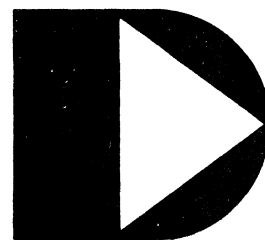# TECHNICAL MANUAL
PRE-PROCESSOR
MSCRIBE
User's Guide

Version 1

August, 1976

Model Code No. 50238

DATAPOINT CORPORATION

The leader in dispersed data processing ™

TECHNICAL MANUAL PRE-PROCESSOR
MSCRIBE

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PREFACE

The Technical Manual Pre-processor and Table of Contents/Index Generator is designed to simplify and standardize the writing of technical manuals. Using EDIT/CMD, the technical material is entered along with the few MSCRIBE commands and a small subset of SCRIBE commands into a disk file. MSCRIBE translates this pseudo-SCRIBE file to a SCRIBE file in the standard manual format and optionally creates a table of contents and/or an index. A print suppression capability, as in SCRIBE, allows different manuals to be generated from a common text.

TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION

MSCRIBE allows the user to create standardized manuals by using a minimum of SCRIBE commands and the fifteen MSCRIBE commands. The MSCRIBE output file contains, in place of the MSCRIBE commands, the necessary SCRIBE commands for setting up chapter headings, page numbers, etc., according to the predetermined defaults for writing manuals. These defaults include margins at 1 and 66 (which are reset at every chapter), numbers and footings alternately printed in the lower right and left hand corners of the page, header length of 8 lines, body length of 48 lines and footer length of 10. The MSCRIBE generated table of contents has uniformed spacing of titles of chapters, sections, subsections and appendices, and MSCRIBE converts all chapter and appendix titles to upper case in the output SCRIBE file and in the table of contents.

Most of the MSCRIBE commands are for "one-time" initialization and title page preparation. Only three of these commands are needed for the body of the manual making MSCRIBE very easy to learn. For example, the body of a manual with "straight text" could be transformed into a standard format using only one MSCRIBE command: +M7 (signifying the beginning of a chapter) and one SCRIBE command: +PP (denoting a new paragraph). An unsophisticated SCRIBE user can produce a standard technical manual and need not learn more than a few SCRIBE commands.

In fact, MSCRIBE allows only forty of the hundred-odd SCRIBE commands to insure consistency of the manuals. SCRIBE commands such as +BH (begin header), +BLnnn (adjust body length), +ALnnn (adjust the left footing margin), etc. are ignored so that the MSCRIBE manuals have uniformed body length, alternate left and right pagination, consistent footings and identical chapter formatting. See the appendix, "USABLE SCRIBE COMMANDS", for a complete list of allowable commands.

MSCRIBE translates the "pseudo-SCRIBE" text disk file into a second "standard" SCRIBE disk file. This "standard" SCRIBE disk file may be EDITed to modify the SCRIBE commands that MSCRIBE produces or to add any SCRIBE commands the user finds he needs to adapt the manuals to his particular standards. The SCRIBE file may then be processed by DSCRIBE to list on the screen for visual proofing and then print a paper copy on a local, servo or remote printer or a selectric typewriter.

1.1 MSCRIBE Command Line and Options

The MSCRIBE command line is entered as follows:

MSCRIBE <filename>[/ext][:drn];[C][X][O][D]

where square-bracketed items are optional.

The command:

MSCRIBE MANUAL/CH1

will cause MSCRIBE to process the text disk file MANUAL/CH1 to
create a file MANUAL/MSP to be used as input to DSCRIBE. If no
extension appears on the command line, the text disk file is
assumed to have the extension /TXT. All drives are searched if no
drive is specified.

The extension of the output file of MSCRIBE is always /MSP.
Beginning with drive zero, MSCRIBE looks for a file called
<name>/MSP to overwrite with the new MSCRIBEd text. If no file
with that name exists, the file <name>/MSP is created on the first
available drive. To direct a new /MSP file to a certain drive,
EDIT a null file called <name>/MSP on the desired drive and
MSCRIBE will overwrite the null file.

1.1.1 The C Option

The option, C, on the command line indicates that a table of
contents should also be built. If this option is entered, MSCRIBE
will build a text disk file with the extension /TCP that contains
the table of contents and has the correct SCRIBE commands to link
to the /MSP file during DSCRIBing. A "click" will occur as each
chapter, section, subsection and appendix is entered into the
table of contents. The /TCP file will be placed on drive zero
unless a file by that name already exists on another drive (as
with the /MSP file).

MSCRIBE MANUAL;C

will process disk file MANUAL/TXT creating MANUAL/TCP and
MANUAL/MSP.

1.1.2 The X Option

The option, X, on the command line indicates that an index file as well as the /MSP file should be created. MSCRIBE expects the existence of a file called <name>/KEY when this option is entered. See the chapter on "INDEX" for the details of the construction of the /KEY file.

    MSCRIBE PART1/MAN;X

will convert disk file PART1/MAN to a SCRIBE file PART1/MSP. MSCRIBE expects PART1/KEY to exist to help in the creation of the index file PART1/NXP. As above, all new files are placed on drive zero.

1.1.3 The D Option

The "D" option is used with the "X" option if user intervention is desired during creation of the index. The line of text containing each keyword is displayed on the CRT screen and the user decides whether the index should include a reference to that line. See the section on the "D" option in the chapter on "INDEX" for more information.

1.1.4 The O Option

The "O" option must be specified in conjunction with the C option and/or the X option. It signifies that either the table of contents or the index or both files are to be created without rewriting the /MSP file.

1.2 Error Messages and Informative Displays

MSCRIBE will identify itself as:

    MANUAL SCRIBE CONVERTER AND TABLE OF CONTENTS GENERATOR

with the version and date.

MSCRIBE will also remind the user that:

    THE TABLE OF CONTENTS WILL BE IN <name> /TCP

if the C option is entered on the command line.

An X on the command line will produce the following display:

        INDEX FILE WILL BE IN <name>/NXP
        nnn KEYWORDS MAY BE INDEXED

where nnn may range from 100 to 255 depending on the processor memory size. (See chapter on "INDEX".)

        If no filename appears on the MSCRIBE command line, the message:

        NAME REQUIRED

will be displayed.

        INVALID DRIVE

signifies that the drive number was not in standard form or that it was out of range.

        If the filename is in the correct form on the command line but no file of that name exists on on-line drives, a message will appear that:

        FILE NOT FOUND.

        Any characters other than "C","D","O" or "X" entered following the semi-colon will produce:

        BAD OPTION PARAMETER!!! VALID OPTIONS ARE C, D, O AND X!

        MSCRIBE ENDED.

        "O" may not be the only option entered:

        MUST SPECIFY "C" OR "X" OR BOTH WITH "O"

        If MSCRIBE encounters any errors or illegal commands, the message:

        COMMAND ERROR +QQ IN LINE nnn OF <name>/TXT
        +qq This was supposed to be a new paragraph.

will be displayed, where the second line is the incorrect line in the text file.

        Also, the string

"+SL1 COMMAND ERROR ++QQ +SL1"

will be included in the /MSP file so that when the file is
DSCRIBEd errors may easily be found in the listing.

The warning that:

MSCRIBE COMMAND +Mn IS OUT OF SEQUENCE

may appear during the writing of the /MSP file if one of the
MSCRIBE commands +M1,..,+M7 were omitted.

The message:

<filename1 ext> NOT FOUND.
IN LINE nnn OF <filename2>

means that no <filename1> existed to open by the
+D1<filename1>+F1 command in <filename2>.

Several error messages may occur if the "X" option is
selected:

NO KEY FILE

TOO MANY WORDS IN KEY FILE

TOO MANY PAGES TO INDEX

TOO MANY REFERENCES OF KEYWORD <word>

These messages are explained in the chapter on "INDEX".

CHAPTER 2. MANUAL INITIALIZATION

The MSCRIBE commands +M1 through +M6 concern the title page, the preface and the table of contents.

2.1 Title Page

MSCRIBE commands +M1, +M2, +M3 and +M4 format the title page. Everything following a +M1 up to the next command or end-of-line is considered to be the manual title. The title that is entered here will appear in the left footing of every even page within each chapter. MSCRIBE will convert the title to upper case regardless of the way it appears in the text file. The horizontal spacing of the title will follow the SCRIBE convention (more than one space between words is not permitted); however, in the footing, the title will appear "as is" in regards to horizontal spacing. For example,

        +m1 Monthly   Report

will appear as:

                    MONTHLY REPORT

on the title page but will appear as:

        1-2 MONTHLY   REPORT

in the left-hand footings.

+M2 is followed by a subtitle which is not converted to upper case. The date may be entered using +M3. Up to four +M4 commands may be entered to print out the author, the department, the company and other identification. As in the +M1 command, each line is considered terminated at the next command or the end-of-line.

EXAMPLE:
    Pseudo-SCRIBE Text:
        +m1Monthly Report
        +m2(January)
        +m3February 1, 1976
        +m4John Smith
        +m4Personnel Department
        +m4The Company

```
      +m4Anywhere, USA

  SCRIBE Text Output:
      +HL8+BL48+FL10+PN+PC
      +IS5+LM1+RM66+AL1+AR66+SL19+CN
      +LFMONTHLY REPORT+SL3
      (January)+SL1
      February 1, 1976+SU4
      John Smith+NL
      Personnel Department+NL
      The Company+NL
      Anywhere, USA+NL

DSCRIBE will print this as:
```

MONTHLY REPORT

(January)

February 1, 1976

John Smith
Personnel Department
The Company
Anywhere, USA

2.2 Preface

The MSCRIBE command for the Preface is +M5. Everything between the +M5 and +M6 (Table of Contents) is treated as the body of the Preface. The word "PREFACE" is centered at the top of the page. The body of the Preface is double-spaced. The Preface and the Table of Contents is numbered in lower case centered Roman numerals. The +m5 (and thus the Preface) may be omitted; however, MSCRIBE will display the message that:

MSCRIBE COMMAND +M6 IS OUT OF SEQUENCE

just in case the omission was not intended.

EXAMPLE:
     Pseudo-SCRIBE Text:
          +m5 This is a short preface.
          +m6

     SCRIBE Text Output:
          +PG
          +CN
          +NL+LS2 PREFACE
          +RN
          +PP1
          +LJ
          This is a short preface.

2.3 Table of Contents

The MSCRIBE command +M6 causes linkage to the table of contents SCRIBE file. If a "C" is entered as an option, MSCRIBE will process the Pseudo-SCRIBE file generating page numbers and looking for chapter headings (+M7), section headings (+M8) and appendix titles (+M9). These titles are entered into the generated table of contents with their respective page numbers. Page numbers for chapters and sections consist of digits for the chapter, a dash, and digits for the page within the chapter (e.g., the first page of Chapter 1 is 1-1). Appendices have no page numbers in the table of contents; however, if there are sections within the appendix, the page number for the section will consist of a single or double letter for the appendix, a dash, and digits for the page within the appendix (e.g., a section occurring on the first page of Appendix A has the page number A-1). The manual is limited to 99 chapters and 52 appendices, each with up to 999

pages.

The words "TABLE OF CONTENTS" are centered at the top of the
page. The word "page" appears "tabbed right" from column 65 on
the third line down from the title. Below that are the first
chapter number and heading. All chapter headings are preceded by
blank lines. Immediately below each chapter heading are the
sections and subsections within the chapter. The subsections are
tabbed to the right three columns for each sublevel below the
chapter (e.g., the title for Subsection 3.1.5.2.4 will begin in
the twelfth column). Page numbers will be "tabbed right" from
column 65.

EXAMPLE:
    Pseudo-SCRIBE Text:
        +M6

    SCRIBE Text Output:
        +LS1
        +PG
        +D2<filename>/TCP+F2

A sample "TABLE OF CONTENTS" follows:

TABLE OF CONTENTS

CHAPTER 3.   CHAPTERS, SECTIONS, SUBSECTIONS AND APPENDICES

The first +M7 signifies the beginning of the body of the
manual. Up to this point, MSCRIBE will ignore anything other than
the MSCRIBE commands +MV, +MS, +MT, +MP, +NP, and +M1 through +M6.
If it is desired to set tabs to be in effect for the entire
manual, for example, the SCRIBE commands must appear <u>after</u> the
first +m7. If a section or appendix is encountered before a
chapter, an "OUT OF SEQUENCE" message will appear on the screen.
MSCRIBE will proceed with its processing, however, there may be
some errors since proper initialization will not have occurred.

3.1 Chapters

The MSCRIBE command +M7 indicates that the remainder of the
line (to the end of the line or to the next command) is a chapter
number and name. A chapter number must appear after the +M7 and
the number must be followed by a decimal point. During creation
of the text file which is to be input to MSCRIBE, it is suggested
that chapters be numbered sequentially beginning with CHAPTER 1.
However, if it becomes necessary to rearrange the chapters within
the manual or insert additional chapters between two existing
ones, there is no need to renumber the +M7 commands. MSCRIBE will
number the chapters sequentially in the order that the +M7
commands are encountered regardless of what digit follows the +m7
command. It does not matter what number is there; but <u>it does</u>
<u>matter that some number is present</u>.

The chapter name appears in upper case in the text and in the
table of contents. This name also appears as a footing in the
chapter. As in the +m1 command, horizontal spacing occurs "as is"
in the footing. Caution: MSCRIBE will correctly process a
chapter with a "+" in its title for the text and the table of
contents. However, DSCRIBE will read in the footing up to the
first "+". Thus, a "+" in a chapter heading will produce an
incomplete footing.

In the manual text, the chapter number and name are preceeded
by "CHAPTER", capitalized and centered at the top of the page.
The margins and the manual justification (either left or even
margin) are reset. The first page of a chapter is on a right-hand
page with the page number in the lower right-hand corner.
Following pages are numbered alternately in the lower left-hand
and lower right-hand corners so that when the pages are printed

back to back, page numbers will be on the outer edge. Page
numbers consist of digits for the chapter, a dash and digits for
the page number within the chapter (e.g., the first page of
Chapter 1 is 1-1). Also, next to the page number is a footing;
right-hand pages have the current chapter name, and left-hand
pages have the manual name. The body of the chapter is
single-spaced with a paragraph indentation of five columns.The
text is left justified unless the manual even margins (+ME) has
been requested.

EXAMPLE:
     Pseudo-SCRIBE Text:
          +M7 2. Introduction

     SCRIBE Text Output:
          +PG+LS1
          +CN
          +LM1+RM66+PL
          +RF CHAPTER 1.   INTRODUCTION+PP3
          +PM 1-1
          +LJ

3.2 Sections

     The MSCRIBE command +M8 indicates that the remainder of the
line (to the end-of-line so that commands and additional
information may be included on the same line) is a section number
and name. Sections may occur within chapters or appendices.
Again, it is suggested that section numbers be entered
sequentially and start with the chapter number or appendix letter.
The chapter or appendix character is followed by a decimal point
and number for each sublevel under the chapter or appendix (e.g.
3.2.1 is the first subsection under the second section under the
third chapter and A.1 is the first section under Appendix A).
However, if the chapters or sections are re-ordered, deleted or
new parts of text inserted, there is no need to renumber the
sections or subsections. MSCRIBE will put the current chapter
number or appendix letter into the first digit of the section
number and will increment the subsection according to how many
decimal points appear in the section number following the +m8.
So, it is important to have the correct number of digits and
decimal points indicating the level of the subsection but it is
not necessary that the number has the correct digits. A maximum
of ten sub-levels of a chapter or appendix is recognized.

     The section number and name appears left-justified and
separated from the preceding paragraph by two blank lines.   A

blank line also follows the section name and number. Margins and the manual justification (either left or even margins) are reset.

EXAMPLE:
    Pseudo-SCRIBE Text:
            +M8 2.5.3 First Subsection of the First Section of the
                    Manual

    SCRIBE Text Output:
            +LM1+RM66+SL2+PS8+LJ
            1.1.1 First Subsection of the First Section of the
            Manual
            +PP1

3.3 Appendices

The MSCRIBE command +M9 indicates that the remainder of the line (to the end-of-line or next command) is an Appendix letter and name. Appendix letters should be sequential and entered in upper case. An appendix letter must appear. The letter may be doubled when the single letters are exhausted (e.g., Appendix Z is followed by Appendix AA). As with chapter numbers, MSCRIBE will supply the correct Appendix letter regardless of what is entered. A letter must appear, however, followed by a decimal point or an error will result.

The same remarks concerning chapter names applies to appendix names (see the "Chapters" section). The appendix letter and name will be preceded by "APPENDIX", capitalized, and centered at the top of the page. Margins and the manual justification (either left or even margins) are reset. The first page of an appendix will be on a right-hand page with the page number in the lower right-hand corner. Following pages are numbered alternately in the lower left- and right-hand corners so that when the pages are printed back to back and bound, page numbers will be on the outer edge. Next to the page numbers are footings; on the right-hand page is the current appendix name, and on the left-hand page is the manual name. Page numbers consist of the appendix letter (or letters), a dash, and digits for the page within the appendix.

EXAMPLE:
    Pseudo-SCRIBE Text:
        +M9 B.   First Appendix

    SCRIBE Text Output:
        +PG
        +CN
        +LM1+RM66+PL
        +RF APPENDIX A.   FIRST APPENDIX+PP3
        +PM   A-1
        +LJ

3.4 End of Manual

    At the end of the file, the page heading is cancelled and the
page ejected.

EXAMPLE:
    SCRIBE Text Output:
        +NH+PG

CHAPTER 4. VOLUME INITIALIZATION AND MANUAL EVEN MARGINS

The commands +MVnn and +ME are special MSCRIBE commands that, if used, must appear at the beginning of the text file. If both commands are used, the +MVnn command should be entered first.

4.1 Volume Initialization

In the process of proofing and editing a very long manual, it may be advantageous to break the long text into several files, for example, a separate file for each chapter. The +MV command may be used to "initialize" each separate chapter so that MSCRIBE will generate the proper SCRIBE commands for starting a manual at a chapter. The chapter or appendix character is entered in the nn position of the +MVnn command.

The name of the manual follows the command on the same line so that the proper footings will be printed. The +MVnn command allows the user to MSCRIBE chapters individually either during development or last minute editing.

If the +MV command has been used during development of the manual, there is no need to BLOKEDIT the chapters together to make a composite text file for input to MSCRIBE. MSCRIBE will ignore the +MVnn commands if it is MSCRIBing the entire manual and the chapters and appendices may be linked by inserting the command:

    +D1<next chapter>/<ext>+F1

at the end of each file. MSCRIBE will build a single file <first chapter>/MSP which contains all the MSCRIBEd text. The table of contents generation is not affected by the +MVnn commands when the entire manual is processed.

EXAMPLE:
    Pseudo-SCRIBE Text:
        +MV53 LONG MANUAL
        +M7 43.   Fifty-third Chapter

```
SCRIBE Text Output:
      +HL8+BL48+FL10+PN+PC+LM1+RM66+PL
      +LF LONG MANUAL+IS5+AL1+AR66+PL
(The above is generated by the +MV53 command)
      +PG+LS1
      +CN
      +LM1+RM66+PL
      +RF CHAPTER 53.   FIFTY-THIRD CHAPTER+PP3
      +PM 53-1
      +LJ
```

4.2 Manual Even Margins

The default justification for the manual is "ragged right" or
left justification. The SCRIBE commands +EM, +RJ, and +CN may be
used for tables and special text within the manual. However, each
section, chapter and appendix will reset left justification. If
it is desired to have the entire margin with even margins (except
for tables and special text), then the +ME command should be
entered at the beginning of the first file. This will cause all
the MSCRIBE generated SCRIBE commands "+LJ" to be changed to
"+EM". As the preface and each chapter, section, and appendix is
encountered, the justification is reset to even margins rather
than left justification.

CHAPTER 5. MSCRIBE PRINT SUPPRESSION

As in SCRIBE, it is possible to print up to two-hundred fifty-five different pieces of text and to set switches to enable one or all of the texts to be included in the MSP file. This feature is convenient, for instance, if several different versions of the same basic text need to be printed. Perhaps, the same technical manual can be made relevant to two related subjects if some sections are deleted or additional chapters are inserted. If these manuals existed as two separate files, both would need to be updated on common material. However, MSCRIBE print suppression allows a single text file to be the basic text for several different versions.

5.1 Print Suppression Switches

+MSnnn (where nnn has the range of 1 to 255) is the command to turn ON the indicated switch. The switches are only meaningful when used in conjunction with the print suppression command (+MPnnn)

+MTnnn turns OFF the switch nnn. The default assumption is that all switches are OFF when MSCRIBE begins.

5.2 Print Suppress Initialization

+MPnnn signifies that the text which follows it should be printed only if the switch nnn is ON. If the switch is off, the text and all commands embedded in the suppressed text (except +NP) will be ignored.

+NP indicates the end of print suppressed text. The table of contents generation, index references and the MSP file consider only the text that is not suppressed.

5.3 Example of Print Suppression

INPUT TO MSCRIBE:

    Part No. 114423+sp2......+sp2 +mp12 Retail Price: $414.98
        +np+mp15Wholesale Price: $375.98 +np

TEXT IN /MSP FILE WITH +MS12 SET:

    Part No. 114423+sp2.....+sp2Retail Price: $414.98

TEXT IN /MSP FILE WITH +MS15 SET:

    Part No. 114423+sp2.....+sp2Wholesale Price: $375.98

TEXT IN /MSP FILE WITH +MS12 AND +MS15 SET:

    Part No. 114423+sp2.....+sp2Retail Price: $414.98 Wholesale
        Price: $375.98

5.4 Use of Print Suppression

    The SCRIBE switches, +S1, +S2, +S3 and +SWnnn, along with
their corresponding print suppression commands +P1, +P2, +P3 and
+PWnnn will be flagged as errors if they appear in files that are
being MSCRIBEd. MSCRIBE needs to know exactly what text is going
to appear in the final printed version in order to calculate the
table of contents and the index. The MSCRIBE print suppression
switches allow the same capabilities as the SCRIBE switches and
since they are set before MSCRIBing, the table of contents is
correctly constructed.

    Instead of editing the common file to set switches before
MSCRIBing each different version, it is suggested that the
different versions have separate files consisting of all the
switch settings and a linkage to the common file. For example,
suppose the file BASIC/TXT serves as the common file for SALES/TXT
and CUSTOMER/TXT. The switches 240 and 25 enable printing of
information intended only for the company salesman. Switches 2
and 195 enable general information important to customers but not
needed by salesmen to be printed.

    SALES/TXT
        +MS240+MS25
        +D1BASIC/TXT+F1

```
CUSTOMER/TXT
     +MS2+MS195
     +D1BASIC/TXT+F1
```

When SALES is MSCRIBEd, SALES/MSP will contain the version of
BASIC/TXT relevant to the salesman. MSCRIBing CUSTOMER produces
CUSTOMER/MSP, the version designed for the customers.

CHAPTER 6. INDEX

MSCRIBE will generate page references for keywords listed in a /KEY file if an "X" is entered as a parameter on the command line. The MSCRIBE command +MX in the text file will produce the SCRIBE commands for linkage with the /NXP index file. Interaction between MSCRIBE and the user may be requested by the "D" option so that only significant references to the keywords will appear in the index.

6.1 The MX Command

The +mx command should be the last command in the text file if an index is to be included in the manual. This command generates the SCRIBE commands to link to the index file.

```
Pseudo-SCRIBE text:
    +mx

SCRIBE text output:
    +PG
    +D2<filename>/NXP+PB*****+F2
    +NH+PG
```

6.2 Keyword File

The list of words and phrases that are to be indexed should be EDITed in a file with extension /KEY. The filename should be the same as the file on the MSCRIBE command line. If no /KEY file exists when MSCRIBE tries to index, the message:

```
NO KEY FILE
```

will be displayed.

Each word or phrase should be left-justified on a separate line. Only the first 16 characters are transferred to the resulting index file. A keyword is terminated by either an end-of-line or a group of spaces. Comments may exist to the right of the keywords if the keywords are terminated by three or more spaces. MSCRIBE actually searches only for the first 16 characters of the keyword or first word of the key phrase. The rest of the line in the key file is ignored.

6.2.1 Keyword Character Restrictions

Any character (alphabetic, numeric or special) may be a character in a keyword with the following exceptions:

1) A group of spaces terminates the keyword. (Single spaces are permitted, however.)
2) The keyword may not begin with the following: " ' ({ [<
3) A keyword may not end with: . , " ') }] > ! : ; ?
4) A keyword which has a '+' will be referenced properly; however, SCRIBE errors will occur unless the index file is edited to change the '+' to '++'.
5) The character ~ has special meaning (see below).

6.2.2 The ~ Character

The ~ character is used in the keyword file to include a reference for any word in the text that matches the keyword up until the ~. For example, if it is desired to get references for "translate", "translator", "translation" and "translating", the keyword "translat~" will produce references for all the above forms of the word. This can be very useful for keywords and their plurals.

6.2.3 Keyword Case

Keywords should be entered as they should appear in the manual index. It makes no difference if they are entered in upper, lower, or mixed (e.g. first character capitalized) case. It also makes no difference how the keywords appear in the text; MSCRIBE considers everything (the keyword and the text) in upper case to hunt for matches. If a single space occurs in the keyword, all words in the text that match the first word of the key phrase will be referenced.

6.2.4 Sample Keyword File

```
report~
OSHA
#45342
parts inventory control
Smith&Jones
$55.95
```

6.2.5 Number of Keywords

The "X" parameter on the command line will cause the following to be displayed:

```
INDEX WILL BE IN <filename>/NXP
nnn KEYWORDS MAY BE REFERENCED
```

where nnn ranges from 100 to 255 depending on processor memory size. This number represents the maximum number of keywords that may be indexed at one time on that processor. If the manual has more keywords, divide the /KEY file into smaller files, MSCRIBE the manual with the "XO" option, rename the /NXP file and MSCRIBE again using the second /KEY file. BLOKEDIT the renamed /NXP file and the new /NXP file for a complete index.

6.2.6 SORTing the Keyword File

It is convenient to use the DOS SORT/CMD to arrange the keywords in alphabetic order. This is not necessary but the keywords will appear in the manual in the order they appear in the /KEY file. If the keywords are to be SORTed, they should be edited into a file with a name other than the final /KEY file name.
```
SORT <filename>/TXT,<filename>/KEY;1-16
```

See the DOS User's Guide for details on the SORT command and for changing the collating sequence if a sequencing other than ASCII is necessary.

Sample Sorted Keyword File:
```
    OSHA
    parts inventory control
    price
    report~
    Smith&Jones
    #45342
    $55.95
```

6.3 The /NXP File

MSCRIBing with the "X" option builds the <filename>/NXP index file where <filename> is the name on the MSCRIBE command line. The first 16 characters of keywords are matched against words in the text. Several references to a word on the same page will result in a single reference in the index. A word that is not referenced at all will not appear in the index. The /NXP file is an ordinary SCRIBE file so it may be edited to replace the '~' character or delete insignificant references.

The maximum number of pages that may be referenced is 255. If the manual is longer than that a message:

TOO MANY PAGES TO INDEX

will be displayed.

There is also a limit of 30 references for each keyword. If a word occurs on more than 30 pages:

TOO MANY REFERENCES OF KEYWORD <word>

will appear on the screen.

In either of the two above situations, the text may be divided into parts. Each part (except the first) should begin with a +MVnnn command. The parts may be MSCRIBEd separately with the "X" option and the references of each index consolidated by EDITing a final index file.

Sample /NXP File:

```
+cnINDEX+lm4+sl2+tc+ts1+lj
+nl+ps2+tb
OSHA               +sp2
1-1, 3-4, 3-5, 4-1+nl+ps2+tb
parts inventory +sp2
1-2, 2-2, 3-1+nl+ps2+tb
report~            +sp2
1-1, 1-2, 2-1, 2-2, 3-2, 3-4, 3-5, 3-6, 4-1, 4-2, 4-3,
4-4+nl+ps2+tb
Smith&Jones        +sp2
3-2, 4-3+nl+ps2+tb
$55.95             +sp2
2-3, 3-2, 4-1+nl+ps2+tb
```

Edited /NXP File:

```
+cnINDEX+lm4+sl2+tc+ts1+lj
+nl+ps2+tb
OSHA            +SP2
1-1, 3-4, 4-1+nl+ps2+tb
parts inventory control +SP2
1-2, 2-2, 3-1+nl+ps2+tb
report, reports and reporting+SP2
1-1, 1-2, 2-1, 2-2, 3-2, 3-4, 3-5, 3-6, 4-1, 4-2, 4-3,
4-4+nl+ps2+tb
Smith&Jones     +SP2
3-2, 4-3+nl+ps2+tb
$55.95          +SP2
2-3, 3-2, 4-1+nl+ps2+tb
```

Sample Index:

<div align="center">INDEX</div>


```
OSHA   1-1, 3-4, 3-5, 4-1
parts inventory control  1-2, 2-2, 3-1
report, reports and reporting  1-1, 1-2, 2-1, 2-2, 3-2, 3-4, 3-5,
    3-6, 4-1, 4-2, 4-3, 4-4
Smith&Jones  3-2, 4-3
$55.95  2-3, 3-2, 4-1
```

6.4 Using the "D" Option

The MSCRIBE index includes references to every page in the
text that contains the given keywords. Insignificant references
must be deleted by EDIT from the /NXP file. The "D" option allows
the user to decide which references should be included in the
index during generation. For example, entering "D" on the command
line with "X" produces the following display:

        FOUND KEYWORD <word>
        is the line in the text which contains <word>. Is the
        INDEX?

The cursor flashes in the position following the question mark. If
the user decides the reference is significant, he enters "Y". The
page is then referenced in the index and the rest of the page is
scanned for other keywords. The user is not questioned again if

he has chosen to index a keyword and that keyword appears again on
the same page; only one reference appears in the index for each
page. If the reference need not be included in the index, the
user enters "N". If there is more than one occurrence of a
keyword on a page, and the user has answered "N" to the first
occurrence, the user will be questioned on each occasion the
keyword is found until he answers "Y" that the page be listed with
the references for that keyword.

APPENDIX A. MSCRIBE COMMAND LIST

```
+MSnnn      Turn ON MSCRIBE switch nnn
+MTnnn      Turn OFF MSCRIBE switch nnn
+MPnnn      Process text following only if MSCRIBE switch nnn is ON
+NP         Turn off print suppression
+ME         Even Margins for the Entire Manual
+M1         Title Page Manual Title
+M2         Title Page Subtitle
+M3         Title Page Date
+M4         Other Title Page Identification (up to four +M4 commands)
+M5         Preface Format
+M6         Table of Contents Linkage
+M7         Chapter Format
+M8         Section Format
+M9         Appendix Format
+MVnn       Volume Initialization
+MX         Index Linkage
```

APPENDIX B. USABLE SCRIBE COMMANDS

```
+AS      "As is" text
+ATnnn   Absolute tab to column nnn
+BE      Boldface end
+BF      Begin boldface
+BR      Black ribbon
+CN      Center output text
+D1      Open the next file to be processed
+EM      Even margins
+F1      Switch to next file control
+JR      Right justify at current column
+LJ      Left justify output text
+LT      Set left margin to tab
+LMnnn   Set left margin to column nnn
+NE      Print current text even margins
+NL      Print current text and begin new line
+NR      End field right justification
+NS      No super/subscripting
+NU      No underlining
+OP      Overprint
+PL      Purge line
+PPnnn   Skip nnn lines and begin new paragraph
+PSnnn   Page skip if within nnn lines of the bottom
+RJ      Right justify
+RMnnn   Set right margin to column nnn
+RR      Red ribbon
+RT      Set right margin to tab
+SB      Subscript
+SLnnn   Skip nnn lines or to new page
+SPnnn   Skip nnn spaces
+SS      Superscript
+SUnnn   Skip until nnn lines left on the page
+TB      Tabulate
+TC      Tab clear
+TM      Tab to left margin
+TR      Tabulate and right justify field
+TS      Tab set
+TT      Typewriter tab
+TX      Tab extended
+UN      Underline
+##      End of "as is" text
```

APPENDIX C. MSCRIBE/KEY

The following is the /KEY file used to create the index for this User's Guide.

```
appendi~
chapter~
command line
error messages
even margins
index~
keyword~
+ms~            MSCRIBE commands
+mt~
+mp~
+np
+m1
+m2
+m3
+m4
+m5
+m6
+m7
+m8
+m9
+me
+mv
+mx
/KEY            MSCRIBE files
/MSP
/TCP
/NXP
C option        MSCRIBE options
D option
O option
X option
preface
print suppression
SCRIBE commands
section~
subsection~
switch~
table of contents
title page
```

APPENDIX D. MSCRIBE USER'S GUIDE TEXT FILE

The following is a partial listing of the text of this file
before MSCRIBE processing. The file was used as the common text
for this released version of the manual and a special DATAPOINT
in-house version of the User's Guide to describe DATAPOINT's
manual standards. MSCRIBE switch +MS1 is set to output the
released version; +MS2 enables the in-house version. The +MN and
+MR are special commands for use in DATAPOINT documents. The
listing of this text is produced by the +AS command.

+m1 technical manual pre-processor
+m2 mscribe
+mp1+m3 User's Guide+np
+mp2+m3 In-house User's Guide+np
+mr 1
+m4 August, 1976
+mp1+mn 50238 +np
+m5
The Technical Manual Pre-processor and Table of Contents/Index Generator
is designed
to simplify and standardize the writing of technical manuals. Using
EDIT/CMD, the technical material is entered along with the few MSCRIBE
commands and a small subset of SCRIBE commands into a disk file. MSCRIBE
translates this pseudo-SCRIBE file to a SCRIBE file in the standard
manual format and optionally creates a table of contents and/or an index.
 A print suppression capability, as in SCRIBE, allows different manuals
to be generated from a common text.
+m6
+m7 1. Introduction
MSCRIBE allows the user to create standardized manuals by using a minimum
of SCRIBE commands and the +mp1fifteen +np+mp2seventeen +np MSCRIBE commands.
   The MSCRIBE output file contains, in place of the MSCRIBE commands, the
necessary SCRIBE commands for setting up chapter headings, page numbers,
etc., according to the predetermined defaults for writing manuals. These
defaults include margins at 1 and 66 (which are reset at every chapter),
numbers and footings alternately printed in the lower right and left hand
corners of the page, header length of 8 lines, body length of 48 lines and
footer length of 10.
   The MSCRIBE generated table of contents has uniformed spacing of titles
of chapters, sections, subsections and appendices, and
   MSCRIBE converts all chapter and appendix titles to upper case in the
output SCRIBE file and in the table of contents.
+pp1Most of the MSCRIBE commands are for "one-time" initialization and title

page
preparation.

Only three of these commands are needed for the body of the manual
making MSCRIBE very easy to learn.

For example, the body of a manual with "straight text" could be
transformed into a standard format using only one MSCRIBE command: ++M7
(signifying
the beginning of a
chapter) and one SCRIBE command: ++PP (denoting a new paragraph).

An
unsophisticated SCRIBE user can produce a standard technical manual and
need not learn more than a few SCRIBE commands.
+pp1
In fact, MSCRIBE allows only +mp1forty +np+mp2forty-one +np of the
hundred-odd SCRIBE commands
to insure consistency of the manuals. SCRIBE commands such as ++BH (begin
header), ++BLnnn (adjust body length), ++ALnnn (adjust the left footing
margin),
etc. are ignored so that the MSCRIBE manuals have uniformed body
length, alternate left and right pagination, consistent footings and
identical chapter formatting.

See the appendix, "USABLE SCRIBE COMMANDS", for a complete list of
allowable commands.
+pp1 MSCRIBE translates the "pseudo-SCRIBE" text disk file into a
second "standard" SCRIBE disk file. This "standard"
SCRIBE disk file may be EDITed to modify the SCRIBE commands
that MSCRIBE produces or to add any SCRIBE commands the user finds he needs
to adapt the manuals to his particular standards.

The SCRIBE file may then be processed by DSCRIBE to list on the screen
for visual proofing and then print a paper copy on a local, servo or
remote printer or a selectric typewriter.
+m8 1.1 MSCRIBE Command Line and Options
The MSCRIBE command line is entered as follows:
+tc+ts5
+sl1+tb MSCRIBE <filename>[/ext][:drn];[C][X][O][D]
+sl1 where square-bracketed items are optional.
+pp1
The command:
+sl1+tb MSCRIBE MANUAL/CH1
+sl1 will cause MSCRIBE to process the text disk file MANUAL/CH1 to create
a file MANUAL/MSP to be used as input to DSCRIBE.

If no extension appears on the command line, the text disk file is
assumed to have the extension /TXT.

All drives are searched if no drive is specified.
+pp1 The extension of the output file of MSCRIBE is always /MSP.
Beginning with drive zero, MSCRIBE looks for a file called <name>/MSP
to overwrite with the new MSCRIBEd text. If no file with that name exists,
the file <name>/MSP is created on the first available drive.+sp2

To direct a new /MSP file to a certain drive, EDIT a null file called
<name>/MSP on the desired drive and MSCRIBE will overwrite the null file.
+m8 1.1.1 The C Option
The option, C, on the command line indicates that a table of contents
should also be built. If this option is entered, MSCRIBE will build a text
disk file with the extension
/TCP that contains the table of contents and has the correct SCRIBE commands
to link to the /MSP file during DSCRIBing.+sp2
A "click" will occur as each chapter, section, subsection and appendix
is entered into the table of contents.+sp2
The /TCP file will be placed on drive zero unless a file by that name
already exists on another drive (as with the /MSP file).
+sl1+tb MSCRIBE MANUAL;C
+sl1 will process disk file MANUAL/TXT creating MANUAL/TCP and MANUAL/MSP.
+m8 1.1.2 The X Option
The option, X, on the command line indicates that an index file as well
as the /MSP file should be created. MSCRIBE expects the existence of a file
called
 <name>/KEY when this option is entered. See the chapter on "INDEX" for
the details of the construction of the /KEY file.
+sl1+tb MSCRIBE PART1/MAN;X
+sl1 will convert disk file PART1/MAN to a
SCRIBE file PART1/MSP. MSCRIBE expects PART1/KEY to exist to help in
 the creation of the index file PART1/NXP. As above, all new files are
placed on drive zero.
+m8 1.1.3 The D Option
The "D" option is used with the "X" option if user intervention is
desired during creation of the index.
   The line of text containing each keyword
is displayed on the CRT
screen and the user decides whether the index should include a reference
to that line. See the section on the "D" option in the chapter on "INDEX"
for more information.
+m8 1.1.3 The O Option
The "O" option must be specified in conjunction with the C option and/or
the X option. It signifies that either the table of contents or the
index or both files are to be created +unwithout +nu rewriting the /MSP
file.
+m8 1.2 Error Messages and Informative Displays
+tc+ts12
MSCRIBE will identify itself as:
+mp1+sl1+tb MANUAL SCRIBE CONVERTER AND TABLE OF CONTENTS GENERATOR+np
+mp2+sl1+tb IN-HOUSE MANUAL SCRIBE CONVERTER AND TOC GENERATOR+np
+sl1with the version and date.
+pp1 MSCRIBE will also remind the user that:
+sl1+tb THE TABLE OF CONTENTS WILL BE IN <name> /TCP
+sl1 if the C option is entered on the command line.
+pp1 An X on the command line will produce the following display:

+sl1+tb INDEX FILE WILL BE IN <name>/NXP
+nl+tb   nnn KEYWORDS MAY BE INDEXED
+sl1 where nnn may range from 100 to 255 depending on the processor memory
size. (See chapter on "INDEX".)
+pp1 If no filename appears on the MSCRIBE command line, the message:
+sl1+tb NAME REQUIRED
+sl1 will be displayed.
+sl1+tb INVALID DRIVE
+sl1 signifies that the drive number was not in standard form or that
it was out of range.
+pp1 If the filename is in the correct form on the command line but no
file of that name exists on on-line drives, a message will appear that:
+sl1+tb FILE NOT FOUND.
+pp1
Any characters other than "C","D","O" or "X" entered following the semi-colon
will produce:
+rm75+sl1
+AT5   BAD OPTION PARAMETER!!! VALID OPTIONS ARE C, D, O AND X!
+rm60+sl1+at5MSCRIBE ENDED.
+pp1 "O" may not be the only option entered:
+sl1+tb MUST SPECIFY "C" OR "X" OR BOTH WITH "O"
+pp1 If MSCRIBE encounters any errors or illegal
commands, the message:
+sl1+tb COMMAND ERROR ++QQ   IN LINE   nnn OF <name>/TXT
+nl+tb ++qq This was supposed to be a new paragraph.
+sl1 will be displayed, where the second line is the incorrect line in the
text file.
+pp1Also, the string
+sl1
"++SL1 COMMAND ERROR ++++QQ ++SL1"
+sl1
will be included in the /MSP file so that when the file is DSCRIBEd errors
may easily be found in the listing.
+pp1 The warning that:
+sl1+tb MSCRIBE COMMAND ++Mn IS OUT OF SEQUENCE
+sl1 may appear during the writing of the /MSP file if one of the MSCRIBE
commands ++M1,..,++M7 were omitted.
+pp1 The message:
+sl1+tb <filename1 ext> NOT FOUND.
+nl+tb IN LINE nnn OF <filename2>
+sl1 means that
no <filename1>
existed to open by the ++D1<filename1>++F1 command in
<filename2>.
+sl1 Several error messages may occur if the "X" option is selected:
+sl1+tb NO KEY FILE
+sl1+tb TOO MANY WORDS IN KEY FILE
+sl1+tb TOO MANY PAGES TO INDEX

```
+sl1+tb TOO MANY REFERENCES OF KEYWORD <word>
+sl1  These messages are explained in the chapter on "INDEX".
+m7 2.  Manual initialization
The MSCRIBE commands ++M1 through ++M6 concern the title page, the preface
and the table of contents.
+m8 2.1 Title Page
MSCRIBE commands ++M1, ++M2, ++M3+mp1 and ++M4 format the title page.  +np
+mp2, ++MR, ++M4, ++MN, and ++MC format the title page.  +np
  Everything following a ++M1 up to the next command or end-of-line is
considered
to be the manual title.                                         -
  The title that is entered
here will
appear in the left footing of every even page within each chapter.
    MSCRIBE will convert the title to upper case regardless of the way it
appears in the text file.  The horizontal spacing of the title will follow
the SCRIBE convention (more than one space between words is not permitted);
    however, in the footing, the title will appear "as is" in regards to
horizontal spacing.  For example,
+mp1+sl1+tb ++m1 Monthly+sp10Report+np
+mp2+sl1+tb ++m1 Manual+sp10SCRIBE+np
+sl1 will appear as:
+mp1+sl1+cn MONTHLY REPORT+np
+mp2+sl1+cn MANUAL SCRIBE+np
+sl1+lj on the title page but will appear as:
+mp1+sl1+tb 1-2 MONTHLY+sp10REPORT+np
+mp2+sl1+tb 1-2 MANUAL+sp10SCRIBE+np
+sl1in the left-hand footings.
+pp1
+mp1++M2 is followed by a subtitle which is not converted to upper case.  +np
+mp2++M2 is followed by the program name which is converted to upper
case.  The manual type may be entered using ++M3.  ++MR is followed by
the version number, ++M4 is followed by the date, ++MN is followed by
the manual model code number as listed in the Software Catalog, and ++MC
generates a "Proprietary Confidential Information" statement.
+pp1    Each of these lines is terminated  in the pseudo-SCRIBE text by the
end-of-line or by another command.  The first five commands are required
in the above sequence.  Commands ++MN and ++MC are optional.  The ++MC
command, if included, must come between ++M4 and ++M5.  The cover page
has the above six items right-justified in the upper right-hand
corner of the page.  The "Proprietary Confidential Information" statement
 also generates page headings referencing the statement on the title
page.
+sl1EXAMPLE:
+ps8
+tc+ts5+ts10
+nl+tbPseudo-SCRIBE Text:
+nl+tb+tb++m1manual scribe
```

```
+nl+tb+tb++m2mscribe
+nl+tb+tb++m3In-house User's Guide
+nl+tb+tb++mr 3
+nl+tb+tb ++m4 March, 1976
+nl+tb+tb ++mn XXXXX
+ps9+sl1+tbSCRIBE Text Output:
+nl+tb+tb ++MS++BL48++PN++PC
+nl+tb+tb++IS5++LM1++RM66++AL1++AR66++RJ++NL
+nl+tb+tb++LF MANUAL SCRIBE++NL
+nl+tb+tb MSCRIBE++SL3
+nl+tb+tb In-house User's Guide++NL
+nl+tb+tb++SL2
+nl+tb+tb Version 3++SL2
+nl+tb+tb March, 1976++SL3
+nl+tb+tb Model Code No. XXXXX++SL3
+nl+tb+tb++NL++CN CONFIDENTIAL PROPRIETARY INFORMATION++nl++ls1++em++pp1
+lm10+nlThis item is the property of DATAPOINT Corporation, San
Antonio, Texas, and contains confidential and trade
secret information.  This item may not be  transferred
from the custody or control of DATAPOINT except as authorized by
 DATAPOINT and then only by way of loan for limited
 purposes.  It must be returned to DATAPOINT upon
 request, and in all events, upon completion of the
 purpose of the loan.++PP1 Neither this item nor the
 information it contains may be used or disclosed to
 persons not having a need for such use or disclosure
 consistent with the purpose of the loan, without
 the prior written consent of DATAPOINT.++LS2++NL++LJ
+nl
 ++BH       DATAPOINT CONFIDENTIAL INFORMATION -- SEE TITLE PAGE.
+lm1+np
+mp1
 The date may be entered using ++M3.  Up to four ++M4 commands may be
entered to print out the author, the department, the company and other
identification.
As in the ++M1 command, each line is considered terminated at the next command
or the end-of-line.
+sl1EXAMPLE:
+ps8
+tc+ts5+ts10
+nl+tbPseudo-SCRIBE Text:
+nl+tb+tb++m1Monthly Report
+nl+tb+Tb++m2(January)
+nl+tb+tb++m3February 1, 1976++SU4
+nl+tb+Tb++m4John Smith
+nl+tb+tb++m4Personnel Department
+nl+tb+tb++m4The Company
+nl+tb+tb++m4Anywhere, USA
```

```
+ps9+sl1+tbSCRIBE Text Output:
+nl+tb+tb++HL8++BL48++FL10++PN++PC
+nl+tb+tb++IS5++LM1++RM66++AL1++AR66++SL19++CN
+nl+tb+tb++LFMONTHLY REPORT++SL3
+nl+tb+tb(January)++SL1
+nl+tb+tbFebruary 1, 1976++SU4
+nl+tb+tbJohn Smith++NL
+nl+Tb+TbPersonnel Department++NL
+nl+tb+TbThe Company++NL
+nl+tb+tbAnywhere, USA++NL
+sl1 DSCRIBE will print this as:
+ps60+sl19+cnMONTHLY REPORT+sl3
(January)+sl1
February 1, 1976+sl8
John Smith+nl
Personnel Department+nl
The Company+nl
Anywhere, USA+ps60
+np
+m8 2.2 Preface
The MSCRIBE command for the Preface is ++M5.  Everything between the
++M5 and ++M6 (Table of Contents) is treated as the body of the Preface.
 The word "PREFACE" is centered at the top of the page.  The body
of the Preface is double-spaced.  The Preface and the Table of Contents
is numbered in lower case centered Roman numerals.  The ++m5 (and
thus the Preface) may be omitted; however, MSCRIBE will display the message
that:
```

INDEX

Manual Name_____

Manual Number_____

READER'S COMMENTS

Did you find errors in this manual? If so, specify by page.

_____

_____

_____

_____

_____

Did you find this manual understandable, usable, and well-organized? Please make suggestions for improvement.

_____

_____

_____

_____

_____

_____

Name_____ Date_____

Organization_____

Street_____

City_____ State_____ Zip Code_____

All comments and suggestions become the property of Datapoint.