

**NOTIS—TF Text Formatter
Reference Manual**

ND-63.007.01

Norsk Data



NOTIS—TF Text Formatter Reference Manual

ND-63.007.01

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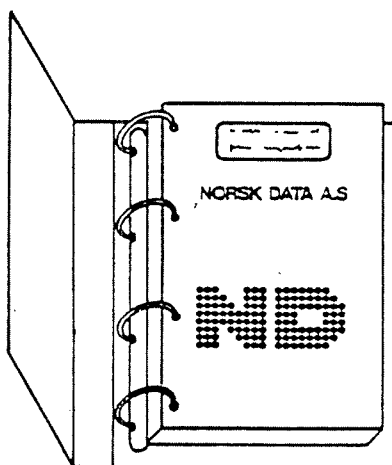
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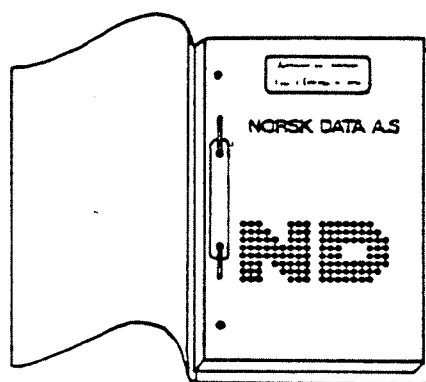
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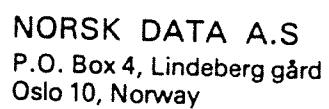
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Preface:

THE PRODUCT

This manual describes the I version of the NOTIS-TF, the Norsk Data Text Formatter. NOTIS-TF is to be used with the Norsk Data Text-Editor, NOTIS-WP. NOTIS-WP and NOTIS-TF are used to enter, edit and format text files from a video display terminal. These files can be printed on an output device.

THE READER

This Reference Manual is primarily intended for experienced users of the NOTIS-WP text processing system, whereas the more inexperienced user is referred to the NOTIS-WP Reference Manual - Editor, ND-63.002 which describes the word processing capacities incorporated in the Text-Editor. The Reference Manual will be of interest to anyone who needs to carry out formatting, and particularly to scientists, authors, programmers, etc., with a need for advanced formatting tools.

PREREQUISITE KNOWLEDGE

The reader does not need any prerequisite knowledge of computers or programming in order to use the information contained in this manual. However, some knowledge of the principles of electronic text processing is, of course, an advantage.

THE MANUAL

This manual is both a User Guide and a Reference Manual. It is a guide to the Text Formatter, and gives all the instructions and explanations needed to obtain optimum formatting results with the formatting directives and the macro library.

There are two appendices which are quite useful. They are:

- A) INSPECT COMMANDS
- B) DIRECTIVES IN NOTIS-TF

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C H A P T E R 1

THE TEXT FORMATTER (NOTIS-TF)

1 THE TEXT FORMATTER (NOTIS-TF)

The Text Formatter is a mode in the NOTIS-WP system which takes one or more unformatted files type :TEXT as input, and then produces as output a formatted file type :OUT which is ready to be inspected from the terminal.

The input file may have been created with one of the ND editors, or with any other program.

The input file contains both the user text and the formatting directives.

The Text Formatter reads a file as a sequence of words consisting of any string of characters separated by blanks, tabulations or new lines. There is one exception to this rule: a directive called Absolute Mode which will be explained later.

The Text Formatter copies the input file word by word to the output file until a line is full. It then 'justifies' the line to obtain a smooth right-hand margin before it starts a new line. These are the basic principles of the Text Formatter.

However, there are numerous possibilities in text formatting, and these will be explained more fully in the next chapters.

1.1 Using the Text Formatter

The Text Formatter is a subsystem under SINTRAN III, and as such, has been given the name NOTIS-TF.

The Text Formatter reads an input file and produces an output file. However, the name of the output file is automatically set by NOTIS-TF: it uses the input file-name, and creates an output file with the same name, but of the type :OUT. If the file does not exist, a new file will automatically be created.

NOTIS-TF never writes the output file directly on an output device, but creates a disk file. Once the formatting is done, NOTIS-TF sends the formatted file into INSPECT mode in NOTIS-WP where the file can be checked on the screen. This output file can then be sent to the output device with the COPY-TEXT (C) command in INSPECT mode.

The input file-name can be given on the same line as the subsystem call in the usual SINTRAN way. The input file-name can be in either upper or lower case.

The file-name has default file types :TEXT and :SYMB (in that order).

The output device types can vary. However, it is assumed that the printer used has a full ASCII character set and handles carriage return by a simple buffer reset.

1.2 NOTIS-TF Error Messages

The Text Formatter produces error messages which are always sent to the terminal output device. Each message starts with a string surrounded by * which indicates the type of message:

- *Info* tells you what NOTIS-TF is doing.
- *Error* indicates that NOTIS-TF has found an error in the user input, which may lead to the formatting being aborted.
- *Syserr* indicates that NOTIS-TF is really unhappy, probably due to a faulty installation. Contact Norsk Data.

1.3 Directives

The ^ (or up-hat) initiates a formatting command, and the text encountered by the Text Formatter between the up-arrow and a semi-colon will be taken as a DIRECTIVE and executed as such.

The directive text comprises a series of strings separated by delimiters. The first character which is not alphanumeric or - (minus) terminates the directive, and is used to separate the directive name from the parameter strings. In this manual the most frequently used delimiter is , (comma), but it should be noted that any character will do provided it is not alphanumeric or -.

Certain directives are macros (see the Extended Use Directives and the Macro Library).

Directives are available to:

- 1) define the general layout of a document.
- 2) define document information (author, distribution list, etc.).
- 3) control the actual formatting (new page, paragraph, etc.).
- 4) control indexing.
- 5) define and call macro routines.

1.4 Macros

A full macro facility is implemented, enabling you to define, modify, delete and call upon macros. A mechanism for parameter handling is also implemented, with the facility to specify default values for unspecified parameters.

Macros are described in Chapter 4, Macro Library for the Text Formatter. These macros are not entirely similar to the ones in the previous version of the Text Editor, NOTIS-1, and users who are accustomed to the macro library in NOTIS-1 User Guide ND.60.155.01 must be aware of the changes in some of the document macros.

1.5 Hyphenation

Some words are so long that it is useful to have the possibility of hyphenating them if necessary at the end of a line. NOTIS-TF does not do this automatically, but you can indicate points where the word may be broken by placing the cursor at the place(s) where you want the word hyphenated (should it be necessary) and press the key marked:



This is called the discrete hyphen. The marked letter will appear in slightly less intense light on the screen, indicating that it has been marked with the discrete hyphen.

In the old ND editor this was accomplished by inserting the sequence ^- (up-hat followed by hyphen). If the word is not split, the up-arrow and the hyphen will be omitted in the output file.

Examples: Hyphena[^]-tion, auto[^]-matically.

This will still work in NOTIS-TF, but of course we recommend using the new method.

Words containing a hyphen (eg., dining-room) are split automatically, at the hyphen, whenever necessary.

1.6 Basic Concepts

The Text Formatter has a certain number of basic concepts for a document: pages, chapters, sections, paragraphs, lines and words. These lead to specific formatting actions.

These actions are under user control insofar as there are directives with which to modify the initial default values. This chapter describes these concepts, as well as default values/actions. Directives to modify the actions will be detailed in subsequent chapters.

1.6.1 The Page

Output comes in pages. Each page contains a certain number of header lines, the page body and the page trailer. Default values for these parameters are:

- Top Border : 4 Header Lines
- Bottom Border : 2 Trailer Lines
- Page Length : 66 Lines including Header and Trailer
- 60 Lines of Page Body are left for user text.

It is important in this context to note that the term BORDER and the term MARGIN mean two different things:

- A BORDER delimits the text area on a sheet of paper. For Text Formatter purposes the left and right borders are set initially with special directives entered before any text is edited. Once you have begun to enter text, the left and right borders cannot be changed. The top and bottom borders, on the other hand, may be modified within the text.
- A MARGIN is a variable within this text area, which can be changed during text editing, eg., when a paragraph is inverted or when text is centered.

A line has a length, a left border and a right border. Their values can be set initially, ie., before any text is entered. If not, the default values below are used. They can not be modified during formatting.

- Page Width : 100 Characters
- Left Border : 18 Blanks
- Other Border : 12 Blanks

This leaves 70 character spaces for user text. However, a left and a right margin are defined within this user work area; both are initially zero but can be modified dynamically with specific directives.

If a document is to be printed on both sides of the paper (duplex copying) the values of the left border and the other border are inverted for even-numbered pages (2, 4, 6...).

The default values are satisfactory for a pitch of 12 characters/inch on A4 paper, with borders of 1.5 and 1 inch respectively, if the zero point is on the edge of the paper.

If other values are required, the pitch can be changed by the directive `^HP,n;`.

A 10 character/inch pitch, for instance, would lead to these default values:

- Page Width : 83 Characters
- Left Border : 15 Blanks
- Other Border : 10 Blanks

again setting borders of 1.5 and 1 inch on A4 paper.

The left border and the right border can also be set explicitly through the appropriate directives.

Note that if the pitch definition directive is used, it must precede any new margin and page width definitions entered before the text.

1.6.2 Sections and Chapters

Sections and chapters are part of the document structure specified by the user. Since documents prepared with the Text Formatter often need reediting, it is very convenient that the Text Formatter handle chapter and section numbering automatically.

NOTIS-TF assumes that chapter and section numbers have a structure of the type n.n.n, where chapters are n., level 1 sections are n.n, level 2 sections n.n.n, and so forth.

The user specifies where the chapters/sections should start, and gives them a name which is included as a parameter in the directive. When a chapter or section directive is given, the formatter will output the section number, underline the number and text, and automatically start a paragraph with a margin indented by the value of section indentation. The default value 2 can be modified through a `^SI,n;` directive.


NOTIS-TF will start a new page when there are less than section footing lines left on the page. Default value here is 6, but the value can be modified through a `^SF,n;` directive.

1.6.3 Paragraphs

Whenever you want to start a paragraph and give the appropriate directive, NOTIS-TF will start a new page if there are less than paragraph footing (^PF,n;) lines left. The default value is 3, but it can be changed with a directive. On the new page a blank line will be output, and the next line indented by the value of paragraph indentation (^PI,n;). The default value is 0.

Paragraphs can be inverted, either with the ^IP; directive or with the macros ^SIP; ^NP; and ^EIP; - see Chapter 4.

1.6.4 Input Lines

Input to NOTIS-TF will consist of lines separated by  or CR. The default value for the Filling Mode is that the end of an input line is simply considered as a word separator. Output lines may not end in the same place as input lines with the default filling mode. If another interpretation of the input lines is desired, a special filling mode has to be used. See the ^FM,mode; directive.

1.6.5 Words

Finally there are words, which are separated by blanks or new lines, or by a tab character. A word beginning with the initial directive sign ^ will be read up to the terminating directive sign ; and will be executed as a directive.

The number of blanks separating words is significant. One blank is interpreted as a normal separator, but additional blanks are not ignored. The extra blanks are appended to the beginning of the next word unless they occur at the end of an input line, in which case they will be ignored.

C H A P T E R 2

DIRECTIVE FORMAT

2 DIRECTIVE FORMAT

Directives have the following format:

`^xx,aaaaa,bbbbbb,....;`

where xx is the directive identifier and consists of one or several alphanumerics or hyphens. Upper case and lower case characters are equivalent for this purpose. The aaaaa and bbbbbb etc. specify the arguments and are unused or optional for certain directives. The arguments may be integers, strings, or integers preceded by either + or - which indicate a change from the current value. If you give + or - without an integer, the integer value is assumed to be 1.

Example: `^LM,+10;` - increase left margin by 10 positions -.

2.1 Directive quotes

In certain cases it may be necessary to include the start or end identifiers of directives in a parameter string. In this case, the string should be included in quotation marks. A NOTIS-TF quote comprises two characters: start quote is `^<` (directive start followed by less-than) and end quote is `^>` (directive start followed by greater-than).

NOTE! Start quote and end quote must be in the same input file.

Example:

`^md/sepg/^<^h2=^pm/1;;;^pg;^sece=^pm/1;;;^>;`

which is a macro in which the parameters are formatting directives in NOTIS-TF. This macro defines the directive `^sepg;` which ensures that a new section on an equal level is created and numbered, that this section starts a new page, and that the section title becomes the second header.

Note that if a directive is to be quoted in the text, it is sufficient to leave a space between the up-arrow and the directive itself for it to be printed out as text.

Very many of the directives have been used to define the help-macros and document-macros given in Chapter 4 - Macro Library for NOTIS-TF. These macros greatly reduce the number of formatting directives needed, and thus the amount of work required to edit and format large documents. ND would therefore advise you to study this macro library and take advantage of the considerable help it may provide.

All directives are listed alphabetically in Appendix B.

2.2 Directive types

For the purpose of this manual the NOTIS-TF directives have been divided into two main categories:

- the GENERAL PURPOSE DIRECTIVES and
- the EXTENDED USE DIRECTIVES

The general purpose directives will serve all the usual formatting purposes such as initial format definition, modification of format definitions, indexing, numbering, etc. Some of them will hardly ever be used, others will be used very frequently. Some of them must be given before any text is entered, ie., at the very start of a document, others can be used at any time within the body of the text. Extended use directives are more complex, and thus require a more extensive acquaintance with computers and data processing.

2.3 General purpose directives

2.3.1 Print directives

These directives do not lead to any immediate output, but modify the general layout definitions from the place where they are used. The directives in this section change default values, and need not otherwise be used (except perhaps ^DX; ... see below.)

Appendix B gives a complete list of the print directives as they appear in the Help Lists in NOTIS-WP.

Print directives are instructions to the word processor which you may use in your text to specify certain formats, titles or headings that you want introduced in the document when it is printed. When you press the PRINT key, NOTIS-WP will pick all these directives up and execute them. It will also use the values from the menus. (See the NOTIS-WP Reference Manual, ND-63.002, for complete explanation of the menus and how to use them.)

You can override the standard values in the menus by setting new values manually in a particular document, and you can also add instructions to NOTIS-WP which are not found in the menus by adding extra directives in your text document.

Some of the directives explained in this chapter are already in the menus, and others are new.

Some of the values set with these directives may have to be changed again further on in the document, and you are free to do this. Others which set values to be used throughout the document should be input before you start editing the text itself.

In the various print directives explained in this chapter we have used the following parameters:

- lines = number of lines wanted
- num. pos. = number of character positions wanted
- n = a number or, occasionally, number of inches
- text = chapter or section title or page header
- 0/1 = 0: off / 1: on
- a = the character of your choice

All directives must start with ^, and end with ;.

Example of unformatted and formatted text:

As an example of what unformatted text can look like, as compared to the formatted result, we have written a small letter in which we have introduced some other values than those used in this manual. We have also used directives to start new paragraphs, provide extra blank lines, and break lines:

^VP=4; ^PI=6; ^PS=3;

Dear Sirs,^P;Thank you for your interest in our new text processing system NOTIS-WP, which has just been released on the international market.^P;We shall be delighted to visit you at your convenience, and in the meantime we enclose available documentation on the system.^BL=4;Sincerely yours,^BL;for NORISK DATA A.S
^BL=3;International Division

The formatted version looks like this:

Dear Sirs,

Thank you for your interest in our new text processing system NOTIS-WP, which has just been released on the international market.

We shall be delighted to visit you at your convenience, and in the meantime we enclose available documentation on the system.

Sincerely yours,
for NORSK DATA A.S

International Division

2.3.2 Page length

`^PL=lines;`

This sets the number of lines on a printed page of text. Page length includes the values of the top border and the bottom border.

The page length is automatically adjusted by the PRINT function if the vertical pitch is altered to give different line spacing.

2.3.3 Page width

`^PW=num.pos;`

This sets the width of a printed page in number of character positions. Page width includes the values of the left border and the other border.

2.3.4 Left border

`^LB=num.pos;`

With this directive you can set the width of the left border (included in total page width).

The left border becomes the other border on even numbered pages whenever duplex copying is used (see the DX directive below).

The left border will be automatically adjusted if the horizontal pitch is altered to give different character spacing.

2.3.5 Other border

`^OB=num.pos;`

This sets the width of the other (right) border (included in total page width).

The right border becomes the left border on even numbered pages whenever duplex copying is used (see the DX directive below).

The right border will be automatically adjusted if the horizontal pitch is altered to give different character spacing (see the HP directive below).

2.3.6 Horizontal pitch

`^HP=n;`

This directive defines the output pitch in number of characters/inch. It automatically adjusts left and right borders accordingly.

The most usual pitches are 10 characters/inch or 12 characters/inch, but any value is permitted. However, too extreme values should be avoided.

2.3.7 Vertical pitch

`^VP=n;`

This defines the line spacing in number of lines/inch. The directive automatically adjusts page length, top border and bottom border accordingly. 'Borders' are fixed for a document, and only 'margins' may vary (see Appendix D, Fig. 2).

A value of 6 gives 6 lines/inch, which is normal single spacing, and a value of 4 gives 4 lines/inch, which gives a spacing of one and a half lines. Other positive values are also permitted.

Example:

If we assume that the default value is 4 for the top border and 2 for the bottom border, a vertical pitch of 3 (^VP=3;) will automatically alter the top border to 2 and the bottom border to 1, and headers 1 and 2 (H1 and H2) will be double spaced.

The ^VP=n; directive thus makes it possible to change line spacing to incorporate logos or formulae in a text document:

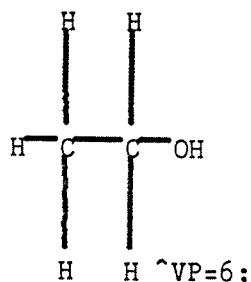
Example:

^VP=12;

This gives two screen-lines for each print-line, OK?

The formula for ethanol is still C H OH
2 5

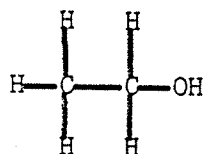
or,
in another manner:



When formatted, this example looks like this:

This gives two screen-lines for each print-line, OK?
The formula for ethanol is still C₂H₅OH

or, in another manner:

**2.3.8 Printer fonts**

^FONT=n;

This sets the number of one of the fonts available on the Philips GP 300 printer. Default font for text documents when a GP 300L is used, is font no. 2 (^FONT=2;). Available fonts are 1, 2, 4, 5, shown below:

```
This is font 1
This is font 2, which is standard
L#### ## ##### ~
This is font 4
THIS IS FONT 5
THIS IS FONT 5 UNDERLINED
```

The different fonts can be used to obtain headings and titles in fonts different from that of the text itself. Hence, a ^FONT=n; directive may be used before the ^H1=text; ^H2=text; ^TL=text; directives, and will cause these headers and trailers to be written out in the desired special font. Don't forget to set the FONT back after using these directives.

The font directive may also be used in conjunction with the ^CO; directive which generates the table of contents. The font number indicated with a ^FONT=n; directive given before the ^CO; directive will then cause headings and the trailer to be written out in that specific font throughout the document.

The standard no. 2 font will have to be reset again immediately after the ^CO; directive, with a ^FONT=2; directive.

2.3.9 Select input bin

^BIN-IN=n;

This selects the input paper bin on the Philips GP 300L printer. The default value is 1.

2.3.10 Duplex copying

^DX=0/1;

This specifies whether or not the text should be formatted for duplex copying.

If DX=0, duplex copying is not requested.

If DX=1, duplex copying is requested.

When duplex copying is requested, the value of 'other border' is used as 'left border' on even-numbered pages. Page headers, if any, are also reversed. See headers in this manual, where we have requested duplex copying.

2.4 Directives that modify the format

These directives can be used in the body of the document and lead to changes in the general formatting variables used by NOTIS-TF.

2.4.1 Top border

`^TB=lines;`

This sets the height of the top border (included in total page length).

Header lines and page numbers are put in the top border. (See the H1, H2 and PN directives).

Note that if `^H1=text;` or `^PH=1;` have been used, the first header line will always be printed, even if there is not enough space in the top border. If `^H2=text;` has been used (and `^PH=1;`) two header lines will always be printed.

2.4.2 Page header

`^H1=text;`

This sets the title of the first header, in the first line of the top border of the page. The first header will be printed on the same line as the page number. It may be in another font than the rest of the text if the `^FONT=n;` directive is used before this directive. Remember to reset the FONT afterwards.

You have already seen that it is possible to cancel the page headers on certain pages with the `^PH=0;` directive and to reset them again with `^PH=1;`. If you use this directive, page numbers will also be cancelled/reset as a result.

2.4.3 Subsidiary header

`^H2=text;`

This sets the title of the second header, in the second line of the top border of the page. See PRINT DIRECTIVES on this page. The second header will be printed on the line below the first header/page number. It may be in another font than the rest of the text if the `^FONT=n;` directive is used before this directive. Remember to reset the FONT afterwards.

The second header will also be cancelled if you set the page header flag value to `^PH=0;`

2.4.4 Initial page number

`^PN=n;`

This sets the number of the first page in your document. This directive has default value = 1, which means that if the directive is not used, NOTIS-WP will automatically see to it that your document is numbered from page 1 onwards, in the traditional manner.

The page number will be written on the first line of the top border, opposite the first page header.

The directive also enables you to decide the page numbering yourself.

Example:

You have a printed document that is 55 pages long. You want to add to it the contents of another document without having to print the 55 pages again.

You fetch the other document into the work area separately, input the directive `^PN=56;` in the first line of the document and send it to the printer with:

PRINT

Your second document will be numbered 56, 57, 58, etc.

2.4.5 Page header flag

`^PH=0/1;`

This also provides two options:

- 1) It leads to headers and page numbers being written out on each page if `PH=1`.
- 2) If you do not want headers and page numbers on certain pages in a document, you may cancel them with a `PH=0` directive for the pages concerned and introduce them again on subsequent pages by resetting `PH=1`.

2.4.6 Page number switch

`^NS,- or +;`

This enables you to turn off the page numbering while retaining the page header. Using the - in the parameter turns the page numbering off (example: `^NS,-;`). Giving the directive again with the + parameter turns the page numbering back on (example: `^NS,+;`).

2.4.7 Bottom border

`^BB=num.pos;`

This sets the height of the bottom border (included in total page length).

The trailer line is put on the last line of the bottom border. (See the TL directive). Note that if the `^TL=text;` directive has been used, the trailer will always be printed.

2.4.8 Page Trailer

`^TL=text;`

This sets the page trailer, which will be centered on the bottom line of each page (example at the bottom of this page : ND-63.007.01). It may be in another font than the rest of the text if the `^FONT=n;` directive is used before this directive. Remember to reset the FONT afterwards.

2.4.9 Filling Mode

`^FM,mode;`

As outlined in the section on Basic Concepts, the filling mode can be modified by the user. The default value is Filling, however, the filling mode can be changed according to desire. The possibilities are:

- FILLING: A new line is started on output whenever the current line is full. In other words, the end of an input line is just treated as a word separator.
- NOFILL: A new line is started on output whenever a new line is started on input.
- CONDITIONAL: A new line is started at output, if and only if the first character of the line is a blank or a new line.

- TRUNCATE: This mode works in the same manner as Nofill, but if the input line is longer than page width it will be truncated, ie., the excess characters will be lost. Truncate mode should be used if program listings are to be included in a document.

Only the first character of the mode parameter is used to set the mode in this directive. Example: ^FM,c; will result in filling mode CONDITIONAL.

The NF and OF directives save and restore the Filling Mode (see Extended Use Directives).

2.4.10 Justification Mode

^JM,mode;

The directive sets the justification mode, and the user has the choice between 4 modes:

- (S): Spaces are inserted between words in order to stretch the line between margins to obtain a smooth right margin. This is STRETCH MODE, the default mode in NOTIS-TF.

Note that if a new line is explicitly requested through a command or directive, it will be left-justified (see below).

- (L): Whenever a line is output in LEFT-JUSTIFY MODE, it will be printed with the left-hand end up against the left margin.
- (R): RIGHT-JUSTIFY MODE is identical to Left-Justify, but it is the right-hand end of the line which will be moved over against the right margin.
- (C): In CENTER MODE, each output line is centered between the left and right margins.

The NF and OF directives save and restore the Justification Mode (see Extended Use Directives).

2.4.11 Margin Setting

^LM,n; ^RM,n; ^BM,n;

^LM,n; sets the left margin, ^RM,n; the right margin, and ^BM,n; sets both margins simultaneously. Initial value for the left and right margins is 0. They can be set either absolutely (^LM,5;) or relatively (^LM,+5;). The latter form is recommended because it allows blocks of text to be moved around without destroying the previous and subsequent

formatting. To restore the initial value, use a directive of the form ^LM,-5;

2.4.12 Paragraph footing

^PF=lines;

This ensures that, unless there is the requested number of blank lines left on the page when a new paragraph is initiated in the text with the New Paragraph arrow, the paragraph will be started on the next page.

This avoids documents with a one-line new paragraph at the bottom of the page.

2.4.13 Paragraph spacing

^PS=lines;

This instructs NOTIS-TF to insert the requested number of blank lines before the new paragraph each time the ^P; is encountered.

2.4.14 Paragraph Indentation

^PI,n;

Whenever a new paragraph is started, the first line is indented by a number of blanks corresponding to the value of Paragraph Indentation. Default is 0.

2.4.15 Section footing

^SF=lines;

This ensures that, unless there is the requested number of blank lines left on the page when a new section is initiated with a section directive (see further on in this chapter), the section will be started on a new page.

This avoids new sections with perhaps only the title at the bottom of a page.

2.4.16 Section spacing

^SS=lines;

This ensures that the requested number of lines is inserted before a new section initiated with a section directive is started.

2.4.17 Section Indentation

`^SI,n;`

This directive is different from the Paragraph Indentation directive because NOTIS-TF enables you to specify section levels through specific directives which will be explained in the next chapter.

For this reason, NOTIS-TF increases the left margin by the value of Section Indentation each time you go down one section level and decreases it again when you goes up one level (see directives `^SE;` `^SD;` and `^SU;`).

Default is 2 character positions.

2.5 Directives that control formatting

These directives are the most commonly used, and even an inexperienced user of the system will manage quite well with just these. They all lead to direct formatting action.

2.5.1 Paragraph

`^P;`

This directive starts a new paragraph and indents the first line Paragraph Indentation spaces. It starts a new page if there are less than Paragraph Footing lines left, and in that case skips Paragraph Spacing lines.

If Filling Mode is Conditional, the directive may be replaced by a blank line between paragraphs, or by an indentation of the first line of the new paragraph.

2.5.2 Inverted Paragraph

`^IP,string;`

This directive is similar to the Paragraph directive, except that instead of indenting the first line of the paragraph, it right-justifies the string in the left margin (see explanation under Justification Mode).

Note that the left margin must be set to more than 2 before this directive is used (see the `^LM,+n;` directive) and reset to its previous value again at the end of the Inverted Paragraph with the `^LM,-n;` directive.

See the Macro Library (chapter 4) for explanation of the help-macros ^SIP; ^NP; and ^EIP; where this directive can also be used as a component and which are much easier to use.


2.5.3 Blank lines

^BL=n;

With this directive you can introduce <n> blank lines in your text.

Example:

You may want to make room for an illustration for which you need 10 lines. You input the directive ^BL=10; where you want the illustration to be. You also input ^CP=10; to make sure that the 10 lines needed are not split over two different pages.

^BL; (see below) or ^BL=0; is equivalent to pressing  or CR, while ^BL=-1; will print the characters which come after the directive at the start of the line, thus giving an overprint function.

2.5.4 Break Line

^BL;

The directive leads to the line being broken at the place where the directive is given, and a new line started.

2.5.5 Center

^CE,string;

The directive leads to a break-line, and then the string is output centered between the margins and a new line started.

2.5.6 Figure

^FI,n;

The directive specifies that 'n' lines are to be left for a figure to be inserted. When NOTIS-TF encounters this directive it will check whether n + 3 lines are free on the page, and will start a new page if this is not the case. It will then skip 'n' lines on the new page. The extra 3 lines allow for a title to be placed under the figure.

See the Macro Library for explanation of the ^FIG; ^FIG-CP; ^FI; and ^FI-CP; macros, which are extensions of this directive and provide extended facilities.

2.5.7 Initiate Figure-number

`^FN,n;`

This directive sets the figure-number to 'n'. A system variable has also been implemented, and can be written out by calling the Value-out directive `^$FN;`. See also the figure macros in the Macro Library.

2.5.8 New page

`^PG;`

This starts a new page, and prints out the headers and page number, if you have not cancelled them with the page header flag directive explained earlier.

The new page directive, which has no parameter, is useful if you want to make sure that a certain part of your document starts at the top of a new page.

If you do not use this directive, NOTIS-WP will split your document into the page length set with the page length directive.

2.5.9 Conditional page

`^CP=n;`

This enables you to specify that you do not want a new page to be started unless there are <n> lines available on the current page.

This is very useful if you want to be sure that a letter does not end with 'Sincerely yours' standing all by itself on the last page of the printout!!

Example:

You have written a letter, and, as usual, you do not quite know how long it is going to be when it is printed. You therefore input a conditional page directive before the last, or the last but one, paragraph in your letter, giving <n> an appropriate value of at least 10 or 12. You are now sure that the last page of your letter will have at least 10 or 12 lines of text, and not look ridiculous.

2.5.10 Chapter

`^CH,string;`

This directive is used to start a new chapter, with <string> as the chapter name. This directive starts a new section on the highest level (see the `^SE,string;` directive below), the difference being that the chapter string is remembered and can be used as second header with the `^H2;` directive. The chapter number will be incremented and stored as a system variable which can be written out at any time by calling the Value-out directive `^$CN;`.

See also description of the `^CHAP;` `^CHPG;` and `^CHPG-ODD;` macros in the Macro Library (chapter 4).

2.5.11 New Section

`^SE,string;`

This directive starts a new section on the same level as the current section (ie., if the current section is 3.3, the new one will be 3.4.). NOTIS-TF starts a new page if there are less than Section Footing lines left on the page, spaces out Section Spacing lines, writes the section number and string, underlines them, and starts a new paragraph. The section name and number are also included in the Contents if the CO or the TP directives have been used. The section number string can be written out by calling the system macro `^$SN;`.

See also the `^SEPG;` and `^SECE;` macros in the Macro Library (chapter 4).

2.5.12 Section Down

`^SD,string;`

This directive should be used for the first section after a `^CH;` directive. If the chapter number is 1, the SD directive will lead to the first section being 1.1.

If the numbering of sections in the current chapter is intended to be 1.1., 1.2., 1.3. etc., the first SD directive should be followed by SE directives for the subsequent sections in the chapter. The numbering 1.1.1. will be obtained by using the CH directive followed by a SD and another SD, whereas 1.1.2. is a result of CH followed by SD, SD and SE.

If no <string> is specified with the SD directive, the section level count is incremented but no new section is started. However, the next SE directive will then start a new section at the lower level. In both cases the Left Margin is incremented by Section Indentation spaces.

See also the ^SDPG; and ^SECD; macros in the Macro Library (chapter 4).

2.5.13 Section Up

^SU,string;

With this directive a new section is started at a higher level, if a <string> is specified. For instance, if the last section number is 1.1.2, the SU directive at this point will result in 1.2. becoming the next section number.

Examples of chapter and section numbering:

If you want the numbering in your chapter and sections to be 1.1, 1.2, 1.3, etc., you let the first section down directive be followed by section equal directives for all the subsequent sections in the chapter.

If you want numbering 1.1.1 you use the chapter directive first, and then a section down directive followed by another section down directive, whereas 1.1.2 is the result of a chapter directive followed by section down, section down and section equal.

If no string is specified, the section level is moved up 1, but no new section is started. Nevertheless, the Left Margin is reduced by Section Indentation spaces.

See also the ^SUPG; and ^SECU; macros in the Macro Library (chapter 4).

NOTE! We recommend the use of the MACROS ^CHAP;, ^CHPG;, ^CHPG-ODD;, ^SECE;, ^SEPG;, ^SECD;, ^SDPG;, ^SECU;, AND ^SUPG; instead of the above. See Chapter 4, Macro Library.

2.5.14 Chapter and Section Number

^CN,n,o,p,q;

If a large document is being formatted in parts, it may be useful to be able to set the chapter and/or section numbers oneself. The ^CN; directive can be used for this purpose. The parameters are the section levels, and these are optional in that you may well only use one or two : ^CN,5,3; will give 5.3.

2.5.15 Appendix

^AP,string;

Each time this directive is used, NOTIS-TF increments a system variable by 1 (in the same way as with the FI directive). The number can be retrieved with the Value-out directive ^\$AN; and included in the appendix heading if desired.

When the AP directive is encountered, NOTIS-TF starts a new page, resets margins and sections numbers to zero and prints <string> out as a title at the top of the new page. All appendix sections are included in the table of contents. See also the ^APPX; macro in the Macro Library (chapter 4).

2.5.16 Initiate Appendix Number

^AN,n;

The number given to 'n' is assigned to the first appendix. Successive appendix numbers are incremented by 1 automatically. See also the ^APPX; macro.

2.5.17 Contents generation

^CO;

This causes the system to generate a table of contents. See the beginning of this manual.

All chapter and section titles generated with one of the chapter and section directives explained above, will be included in the table of contents. They may be in another font than the rest of the text, if the ^FONT,n; directive is used.

No table of contents will be generated if the directive is not used. It will normally, when a table of contents is desired, be input before text is edited, eg., on top of the first screen window.

2.5.18 Include contents list

^IC;

This directive will cause the list of contents to be included in the output device at the place where the IC directive is given, if you have used the CO directive. It does not, therefore, have to be entered before the text, but must be given after ^CO.

2.5.19 Table of contents entry

^CO-PUT,left-string,right-string,blank-lines,CP-value,L-LM,L-RM,
indentation,R-LM,R-LM;

With this directive you can put an entry in the table of contents without having to include as a section or chapter. The order of the parameters is significant but they are all optional (not mandatory).

Left-string: This is a variable lengthstring which will be left-justified. Normally this will be used for the text of the entry. Any formatting directives in this string will be ignored. The default value is a space.

Right-string: This is a variable length string which will be right-justified. It will usually be used for the page number of the entry. Any formatting directives in this string will be ignored. The default value is a space.

Blank-lines: The number of blank lines to be placed before the entry. The default value is 2.

CP-value: The conditional page argument, which will be checked after the blank lines have been written. The default value is 3.

L-LM: The left margin for the left-string. The default value is 0.

L-RM: The right margin for the left-string. The default value is 0.

Indentation: The left indentation for lines 2 through n of the left-string. The default value is 0.

R-LM: The left margin for the right-string. The default value is 0.

R-RM: The right margin for the right-string. The default value is 0.

2.5.20 Append table of contents

^CO-APP, string;

With this directive you can append the table of contents list. The parameter may contain directives so that you can create your own parameters.

2.5.21 Generate IR-Schema-type

^IR-SCH, schema-type;

This is used to translate text to the NOTIS-IR format. It will generate the function code for the schema. The parameter <schema-type> determines the type of schema to be generated.

2.5.22 Switch IR-text off

`^IR-TOFF;`

This is used to translate text to the NOTIS-IR format. It will generate the function code to switch the IR-text off.

2.5.23 Switch IR-text on

`^IR-TON,field;`

This is used to translate text to the NOTIS-IR format. It will generate the function code to switch IR-text on. The parameter <field> contains the field number.

2.5.24 Update current section number

`^SECLEV,n;`

With this directive you can update the current section-level number. The parameter indicates the level number you wish to continue with. Zero (0) is chapter level, 1 is the next section down, 2 is one down from that, etc. It must be followed by the appropriate chapter or section macro (or directive).

For example, if your last section number was 5.1.3.5.6 and you want your next section number to be 5.2, write `^SECLEV,1;` followed by `^SECE,<any text>;`. If your last section number was 5.1.3.5.6 and you want the next one to be 5.1.4, write `^SECLEV,2;` followed by `^sece,<text>.`

This is convenient to use when you want to go up more than one section at a time, without having to give `^secu;` more than once.

2.6 Directives that describe the document

All these directives must be given before any text is entered. They cause general information about the document to be stored (author, title, etc.) which can then be used by the Text Formatter to build headers and title pages.

The parameter strings may contain formatting directives, but these must then be given in directive quotes.

Most of these directives are used in the document macros described in the Macro Library.

2.6.1 Title

`^TI,string;`

Defines `<string>` as a line of title. Each `^TI,string;` directive appends the parameter string to the complete title string, which is initially empty. The first parameter of the first `^TI,string;` directive may be used as the first header (see the H1 directive).

2.6.2 Author

`^AU,string;`

'String' is the name of the author(s). Each AU directive appends `<string>` to the complete author string, which will either be printed on the title page or as part of a note header.

2.6.3 To People

`^TO,string;`

In the case of a memo or letter, `<string>` is the person(s) to whom the document is to be sent.

2.6.4 Distribution

`^DI,string;`

Each DI directive defines a line of names (or description) which will be considered as the list of people who should receive copies of the document.

2.6.5 Reference

`^RF,string;`

Specifies the reference identification for the document, and prints it out right-justified on the title page above the date.

2.6.6 Date

`^DA,string;`

This only needs to be specified if a date other than the current date is to be used in the document.

2.6.7 Version Number

^VE,n;

Specifies the version number and is used in technical note headers.

2.6.8 Abstract Line

^AS,string;

Each AS directive appends <string> to the abstract text, which will be formatted and placed at the bottom of the title page.

2.6.9 Letter Head

^LH,string;

Each LH directive defines a line that will appear at the beginning of the document. The date will be printed at the right-hand end of the first line.

2.6.10 Technical Note Head

^TK;

Tells NOTIS-TF to output a technical note header.

2.6.11 Title Page

^TP;

Tells NOTIS-TF to output a title page.

2.7 Directives that control indexing

There are good indexing facilities in NOTIS-TF; an index of requested terms in alphabetical order can be produced, together with an indication of the page(s) on which the terms can be found.

The terms can be automatically indexed with a directive given before text is entered, in which case they will be indexed each time they occur in the text.

They can also be indexed explicitly with a directive given in the text, and are then only indexed at those points in the text where the directive is given.

The indexed terms can consist of one or two words; in the latter case the second word is considered as a sub-indexing term.

Example:

If Floating Point, Floating Trap and Floating were requested as index terms, the index would contain:

Floating	P-1
Point	P-2
Trap	P-3

where P-1 is the list of pages where Floating occurs alone, and P-2 and P-3 the occurrences of Floating Point and Floating Trap respectively.

A reverse mode also exists which would lead to the reverse terms also being indexed, ie., Trap Floating would be indexed whenever Floating Trap was encountered.

In previous versions of NOTIS-1, the question "Do you want indexing done?" was asked when the Text Formatter was started. The question has now been replaced with a directive.

2.7.1 Indexing-On

`^INDEXON;`

Indexing will only be carried out if this directive is used before text is entered.

2.7.2 Automatic Indexing

`^XA,term;`

This directive is usually given at the beginning of the document and specifies that 'term' is to be indexed each time it is encountered in the text. As indicated above, 'term' can be two words, in which case double indexing will be carried out.

One of the words in 'term' can be terminated by an asterisk (*), which will cause NOTIS-TF to pick up abbreviations. Example: if we have specified `^XA,Index*`; and 'indexing' is found in the text, it will be indexed under Index.

2.7.3 Disable Indexing

`^XD,term;`

In this directive, the 'term' must have been given as an automatically indexed term with the `^XA;` directive. The XD directive specifies that the 'term' is no longer to be automatically indexed, but automatic indexing can then be restarted later with a new `^XA,term;` directive given in the text.

2.7.4 Reverse Indexing

`^XR,term;`

This directive is similar to the `^XA;` directive, but it is only meaningful if the 'term' consists of two words. If we use the example Floating Trap again, the directive `^XR,Floating Trap;` will reverse the indexing in the index list itself and the list will therefore contain

Floating
Trap

and

Trap
Floating

2.7.5 Index Explicit

`^X,term;`

Used in the text, this directive explicitly requests that 'term' be included in the index, with the current page number. If the same term is indexed explicitly in several different places, the 'term' itself will only be output once in the index, followed by the numbers of all the pages on which it occurs.

Example of explicit indexing:

The Text Formatter is a fine system `^X,SYSTEM;`

2.8 Miscellaneous Directives

The following directives provide various general formatting functions.

2.8.1 Absolute Word

`^AW,string;`

NOTIS-TF uses blanks or new lines to separate words, and these words may have extra blanks inserted between them or be split onto different lines during the formatting process. Sometimes you may wish, nevertheless, to treat a string of characters containing blanks as one word. This can be obtained with `^AW,string;`. A good example is a

telephone number: ^AW,+472 29 54 00;

2.8.2 Absolute Mode

^A;

It may sometimes be necessary to include a pre-formatted table in an input text. For this purpose, the Absolute directive ^A; switches NOTIS-TF to a 'copy' mode where all input is copied unmodified to the output file. Paging is done, however, and the page headers are inserted.

If no text follows ^a; on the same line, a blank line is output. To avoid this, one may write text after the directive, on the same line, but it is therefore necessary to leave 3 character spaces between the directive and the text in order to make up for the spaces occupied by ^a; in the screen window and to line up with the following lines. The null directive ^; cancels the absolute mode, but must lie at the beginning of the line, all by itself, in order to be recognized.

Example:

^a;

This text will be copied directly to the output file. No indexing will be carried out, and the text will be neither formatted, nor compared to page size. All this must therefore be taken care of when the document is typed in, just as one would do on a normal typewriter.

The only things NOTIS-TF will do are underlining whenever it meets the underline _ sequence, and paging.

^;

If underlining is not wanted in absolute mode, eg., if underline is to be treated just as an ordinary character, use the ^UC,character; directive to set the character which triggers the underlining (see Extended Use Directives).

2.8.3 Include file

^IN,file-name,t,l or r;

When this directive is encountered, NOTIS-TF will switch to the file specified in 'file-name' and will take input from it until it reaches the end of the file. It will then return to the character after the ^IN,file-name; directive. The included file can also contain include directives for other files, which again contain include directives, up to a maximum depth of 10.

An optional second parameter can be included in this directive:

- 1) T(ext): File type is :TEXT, which is the default value.
- 2) L(ibrary): This intentionally cancels the screen message to the operator at the time of inclusion. Otherwise similar to :TEXT.
- 3) R(ecord): When this value is used, the file is considered as a FILE-OF-RECORDS and can be referred to in the macro-handling directive ^RR,<file-name>; (READ-RECORD). No screen message to the operator occurs at the time of inclusion. An extra parameter is needed when this value is used, ie., the EOF-flag (END-OF-FILE) - see ^EOF-STR; under Extended Use Directives.

2.8.4 Bold Sections

^BS,n;

The directive causes all section/chapter heads at a level <= n to be double-printed so that they stand out in the output text.

2.8.5 Bold Text

^BT,level;

This directive produces darker text (as the BS directive does). 'Level' is a parameter intended for photo-set output. On output devices such as the DIABLO for instance, the level is double-printing which is activated by the directive ^BT,+; and deactivated with ^BT,-;.

On a DIABLO, 'shadow printing' is used, ie., the characters are displaced slightly horizontally during the second printing, causing the line width to increase.

Example: SHADOW PRINTING which was written ^BT,+;SHADOW PRINTING ^BT,-;

2.8.6 Overprint <a>

The directive makes it possible to write some foreign languages in NOTIS-WP, by overprinting signs in order to obtain, for example, the French ê in même, ü in aigü or è in rève. Other examples are the German ũ in Haűser or the Ȣ in hȢflich.

In the section title, <a> means the sign that you want overprinted.

Example:

- open with the directive start sign ^
- then input the sign, for instance the `
- finally input the letter the sign should be printed over,
eg., a
- the result of the above example will be à, input ^`a.

Many signs can be used for such overprinting:

^ ` ^/ " ~ , !

C H A P T E R 3

EXTENDED USE DIRECTIVES

3 EXTENDED USE DIRECTIVES

As explained in the introduction, these directives are for more experienced users. They have been divided into three categories:

- Special directives
- Macro-handling directives
- Value-out directives

3.1 Special directives

These directives enable the experienced user to obtain the perfect formatting of documents containing for instance arithmetic expressions and mathematical equations.

3.1.1 Message

`^MS,message;`

The text in the 'message' will be written out on the screen during the formatting process. Is is an error-seeking tool intended to assist the user.

3.1.2 Immediate Bottom Border

`^IMM-BB,n;`

This directive enables you to change the bottom border immediately. It will act on the current page and not, as is the case for the `^BB,n;` directive above, on the next page only. The directive enables you to include footnotes on selected pages. See the `^TL-STR,string;` directive.

3.1.3 Operator Command

`^OP,string;`

This directive is much like the `^IN,file-name;` directive, but file-name in this case is the terminal itself.

The text in <string> will be written on the screen, and NOTIS-TF will wait for an operator response. The response can be either text or other directives, and must in both cases be ended with a CR. If a spelling mistake is made in the response, it can be corrected with either CTRL A or CTRL Q. LF is converted to CR + Line-Feed, and is included in the text.

3.1.4 Underline Mode

`^UM,mode;`

- FULL..... : Gives full underline, which means that the blanks between words are also underlined. This is the default value.
- PARTIAL... : Gives partial underline (characters only).

3.1.5 Underline start character

`^UC=a;`

This is a directive which, in the ND Text Editor TED (see Notis-1 Reference Manual ND-60.155.01) sets a character which is used to initiate and stop the underlining of text. The directive has been included in the present NOTIS-WP manual to ensure the compatibility of underlining in old TED text documents with the new NOTIS-WP routines.

In TED, 'a' = `__` and this is also default in NOTIS-WP.

This manner of underlining may be switched off entirely, ie., no character will trigger underlining, if you use the `^UC;` directive without any parameter.

In NOTIS-WP, underlining is normally done directly on the screen, either by setting it on and off with

F3

or by marking text and underlining it with

aaa
aaa

Undesired underlining can be removed with

SHIFT + aaa
aaa

You may set another Underline Character in MENU 3, if you wish.

3.1.6 Section Mode

`^SM,mode;`

The directive determines how the section heads will be formatted. There are three modes:

- LEFT....: Leads to left-justification of the section heads. This is default value.
- CENTER...: Section heads are centered.
- RIGHT....: Leads to right-justification of section heads.

3.1.7 Special Sign

`^SC,t,d,cp,ar;`

This directive enables you to include exponential expressions and mathematical equations which contain subscripts or special symbols.

NOTE: The result is printer dependant.

- T(ext).....= Text to be printed.
- D(irection).....= Indicates where the text should be printed.

UP causes text to be printed a half line above the current line. This is the default value.

DOWN causes the text to be printed a half line below the current line.

NONE causes the text to be overprinted on the current line.
- C(ar)-P(rt).....= Specifies where the printer carriage will be placed after the text has been printed.

RESTART causes the printer carriage to go back to the position it was on before the text was printed. This mode should be used for overprinting, or for the printing of exponents and subscripts in the same expression.
- A(uto)-R(eturn)= Specifies the position of the paper in the printer after the text has been printed:

+ causes the paper to be set back where it was before the directive was executed. This is the default mode.

- causes the paper to remain in the position given in the Direction parameter.

This control is necessary when multi-level exponential expressions are printed.

The 'Text' parameter must always be given first, but it can be omitted if the delimiter parameter is given instead. The other parameters are optional, which means that they can be omitted.

If a parameter is omitted, its default function is assumed to have been requested.

The parameters need not be given in any particular sequence (except 'TEXT', which must come first), and they will work even when abbreviated (first letter only).

The directive has been designed as a general purpose solution and should satisfy most user demands. It can be used as a single directive, but its primary use is in conjunction with macros.

The two directives below are simplified versions of ^SC;, and as single directives are somewhat easier to use.

3.1.8 Half Up

^HU,t,cp,ar;

This directive works in the same way as ^SC; except that 'Direction' has been locked in as UP. TEXT and the other options may be omitted, following the same rules as for ^SC;.

A typical example of this directive would be Meter ^HU,text; where 'text' is 2 and the desired result is:

Meter ²

3.1.9 Half Down

^HD,t,cp,ar;

This directive is identical to the HU directive, except that 'Direction' has been locked in as 'Down'.

3.1.10 Repeat

`^RP,position,text;`

This directive moves the cursor from its current position up to 'position', and writes the characters in 'text' between these two positions. (Note that the cursor does not physically 'move' on the screen when the directive is given, but the instruction is picked up by NOTIS-TF during formatting and the move is executed then).

If current position is greater than or equal to 'position', nothing will happen.

'Position' will be truncated to maximum line-length if necessary.

'Text' can be an unlimited number of characters, or can be omitted. When 'text' is omitted, blanks will be inserted in the output file instead.

If the number of characters in 'text' is smaller than 'position', 'text' will be repeated the number of times required to fill 'position' number of characters.

Example:

`^RP,30,?;`

Question marks are inserted between cursor position and position 30 on the line.

Negative numbers are relative to right-margin.

3.1.11 Arithmetic Expression

`^AR,expression;`

The directive is used to carry out arithmetic calculations. The priority rule is: from left to right, with parentheses. Authorized signs are `:() + - * /`. The number of parentheses levels is unlimited (it depends on the size of the data-stack).

If one or more right parentheses ')' are missing in the expression, these will be added at the end to make it possible to carry out the calculation. The result may then be false, of course, but the user will have his attention drawn to this with an Error Message during the formatting.

If two or more subsequent operators without arguments are present in the expression (`2+-*3`), the first will be selected. The user will receive a message during the formatting. Operators without arguments (`2+3*`) will be ignored, and an Error Message written out during the formatting. The multiplication sign (*) in front of a parenthesized expression may be omitted.

Example:

```
- ^AR,23(^$VAR1;+3);
```

3 is added to the value of the integer macro VAR1, and this figure is multiplied by 23. The answer is written out in the text at the point where the call had been inserted.

The number range is from -32768 to 32767.

3.1.12 Directive Sign

```
^DS,sign; ^DE,sign;
```

With these directives the user can change the start and end signs of directives. Initially these signs are ^ and ;. Note that the directive start and directive end signs cannot be the same sign and that it would be most unwise to set the directive start sign to a character which occurs in the main part of the text (a full stop, for example). The ^ is a special case, and care should be taken with the JUSTIFY command CTRL J when editing in NOTIS-WP, as NOTIS-WP will react to ^ only as directive sign.

3.1.13 Save and Restore Formats

```
^NF; ^OF;
```

The NF (New Format) and OF (Old Format) directives can be used to save, and later restore, the current format.

The ^NF; directive saves the current margin values, the Filling and Justification Modes, the Underline status and the Bold-text status, without modifying them. See General Purpose Directives.

The ^OF; directive restores the most recent ^NF; not already restored.

Example:

```
^nf;
  ^lm,+4;^jm,centre;^fm,Nofill;
  This text will now come
  centered, with each input
  line on an output line,
  with a left margin
  4 larger than before.
^of;
```

The result is:

This text will now come
centered, with each input
line on an output line,
with a left margin
4 larger than before.

The text after the ^OF; directive will come out as formatted with the directives used before the ^NF; directive.

3.1.14 Switch Output

^SO,file-name;

This directive can be used to select certain parts of a file, during the formatting, for subsequent inclusion in a specific part of the current output. All figures can, for instance, be picked out of another file in this manner and included in a special figure chart at the end of the document.

The output written to another file will start on top of a new page, and, unless page numbering is explicitly modified, pages in this alternative file will be numbered from 1. When the output is reset to the standard scratch file, no new page is generated and subsequent text will continue immediately after the point where the ^SO; was previously encountered.

The parameter <file-name> need not be specified, in which case all output stops until NOTIS-TF encounters an RO directive (see below). Skipping output in this manner can be useful if a specific part of an input file is a comment only and not intended to be included in the final output file.

Note that directives in the omitted text will be executed as usual. Chapter and section directives, for instance, will be included in the List of Contents.

3.1.15 Resume Output

^RO;

This directive resumes output after the SO directive.

3.1.16 Include Scratch File

^IS,file-name;

This directive has the opposite function to the SO directive: it includes a scratch file in the output during the link-up. This means that if the user, during the formatting, selects certain parts of text for ultimate inclusion in a specific part of the output file, this text will be found on a separate Scratch file and the IS directive will show NOTIS-TF where to include it.

3.1.17 Page-header-string

`^PH-STR,string;`

This directive is used to send text over to the next page without necessarily terminating the current page.

The directive operates on an internal buffer which is comparable to a macro-text. `<String>` will be added to what is already in the buffer. Thereafter the buffer is expanded after each page-header and emptied after expansion.

The buffer may be regarded as a special type of trigger-macro, triggering on line top-border + 1.

The directive has been used in the `^FIG-CP,n;` macro. It causes the figure and the figure text to be printed out on a new page if there are less than 'n' lines left on the current page. It also causes the current page to be filled with text entered after the `^FIG-CP;` directive to avoid blank lines. The directive can also be used when tables are entered, for the same purpose.

There is a Value-out directive with this directive: `$F-PH-STRING;` This directive gives 0 as output if the buffer is empty, and 1 as output if it is not.

3.1.18 Paragraph String

`^PAR-STR,string;`

The directive acts in the same way as the `^PH-STR;` directive above, but on the next paragraph instead of the next page. There is a value-out directive to go with it: `$F-PAR-STR;`, which gives the value 1 for an active string, and 0 for a passive one.

3.1.19 Trailer String

`^TL-STR,string;`

This directive makes it possible to write in the bottom border, above the trailer. `<String>` will be expanded before possible blank lines in the bottom border are added when the trailer is generated. You must be very careful not to enter more text in the bottom border than the space you have allocated. See the `^IMM-BB,n;` directive.

The corresponding Value-out directive is `$F-TL-STR;` which gives value 1 for an active string, and 0 for a passive one.

3.1.20 End-of-file String

`^EOF-STR,string;`

The directive acts in the same manner as the `^PH-STR;` directive, but at the end of the CURRENT INPUT FILE. The string will be expanded as soon as end-of-file is reached on the corresponding file.

The Value-out directive `$F-EOF-STR;` gives value 1 for an active string, and 0 for a passive one.

3.1.21 End-of-document String

`^EOD-STR,string;`

The directive acts in the same way as `^EOF-STR`, but only on the MAIN INPUT FILE. Both `^EOF-STR;` and `^EOD-STR;` can be used in the MAIN INPUT FILE, but `^EOF-STR` will be expanded first.

The corresponding Value-out directive is `$F-EOD-STR;` with value 1 for active, and value 0 for passive string.

3.1.22 Underline String

`^UND-STR,string;`

The directive triggers on underline on/off, following the same principle as the `^PAR-STR;` directive.

The corresponding Value-out directive is `$UND-STR;` with value 1 for active and value 0 for passive string.

3.1.23 Force Lower Case

`^FL,n;`

In some installations the terminals can only output upper case, but have access to a full-ASCII output device. The `^FL,n;` directive is then useful for setting the Force Lower Case flag greater than 0 (eg., `^FL,1;`) which leads to all input characters being converted to their lower case equivalent. The capitals at the start of a new sentence can be maintained with the Auto Capitals directive explained below. The Force Lower Case flag is reset to zero with `^FL,0;.`

3.1.24 Auto Capitals

`^AC,n;`

When the Force Lower Case directive is used, simultaneous use of the AC directive with 'n' set to greater-than-zero allows NOTIS-TF to find the end of each sentence, put in an extra space and start the next sentence with a capital letter. The end of a sentence is recognized by words (units terminated by a space or end of input line) which terminate with .(full stop) ? (question mark) or ! (exclamation mark).

Since a problem occurs with abbreviations terminating with a full stop, these must be defined as abbreviations using the `^AB,string;` directive described below.

3.1.25 Abbreviations

`^AB,string;`

If the Auto Capitals directive is active NOTIS-TF looks for the end of each sentence and can be confused when it encounters abbreviations terminating with '.' (full stop). These must therefore be registered as abbreviations with `^AB,string;`.

The matching algorithm ignores upper/lower case differences as well as punctuations in the potential abbreviation. Example: eg., and eg., are considered identical.

Predefined abbreviations are : eg., eg., ie., ie., c.f., cf., viz., fig..

3.1.26 Tabulator Setting

`^TS,n,t,n,t...;`

Tabulators only have their proper meaning whilst in Absolute Mode (see above), otherwise they are considered as blanks. The TS directive allows the tab settings to be defined. Each 'n,t,'-pair implies that tab number 'n' should be set at 't'.

Example:

`^TS,1,10,2,20,3,30;`

`^A;`

Tabulator test:

PLACE <O> <I> DATE <O> <I>

SIGNATURE <O> <I>

^;

and the result will be:

Tabulator test:

PLACE DATE SIGNATURE

Authorized number of tabulator positions is 10, and they must always be given in ascending order.

3.2 Macro Handling Directives

A Macro Library is found in Chapter 4. This explains in some detail what a macro is and how to use it, and gives concrete examples of help-macros and document-macros.

A macro-handling directive is a string of text containing directives and/or macro calls. This string will be substituted by NOTIS-TF with another string, usually a much longer and more complicated one.

The primary purpose of a macro is to save time when typing, for once it has been defined it can be used anywhere in the text, as often as needed. Values within the macro can also be changed temporarily or permanently during the macro call.

A macro is called in the same way as any other directive:

^Macro-name,parameter 1,.....,parameter N;

Note that the same delimiter is used to terminate the macro-name and to separate the parameters, in this case a comma.

3.3 Value-out directives

By using Value-out directives it is possible to have the values of predefined variables automatically included in a document. Currently implemented Value-out directives are:

:	:	:	:
Macro Name	Format	Call Sequence	:
Page number	51	^\$PN;	:
Chapter number	3	^\$CN;	:
Section number	3.3	^\$SN;	:
Figure number	0	^\$FN;	:
Appendix number	0	^\$AN;	:
Date	02.02.1983	^\$DATE;	:
Full year	1983	^\$YEAR;	:
Partial year	83	^\$YR;	:

Macro Name	Format	Call Sequence
Month	02	^\$MM;
Single month	2	^\$M;
Day	02	^\$DD;
Single day	2	^\$D;
File date	02.02.1983	^\$FDATE;
File full year	1983	^\$FYEAR;
File partial year	83	^\$FYR;
File month	02	^\$FMM;
File single month	2	^\$FSM;
File day	02	^\$FDD;
File single day	2	^\$FSD;
Time	3:51 pm.	^\$TIME;
Tid (24 hrs.)	15.51	^\$TID;
Hour	15	^\$HOUR;
Minute	51	^\$MIN;
Second	14	^\$SEC;
Horizontal pitch	12	^\$HP;
Vertical pitch	6	^\$VP;
Bottom border	2	^\$BB;
Bold section	3	^\$BS;
Bold text	0	^\$BT;
Left border	12	^\$LB;
Left margin	5	^\$LM;
Line spacing	0	^\$LS;
Other border	18	^\$OB;
Paragraph footing	4	^\$PF;
Paragraph indentation	0	^\$PI;
Page length	63	^\$PL;
Paragraph spacing	1	^\$PS;
Page width	100	^\$PW;
Right margin	0	^\$RM;
Section footing	8	^\$SF;
Section indentation	0	^\$SI;
Section spacing	2	^\$SS;
Top border	4	^\$TB;
Current position	42	^\$CPOS;
Current line	44	^\$CLINE;
Current section level	1	^\$SECLEV;
Duplex copying	1	^\$DX;
Reference string	81.RRF	^\$RF;
Header-1 string	Revision	^\$H1;
Header-2 string	Commands	^\$H2;
Chapter string	Errors	^\$CH;
Trailer string	- TWG -	^\$TL;
Trailer string flag	0	^\$F-TL-STR;
End-of-file string flag	0	^\$F-EOF-STR;
End-of-document string flag	0	^\$F-EOD-STR;
Underline string flag	0	^\$F-UND-STR;
Page-header string flag	\$F-PH-STR	^\$F-PH-STR;
Paragraph string flag	0	^\$F-PAR-STR;
Title string	NOTIS-1	^\$TI;
Author string	NPO	^\$AU;
Distrib. string	Internal	^\$DI;
Abstract string	Started....	^\$AS;

:	To people string	:	TOS,PH	:	^\$TO;	:
:	Headlines string	:	Manual-3	:	^\$LH;	:

The Value-out directive ^\$SN; may contain one optional parameter which causes the option to be printed out as the separator sign between section numbers (^\$SN,/;). If the option is omitted, the separator sign will be the dot (.) as shown in the table.

Note that the Value-out directives ^\$FDATE; ^\$FYEAR; ^\$FYR; ^\$FMM; ^\$FSM; ^\$FDD; and ^\$FSD; will result in the date on which the current file was last updated.

C H A P T E R 4

MACRO LIBRARY FOR NOTIS-TF

4 MACRO LIBRARY FOR NOTIS-TF

4.1 Introduction to the Macro Library

This part of the manual describes a macro library. It can be considered as a suggestion from ND on how to create such a library.

The library (macros and parameters) may be modified by Norsk Data without further notice - when requests for modifications or additions are received.

ND encourages such requests, which may greatly contribute to the optimization of the library's user value.

In addition, ND is asking the users to modify the macros themselves according to need. This should be done whenever the ND library does not correspond to standards applied within the user organization/firm.

ND reserves the right to limit customer support in this particular field solely to the correction of errors.

4.2 What is a macro?

A macro is a tool with which to rationalize the work by simplifying trivial routines. In relation to a Text Formatter, this means that directives which have to be given early in the text to define layout, formatting modes, etc., can now be given in the form of one single directive: a macro. Such a macro carries out the functions of a whole series of directives, and can be used for many purposes.

There are two main types of macros in ND's standard macro library:

- Help macros.
- Document macros.

Help macros can be employed to simplify the most frequently used directive sequences. It is thus possible to write less, and at the same time to obtain more during formatting.

Document macros are used at the beginning of the text file, to indicate the purpose and type of the current file. Examples are: letters, minutes of meetings, reports, memos, etc. In the subsequent sections in this chapter we shall look at all the macros in ND's standard library. The users may also have the opportunity to consult macro libraries created within their own organization/firm.

4.3 How is a macro used?

A macro is generally used in the same way as a Text Formatter directive. The format is therefore, for example:

```
^LETTER/PAR-1/PAR-2/..../PAR-8;
```

This macro is called LETTER and the / (slash) is used as a separator between the macro and its parameters. In principle, many signs can be used as separators between parameters, the condition being that they do not appear inside the parameters themselves. However, once a separator has been selected, it must be used consistently throughout the macro call.

Recommended separators are comma, slash, exclamation mark, percent, colon and equal to (, / ! % : =).

Parameters are complementary elements of information that are of importance to the aspect of the end result, ie., the formatted and printed document.

Macros can be defined in such a way that, in addition to the macro itself, a number of parameters (in the example above there are 8) must be written. It is often possible, however, to omit one or several parameters. The macros may have been created to give default values for the omitted parameter(s), or the operator may be requested to add these values during the formatting process.

To cause the default value to be applied, two separators are given side by side, like this: //.

No special steps need be taken to 'fetch' the macros described in this library. The Text Formatter will, when started up, fetch the macros from a file called:

NOTIS-TF-ENG-I:LIB

NOTIS-TF-NOR-I:LIB

.
.
etc.

5 Help Macros

5.1 Macro FDATE

This macro will print out the date on which the current text file was last updated, and will place the date in the text in the format:

20 July 1984

5.2 Macros Inverted Paragraphs: SIP, NP, IP, EIP

These macros are used to obtain inverted paragraphs - each paragraph marked with a sign or a number. Several paragraphs can be obtained, one after the other. The macros replace the setting of margin with the ^LM,<n>; directive, and the subsequent resetting of margin with ^LM,<-n>;. The ^IP,<string>; directive may be used within a ^SIP; ^EIP; sequence, instead of ^NP; if the leading text should be something other than the hyphen or a number. For example:

```
^SIP;  
^NP;This is the paragraph text, which may be several lines long.  
^NP;This is the next paragraph text, which may also be several lines  
long.  
^IP,NOTE: ;This third paragraph text may also be several lines  
long.  
^EIP;
```

And here is the result:

- This is the paragraph text, which may be several lines long.
- This is the next paragraph text, which may also be several lines long.

NOTE: This third paragraph text may also be several lines long.

It is also possible to create other values by specifying parameters for the ^SIP; macro:

- 1) The first parameter indicates how the paragraph should be numbered. Authorized parameters are 'n' for numerics, 'a' for lower case Alpha characters, 'A' for upper case Alpha characters, 'r' for Roman numerals in lower case and 'R' for Roman numerals in upper case. Default value if the parameter is omitted is a '- ' (hyphen and a space) as in the example above.

- 2) The second parameter indicates the number of spaces by which the left margin will be enlarged. Default is 9.
- 3) The third parameter indicates the number of blank lines desired between paragraphs. Default is equal to the value of the `^$PS;` directive.
- 4) The fourth parameter indicates how the leading text (in this case the numbers) should be justified. Default is right justification.
- 5) The fifth parameter indicates how the paragraph should be justified. Default is no change, ie., the paragraph is justified according to the justification mode which is active before the `^SIP;` directive is used.

Below is an example of inverted paragraphs numbered with Roman numerals, with a ten-space inversion. In one of the inverted paragraphs there is a series of inverted sub-paragraphs numbered alphabetically, and with paragraph spacing = 0.

```

^SIP,r,10;
^NP;This is the first paragraph, which may be several lines long.
^NP;This is the next paragraph, which may also be several lines long.
^SIP,a,4,0;
^NP;This is the first sub-paragraph, which may be several lines long.
^NP;This is the second sub-paragraph, which may also be several lines
long.
^EIP;
^NP;This is the third paragraph, which may be also be several lines
long.
^EIP;

```

The result is:

- i) This is the first paragraph, which may be several lines long.
- ii) This is the next paragraph, which may also be several lines long.
 - a) This is the first sub-paragraph, which may be several lines long.
 - b) This is the second sub-paragraph, which may also be several lines long.
- iii) This is the third paragraph, which may be also be several lines long.

As can be seen from this example, the numbering is maintained within each paragraph level. The paragraphs can be switched around freely during formatting. The macros will ensure correct numbering.

Remember that ^SIP; (start inverted paragraph), ^NP; (as well as ^IP; if used inside a SIP - EIP sequence) and ^EIP; (end inverted paragraph) always go together, and do not forget to close a sequence of inverted paragraphs with ^EIP;.

5.3 Macros FIG, FIG-CP, FI, FI-CP

The macros have been defined to reserve space in the text area for figures and illustrations which will be added later. The CP stands for Conditional Page.

If you use ^FIG; or ^FIG-CP;, figures contained in a document will automatically be numbered. Additionally, each figure may be given a caption, and the caption will then be centered underneath the figure.

^FI; and ^FI-CP; do not permit the use of a caption.

It is important to note the different ways in which you may vary the use of these macros, to obtain exactly the result you desire:

A) The macros FIG and FIG-CP have two parameters:

- the number of lines reserved for the figure (default is 20 lines)
- the text to be placed under the figure (default is the number, ie., Fig. <fn>).

B) The macros FI and FI-CP have one parameter:

- the number of lines reserved for the figure (default is 20 lines)

C) The macros FIG and FI (without the -CP) will try to place the figure on the current page. If that is not possible, both the figure itself and the text that follows are moved to the next page.

D) The macros FIG-CP and FI-CP will try to place the figure on the current page. If that is not possible, the figure is moved to the next page, whereas the text that follows is continued on the current page.

It is not advisable to use FIG and FIG-CP alternately. Also note that a figure can be referred to in the text, and that the reference will be correct even if the figures have been moved around in the text. The reference will function if it is given after the current figure-macro, but before the next figure-macro.

An example of the use of the macro and reference:

- ^FIG-CP,8,This is the caption;.....

as shown in Fig. ^\$FN;this is easy.

This results in:

Fig. 1. This is the caption

....as shown in Fig. 1 this is easy.

5.4 Macro SHOW

This macro is used to make short expressions or selected words stand out in the text. The selected expressions are centered, and written out in bold text. To obtain a satisfactory result, do not extend the text beyond current margins. It is then better to use a twice-inverted paragraph.

Example of the use of this macro:

^SIP; ^NP;text---text---text---^SHOW,Kr. 100.000,-; more text---
more text--- ^EIP;

The result is:

- text---text---text---

Kr. 100.000

more text---more text---

A scatter plot showing the relationship between the number of children in a family (X-axis) and the number of children who are members of a church (Y-axis). The X-axis ranges from 0 to 10, and the Y-axis ranges from 0 to 10. Data points are represented by asterisks (*). The plot shows a positive correlation, with most families having between 2 and 6 children and between 2 and 6 church members. There are a few outliers, such as a family with 10 children and 0 church members, and a family with 0 children and 10 church members.

The figure consists of 10 diagrams, each showing a cluster of points (represented by asterisks) on a grid. The points are arranged in a way that suggests a growing, branching structure. The diagrams are arranged in two rows of five. The first row shows the initial growth from a small cluster to a more complex shape. The second row shows further growth and branching, with the final diagram showing a large, complex cluster of points.

The figure consists of 12 sub-diagrams arranged in two rows of six. Each sub-diagram shows a stage in the growth of a fractal pattern. The pattern is composed of small squares. In the first stage, it is a single square. In subsequent stages, the pattern grows by adding more squares to the existing structure, creating a complex, self-similar shape. The final stage shows a large, intricate fractal structure.

ND-63.007.01

The figure shows a 10x10 grid of 100 cells. Each cell contains a number from 1 to 100. The numbers are arranged in a spiral pattern. Starting from the center (50 in the middle), the numbers increase as they move outwards in a clockwise direction. The spiral starts at the center and moves outwards, filling the grid in a clockwise spiral pattern.

You will notice that we have used 5-letter names (at most) for the characters we had to invent names for. These names may be redefined, as long as they are non-ambiguous (and the user can remember what he called them!). There is nothing magical about using 5 letters either, but NOTIS-TF will be a bit slower if this length is exceeded.

5.5.1 What you can do with the LARGE macro

Brave users may want to tailor the LARGE macro to their own needs. It is possible to produce (by altering the macro itself)

- different style characters ("fonts")
- different size characters
- different names for things like "space", "quest", etc.
- different characters (instead of asterisk) to build the LARGE characters

5.5.2 What you cannot do with the LARGE macro

Some things you can not do:

- Refer to the questionmark just by writing "?". This is because the name of the character becomes part of a macro name, and macro names in NOTIS-TF must consist of alphanumeric characters (and hyphen).
- Change the density of the asterisks (or whatever) used to build the LARGE character. The horizontal density is equal to the current horizontal pitch, and the vertical density is twice the current vertical pitch.
- Use both uppercase (CAPITAL) and lowercase letters. The character becomes part of a macro name, and upper and lower case are considered the same.

5.6 Macro BOLD

The macro will cause all text to be printed in bold. Example: **This sentence is written using the macro.** It was thus a parameter to the macro, and was entered: ^BOLD,This sentence is written using the macro.;

5.7 Macro SPREAD

This macro may be used if you want strings with different justification on the same line, such as:

Left string: name Center string: address Right string: phone

The macro therefore has 4 parameters:

`^SPREAD,name,address,phone,n;`

where 'n' is the number of blank lines you want inserted after the current line. Default is 0.

The first string will be left-justified, the second centered and the third right-justified. It is possible to leave the second (centered) string blank, and thus obtain for instance your own letter-head, with your name on the top left-hand side of the paper, and your address on the top right-hand side.

An example:

`^SPREAD,Norsk Data, Documentation Dept.,Oslo 10;`

which results in:

Norsk Data	Documentation Dept.	Oslo 10
------------	---------------------	---------

5.8 Macros CHAP, CHPG, CHAPTER and CHPG-ODD

The CHAP macro replaces the CH directive. It defines a new section at the highest (ie., chapter) level.

The CHAPTER macro also defines a section at the highest level and additionally produces a front page for the chapter which will be on an odd-numbered page, if duplex copying is being used.

The CHPG (CHAPTER-PAGE) macro has the same function as the CH-directive, but additionally ensures:

- a) that the new chapter is started on a new page, and
- b) that the chapter title becomes Header-2. The `^H2,<string>;` directive is therefore not needed when the CHPG macro is used.

The CHPG-ODD macro will start the new chapter on a new odd-numbered page if the `^DX; (duplex copying)` directive is active. If it is not, the macro will simply have the same effect as the CHPG macro.

Example of use:

- `^CHAP,chapter-title;`
- `^CHAPTER,chapter-title;`
- `^CHPG,chapter-title;`
- `^CHPG-ODD,chapter-title;`

5.9 Macros SEPG, SDPG and SUPG

These macros indicate section levels in the same way as the SE, SD and SU directives, but additionally ensure that the new section is started on a new page (left-or right-hand side, according to where they are given). The section title then becomes Header-2 instead of the current chapter title. Never use blank lines in front of one of these macros, since it may happen to be placed at the top of the next page!

5.10 Macros SECE, SECD and SECU

These macros are again the same as the section-directives in NOTIS-TF. They enable the user, if s/he so wishes, to mark up the title of the last section of the current page up as Header-2 for the next page. This may be useful for certain types of documents.

NOTE that we recommend that these macros (CHAP, CHPG, CHPG-ODD, CHAPTER, SECE, SEPG, SECU, SUPG, SECD, SDPG) be used instead of the directives for chapter and the various section directives.

5.11 Macro APPX

The parameters of this macro are

`^APPX,appendix-name,type of numbering,number-flag;.`

The macro produces a "front page" for the appendix, on an odd numbered page if duplex (DX) printing is on, and places the start of the appendix on the next page (again odd numbered if DX is on), and sets H1 to the appendix name as follows:

A P P E N D I X

centered on the page.

The parameters lead to the following output:

- Appendix 'X' becomes Header-1, and appendix-name becomes Header-2.
- Type of numbering can be either:
 - 'n' for numerics,
 - 'I' for upper-case Roman,
 - 'i' for lower-case Roman,

- 'A' for upper-case Alpha (this is default), or
 - 'a' for lower-case Alpha.
- Number-flag is either < or = 0, which will carry the document numbering right through the appendix, or > 0 which will cause the page, chapter and figure numbers to start again from 1, eg., A-1, A-2, A-3... or I-1, I-2, I-3... or 1-1, 1-2, 1-3, according to the type of numbering chosen. Default value is 0.

5.12 Footnote-macro

`^FOOTNOTES,start-string,presentation,end-string;`

In order to produce footnotes, the call FOOTNOTES has to be given before any of the text in the document. Each footnote <1> is produced by writing `^FOOT,footnote-text;`

5.12.1 Initializing the footnotes

The macro FOOTNOTES must be called before writing the first footnote, in order to initialize some variables that are used later on. FOOTNOTES has three parameters (but if you are satisfied with the defaults you don't have to use them).

- a) Start-string, ie., what characters are to be placed before the footnote-number. Default start-string is <.
- b) Presentation, ie., how the footnote-number is written. Default presentation is N (numeric). The options are:
 - N or n Numeric, ie., 1 2 3 4 5 6
 - A Alphabetic, ie., A B C D E F
 - a Alphabetic, ie., a b c d e f
 - R Roman, ie., I II III IV V VI
 - r Roman, ie., i ii iii iv v vi
- c) End-string, ie., what characters are to be placed after the footnote-number. Default end-string is >.

The call `^FOOTNOTES;` (no parameters) will give footnote-numbers written in this format: <7> (as in this document). While the call `^FOOTNOTES,/r,;/` will cause the corresponding footnote to be written as /vii/. It is quite possible to produce more exotic variations, eg., `^FOOTNOTES,---<,A,>---`, which will cause footnote number 7 to be written as ---<G>---

<1> and everyone for that matter

5.12.2 Using footnotes

Footnotes come in three flavours, described below:

Simple footnote

Each footnote is written like this `^FOOT/footnote-text`; There should be no space in front of the `^`, but there should be a space after the `;`.

Example: `^FOOT/this is a simple footnote; <1>`

Long footnote

The method described above works fine as long as the text contained in a footnote is less than one line. If you want footnotes which are longer than a line, then you must put in a second parameter to your `^FOOT` call. The second parameter is your estimate of how many lines will be needed to write out your footnote.

Example: `^FOOT/this is a long but otherwise rather uncomplicated footnote, which will be about two lines long/2; <2>`

Complex footnote

You may want to have more explicit control over the formatting of your footnotes. You can do this by inserting directives in the footnote-text, but in this case the whole of the footnote-text must be enclosed by start-quote and end-quote, as always when you include directives in a macro parameter.

Example: `^FOOT/^<This footnote gives more explicit control over lists of
^bl;names ^bl;books ^bl;publications, ^bl;etc.^>/5; <3>`

```

<1>    this is a simple footnote
<2>    this is a long but otherwise rather uncomplicated footnote,
        which will be about two lines long
<3>    This footnote gives more explicit control over lists of
        names
        books
        publications,
        etc.

```

5.13 Document Macros

For all these macros the filling mode (see the FM-directive in NOTIS-TF) is conditional, ie., blank lines are taken into account, and one or several blanks at the beginning of a line interpreted as the start of a new paragraph. One can thus avoid using the ^P; and the ^BL,n; directives.

All these macros have been created to make text editing and text formatting easier for the inexperienced user.

Only one document macro per text adjustment can be used, and this macro has to come before all normal text. It must also come before all other text-containing macros. Text Formatter directives or macros that contain only such directives may, however, be used before a document macro.

Macros have been defined for the documents that are most frequently used in a firm/organization, and each user is free to modify the existing macros according to need, or create new ones.

Note that the macros only set the format for the start of a document, and that text can be entered immediately after the macro.

Some abbreviations have been used:

- Operator: if this parameter is empty, the operator will be asked to supply it.
- Option: if this parameter is empty, the corresponding leading text in the document (if any) will not be written out.
- Default: if this parameter is empty, the default value will be used instead.

5.13.1 Macro HEAD

This macro can be used to create a standard letter-head with subtitles. The macro is used in most of the other document macros described below.

Each firm/organization is encouraged to make its own version of such a letter-head.

The HEAD can be used anywhere on the page. If HEAD is to be placed at the very top of the page, the calling macro must include a ^PH,0; and a ^TB,0; directive, followed by a ^PH,1; and a ^TB,4; afterwards, to get the page-header back.

Example of the default HEAD in the current version of the macro library:

```

ooo      ooo  oooooooooo
ooooooooo  ooooo          Norsk Data A.S
ooooooooo  ooooo          P O box 25, Bogerud
ooooooooo  ooooo          Telephone: +472 29 54 00
ooooooooo  ooooo          OSLO 6, N O R W A Y
ooooooooo  ooooo          Telex:           18284 ND N

```

The defaults for the parameters are:

^firm;; Norsk Data A.S

^faddress; ^fphone;; P O Box 4, Lindeberg Gaard Telephone: +472 29
54 00

^fplace; ^ftelex;; OSLO 10, Norway Telex: 18284
ND N

Note that the default values and 'Logo' defined in this macro can be modified for each user organization, by changing the macros ^FNAME, ^FADDRESS, ^FPHONE, ^FPLACE and ^FTELEX respectively. Such modifications must be carried out directly on the macro-file, NOTISTF-***-I:LIB when the Macro Library is installed.

An example of the use of this macro could be:

- ^HEAD=BANK OF ENGLAND=Threadneedle Street=LONDON EC1;

5.13.2 Macro MEMO

The macro is used to determine the layout of standard, internal memoranda.

The parameters are:

- 1) To, (operator)
- 2) Copy, (option)
- 3) From, (operator)
- 4) Subject, (operator)
- 5) Your ref. (option)
- 6) Our ref. (option)

An example of the use of this macro could be:

- ^MEMO/All Staff in Oslo/All Regional Offices/The BOSS/Annual Salary Review;

5.13.3 Macro CALL

The macro is used when a meeting is to be called.

The parameters are:

- 1) To, (operator)
- 2) Copy to, (option)
- 3) Called by, (operator)
- 4) Subject, (operator)
- 5) Time, (operator)
- 6) Place, (operator)

Example of use:

- ^CALL/Marketing and Sales/Boss/John Doe/New Markets for
NOTIS/18. May at 0900 hours/Blue room;

5.13.4 Macro MINUTES

The macro is used for minutes of meetings. The parameters are:

- 1) Present, (operator)
- 2) Copy to, (option)
- 3) From, (operator)
- 4) Subject, (operator)
- 5) Date, (default: current date)
- 6) Place, (option)

Example of use:

- ^MINUTES/Marketing and Sales/Boss/John Doe/New markets for
NOTIS/18. May/Blue room;

5.13.5 Macro LETTER

The macro generates a standard layout for letters, and can be further developed for private correspondence by changing the letter-head.

The parameters are:

- 1) Name, (operator)
- 2) Address, 1. line, (operator) .
- 3) Address, 2. line,
- 4) Address, 3. line,
- 5) Your ref., (option)
- 6) Our ref., (option)
- 7) Copy to, (option)

8) Subject, (option)

Note: If you need more than 3 address lines, just write the last address parameter (the 4th macro parameter) over several lines, **without separators.**

Example of use:

```
^LETTER/FATHER CHRISTMAS/LAPPLAND/NORTH POLE//Xmas  
Eve/Billy/Daddy/This year's presents;
```

....and then the text.

5.13.6 Macro STDLETTER

If you wish to send the same letter to many people or organizations, the easiest way to do it is with the STDLETTER Macro. To produce a set of standard letters you need three files:

- 1) One file containing the STDLETTER call.

THIS IS THE ONE TO RUN THROUGH NOTIS-TF

As an example:

```
^STDLETTER/NOTIS-WP-USERS/REVISION-1-81/NOTIS-WP/ENHANCED  
FEATURES IN NEXT RELEASE OF NOTIS-WP;
```

- 2) An address file, which in this example is called NOTIS-USERS:TEXT (see the first parameter in the STDLETTER call, above).

As an example:

```
^adr/Grand Hotel/Karl Johansgt. 35/Oslo 1/////;
```

```
^adr/Norsk Data A.S/P.O. box 25, Bogerud/Oslo 6, N O R W A  
Y/////;
```

- 3) A letter text file, which in the example is called REVISION-1-81:TEXT (see the second parameter in the standard letter call, above).

The macro has 4 parameters:

- 1) Address list file name (operator)
- 2) Letter text file name (operator)
- 3) Our ref. (option)

4) Subject (option)

The result of the above example is that the text in the file REVISION-1-81:TEXT will be formatted into a letter addressed to each of the names in the address file NOTIS-USERS:TEXT.

5.13.7 Macro ADR

The macro is used to produce an address list for the STDLETTER macro - see above. The file containing address information should only contain a number of ADR macro calls, one for each letter.

The address list must contain names and addresses organized in a special manner, and the macro ADR has 9 parameters:

- 1) Name,
- 2) Address,
- 3) Address,
- 4) Address
- 5) Your ref. (option)
- 6) Copy to, (option)
- 7) Item-1, (option)
- 8) Item-2, (option)
- 9) Item-3, (option)

Example of use:

- ^ADR/Mr. Peter Smith /5, Back Str. /London EC25JY////////;
- ^ADR/Ms. Marie Dupont/5, rue Roi /7800 Versailles//Louis XIV/////;

etc....

The address list file name is the first parameter in the STDLETTER macro call - see above.

5.13.8 Macro REPORT

The macro is used for standard report layout. It generates a title page and a table of contents.

The parameters are:

- 1) Title, (operator)
- 2) Author, (operator)
- 3) Reference, (option)
- 4) Date written, (default: current file date)

If 'Date written' is different from current file date, another line will be written with the text 'Last updated' and the current file date.

- 5) Abstract, (option)
- 6) To, (option)

Example of use:

- ^REPORT/Data Processing North of the Polar Circle/National Data Bureau/AH-12345/24. December 1980/This report covers--text--text-- abstract--more text--before the end of the current year/All members of the Executive Committee;

5.13.9 Macro MANUAL

This macro has been used for the NOTIS-1 Reference Manual you are now studying. It has much in common with the REPORT macro, but additionally provides space for a preface. The AUTHOR has been omitted.

The parameters are:

- 1) Manual title, (operator)
- 2) Manual subtitle, (default: 'Preliminary')
- 3) Trailer, (option)
- 4) Date written, (default: current file date)

If 'Date written' is different from current date, another line will be written with the text 'Last updated' and the current file date.

5) Preface, (option)

Note that the preface must NOT contain the sign which has been used as separator in the MANUAL macro, nor must it contain an apostrophy.

No example is given here, since the present manual is an example in itself.

5.13.10 Macro TELEX

The macro functions much as the LETTER macro, but is adapted to the format for telex messages.

The macro can only be used in conjunction with a conversion- and punching-program producing a telex-tape. This can be introduced directly into a telex terminal and will result in telex messages with a straight right-margin and proper layout.

The parameters are:

- 1) To, (operator)
- 2) Copy to, (option)
- 3) From, (operator)
- 4) Subject, (option)
- 5) Telex number, - to be written out on the telex tape

If the parameter <to> is missing, you will be asked for it.

As indicated, the macro is only useful with a punching-program and a paper tape punch which can handle 5-channel paper tape.

Remember that the text can only contain characters A through Å and 0 through 9, and the signs , . - + ' = () / and ?. Upper- and lower-case characters can be used, since the punching-program will convert everything to upper case and check that no illegal signs have been used.

Example of use:

^TELEX/R. Reagan/Norsk Data A.S./H. Houdini/Getting out of it/18284 ND
N;

C H A P T E R 6

INSPECT MODE IN NOTIS-WP

6 INSPECT MODE IN NOTIS-WP

6.1 Introduction

When you have formatted a document in NOTIS-TF, or used the PRINT function to print to a document, the system automatically enters INSPECT mode in NOTIS-WP and brings the window of the first sheet of formatted text up on the screen.

Your formatted document is thus split up into sheets, but since a sheet is usually too long to fit on the screen, the sheet is further divided into windows.


Each sheet has a number - the first sheet is 1, the next 2, and so on. A page number is the number found in the page heading, and this is not necessarily the same as the sheet number - if you have used the ^IC; or the ^PN; directives, for instance.

You may also inspect a document formatted by the PRINT function or the HOME command O in NOTIS-WP, by calling the document up with the HOME command Z in NOTIS-WP.

NB: You cannot alter your document in INSPECT mode. You must return to the text document with the T command in INSPECT mode to make alterations.

When in INSPECT mode, you may navigate through your formatted document with the navigation commands described in the HELP list, return to the text in order to correct some mistake, print your document, or you may exit from NOTIS-WP.

You may choose among three Navigation Objects to determine the meaning of the next and previous window arrows

Next:  or N

Previous:  or P

and of the MOVE command in INSPECT mode.

The current Navigation Object is shown on the status line, and may be changed with the SET NAVIGATION OBJECT (S) command, in the order SHEET (default) → PAGE → MARK → SHEET, etc.

You may mark a window which you may want to return to, with the MARK WINDOW (W) command. If you set the Navigation Object to MARK, you can easily return to this or other marked windows with N (==>) and P (<==), or with the MOVE command.

As previously explained, the PRINT function and the Text Formatter split the document text up into correct sheet length. Hence, the COPY command in INSPECT mode will take sheet numbers as parameters, and not line numbers.

Once you have entered INSPECT mode, with the Z command in NOTIS-WP or directly from the Text Formatter, you may also inspect other formatted files without having to exit from INSPECT between each inspection. This is done with the Z command too, but directly from INSPECT mode, as will be explained under the section devoted to the Z command in this mode.

All commands in INSPECT mode are HOME commands and must be given in the screen HOME position.

The files inspected are formatted files, type :OUT.

6.1.1 Help-list in INSPECT mode

** Navigation commands **

Space bar Restore screen

Up-arrow ↑ Display previous window

Down-arrow ↓ Display next window

Scroll left arrow ← .. Scroll window to the left

Scroll right arrow → .. Scroll window to the right

F Move to first window of the first sheet

G or SHIFT + F7 Move to next window containing
the next occurrence of the <string>

<G> or F7 Move to subsequent window
containing <string>

L Move to first window of the last sheet

S Set navigation object
(SHEET → PAGE → MARK → SHEET, etc.)

W Mark this window

Next-arrow ==> or N..... Move to window containing the
next navigation object

Previous-arrow <== or P... Move to window containing the
previous navigation object

M Move to (+ or -) navigation object

@ Execute SINTRAN command

** Exit and Print commands **

C or PRINT Copy to <device name> (sheet list)
(number of copies)

T Return to text document

Z Inspect another <document-name>

E or EXIT Exit from NOTIS-WP

6.2 Navigation commands in INSPECT mode

6.2.1 Display previous window - ↑

Pressing the



displays the previous screen window.

6.2.2 Display next window - ↓

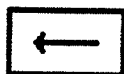
Pressing the



displays the next screen window.

6.2.3 Scroll window left - ←

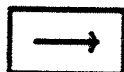
Pressing the



moves the text in the screen window leftwards as many character positions as you have set in Menu no. 1 - width of horizontal scroll.

6.2.4 Scroll window right - →

Pressing the



moves the text in the screen window rightwards as many character positions as you have set in Menu no. 1 - width of horizontal scroll.

6.2.5 Move to the first window of the last sheet - L

Pressing the letter

L

will move the display and make the first window of the last sheet in the formatted document appear on the screen.

6.2.6 Move to the first window of the first sheet - F

Pressing the letter

F

will move the display and make the first window of the first sheet in the formatted document appear on the screen.

6.2.7 Move to next window containing <string> - G or SHIFT + F7

Pressing the letter

G

followed by a <string>

or the function

SHIFT + **F7**

followed by a <string>

initiates a search for <string>, as in NOTIS-WP edit mode. The search starts in the current screen window.

The screen window containing the first occurrence of <string> comes up on the screen, and all occurrences of <string> in that window are displayed in inverse video.

6.2.8 Move to the subsequent window containing <string> - <G> or F7

The search initiated with G or SHIFT + F7 may be pursued in subsequent windows with



or with



as in NOTIS-WP edit mode.

The command will cause the search to be continued, starting in the screen window after the current one.

The search may be continued throughout all the screen windows with renewed <G> or F7 prompts from you.

6.2.9 Set navigation object - S

When you scan a formatted document in INSPECT mode, you have the possibility to navigate with <=== and ===> to move forwards or backwards in the text.

These arrows will move you back and forth between navigation objects, which you may set with



The standard navigation object is SHEET, and this is marked on the status line.

Pressing S once, changes the navigation object to PAGE. If you use this navigation object, the text visible in the screen window will be the top part of a formatted page, with the heading(s) and page number.

Pressing S a second time, changes the navigation object to MARK. If you use this navigation object, the text visible in the screen window will be the sheet you have selected to come back to by marking it with the command W (mark this window), below.

The sequence of navigation objects is therefore:

SHEET → PAGE → MARK → SHEET etc.

6.2.10 Move to the window containing the next navigation object

You may move to the window containing the next navigation object with the wide right arrow:

====> or N

6.2.11 Move to the window containing the previous navigation object

You may move to the window containing the previous navigation object with the wide left arrow:

<==== or P

6.2.12 Mark this window - W

As explained above, one of the navigation objects when scanning a formatted text, is MARK. This means that you wish the navigation arrow to move you to a specific window, which you have marked up for further scanning or as a point of reference with

W

Example:

You are scanning the Table of Contents, and from time to time moving to a page which contains a chapter of interest, with the M command explained below.

You each time mark that particular window with the W command, for further reference. Each time you use the W command, the current screen window is marked as the last marked window. You may then later revert to the marked windows by setting 'Navigation object' to MARK with the S command, and moving to the navigation objects one by one either with

M <(+ or -)number> navigation object

or to the next/previous marked window with

N
or
===>

 P
or
<===

6.2.13 Move to <(+ or -)number> navigation object - M

In INSPECT mode, you may use the command

M

to move one or several navigation objects backwards or forwards in the formatted text.

Example:

You have set navigation object PAGE, and are scanning the window containing the first part of page no. 45.

You want to go back to page 35 and check something again.

You go into HOME position, press M, and receive the prompt: MOVE TO (SHEET/PAGE/MARK) NO:

You may now input either:

MOVE TO (SHEET/PAGE/MARK) NO: <35>

or

MOVE TO (SHEET/PAGE/MARK) NO: <-10>

6.2.14 Execute SINTRAN command - @

As in NOTIS-WP it is possible to execute a SINTRAN command while inspecting a formatted document. To do so, you press:

,
@

However, there is no check performed on the SINTRAN command given, and if this is not an actual command, such as LIST-FILES, but a valid :PROG file or reentrant system name, then this system will be run and you will lose your NOTIS-WP context.

Example:

You are in INSPECT mode, and need to check the names of other documents to be inspected afterwards.

Press @.

The prompt SINTRAN COMMAND: appears in the screen HOME position.

Give the SINTRAN command: @<LIST-FILES ↵>

The system responds by blanking the screen and the acknowledgement:
EXECUTING: LIST-FILES

Once you have found what you wanted, press the space bar, and your screen of text is restored at the exact point in the formatted text where you initially gave the @ command.

It was thus unnecessary to exit from INSPECT mode.

You may also restore the screen with the space bar if you receive a broadcast that scrambles your text window.

6.2.15 Restore screen - space bar

As explained above, pressing the space bar causes the screen image to be restored after you have gone into SINTRAN with the @ command, or after you have received a broadcast.

6.3 Exit and print commands in INSPECT mode

6.3.1 Copy document - C or the PRINT key

In INSPECT mode, you send the formatted text to an output device with the command

C or with **PRINT**

The system prompts:

- DEVICE NAME:

and, as in edit mode, there are several possibilities.

You want to print one copy of the whole document on the default printer:

DEVICE NAME:↓ ↓

You want to print one copy of pages 5 to 15 of your document, on the default printer:

DEVICE NAME:↓ ↓

SHEET LIST:<5:15>↓

The format of the sheet list parameter is explained under the O command in edit mode. In INSPECT mode, the order is not important. Thus, 7,2,9:10 will be accepted here, whereas in edit mode it would lead to only page 7 being printed.

On devices with a spooling file, there is the additional possibility of asking for more than one copy of the printout. Hence, the command may also be, if you want to print 4 copies of your whole document on another printer than the default printer:

DEVICE NAME:<printername> ↓ SHEET LIST:↓

NO. OF COPIES:<4>↓

6.3.2 Inspect new document - Z

The Z command, with which you enter INSPECT mode from NOTIS-WP, can also be used in INSPECT mode if you wish to inspect documents other than the current one.



In other words, if you have entered INSPECT mode from NOTIS-WP to inspect the current document <document-name>, you can continue to <document-name-2>, <document-name-3>...<document-name-n> by pressing Z. In reply to the INSPECT DOCUMENT prompt, you then indicate the new <document-name>. INSPECT mode will blank the screen, and the new <document-name> will come up on the screen, ready for inspection.

6.3.3 Return to text document - T

Pressing the

T

causes a return to normal edit mode in NOTIS-WP, at a point in the text situated 5 lines before the first text line of the formatted page currently being displayed, and enables you to carry out modifications in the text document. Another Z sets NOTIS-TF back in INSPECT mode and enables you to continue the inspection. When the modifications have been carried out, the document has to be formatted again.

6.3.4 Exit - E or the EXIT key

To exit from INSPECT mode in NOTIS-WP, and return control to the SINTRAN III operating system, you press either





E or the **EXIT** key

A P P E N D I X A



INSPECT COMMANDS

			<u>Page:</u>
<u>Activate NOTIS-WP</u> w/current text file	A/T		71
<u>Copy file</u> to output device	C		70
	<div>PRINT</div>		
<u>Exit</u>	E		71
	<div>EXIT</div>		
<u>Get</u> (find) string	G		65
<u>Help</u>	H		62
	<div>HELP</div>		
<u>Inspect</u> new file	Z		71
<u>Move</u> to page	M		68
<u>Pages</u>			
display first	F		65
display next	<div>==></div>	or N	64
display previous	<div><==</div>	or P	64
display last	L		65
<u>Sintran</u> execute command	@		68
<u>Restore</u> screen	space bar		69

Windows

display previous		64
display next	CR or 	64
move left		64
move right		64

Navigational Objects

Set navigation object	S	66
MARK this window	W	67
display next		67
display previous		67
display first MARK	1	68
display second MARK	2	68
etc.		
.		
.		

A P P E N D I X B

DIRECTIVES IN NOTIS-TF

Help List of directives in NOTIS-TF

Simplified and advanced HELP - Page 8 ** Print directives **

^PF=lines;	Paragraph footing	^PN=n;	Initial page nr.
^SF=lines;	Section footing	^CN=n;	Initial chapter/section nr.
^PS=lines;	Paragraph spacing	^PG;	New page
^SS=lines;	Section spacing	^CP=n;	Conditional new page
^PL=lines;	Page length	^BL=n;	<n> blank lines
^PW=num pos.;	Page width	^CH=text;	Chapter title
^LB=num pos.;	Left border	^CHPG=text	Chapter title/new page
^OB=num pos.;	Other border	^SE=text;	Section equal title
^TB=lines;	Top border	^SEPG=text;	Section equal title/new page
^BB=lines;	Bottom border	^SD=text;	Section down title
^DX=0/1;	Duplex off/on	^SDPG=text;	Section down title/new page
^PH=0/1;	Headers off/on	^SU=text;	Section up title
^HP=n;	Horizontal pitch	^SUPG=text;	Section up title/new page
^VP=n;	Vertical pitch	^CO;	Contents generation
^H1=text;	First page header	^UC=a;	Underline start/stop char.
^H2=text;	Second page header	^a	Overprint <a> (eg.a=`,',^)
^TL=text;	Page trailer	^Font=n;	Set new font
^CHAPTER=text;	and ^CHPG-ODD=text;		Chapter title/new odd-numbered page
^BIN-IN=n;	Set input paper bin		

Alphabetical list of directivesGeneral purpose directives

^a;	Absolute mode
^an,n;	Initiate appendix number
^ap,string;	Appendix
^as,string;	Abstracts line
^au,string;	Author
^aw,string;	Absolute word
^;	End absolute mode

^bb,n;	Bottom border
^bin-in,n;	Bin number
^bl;	Break line
^bl,n;	Blank lines
^bm,n;	Both margins
^bs,n;	Bold sections
^bt,level;	Bold text

^ce,string;	Center
^ch,string;	Chapter
^cn,n,o,p,q;	Chapter/section number
^co;	Contents
^co-put,a,b,etc,;	Enter string in contents
^co-app,string;	Append contents
^cp,n;	Conditional page

^da,string; Date
^di,string; Distribution
^dx; Duplex copying

^fi,n; Figure
^fm,mode; Filling mode
^fn,n; Initialization of figure no.
^font,n; Printer font number

^h1,string; Header 1
^h2,string; Header 2
^hp,n; Horizontal pitch

^ic; Include contents
^in,filename; Include file
^indexon; Indexing on
^ip,string; Inverted paragraph

^jm,mode; Justification mode

^lb,n; Left border
^lm,n; Left margin
^lh,string; Letter head

^ns,+ or -; Page number switch

^ob,n; Other border

^p; New paragraph
^pf,n; Paragraph footing
^pg; New page
^ph,n; Page header
^pi,n; Paragraph indentation
^pl,n; Page length
^pn,n; Page number
^ps,n; Paragraph spacing
^pw,n; Page width

^rm,n; Right margin
^rf,string; Reference

^sd,string; Section down
^se,string; New section
^sf,n; Section footing
^si,n; Section indentation
^ss,n; Section spacing
^su,string; Section up

^tb,n; Top border
^ti,string; Title
^tk; Technical note head
^tl,string; Trailer

^to,string; To people (addressees)

^tp; Title page

^ve,n; Version number

^vp,n; Vertical pitch

^x,term; Index explicit

^xa,term; Automatic indexing

^xd,term; Disable indexing

^xr,term; Reverse indexing

Special directives for foreign languages

Extended use directives

<code>^ab,string;</code>	Abbreviations
<code>^ac,n;</code>	Auto capitals
<code>^ar,expression;</code>	Arithmetic expression

<code>^de,sign;</code>	Directive end sign
<code>^devctrl,n;</code>	Device-control-flag
<code>^ds,sign;</code>	Directive start sign

<code>^eod-str,string;</code>	End-of-document string
<code>^eof-str,string;</code>	End-of-file string

<code>^ff-flag,n;</code>	Formfeed flag
<code>^fl,n;</code>	Force lower case

<code>^hd,t,cp,ar;</code>	Half down
<code>^hu,t,cp,ar;</code>	Half up;

<code>^imm-bb,n;</code>	Immediate bottom border
<code>^is,filename;</code>	Include scratch file

<code>^ms,message;</code>	Message

<code>^nf;</code>	New format
<code>^number,default str;</code>	Invoke parameter

<code>^of;</code>	Old format
<code>^op,string;</code>	Operator command

<code>^par-str,string;</code>	Paragraph string
<code>^ph-str,string;</code>	Page-header-string
<code>^pm,number,def.str;</code>	Invoke parameter

<code>^ro;</code>	Resume output
<code>^rp,position,text;</code>	Repeat

<code>^sc,t,d,cp,ar;</code>	Special sign
<code>^sm,mode;</code>	Section mode
<code>^so,file-name;</code>	Switch output

<code>^tl-str,string;</code>	Trailer string
<code>^ts,n,t....;</code>	Tabulator setting

<code>^uc,character;</code>	Underline character
<code>^und-str,string;</code>	Underline string
<code>^um,mode;</code>	Underline mode

Value-out directives	

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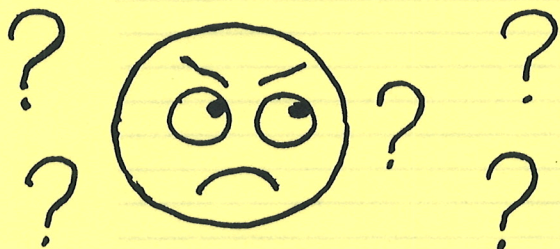
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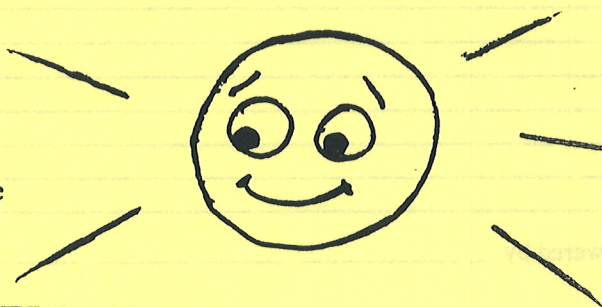


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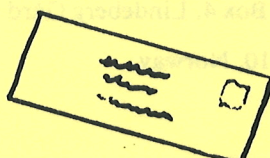
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