printer will have to be on for shorter period.

## Loading and Merging

Output from **plus4** intended for inclusion in **LINEdesign** (text transfer and layout transfer) is in fact a drawing as far as **LINEdesign** is concerned. When you **|Load|** or **|Merge|** a drawing into **LINEdesign**, all the elements of the new drawing are selected bounding box. This allows you to move the whole drawing around and to rotate or scale it. This is always necessary when you merge clip-art but unnecessary when merging **plus4** output.

Each clip-art on **LINEdesign** disks is made up of many different elements. If you want, you can modify the images in detail. The best way to do this is to **|Load|** the clip-art on its own, modify the details, including adding shades to areas of the drawing, then **|Save|** it, ready to be **|Merged|** into your target page.

The **|Display| |Grid|** and **|Unit|** commands are very useful for designing pages. Set the **|Unit|** to millimetres or points (the inch and centimetre units are too big for design purposes). Then set the **|Grid|** to something which corresponds to your length unit in **plus4** (**<F3> |Config| |Parameters| |Length unit|**). If the **plus4** unit is millimetres, a grid of at least 3 units would be a good choice. If the **plus4** unit is 1/6" (12 points), a grid of 6, 12 or 24 points would be suitable.

## Fount Management

When you **|Load|** or **|Merge|** the output from **plus4** for text transfer, **LINEdesign** attempts to load the founts used in the page if they are not already in memory. You should make sure that a disk containing all the **\_pff** founts that you have used is in the appropriate drive. If you have ED drives you can put the majority of the founts on one disk (leaving aside a few that you will not use). Otherwise, you should prepare a few fount disks, each containing a selection of founts which you will use together in one page.

# **text<sup>87</sup> plus4**

## **User's Guide**

**third edition**

**copyright 1992**

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This Guide is a learning aid for the use of the text87plus4 word processing system. Its contents are not meant as specification for text87plus4. You should discover the working of text87plus4 on your particular hardware by trial and use text87plus4 for any specific task at your own discretion.

AMINASOFT have kindly given us permission to include on our Master Disks a large number of Screen Display Founts developed by them for use with text87. These Founts appear on the disk directory after the printer drivers. They are meant to be used with printer drivers which support multiple Founts--such as most 24-pin drivers--to represent those Founts on the screen. You can compile your own \_A87 Fount list files for loading a number of these Founts into memory in one operation. Refer to Section III of this Guide. The only limitation is that only the basic ASCII character set has been defined and international characters remain undefined (**founted89**, available separately, can be used for editing and modifying these founts). The names of these Founts follow this convention: Names ending with 80 refer to Fixed Pitched Founts with each character 6 pixels wide (thus over 80 characters maximum per screen line). Names ending with 'P' refer to proportionally spaced Founts. Names ending with 'ITL' denote italic Founts.

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# I. GETTING STARTED

## INTRODUCTION

**text87plus4** is based on earlier versions of **text87**. It is a complete rewrite that enhances the best features of previous versions.

If your word processing experience has been gained with **QUILL** you should bear in mind that due to the vast increase in capabilities, there are major conceptual differences. However, some of the keys and commands used in the Program have been designed to be broadly similar to **QUILL**'s. The old-fashioned standard word processors such as **QUILL** were designed at a time when personal computer systems had limited memory and no bit-mapped graphic display, when printers were no better than typewriters. **text87plus4** differs from those archaic programs in the following areas:

Page layout and text format dimensions are set up in absolute length units (millimetres or inches), rather than in numbers of characters and lines.

The Program can mix characters of different typeface and sizes within each line of text and can use different screen Founts and colours to display them.

The Program can make extensive use of printer features to give precise control over line spacing, micro-justification, choice of typefaces and print highlights. Most importantly, the Program thinks in terms of proportional spacing and treats fixed pitched typefaces as simply special cases where all the characters have the same width. Dedicated printer driver files contain information on the typefaces and features supported by different printers. These files are loaded and utilised automatically while the Program is in use.

The whole document that is being edited is held in RAM to provide quick access.

Advanced programming techniques have been utilised in the design of **plus4** to make efficient use of memory and to speed up operation almost to the limits of the QL hardware. As a result, despite the enormous amount of extra calculations and processing of data involved, the Program is much faster than **QUILL**.

**text87plus4** requires a QL or compatible system with at least 256K memory expansion, one disk drive and a monitor or TV capable of displaying text in MODE 4. You may be able to configure the Program to run from Microdrives but this is not recommended by **Software87**.

## NOTES FOR USERS OF OLDER VERSIONS

If you are already familiar with **text87** version 3.00 or 2.00, you will find that **plus4** has as many differences as it has similarities to those programs.

The main conceptual difference results from the multi-window, multi-file capabilities of **plus4**. The memory allocation system has changed too. In the old version only one block of memory was allocated when you **EXECuted** the program; it contained the Founts, Driver and the text. In **plus4**, memory for each Fount, Driver or document is allocated when it is loaded and released when it is removed. Each loaded document has a finite memory space which cannot be exceeded. You can select how much extra room to allocate to each document before you load it.

Another difference which will probably take some time to get used to is the keys used for command entry. As **plus4** provides more functionality and at the same time incorporates more Quill-like direct commands, some function keys are used for different purposes. The cursor move commands work slightly differently and the delete commands have been designed to correspond to cursor move commands. When a delete action is performed it removes characters from cursor position until the new cursor position which would result from the corresponding cursor move command.

As a result of the introduction of Text Sections and multiple Layouts and the inclusion of these and other information within each document, many settings which had to be entered each time you wanted to print the text are now made only once. The Text Sections and multiple Layouts provide many extra possibilities for the format of the finished document.

Your old text files, created with previous versions, can be loaded into **plus4** with all the information intact. You should manually set up the Layout and Text Sections for those texts. You can save those texts only in the new **\_T91** format.

The formats for Founts, Drivers and Spelling Dictionaries have not changed since **text87** version 3.00 so that you can continue using any custom Fount or Driver you may have created. Your custom printer drivers must conform to the standard introduced with version 2.00 (early 1989).

## **MAKING A WORKING COPY OF THE PROGRAM**

**plus4** WILL NOT RUN FROM THE MASTER DISK. To use the Program you must follow the instructions given below for making a Working Copy. You need a blank formatted disk for your Working Copy.

You should also refer to SECTION III on printers for selecting the printer driver, setting the Program parameters relating to your printer and setting the dip switches of the printer. Other parameters can be set from within **plus4** and saved on disk to be used next time the Program is **EXECuted**.

The files that make up the **text87plus4** system are supplied on two floppy disks (Master Disks). The Master Disks must be kept aside for making further copies should it become necessary. The Masters and this Guide will be required by **Software87** for any future updates of the Program to be sent to you.

**plus4** is not copy protected. You can use the SuperBASIC **COPY** command or preferably a disk copying utility or the Toolkit 2 **WCOPY** command for making a duplicate of the Master Disks (just in case).

The main Master Disk labelled **text87plus4** contains all the files necessary for making a Working Copy of the Program. The second disk contains additional spell-checking dictionaries and the files necessary for modifying dictionaries. You can make the Working Copy manually or automatically using a setup program called **plus4setup**.

## IMPORTANT NOTE

If you are already using **text87** you must assume that all the files supplied on **text87plus4** disks have been modified and enhanced. The same applies to **fountext88**. Always use the latest version of the programs and files supplied by Software87. The SuperBASIC **DIR** or **STAT** commands will show you the name and version number of the disk. This will be '**text87p4E\***'. The star stands for a digit representing the version number. This will be 3 for version 3.

To make the Working Copy, put the main Master Disk in **flp1\_** and type **EXEC flp1\_plus4setup**. The setup program will prompt you for the necessary actions. At this stage remove the Master Disk from **flp1\_** and put it in **flp2\_**. Put a blank formatted disk in **flp1\_** for your Working Copy. Hold down the <CTRL> key on the keyboard and press <C> to move the flashing cursor to the **plus4setup** program. You should first select |Working copy| by pressing <W> to go to the appropriate part of the program.

At this stage the program displays some prompts with 5 options. Follow the procedure below:

Select |Working copy| again. This time the program will copy all the main files from **flp2\_** to **flp1\_**. At the end, a Selector Box will be displayed allowing you to select a printer driver as the default. If you do not know which one to choose just select the first one by pressing <ENTER>. This allows you to get started but please note that you must select the correct driver (at a later stage) to be able to print.

If you want to choose a driver from **2488** or **typeset90** disks, or you want to copy a different default driver from the main Master Disk, place the appropriate disk in **flp2\_** and select |copy Printer driver| by pressing <P>. This will bring up the driver Selector Box for you to make your choice.

After copying the printer driver, the program allows you to select a screen Fount list file. There are three such files on the **plus4** master disk. One for daisywheel printers, two for dot-matrix. The list of drivers in Section III of this Guide indicates which of these files is suitable for each driver.

Use the |Copy single file| command as many times as necessary to copy extra files.

There is no more to do. The Working Copy should be ready at this stage. Please read the remainder of this section to find out about the role of the different files that the **plus4setup** has copied for you. You can add extra screen founts or printer drivers to your Working Copy at a later date.

If you have only one disk drive attached to your system, you may be able to create the Working Copy on a RAM disk and then copy the contents of the ram disk to the floppy disk for your Working Copy. RAM disks are available on most QL floppy disk interfaces. If you do not have RAM disk software, please send a blank disk to Software87 so that we can send you a configured working copy.

## CONFIGURATION FOR HARD DISK AND SUBDIRECTORIES

If you want to install **plus4** on a hard disk or on a floppy subdirectory, take the following steps. After EXECuting **plus4setup** and selecting |Working copy| the first time, select |Drives| by pressing <D> and change the destination drive to the name of hard disk and subdirectory you would like to use (for example **win1\_plus4\_**). Do not forget the underscore at the end of the names. After this, proceed with the instructions above for floppy disks.

Once copying is completed, press <ESC> only once to go to the opening Menu of the **plus4setup** program to modify the **text87plus4** code for your system. Select |Configuration| from the initial menu of **plus4setup**. Then select |Text87| which loads your Working Copy of **text87plus4**. A new menu allows you to select |program Device| by pressing <D> in order to enter the drive and directory name. Then select |Save| to save the modified copy of **text87plus4**. Be careful not to select the |Memory| command which is described below.

The **text87plus4** program as supplied on the disk is re-entrant and can be used with Qjump Hotkey System **HOT\_RES** and **HOT\_RES1** commands. If your computer memory is limited and you do not intend to use those facilities, you can reduce the data space for the Program with the |Memory| command of the same menu of **plus4setup** so that it uses about 15 Kilobytes less memory when it is executed.

You should never use any program other than **plus4setup** to modify your copy of **text87plus4** as alterations may result in malfunctioning.

## THE SETUP DETAILS

For running **text87plus4**, the three files listed below must be present on the Working Disk placed in the **flp1\_** slot (unless you have configured it differently):

<b>text87plus4</b>	the Program
<b>DEFAULT11_F87</b>	the default Screen Fount file

AND one of printer driver files which must be copied with its name changed to **DRIVER\_P87**. Driver files have the extension **\_P87**.

In addition to default Fount, you can use extra Screen Founts. These are the files with the extension `_F87`. Lists of Founts for loading into the Program are stored in files with the extension `_A87`. Some Screen Founts and only one `_A87` file are copied by `plus4setup`.

For spell checking, you will need at least the following files on your disk:

```
BOOT
Qtyp_spell
Qtyp_dictionary
```

The `BOOT` program is intended only for loading the `Qtyp_spell` file just after you press `<F1>` to start your QL and consists of the following line:

```
b = RESPR (6566) : LBYTES flp1_Qtyp_spell, b : CALL b
```

If you have Toolkit II you can replace the commands with:

```
TK2_EXT : LRESPR flp1_Qtyp_spell
```

If you already have a `BOOT` program you should incorporate the commands listed above into it before any `EX`, `EW`, `EXEC` or `EXEC_W` commands. If the `Qtyp_spell` file has not been loaded into the QL, `plus4` cannot perform spell checking but works normally otherwise.

The Help system uses a file called `HELP_T91`. This file must be on the disk the first time help is accessed but the disk can then be removed.

The rest of the files are not vital for running the Program. There are some example text files which can be used for learning aspects of the Program testing the printer. Once the Program is up and running you can load them. You should use the `<F3> |Doc| |Model| |Reformat|` command after loading any of these files:

```
EXAMPLE_MANUAL_T91
EXAMPLE_MAIL_MERGE_T91
```

The configuration program `plus4setup` itself is not needed unless you want to customise a printer driver or the Program further.

## **THE WORKING COPY FOR FOUNTEXT88**

The Working Copy for use with `fountext88` should preferably be on a separate disk from the Working Copy which uses a text-mode printer driver. The files on this disk are the same as those listed above with the following exceptions:

`DRIVER_P87` is the configured copy of `fountext88` with its name changed. `FOUNTS_A87` as provided on the `fountext88` disk should be used. Founts supplied on the `fountext88` disk should be on the disk.

## FIRST IMPRESSIONS

If you have not got much experience with multitasking programs, **RESET** the QL at this stage to keep things simple. Your Working Copy **MUST** be in **flp1\_** (unless you have installed and configured on hard disk). Press **<F1>** after the **RESET**. The QL will read the **BOOT** file and load the Spell Device.

**text87plus4** is an **EXEC**utable program so the command to start the Program is:

**EXEC flp1\_text87plus4**

Once the Program has been loaded, the screen will clear. If a minimum amount of memory is available, the extra files will be loaded and the Command Window of **text87plus4** will appear at the top of the screen. Otherwise nothing will happen. Once the Cursor is flashing again, hold down the **<CTRL>** key and press **<C>**. The Cursor will move to the Command Window and **plus4** will become active.

Try **|Load|**. In this Guide, a word enclosed between two vertical bars denotes a command chosen from a menu. To select any such command, press the key for the letter which appear in uppercase (in this case the letter 'L'). You can press the key with or without the **<SHIFT>** key. When a letter or word is enclosed between two angled brackets (such as **<SHIFT>**) it denotes a key on your QL keyboard.

After typing **'L'** for **|Load|**, **plus4** allows you to use the **<UP>** or **<DOWN>** arrows to select an example file such as **EXAMPLE\_SIMPLE\_DOCUMENT\_T91**. All document files created on **plus4** have the extension **\_T91**. Do not use this extension for files created with other programs. You can load such files into **plus4** with different commands.

Press **<ENTER>** to load the file. Once the file has been loaded, a large Edit Window will appear. Press **<ESC>** to leave the menu and go to the Edit Window. Note that the **<ESC>** key is used in **plus4** to leave any (almost any) menu.

If your printer driver originates from the 2488 disk, issue the following command sequence: **<F3> |Doc| |Model| |Reformat|**. This is just to make sure that text formatting corresponds to your driver.

Try **<F3> |Print| |preView|**. Note that you should press **<V>** to select the last command. You will see a view of the printed page on your screen. Press **<ESC>** to leave the command.

Now type a few lines over the existing text and try the Immediate Commands such as Cursor move and delete and the special characters from the list in SECTION II. Notice the changes to the word-count and line number reported on the Status Line at the bottom of the Edit Window.

Try the **<F3> |Goto|** command and its different options. Then try **<F3> |Search|**.

Once you have got used to editing and navigation operations, continue to explore the menus and commands. Help can be made available by pressing <F1>.

You should read the whole of this Guide at least once and explore the Program. It is necessary to gain a basic understanding of the new concepts introduced by **plus4**, such as Rulers, Layouts, Text Sections and multiple documents.

There are two things to bear in mind. First, make sure that you have configured the Program correctly for your system. We have had a number of inquiries in the past from users who had problems in this area with the previous versions of **plus4**. We have made it easier to configure **plus4** but you must know about your computer system and printer in order to accomplish this task.

Second, do not make things too complex. We have added many features in response to requests from existing users. Not all of these features are essential for ordinary word processing. The unsuspecting new user may feel overwhelmed by the number of possibilities, yet the Program can produce documents without much change to its default settings. For example, you do not even have to touch the <F3> !Doc! and !Layout! commands in order to produce a letter. The Short Menu mode hides some of the commands, but not all of them. The example documents can be very useful as they can be utilised as templates for your own texts.

## TRANSITION FROM QUILL

### Multitasking

Quill was not designed to multitask, thus utility programs were introduced for this purpose. **plus4** is a multitasking program and allows you to move back and forth between SuperBASIC and **plus4**. Thus commands for formatting disks and deleting files have not been included in **plus4**.

### Printer Drivers

**plus4** is far more powerful than Quill in handling the facilities offered by printers, thus its printer drivers are more sophisticated. Translates, codes for font selection and attributes such as underlining, etc. have been written into the drivers. Only a limited set of printer control codes can be safely changed by the average user. Advanced users can make major changes to drivers with the help of an Assembler

### Multiple Documents

**plus4** can handle several documents in memory at once. However each document retains its own settings, completely independent from the rest.

### Editing and Navigation

You will have discovered that **plus4** is much faster than Quill, but it does not sacrifice user friendly features to achieve speed. **plus4**, is very similar to Quill in

that it retains different paragraph formats and automatically reformats while editing. Cursor move and delete keys behave similarly, but several new key combinations make editing and navigation more convenient.

## Block Operations

**plus4** is far more flexible but works in a slightly different way. In Quill you would first select Copy or Move commands then mark the block of text and move it. In **plus4** you mark a block of text first, then decide what to do with it. Instead of Quill's Paint command, you mark the text as a block then change its typeface.

## Typeface Selection

**plus4** allows you to change attributes (Highlights) such as underlining, etc., in almost exactly the same way as Quill. However, **plus4**'s printer drivers support several different Typefaces as well. Typefaces can be changed though an easy to learn extension to Quill's way of changing attributes. **plus4** also features additional user-friendly commands for changing and manipulating Typefaces and Highlights.

## Text Format

Quill controls the page format through Header, Footer and Design commands **plus4**'s Layout command replaces Quill's Design command with a view of the page with the areas (Frames) in which the text is printed. Areas (Frames) for Headers and Footers are created with the Layout command. The text for Headers and Footers is demarcated as separate Sections and page numbering is specified with the IDocL command. The Header and Footer Sections are then linked to the corresponding Frames in the Layout.

Quill's Margins and Tabs commands, as well as the setting for line spacing in the Design command have been replaced with **plus4**'s Ruler command. **plus4**'s Rulers are far more powerful than their Quill counterparts. Line spacing can vary in different parts of the document and can be fine-tuned in very small units. **plus4** allows you to set up a large number of different Rulers for each document and use each Ruler as many times as you wish. This makes it much faster to control the format of the text. With **plus4**, you design a Ruler, then apply it to the text. You can always modify the Rulers and the whole document is reformatted accordingly. **plus4**'s Layouts and Rulers can be saved and used to start new documents. This facility is the equivalent of Style Sheets found on major word-processors and desktop publishers for PC's and Macs.

## II. THE COMMAND SYSTEM

### THE ON-LINE HELP SYSTEM

The Help System can be accessed by pressing <F1> when the cursor is in the Edit Window or when a menu is displayed. It cannot be accessed when you are prompted to enter a string or a number (as in entering the name of the file to load).

The help text is loaded from the disk first time you access it and remains in memory until you deliberately remove it with the <F3> |Config|Parameters|kill Help| command sequence.

The help text is organised in pages of 8 lines each. When you press <F1> it will display the first appropriate page of help for the menu that is on display. With <SHIFT> plus <UP> or <DOWN> you can move to the last or next page. Pressing <SHIFT><ALT> with <UP> or <DOWN> will take you to the start or end of the text.

Once you have finished reading the help text, press <ESC> to go back to where you were before selecting <F1>.

The help text is a `text87plus4` document file formatted with `fountext88`. You can modify this file according to your requirements. If you want to be able to see the help text while working on another text, load the help text as a document and use the <F2> |Tile| command to display both documents at the same time.

### COMMANDS AVAILABLE IN THE EDIT MODE

The following lists contain the keys that you can use while editing the text.

#### CURSOR MOVEMENT

<LEFT>	Last character
<RIGHT>	Next character
<SHIFT><LEFT>	Start of last word
<SHIFT><RIGHT>	Start of next word
<ALT><LEFT>	Start of line
<ALT><RIGHT>	End of line
<UP>	Last line
<DOWN>	Next line
<SHIFT><UP>	Start of last screen
<SHIFT><DOWN>	Start of next screen
<SHIFT><ALT><UP>	Start of current/last Frame
<SHIFT><ALT><DOWN>	Start of next Frame
<ALT><UP>	Start of current/last paragraph
<ALT><DOWN>	Start of next paragraph

## DELETE

<CTRL><LEFT>	Character to the left of Cursor
<CTRL><RIGHT>	Character under Cursor
<CTRL><SHIFT><LEFT>	to end of word/last word
<CTRL><SHIFT><RIGHT>	to end of word/next word
<CTRL><ALT><LEFT>	to start of Cursor Line/last line
<CTRL><UP>	ditto
<CTRL><ALT><RIGHT>	to end of Cursor Line/next line
<CTRL><DOWN>	ditto
<CTRL><ALT><SHIFT><LEFT>	Whole Cursor Line

Delete by character commands do not normally result in automatic reformat while all other delete commands do. Moving the Cursor after deleting by characters will reformat the lines. Use the <CTRL> <ALT> <SHIFT> <LEFT> command when you want to delete several lines in succession.

## OTHER COMMANDS IN THE EDIT MODE

<F1>	Invoke the Help Selector Box
<F2>	Invoke the Windows menu
<F3>	Invoke the Main menu
<F4>	Insert Printype at Cursor position interactively
<F5>	Insert Selected Ruler at the paragraph under the cursor
<SHIFT><F1>	Start spell checking from cursor position
<SHIFT><F2>	Redraw all the windows
<SHIFT><F3>	Insert Printype at Cursor position non-interactively
<SHIFT><F4>	Switch typing mode between Overwrite and Inscrt
<CTRL><A>	Change the case of the character under the cursor
<CTRL><B>	Start marking a block of text
<CTRL><C>	This key is always available to leave the Program temporarily. If no other program has been EXECuted, the SuperBASIC Cursor is activated and allows you to use file directory and other commands. Pressing the same key combination in SuperBASIC reactivates the <b>plus4</b> Cursor. TaskMaster replaces this key with another one.

## SPECIAL CHARACTERS

<ENTER>	Carriage Return
<TABULATE>	Tab Mark
<CTRL><N>	Invisible hyphen (hyphenate)
<CTRL><H>	'Hard' hyphen (does not break the line)
<SHIFT><SPACE>	'Hard' space (does not break the line)

## THE COMMAND WINDOW

The left panel of the Command Window displays the word **OVERWRITE** if this mode of typing has been selected with the <SHIFT> <F4> command. The Typeface and Highlight for the character under the cursor are always displayed. If you have selected not to display the current Ruler in the Edit Window, the number of the Ruler for the cursor line is displayed above the Typeface number.

The right panel displays a summary of the available commands. This panel is used for selecting commands from menus and for entering numbers and strings of characters requested by the Program.

The position of the Command Window (top or bottom of the screen) and the display of summary of commands can be configured with the <F2> |Options| command.

## THE STATUS LINE

The Status Line at the bottom of each Edit Window displays the name of the current text, the number of words in text, the line number and the Text Section and Page numbers for the cursor line. At the rightmost position of the Status Line the Layout and Frame numbers for the current line are shown. The <F2> |Options| command allows you to select the way the line number is calculated and displayed.

## THE MENU SYSTEM

Extended commands are all performed through a menu system. Most of the menus are grouped under the Main Menu which is accessed by <F3>. Window commands are under the Windows Menu accessed by <F2>.

Pressing the key for the letter appearing in capitals of any menu item (usually the first letter) will result in one of the following alternatives.

- Another menu is displayed for further selection.
- You are asked to confirm your choice.
- You are asked to enter a number or string.
- On or more Selector Boxes (sometimes with menus) for selection of items.
- A command is performed or a setting changed with no further query.

When a menu is presented the first command is usually the most frequently used one. Pressing <ENTER> at this point has the same effect as pressing the key for the first letter of the first item.

Pressing <ESC> at any point (when the <ESC> command is on the menu or prompt) aborts command entry. Depending on the individual command, operation is resumed either at the previous menu level or in the Edit Mode.

If you press <CTRL> <SHIFT> <ESC> when a menu is displayed (or when you are prompted to enter a number or string of characters), command entry will be aborted and the Cursor will move to the Edit Window.

If you press <F3> the same will happen but then the Main Menu will be displayed for you to select a command.

Most menus include one or two extra lines displaying information on the commands they present. Current settings for parameter are also displayed when appropriate. The menu system is thus used to find out about the present state of Program settings and variables (such as those used by the |Config|, |Layout|, |Print|, |Ruler| and |Type| commands) without necessarily modifying the variables.

With the <F3> |Config| |Parameters| |Menu model you can toggle between the short menus and full menus modes. In the short menu mode some of the commands are not displayed in menus and cannot be used.

## ENTERING NUMBERS AND STRINGS IN COMMANDS

When you are prompted to enter a number, the range of valid entries is always included in the prompt. A default value is also displayed; if you press the <ENTER> key without entering any digits, the default value will be used. The Program will not accept entries outside the valid range.

When entering strings of characters on the command line, the Program sometimes gives you a predefined string which you can modify. For example, when you choose to save the text, the Program offers the name of the text currently in memory as the most obvious choice. But you can delete that name and type in a new name.

The following keys can be used when modifying the number or string on the command line:

<LEFT>	Move cursor left one character
<RIGHT>	Move cursor right one character
<CTRL><LEFT>	Delete one character to the right
<CTRL><RIGHT>	Delete one character to the left

<CTRL><SHIFT><LEFT>	Delete the whole string
<CTRL><ALT><RIGHT>	ditto

(The last two keys behave differently when used for editing the document.)

<SHIFT><F5>	Separator between search and replace strings
<CTRL><F5>	Marker for page numbers

(The last two keys are used for searching and are not available while editing.)

## SELECTOR BOXES

Selector Boxes are used in **plus4** and **plus4setup** for different commands. The Help System is incorporated in a Selector box. A Selector Box is a window with a title at the top. Below the title, a list of items is displayed. Usually one item in the list is enclosed in a red box. When you move the cursor up and down, the red box moves over the items in the Selector Box. If there are more items in the Selector Box than can be displayed at one time, moving the cursor will scroll the Selector Box over the items in order to give access to them.

Some Selector Boxes allow you to move over the listed items in larger leaps with the <SHIFT> and <ALT> keys pressed together with the <UP> and <DOWN> keys. The <SHIFT> combination moves by screen, the <SHIFT> <ALT> combination moves to the top or bottom of the list.

Apart from the Help Selector Box which is only used for viewing, other Selector Boxes are used both for viewing and selection of items. The item in the red box is the currently highlighted one and can be selected with the <ENTER> key.

Some Selector Boxes are used in conjunction with menus. When such Boxes are displayed, in addition to <ENTER> you can use the other commands provided in the menu for performing different actions on the current item in the red box.

A set of Selector Boxes can be linked together. Pressing <TAB> and <SHIFT> <TAB> keys will move from one box to the next or last.

Pressing <ESC> will leave a Selector Box.

## THE INITIAL MENU

**Load    New    Room    Quit    <esc>**

When there is no document in memory, this menu is displayed. It allows you to |Load| an existing file, create a |New| one, or |Quit| the Program. When this menu appears immediately after the EXECution of the Program, if the file **FOUNTS\_A87** or one of the Fount files listed there was not found on the disk, an error message is reported. Press <ESC> to remove the error.

The amount of extra room that is added to an existing document when it is loaded or allocated to a new one is displayed. The default is 32 kilobytes which is the equivalent of about 10 average pages of text. Increase this with the |Room| command if you intend to add a lot of text (by typing or merging documents) to the file. Reduce the amount of room only if memory is scarce and you just want to make minor adjustments to an existing file. After creating one or more |New| texts or |Loading| one or more existing files, press <ESC> to start work.

## <F2> THE WINDOWS MENU

**Zoom   Divide   Close   Resize   Options   Stack   Tile   <esc>**

Several windows can be open at the same time over the same or different documents. The border of the currently active window is in white and the rest are in green. Use <UP> or <DOWN> to make the next or last window active.

|Zoom| a window to full screen or to its previous smaller size.

|Divide| a window. Use this command to open extra windows over a document.

|Close| a window. If the window is the only one open over a document and the document has been modified, you will be warned before the window and the corresponding document are closed.

|Resize| a window using the arrow keys or <SHIFT> plus arrows to move the corner. When the cursor is on the top-left corner moving it will move the window. When the cursor is on the bottom-right corner moving it will change the size of the window. Press <TABULATE> to place the cursor on top-left or bottom-right corners.

|Options| (see below) displays and allows you to change all the options for windows. Apart from the options |Menu position| and |line Numbers|, the rest of the options refer to the currently active window only.

|Stack| will automatically resize all the windows, stacking one on top of the others.

|Tile| will resize all the windows, tiling the screen area with the windows.

|Options| allows modifying the following settings for screen windows.

:: |Menu| toggles the position of the Command Window between top and bottom of the screen. When used again, toggles the display of prompts in the Command Window while editing the text.

:: |Ruler| toggles on or off the display of the Ruler for the paragraph under the cursor.

:: |line Numbers| toggle the display of line numbers. By default, the Program displays the line number counting from the first line of the text. Alternatively, you can display the line number as counted from the start of the current Frame (or page).

:: |Line spacing| toggles on or off the display of spaces between lines on the screen. This has a visible effect only when line-spacing exceeds the height of the screen characters.

- :: Inverse video toggles between colour-on-black and colour-on-white display of text. Colour-on-white display is useful when you want to distinguish between spaces and tabs used in text.
- :: Horizontal Scale allows setting the expansion of tab positions and spaces on the screen. Set in conjunction with the size of the screen Fonts, this allows a more realistic screen display. The Program default is 60. With `fountext88` this should be increased.

## **<F4> TYPEFACE SELECTOR**

This command is for changing the Typeface and Highlight of the text you intend to type. Initially, the left-hand panel of the Command Window contains the name of the Printype (Typeface and Highlight) under the cursor.

The menu entries, |Underlined|, |Bold|, |Highscript|, |Lowscript|, toggle on and off these aspects of the Highlight. |Normal| turns all the Highlights off.

|Typeface| displays a Selector Box. By pressing <TAB> you can toggle between the full list of available Typefaces or only those you have already used in the document. Select the Typeface with <UP> and <DOWN> and press <ENTER>.

All your selections will be reflected on the left-hand panel. Once you are happy with the combination, press <ENTER> to |Apply| the new Printype to text.

You should not move the cursor or delete characters before you start typing. All the characters that you type will be in the new Printype. If you mistype a character, use only <CTRL> <LEFT> to delete it. When you have finished typing all the text that should appear in the new Printype, press the <LEFT> arrow key once in order to resume typing in the original Printype at the cursor position. If you intend to type a large amount of text in the new Printype, type a few arbitrary characters as place holders then move the cursor back to type your text. This will allow you to use all the Cursor move and delete commands without fear of losing the new Printype. You can delete the redundant place holder characters afterwards.

**<F3> THE MAIN MENU**

**File Block Doc Goto Search Layout Ruler Type Print Config <esc>**

|File| contains the commands necessary for the management of text files. The current setting for |Room| (see below) for the extra space allocated to files is displayed. When an error occurs, the relevant error message is displayed instead.

In all operations that ask you for a file name, selection can be performed from a file-list Selector Box.

- :: |Save| the current document to disk. There must be enough space on the disk. In general there is no warning if you attempt to overwrite an existing file that you are editing. But if you try to save a document you have just created or try to save the file with a different name from its original and there is already a file with the same name on disk, the Program asks before saving.
- :: |Load| a document for editing. For documents saved from older version of text87 add the extension \_T87.
- :: |Close| the current document. If you have modified the text, a warning is given.
- :: |Room| is for setting the amount of free space allocated when the next file is |Loaded| or |Imported| or a |New| file is created. This space is added to the size of the existing file.
- :: |New| creates an empty document in memory. The setting for |Room| is used for allocating space. The Document Default Settings are used for Ruler, etc.
- :: |Merge| a document from disk into the current document at the cursor position. The amount of room left in the document is displayed below the menu.
  - : |Text87| Allows you to merge an existing \_T91 document file. The Rulers and Printypes of the merged document will be preserved.
  - : |Ascii| Allows you to merge an ASCII file. The file must be smaller than half the amount of room left in the document.
- :: |Export| a copy of the contents of the highlighted block and save as a new file.
  - : |Text87| saves the highlighted block as a \_T91 document. Rulers and Printypes of the text will be saved but the Layout will not.
  - : |Ascii| saves the currently highlighted block as an ASCII file. If there is no block, the whole text will be exported. If you use the <F3> |Doc| |Model| |Freeze| command prior to this command, each line of text will be exported with a line-feed at the end. Otherwise only paragraph ends will be sent as a line-feed.

- :: |Import| creates a new document in memory and fills it with a Quill document file or an ASCII file.
- :: |Zapl| the contents of the current document without removing its Rulers and Layouts. This is used to start a new document based on an old one.
- :: |Quit| closes all the document windows and presents the Initial Menu from which you can quit the Program.

### |Block|

Three different menus appear depending on the situation. You can use all cursor move key combinations while in the block menu.

This menu appears while highlighting a block of text:

- :: |Block| complete the block highlighting operation.
- :: |Gotol| presents the menu which appears after <F3> |Gotol| for moving to any part of the text.

The following menu appears once you have highlighted a block of text. If the Cursor is over the block, |Copy| and |Move| entries will be absent.

- :: |Block| remove the existing block highlight and start the highlighting operation with the cursor at the current position.
- :: |Copy| the contents of the highlighted block at the cursor position.
- :: |Delete| the contents of the block.
- :: |Gotol| presents the menu which appears after <F3> |Gotol| for moving to any part of the text.
- :: |Unset| removes the highlight from the block.
- :: |Move| the contents of the block to cursor position and removes the highlights.
- :: |Ruler| changes the Ruler for all the lines of the block.
- :: |Type| changes the Typeface and Character Highlights of the block. Similar to <F4> command (see <F4> Typeface Selector above), but with some differences. For details refer to the Section IV under the BLOCK.
- :: |Alpha| presents a menu with options to change the case of all the characters in the block to uppercase or lowercase. Accented characters that appear in both cases in the QL character set are also changed.

**[Doc]**

Is for various operations and settings related to the structure of the document.

:: **[Repaginate]** updates the position of page-breaks after changes are introduced by editing the text.

After adding or deleting text, the dotted red lines on the screen do not always correspond to the actual position of soft page-breaks. (Page breaks inserted by you and Section dividers are always displayed correctly.) This command restores the break almost instantly and can be used as often as necessary. Modifying the Layouts or Rulers, file operations or previewing the pages will automatically perform a repagination.

:: **[Pagebreak]** inserts a hard page-break (or a Frame break in multi-column text) before the cursor line. Hard page-breaks can be removed by using any of the delete commands at the end of line.

:: **[Numbers]** presents options for page numbering and insertion of page number markers.

: **[Insert]** places the marker for numbering at the cursor position. At the time of printing, any such markers will be replaced by the appropriate page number.

: **[First page number]** allows you to modify the number for the first page of the document. This value is normally 1. When the document is a chapter of a larger text, the value should be set differently.

: **[Numbering]** toggles between different numbering modes: 'none' means no page numbers will be placed at the marker; 'Arabic' (i.e. ordinary digits), 'uppercase Roman' or 'lowercase Roman' can be selected if numbers are required.

:: **[text Sections]** displays the list of Text Sections within the document in a Selector Box and presents the following options.

: **[Goto]** refreshes the Edit Window and places the cursor on the first line of the Section highlighted in the Selector Box.

: **[New section]** will divide the Section under the cursor into two new Sections. Division takes place above the cursor line.

: **[Merge sections]** will merge the Section under the Cursor with the Section above it. Works only if the cursor is on the first line of a Section. Use the **[Goto]** section command to achieve this. The old Section separator will turn into a hard Page Break which you can later delete.

: !Text typel allows you to modify the type of the Section highlighted in the Selector box. Text Sections can be of two distinct types: 'flowing' and 'repeated'. The main text of the document is always in Sections of 'flowing' type. This means when the Section is put into Frames of the Layout, text flows from one Frame to the next.

Repeated texts, such as those used for headers and footers, is put in Sections of 'repeated text' type. Each time a 'repeated text' Section is put into a Frame, it will start from the beginning of the Section. 'Repeated text' Sections must always be short enough to fit into one Frame. Text that overflows the Frame, will never be printed.

:: !Model presents options for text reformatting mode.

: !Freezel turns on a special mode of editing. In this mode when you add or delete text on a given line, only that line is reformatted and the rest of the paragraph does not change. This is useful for revising the text according to a printed copy, because you can locate the original lines despite the changes.

: !Reformatl is used to both turn the Freeze mode off and to reformat the whole document after all the changes have been entered into the text. Reformat has also another use; when you load a \_T91 document that was written with a different printer driver from the one you are using. With very large documents, this command may take a few minutes to complete its work.

:: !Typeface searchl allows repeatedly searching for and replacing a selected Typeface/Highlight. For example, if several areas have been underlined, you can search for underlined text and replace the underline with italics.

This command searches and changes both the Typeface (e.g. double width) and the Highlight (e.g. bold or underlined) at the same time. The !Old printypel is a pair of numbers for what you search for, !New printypel is the pair that replaces it. The initial value of !New printypel is the last Typeface/Highlight pair selected with <F4> or selected with the <F3> !Typel command as Selection 0 (see the <F3> !Typel menu below for this). !typeface Searchl does not remove the original internal markers when it makes the changes, so it can be used again to change Printypes back to their original values.

This command is extremely useful when you want to convert texts written under one printer driver to another. For instance, italic Printypes are under Typefaces 7-13 in most 9-pin dot-matrix drivers. The same Printypes appear under odd-numbered Typefaces in extended 24-pin drivers (this is because the latter support many more Typefaces and sizes). To convert a document, load the document and replace the Printypes from the beginning of the text.

**|Goto|**

Allows you to move the cursor to the |Top|, |Bottom|, |block Highlight|, any |Line|, |Page| or |Section| of the document.

:: |Line| When this command queries the desired line number, the default value is the last line number entered for this command, or the line number at the start of the last search or spell operation. This facility can be used in conjunction with |Search|. If you edit the text after searching for a string, you can use <F3> |Goto| |Line| and press <ENTER> for the default in order to return to the line where you originally issued the |Search| command. Line numbers for this command are calculated from the beginning of the text.

**|Search|**

— This command is for both search and replace operations. To replace text, type the text to search for, followed by the separator entered using <SHIFT> <F5>, then followed by the text to replace. To find Page Number Markers, use <CTRL> <SHIFT> <F5>. The following menu is displayed at the beginning:

:: |Search for old string| will find the next occurrence of the previously defined text string.

:: |New string| will clear the old string and allow you to enter a new one.

:: |Edit string| will retain the old search string and allow you to edit it.

:: |Direction| toggles the direction of search: backward or forward

:: |Case| toggles between case-dependent and -independent search.

Once a string has been found, a new, shorter menu is displayed. If you specified a replace string, |Replacel and |replace All| commands will be on the menu. At the end of the search, when no match is found, a short menu allows you to move the cursor back to the Edit Window, either back to the position where the <F3> key was pressed, or to the current position. Alternatively, you can recall the initial search replace menu in order to change the search string or the direction or case-sensitivity of search and continue the search.

**[Layout]**

For setting up the layout of the printed page. A Page Layout consists of a rectangle representing the paper and at least one Frame for text. The size and the position of the Frames determine where the text is placed on paper. Each document can contain up to 64 different page Layouts, but most documents need only one or two Layouts to be defined. The Layouts that you define are used in succession to format the text when the document is printed or pages previewed. The first thing to do before setting up the Layouts is to select the |Paper| size if it is not the default A4. This is because when you change the paper size, the existing Layouts will be cleared (the only exception is changing the size to A3).

There are two Selector Boxes in the Layout Editor. The list of Layouts appears in the top Selector Box, the list of Frames for the Layout highlighted by the red box appears in the bottom Selector Box. As you move the red box over the Layouts using the <UP> and <DOWN> keys, the list of Frames and the graphic representation of the Layout on the left are automatically updated.

- :: |Edit layout| allows editing the highlighted Layout to change its frames and their size and position (see below for details).
- :: |New layout| creates an exact copy of the highlighted Layout on the list.
- :: |Delete layout| removes the highlighted Layout from the list.
- :: |Paper| offers options for paper size and orientation. Please note that the landscape orientation refers to paper inserted in an ordinary wide-carriage printer in the landscape mode. Only on laser and HP Deskjet printers you can use the printer's panel settings to print sideways. Also, if you are using continuous paper you should configure your printer driver for the correct amount of paper feed. The |Paper| command will not do this job for you.
- :: (Layout) |Repetition| A Layout is often used for more than one page. The repetition mode of the Layout determines how it is used.

There are three repetition modes: 'fixed repeat', 'continuous', and 'alternate'. Fixed repeat means the Layout will be used for a fixed number of pages before the next Layout takes over. Continuous means the Layout will be repeatedly used for the rest of the pages until no more 'flowing text' is left for the Layout. Alternate means the Layout will be used in tandem with an adjacent Layout for alternate pages until the same condition as in Continuous Layouts is reached.

In the list of Layouts you can have any arrangement that you choose with regard to Repetition Mode. The only condition is that Layouts with Alternate Repeat must be in pairs. If this condition is not met, an error is displayed and you will be unable to leave the Layout Editor until you have corrected the mistake.

:: !Edit layout! When this command is selected, you can edit the individual Frames in the highlighted Layout. Pressing <UP> and <DOWN> will move the red box over the Frames in the bottom Selector Box.

: !Resize frame! allows you to change the size and position of the highlighted Frame.

The flashing cursor is initially on the top-left corner of the Frame. Moving the cursor in this mode will move the Frame. Pressing <TABULATE> (with or without <SHIFT>) will move the cursor to the bottom-right corner of the Frame. Moving the cursor in this mode will change the size of the Frame. Once you have completed resizing, you should press <ENTER> to make the changes permanent. Pressing <ESC> instead will revert the Frame to its original size and position. While resizing, pressing <SHIFT> together with <UP> and <DOWN> will move the corner of the Frame in large increments.

: !New frame! creates an exact copy of the highlighted Frame for future editing with the !Resizel command.

: !Delete frame! removes the highlighted Frame from the list.

: !text Section! allows you to select which part of your document will be placed in the Frame highlighted by the red box.

A new document has only one Section, numbered 0. You can use the <F3> !Doc! command to divide your document into Sections. Having already done that, place the red box on the required Frame then select this command. A new Selector Box will appear on the left. Use the <UP> and <DOWN> keys to move the red box over the Section you want to print in the highlighted Frame and press <ENTER>. The selected Section will be attached to the Frame. This command is used to attach the text for headers or footers to their Frames.

: !Columns! allows you to subdivide the Frame highlighted by the red box into up to 4 equal columns.

Use the !Gap! option to determine the distance between the columns. The Gap setting will apply to all the column divisions in the current Layout only. Other Layouts can have different amounts of Gap.

When a Frame has been divided into columns, text will start in the first column and then flow into the second column and so on. The list of Frames in the Selector Box will include both the Parent Frame and its columns. Operation (such as resizing) can be performed only on the parent frame and not on the columns. You can change the number of columns back to one by selecting the option again.

**|Ruler|**

In **plus4**, you can design a set of Rulers for the document and use each Ruler to format your text as many times as you require. This command displays the Rulers in the Edit Window which operates as a Selector Box with a red rectangle which you can move <UP> or <DOWN>. A menu allows you to perform operations on the Ruler currently enclosed in the red box.

- :: **|Select|** make the current Ruler 'Selected'. Afterwards, while editing the text, the Selected Ruler can be used for formatting single paragraphs by pressing <F5>, or for formatting highlighted blocks of text with <F3> **|Block| |Type|**.
- :: **|New|** creates a copy of the current Ruler, so that you can **|Edit|** its properties without affecting the original.
- :: **|Edit|** brings up a new menu for changing the properties of the current Ruler. Refer to SECTION IV under EDITING RULERS for details.
- :: **|Delete|** the current Ruler. This will not have any effect if you have used the Ruler to format the text of your document.

**|Type|**

With this command, up to 10 combinations of Typeface/Highlight can be selected to be later inserted in text with the <SHIFT> <F3> key combination. The Default Document Typeface is also set here.

Three Selector Boxes appear on the screen. Use the <UP> and <DOWN> and <TABULATE> keys to place the highlights over the Typeface, Highlight and Selection then press <ENTER> to register your selection in the Selections Box.

The selection 0 in the Selections Box is also used by the <F3> **|Block| |Type|** command for changing the Typeface/Highlight of a block of text.

It is also possible to place the red box over a Typeface, Highlight or Selection without using the <UP> or <DOWN> keys (useful for ALTKEY definitions). Having selected a Selection Box with the <TAB> key, use the **|Position|** command and enter the number of the item. The red box will be placed over that item.

- :: **|Default document typeface|** sets the current selection in the Typeface Selector Box as the default Typeface. Texts created with the <F3> **|File| |New|** or **|Import|** (both Quill and ASCII files) will appear in this typeface.

Selections made with the **|Type|** command can be saved as part of the driver with the <F3> **|Config| |Driver| |Save|** command.

**|Print|**

Allows you to |Print| or |preView| the document in full or selectively. Current settings are displayed in the command window. The setting for Pages also includes, in brackets, the number for the first page and the page numbering mode set up with the <F3> |Doc| |Numbers| command. While printing, the display shows the page number for the last page completed, not the one currently being printed.

:: |Print| This command starts the printing process. While printing is in progress you can suspend it by pressing <ESC>, which displays a menu allowing you to |Print the rest| or |Quit printing|. After printing the first page, a menu allows you to |print All| the rest of the pages or just |Print next page| (in which case the same menu will reappear at the end of the next page).

Most printers have a buffer which holds some of the computer's output before actually printing it. If you decide to abandon a print job while the buffer holds some information, first abort the printing from **plus4**, then wait until the buffer contents are all printed. If you cannot wait, reset the printer.

QDOS extensions by Qjump feature print buffers in the computer's memory. Print buffers allow you to print in the background. You can control the maximum size of print buffers or turn them off completely if you do not need them. The contents of print buffers can be emptied if you want to abandon the print job. Refer to commands such as SER\_BUFF, SER\_CLEAR, PAR\_ABORT, PRT\_ABORT, etc., in the relevant manual.

:: |Alternat| Repeated selection of this command toggles a setting between 'all', 'evens' and 'odds'. When the setting is 'evens' or 'odds', only the pages thus numbered will be printed. This command is used only for printing on both sides of continuous stationery. At all other times, the setting should be 'all'.

:: |paGes| allows you to print only a selection of the pages of your document. The setting displayed in the Command Window shows the current range of pages to print. It also shows the number of the first page of the document and the page numbering method (e.g. Arabic, Roman) set with the <F3> |Doc| |Numbers| command).

:: |Devic| is for setting the details of the printer connection.

: |Port| setting is normally **PAR** or **SER1**, etc., but if you want to print to a file on disk you can enter **FILE** as the port.

: |Baud rat| is the speed setting for communication though the SER ports.

: |Speed| If your printer misses some characters while printing, use this command to set the communication speed to slow. This will not usually have an effect on printing time as most printers cannot keep up with the flow of data from the computer.

**|Config|**

This command allows changing most of the settings that are not directly related to editing and management of documents.

:: |Spelling| is for management of spelling dictionaries. This menu also comes up when you first press the <Shift> <F1> command to initiate spell-checking.

: |Open| will open a dictionary. The default name 'Qtyp\_dictionary' refers to the usual one to use.

: |Close| will close all the dictionaries that are open and thus release the memory occupied by them.

: |Special| will open an extra specialised dictionary in addition to the standard dictionary. This command is used for loading any specialised dictionary that you might have created yourself.

: |Load| is for loading a Word List. When you perform spell checking and use the |Add to word list| command, a List is gradually built up. Having saved this list with the |Save| command (see below) you can load the list into the dictionary next time you run the Program. You can |Load| as many Word Lists as you wish, but this would consume a lot more memory than adding those Word Lists to the main dictionary with the dictionary editor (a separate program).

: |Save| will save all the words that you have added to the Word List to a file of your choice.

:: |Driver| is for loading and saving the Printer Driver.

: |Load| will load a new driver to replace the default driver loaded when you EXECuted **text87plus4**.

: |Save| will save a copy of the current driver to disk. This command is used for saving three groups of settings that you can alter while using the Program. The first group is the list of your favorite Typefaces compiled with <F3> |Type|. The second group includes the settings made with the <F3> |Config| |Founts| |Attach| command, namely the colours used for the display of text Highlights (bold, etc.) and the different Screen Founts used for displaying the printer's Typefaces. The third group consists of the Printer Offsets described below.

: |Printer Offsets| allows you set the initial print position of the printer as offsets from the top and left edges of the paper. The typeset90 series of printer drivers come with the correct setting already made. With other drivers, it is up to you to set the position on the basis of where the paper is placed once loaded.

- :: |Founts| is for loading Screen Founts and determining their use. Please note that unless you are using **fountext88** as the printer driver, any operation under this command only alters the way text is displayed on screen and has no effect at all on the printed output.
- : |Attach| allows you to customise the colours and Screen Founts used for display of text in order to get a better WYSIWYG effect. Use this command only if you are not happy with the colours or the Founts used on the screen. Text can be displayed in three colours. Founts can be underlined and/or displayed in superscript and subscript positions. Screen Founts supplied on **text87plus4** or **fountext88** and other Printer Driver disks can be used for display of text. Refer to Section III under SCREEN DISPLAY for more details.
- : |Multiple| is for loading multiple Screen Founts listed in an **\_A87** file on the disk.
- : |Single| is for loading a single Screen Fount.
- : |Zapl| is for removing a Screen Fount from memory.
- :: |Parameters| is for modifying a range of Program settings. Current values are displayed.
- : |Menu model| toggles between 'short menus' and 'full menus' modes of Program operation.
- : |kill Help| will remove the already loaded help file from memory.
- : |Length unit| allows setting the unit of length used for displaying and setting Layouts and Margin dimensions.
- : (storage) |Text| for selection of the default device used for text files.
- : (storage) |Founts| for selection of the default device used for loading Founts, Driver, dictionaries, Word Lists, etc. However, the device where **plus4** expects to find the **CONFIGURE\_C91** file (see below) is **flp1\_** and can be changed only with the **plus4setup** program
- : |Save settings| will save a copy of current settings to the file, **CONFIGURE\_C91**, for use by the Program next time it is **EXECuted** so that you do not have to repeat the modifications. The Default Document Settings which apply to the next |New| or |Imported| document take effect when this command is issued even if you press <ESC> and not actually save the **CONFIGURE** file. Refer to Section III for a list of the settings that are saved.

## III. PROGRAM CONFIGURATION

### PROGRAM EXECUTION

When **plus4** is EXECuted it takes the following steps:

A) Attempts to load from **flp1\_** (or the drive specified using the |Configuration| option of **plus4setup**) a file named **CONFIGURE\_C91**. This contains configuration information that you have previously determined and saved with the <F3> |Config| |Parameters| |Save| command. If **CONFIGURE\_C91** is not found the Program uses its own preset default information.

B) Tries to load a file called **DRIVER\_P87** (the printer driver) which holds the data for the printer. Failure to load will result in the Program aborting.

C) The Program attempts to load a file called **DEFAULT11\_F87**. This is the default Screen Fount file and is always used for the display of menus and prompts. If **DEFAULT11\_F87** is not found the Program aborts.

D) The Program looks for a file called **FOUNTS\_A87** and loads the Screen Fount files listed there one by one until they are all loaded or memory becomes full. Once the files have been loaded the Initial Menu appear on the screen and the Program passes the control back to SuperBASIC. If the Qjump Pointer Environment is in use, control remains within the Program.

### MULTITASKING

From this stage, pressing <C> while holding down <CTRL> will pass control to **plus4** or back to SuperBASIC. You must use SuperBASIC for file maintenance (making backups, deleting unwanted files, checking the directories of the drives).

Once a copy of the Program has been EXECuted, most operations will result in memory being taken from the QL's available memory or released for future use. Once memory becomes scarce, many operations will become impossible (e.g. loading extra documents).

When **plus4** is used under the Qjump Pointer Environment you can **HOT\_RES** or **HOT\_RES1** the Program. Do not select the 'g' (guardian) command as stated in some Hotkey manuals, this is not necessary with **text87plus4**. **HOT\_RES1** is the usual command to use as you do not need more than one copy of **plus4** to edit multiple documents. **HOT\_RES** is used only if you want to run two **plus4s** with different drivers catering for different printers.

With Taskmaster, the amount of memory allowed for **plus4** should be set to the maximum in the QL. The Taskmaster setting for using only a single copy of the program code for multitasking must be turned off. (these settings, designed for Psion programs, do not apply to **plus4** which is inherently multi-tasking.)

## TYPES OF FILES USED BY text87 LISTED ACCORDING TO THEIR EXTENSION:

**\_C91** Configure file saved by the user. The file, **CONFIGURE\_C91**, is used automatically by the Program when it is EXECuted.

**\_F87** Fount files created with **founted89**.

**\_A87** List of Screen Founts for loading a group of Founts in one operation. These are ASCII files which contain full names of the Fount files. Each Fount name must be on a separate line. The list must be saved on the Working Disk with the <F3> |File| |Export| |Ascii| command. When the <F3> |Config| |Founts| |Multiple| command is selected, the Program looks for the **\_A87** file you have entered and if found, attempts to load all the Founts listed there from the disk (memory permitting).

At the time of EXECution the Program will automatically look for a file called **FOUNTS\_A87** in order to load the required Founts. If this file is absent, the Program reports an error but will not abort.

**\_P87** Printer driver file. The **DRIVER\_P87** can be any of the supplied driver files copied to the Working Disk with its name changed. When the Program is in action, it can load any **\_P87** file to replace the original **DRIVER\_P87** file in its memory. Note that the **\_P87** file loaded governs the way in which the Program formats the text in memory, as well as the codes it sends to the printer. For further information refer to SECTION III.

**\_T87** Text file created with older versions of text87. When loading such files you should add the extension **\_T87** to the file name.

**\_T91** Text file created with **text87plus4**. These files contain the text plus the following information:

- \* The way each line of the text is formatted.
- \* Rulers which govern the format of the text.
- \* Page Layouts governing the printed pages.
- \* Printypes used in the text.
- \* Sections, page breaks, page numbering mode and the start page number.
- \* Cursor position and line number at Save time
- \* Mode for reformatting set by the <F3> |Doc| |Model| command.
- \* The Block highlighted with the <F3> |Block| command.

**\_L87** ASCII files created with the older versions of text87.

**ANY** Files |Exported| from **plus4** with the |Ascii| command: In these files, Tab Marks are optionally replaced with Spaces, Soft Hyphens (1F) with Hard Hyphens (2D), Hard Spaces (C0) with ordinary spaces, and Invisible Hyphens (hyphenation marks) are removed from the text

## III. PROGRAM CONFIGURATION

Any text file `|Imported|` or `|Merged|` with the `|Ascii|` option. At the time of import, character codes 00 and 0A (Line Feed) are interpreted as end of paragraph, code 09 (TAB) is interpreted as a Tab Mark, codes 20 to BF (32 to 191) are interpreted as characters, and the rest of the codes are removed. Files exported from Quill, Abacus and Archive with the `_LIS` extension, corrupted Quill `_doc` and Archive files can all be `|Imported|` in this way.

Note: When `|Exporting|` files, the end-of-line character sent to the file depends upon the mode selected with the `<F3> |Doc| |Model|` command. If `|Freeze|` has been selected, all the lines which originally ended with a Space or Carriage Return will end with the Line Feed code (0A hex, or 10 decimal). Otherwise, only the last lines of paragraphs will end with a Line Feed.

`_DOC` Document files created with Quill can be `|Imported|` using the `<F3> |File| |Import| |Quill|` command. Hyphenation Marks and Highlights are kept. Tab Marks are preserved but they are interpreted according to the Default Document Ruler of `plus4`, hence the format of the document is likely to change in the Import. Further information is provided in SECTION IV.

Extensions listed above (apart from `_L87` and `_DOC`) are built into the Program. When loading a file, simply use the File Selector rather than typing its name. When you enter a file name to `|Load|` or `|Save|`, you should leave the extension out. Default device names, such as `mdv2_` and `flp1_` are set using the `<F3> |Config| |Parameters|` command and need not be added to the file name. For example, if your text files are normally on `flp2_` you should set the default text storage device to `flp2_`. If you want to load a file from a device or subdirectory other than the default, type the device (and subdirectory) name ending with an underscore then press `<UP>` or `<DOWN>` for a list of files.

However, you are free to enter the device name and extension. Device names accepted in direct entry are MDV, FLP, DEV, NET, RAM and WIN followed by a digit and then an underscore. Thus names such as `flp1_`, `flp5_`, `mdv4_`, `ram1_`, `win1_`, `dev3_`, `net6_` are recognised as device names whether they actually exist on your machine or not. These device names temporarily override the default. If the extension is correct for the type of file being loaded or saved, it is simply ignored but if it is not correct, it is interpreted as part of the file name. For example, with the default text storage device for set to `flp2_`, when you `|Save|` a document using various combinations, the Program treats the file name you enter as follows:

Name Entered	Name used by the Program to save
MY_TEXT	FLP2_MY_TEXT_T91
FLP2_MY_TEXT	FLP2_MY_TEXT_T91
MY_TEXT_T91	FLP2_MY_TEXT_T91
MY_TEXT_T87	FLP2_MY_TEXT_T87_T91
(But if you use the above name for <code> Loading </code> a file:)	
	FLP2_MY_TEXT_T87
FLP1_MY_TEXT_T91	FLP1_MY_TEXT_T91

## CONFIGURING THE PROGRAM

Configuring the Program for your needs is accomplished mainly through three different commands <F2> |Options|, <F3> |Config| and <F3> |Print| |Device|.

Parameters not listed here are saved in the printer driver file or as Fount list files. Refer to <F3> |Config| |Driver| and <F3> |Config| |Founts| commands for details.

The <F2> |Options| command allow you to set the Program's Window parameters. The <F3> |Config| |Parameters| command is used for changing the default for the devices on which text files and Founts and Drivers are stored. It also allows changing the length unit used for Rulers and Layouts. The <F3> |Print| |Device| command is used to set the printer port and the baud rate for the serial ports.

Ruler 0 and Layout 0 settings for the current document can be made default values for the documents to be created later with the |New| or |Import| commands.

Most parameters can be saved in the file **CONFIGURE\_C91** with the command <F3> |Config| |Parameters| |Save settings|. This file is automatically read when the Program is EXECuted. When you invoke this command, the Ruler and Layout settings of the current document are turned into the default. This happens even if you press escape when the Program offers you the name **CONFIGURE\_C91** for confirmation and not actually save the settings. Default values for the parameters in **CONFIGURE\_C91** (which you can change) are given below.

### Parameters set by the <F2> |Options| command:

Menu Position	top
Prompts on or off while editing	on
Ruler display	on
Line number display mode (Text based / Page based)	text based
Video scale	60 pixels / inch
Video vertical compression (hide line-spacing)	on
Video mode (Normal / Inverse)	normal

### Parameters set by the <F3> |Config| |Parameters| command:

Default storage device for Founts and Drivers:	flp1_
Default storage device for text	flp1_
Length unit	millimetre

### Parameters set by the <F3> |Print| |Device| command:

Printer port	ser1
Baud rate	9600

### Other parameters:

- Amount of Room added to files when they are loaded <F3> |File| |Room|
- Default Ruler for new documents (Ruler 0 of the current document is used)
- Default Layout for new documents (Layout 0 of the current document used)

## SELECTING THE PRINTER DRIVER

List of drivers supplied with **plus4** together with appropriate Fount list files:

(1) <b>FOUNTS_DOT_A87.</b>	Fount List for dot-matrix
(2) <b>FOUNTS_EXT_DOT_A87.</b>	Fount List for extended dot-matrix
(3) <b>FOUNTS_DAISSY_A87.</b>	Fount List for daisywheel
<b>FXFASTEPSON_P87 (1)</b>	For all Epsos and compatibles
<b>FXFASTIBM_P87 (1)</b>	For printers with the IBM character set
<b>FXFASTSR10_P87 (1)</b>	For Star SR-10
<b>FXFASTQL_P87 (1)</b>	For the (black casing) QL printer
<b>FXFASTMT80_P87 (1)</b>	For Mannesmann Tally MT80
<b>FX80DRAFT_P87 (1)</b>	For Epson FX80 and RX80 and compatibles
<b>FX80NLQ_P87 (1)</b>	Ditto, but prints in NLQ if available
<b>FX80PLUSNLQ_P87 (2)</b>	For Epson FX80+ with NLQ board
<b>LX800DRAFT_P87 (1)</b>	For Epson LX800 and compatibles
<b>LX800NLQ_P87 (1)</b>	Ditto, but prints in NLQ
<b>GLP2NLQ_P87 (1)</b>	For the Centronics GLP2
<b>PW1080ADRAFT_P87 (1)</b>	For Canon and KagaTaxan
<b>PW1080ANLQ_P87 (1)</b>	Ditto, but for NLQ
<b>CITIZEN120_P87 (2)</b>	For Citizen 120
<b>SG10_P87 (1)</b>	For Star SG-10
<b>SR10_P87 (1)</b>	For Star SR-10
<b>LC10_P87 (2)</b>	For Star LC-10
<b>DELTA10_P87 (1)</b>	For Star Delta 10
<b>MT80_P87 (1)</b>	For Mannesmann Tally MT80
<b>QL_PRINTER_P87 (1)</b>	For the QL printer
<b>IBMPROPRINTER_P87 (1)</b>	Simple driver for Proprinter compatibles
<b>ASCIIPRINTER_P87 (1)</b>	For any printer that prints in 10 cpi
<b>ASCIIELITE_P87 (1)</b>	For any printer that prints in 12 cpi
<b>DX100_P87 (3)</b>	For Epson DX100 daisywheel
<b>HR15_P87 (3)</b>	For Epson HR15 daisywheel
<b>DAISY_P87 (3)</b>	For Daiblo compatible daisywheels
<b>DAISY_BI_P87 (3)</b>	For Dataproducts daisywheels
<b>TA2000_P87 (3)</b>	For Triumph-Adler TA2000
<b>DAISY_PRO_P87 (3)</b>	For Diablo compatibles with PS
<b>DAISY_PRO2_P87 (3)</b>	Ditto, with a different combination
<b>DAISY_PRO_QUME_P87 (3)</b>	For Qume compatibles
<b>TA2000_PRO_P87 (3)</b>	For Triumph-ADLER TA2000 with PS

The two ASCII drivers are for obsolete printers and can be used with any printer. When in doubt, install one of these in order to be able to use the Program and consult the **DRIVERS\_INFO\_T91** file for the correct driver. Up-to-dated information on drivers and their suitability can be found there. A similar file can be found on the 2488 disk under the name of **24PIN\_INFO\_T91**.

## SETTING UP THE PRINTER

Information presented here is of a general nature. Refer to the document, **DRIVERS\_INFO\_T91** for specific information. With any printer, the dip switch for auto line-feed must be turned OFF. If there is a dip switch to select between Line Print and Serial Print modes (not to be confused with a serial interface--it can exist on printers with parallel interface) it must be set to Serial Print mode.

On dot-matrix printers the dip switch for the character set must be set to the Epson character set (rather than the IBM set) unless an IBM compatible driver is used (currently all the drivers in the 2488 set use the IBM character set but they switch to this set in software). If there are dip switches for condensed or emphasised modes, they should all be set to the OFF position. The position of the dip switches for the language group is not important as the Program selects the correct one. On printers with a serial interface, data byte length must be set to 8 bits.

With daisywheel printers dip switches for language group should be set to the language group of the daisywheel most frequently used unless **DAISY\_PRO2\_P87** is used. If a tractor feed unit is used with a daisywheel printer, using superscript and subscript within the text may result in incorrect positioning of lines as some feeders prevent reverse paper feed.

With all printers, different character sizes and pitches are set by the Program and the settings made on the printer front panel are usually ignored. Some settings, however, will be effective. For example, on a dot-matrix printer such as LX800 which has multiple NLQ Founts, the Fount selected on the panel will be used for printing. On some other printers, the NLQ mode set on the printer panel may become effective when using a draft mode driver.

The Program default for the printer port has been set to ser1 and the baud rate at 9600. Any baud rate can be set on printers with a serial interface. The same baud rate should be selected within the Program using the <F3> |Print| |Device| command. The same command can be used for changing the printer port setting.

Printer connection problems are more likely to arise with printers with a serial interface, as dip switches for communication protocol and the cable connections must be set up correctly. An incorrect baud rate or data byte size will result in garbage output. Incorrect cables or the wrong protocol setting may result in printouts that are partly correct and partly garbage. When using the Thor connected to the printer through its parallel port, the printer port should be specified in **plus4** as 'parr' with the extra 'r' denoting raw data.

If the printer misses odd characters, try the <F3> |Print| |Device| |Speed| command to set the print speed to |Slow|. This will not have a discernable effect in actual print speed unless you are using **fountext88** on an Atari or QL with a parallel port.

**text87plus4** allows you to set, within the Program, the initial position of the print head of the printer with respect to a loaded sheet of paper. The

<F3> |Config| |Driver| |printer Offsets| command is for this purpose. With most dot-matrix printers, the distance of the top pin of the print head from the top edge of the paper after loading a single sheet is about 25 mm. But with sheet feeders or continuous sheets, printers usually allow a top margin smaller than 25mm. If the actual distance is different, change the Vertical Offset. The Horizontal Offset is usually up to you to set up on the printer (as you are normally free to choose the horizontal position of the left edge of the paper). If you load the paper in a position to the left of the first print position, set the Horizontal Offset to the distance between the left edge of the paper and the leftmost print position.

For laser printers and others with automatic paper load mechanisms that are hidden inside, refer to the printer manual for the Offsets. Make the same setting in the Program and save the Printer Driver with <F3> |Config| |Driver| |Save|. Current versions of our laser and Deskjet drivers have the correct settings for the main models and should not be altered.

The correct setting of the Offsets within the Program ensures that your printed pages follow the same Layout as you have designed. If you design Layouts with the left or top edges of Frames starting before the Offsets, the whole page will be printed in a shifted position compared to the coordinates in the Layout.

## ABBREVIATIONS USED IN PRINTER DRIVER

The following abbreviations have been used in printer drivers for names of Typefaces and Highlights. They are displayed in the Command Window of the Program and in the list of Typefaces and Highlights in various commands.

Cond	Condensed
DH	Double Height
DW	Double Width
It	Italic
MS	MonoSpaced (i.e. fixed character pitch)
PS	Proportionally Spaced
SansS	Sans-Serif
SH	Single Height
SubS	SubScript
SupS	SuperScript
SW	Single Width
UL	UnderLined

## LOADING AND SAVING DRIVERS

The <F3> |Config| |Drivers| allows for a new printer driver file to be loaded at any time to replace the existing one and for the current driver to be saved on the Working Disk.

Loading a new driver is necessary when a different printer is used or when you want to switch between a draft and NLQ driver. Saving the driver allows your settings for

the correspondence between the printer Typefaces and the Founts and colours to be stored with the driver, so each time the driver is loaded those settings become effective. In addition, selections made with the <F3> !Type! command for use with the <SHIFT> <F3> command are saved with the driver.

## CONFIGURING THE DISPLAY OF TEXT

The Working Copy of **text87plus4** prepared with the **plus4setup** program contains the default settings for display of text. The following information is intended for those who want to change the defaults or gain a better understanding of the way the Program works.

## CONCEPTS AND TERMINOLOGY

The ultimate purpose of any word processor is the production of printed documents, yet documents are composed on a video screen. While the printed output is limited by the capabilities of the printer, video display is limited by the capabilities of the computer and the word processor. Both the screen display and the printed output are made of dots. The average QL video display is about the same width as an average sheet of paper. The QL screen can display only 512 dots across whereas NLQ dot-matrix or laser printers produce over 2000 dots across the width of the paper. This discrepancy means that when a page is viewed on the screen, either only a fraction of it can be displayed at high resolution similar to the printed output, or the whole width is displayed with a huge loss of detail.

In order to overcome this built-in deficiency of the hardware, **text87plus4** completely distinguishes between the printer output and its screen representation. It offers you the ability to use the printer's capabilities to the full and to configure the display of text on the screen separately to your own requirements.

In the **text87** system, 'Fount' refers to a video display character set stored in a file--the same definition is used in the QL manual. However, **text87** Founts are not limited in size to the standard 9x6 pixels of the QL Founts.

The word 'Printype' has been coined to refer to any of the distinct forms in which a Typeface can be printed on paper by the printer. For example, The Courier Typeface in the 10 character per inch size can be printed plain, underlined, bold, etc. Each Printype is unique and visibly different on paper from the rest of the Printypes.

Different Printypes under each Typeface number have the same width characteristics: If they are monospaced all the characters are of the same width, if they are proportionally spaced, each individual character of the alphabet has its own width but this width is the same for different Printypes under the same Typeface number.

The Printypes for a given Typeface represent different Highlights: characteristics such as Bold, Underlined, Superscript, etc. Thus the combination of a Typeface and a set of Highlights defines a Printype. For example, on a dot-matrix printer, enlarged pica italic is a Typeface which can appear in a combination of: underlined, double-print, super- and subscript forms resulting in 12 distinct Printypes.

The printer driver holds the information on the printer Typefaces and Highlights that are available for use.

text87 can load and use many different Screen Founts at once in order to display the Printypes supported by the printer driver. The default Fount is always loaded and is numbered 0. Additional Founts are numbered from 1 upwards as they are loaded. You have complete freedom to choose which Screen Fount is used to represent which printer Typeface and Highlight combination (Printype). If you have not loaded an extra Fount, the default Fount is used for representing all the Printypes listed in the printer driver.

Note that text formatting takes place according to the widths of characters of each Typeface taken from tables in the Printer Driver and does not depend on the Screen Fount used to represent the Printypes. This means the character which appear on the screen on one line will remain on the same line if you change the Screen Founts.

Using the <F3> |Cnfig|Founts| command (described below), you can modify the Screen Founts and colours used for displaying Printypes.

## THE DEFAULT DISPLAY SETTINGS

In ideal circumstances, when Founts and Printypes are in proportion to each other and line spacing is more than a minimum amount, the screen display is an almost exact representation of the printed page (although some detail is lost). This is always the case with **fountext88** which prints characters exactly corresponding to the Screen Founts.

Although the circumstances are not always ideal, you can find a combination of Founts that give a more-or-less correct representation of the Printypes. The default setting for text-mode printer drivers and their corresponding **\_A87** Founts are aimed at providing a reasonably correct display with a small number of screen Founts loaded (to avoid long loading times and excessive use of memory). These default setting are based on the following requirements.

- 1) The most commonly used character sizes are 10 cpi and proportional characters of the size normally found on 24-pin printers.
- 2) The ability to see the whole width of an A4 page on the screen.

Thus the **QL10\_F87** and **ORATOR\_F87** Founts, in which each character takes 6 dots horizontally, are used to display 10 cpi (characters per inch) printer Typefaces. **DEFAULT11\_F87** and **ANTIQUA12\_F87** Founts are used to display normal proportional characters. **QL10DW\_F87** (12 dots per character) is used for 5 cpi double width characters.

Three separate lists of Founts (**\_A87** files) are supplied with the Program and the printer drivers have been programmed according to these lists. The **\_A87** list files are for daisywheel drivers, standard-format dot-matrix drivers and extended-format dot-matrix drivers and one of them is selected for the Working Copy.

A Program parameter called the Video Scale has been set to the default 60 screen dots per inch, which means that the 512 dots of the QL can accommodate just more than 8 inches of the width of the paper. So far the selection of display Founts meets the requirements. If your printed texts do not contain Typefaces smaller than 10 cpi or normal proportional, the defaults are adequate for correct screen representation (although there will be a loss of detail on the screen).

Problems arise when we look at 12 cpi, 15 cpi and condensed (16.7 cpi) Typefaces. We can easily print 128 condensed characters across the A4, but if we were to display the whole width on the screen, only 4 dots would be available for each character. Screen characters would have to lack detail to the extent that it would be impossible to display several characters (such as the M and the W). Because of this, the default settings cannot provide for the correct display of small Typefaces. In practice, those small Typefaces are represented by Screen Founts that are 'larger' than ideal. If you mainly produce printed work in those sizes, you should change the video scale (see below) and use the **|Attach|** command to set up the display.

## LOADING FOUNTS

**text87plus4** can use several different screen display Founts at the same time. At least one Fount (the **DEFAULT11\_F87**) is always loaded. Other Founts can be loaded manually or automatically. The **<F3> |Config| |Founts|** command allows individual Founts or a set of Founts to be loaded in one operation.

Before you **|Attach|** Founts to Printypes (described below), you should decide which extra Founts you want to use with the Program. Individual Founts can be loaded with the **|Founts| |Single|** command for browsing with the **|Founts| |Attach|** command. Once you have decided which Founts you want to load, proceed to the next step.

In order to load several Founts in one operation, you must prepare a list of Founts with full Fount file names (including the extension **\_F87**). This list is simply a text file with each Fount name on a separate line. The list must then be saved to the Working Disk using the **<F3> |File| |Export| |Ascii|** command. The extension for the file is **\_A87**. Try the **|Founts| |Multiple|** command with your list. When this command is issued, and an **\_A87** file is selected, the Program attempts to load the Founts that are listed there from the disk if enough memory is available in the QL.

Founts are loaded in the order they are listed in the `_A87` file. You can use the `<F3> |File| Import| |Ascii|` command to view and edit the `_A87` files which are supplied with the Program.

Finally, you can save your Fount list file with the name `FOUNTS_A87` so that it is used as the default. This file is looked for each time the Program is `EXECuted` and the Founts listed there are automatically loaded.

With `founted89`, available separately from `Software87`, you can edit the characters of existing screen Founts and create new Founts by capturing characters from screen images created with other programs. `founted89` can also load a Fount in the QL standard format to turn it into the `text87` format.

## USING THE ATTACH COMMAND

The `|Attach|` command displays 6 interlinked Selector Boxes showing lists of the following items:

Typefaces:	list of Typefaces supported by the Printer Driver.
Founts:	list of Screen Founts currently loaded.
Highlights:	list of Highlights for the currently selected Typeface.
Colours:	list of three possible colours for displaying text on the screen.
Position:	list of three possible positions at which text can be displayed.
Underline:	list of two possible options: Normal and Underlined.

The active Selector Box has its title boxed in a red rectangle. In each Selector Box, the currently selected item is also boxed. Moving the cursor up and down will move the box and change the selection. Three commands are available from the menu:

`|Single attach|` will apply the current selections of Founts, Colours, Position and Underline to the selected Highlight of the selected Typeface. This command performs the smallest amount of modification possible.

`|Fount attach|` will apply the selected Fount to the selected Typeface. All the Highlights of the selected Typeface will use the selected Fount but the Colour and other settings for Highlights will not change.

`|Highlight global attach|` will take the Colours, Positions and Underlining mode of all the Highlights as they appear in the Selector Box and apply the whole set to ALL the Typefaces in the Driver.

The suggested procedure is as follows:

- 1) Select each Typeface in turns and the desired Fount for its representation then select the `|Fount attach|` command. Use `<TAB>` and `<SHIFT> <TAB>` to move back and forth between the Typeface and Fount Selection Boxes.

2) Allow the selections for Typefaces and Founts to remain on two items that correspond with each other and do not change this during the rest of the operation. Using <TAB> and <SHIFT> <TAB> move to the four Selector Boxes for Highlights, Colours, Position and Underline. For each item in the Highlights Box, select the colour etc. and select the |Single attach| command or press <ENTER> as a shortcut. Once the combination of colours and other options is satisfactory, select the |Highlight global attach| command to apply the selections in the Highlights Box to all the Typefaces in the Printer Driver.

3) The operation is now complete but if you have more specific refinements in mind, use the |Single attach| command on individual Highlights of different Typefaces. Press <ESC> to get out of the Screen Fount Selector.

Once finished, you should select the <F3> |Config| |Driver| command and |Save| the modified printer driver to the Working Disk. The information stored by |Attach| will be preserved next time the printer driver is loaded. If the driver is to be automatically loaded at the time of EXECution, you should use the default DRIVER as the name of the driver file. Otherwise you can use a name of your choice for saving the driver.

## VIDEO SCALE AND JUSTIFICATION

The scale at which line spacing and the Rulers are displayed on the screen can be modified with the <F2> |Options| command. The default value is 60 pixels per inch which gives a correct representation when proportional Typefaces of 24-pin printers are displayed with the DEFAULT11 Fount and 10 characters-per-inch Typefaces are displayed with the QL10 Fount. If you mainly use 12 cpi daisywheels or dot-matrix Typefaces with the QL10 Fount you should change the Scale to 72 pixels per inch to get the correct representation. For Condensed (16.7 cpi) Typefaces with the QL10 Fount, the correct scale is 100 (Always multiply the cpi value by the number of dots covered by each screen character, in this case 6). Similarly if you use a large Screen Fount to represent normal size characters, you should further increase the Scale. The default scale of 60 is suitable for the supplied \_A87 Fount lists.

The need for the correct Scale becomes apparent when you use Tab Marks. If your Scale is too small for the Founts you are using, the characters aligned to a Tab Stop may overwrite those which come before them. If the Scale is too large, large gaps appear for spaces. The correct Scale usually results in spaces of the same width as the average screen character. None of this of course affects the format of the text in print.

When the video scale is larger than a minimum amount for the combination of Founts used within a line, justification becomes visible on the screen and the right margin corresponds to the Ruler displayed in the Edit Window.

## IV. EDITING THE TEXT

### EDIT WINDOWS

**text87plus4** is a multi-document, multi-window word processor. Several documents can be open at the same time and more than one window can be open over each document. The limit for Edit Windows open at the same time is 8. There can be one document with 8 windows open over it or there can be 8 documents with 1 window over each, or 4 documents with 2 windows over each (and other combinations).

Documents are opened using the <F3> |File| command. Extra windows over documents are opened with the <F2> |Divide| command which divides an existing window into two. Windows are closed with both the <F3> |File| |Close| and <F2> |Close| commands. The first one closes all the windows that are open for the current document but the second one closes only the current window. When two or more windows are open over one document, only one of them, the current Edit Window, is active at any one time. This window has a white border rather than a green one.

When you edit the text, changes are not reflected in the non-active windows, so be careful when you delete text because it will be removed from the document despite the fact that the old text may be displayed in a second window. As soon as you switch the current window to the second window, the display will be refreshed to reflect any changes made to it.

Multiple documents loaded at the same time, make it easier to move bits of text from one document to another. You can use <F3> |File| |Export| to save a block of text from one document to disk and then select the next document and use <F3> |File| |Merge| to insert the block of text at the cursor position. The documents loaded simultaneously are completely independent from one another. You cannot, for example, mark a block of text in one document and move it to another without |Exporting| it to disk first.

The commands in the <F2> menu allow you to manage the size and arrangement of the current Edit Window.

### TEXT FORMAT

**text87plus4** controls the format of the document in two complementary ways. One way is by referring to the Page Layout which specifies the areas where text is printed. This allows the Program to divide the document into pages and happens when you print or preview the text. After using the <F3> |Doc| |Repaginate| command the red lines in the Edit Window together with the information on the Status Line show you where each Frame, page or column begins. You can design the page with the <F3> |Layout| command explained later in this Section.

The other way in which **plus4** controls the document format has to do with the Rulers and Typefaces that you have used. This information is embedded within the lines of the document. While editing, **plus4** makes no reference to the Page Layout dimensions. The document is treated as a long column the width of which can vary. Line spacing, i.e. the vertical distance between each line and the line above it, can vary in different parts of the text. The information on width and line spacing, together with tab positions, is stored on Rulers. You can set up many Rulers through the <F3> |Ruler| command and call them up while editing.

As you type or delete characters, text is formatted according to the Ruler. The Program looks up the tables in the Printer Driver to determine the width of each character and fills each line with the maximum number of words that will fit in that line. This method allows characters of different widths to be mixed within the document and formatted correctly. If you select wider printer characters (as opposed to screen display characters), fewer of them will be placed in each line.

When the Program prints the text, it fills the Frames of the Page Layout with as many lines as would fit in them. If the Right Margin on a Ruler is set too far to the right so that it exceeds the width of the printable area (the Frame), the Program will not complain. This can cause lines to overlap or other unwanted results.

## RULERS

Rulers govern the Margins, Tab positions and line spacing of paragraphs of text. Rulers for successive paragraphs can be different or the same. A Ruler has a number starting with 0 and can be applied to several paragraphs in different parts of the text. When you change the margins and other settings for a Ruler, it will affect any paragraph which has been already formatted under that Ruler.

On Rulers, widths are set in the unit of length that has been selected through the <F3> |Config| command. Line spacing, however, requires fine adjustments so the unit of length used for its setting is much smaller and depends on the driver used.

A Ruler has a First Line Margin, a Paragraph Margin and a Right Margin. The First Line Margin determines where the first line of each paragraph begins, while the Paragraph Margin determines the position of the rest of the lines for each paragraph. Between the Margins up to 20 Tab Stops can be placed. Tab stops can be of any of the following types:

**Left Tab      Centre Tab      Right Tab      Decimal Tab**

When you start a new document, there is only one Ruler to which you can add new ones. The <F3> |Ruler| command displays the Rulers in the Edit Window which acts as a Selector Box. Using the <UP> and <DOWN> keys you can move over the Rulers. A menu is displayed with the following commands:

|Select| marks the boxed Ruler as **Selected** for later use in the document text.

**|New|** adds an exact copy of the boxed Ruler to the end of the list. The new Ruler can then be modified using the menu commands.

**|Delete|** removes the current Ruler from the list. This will not have any effect if you have already used the Ruler within the document to format paragraphs.

## EDITING RULERS

The **|Edit|** command displays a vertical bar, called the Bar Cursor, on the screen corresponding to the coordinate displayed in the Command Window. You can move the Bar Cursor horizontally with the **<LEFT>** and **<RIGHT>** keys. In addition **<TAB>** and **<SHIFT><TAB>** move the Cursor over the last or next Tab Stop or Margin Setting. **<ALT><LEFT>** and **<ALT><RIGHT>** move it to the left and right Margins. The following commands are available from a menu.

**|Tab|** allows inserting or erasing Tab Stops. A new menu is displayed with the different Tab types and an **|Erase|** command for removing the Tab Stop under the Bar Cursor. If the **|Erase|** command does not work on a Tab Stop, it is because the width units used for creating the Tab is different from the current width unit. Simply use the **<TAB>** or **<SHIFT><TAB>** keys to place the Bar Cursor exactly over the required Tab Stop. Tabs cannot be placed too close to each other, so if you cannot put a Tab Mark near an existing one, **|Erase|** the latter then proceed.

The Right Tab is the only type of tab that can be placed near or over the Right Margin. If such a Tab Stop is the only one on the line, text starting with Tab Marks and ending with a Carriage Return can be aligned to the Right Margin.

If a Centre Tab only is placed in the middle of the line, whole lines of text ending with a Carriage Return can be centred if they start with Tab Marks.

**|Margins|** allows moving margins. Margins cannot be set in such a way that leaves Tab Marks outside them. The **|Erase|** command is available to remove any Tab Marks which may be in the way. **|Erase|** has no effect on Margins.

**|Line Spacing|** For setting the amount of Line Spacing for the current Ruler.

**|Justification|** allows you to choose the justification mode for the current Ruler.

**|Decimal tab code|** allows you to change the character used for alignment to Decimal Tab Marks. The default is the period but you can select the comma or any other character (e.g. the star, the vertical bar). The Decimal Tab Code can vary between Rulers, thus allowing a large variety of formatting effects.

Once you have finished editing the Rulers, press **<ESC>** to leave the Ruler Editor. If you have modified the Tabs or Margins on some Rulers, any part of the text which is formatted according those Rulers will be reformatted at the end of the operation. As a result, a delay may occur before you can start editing the text.

## USING RULERS IN THE TEXT

While editing the text, the **!Selected Ruler** can be inserted at any point using the **<F5>** key. Inserting a Ruler changes the format of the paragraph under the cursor. Paragraphs above and below retain their original format. A blank line is an empty paragraph and as such can take a new Ruler with the use of the **<F5>** key.

In **text87plus4**, Rulers are reusable. You design only one Ruler for a given paragraph format (margins, tabs, line spacing, etc.) and use it as many times as you wish in different parts of your document.

If you attempt to insert the same Ruler that governs the **Cursor Line**, nothing will happen. In a new text, **Ruler 0** governs the format and is also the **!Selected Ruler**, hence pressing **<F5>** will have no effect until another Ruler is **!Selected**.

The position used by the Program for changing Rulers is the end of paragraph. When you delete the text at the end of a paragraph, if the next paragraph has a different Ruler, its Ruler will change to that of the paragraph above.

## TABS

While editing the text you can place **Tab Marks** in the text using the **<TABULATE>** key in order to align words with the **Tab Stops** on the Ruler. It is good practice to keep the number of **Centre**, **Right** and **Decimal Tab Stops** to a minimum to avoid confusion. It is best to experiment with different types of **Tab Stops** to see how they work. The following rules will always apply when text is formatted under any Ruler.

If the **Paragraph Margin** or a **Left Tab Stop** is the first one to the right of the **Cursor** position, placing the **Tab Mark** will left align the character under the **Cursor** with that **Tab Stop**. All the characters to the right of the **Cursor** will move to the right.

If the **First Line Margin** and **Paragraph Margin** are at the same position and the **Cursor** is located on the **Left Margin**, placing the first **Tab Mark** will have no visible effect but in fact it 'moves' the **Cursor** from the **First Line Margin** to the **Paragraph Margin**. Placing another **Tab Mark** enables the action described in the following paragraphs.

If a **Right**, **Centre** or **Decimal Tab Stop** is the first one to the right of the **Cursor** position, the character under the **Cursor** and those after it are moved to the right and aligned to the **Tab Stop** according to the latter's type.

If there is no **Tab Stop** to the right of the **Cursor** position, a new line is created after the **Cursor** line and the **Cursor**, with the characters to the right of its position, is moved to the new line.

It is thus good practice to use Tab Marks only in isolated lines, i.e. lines that end with a Carriage Return and follow a line that ends with a Carriage Return. Placing a Left Tab Mark on the first line of a Paragraph to align the characters with the Paragraph Margin is an exception to this rule.

## HOW TO SLOW DOWN THE PROGRAM !

Loose Tab Marks (produced by pressing <TABULATE>) placed carelessly at the end of the line ahead of the cursor position can slow down character entry while typing. The reason for this is that the floating Tab Marks force a reformat on each character entry. You can find out whether there are such Tab Marks by moving the cursor forward character by character. Delete the loose Tab Marks in order to avoid the slowdown.

## SPECIAL CHARACTERS

Apart from the Tab Mark and the Carriage Return, the following characters can break the lines of text.

**Space    Soft Hyphen: <->    Invisible Hyphen: <CTRL> <N>**

The Soft Hyphen is always visible on the screen and printed on paper. The Invisible Hyphen is not visible and will not be printed unless the word within which it has been placed is broken in two at the end of the line. To insert an Invisible Hyphen between two syllables of a word, the Cursor must be placed over the first character of the syllable to the right, i.e. the same position as it would be placed if a Soft Hyphen were to be inserted between the two syllables. The Invisible Hyphen is then inserted with the <CTRL> <N> key combination.

The Invisible Hyphen is distinguished on the screen with one dot above the Hyphen. The Soft Hyphen has two dots.

Space is the only character that is expanded when the line is printed right justified. Blank areas created by placing Tab Marks will not expand.

The Hard Space <SHIFT> <SPACE> is provided for use instead of the Space when the special effects of the Space are not desired. Combinations of two words such as 'Mr Pickwick' can be joined together with a Hard Space in order to stop them getting separated at the end of the line. The Hard Space is in every way similar to ordinary printable characters but for the fact that it is blank.

The Hard Hyphen <CTRL> <H> is similar to the Hard Space in that it does not break the line. The Hard Hyphen appears on the screen with no dots above it.

## TYPEFACES, HIGHLIGHTS AND PRINTYPES

When you start a new document or import a file (using <F3> |File| |New| or |Import| commands) the Program puts the characters you type in the Default Document Typeface. This default is Typeface 0 unless you change it with the <F3> |Type| command described below. Different methods can then be used to change the Printype of the characters you are about to type or that of existing text.

### INSERTING PRINTYPES WITH <F4>

The <F4> key allows you to interactively select and insert a new Printype at the cursor position. This Printype is then used for new text that you type.

Initially, the left-hand panel of the Command Window contains the name of the Typeface and Highlight under the cursor. The commands, |Underlined|, |Bold|, |Highscript|, |Lowscript|, toggle on and off these aspects of the Highlight. |Normal| toggles off all the Highlights.

The |Typeface| command displays a Selector Box. If necessary, select a new Typeface with <UP> and <DOWN> and press <ENTER>. You can press the <TAB> key while the Typeface Selector Box is on the screen in order to display a short list of only the Typefaces that have already been used in your document. This is handy if you are using extended printer drivers with long lists of Typefaces.

All your selections will be reflected on the left-hand panel. Once you are happy with the combination, select |Apply| (or <ENTER> as a shortcut) to apply the new Printype to text. Do not move the cursor or delete characters before you start typing, otherwise the new Printype will be lost. All the characters that you type will be in the new Printype. You can use <CTRL> <LEFT> to delete a mistyped character. When you want to change back to the original typeface, press the <RIGHT> cursor key once. The change will be reported in the Command Window.

If you want to use the selected Printype again, you can invoke the <SHIFT> <F3> command and press <ENTER> as a shortcut, provided you have not modified the Printype with other commands such as the <F3> |Type|.

### INSERTING PRINTYPES WITH <SHIFT> <F3>

The <F3> |Type| command allows you to set up a selection of different Printypes that you want to insert in your text at a later time. Up to 10 Printypes can be |Selected| for easy insertion in the text. These selections are stored in a table in the printer driver and will be preserved for your next editing session if you save the driver with the <F3> |Config| |Driver| |Save| command.

Selection of shadow and outline Highlights which are available on 2488 drivers can be made only with this command.

When the <F3> |Type| command is selected, a menu appears with the three commands |Select|, |Position| and |Default document typeface|. Three linked Selector Boxes appear on the screen, titled **Typeface**, **Highlight** and **Selections**. The objective is to modify the items in the **Selections** Box or to set the Default Document Typeface displayed in the left hand panel of the Command Window.

To set the Default Document Typeface, move the red box in the **Typeface** Box over the required Typeface then select the |Default document typeface| command from the menu. The change is reflected in the Command Window.

Using <TAB> and <SHIFT> <TAB> you can move back and forth between the Boxes. With <UP> and <DOWN> keys, you can move over the items in each Selector Box. For each item in the **Selections** Box on the right of the screen, you should arrange the red boxed selections and issue the command |Select| or press <ENTER> as a shortcut. Having set up the **Selections** Box, press <ESC> to end the operation.

The |Position| command is meant to be used with ALTKEYs to allow users of the older versions of text87 who utilise ALTKEY definitions to modify their old definitions for **text87plus4**. The |Position| command performs the equivalent of <UP> or <DOWN> movements by positioning the red box over an item in the current Selector Box.

Amongst the items in the **Selections** Box, item 0 is special because it is also modified when the <F4> command (discussed above) is used. It is also used as the default for the next Block operation and Printype search / replace command (discussed later).

The <SHIFT> <F3> key combination is used to insert in text one of the Printypes set up in the Selection Box. A menu with entries 0-9 allows you to insert one of the predefined Printypes. Alternatively, you can press the <UP> or <DOWN> key to select from the **Selections** Box with cursor keys. All the characters that you then type at the cursor position will be in the selected Printype. Once you have typed the part of the text you want to appear in the new Printype, you can move the cursor. The conditions described under the <F4> command for typing text apply to this command too.

## SEARCHING AND REPLACING PRINTYPES

The <F3> |Doc| |Typeface search| command allows repeatedly searching for and replacing a selected Typeface/Highlight. For example, if several areas have been underlined, you can search for underlined text and replace the underline with italics. Refer to the list of commands in Section II for full details.

## THE BLOCK

The Block is set by selecting the <F3> |Block| command or by pressing <CTRL> <B>. You should first position the Cursor either over the first character of the intended block or after the last character. A menu with two entries, |Block| and |Goto| will be displayed and a solid cursor will appear under the Cursor.

You can move the Cursor around using all the Cursor move commands. If you want to move over a long distance, issue the |Goto| command. Once the Cursor is over the required position, either at the beginning or just past the end of the intended block, pressing <ENTER> (as a shortcut for the |Block| command) will finalise the marking and highlight the block.

The size of the Block can be anything from a single character to the whole document. It can be edited as the rest of the text and its size changed through additions and deletions. The Block area will be printed at print-time just like the rest of the text.

## BLOCK OPERATIONS

If you have already set the Block, selecting the <F3> |Block| commands will display a menu for Block operations. The commands in the menu allow the Block to be |Copied| at, or |Moved| to, the Cursor position. In both cases the copy is merged with the existing text. All the changes of Printtypes and Rulers within the Block are reproduced in the copy. If the Block spans different Sections of the document, all Section changes will be translated into Hard Page Breaks in the copy. Block |Copy| and |Move| cannot be performed if the amount of memory left for the current document is not enough.

|Block| can be used to mark a new block from the cursor position.

|Delete| will remove the contents of the Block from the document, whereas |Unset| will only remove the highlight to enable setting a new Block. If the size of the Block is larger than a certain amount, selecting |Delete| will result in a query for confirmation. |Delete| will not remove Section Breaks covered by the Block. You can remove these with the <F3> |Doc| |text Sections| |Merge| command.

|Goto| acts identically to the <F3> |Goto| command and is used for moving the Cursor over a long distance to the desired position prior to |Copy| or |Move|.

|Ruler| changes the Ruler for all the paragraphs covered by the lines of the block to the Ruler Selected through the <F3> |Ruler| command. Thus if the block begins or ends in the middle of a paragraph, the Ruler for the whole paragraph will change.

|Alpha| displays a further menu with |Lowercase| and |Uppercase| commands. Selection of these commands will change the case of all the characters of the block accordingly. If necessary, you can later use the <CTRL> <A> command while editing the text to change the case of individual characters.

## THE BLOCK TYPE COMMAND

**|Type|** allows you to change the Printype of all the characters in the Block. **|Type|** has four different modes of operation:

The default mode will overwrite all the existing Highlights and Typefaces with the newly selected ones.

The two 'add' modes will add the selected Highlights (e.g. Bold) to the existing Printypes. For example, if there are Underlined and Superscript runs of text in the Block, they will change to Underlined Bold and Superscript Bold respectively. One of the 'add modes' will leave the Typeface part of the existing Printypes alone and the other 'add mode' will overwrite the Typefaces with the selected one.

The last mode will only overwrite all the existing Highlights with the selected ones while leaving the original Typefaces intact.

When you start the command, the current mode of operation is displayed in the Command Window below the menu. In the left panel of the Command Window the Typeface and Highlight selected previously by the <F3> **|Type|** command as Selection 0 or by the <F4> command is displayed.

**|Apply|** will apply the selected Printype to the Block.

**|Normal|** will turn off all the selected Highlights and at the same time toggle the mode of operation between the four modes described above. Use the **|Normal|** command a few times until you are happy with the mode of operation.

Apart from the effect of the **|Normal|** command, the menu works the same as the identical menu which is displayed by the <F4> command. **|Underlined|**, **|Bold|**, **|Highscript|**, **|Lowscript|** will toggle their respective Highlights on or off. **|Typeface|** displays a Selector Box containing all the available Typefaces. Place the red box over the required Typeface and press <ENTER> to select it. Once you are happy with both your selections and the mode of operation, press <ENTER> to **|Apply|** the selections to the Block.

## USING BLOCK COPY FOR EFFICIENCY

The **|Block| |Copy|** command preserves the Printypes and the Rulers used within the Block when it copies it. You can use this to copy complex changes of Typeface from one part of the text to another. One example is a table of figures with different columns in different Printypes. Instead of inserting the Printypes for all the rows, insert them for one row then highlight this row as the Block and copy it as many times as required to form the rows of the table. You can then fill the table by placing the cursor on the characters and typing the appropriate figures.

Using the <F3> **|File|** command, the Block contents can be **|Exported|** in plain ASCII and **plus4** formats.

## THE SEARCH

The |Search| command enables both search and search + replace operations. The sub-menu has commands to select the |Search for old string| defined in a previous search + replace or alternatively select |Edit string| or enter a |New string|. When you want to replace a string with another, you should place a Separator within the search + replace string to separate the search and replace parts. This separator can be typed using the <SHIFT> <F5> keys.

Search has options to look from the Cursor position forward or backward and to distinguish or not between upper-case and lower-case characters. When a match is found you can choose to |Replacel the string (if the separator has been used) or to |Search again| for the next occurrence of the search.

After a match is found in a Search and Replace operation you can choose to automatically |Replace all| the rest of the matches. If you select the latter command the Program will perform the search + replace to the end of the text and at the end of the operation will report the number of strings it has replaced.

At the end of the search a menu is displayed which allows you to |Quit| the search and go directly to Edit Mode. You can invoke the |Search menu again| in order to search with a different set of parameters. Alternatively, |Goto start| will place the cursor on the original position where you invoked the <F3> |Search| command.

## SPELL CHECKING

Spell checking within **plus4** is performed in a similar fashion to searches. When you press the <SHIFT> <F1> key, the Program searches the text from the cursor position onwards and finds the first word that is not in its dictionaries. The menu below is displayed for you to select the course of action.

|Ignore| |Browse| |Edit| |Add to word list| <esc>

You would normally |Ignore| proper names and special words that are used only occasionally in the document. You can select |Edit| if you know the correct spelling. You can |Browse| into the list of words contained in the dictionaries for the correct spelling and replace the word. If the word is spelt correctly you may want to use the |Add to word list| command to add the word to the Temporary Word List. In this case, if the same word is encountered again while spell checking, it will be considered valid.

The |Browse| command displays a Selector Box containing a list of words from the dictionary which match the initial characters of the unrecognised word. Those initial characters are displayed as the title of the Selector Box. You can use <UP> and <DOWN> keys on their own or with <ALT> and <SHIFT> to move the red box over the word. If you cannot find the word in the list you can often expand the list by pressing <SHIFT> <TAB>. This will reduce the number of initial matching characters by one thus resulting in a larger selection of words displayed. If you press

<SHIFT <TAB> repeatedly, you will get a view of the words in the Temporary Word List. The reverse action can be performed by pressing <TAB>.

Once you have found the word you require in the Selector Box, place the red box on it and press <ENTER>. The word will replace the unrecognised word. You can then edit the word in context. This is useful when you can only find the root of a word (e.g. Conscious instead of Consciousness). Press <ESC> when editing is complete. The Program will resume spell checking from where you left the cursor.

Spell checking relies on the following components.

- The Spell Device
- The Main Dictionary
- The Specialist Dictionary
- The Temporary Word List

## THE SPELL DEVICE

The Spell Device is the component which checks the words against the dictionaries for any mismatch. This component is in a small file called Qtyp\_spell which must be loaded into memory after the QL is turned on or RESET. It remains there as a 'resident extension' until the next RESET and is not affected by executing and terminating text87 or any other program. Once loaded, the Spell Device enhances the capabilities of the QL for those programs which have been designed to take advantage of it. The command for loading the Spell Device is listed under the procedure for Working Copy of the software. This command is held the Boot file on the Working copy and can be incorporated into your own Boot file.

## THE DICTIONARIES

Dictionaries contain lists of words usually kept in a compressed format to save disk and memory space. There are two types of dictionaries: Main Dictionaries and Specialised Dictionaries

A Main Dictionary must always be present and contains the most widely used words of a language. The following dictionaries are supplied with **plus4**.

Qtyp_dictionary	(English dictionary)
bigger_dictionary	(for use with Gold Card and Mega STs)
Qtyp_dictionary_Deutsch	
Qtyp_dictionary_Francais	
Qtyp_dictionary_Italian	(optional)
Qtyp_dictionary_Netherlands	(optional)

If you regularly need a Main Dictionary other than English, copy it to your Working Copy then change its name on your Working Copy to 'Qtyp\_dictionary'. A Specialist Dictionary contains words used in a particular field such as medicine. You do not need a Specialist Dictionary for spell checking.

A Word List is formed during spell checking. For example, when spell checking this Guide, the word ESC will not be found in the Standard English. As there are many occurrences of this word, one may add the word to the temporary Word List when it is first highlighted as a possible error. The subsequent occurrences of the word will not be reported by the Program as it is now a recognised word. If the words you have added to the word list need to be incorporated into a dictionary, you should save the Word List after completion of spell checking and add it to a Main or Specialised dictionary on a later occasion.

If you use programs which make use of the Spell Device at the same time as **plus4**, dictionaries and the Word List will be shared by both programs. Because of this, you cannot load new dictionaries or remove them from memory from **plus4**. This also applies to multitasking two copies of **plus4**.

## DICTIONARY AND WORD LIST MANAGEMENT

The <F3> |Config| |Spelling| command allows the following operations.

|Open| will open a dictionary. The name of the default dictionary 'Qtyp\_dictionary' is offered.

|Close| will close all the dictionaries that are open plus the Word List and thus release the memory they occupy.

|Special| will open an extra specialised dictionary that you might have created yourself in addition to the standard dictionary. The command will not work if a Main Dictionary has not been |Opened| previously.

|Load| is for loading a Word List. When you use the |Add to word list| command for some words, a List is gradually built up. Having saved this list with the |Save| command (see below) you can load the list into the dictionary next time you run the Program. You can |Load| as many Word Lists as you wish into the dictionary but this would consume a lot more memory than adding those Word Lists to the Main Dictionary using the dictionary editor.

|Save| will save the words you have added to the Word List to a file of your choice.

## THE DICTIONARY EDITOR

This is a completely separate program for adding to, deleting or modifying the words in dictionaries. You can incorporate a Word List into a dictionary or add individual words to the dictionary. You may also want to add notes to certain words, to be displayed when the word is found by the spell checker. For example, in the English Dictionary, notes are attached to the words 'practice', and 'practise'.

The best way to add to or build a dictionary is to check some of your documents with **plus4** and store the new words in a Temporary Word List with <F3> |Config| |Spelling| |Save|. You can specify any name for your Lists.

The following files must be on the disk for using the Dictionary Editor (but not required for spell checking with **plus4**). They are all on the second Master Disk:

```
boot_ded
ptr_gen
win_man
Qtyp_ded
Qtyp_ded_help
```

To use the program, reset the QL with no disk installed then insert the Dictionary Editor disc in **flp1\_** and after pressing <F1> type:

```
LRUN flp1_boot_ded
```

The Dictionary Editor uses Qjump's Pointer Interface. The program is controlled by selecting items from menus (either by pressing the key for the first letter or by moving the cursor over the item and hitting <ENTER>). A list of commands can be displayed by selecting |Help|.

## BUILDING OR EDITING A DICTIONARY

You should not edit a Main Dictionary directly if you want to add more than a few words. To incorporate a Word List into a dictionary, you should first load the dictionary using the |Edit existing dictionary| command from the opening menu and then |Load| the Word list. The editor allows you to edit the Word List before |Mergel| it into the dictionary. You should take the following steps.

- 1) Check the new words against a paper dictionary!
- 2) Add the plurals for nouns and past and present participles for verbs.
- 3) If you find it useful, add short notes to potentially misspelt words (refer to the example above: 'practice' and 'practise').

When you have finished editing, you can |Mergel| the word list into the dictionary and then save the dictionary.

For building a Specialised dictionary, you should use the |Create new dictionary| command from the opening menu of the Dictionary Editor. The program asks for a 'model dictionary', which is the Main Dictionary for the language used. You can then |Load| your Word Lists in the new dictionary and take the steps listed above.

|Rebuilding| a dictionary is necessary only for building a Main Dictionary for a new language (e.g. Swedish). This command analyses the whole contents of the dictionary and finds the best ways to compress the words. This is a very complex operation (for the computer) and may take several hours. The operation need only be performed once on a large dictionary and the resulting dictionary can later be used as a model for further dictionaries in the same language.

## LAYOUTS AND TEXT SECTIONS

The <F3> |Doc| and <F3> |Layout| commands control the makeup of the document. These commands are used independently but for one command, <F3> |Layout| |Edit frame| |text Section| which links the two together.

**plus4** treats the printed page as a rectangle with a width and height. Areas of the page where text is placed are similarly treated as rectangles with a pair of offsets from the top left hand corner of the page. These rectangles are called Frames. You can select the unit of length of your choice for setting the dimensions of the Frames with the <F3> |Config| |Parameters| command. The default value is 1 mm. The <F3> |Layout| command allows setting up the position and size of Frames.

When the Program places the text in Frames, it puts the zero position of the Rulers on the left edge of the Frame. For instance, if the left edge of a Frame has been set at 20 mm from the edge of the paper and the Left Margin has been set at 12 mm from the zero position on the Ruler, the line will be printed at 32 mm from the edge of the sheet. The Program fills the Frames with text according to the arrangement of Frames in Layouts and the Text Sections that you have specified.

## TEXT SECTIONS

A document consists of one or more Text Sections numbered from 0. When you create a new document it has only one Section, numbered 0. You can break any Section in two by placing the cursor on the line that is to become the first line of a new Section and issuing the <F3> |Doc| |text Sections| |New section| command.

The need for creating extra Sections arises when text that is to be printed on consecutive pages is not continuous. The simplest example of this is a document with a header on each page, such as this Guide. When a page is printed, the Program should print the header before continuing the printing of lines left from last page. The header is not part of the main text so it must be in a different Section than the main text.

Thus simple documents usually have a Section containing a header and another Section containing the main text. If there is a footer in addition to the header, there should be an extra section for the footer.

## A SIMPLE DOCUMENT

The file, **EXAMPLE\_SIMPLE\_DOCUMENT\_T91** on the disk contains pages all with the same format with a header and footer on each page. A similar document can be designed as follows:

First type the header on one or more lines, then the footer, and then a few lines of the main body of the text. Place the cursor on the first line of the footer and issue the <F3> |Doc| |text Sections| |New section| command. A red line will be drawn above the first line of the footer, showing that it has been separated from the header.

In the Selector Box you can see two Sections instead of the original one. Now press <ESC> a few times to move back to the Edit Window. Place the cursor on the first line of the main text and repeat the above command sequence to separate it from the footer. There are now three Sections listed in the Selector Box.

The Sections have now been created, but there is one more thing to do. We want the text of the header and footer to be repeatedly printed on each page, but the main text to be printed continuously, that is, text should flow from page 1 to page 2 and so on. The command |Text type| allows this. In the Selector Box, all the Sections are of the 'flowing text' type. This is how the main text should be, but the type of the Sections for header and footer should be changed to 'repeated text'. Use the <UP> and <DOWN> keys to place the red box in the Selector Box over the Sections for header and footer. For each of these two Sections select the command |Text type| and select |Repeated text|. The Selector Box should now indicate two Sections (number 0 and 1) of the 'repeated' type and one Section (number 2) of the 'flowing' type. The Text Sections have now been set up correctly.

You should now use the <F3> |Layout| command to design the Page Layout. Being a simple document, it needs only one Page Layout. Select |Edit layout| from the menu to change the default Page Layout displayed on the screen. A new menu will be displayed.

As three Frames are required, select the |New frame| twice to create the extra Frames. Now change the dimensions of each Frame. Place the red box in the Frame Selector Box over a Frame and select the |Resize| command. Place a Frame at the top of the page for the header, one in the middle for the main text, and one at the bottom for the footer.

You should now specify which Frame is for which part of the text. In other words you should Attach the Text Sections to Frames. As you can see in the Frames Selection Box, all three Frames are still attached to Section 0. In order to change this, Position the red box on the Frame for the main text then select the |text Section| command. A new Selector Box, identical to the one in the <F3> |Doc| command, will be displayed. Place the red box over Section 2 and press <ENTER>. The Frame Selector Box will show that Section 2, which is of the 'flowing' type, has now been attached to the Frame for the main text. Repeat this for the footer Frame and attach Section 1 to it. The design of the Page Layout is now complete. Press <ESC> a couple of times to return to the Edit Window.

Now if you add more text to any of the Sections or perform any text editing operations, the division between the Sections and their attachment to the Frames in the Layout remains intact. Solid horizontal red lines will show the division between Sections as they are updated.

Preview the document with the <F3> |Print| |preView| command. If things do not seem right, check two things: First, with the <F3> |Doc| command, whether Text Sections 0 and 1 containing the header and footer have been correctly marked as 'repeated text' and that Text Section 2 has been marked as 'flowing text'. Second,

with the <F3> |Layout| command, whether Text Sections have been attached to the correct Frame in the Layout. Note the Frame widths you have set in the Layout and use them as maximum Right Margin coordinates to redesign the Ruler if necessary. When the preview looks right, print the document.

The <F3> |Doc| command allows you to insert your own Hard Page Breaks in the text. In Text Sections with 'flowing text', Hard Page Breaks will force the text to continue into the next Frame, i.e. the next page when a simple document is concerned.

## COMPLEX DOCUMENTS

The list of commands in Section II of this Guide under <F3> |Doc| |Text Sections| and <F3> |Layout| explain how to set up Layouts and text Sections. **plus4** imposes few limits on the Layout and composition of the document. Up to 256 Text Sections and up to 64 different Page Layouts can exist in each document. As you can attach any Text Section to any Frame, the possibilities are immense. No matter how many Layouts and Sections you use, the rules by which the Program interprets your selections are the same, as discussed below.

### 1. ARRANGEMENT OF LAYOUTS

The Program uses the Layouts starting from Layout 0 and formats the pages. The Repetition Mode of each Layout determines how many times it is used. If the Repetition Mode is 'fixed repeat' the Layout is used for exactly as many pages as specified by the number of repeats for the Layout. This is true even if some or all of the pages end up blank as there is no text to fill them. Conversely, when a 'flowing' Text Section is printed in such a Layout only as much of the text as would fit the specified number of repeats will be printed and the rest will be left over.

If a pair of Layouts with 'alternate repeat' is encountered, they are used alternately to print the pages. The pair of Layouts will be used so long as there is 'flowing' text to fill them. In other words, if you attach a Text Section of the type 'flowing text' to at least one Frame of such a Layout, all of the text will be printed.

If a Layout with 'continuous repeat' (the default mode) is encountered, it is used for printing the pages as long as there is flowing text to fill them. Again, the condition is to have at least one Text Section with 'flowing text' attached to at least one Frame in the Layout.

It follows that

- a) Any Text Section that is not attached to a Frame will never be printed. You can use this feature to insert a non-printing Section of comments to your documents.
- b) Sections with 'flowing text' will be printed in their entirety provided that they are attached to at least one Frame in a Layout which has an 'alternate' or 'continuous' repeat mode.

## 2. ARRANGEMENT OF FRAMES IN A LAYOUT

Each Frame can be divided into up to 4 columns. There can be up to 12 Frames in each Layout, including the columns. Frames can be attached to different Text Sections and there can be more than one Frame attached to a Text Section.

If several Frames are attached to a Section with 'repeated text', they will all contain exactly the same text.

If several Frames are attached to a Section with 'flowing text' text will flow from the first Frame to the next. Text will flow according to the Frame numbers rather than their position on the page. For example if in the Page, Frame 0 is below Frame 1 and both Frames are attached to the same 'flowing text' Section, text will appear in Frame 0 and then flow into Frame 1 above it.

When more than one Frame is attached to a 'flowing text' Section, Hard Page Breaks act as Frame Breaks. The text after the Break will move into the next Frame (or column). You may need extra page breaks to force the text to flow into the next page.

Frames within a Layout can overlap on one another. In such circumstances the Program will not complain and print the text for both Frames one on top of the other. It is your responsibility to avoid this or to use it as a tool for special effects.

### BLANK LINES

The first line that the Program prints in each Frame is always a non-blank line. This is mainly to avoid unwanted blank areas at the top of the Frame resulting from the blank lines normally placed between the paragraphs of the text. When blank lines are intended to be reflected at the top of the Frame you must place at least one Space or Hard Space (<SHIFT><SPACE>) in them. Once the first non-blank line is encountered, the Program prints all the lines that would fit in the Frame, no matter if they contain characters or not.

### JUSTIFICATION

Lines of text are right justified if this mode has been set for the Ruler that governs them (<F3> |Ruler| |Edit| |Justification|). A line is not justified:

If the line ends with a Carriage Return.

If the last Tab Mark on the line aligns the text to a Centre Tab, a Right Tab, or a Decimal Tab. Even if the text aligned to the Centre Tab or Decimal Tab overflows the allowed width.

In a Justified line, Spaces are expanded in proportion to their original size to take up the blank area between the last character and the Right Margin. Hard Spaces and blank areas resulting from Tabs are not expanded.

## PAGE NUMBERS

Page numbers are always placed in Text Sections containing 'repeated text'. The format of the number can be Arabic (ordinary digits), upper-case or lower-case Roman numerals.

Two actions are necessary for page numbering. First, in the Edit Window, place the Cursor on the exact point in the line where you want the page number. Then insert the special marker with the <F3> |Doc| |Numbers| |Insert| command. Next, while still in the menu, select |Numbering| to toggle the numbering format (Arabic, etc.).

The special marker for page numbers can be deleted just like any other character. The marker can be surrounded by text and placed at any position within the line. The number will be printed using the same Printype as that of the marker. At print-time the Program replaces the marker with the appropriate page number and reformats the line. With Roman numbers, it is important to check before printing that insertion of long Roman numbers does not result in a line format that was not intended. You should place the Cursor over the marker and type numbers such as MCMLXXXVII to ascertain this (you should then delete the number).

## MULTIPLE COLUMNS

Newspaper style columns are very simple to produce. In the Layout Editor, use the |Columns| command to subdivide the main Frame of text into columns. Back in the Edit Window, use the <F3> |Ruler| command to set the right margin to the width of one column, thus creating a long and narrow column of text. Preview the document with <F3> |Print| |preView| to see how the text looks on the page.

## MULTI-CHAPTER DOCUMENTS

Layouts and Sections of a multi-chapter document can have the same format as the simple document above, with Page Breaks dividing chapters. But more elaborate formats can be produced. If you want the first page of the document without a header, but the rest with a header, use two Layouts. The first Layout, without a header Frame, with 'fixed' Repetition and number of repeats set to 1; the second Layout with a header Frame and 'continuous' Repetition. The Frame for the main text in each Layout should be attached to the same Text Section.

If you want each chapter of the document to have a different header, you should use a separate Layout for each chapter and divide the document into Text Sections each containing one chapter. For each chapter, you should create an extra Text Section to contain the relevant header. You should then attach the Text Sections containing the chapters of the document and their headers to the appropriate Frames in consecutive Layouts. Note that with most documents the different Layouts are physically identical but attached to different chapters.

The text `EXAMPLE_MANUAL_T91` contains parts of an earlier version of this Guide organised in chapters with different headers.

## MAIL MERGE

By setting a special Page Layout, simple name and address mail merge can be performed very efficiently. The text `EXAMPLE_MAIL_MERGE_T91` is divided into three sections and contains such a Layout. Frame 0 at the top of the page holds the sender's address and the date. Frame 2 at bottom holds the body of the letter. Frame 0 and Frame 2 contain Text Sections 0 and 1 respectively. Frame 1 is located between Frames 0 and 2 and is high enough to hold the recipient's address and the greeting. This Frame contains Text Section 2. Text Sections 0 and 1 are designated as 'repeated text' but Text Section 2 as 'flowing text'.

The contents of Frame 2 will change from one letter to the next while the contents of Frames 0 and 1 are the same in each letter. If more names and addresses are added to Text Section 2, extra letters will be produced to hold them. The Hard Page Break at the end of each group of lines for a name and address will ensure that it is treated as a separate Frame and printed on a separate page.

## HOW TO STORE COMMONLY USED TEXT SETTINGS

A text created with the `<F3> |File| |New|` or `|Import|` commands contains an initial Typeface, Ruler and Layout, collectively known as Default Document Settings.

The initial Typeface is the Default Document Typeface set with the `<F3> |Type|` command. This can be saved with the `<F3> |Config| |Driver| |Save|` command.

To set the Default Document Ruler and Default Document Layout follow this procedure: Set the Ruler 0 and Layout 0 in a document. Use the `<F3> |Config| |Parameters| |Save settings|` command to save the settings in the `CONFIGURE_C91` file (together with the other settings listed in Section III of this Guide). If you want to change these settings for the documents created in the current session only, use the command but do not actually save the `CONFIGURE_C91` file when the program prompts you to press `<ENTER>`.

If you often use a larger set of Rulers and Layouts (more than one) in a document, use the `<F3> |File| |Zap|` on the document in which the Rulers and Layouts have been set (after saving it) and save the blank version with an appropriate name. The Rulers and Layouts survive the `|Zap|`, so next time you want to start a new document you can load the blank 'template' document to bring in the old settings.

The template method can also be used for form documents such as invoices, despatch notes, etc. Prepare one complete example of the document. Put a marker (e.g. a star) in each part which will change in different copies then delete the text of those parts. You can now `|Save|` the document as a template. Next time you `|Load|` the document place the cursor on each marker and type the new text. The text will be in the same Printype as the old text that you replaced with the marker. You can then delete the markers (quickly done with Search/Replace) and print the text.

## FILE MANAGEMENT

The <F3> |File| command of the Main Menu gives access to all text file operations. The device selected for text storage through the <F3> |Config| |Parameters| menu is used for all these commands, so you should not include the device name (e.g. **flp2\_**) when entering file names. For temporary access to other devices for loading and saving text, you should include the device name when you enter the file name.

For loading files, the File Selector dispenses with the need to type the file name. When you are prompted to enter the name of the file, press either of the <UP> and <DOWN> keys to get a Selector Box with the list of the files in the default device / directory which end with the appropriate extension (e.g. **\_T91**). In order to see the list of files for a different device / directory, type the name of the device/directory with an underscore at the end before pressing <UP> or <DOWN>.

## LOADING AND SAVING DOCUMENTS

|Load| and |Save| are very simple operations. However, a few points need your attention. When you |Save| a document, the current position of the Cursor is saved with the document. When you reload the document, the saved Cursor line will be the first line on the screen. This arrangement is to save you the effort of finding where you left at the end of the previous editing session, especially with long documents. As a consequence, if you |Save| a document when the Cursor is placed on the last line, you will be faced with a blank screen when you reload it. Simply use one of the Cursor key combinations to scroll up over the end of the document.

When saving the document there must (of course) be enough space on the disk or cartridge for the whole document. Estimating the space required in relation to the number of words in the document is not always easy. One sector for each 60 words is usually a safe bet. If there is not enough room on the disk or cartridge the |Save| is aborted and an error is reported. In that case use a blank, formatted disk/cartridge for a new |Save|.

When loading a document, there is a likelihood that the current amount of memory is not adequate for the text to be |Loaded|. This may also happen when memory has been fragmented in use and no fragment is large enough for the file. First check the amount of Room. This is the **extra** space allocated over and above the existing size of the file. This amount should not be set over the default 32K characters unless you intend to add a lot of text to the file. If this your attempt fails again, the following steps should be taken in succession and new attempts made for loading the file until enough room becomes available.

- 1) Removing the Help file from memory (<F3> |Config|).
- 2) Closing the Spelling dictionaries (<F3> |Config|).
- 2) Saving and closing currently loaded documents.
- 3) Zapping the loaded Screen Founts starting from the last one (<F3> |Config|).
- 4) Quitting the Program and starting again.

If other multitasking programs are in use at the same time, especially the Pointer Environment, they may be responsible for fragmenting the memory. In this case reset the QL and start again.

## EXPORTING TEXT

The <F3> |File| |Export| command allows the contents of the Block or the whole text to be written to a file. Its two commands are meant for different purposes. The |Text87| command is used for files to be later |Loaded| or |Merged| by **plus4** into another document. The saved file is a **plus4** document containing all the Rulers and Printypes of the Block text but lacking the Page Layouts and Text Sections. The |Ascii| command creates files that can be imported by other programs. If a SuperBASIC program or an assembly language file such as those for the printer drivers has been written using the Program, the |Ascii| command should be used as it can also replace Tab Marks with Spaces that are necessary as field separators.

## MERGING TEXT

This command is used for merging a **plus4** **\_T91** document or a plain ASCII file into the current document at the cursor position. This can be a block of text |Exported| from another document.

This command works only if enough Room (extra memory) was allocated to the current document in the first place and is still available at the time of merge. For merging **\_T91** files, available Room must exceed the size of the file. For ASCII files, the Room must be at least twice the size of the file and even more if the merged file contains very many lines. (In extreme cases, you should first |Import| the ASCII file, |Save| it and then |Merge| it as a **\_T91** document). Merged text will become part of the Section under the cursor. If a **\_T91** document is |Merged|, its Rulers and Printypes remain intact while its Layouts and Section divisions are lost.

## IMPORTING TEXT

The |Import| command allows loading files not originating from text87 as a new document. ASCII files in particular require a generous amount of extra space to be allocated with the |Room| command. This space is for internal formatting information and consists of up to 8 bytes per line of text (thus a 4000 line text can be |Imported| with the default Room setting of 32 K characters. Once a larger file has been |Imported| and subsequently |Saved|, it can be loaded without having to set the Room to a large value.

The |Import| |Ascii| command allows two options, |Normal| and |Paragraph|. Some ASCII files (usually from other QL programs) have an end of paragraph marker (<LF> or <CR> <LF>) at the end of each line of text as well as at the end of each paragraph. If you want to merge the successive lines of those files into paragraph, select the |Paragraph| option. If there are blank lines between the paragraphs of the original file, they will be maintained.

If you save ASCII texts from PC word processing programs for subsequent **Import** into **text87plus4**, use the **Generic WP export** (or similar) option which places the **<CR><LF>** combination only at the end of paragraphs. Such files can then be **Imported** into **plus4** with the **Normal** option.

The Typeface in which an imported file will appear is the **Default Document Typeface** set up with the **<F3> |Type|** command.

## IMPORTING QUILL \_DOC FILES

When **Importing** **Quill \_doc** files, the Typeface in which the file will appear is the **Default Document Typeface** set up with the **<F3> |Type|** command. For instance if the **Condensed Typeface** has been chosen, the **Imported** file will appear in **Condensed**. All the **Quill Highlights** (i.e. **underlined**, **bold**, **super-** and **subscript** and their combinations) are reproduced. If a **daisywheel driver** is used for printing the **imported Quill file**, **superscript** and **subscript text** will not be **underlined**. **Hyphenation marks** and **forced page breaks** in the **Quill document** are also translated correctly.

**Different Rulers** used in the **Quill document** are lost in the process of **Import**. The **Ruler** used in the **Default Document Ruler**. To redesign the document take the following steps:

- 1) Once you have imported the file, redesign the **Ruler 0** as the main **Ruler** if necessary.
- 2) If extra **Rulers** are required for different parts of the document, design all those **Rulers** with the **<F3> |Ruler|** command.
- 3) Use the same command to **Select** the first extra **Ruler**.
- 4) **Highlight** as the **Block** those parts of the document where you want the selected **Ruler**. Use the **|Block|** command and select the **|Ruler|** command to reformat the **Block** under the new **Ruler**. Alternatively, use **<F5>** to change **Rulers** by paragraph. Repeat for every part of the document that follows the selected **Ruler**.
- 5) Repeat steps 3 and 4 for all the extra **Rulers**.
- 6) The header and footer of the **Quill file** appear at the top of the text. Use **<F3> |Doc| |text Sections|** to separate these from the main text by turning them into separate **Sections**.
- 7) If necessary, design the **Layout(s)** for your document, including **Frames** for the header and footer.

## V. GLOSSARY AND INDEX

- Alternate:** (Fixed Repeat, Continuous, Alternate) A setting for a Layout which determines how it is repeatedly used for the printed pages. 53-
- ASCII:** The generic name for the majority of computer based character sets with the Latin alphabet. The QL's ASCII character set is listed in the concepts section of the QL manual. Printers sometimes use slightly different character sets but all translations are performed by **plus4**'s printer drivers without user intervention.
- ASCII file:** A text file that does not contain extra formatting information. **plus4** can load any formatted text file as an ASCII file, resulting in the loss of formatting information. *ASCII file import and export: 59.*
- Attach:** A command in **plus4** for specifying Screen Founts, colours and other attributes used for the display of different Typefaces and Highlights. 37.
- Attach:** To link a Text Section with a Frame so that text is printed in the specified area of the page. 52-.
- Backup:** A duplicate copy of a file or a whole disk.
- Baud Rate:** The speed at which the computer communicates to the printer through the serial ports (SER1 and SER2). 32.
- Bold:** (see Printype)
- Boot File:** A SuperBASIC program file called **BOOT** which is automatically loaded after the QL is turned on or RESET and the <F1> key is pressed. A Boot file usually contains commands to load extra files and configure the QL. **plus4** needs a **BOOT** file only to enable spell checking. *Contents of the Boot file: 5.*
- Character Set:** The range of alphabetical, punctuation and other symbols supported by the computer or a printer. QL has only one character set. Most printers support several character sets. *Special characters in plus4: 10, 43.*
- Column:** A newspaper style column of text. Not the horizontal position of character in a line of text. *Printing text in columns: 55.*
- Command Window:** A Window at the top or bottom of the screen where Menus and prompts are displayed. 11.
- Configuration:** Changing those settings of the Program that are not modified very often. Most of these are performed with **text87plus4** itself, some with the **plus4setup** program. *Also refer to the document file DRIVERS\_INFO\_T91 on how to configure printer drivers.*
- Continuous:** (Fixed Repeat, Continous, Alternate) A setting for a Layout which determines how it is repeatedly used for the printed pages. 53-
- cpi:** (characters per inch) With non-proportional (fixed-pitch) Typefaces, the number of characters required to fill one inch.
- Current Document:** When more than one document has been loaded, the document that you are working on at a given time. *Switching between documents: 39.*
- Default Document Settings:** For a new or imported document, the Ruler 0, the Layout 0 and the Typeface in which the document is started. Comprises the following: Default Document Layout, Default Document Ruler, Default Document Typeface. 30.

- Device:** In general any device connected to the QL. In particular, magnetic storage devices such as microdrive and disk drive or their RAM disk imitation.
- Dictionary:** A collection of words in a special file used for spell checking. 48.
- Document:** A text file in **plus4** format. Up to 8 documents can be open (i.e. in memory) at one time.
- Driver:** An see printer drivers.
- Edit Window:** A Window that contains a document.
- Extension:** The last three characters of a filename that follow an underscore character (e.g. **\_T91**) 28.
- Fixed:** (Fixed Repeat, Continuous, Alternate) A setting for a Layout which determines how it is repeatedly used for the printed pages. 53-
- Floppy disk:** Five and a quarter inch soft disks or three and a half inch disks in hard plastic shells!
- Flowing:** Text Sections can be either Flowing or Repeated. Flowing Sections hold normal text while Repeated Sections hold text for headers or footers which is printed repeatedly. *Text Sections: 52.*
- Footer:** (see Header).
- Fount:** Set of characters on the QL screen with a distinct design. Each Fount is contained in a separate file. Not printer Fount, which is a group of Typefaces with the same basic design. 34.
- Frame:** An area of the page Layout in which text is printed. 52.
- Freeze:** A mode of editing for a document in which automatic reformat becomes partially frozen so that the overall format of the text is not changed while editing. 19.
- Hanging paragraph:** A paragraph format in which the second and subsequent lines start at a position further to the right of the start of the first line. Can be set up on a Ruler with the Paragraph Margin placed to the right of First Line Margin. 40.
- Header:** (also Footer) A piece of text (can be more than one line) that is repeated on a series of pages. Sometimes a page number is also contained within the Header or Footer. **plus4** does not mind where the Header and Footer are placed on the page. 52.
- Help:** Invoked by pressing <F1> while using the Program. 9.
- Highlight:** An effect applied to a Typefaces. e.g. underlining, emboldening. 44.
- Hot-Key (System II):** A set of commands and facilities added to those of the QL to facilitate the use of programs. 27.
- Hyphen, Hard:** A Hyphen that binds the adjacent words together and does not allow them to separate at the end of the line. Produced with <CTRL><H>.
- Hyphen, Invisible:** A Hyphen that is placed within a long word to indicate where it can be broken into two parts at the end of the line. Produced with <CTRL><N>.
- Hyphen, Soft:** The default type of Hyphen that allows the adjacent words to be broken into two lines at the hyphen position.

- Hyphen:** Any hyphen printed on paper. Within the Program, there are three types of Hyphen so that you can choose how they affect automatic reformatting of lines of text. 10, 43.
- Hyphenation:** Dividing long words so that the two parts appear on successive lines. Achieved by placing an Invisible Hyphen within the word.
- Indent:** (in paragraphs of text) The relative position of the First Line Margin and Paragraph Margin in a paragraph of text. Set up on Rulers. 40.
- Interface:** The manner in which the printer and the computer are connected together. Either Parallel or Serial. 32.
- Justification:** (of text) Expansion of the spaces between the words in lines of text so that the rightmost words of consecutive lines are aligned to the Right Margin. Set up on Rulers. 40.
- Layout:** A guide page containing at least one Frame, or more, with their dimensions, and coordinates. Used for determining the format of the printed pages. A document can have more than one Layout. 52.
- Line spacing:** The distance between consecutive lines of text on paper. Set on Rulers. 40.
- Load:** Different **plus4** commands which copy an existing file into Memory for use by the Program. Include loading document files, drivers, Founts, etc.
- Mail Merge:** Production of letters with similar contents addressed to different recipients. 57.
- Margins:** The horizontal positions at which lines of texts begin and end. These are set on Rulers. Not the blank areas left out on the paper.
- Memory:** (or RAM) The electronic store of information in the QL. Not the disks which are magnetic store. 26, 58.
- Menu:** A line of text displaying several distinct commands. Each command invoked by pressing the letter which appears in uppercase.
- Multitasking:** Running **text87plus4** in a way that at any time you can press a few keys to access other programs or SuperBASIC.
- Numbers:** In **plus4** all numbers entered by the user are whole numbers.
- Page Break:** The point at which the flow of text continues into the next printed page. Soft Page Breaks are calculated by the Program. Hard Page Breaks are specified by the user. 53.
- Page Numbers:** Automatically calculated numbers generated by **plus4**. Can be printed in different formats. 55.
- plus4setup:** A program on the Master Disk which produces a Working Copy for everyday use and also allows the user to configure some basic aspects of **plus4** and its printer drivers.
- Printer:** *Setting up:* 32.
- Printype:** A combination of a Typeface and a given Highlight. 44.
- Program:** In general, any piece of software that performs a task. In this Guide, **text87plus4**.
- Prompt:** A message from the Program providing information to the user.

**Proportional Spacing:** Printer Typefaces or screen Founts in which the widths of different characters of the alphabet are different. As opposed to Fixed Pitch or Mono Spaced.

**Repetition Mode:** (Layouts) Alternate, Fixed or Continuous. The way a Layout is repeatedly used for formatting and printing the pages. 53

**Ruler:** An entity which governs the format of paragraphs of text on paper. Holds Margins and Tab Stops (tab positions) together with line spacing and justification mode. 40.

**Scale:** (Video Scale).

**Section:** (Text Section) A subdivision of the document text. 52.

**Space, Hard:** A space character that binds the two adjacent words together so that they are not separated when lines of text are reformatted. 10, 43.

**Spell Checking:** 48.

**Status Line:** A line of text at the bottom of an Edit Window containing information about the document in the Window. 11.

**Storage:** Magnetic media used for saving information, such as floppy or hard disk.

**Subdirectory:** A file which contains a collection of other files. This facility is available through the latest extensions to QDOS found on the Gold Card and the device drivers for the Atari QL Emulator.

**Tab Mark:** A hidden marker, placed in the text with the <TABULATE> key in order to align it to the next Tab Stop. 42.

**Tab Stop:** A horizontal position on a Ruler to which text is aligned. A Tab Stop can be of Left, Right, Centre or Decimal kinds for different ways of alignment. 40.

**ToolkitII:** A standard set of extensions to QDos which enhance the operation of the computer. Available on most disk interfaces and invoked by the command `TK2_EXT`.

**Typeface:** Characters produced by a printer with a distinct design in a given size.

**Video Scale:** A setting which tells the Program about the proportion between the screen image and the printed output of text. 38.

**Window:** A rectangular area of the screen used for displaying a specific type of information. `plus4` has a Command Window plus at least one Edit Window for each document that is loaded in memory.

**Working Copy:** A copy of selected files from the main Master Disk produced with the `plus4setup` program for everyday use. Additional files from either Master Disk can be copied by the user.

# **founted89**

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## **Introduction**

**founted89** is a tool for producing screen display founts for **text87**. Before using the program, prepare a working copy with a command such as:

**COPY flp1\_founted89 TO flp2\_founted89**

The Program requires 110K of free memory to **EXECute**. In addition, up to 100K bytes will be needed for fount transfer and image capture commands. **founted89** is a multitasking **EXECutable** program. Press <F1> when you turn the QL on, put the disk in **flp1\_** and type:

**EXEC flp1\_founted89**

Just like **text87**, pressing the <CTRL> <C> key combination will move the cursor to a **founted89** window and back to SuperBASIC. At the start, the Program asks you for a fount file name. Put the disk that you use for storing founts in one of the drives. If you want to set up a new fount, type a name which has not already been used. Alternatively, type the name of an existing fount if you want to make alterations to it. In both cases, you should add the drive name ( eg. **flp1\_** ) but leave out the extension **\_F87**.

The Program checks the drive you have specified for the selected file name. If the file is found, it is loaded into memory, otherwise the Program creates a new fount with the specified name. At this stage you are asked to enter the height of the fount character matrix in pixels. Once this has been selected, the Program pauses for a short time to set up the fount information. It then shows you the blank character matrix for the Space character.

## Structure of Founts

`text87` founts cover 'characters' with codes from 28 to 255. Character matrix height can be anything from 4 to 84 pixels. Width of each character can be defined independently. The maximum width for each character is the smallest multiple of 16 that is equal to or larger than the height. As there is a maximum file size limit for founts, founts with large heights cannot contain characters beyond a limit.

height	maximum width	highest character code
4-16	16	255
17-32	32	255
33-48	48	255-192
49-64	64	192-153
65-80	80	127-108
81-84	96	94-91

There are three types of founts: alphabet founts, symbol founts and graphic founts. All three types are stored in the same format, the difference is in their contents. Symbol and graphic founts are for use with `founttext88`.

### Alphabet Founts

Alphabet founts contain ordinary characters. Please refer to the table under Character set and Keys in the Concepts section of the QL manual for the definition of character values. `text87` treats the whole QL character set as normal characters. In addition, characters 28-31 and 192 are used for special purposes and should all be defined. Characters 193 to 255 are reserved for future versions of `text87` and should not be defined.

### Special Characters

Character 28 is the Fount Identity. It holds the first letter of the fount name surrounded by two vertical bars. The bars are stepped to show the heights of areas of the matrix occupied by upper-case and lower-case letters.

Character 29 is the Separator. Its appearance should be the same in every fount, but the exact shape is up to you.

Character 30 is the Invisible Hyphen. It must be an exact copy of the Hyphen (character 45) with a dot above it.

Character 31 is the Break Hyphen. Two dots above the hyphen distinguish it.

Character 32 is the Space and must be completely blank

Character 45 is the Hyphen. The width of this character should be selected carefully since this value is interpreted by `fountext88` as the width of the space character. Too wide or too narrow a hyphen will result in badly spaced words on the screen and in print.

Character 192 is the Hard Space. When this character is defined, it should hold the letters 'nd' (for not-defined) in the same manner as character 28. When founts are compressed (see below) this character image is used by the Program for the characters which have been left undefined.

In founts with very large character matrices (more than 49 pixels high) character 192 is not available. In these founts, the last available character should be used for the not-defined symbol.

### **Symbol Founts**

These founts contain sets of symbols for special applications for use with `fountext88`. In these founts the special characters should be defined as in alphabet founts.

### **Graphic Founts**

These are made up of blocks of pictures captured from saved screen images to be used with `fountext88`. These founts usually have very large character matrices. It is a good idea to use the characters corresponding to digits (0-9) and the alphabet (A-Z) only. These are easier to remember when you want to insert the blocks in the `text87` document. Recommended character heights for these founts are 64, 72, 80 and 84. The not-defined symbol (the last character) is the only additional special symbol that needs to be defined. The width of this character need not be more than 16 pixels. The characters that hold the pictures should normally have the maximum allowed width.

## Note

Founts supplied with the **text87** system have all been compressed. In order to perform major editing operations on one of the supplied founts, you should create a new fount with **founted89** first. You should then |Transfer| characters from the original compressed fount into the new fount for editing. The **Default11\_F87** fount should not be modified. If you want to use a modified version of this fount you should create a new fount with a different name and |Transfer| characters from **Default11**.

## Defining Characters

The whole matrix can be used for character definition, but for most characters only a small area is actually used. You should use the <F2> menu to set the width of the character. This may include one or two extra pixels to form a gap between adjacent characters on the screen. The bar below the character matrix shows you the selected width. The character should be placed above this bar and no part of it should extend over the areas to the left and right of the bar.

Two keys, <F4> and <F5> are used for redrawing the screen. <F4> redraws the whole screen whereas <F5> redraws the sample text and the character set.

Commands are divided into two groups. Those available through <F2> operate on the current character; those under <F3> operate on the whole fount.

Amongst the commands in the <F2> menu, |Invert|, |Reflect| and |Shift| modify the current character matrix. |Copy| is used to put an exact copy of the current character onto another. When the overwrite option of |Copy| is selected, the width of the current character is also copied to the destination. |Get| is used to cut blocks from a screen image and paste them into the fount.

The <F3> menu includes commands to |Save| the fount, to |Quit| the Program (which will also save the current fount) and to edit a |New| fount. If you have made alterations to a fount, you should save it before using the |New| command.

The |Import| command is for incorporating a standard QL fount into a **text87** fount file. The characters of a standard QL fount are defined in a 6x9 matrix. Recommended height for the corresponding **text87** fount is 9 or 10. The latter provides extra space at the top for accented characters.

The `|Transfer|` command is for importing a set of characters from another text87 fount. The two founts need not be of the same height. You are asked the name of the source file which must include the drive name. You are then asked the amount of vertical shift. Zero shift will align the top of the imported characters with the top edge of the character matrix. Positive values will shift the imported characters downwards while negative values will shift them upwards.

The `|Transfer|` command can be used with the current fount itself (i.e. its disk file) for shifting a range of characters vertically, or for getting the original of a character you have deleted by mistake. It can also `|Transfer|` characters from a compressed fount.

The `|Compress|` command is used to reduce the file size of the current fount. Especially in larger founts, vast areas of character matrices are left blank. In some founts you may not want to define certain characters. The `|Compress|` command gets rid of any unused space. The most important thing to bear in mind about this command is that founts cannot be expanded and edited as normal once they have been `|Compress|`ed. You should thus keep the original version of the fount for further editing in the future. This means using a separate disk for the compressed version of the fount. So before using this command, save the fount then remove the disk and put the new disk in the same slot for saving the compressed version.

When a fount is `|Compress|`ed all the characters that are left completely blank are represented by the image of character 192. You must design this character before using the command. (Note the special case of very large founts mentioned above where character 192 is not available). Afterwards, character 192 will represent the Hard Space---the program will automatically use the blank matrix of the Space for the Hard Space.

You can modify the baseline offset (see below) and the name of a compressed fount. You should not use character shift and copy commands or import characters from other founts. Editing pixels in individual characters may affect the adjacent characters and should generally be avoided.

The `|Data|` command brings up another menu with three entries: `|Baseline|`, `|Name|` and `|Type|`.

`|Baseline|` is for setting the baseline offset of the fount. The baseline offset equals the number of pixels occupied by capital letters and any blank area above them. The offset is set to zero when a new fount is created. You must determine the offset correctly, otherwise your new fount will not line up with other founts on the `text87` screen. For example, the characters of a fount with zero offset will be displayed as subscript characters.

`|Name|` is for entering the name of the fount. This name should be the same as the file name with the exception that no device name ( `flp1_` etc. ) should be included. It is also possible to use the space character instead of the underscore to separate the parts of the name. For example, if the fount file name is `Swiss_bold16_F87`, an appropriate name would be "Swiss bold 16". This name is used only by the `text87 |Attach|` command to display its fount list and has no other significance.

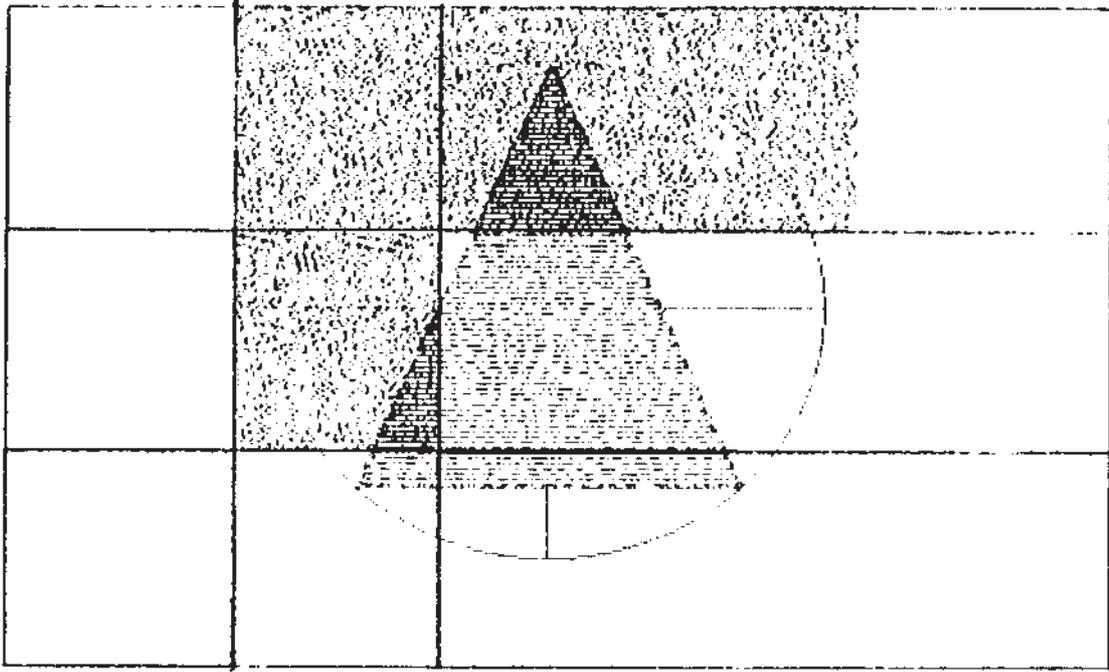
The `|Type|` commands allows you to select the type of the fount (Alphabet, Symbol or Graphic).

### **Capturing Blocks from Screen Images**

For those who are not technically inclined here is a description of how a screen image is stored and displayed:

The contents of the QL display in Mode 4 are stored in memory as a set of 128K pixels (512x256 dots on the screen). A 'snap-shot' of the display image at a given time can be stored on disk in a file that is 32K long. Such 'snap-shot' files can be manipulated and used by different programs. You can save the current screen image with a few lines of SuperBASIC. QL painting and drawing programs store screen images. Some of these programs operate in Mode 8 (the mode with larger pixels and 8 colours that is accessed by pressing `<F2>` when turning the QL on) some operate in Mode 4 (the mode with smaller pixels and 4 colours, accessed by `<F1>`). Pictures saved in both modes can be used with `founded89` depending on the colours used in them. Some paint programs can also store the screen image in a compressed format that cannot be put directly on the screen. Such formats are not suitable.

`founded89` can load non-compressed screen images saved previously from drawing or painting programs. It allows you to cut one or more blocks, each the size of the character matrix, from the image and incorporates them into successive matrices starting from the current character.



 A smaller grid-based image showing a triangle with horizontal lines inside a circle, with character codes 66 and 96 on the right side. The triangle and circle are rendered with a pattern of horizontal lines. The triangle is centered in the grid, and the circle is also centered, with its top and bottom edges aligned with the top and bottom rows of the grid. The character codes 66 and 96 are positioned to the right of the triangle and circle respectively.
 

neu84 28 TO 91 Alpha  
 Use the keys + + f ↓ to move the cursor  
 SPACE/otherkey to clear/set each pixel  
 F2 for character menu  
 F3 for font menu  
 F4 and F5 for resetting the display  
 ENTER for next char / ESC for other char

## Using the |Get| Command

Before using the command, set the current character to the first one that you intend to fill with a block from the screen image.

At the start, the Program asks you for the name of the image file. Once the image file has been loaded, the Program asks you for the number of frames. You are then presented with the image filling the whole screen and a flashing cursor at the top left corner of the display. You can use the following keys for the operation:

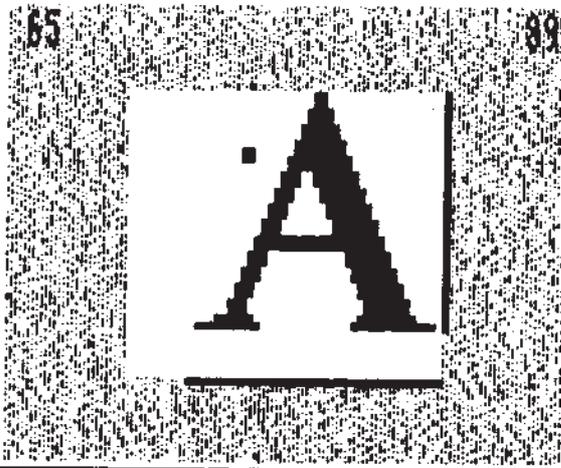
Cursor keys:	to move the cursor around
<ESC>:	to abort the operation
<SPACE>:	to lock and unlock the grid
<ENTER>:	to capture the block

The top left corner of the cursor represents the top left corner of the block. Move the cursor to the corner of the first required block and press Space. A grid will be drawn on the screen to show the block area. If this is not at the exact position you require, press Space again to remove the grid before making further adjustments. While the grid is visible, pressing the cursor keys will move it around the screen. Pressing <ENTER> will capture the block at the centre of the grid and shade the block area to show it has been captured. Once the selected number of blocks have been captured or the <ESC> key has been pressed, the program returns to the edit window and displays the first captured block. Pressing <F5> will show the rest of the blocks.

# ABCDEFGHIJKLMN A SAMPLE STRING

Press C to compress font  
D to set font data  
I to import a QL font  
H to edit a new font  
S to save font  
T to transfer characters  
from another font  
Q to quit program  
ESC to resume editing

Roman36 28 TO 255 Alpha  
Use the keys + + ↑ ↓ to move the cursor  
SPACE/otherkey to clear/set each pixel  
F2 for character menu  
F3 for font menu  
F4 and F5 for resetting the display  
ENTER for next char / ESC for other char



# **fountext88**

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## Introduction

**fountext88** is a special printer-driver for **text87** which works with Epson and compatible dot-matrix printers. It is different from all other **text87** printer-drivers in that the typefaces it provides are not those built into the printer. Neither has it any typefaces built into it. **fountext88** prints characters corresponding to the founts that you have loaded into **text87plus4** either automatically at startup or from the <F3> |Config| |Founts| menu. If you load new founts with |Single| or |Multiple| commands, they immediately become available; if you |Zap| a fount, it is automatically removed from the list.

**fountext88** is probably easier to use than other **text87** printer-drivers. You do not have to |Attach| the right fount to a printer typeface to get the correct screen representation. With minor exceptions, what you see on the screen is what appears on paper.

With **fountext88**, screen founts are not necessarily limited to character sets: Using **founted89**, you can design your own special symbols and incorporate pictures you have produced with QL graphic programs. The **fountext88** - **founted89** combination turns **text87** into a desk-top publishing system especially suitable for document production.

No new commands are added to **text87** when you load **fountext88**. The program operates in exactly the same way as with any other driver. This means you should refer to **text87** User's Guide for all the commands. This Guide explains how to configure **fountext88** and some working techniques for production of illustrated documents.

## Configuring fountext88

There are two versions of **fountext88** on the disk. Once called **FOUNTEXT88\_P87** and the other **FOUNTEXT88\_24\_P88**. The first one is for 9-pin printers, the second version for 24-pin printers.

EXECute the **plus4setup** program. Use a blank formatted disk to make a working copy of **text87plus4**. Do not leave the **plus4setup** program. Replace the **text87plus4** Master disk with the **fountext88** Master. Then issue the |copy Printer driver| command. The **plus4setup** program will display its selector box with the two aforementioned versions of **fountext88**. Place the red box around the version that is suitable for your printer and press <ENTER> to copy the

driver. The program will then display the next selector box with the file **FOUNTS\_A87**. Press <ENTER> to copy this file as well.

What remains to be done is copy all the fount files from the **fountext88** Master to your working copy. Fount file names end with the extension **\_F87**. You can use the |Copy single file| command from the **plus4setup** menu several times and copy the files one by one. Alternatively, if you have Toolkit II, use the **WCOPY** command to copy all the files in one go with the command: **COPY FLP2\_\_F87 TO FLP1\_\_F87**. (Note that there are two underscore characters before each **F87**.)

Once you have prepared your working copy you can configure **fountext88** further if necessary. The 9-pin version is far more configurable than the 24-pin one.

**fountext88** (9-pin) can be configured to print in three different horizontal scales: Normal (90 dots per inch), Condensed (120 dots per inch) and Expanded (80 dots per inch). Normal density is the default and is available with almost all modern Epson compatible printers. Refer to your printer manual under Graphic (bit-image) commands to see whether the ESC \* command with mode 6 is available (decimal 27,42,6; hexadecimal 1B,2A,06). Epson FX, LX and EX series of printers support this command, so do Brother series M-1109, 1409, 1509 and 1709 and all other current Epson compatibles.

If you use an older printer which does not support this command, you should configure **fountext88** to Condensed density which uses the ESC L graphic command (decimal 27,76; hexadecimal 1B,4C).

The second configuration parameter is single-pass (quick) or double-pass (better quality at half the speed) printing.

The third configuration parameter is the height of sheets of paper you are using in your printer. This setting is significant only when you use fanfold (continuous) paper. The setting is made in units of 1/6 inch: A4 paper is 70 units high, computer paper is 66 units.

There are special configuration options for the Mannesmann Tally MT80 and the Star SR10. Both of these printers are obsolete. Current models from both manufacturers are fully Epson compatible and should be configured using the Epson compatible options.

You should prepare separate copies of **fountext88** for each of these configurations. To configure the driver, use the executable, multitasking **recon** program supplied on the **fountext88** disk. Your version of **recon** may also allow additional configurations for non-standard printers which you can select from its menu.

By default, **recon** loads the file **fountext88\_P87** and produces configured copies with names such as **fountext88NS\_P87** and **fountext88CD\_P88**. 'N' stands for Normal, 'C' for Condensed, 'S' for single-pass and 'D' for double-pass. The original file is left intact. You would normally need two configured versions: one for double-pass, the other for single-pass printing. Configuration is performed with the following steps:

1. Put the disk containing **recon** into **flp1\_** and type:

**EXEC flp1\_recon**

Once the opening screen appears, you can remove the disk. Now press <C> while holding down the <CTRL> key. The cursor moves to the bottom window of **recon**.

2. Put the disk containing **fountext88** in a drive. After pressing <F> for **fountext88**, you are asked to confirm the name of the source file. The program will load **fountext88** from the specified drive.

3. Put the disk to hold the configured driver(s) in the drive. This must have at least 94 free sectors for each configuration. Select the configuration you require and save it by pressing <S>. The **recon** program displays the default name for saving the configuration you have produced. You can modify the name if necessary. (Modify the name to **DRIVER** if you want it to autoload into **plus4**).

You can repeat from step 2 for further configured copies of **fountext88**. When you have finished, quit the **recon** program by pressing <ESC>. You do not have to reset the QL. Your configured copies can be loaded once **text87plus4** is up and running (use <F3> |Config| |Driver| |Load|).

## Basic Concepts

A Typeface is what appears on paper, a fount is the character set or graphics that you load into **plus4**. In **founttext88** there are 32 empty slots for Typefaces. The first slot is occupied by fount 0 (the default fount). As each extra fount is loaded, the next available Typeface slot is allocated to represent its image on paper. The same fount is also automatically |Attach|ed to the typeface for its screen representation.

**founttext88** typefaces are numbered from 100 upwards, whereas the majority of typefaces available with text mode printer drivers are numbered below 100. If you want to use **founttext88** to print a file prepared with an ordinary printer-driver, most of typefaces used in the text will have numbers less than 100. You should mark the text as a block (or blocks) and change the typefaces to those above 100 with the |Block| |Type| command. Alternatively, use the <F3> |Doc| |Typeface search| command to change the typefaces already used to those available under **founttext88**.

Each dot on the screen will be 1/90 or 1/120 inch wide on the printed output, depending on configuration density. The same dot will be 1/72 inch high in both densities.

Line spacing on paper strictly follows the setting made on the Ruler. Using a ruler with 0 line spacing will result in all the lines printing over one another. For parts of the document where graphic founts that hold large pictures are used, line spacing on the ruler must be set to the height of the fount in (pixels) dots. Line spacing for text is usually equal to or more than the height of the characters used but this is a rule that can be broken for special effects.

## Memory Management

**founttext88** occupies 48K of memory, any loaded fount, occupies extra memory. When memory resources are limited, you should select the founts you wish to use with each type of document and assess the amount of memory used according to their total size and the size of the document.

## Fount Management

The file, **FOUNTS\_A87**, is the default list of founts loaded by **plus4**. This file can be |Import|ed as an ASCII file for viewing and editing. You should prepare selective lists of founts to load into **plus4** for different applications and |Export| the lists as ASCII files with meaningful names such as **INVITES\_A87**, or **REPORTS\_A87** (the names are up to you but the extension is compulsory). You can use the <F3> |Config| |Founts| |Multiple| command to load one of these sets into **plus4**. If you want a set of founts to load automatically at the time of EXECution of **plus4**, you should use the name **FOUNTS\_A87** for the list.

A document produced with a set of founts loaded will not look (and print) the same with another set of founts. The typefaces will be those corresponding to the new founts. For example if in the old set the Compacta fount was the first one, it would take the slot for typeface 101; if in the new set, the first fount is Superstar, this would take the same slot. As a result, the text that was in the Compacta typeface will be in the Superstar typeface. The document information will not change when new founts are loaded. If you |Zap| all the new founts and load the old set of founts again, the text will appear in the original form.

## Video Scale

The <F2> |Options| |horizontal Scale| command should be used for setting the horizontal scale. For the default Normal configuration, video scale must be set to 90. If **fountext88** has been configured for Condensed, the setting should 120. Expanded configuration requires a scale of 80. The maximum width of the text window will cover about 5 2/3 inch and 4 1/3 inch for Normal and Condensed respectively. When you move the cursor to the right, the screen will be panned accordingly to make the rest of the line visible.

Having set the appropriate scale, you will always see the characters on the screen at the horizontal position where they will be printed. Justification and tab positions will also be displayed correctly.

## Display of Spaces Between Lines

The <F2> |Options| |Line spacing| toggles the screen display of blank spaces between lines. While editing you may want to turn the display off in order to get as many lines of text in the window as possible. At other times it should be turned on to get a better picture of the effects of line-spacing.

The text-window does not give any indication of whether lines are superimposed on one another, you must check your rulers for this. The <F3> |Print| |preView| command is also helpful.

## Changing the Display Colour of Founts

Screen founts, by default, appear in white. In order to change the colour, use the <F3> |Config| |Founts| |Attach| command and set the colour you require for each Typeface. For example, to change the colour for the third Typeface on the list, you should place the red rectangles over the Typeface, the fount (of the same name) it represents and the colour you require then select |Single attach|. Leave the red rectangle in the Selector Box for Position over the Normal setting.

- As with other text87 drivers, you can use the <F3> |Config| |Driver| menu and |Save| **fountext88** to preserve the screen colours you have specified for each typeface. If you have attached the third typeface on the list as in the above example, next time you load the driver, this typeface will appear in green, even if it corresponds to another fount.

## Attach for the Advanced User

Once you have fully got to grips with **fountext88**, you can |Attach| a typeface to a different fount from the one that appears on the paper. The only good reason for doing this (which reduces the built-in visual correspondence between typefaces and founts) is to get more text on the screen than is normally possible. In print, each typeface always corresponds with the fount of the same number minus 100.

- Attaching it to another fount only changes the screen representation and has no effect whatsoever on the printout. All |Attach| information is saved when you save the driver and will be effective next time you load it.

The double relationship between founts and typefaces can sometimes be confusing, although the underlying logic is very simple. If you are not sure whether you have |Attach|ed a typeface to a new fount or not, simply |Attach| it to the fount with the corresponding name.

## Using the Block Commands for Efficiency

**Block Copy** Suppose you have set up a headline with its own Ruler and a pattern superimposed over it. Instead of repeating all the work for the next headline, |Copy| the first one then change the text for the new headline. The Rulers and Typefaces are transferred by the |Copy| operation so the new headline will look the same.

**Block Type** Since you have many different typefaces at your disposal, you would inevitably be tempted to change the typefaces of parts of your text until you get the desired look. Use the |Block| |Type| command to change the typefaces.

**Block Ruler** This command is meant for changing the format of text you have already written. It is also a reliable means of ensuring line-spacing for special applications such as superimposition of successive lines is what you intended. For example consider superimposing a picture onto another one. This requires a ruler with 0 line-spacing, but you want to make sure that this ruler is not used in other areas. The best way of imposing the special ruler is to mark the lines where you have put the pictures as a block and to change their ruler with the |Block| |Ruler| command.

## Special Characters and Markers

As with ordinary printer drivers, Soft Hyphen and Break Hyphen will be printed without the dots that you see on the screen. Marker characters will be replaced on paper with a space. The 'not defined' character, displayed as 'nd' will appear for those characters which are not defined in the current fount.

## Special Version for 24-pin Printers

This version is entitled **FOUNTEXT88\_24\_P87**. You cannot configure the print mode for this version as it has only one mode. The video scale should be set at 90 dots per inch. The height of each dot on paper is 1/60 inch. This means characters are 20% higher than those printed with the 9-pin version. If you exchange files between the 9-pin (Normal density) and 24-pin drivers, you should adjust the line spacing for rulers that are used for pictures made up of blocks of characters. For example if line spacing for such a ruler is 64 units for the 9-pin version of the document, it should be changed to 64 with the 24-pin version loaded (this means a change from 64/72 inch to 64/60 inch line spacing). Since the upper limit for line-spacing is 1 1/6 inch (70/60 inch), the 24 pin version will print pictures made up of blocks higher than 70 pixels with overlap.

## Using Graphic Founts

Graphic founts are set up with `founted89` using screen images produced with QL drawing programs. Blocks from graphic founts are treated exactly like alphabet characters when you use them in the text. They can be positioned using tabs set up on the ruler and can be moved around with the Block command. In the following example, characters A, B, C, D, E, F, G, H and I have been used to hold the image. A ruler with a centre tab has been used. Line spacing on the ruler has been set equal to the height of the block, in this particular case 84/72 inch. The first line holds the blocks corresponding to A, B and C; the second line, those corresponding to D, E and F and so on.

## Superimposing Text on Graphics Patterns

This is fairly easy to achieve for headlines. In the following example the Compacta fount has been used. Total height of the fount is 32 pixels. A pattern has been put in a fount of 64 pixels height with baseline offset of 64. Line spacing has been set at 18. When the pattern is placed on the line after the headline, it will cover the headline on the line above.

## Drop Capitals

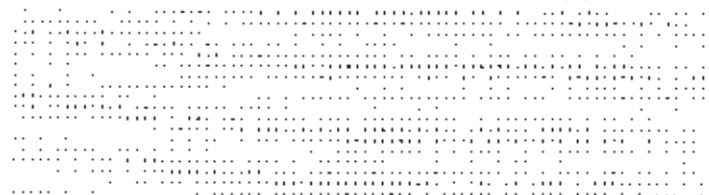
You need `founted89` to achieve this effect efficiently. You must first decide which fount you want to use for the body of the text. Use the height of the capital in this fount to set the a baseline offset for the Drop Capital (DC) fount. The DC fount will effectively become a subscript fount. In the following examples the Roman72 fount has been modified in this manner.

In the first example, one ruler has been used for the text. The indent has been set on the ruler to make room for the DC. The second example requires more work.

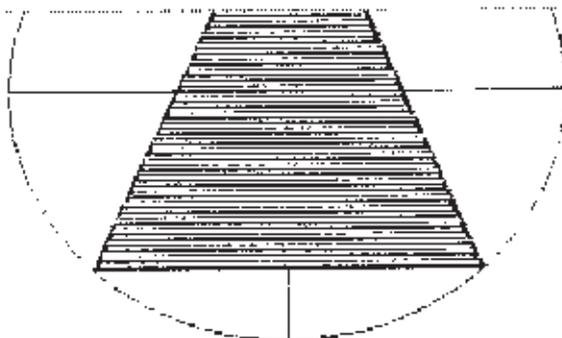
The ruler is similar to the one in the first example but has the indent on the left margin and a left tab at the position of the indent. After finalising the contents of the first few lines of the paragraph, you should start from the second line and put one or more tab marks at the beginning to align the words with the first tab stop. Repeat this with the rest of the lines that need an indent.

C

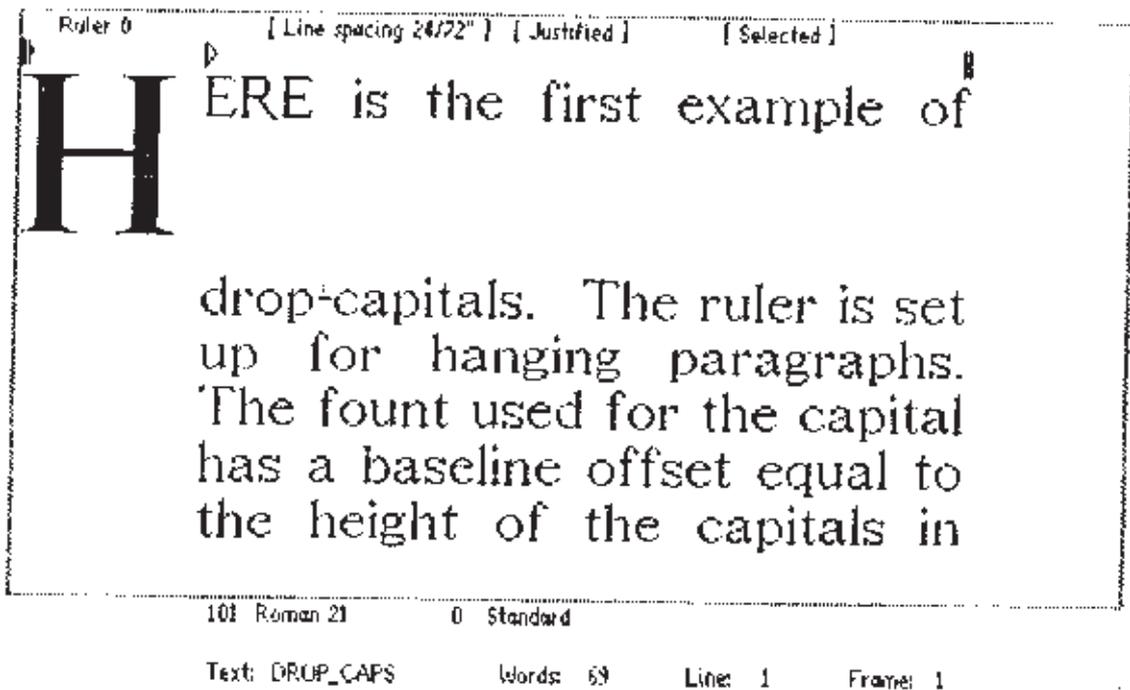
# COMPACTA CENTRED



# COMPACTA CENTRED



# COMPASS



**H**ERE is the first example of  
 drop-capitals. The ruler is set  
 up for hanging paragraphs.  
 The fount used for the capital  
 has a baseline offset equal to  
 the height of the capitals in  
 this fount.

Ruler 1 [ Line spacing 24/72" ] [ Justified ]

**Y**OU have to do more

work to set up the  
format in the first  
three lines of this paragraph.  
Further lines do not require  
extra tab marks and can be

100 Roman 21 0 Standard

Text: DROP\_CAPS Words: 69 Lines: 12 Frame: 1

**Y**OU have to do more  
work to set up the  
format in the first  
three lines of this paragraph.  
Further lines do not require  
extra tab marks and can be  
edited freely.

Samples of founts in actual size

Pixels above the capital ↓

Height of capitals ↓

Height of fount ↓

BOXED ABCD 8 15 32

**COMPACTA64**

0 56 64

**ROMAN**

72

0 60 72

Antiqua12	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 abc	1	8	12
Antiqua20	A B C D E F G H I J K L M	1	15	20
Shadow	A B C D E F G H I J K L M N O P	0	15	20
Roma	A B C D E F G H I J K L M N O P Q R	1	18	24
Roma Italic	A B C D E F G H I J K L	1	18	24
Egyptienne	A B C D E F G H I J K L M N	0	19	24
Grotesque	A B C D E F G H I J K L M N	0	16	20
Neon	A B C D E F G H I J K L M N O P Q	0	19	24
Digital	A B C D E F G H I J	0	22	30
Putura	A B C D E F G H I J K L M N O	1	18	24
Typewriter16	A B C D E F G H I J K L M N O P Q	0	13	16
Typewriter24	A B C D E F G H I J K	2	19	24
Modern	A B C D E F G H I J K L	3	16	24
Swis light 16	A B C D E F G H I J K L M N O P Q R S T U V	1	12	16
Swiss bold 16	A B C D E F G H I J K L M N O P Q	1	12	16

Roman14	ABCDEFGHIJKLMN	2	10	14
Roman16	ABCDEFGHIJKLM	2	12	16
Roman21	ABCDEFGHI	3	15	21
<b>ROMAN36</b>		0	30	36
Gothik	ABCDEFGHI	1	18	24
Oldenglish	ABCDEFGHI	0	20	24
<b>COMPACTA ABCDEF</b>		0	28	32
COMPACTA OUTLINE		0	28	32
SUPERSTAR ABCDEF		0	28	32
Chicago	ABCDEFGHIJKLMNOOPQ	1	18	24
Chicago Italic	ABCDEFGHIJKL	1	18	24
DATA	ABCDEFGHIJKLMNOPO	0	19	24
Avantgarde	ABCDEFGHIJKLMN	1	18	24
<b>Broadway ABCDEFG</b>		3	16	24
Corinthian	ABCDEFGHIJK	3	16	24

# Typeset94-Deskjet

The disk contains dedicated drivers for the Hewlett Packard Deskjet models. The drivers support printer's internal founts plus most of the fount cartridges currently available. Any combinations of up to two cartridges can be used. DESKJET\_P87 is for the original Deskjet model, DESKJET500\_P87 is for the Deskjet Plus and Deskjet 500 models. DESKJET510\_P87 is for Deskjet 510, 520, 550c, 560, 1200c, Portable and 310 models. It is likely to be compatible with any future Deskjet printer. All drivers can be used with Laserjet printers, supporting only the courier fount.

## CHARACTER SETS

The whole range of QL's international characters and symbols is supported except for character codes 175 and 181 which have been replaced with fractions (1/2 and 1/4). With fount cartridges C2109D and C2109E, Greek characters and arrows are not supported.

## TYPEFACES AND HIGHLIGHTS

For fixed pitch typefaces such as Courier, various combinations of bold, italics, superscript, etc. are all available. For proportional typefaces, bold is supported as separate typefaces rather than highlights. This is due to the fact that these are actually different founts with different character widths than their normal counterpart.

Proportional typefaces appear in groups of four, corresponding to normal print, italics, normal bold, and italics bold. As some fount sizes are not available in bold or italics, the relevant typefaces are not available for selection. For example, on the Deskjet Plus and Deskjet 500, the 30pt cartridges support only normal print; the 8pt and 14pt founts on the combination cartridges support normal and bold but not italics. On the DESKJET\_P87 and DESKJET500\_P87 fixed pitch typefaces are also repeated in their Bold variants.

## SUPPORTED FOUNT CARTRIDGES

Deskjet: HP22706A , D, E, F, G, H, J cartridges

Deskjet Plus: HP22706C, P, Q, R, T, U, V cartridges  
HP22708C downloadable founts

Deskjet 500/  
510/550/560 HP22706P, Q, R, T, U, V. C2109B, C, D, E cartridges

## SCREEN DISPLAY FOUNTS

The fount list file, FOUNTS\_DESKJET\_A87 contains the list of display founts that should be loaded with the driver for better screen presentation especially with larger printer founts. In addition to the founts supplied with **plus4**, extra screen founts are included on the disk for use with the driver. You should configure the founts to your preference.

## PRINTER OFFSET SETTINGS

**plus4** has a setting for the offsets of the print-head with respect to the top left hand corner of the sheet of paper. This setting (which can be viewed and modified with the <F3> |Config| |Driver| command) has already been made for the drivers on this disk and should not be modified.

# **plus4 version 4**

## **Addendum to User's Guide**

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## QL Accented Characters

A full list of keyboard key combinations is given in the QL manual in the section **Character Set and Keys**. However, in some copies of the QL manual accented characters and symbols have not been listed. In some copies which list the accented character, some entries are incorrect. The following is a list of character codes between 128 and 191 and their corresponding characters. Refer to the QL manual for the key presses required to produce the characters. Characters 175 and 181 have been translated to fractions in a number of **plus4** printer drivers.

128 ä	144 è	160 Ä	176 μ
129 å	145 ê	161 Å	177 π
130 â	146 ï	162 Å	178 φ
131 é	147 î	163 É	179 ï
132 ö	148 ì	164 Ö	180 ζ
133 õ	149 î	165 Õ	181 ¼ **
134 ø	150 ó	166 Ø	182 §
135 ü	151 ò	167 Ü	183 α
136 ç	152 ô	168 Ç	184 «
137 ñ	153 ú	169 Ñ	185 »
138 æ	154 ù	170 Æ	186 °
139 œ	155 û	171 Œ	187 ÷
140 á	156 ß	172 α	188 ←
141 à	157 φ	173 δ	189 →
142 â	158 ¥	174 θ	190 †
143 ë	159 `	175 λ ½ *	191 ‡

## Introduction

Version 4 of **plus4** features many enhancements over previous versions. The user interface of the program has been improved in several important areas to allow easier access to its capabilities. Since version 3, only three files have been updated: **text87plus4**, the main program, **plus4setup**, the setup program, and **HELP\_T91**, the help file. Some files, containing sample macro definitions, have also been added.

## Setting Up

If you are installing **plus4** for the first time, follow the instructions in the main manual and ignore the rest of this section.

If you are already using **plus4**, you can update your Working Copy of **plus4** by copying the above three files over the earlier version:

- Execute the **plus4setup** program with **EXEC plus4setup**.
- Select **|Working copy|**.
- From the next menu, select **|Copy single files|** to copy the files.

If you run **plus4** from a hard disk or sub-directory, follow the instructions in the main **plus4** manual for configuring the program device.

You do not need a new version of drivers or founts for **plus4** version 4, unless the driver you are using has been updated (some **2488** and **typeset90-deskjet** drivers were updated after the release of version 3).

## Minor Enhancements Since Versions 3

When you start spell-checking, the program immediately prompts for the standard dictionary. It then prompts for your Word List. If you do not use one, press **<ESC>** at this point. You can load the dictionary before **EXEC**uting the program by inserting the following line in your **BOOT** file after the line which loads the Spell Device:

```
PRINT SPELL_NEW
```

The Initial Menu now includes the **|Import|** option which is the same as the **<F3> |File| |Import|** option.

Before a file is saved, all the residues of aborted Typeface changes (when **<F4> |Apply|** is used but no text entered) are removed, so that you will not see them in the list of typefaces in document which is displayed by **<F4> |Typeface|** and **<F3> |Block| |Type|** commands.

The dimensions and coordinates of the frames in Layouts will be rounded off to exact multiples of the length unit. Rounding off takes place also when you change the length unit.

When the length unit is a large one, such as 1/6", the rounding off becomes visible, especially in multi-column Frames, when you preview or print the text or when you enter the Layout Editor. In such Frames, you should select the width in such a way that the sum of the column widths and the gaps between columns is equal to the width of the main Frame. For example, for a two column frame with a gap of 1, the width should always be an odd number. If the gap is set to 2 units, then the width should be an even number.

When you zap a document with the **<F3> |File| |Zap|** command, the text sections are retained, together with the rulers and layouts. This leaves a complete skeleton document for adding text.

## The Block command

When using the Block command for changing the typeface of small blocks of text in succession, the position of block markers always match the flashing cursor.

When using the Block command for changing the typeface of larger blocks of text, the Block is always reformatted.

The **|Block| |Copy|** command does not terminate the block operation so that you can make multiple copies of a block in different places without leaving the **|Block|** menu.

The **|Block| |Ruler|** command no longer uses the previously selected ruler. You can now use the **<UP>** and **<DOWN>** keys to move over the rulers and select any of them for the highlighted block.

In the **|Block|** menu, in addition to the menu items, you can use the following keys that are used in normal text editing:

**<CTRL><A>** as a substitute for **|Alpha|**

**<CTRL><B>** as a substitute for **|Block|**

**<F4>** as a substitute for **|Type|**

**<SHIFT><F5>** as a substitute for **|Ruler|**

**<SHIFT><F3>** allows you to apply any of the 10 preselected printypes to the whole block.

## **Ruler Selector <SHIFT><F5> and <F3> |Ruler|**

On the rulers, the coordinates of the three margins (First Line, Paragraph, Right) are displayed. While viewing rulers, those that have been used in the document are marked as such.

Minor improvements to editing tabs and margins allow you to **|Erase|** a tab with the cursor approximately over it (as opposed to exact positioning achieved with the **<TAB>** key that was required by earlier versions). You can now use the **<TAB>** key to move the bar cursor to the right, even if it is located at coordinate 0. Tab stops can now be placed nearer to each other.

In previous versions of **plus4** you had to invoke the **<F3> |Ruler|** command then **|Select|** a ruler so that you could then use **<F5>** to reformat the current paragraph. This method still works but the new **<SHIFT><F5>** command extends the possibilities by introducing interactive editing.

### **Quick Selection of an Existing Ruler**

After placing the cursor on a paragraph which you want to reformat, invoke **<SHIFT><F5>**. A menu appears. You can use the **<UP>** and **<DOWN>** arrow keys to scroll over the rulers already defined. Once the ruler you require is displayed, press **<ENTER>** or **<S>** for **|Select|**. The ruler will be applied to the current paragraph and you can resume editing. Furthermore,

the ruler will become the Selected Ruler so that next time you invoke the <F5> command, it will be used without any further effort.

### **Interactive Creation of a New Ruler**

If you need a new ruler (one that has not yet been created), place the cursor on a paragraph which you want to reformat and invoke <SHIFT><F5>. The new ruler can be based on any of the existing rulers. Use the <UP> and <DOWN> keys to display the required base ruler then issue the |New| command. The |Ruler| |Edit| menu is then displayed. This menu, explained in the plus4 manual, allows you to edit the new ruler. While you edit, any changes to the ruler are immediately applied to the paragraph. Once you are happy with the format of the paragraph, press <ESC> a couple of times to go back to text editing. The new ruler will also become the Selected Ruler, available for quick insertion with the <F5> key.

### **Interactive Editing of Existing Rulers**

If you want to edit a ruler while watching the effect of changes on text, press <SHIFT><F5> then use the <UP> and <DOWN> keys to display the ruler then select the |Edit| command. The Edit Window will move to the next area of the document that has been formatted with the displayed ruler. The |Ruler| |Edit| menu is displayed, allowing you to modify the ruler while applying the changes to the text in the Edit Window. If the ruler has not been used at all, the last line of the document is displayed.

### **Displaying Text that uses a Ruler**

The |Find text| command searches the document and displays the next area of text that has been formatted with the displayed ruler. When there is no such area until the end of the document, the search will resume from the beginning of the document. If the displayed ruler has not been used at all, the last line of the document is displayed.

### **Switching Between the two Modes**

The |Zoom| command in the first menu switches between the interactive and non-interactive modes. The non-interactive mode is still useful for comparing the rulers with each other.

## Keyboard Macros

Keyboard macros replace frequently used sequences of keys with <CTRL> key combinations. For instance, in order to underline a word you have written already, you place the cursor at the end of the word, start the block marking procedure, move the cursor to the beginning of the word, mark the block, change the printype to underlined and finally remove the highlight. The key sequence consists of 9 key presses (some double) as follows:

<SHIFT><RIGHT> <CTRL><B> <SHIFT><LEFT> <B> <T> <N>  
<U> <ENTER> <U>

This can be allocated to the <CTRL><W> (or another) key combination so that each time you press it, the word under the cursor is underlined.

The following 28 keys, pressed with the <CTRL> key held down, can call macros. We shall call them Macro Keys in the rest of the manual. The 'C' at the beginning refers to the <CTRL> key. Full lists of keys are given for more complex combinations.

<CD>	<CW>	<CTRL><W>
<CE>	<CX>	<CTRL><X>
<CF>	<CY>	<CTRL><Y>
<CG>	<CZ>	<CTRL><Z>
<CK>	<CSM>	<CTRL><SHIFT><M>
<CL>	<CSI>	<CTRL><SHIFT><I>
<CO>	<CSJ>	<CTRL><SHIFT><J>
<CP>	<CS£>	<CTRL><SHIFT><£>
<CQ>	<CF1>	<CTRL><F1>
<CR>	<CF2>	<CTRL><F2>
<CS>	<CF3>	<CTRL><F3>
<CT>	<CSF1>	<CTRL><SHIFT><F1>
<CU>	<CSF2>	<CTRL><SHIFT><F2>
<CV>	<CSF3>	<CTRL><SHIFT><F3>

## Recording a Macro

Before recording a sequence of keys as a macro, you should choose the Macro Key for the key sequence. You cannot use a Macro Key that has already been allocated.

- To start recording press **<CTRL><F4>**.
- Then press the Macro Key (e.g. **<CTRL><W>** as in our example). At this point, the program will not accept already defined Macro Keys, nor will it accept keys that are not Macro Keys.
- Press the sequence of keys necessary to perform the required action. Recording continues transparently.
- At the end press **<CTRL><F4>** to indicate the end of recording.

Macro recording is completely transparent to the operation of the program. The only indication that recording is in progress is the colour of the optional solid cursor which will turn green from the normal white. (The solid cursor can be turned on before recording macros with a command from the **<F2> |Options| |Others|** menu.)

Your designated Macro Key is now available for use. Each time you press it, the program plays back the sequence of keys that were recorded.

## Viewing, Deleting, Saving and Loading Macro Key Definitions

The **<F3> |Config| |Macros|** command displays a Selector Box with a full list of Macro Keys and their definition. Undefined Macro Keys only have their names displayed. You can move the red box over the list of Macro Keys with the **<UP>** and **<DOWN>** keys. Selecting **|Zap|** from the menu will delete the definition for the key enclosed in the red box.

The full set of Macro Key definitions can be saved to a file with the **|Save macros|** command from the same menu. Macro definition files have the extension **\_M91** which will be added by the program when they are saved. You can have several different macro definition files for different purposes.

The **|Load macros|** command allows you to load a predefined macro definition file to replace the currently defined macros.

The default file name for macro definitions is **MACROS\_M91**. If you regularly use a set of macros, you can save them with the default name. When you EXECute **plus4**, the program automatically loads the file **MACROS\_M91** if it finds it on the Working Disk.

### Modifying Macros Definition Files

The usual method for modifying macro definition files is to load them with **<F3> |Config| |Load macro|**, then to delete any unwanted Macro Key definition with the **|Zap|** command from the same menu. You can then leave the menu and define any Macro Key as described before. Finally the **<F3> |Config| |Save macros|** command is used to save the modified definitions.

However, it is sometimes desirable to change just a small part of a Macro Key definition. Since macro definition files are ASCII text files, you can import, modify and then save them (by exporting).

- Use the **<F3> |Files| |Import| |Ascii|** command and select **|Normal|** to import a macro definition file.
- After making the changes to the text of the macro definition file, you should make sure that no text block is marked (use **<CTRL><B>** then **<ESC>** immediately after) before you export it. Use the **<F3> |File| |Export|** command and type the name including the extension (e.g. **MACROS\_M91**) to export the definition file to disk.
- You can then load the modified definition file with the **<F3> |Config| |Macros| |Load|** command.

In the text of a macro definition file, ordinary characters (including accented ones, digits and punctuation marks and symbols) appear as you typed them during macro recording. Special characters and keys are represented by symbols enclosed with angle brackets. Space characters that are part of the macro are represented as **<SPACE>**. Ordinary spaces are used for separating angle brackets that are actually typed. For example the macro definition **<CD> A < H > B** will result in **A<H>B** typed in the

text when you press <CTRL><D>. If you omit the spaces around the 'H', the new macro definition <CD> A <H> B will result in A-B.

The list of keys that are represented by symbols is given below, with full list of keys for more complex combinations. Within symbols, the prefix 'S' refers to <SHIFT>, 'C' refers to <CTRL> and 'A' refers to <ALT>.

<↑>	<CA>	<CTRL><A>
<↓>	<CB>	<CTRL><B>
<S↑>	<CH>	<CTRL><H>
<S↓>	<CN>	<CTRL><N>
<C↑>	<SPACE>	
<C↓>	<SSP>	<SHIFT><SPACE>
<A↑>	<->	
<A↓>	<TAB>	
<SA↑>	<STAB>	<SHIFT><TAB>
<SA↓>	<ENT>	<ENTER>
<⇐>	<ESC>	
<⇒>	<SCESC>	<SHIFT><CTRL><ESC>
<S⇐>	<F1>	
<S⇒>	<SF1>	<SHIFT><F1>
<C⇐>	<F2>	
<C⇒>	<SF2>	
<A⇐>	<F3>	
<A⇒>	<SF3>	
<SC⇐>	<F4>	
<SC⇒>	<SF4>	
<CA⇐>	<F5>	
<CA⇒>	<SF5>	
<SCA⇐>	<SCF5>	<SHIFT><CTRL><F5>

## Screen Fount Management

The <F3> |Config| |Founts| command has been updated and its sub-menus have been combined into one. The new menu is:

(attach:) Single Fount Highlight (founts:) Load Multi Zap  
Write list <esc>

The four commands listed after (founts:) allow you to load founts into memory or remove (zap) from memory any fount already loaded. The main feature of the new version is that you can now produce a Fount List File (a file with the extension **\_A87**) for automatic loading of founts.

|Load| lets you to load a single fount which is added to the end of the list.

|Multi| allows you to select (with the File Selector Box) any Fount List File (**\_A87**) in order to load all the founts listed there in one operation.

|Zap| will remove from memory the fount which is surrounded with the red box in the Founts Selector Box. The **DEFAULT11** cannot be zapped.

|Write list| will ask you for a file name which will contain the names of all the founts currently loaded into the program. If you confirm the default name, **FOUNTS**, all the current founts will be loaded automatically next time you EXECcute plus4.

The new recommended procedure for managing screen founts is as follows:

- Issue the <F3> |Config| |Founts| command.
- Press <TAB> once to make the Founts Selector Box active.
- The list in the box contains the founts already loaded into the program (at the time of EXECution). Look at the founts, scrolling up and down if necessary, and |Zap| any that you do not want.
- Now issue the |Load| command to load your chosen extra founts one by one from the disk. Alternatively, if there are any **\_A87** Fount List Files, you can issue the |Multi| command to load their listed founts.

- Use the **[Zap]** command again if necessary until you are happy with the list of founts.
- Then issue the **[Write list]** command to produce a new **\_A87 Fount List File** on your Working Disk. If you want the founts to be loaded automatically next time you EXECute the program, accept the default name, **FOUNTS**, offered by **plus4**. Otherwise, you are free to choose the name of the file which can be used for manual loading of founts with the **[Multi]** command mentioned above.
- Having chosen the list of founts you should then attach them to the typefaces with the three commands listed in the menu after (attach:). These commands work the same way as described in the manual under the old **<F3> [Founts] [Attach]** command. After using these commands use the **<F3> [Config] [Drivers] [Save]** command to save the changes in the printer driver for future use.

## Printing

**[Messages]** is a new option in the **<F3> [Print] [Device]** menu. By default, **plus4** allows you to press **<ESC>** while printing is in progress so that you can abort the print run or correct a problem with the printer before resumption. As a result, when running **plus4** under the Pointer Environment, you cannot switch to another program while printing is in progress. Printing will stop at some point and will not resume until you switch back to **plus4**. In response to requests from a small group of users, you can now toggle the **[Messages]** off for one print run and switch between programs while printing is in progress. This practice is not recommended for normal use as any problem that may arise during printing will be impossible to solve.

## Window Management **<F2>**

The **<F2> [Options]** menu has changed slightly to accommodate two new features through the **[Others]** command. This command allows you to add a solid cursor to the flashing one. It also allows you to turn off the display of the colour red within the whole program and replace it with white. These features are especially useful when a monochrome monitor is in use.