

# INTEXT WP & COMMS. PROGRAM

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## GETTING STARTED

INTEXT is supplied on a diskette. To run the program simply type INTEXT after the D: prompt and press the RETURN key.

The program will be loaded and you will see the INTEXT Main Menu.

The maximum screen width is assumed to be 40 columns but if an 80 column card is in use the following procedure will set the maximum screen width to 80:-

- Select the E Edit option and you will see a blank screen with the cursor in the top left corner.
- Press the CTRL and P keys.
- Press the SHIFT and F7 keys to return to the main menu.
- To make this a more permanent change for future runs of INTEXT, select the U Utilities option and press S (save parameters).
- Press the ESC key to return to the main menu.

With the 80 column card it is assumed that the modified character set has been selected.

The full facilities of the program are described in the following sections.

Try to get some practice with short documents and simple transmissions before attempting to write a book!

## Brief Notes on the Use of Intext on the Einstein

### 1. 40/80 Column Display.

When INTEXT is first called a 40 column display is assumed and the text display line width is set to 39 columns.

If an 80-column card is being used then select the E Edit option from the main menu, and press the CTRL and P keys. This will set the 80 column display and select a text display line width of 79 columns.

### 2. Edit

a) The memory will be empty when Intext is first called. After this the edited text will be retained until power-off, or a Print, Communications or DIALTEXT operation.

The Load operation will add the named file to any text already in the memory.

The New operation will clear the memory.

#### b) Special Keys

- F0 Moves cursor to beginning of text
- F1 Moves cursor to end of text
- F2 Display Edit Status - word count etc.
- F3 Define a search string and search for next occurrence
- F4 Repeat the search for the string defined by F3
- F5 Insert a block marker into the text
- F6 Insert text from the hold buffer at the current cursor position
- F7 first press - open up text to insert  
second press - close up text
- Most cursor moves and block operations are disabled
- F8 Delete up to the beginning of the next word..
- F9 Delete up to the beginning of the next sentence  
(. ! ? or CR)
- F10 Delete to end of paragraph.  
(CR or end of text)
- F11 Delete text from the cursor to the next block marker  
(obtained by pressing the GRPH and M keys - see below).
- F12 Block hold from the cursor to the next block marker
- F13 Delete the text in the hold buffer
- F15 Return to main menu

DEL delete the character under the cursor  
DEL+SHIFT backspace - i.e, delete the character behind the cursor  
(only to the beginning of the current line)  
TAB Insert or jump 5 spaces/columns

#### c) Printer Control Markers

Using the 80-column card the special markers will appear in inverse form on the screen.

Using the 40-column display the special markers are standard Einstein graphics characters.

GRPH and C marker to centre a line of text



GRPH and F	Form feed
GRPH and I	to Indent text
GRPH and L	to shift the Left margin
GRPH and M	insert block marker. (checkerboard character)
GRPH and P	general Printer control character marker (controls should be enclosed between two F markers)
GRPH and R	to Right flush the text

#### d) Printer Control Codes

For all printers :-

u	underline	(toggle on-off)
b	bold	(toggle on-off)
e	esc	ASCII 27 (1BH)

Any other control character marked with a carat ^ (80 column) or by an up arrow (40 column)

For TATUNG dot matrix printers :-

u	underline
b	bold
c	condensed
w	wide
s	superscript
d	subscript (down)

Any other control characters marked with a carat ^ (80 column card)  
an up arrow ^

For 'Special printer' :-

This is configured for the Brother HR-15 (or Epson DX-100)

b	bold
c	colour ribbon
d	subscript (down)
p	proportional spacing
s	superscript
u	underline
0	10 per inch pitch
2	12 per inch pitch
5	15 per inch pitch

Any other control charcters marked with an up arrow ^

#### e) LOAD

The L Load option on the main menu allows you to call a document from a disk file into the memory for editing.

The file will be placed after any text already in the memory. The memory can be cleared by using the N New option if necessary.

Typing /W after the file name will enable WORDSTAR files to be loaded into INTEXT and the special markers will be removed.

The load operation does not destroy the original file unless you



subsequently resave the file under the same name.

f) SAVE

The S Save option on the main menu allows you to save an edited file onto a disk.

This can be selected at any time after editing as long as the D DIALTEXT, P Printer and C Communications options have not been used. Saving a document on a file does not remove it from the memory.

However, the edited text must be saved on a file it is to be sent out using the print or communications options.

Typing /L after the file name will ensure that a linefeed character is saved after each carriage return character.

## g) NEW

The N New option is used to clear the memory before editing a new piece of text or, if necessary, loading a document from a file. The memory is cleared automatically each time that INTEXT is re-loaded.

## 2. Communications

(a) The edited file will be deleted so save it at this point if necessary.

Communications status screen allows updating of strings on F0 to F4 DEL cursor right and left keys operative.

Use ^M to include a carriage return at the end of the string (and ^J for linefeed, if necessary).

Terminate a string by pressing the RETURN key or cursor down key. Press ESC to go back to communications).

Cursor down to move to next parameter field.

ESC to go into comms

### (b) Function keys

F0 to F3	sends out defined string
F4	comms. parameter screen (does not disconnect modem)
F5	print everything that is displayed on the screen (toggle)
F6	echo/non-echo transmitted text (toggle)
F7	display text (toggle)
F8	Save incoming text to named file (/C after the name if
all	control characters are to be retained)
F9	Send text from named file (/N after the name if no
	formatting is required)
F15	return to main menu
CTRL+C	return to main menu

## 3. UTILITIES

The U Utilities option on the main menu allows you to look at the files on a disk and /or delete individual files to create some extra space on the drive.

The latest set of parameter values can be saved in the parameter file on drive 0: (A:).

## The INTEXT Main Menu

E Edit	N New
C Communications	D DIALTEXT
L Load	S Save
P Print	U Utilities
F Finish	R Recover text

The main menu links all of the modules within the program. A brief summary of the options is given below and these are then amplified in the following sections.

### E Edit

When this option is selected a new piece of text can be prepared. Editing is terminated by pressing the F15 (F7+SHIFT) key. The text in the memory can subsequently be re-edited as often as necessary by re-selecting this option.

The screen line width can be altered at will and there is a warning when the memory is full.

### N New

The N New option is used to clear the memory of old text to allow a new piece of text to be entered. This operation will not disturb any text which has been saved as a named file on a disk.

### C Communications

When the C Communications option is selected the RS232C port is opened ready for the user to communicate to another computer. The RS232C parameters such as speed and parity can be re-selected and re-set from within this portion of the program.

### D DIALTEXT

The DIALTEXT system allows text to be transmitted to a remote location with error checking and automatic logging-on. For further details contact Talbot Computers Ltd. or TATUNG Ltd.

### L Load

The L Load option is used to transfer a named text file from disk drive. The file is transferred to the main memory of the computer and the text can be edited by selecting the E Edit option. If there is a piece of text already in the main memory of the computer then the text from the named file will be placed after this existing text. Any existing text can be cleared from the main memory by selecting the N New option. Files produced by some most other wp programs can be loaded into the memory and converted into INTEXT files.



## S Save

A piece of text can be saved as a named file on a drive by selecting the S Save option.

## P Print

Text which has been saved as a named file on a disk drive can be sent to a printer via the RS232C or Centronics port. A "parameter" screen allows a number of formatting parameters to be changed if necessary before printing.

There is a further option to show the formatted text on the VDU and one of three printer types can be selected.

## U Utilities

This option allows the names of files on a disk drive to be listed. It is also possible to delete named files without leaving INTEXT and returning to the DOS operating system.

## F Finish

The "normal" method of finishing a session in INTEXT is to select the F FINISH option. If a piece of edited text has not been saved then a warning is given before the program finishes. The program can, of course, be terminated by switching off the computer!

## R Recover Text

If the F Finish option is selected without saving the edited text on a file it is possible to recover the edited text by re-running INTEXT and immediately selecting the R Recover text option. This procedure selects the editing mode and the text can be edited and/or subsequently saved in the usual way.

## TEXT AND FILES

A single piece of text is handled at any one time within INTEXT. This is stored in the main memory (ram).

Named files may preserve documents/text permanently on a disk drive.

The text which is to be edited may be loaded into the main memory from a named file using the L Load option. This operation will not destroy the original named file.

A piece of edited text can be saved as a named file on the disk drive. If the name given to the file is the same as that of an existing file, the "old" file will be replaced by the new version. Alternatively, if the saved file is given a name different from the original file then both versions will still be available on the disk drive.

For example, if there is a named file TEST1 on disk and this is loaded into the main memory, edited and saved as a named file TEST2 then both of the files TEST1 and TEST2 will be preserved on the disk.

However, if TEST1 is loaded into the main memory, edited and saved as the named file TEST1 then only the revised version of the text will be preserved in the named file TEST1.

**NOTE:** IT IS IMPORTANT TO SAVE AN EDITED FILE BEFORE SELECTING THE PRINT, COMMUNICATIONS OR DIALTEXT OPERATIONS, OR, BEFORE SWITCHING OFF THE COMPUTER.

The INTEXT program will invite the user to save text as a named file after editing and before selecting one of the above options.

### Format of Named Files

Files produced by INTEXT are standard DOS ASCII files and are generally compatible with the files handled by other word processing programs. The special graphics characters used for printer controls and page formatting all contain 8 bits.

### Files from Other Sources

Text files which have been produced by other word-processing programs can be loaded into INTEXT. There is an option to strip special markers from these files (those containing 8 bits).

For example, if the file DOC1.WS has been produced by WORDSTAR it can be loaded into INTEXT using the L Load option and can be re-saved as the file DOC1.INT. The user would have both versions of the text available since the re-named file would not replace the original in this example.

## PREPARING AND EDITING TEXT

### GENERAL POINTS

#### CLEARING THE MAIN MEMORY

If there is an earlier document in the main memory then it can be cleared by selecting the N New option on the main menu before selecting E Edit.

#### PREPARING A NEW DOCUMENT IN THE MAIN MEMORY

To start a new document, select the E Edit option from the main menu and a clear screen will show the cursor in the top left-hand corner. You can begin typing in the text.

#### FINISHING THE EDITING/TEXT ENTRY

The editing can be terminated at any point (unless in the INSERT mode - see later) by pressing the F15 key (F7+SHIFT keys). The user will be invited to save the edited text on a disk drive before control is returned to the main menu.

The text will still be available in the main memory, even if it has been saved to a file and it is therefore possible to return to continue the editing.

The text will be maintained in the main memory until the computer is switched off or a print, DIALTEXT or communications session is used. If one of these options is selected then there is a further invitation to save the edited text to a file, if this has not already been done.

#### EDITING AN EXISTING DOCUMENT IN THE MAIN MEMORY

The text in the main memory can be accessed for editing as often as necessary by selecting the E Edit option on the main menu. Termination of the session is again achieved by pressing the F15 key.

#### SAVING TEXT/DOCUMENTS ON FILES

When the F15 key is pressed during editing the following message appears on the screen :-

```
Type name of file for saving
( /L to save linefeeds)
( RETURN to ignore)
?
```

Press RETURN to return to the main menu: the text will still be available in the main memory and can be accessed again by selecting the E Edit option.

To save the edited text on disk type a file name, obeying the normal DOS conventions.

I.e., the disk drive code followed by a colon (if missing the drive 0: is



I.e., the disk drive code followed by a colon (if missing the drive 0: is assumed); a file name of up to 8 characters; an optional extension of up to 3 characters, headed by a full stop.

The backspace (DEL+SHIFT), cursor and delete (DEL) keys can be used to correct mistakes in the name before pressing the RETURN key.

The file name should be followed by the characters /L if linefeed characters are required after carriage return characters.

For example,	FILE1	save text on drive 0: as FILE1
	B:FILE2	save text on drive 1: as FILE2
	FILE3/L	save text on drive 0: as FILE3 with linefeeds

If the text is not saved at this point, or if copies of the text are to be stored under different names or in different places then the S Save option can be used.

For example, it is possible to save the text in the main memory under the name 1:XYZ on drive 1 and 0:PQR on drive 1.

The saving operation does not remove the text from the main memory.

If the diskette becomes full before the whole of the edited text has been saved a warning message is displayed and the incomplete file is closed. You should not try to save any more files until you have created more space by deleting other files.

If the directory space is full a warning message will be given. You cannot save further files unless some others are erased from the directory.

The print, DIALTEXT and communications options will erase the edited text from the main memory but if this text has not been saved as a file there will be a warning before proceeding with one of these options.

NOTE: Do not try to save to a disk drive which is not connected.

NOTE: Text is saved in standard ASCII format; the printer format commands and carriage return characters are preserved. Apart from the printer control graphics characters there should be no difficulty in loading INTEXT files into other word-processing programs.

## LOADING TEXT FROM FILES

The text on a disk file can be loaded into the main memory by selecting the L Load option from the main menu. The screen will change to :-

```
      Type name of file to be loaded
      ( /W for non-INTEXT files)
      ( RETURN to ignore)
      ?
```

Type the name of the file, with any disk drive information if required and press RETURN to load the text into the main memory (see naming conventions in the SAVING section above).

The file name should be followed by the characters /W if you wish to load a file with any formatting markers in the text which have been produced by other word-processing programs such as WORDSTAR). Loading a file into the main memory in this way will not destroy the original file on disk.

The text from a file will be loaded into the main memory after any text which already exists from previous editing or loading. This enables larger documents to be created from a number of smaller ones.

If the text to be loaded is not to be merged with existing text in the main memory then it is necessary to select the N New option before loading.

If the text to be loaded is larger than the remaining space in the main memory then the loading will continue until the memory is full and a warning message will appear on the screen.

#### RECOVERING TEXT AFTER FINISHING INTEXT

If, for any reason, the program control is returned to the DOS operating system before the text in the main memory has been saved (normally because the invitations to save text have been ignored) there is still an opportunity to recover and save the edited text.

When the mistake has been discovered, run INTEXT again (if any other program is run the text will probably be lost).

Select the R Recover text option on the main menu and the original text will appear on the screen.  
Press F15 or continue editing.

#### SIZE OF MAIN MEMORY

The space available in the main memory for editing text is approximately 30000 characters.

If the main memory becomes full during editing, or loading, a warning message appears and the appropriate action can be taken.

The amount of space used and the amount left are displayed on the EDIT STATUS screen (see later).

#### KEYBOARD FUNCTIONS

##### WORD-WRAP

As text is entered into the memory it scrolls to the right across the screen and word-wrapping is performed at the end of each line, unless the line is terminated by a RETURN (i.e., words are not broken at the end of a line).

Whenever letters/words/blocks are deleted or inserted the word-wrapping is maintained.

##### MAXIMUM SCREEN LINE WIDTH

The maximum screen line width can be set to 40 or 80 columns. The mode can be selected in the operating system by typing but INTEXT must be re-configured if this is changed. The procedure is quite simple :-

Select the E Edit option.

Press the CTRL and P keys to select the 80 column mode.

Press the CTRL and N keys to select the 40 column mode.

To save the modification for future use use the U Utilities section of the program and save the parameter file.

In the 80 column mode the special graphics characters appear in inverse video format.

#### SCREEN LINE WIDTH - EDIT STATUS SCREEN

F2

The point at which words are wrapped, if necessary, is determined by the screen line width. This is set at 39 characters by default when INTEXT is loaded.

The screen line width can be changed to a value up to 79 max. by selecting the edit status screen - pressing the F2 key at any time (other than when in the INSERT mode). The edit screen displays :-

#### \*\*\* EDIT STATUS \*\*\*

```
Screen line width      : 39
ESC key to continue
No. of chars. used     : 780
No. of words used      : 145
No. of lines used      : 15
No. of chars. free     : 30002
```

This gives an indication of the number of characters, words and lines used and the space left for further text.

The cursor will be flashing over the current screen line width setting and it is possible to change this value (for example to 35).

The maximum screen line width to preserve word-wrap for a 40 column machine is 39. For a micro. fitted with the 80-column card the maximum screen line width to preserve word-wrap is 79.

Press the ESC key to return to the text. If the screen line width is changed the text will be reformatted to the new width.

NOTE: The screen line width does not determine the printed line width. This can be specified independently in the print section of the program (see later).

#### CTRL & F KEYS - REFORMATTING TEXT

When text is typed into the memory and edited the INTEXT program monitors the words on a line and adjusts them if necessary. If for any reason you think that the word-wrap is not complete then press the CTRL and F keys to re-format the whole text from the beginning.

#### CORRECTING TEXT

##### (A) Overtyping

If a character is typed when the cursor is positioned over an earlier piece of text the new character will replace the old one. This can be repeated as often as necessary and allows one method of correcting sections of text.

It is not possible to overwrite the character at the end of a line of text



which will appear as a space or carriage return marker (CR)

(B) DEL key - Deletion

Pressing the DEL key will delete the character under the cursor. Text will be re-formatted if necessary to maintain word-wrapping and the later text will be moved back to replace the deleted character.

This process may be repeated as often as necessary by holding down the DEL key but the screen refreshing may be relatively slow and larger blocks of text should be removed using the word, sentence, paragraph or block deletion facilities.

(C) DEL+SHIFT keys - Backspace Deletion

Pressing the DEL & SHIFT keys will delete the character to the left of the cursor and close up the text accordingly.

This function will work leftwards until the left-hand edge of the text has been reached.

## F7 Key - Insertion

Pressing the F7 key once will open up the text after the cursor to allow the insertion of further text. The DEL and DEL+SHIFT keys and overtyping functions are fully operative in this mode but there is only limited left or right scrolling and the vertical cursor jumps, etc. are disabled.

Pressing the F7 key a second time will close up the later text (suitably re-formatted).

NOTE: It is not possible to finish editing by pressing the F15 key while in the insert mode. An audible warning is given if the "blocked-off" key functions are used.

## (E) F1 - Jump to Beginning of Text

Pressing the F1 key will place the cursor at the beginning of the text.

## (F) F2 - Jump to End of text

Pressing the F2 key will place the cursor at the end of the text.

## (G) F8 (F0 & SHIFT) - Delete Word

Pressing the F8 key will delete the characters from the cursor position to the beginning of the next word in the text.

## (H) F9 (F1 & SHIFT) - Delete Sentence

Pressing the F9 key will delete the characters from the cursor position to the end of the sentence. The end of the sentence is marked by a full-stop, exclamation mark, question mark, carriage return, or the end of the text.

## (I) F10 (F2 & SHIFT) - Delete Paragraph

Pressing the F10 key will delete the characters from the cursor position to the end of the paragraph. The end of the paragraph is marked by a carriage return, or the end of the text.

## (J) F11 (F3 & SHIFT) - Delete Block of Text

The end of a block of text is marked by inserting a block marker "checkerboard" character (or inverse M on the 80 column display). This is obtained by holding down the GRPH key and pressing the M character. A marker may be "inserted" by pressing the F5 key. Place the cursor at the beginning of the portion of text to be deleted. Pressing the F11 key will delete the text from the current cursor position to the end-of-block marker. The text will be closed up and re-formatted if necessary.

## (K) F12 (F4 & SHIFT) - Block Hold

Pressing the F12 key will cause the portion of text from the current cursor position to the next end-of-block marker to be saved in a "hold buffer".

The text will be closed up and re-formatted if necessary.

The removed text can be re-inserted as outlined in the next section.

There will be a warning message if the block to be held is too large.

#### (L) F6 - Block Insertion

Pressing the F6 key will cause the text from the hold buffer to be inserted at the current cursor position. The later text will be moved to make room for the inserted text and the whole will be re-formatted if necessary.

This operation can be repeated as often as necessary to insert the same block of text at different points in the document.

There will be a warning message if there is no more room to insert a block in the memory.

#### (M) F3 - Define Search String

Pressing the F3 key will bring the following prompt onto the screen :-

##### TYPE SEARCH STRING -

Type the string to be searched for, editing with the cursor and DEL keys if necessary. Press RETURN to finish the string and there will be a search for the string from the current cursor position in the text.

If a match is found in the text the cursor is moved to the beginning of the next such string in the text; otherwise the cursor remains in its old position.

#### (N) F4 - Repeat Search

It is possible to continue searching for a string that has been defined by F3 by repeatedly pressing the F4 keys. Searching carries on from the current cursor position for the next occurrence of the defined string.

#### (O) F5 - INSERT A BLOCK MARKER IN THE TEXT

Pressing the F5 key will open up the text, insert a block marker and close up the text again.

The marker is a checkerboard character for the 40 column display and an inverse M for the 80 column display.

#### (P) Cursor Control Keys

The left, right, up and down cursor keys (marked with arrows) can be used to move the cursor one character or one line at a time through the text. The left and up cursor moves require the SHIFT key in addition to the arrow key.

#### (Q) SHIFT Key

If the SHIFT key is held down at the same time as a symbol key then the upper character marked on the key will be displayed (for example, ! f } + \*).

#### (R) ALPHA LOCK

If the ALPHA LOCK key is pressed with the corresponding red light off then the light will come on.

If the ALPHA LOCK key is pressed with the corresponding red light on then



If the ALPHA LOCK key is pressed with the corresponding red light on then the light will go off.

ALPHA light off -

If any letter key is pressed the lower case letter will be displayed.  
If any letter key is pressed at the same time as the SHIFT key then the upper case letter will be displayed.

ALPHA light on -

If any letter key is pressed the upper case letter will be displayed.  
If any letter key is pressed at the same time as the SHIFT key then the lower case letter will be displayed.

### PRINTER CONTROL CHARACTERS IN THE TEXT

The following characters can be included in the text to help with the formatting of the document when it is printed.

GRPH and C - CENTRE A LINE OF TEXT

The GRPH and C keys will insert a centering marker into the text. The marker is two vertical bars for the 40 column display and a reverse C for the 80 column display.  
When the text is printed the line of text which follows the marker will be centered within the current printed line width.  
The marker must be inserted for each line to be centered.

GRPH and F - FORM FEED (TOP OF NEXT PAGE)

Pressing the GRPH and F keys together will insert the FF character in the text for a 40 column display and a reverse F for the 80 column display.

When this character is encountered during printing the printer will perform a form feed (i.e., the printer will move to the top of the next page).

GRPH and I - INDENT TEXT

Pressing the GRPH and I keys together will insert a bold right arrow character (with a double horizontal bar) into the text in the 40 column mode and a reverse I for the 80 column display.  
This character must be followed by TWO decimal digits.  
When the bold I character is encountered during printing, the number that follows will determine the indent for the next lines of text.

For example,

I10 will cause ten spaces to be inserted before each of the following lines of text.

I00 will set the indent back to zero (note the two digits 00).

GRPH and R - RIGHT FLUSH

Pressing the GRPH and R keys together will insert a right arrow character into the text in the 40 column mode and a reverse R in the 80 column mode.

When the text is printed, the marker will cause the following line of text

to be printed up against the right-hand margin.

Each line of text to be printed against the right margin should be preceded by a right flush marker.

## GRPH and P - General Printer Controls

Pressing the GRPH and P keys together will insert a bold vertical bar into the text in the 40 column mode and a reverse P in the 80 column mode.

Two print markers are used to enclose printer control sequences.

There is a set of single letter mnemonics to generate some of the more common printer control sequences and these are outlined below, according to the type of printer to be used.

For details of the different printer types see the section on PRINTING.

### Mnemonics for a Basic Printer

b bold text (each character is printed, there is then a backspace and the character is printed again)

u underline text (each character is printed, there is then a backspace and the underline character is printed)

The bold and underline commands are toggles - i.e., the print control is turned on by the first occurrence and then turned off by the second occurrence of the string.

For example,

PuPThis sectionPuP is very important.

will be printed as,

This section is very important.

e ESC character (ASCII 27)

^ the carat character followed by an upper case letter is used to send an ASCII character in the range 1-26 to be sent to the printer when the document is printed.

For example,

PeA^Me^QP will send the control sequence 27,65,13,27,17 to the printer.

### Mnemonics for an TATUNG Dot Matrix Printer

The following mnemonics can be used on TATUNG dot matrix printers. The commands are toggles so that the first selection of a control will switch on the corresponding feature and the second selection will turn it off.

b bold text (toggle on-off).

c condensed text (toggle on-off).

d down - subscript (toggle on-off).

s superscript (toggle on-off).

u underline the following text (toggle on-off).

w wide - enlarged text (toggle on-off).

The above codes can be used in combination so that the first occurrence of the sequence Pbwp would cause the printer to print the following text in bold and enlarged characters.

e ESC (ASCII character 27)

^ symbol to indicate control characters A to Z.

Any other imbedded characters not covered above.

#### Mnemonics for a Special Printer

The version of INTEXT supplied by Talbot Computers or one of its approved dealers is configured with control characters for the EPSON DX-100 printer (or Brother HR-15). These controls can be changed to suit the requirements of a different printer and the details are outlined in the next section.

The 'standard' mnemonics for the HR-15 printer are :-

- b bold text (toggle on-off).
- c colour ribbon - selects red ribbon (toggle on-off)
- d down - subscript (toggle on-off)
- p proportional spacing (toggle on-off)
- s superscript (toggle on-off)
- u underline text (toggle on-off)
- 0 10 per inch character pitch
- 2 12 per inch character pitch
- 5 15 per inch character pitch

#### Customising Printer Control Mnemonics

An experienced user can configure a version of INTEXT to handle mnemonics defined by the user.



## PRINTING A DOCUMENT

Selecting the P Print option from the main menu will display the PRINTER PARAMETERS screen :-

### \*\*\* PRINTER PARAMETERS \*\*\*

RS232C parameters : 777E1  
RS232C/Centr./Vdu : C  
LF char. after CR : 1  
Printer type (B/T/S): T  
Line width LW: 72  
Page length PL: 66  
Bottom margin BM: 6  
Paper feed (S/C) : C  
No. of copies : 1

ESC key to continue

All of the settings are correct then press the ESC key to move to the next prompt :-

Type name of file to be printed  
( RETURN to ignore)  
?

Type the name of the file containing the text to be printed and press the RETURN key.

Press the RETURN key only if no file is to be printed.

The following message appears:

CONTINUE PRINTING Y/N?

Prepare the printer and then type Y to start printing.

Type N to return to the main menu without printing.

text will be formatted according to the line width, page length and bottom margin settings. Any imbedded printer controls such as centering and right flush will be interpreted according to the type of printer selected.

### PRINTER PARAMETERS

Details of the setting of the printer parameters are outlined below.

Press the ESC key at any time to leave the printer parameters screen.

Press the down cursor key to move to the next parameter line.

(A) RS232C parameters

The default setting is 777E1 - 4800 baud;  
7 data bits;  
E even parity;

1 stop bit;

1 stop bit;

The code is outlined below. The left and right cursor keys can be used to move the cursor to the next character to be changed. A new setting is achieved by overtyping the original character. 'Illegal' settings are ignored.

a) FIRST CHARACTER - BAUD RATE

0	75
1	110
2	150
3	300
4	600
5	1200
6	2400
7	4800
8	9600

b) SECOND CHARACTER - BAUD RATE

This parameter should be the same as that set in a) above.

c) THIRD CHARACTER - DATA BITS

7	7 bits per character
8	8 bits per character

d) FOURTH CHARACTER - PARITY

N	no parity
E	even parity
O	odd parity

e) FIFTH CHARACTER - STOP BITS

1	1 stop bit
H	1.5 stop bits
2	2 stop bits

Pressing the ESC key will continue the printing sequence.

Pressing the down cursor key will move the cursor to the next line.

(B) RS232C/Centr./Vdu

A printer may be connected to the RS232C interface or the Centronics parallel interface.

If the RS232C interface is being used then the parameter settings given in (A) above are used.

If the V Vdu option is used then the formatted text may be seen on the screen without printing a hard copy. This is often useful for checking the layout before printing text.

Pressing the CTRL+S keys will stop the output of text to the screen. Pressing the CTRL+S keys again will resume the display of text on the screen.

Pressing a number key instead of the CTRL+S keys to resume printing will set the speed of the display of text. 0 gives the fastest scroll speed and 9 the slowest speed.

Pressing the CTRL+C keys at any time during printing will terminate printing and return control to the main menu.

#### (C) LF char. after CR

At the end of each line of text the carriage will return to the left margin.

This may be due to word-wrap or to the presence of a carriage return character in the text at the end of a paragraph.

After the carriage return character (CR) linefeed (LF) character(s) will be sent depending on the number specified on the parameter screen.

For example,	0	used for a printer with auto linefeed.
	1	used for a printer without auto linefeed.
	2	used to give double spacing on a printer without auto linefeed.

#### (B) Printer type (B/T/S)

B Basic printer - will work with virtually any printer with a serial interface. The b (bold) and u (underline) commands work by backspacing. Other printer controls can be imbedded within the bold P markers.

T Tatung dot matrix printer - select this option to utilise the bold, underline, condensed, wide, superscript and subscript options on Tatung dot matrix printers.

S Special printer - select this option to use the printer control options on the special printer. This is configured for the Epson DX-100 and Brother HR-15 printers.

#### (E) Line width LW

The line width determines the right margin of the formatted page. This can be set at any value up to 255 characters. LW is used by the print, communications and DIALTEXT options.

#### (F) Page length PL

PL gives the total number of lines on a page. The number of printed lines will be the difference between PL and the bottom margin (BM).

PL can be set at any value up to 255.

#### (G) Bottom margin BM

(G) Bottom margin BM

BM determines the number of blank lines between separate pages of text.

Set BM at zero if no paging is required.

If PL is 66 and BM is 6 then on each page there will be 60 lines of text (including extra carriage returns in the text) and 6 blank lines at the bottom.

(H) Paper feed (S/C)

If this option is set at C then a document will be sent to the printer in a continuous stream without a pause to load fresh pages.

If the S setting is used then there will be a pause between each page. When a new page has been inserted in the printer, pressing the ESC key will continue the printing of the text.



## UTILITIES

Selecting the U Utilities option on the main menu will show the display :-

### DISK UTILITIES

D Delete a file  
F File directory  
S Save parameter file

ESC to return to main menu

(A) D Delete a file

Select D and the display changes to:-

Type name of file to be deleted  
( RETURN to ignore)  
?

the name of the file to be deleted. Do not attempt to delete a file on a drive which is not connected.

(B) F File directory

Type F to display the directory of a diskette.

The display changes to :

Which drive (A to C)?

Type the name of the drive required and the files on that drive will be listed on the screen. Do not attempt to list the files on a drive which is not connectd to the EINSTEIN at that particular time.

(C) S Save parameter file

Type S to save the current set of printer, communications and screen width parameters in the file 0:INTEXT.PAR. When INTEXT is next run the new parameter set will be loaded.

## COMMUNICATIONS

Selecting the C Communications option from the main menu will bring up the display :-

### EINSTEIN READY FOR COMMUNICATION

The RS232C is open so that if the EINSTEIN is connected to a second computer, either directly or via a modem/coupler then data can be transferred between the two devices.

Text can be sent directly by typing on the keyboard.

Incoming text can be saved in a named file.

The text from a named file can be sent from the EINSTEIN by pressing a single key.

The RS232C settings can be changed within the communications section of INTEXT without breaking the connection with the second computer.

The first four programmable function keys can be used to store strings for logging on sequences and passwords.

The text can be sent with or without echo and the display can be turned off to avoid the slowing down of data transmission at high baud rates.

### KEYBOARD FUNCTIONS

#### Main Character Keys

The main character keys can be used to send text/data to a remote computer.

The SHIFT, CAPS LOCK, CTRL, DEL, BS and RETURN keys work in the usual way.

#### F15 (F7 & SHIFT) - FINISHING COMMUNICATIONS

Pressing the F15 key will switch of the RS232C interface and control will be returned to the main menu.

Pressing the CTRL and C keys achieves the same result.

#### F0 to F3 - Programmed Strings

The first four function keys, F0 to F3 may be programmed to transmit strings of up to 20 characters. The strings are entered and edited using the COMMUNICATION PARAMETERS screen which appears when F4 is selected (see below).

#### F5 - COMMUNICATION PARAMETERS Screen

Pressing the F4 key will bring up the COMMUNICATION PARAMETERS screen.

#### COMMUNICATIONS PARAMETERS

```
RS232C parameters : 337E1
LF char. after CR : 1
F1: ID XYZ123^M
F2: PASSWORD X^M
F3:
```

F4:

ESC key to continue

This displays the RS232C interface settings and function key strings.

Pressing the F5 key does not disconnect the EINSTEIN from the remote computer and pressing the ESC key will return the program to normal communications.

If it is necessary to change any of the settings or strings then the cursor keys are used to move the cursor to the appropriate section of the screen.

(i) RS232C parameters

The code is outlined below. The left and right cursor keys can be used to move the cursor to the next character to be changed.

A new setting is achieved by overtyping the original character. 'Illegal' settings are ignored.

a) FIRST CHARACTER - RECEIVE BAUD RATE

0	75
1	110
2	150
3	300
4	600
5	1200
6	2400
7	4800
8	9600

b) SECOND CHARACTER - TRANSMIT BAUD RATE

Options as outlined in a) above.

c) THIRD CHARACTER - DATA BITS

7	7 bits per character
8	8 bits per character

d) FOURTH CHARACTER - PARITY

N	no parity
E	even parity
O	odd parity

e) FIFTH CHARACTER - STOP BITS

1	1 stop bit
2	2 stop bits

Pressing the ESC key will return the EINSTEIN to normal communications.

Pressing the ESC key will return the EINSTEIN to normal communications.

Pressing the down cursor key will move the cursor to the LF setting.

(ii) LF char. after CR

The number shown against this string indicates the number of linefeed characters (ASCII 10) which are to be sent after a carriage return character (ASCII 13) has been transmitted from the EINSTEIN: for example, by pressing the RETURN key.

If the second remote computer uses auto-linefeed then this setting can be zero, or if double line spacing is required it can be increased to 2. The maximum value is 9.

Users of PSS should set this parameter to zero.

Press ESC to return to normal communications or the down cursor key to move to the F0 string.

(iii) F0 string

The string to be transmitted whenever F0 is pressed in the communications section of INTEXT can be entered and/or edited using the cursor left, cursor right, BS and DEL keys. Overtyping will also alter a character in the string.

Control codes can be entered by typing the up arrow symbol (this appears as a carat symbol ^ in the 80 column mode) followed by the appropriate upper case letter.

For example, ^M represents the carriage return character (ASCII 13).

Press the RETURN key to move the cursor to the beginning of the next string.

Press the ESC key to return to normal communications.

(i) F1 to F3 strings

Entering and/or editing the strings associated with the keys F1 to F3 is identical to that outlined in (iii) above.

F5 - PRINT ALL DISPLAYED TEXT

This key is a 'toggle'. When the C Communications option is selected the printing option is switched off.

Pressing the F5 key once will change the option to printing.

Pressing the F5 again will change the option back to not printing.

If the printing option is in use all incoming text is printed as well as displayed.

F6- ECHO DISPLAY

This key is a 'toggle'. When the C Communications option is selected the display works in echo mode.

Pressing the F6 key once will change the display to non-echo mode.



Pressing the F6 again will change the display back to non-echo mode.

In the echo mode, when a character key is pressed or a character is sent from a file (see F9) to another computer the character is sent back to the EINSTEIN and only then is it displayed (echoed) on the vdu.

In the non-echo mode a character is displayed on the vdu immediately after the key is pressed, without waiting for it to be echoed back from the remote computer.

#### F7 - DISPLAY TEXT

If the EINSTEIN is communicating at high speed then the displaying of characters on the vdu can slow down the effective transmission rate.

Pressing the F7 key will stop the display of characters when the EINSTEIN is communicating. This option should not be confused with the echo option outlined in the previous section which is determined by the second computer.

#### (F1 & SHIFT) - SAVING INCOMING TEXT ON A FILE

Pressing the F8 key will bring up on the screen the prompt :-

```
Type name of file for saving?  
( /C to save control characters)  
( RETURN to ignore)  
?
```

Type the name of the file in which incoming text is to be saved for future processing.

After the name has been entered and terminated by a RETURN character all incoming data will be saved in the named file.

Pressing the F8 key a second time will close the named file.

A warning message appears if the name of the file is the same as one which exists already.

A warning message appears if the disk becomes full and the file will be closed prematurely.

If the file is not closed by pressing the F9 key a second time it will be closed when the F15 key is pressed to stop communications.

A file will be closed if F9 is pressed to send text from another named file or if the disk is full.

Most control characters (ASCII 0 to 31) and characters greater than ASCII 127 are removed before saving text. If you wish to save all incoming characters then the file name should be followed by the characters /C - for example, FILE5/C. In addition it will probably be necessary to use 8 data bits during transmission.

#### F9 (F1 & SHIFT) - SENDING TEXT FROM A FILE

Pressing the F9 key will bring up on the screen the prompt :-

Type Name of file to be sent?

Type Name of file to be sent?  
( /N to suppress formatting)  
( RETURN to ignore)  
?

Type in the name of the file from which text is to be sent from the EINSTEIN.

The text from the named file will be formatted according to the settings in the printer section of the program (see later) and sent to the second computer.

If you do not wish to format the text then the filename should be followed by the characters /N - for example FILE4/N.

The operation can be terminated by pressing the CTRL+C keys once. The connection to the second computer will not be broken unless the CTRL+C keys are pressed again.

#### F14 (F6 & SHIFT) - XON-XOFF PROTOCOL

The XON-XOFF protocol can be switched on and off by alternately pressing the F14 key (F6 & SHIFT).

The XON-XOFF protocol is used to help to avoid a loss of characters received via the RS232C interface. You should check whether the system you are connected to can interpret these controls.

An XOFF (character 19) character is sent when a block of data is sent to a disk drive, at the end of a screen line (after 40 or 80 characters) and after a carriage return character is received.

An XON signal (character 17) is sent when the saving of data to a disk has been completed and when a carriage return-linefeed sequence has been completed on the screen.

The XON-XOFF protocol should be disabled to allow access to the PSS network.