# SECTION 5:
# PROGRAM MODULES

Each of the following chapters deals with one of Valdocs'
program modules as a separate entity. All are based on the
modules contained in the September 85 release of Valdocs+.

Modules covered in this edition of the manual are:

EDITOR

PRINT

INDEX & RETRIEVE

SPREADSHEET

DRAW

MAIL

MENU

CARDFILE

COPY DISK

SCHEDULER

CONVERT

SORT

# THE VALDOCS+ EDITOR

## *THE MAIN EDITOR MENUS*

This chapter assumes that you are familiar with the basic rules of operating the Valdocs editor as laid out in Section 3 of this manual. This basic understanding can be supplemented with advanced operating techniques that will make editing faster and easier than ever before. Remember these three rules:

   a. *Read the keycaps.*

   b. *When a menu comes up READ IT.*

   c. *When in doubt, press HELP, and READ THAT.*

To refresh your memory, the Main menus, which contain functions *not* labeled on the keyboard can be accessed by pressing HELP while the document is displayed. However, these menus can also be accessed *directly*.

This short-cut is called the "Control Key method." To use it:

   "While holding down either CTRL key, hit the appropriate
   Letter key. Then choose your option."

```
Control Q, = "Quirks menu"
Control V, = "Views menu"
Control N, = "Note-page"
Control B, = "Block menu"
Control L, = "Look-for menu"
Control M, = "Miscellaneous menu"
Control O, = "On-screen menu"
Control P, = "Page menu"
Control U, = "User Defined keystrokes menu"
```

For Example:

Until now, to determine the size of the current file and/or space remaining on the Data disk, you would press HELP, select the Miscellaneous menu, then select <A>vailable space/current file size, etc.

There is a faster way:

1. Hold down the **CTRL** key.
2. Press M, once -- for the Miscellaneous menu.
3. Select *⟨A⟩vailable space/current file size)* and then press RETURN.

This option would be verbally referred to as "Control M A" with each letter pronounced.


## *CONTROL + Q = THE QUIRKS MENU*

---

Please select a Quirks option and then press RETURN.

⟨T⟩PM directory                          ⟨C⟩onfigure editor
⟨L⟩og in different disk drive            ⟨E⟩ntire document reform
⟨R⟩etrieve non-indexed file              ⟨D⟩efault document selection
⟨S⟩tore as non-indexed file
──────────────────────────⟨ UNDO to resume editing ⟩──────────────⟨ 2:50 P ⟩─

---

### ⟨T⟩PM DIRECTORY

The **INDEXER** appears on the screen each time the **INDEX** (or **RETRIEVE**) key is depressed and allows you to access files with complex names. However, the indexer actually stores the files with names that are recognizable by the TPM operating system.

With the *⟨T⟩PM directory* option, one can view directly TPM's catalog of disk files. This option is often used in conjunction with "*⟨R⟩etrieve non-indexed file,*" and "*⟨S⟩tore as a non-indexed file.*

*NOTE: for a discussion of TPM filenames see Appendix G.*


### ⟨L⟩OG IN DIFFERENT DISK DRIVE

This option operates the same as the identical option in Control M.

## <R>ETRIEVE NON-INDEXED FILE

This option allows you to retrieve any file by it's TPM file name. Virtually *any* file may be retrieved into the editor. Normally you will only want to retrieve text documents. However, even if you were to retrieve a *program*, Valdocs would attempt to convert it into an ASCII file that could be edited. Valdocs editor files can be identified either by a .VAL extension or, in the case of files that you stored as non-indexed yourself, by the unique name that you gave them.


## <S>TORE AS NON-INDEXED FILE

This option not only allows files to be stored under non-indexed names, it allows them to be stored in one of four data formats.  The data format options are:

1. <V>aldocs -- the Valdocs+ "Virtual File" format. It includes all control sequences and the virtual file directory. This is the "normal" file format for VALDOCS and is the format in which files are stored via the Indexer.

2. <L>inear Valdocs file -- includes all Valdocs format control sequences (such as BOLD, ITALIC, MARGINS, etc.) but rather than being virtual, the file is stored as sequential ASCII records.  It is VERY compact. This format is used to save space as well as for spell-checking Valdocs files with an external dictionary.

3. <P>age formatted ASCII -- all Valdocs control sequences are stripped from the file and it is stored in pure ASCII form.  However, the file is padded with carriage return/linefeed sequences to maintain it's original page format; and page number are inserted on the bottom text-line of each page.

4. <T>ext only ASCII -- all Valdocs control sequences are stripped from the file and it is stored in pure ASCII form.


## *STORING A FILE UNDER A NON-INDEXED NAME*

```
┌─────────────────────────────────────────────────────────────────┐
│ Select the type of non-indexed file and press RETURN.             │
│                                                                   │
│ <V>aldocs                          <P>age-formatted ASCII         │
│ <L>inear Valdocs document          <T>ext Only ASCII              │
│                                                                   │
└──────────────< UNDO for prior menu >──────────────< 10:38 >──*┘
```

From the CTRL Q Menu:

    1. Select *<S>tore as non-indexed file.*
    2. Press RETURN.
    3. Select the format in which you want the file stored
       (the available formats are described above).
    4. Press RETURN.
    5. If the file had been stored before, it's previous
       TPM filename will be displayed on the filename
       line. You may choose to:
         a. Type in a new filename, or,
         b. Use the name displayed on the entry-line.
    6. Press STORE.
       If there is already a file on disk with the
       same name as the one you chose for this file,
       which is always the case if 5B is chosen, you
       will be so informed. You may:
       a) Press UNDO to enter a new name for this file.
       b) Press STORE to delete the old file and
             use it's name for this file.


*TIP:*   *The Valdocs+ editor's virtual file is considerably
       larger than a Linear Valdocs file. It includes the
       virtual directory and is not packed to make optimum
       use of disk space. With this in mind you can maximize
       the utilization of your disk space by using the
       following procedure for storing files:*

1. Create a document and store it as an indexed file.

2. If you wish to compress it to its minimum size (while
   still retaining all of its Valdocs format characteris-
   tics (i.e. fonts, margins etc.), retrieve the file
   again.

3. Make any desired editing changes.

4. Store the file as a *Non-indexed Linear Valdocs file
   using the same TPM file name that it had previously.*
   (This name will be displayed as the default file name.)

5. When asked to confirm this -- press STORE, the file
   will be stored in linear Valdocs format *UNDER THE SAME
   TPM NAME THAT THE INDEXER ASSIGNED IT ORIGINALLY.*

The file will then be stored in the most compact format
possible, and when next retrieved, will be automatically
converted into the "normal" Valdocs format. This greatly
increases the number of files that you can store on a single
diskette. However, for now, headers and footers are lost.

*NOTE: THIS IS AN EXPERT OPTION. It is not recommended that
you use this feature without an understanding of TPM file
names as presented in Appendix G.*

## <C>ONFIGURE EDITOR

This option allows you to tailor the overall operating char-
acteristics of your editor to your particular liking.  With
this option you can:

1.  Turn the editor's "Auto-reform" on or off. Auto reform,
    adjusts the format of each paragraph to compensate for
    text insertions and deletions every time the cursor is
    moved off of a line on which changes were made.
    However, some people find it distracting to have the
    text constantly shifting position as they edit.
    Furthermore, auto-reform increases the amount of time
    to move between lines while editing. Therefore, it can
    now be turned off.

    > *NOTE: During an editing session you can reform the*
    > *current paragraph at any time by pressing the EDIT*
    > *key. The entire document may be reformed by selecting*
    > *the Document Reform option on either the CTRL O or*
    > *the CTRL Q Menu.*

2.  Turn "Auto Font Propagation" on or off.  With Auto Font
    Propagation on, each time you press a TYPESTYLES key
    the new character font "trickles" down through the
    entire document.  If you turn Auto Font Propagation off
    font changes will not "trickle" down UNTIL you move the
    cursor off of the line in which you made the font
    change.

3.  Choose whether to use the "<S>ame form for all views";
    or to have a different form for each view.  This is
    *a new and unique option,* so definitions are needed:

    View: A "window" in which a document may be created
        and/or edited.  Valdocs+ provides seven views, 1
        thru 7 and view "N" a special-purpose "Note page".
        Using all eight, you may have up to eight documents
        retrieved in the editor at any given time. You can:

    a.  Pass blocks of data back and forth between
        documents in different views,

    b.  Switch between views using the CTRL V menu, or

    c.  Switch between the view you are working in and
        the Note Page simply by pressing CTRL N.

    When you leave the editor and come back you will, of
    course, return to the view you were in when you left
    and at the exact place in the document that you were
    when you left. Likewise, when you enter or leave any
    view, you will be returned to where you left off.

**Form:** A document that always reappears in its original form after being edited, stored or deleted. A form may be your personal letterhead, a form-letter for mail merge, or simply a special page layout that you predefine so that you don't always have to change margins etc. And, it goes without saying that you could construct a "form" for use in a business or personal application.

When a form is in use, if the current copy of the form is stored, deleted, or otherwise altered, a new unblemished copy of the original will reappear in the Document window.

*Note: If you appear to have a document that "can't be thrown away", a form has been turned on. It can be turned off via Control Q.*

Forms may be:

> a. Of any length,
> b. Have any page size, margin setting, and header and footer information,
> c. Contain anything that can be placed in an editor document including: Pictures, Graphs and Spreadsheets as well as text.

You may have up to eight forms defined at any given time.

If you choose to have the *same form for all views,* the selected form will be active for *every* view. If you select a different form, it in turn becomes active for every view.

If you choose to have a different form for all views, then the #1 form is active for View #1, the #2 form is active for View #2, etc.

This second selection is quite useful: it allows one View to be used for letterheads, another for electronic mail forms, Active work may be maintained in another view, etc.


4. You can adjust "file protection delay".

The Valdocs editor normally "backs up" all work to disk following 5 seconds of keyboard inactivity. 20 to 30 seconds after that if no further keyboard activity is detected, the system commences to perform "background" housekeeping tasks.

The delay for keyboard activity can be adjusted to 1 second -- for rapid backup, delayed as much as 20 seconds if you wish to have very little disk activity, or turned off completely.

If turned off completely, backups of your work are conducted *only* when you switch to another module. As was the case in Valdocs Version 1, this will cause rather lengthy "protecting work" delays when switching modules. Furthermore, because *all* background housekeeping is turned off, virtual files will grow even more than usual.

These options are included to facilitate personal choices. The speed of your disks will greatly effect the exact choice you make. On RAMDISKS, delays of any type are essentially unknown; therefore, the default selection of 5 seconds need not be changed. On a hard disk, a setting of 20 will minimize disk activity and prevent most delays. On a floppy, one might prefer to turn the delay OFF, and pay the time penalty on leaving the editor. Conversely, to afford maximum protection to a novice user, a delay of 1 second may be best. Personal experimentation with this will soon show you which setting fits your personal operating style and system characteristics.


## <E>ntire document reform

This option performs the same function as the <R>eform entire document option on the CTRL O Menu.  The option is duplicated here for your convenience.

## <D>efine a form

As described above, a "form" is any editor document that has been *defined* as a form.  Creating forms is a simple two-step procedure:

> FIRST -- Prepare a document that is exactly the form you wish to use including all page-size, margin-settings, text, fonts and/or pictures of your choice.

> SECOND -- Use the CTRL Q "*<D>efine a form*" option described here to define that document as a form.

In addition to providing the means by which you can specify that a current document is a form, the *<D>efine a form* option allows you to:

1. Name and/or re-name forms.
2. Change the contents of a form (by editing the form and replacing the old form with the edited version).
3. Delete a form.

The editor works with forms in one of two modes.  It either uses the same form for all views; or it use a different form for all views.  You select the mode of operation using the CTRL Q "*<C>onfigure editor*" option; and may switch between modes at any time.  Here are some rules about forms:

*RULE:  The default form is a "New Document".  If no form has been defined a "New Document" form is used.  It is a blank form set for an 8"x11" page with left and right margins set at 1" and  7" respectively.*

*RULE:  The name of the form, along with the number of the view you are in, appears on the status line and in all menus that deal with forms and views UNTIL a document has been retrieved into a view; then the document name replaces the form name.*

*RULE:  A form is always "junior" to a current document.*

*RULE:  Creating and defining a new form and/or deleting a form will NEVER affect, alter, change or destroy a current document.*

*RULE:  Once defined, a form will not appear in a view until the current document in that view has been either stored or thrown away.*


## *DEFINING A FORM*

The Form Definition Menus you will see are slightly different depending on the setting of <S>ame form for all views. Remember, if "YES", you are selecting which of the 8 forms will be active for *every* view. Thus, if "YES", you are given a menu of forms from which to select. If you want to *change* one of the forms in any way (rename, create, delete), press HELP.

If "NO", forms are *always* selected. The form on each line *is already active* for the view which has the same number as the form. Essentially, you see the same menu -- as though you had pressed HELP above. By selecting a particular form, you alter the form *for that particular view and no other.*


From the CTRL Q Menu:

1. Select *<D>efine a form.*
2. Press RETURN.
3. Depending on the selection of *<S>ame form for all,*
      either press HELP, or proceed to the next step.
4. Choose the number of the FORM or VIEW that you wish
      to define/change/delete
5. RETURN
   a. To make the current document the new form for this
      view/form number press STORE.
   b. To change the name of the form selected; type the
      new name and press RETURN
   c. To delete the selected form, delete it's name and
      press RETURN.

NOTE: You will be asked to confirm all changes and/or
      deletions to protect you from typing errors.


      _____


## *CONTROL + V = THE VIEWS MENU*


```
┌─────────────────────────────────────────────────────────────────────┐
│ Please select a document to edit, then press RETURN.                  │
│                                                                       │
│ <1> _____   <5> _____  │
│ <2> _____   <6> _____  │
│ <3> _____   <7> _____  │
│ <4> _____   <N> New Document_____  │
└──────────────────────< UNDO to resume editing >──────────< 6:06 P >──┘
```


The Views menu provides you with information about the
status of the various views and allows you to switch from
the view you are in to any one of seven other views
(including view "N", the Note-page).


## *CHARACTERISTICS OF VIEWS*

When you retrieve a document, it is "viewed" in the Document
window. The Control V function allows you to look through
any of 8 separate Document windows, at 8 separate documents.

Thus, you can go to view 1, and retrieve a document, then to
view 2, and retrieve another document, etc.

This has several advantages over simply retrieving the
documents into a single view:

a. It is generally *much* faster to switch views than to retrieve and store documents.

b. As described earlier, each view can have a separate "form" associated with it.

c. Blocks of data can be "fetched" from one view into another.

The views are numbered 1 through 7, and the letter "N", for "note page". The number of your current view is shown in brackets at the lower left of the status line.

Next to the number of the view is the name of the document being edited. This may be the indexed file name of the document, the TPM filename, the name of the current form or others. However, in all cases, the *same* name will appear next to the number of the view when the Control V menu is invoked.

When you exit the editor, to go to some other module, and later return, you will be in the same view as when you left.


## SWITCHING TO A DIFFERENT VIEW

1. Press CONTROL + V
2. Select the view number desired, or "N" for the Note-page.
3. Press RETURN.


## CONTROL + N = THE NOTE-PAGE SWITCH

The "Note" view is different from the other views in that it can be accessed from any other view by pressing CONTROL + N. Similarly, if you are *already* in the "note page", you can transfer back to whatever other view was selected by pressing CONTROL + N.

If you had selected the N page from the Control V menu, CONTROL + N will have no effect.

The "note page" receives its name because of its ready availability for jotting down notes or quick reminders to yourself. Otherwise, it is *in no way different* from any other view. It can contain a complete document of any type, can have a form assigned to it, etc. Its difference is entirely one of *accessibility*.

## *CONTROL + B = THE BLOCK MENU*

```
┌─────────────────────────────────────────────────────────────────────────┐
│ Please select a Block option and then press RETURN.                       │
│                                                                           │
│ <M>ark block (beginning or end)        <G>oto placemark                   │
│ <U>nmark/delete block                  <P>lacemark set/reset              │
│ <C>opy block to cursor location        <S>tore block as a document on disk│
│ <R>elocate block to cursor             <F>etch block from another document │
└────────────────────────< UNDO to resume editing >──────────────< 2:49 P >─┘
```

A "block" is a piece of text which is marked off. Blocks may
be of any size, ranging from a single character to an entire
document.

The creation of a block requires that you mark one end, then
the other. You may mark either end of the block first, at
your discretion. However, if the beginning of the block is
marked first, the process is somewhat faster.

Block Markers are storable. However, they are not printable.
They are there for you, the editor or author.


## <M>ARK A BLOCK (Beginning or end)

All Block operations require that a block be marked.

Block-marked text appears in "reverse video" on the screen.
That is, the characters turn dark, and the dark areas of
screen light up.

> 1. Move the cursor to either end of the region you
>    wish to mark as a block.
> 2. From the CONTROL B menu, select *<M>ark block
>    (beginning or end)*.
> 3. Move the cursor to the *other end* of the region to
>    mark, and again select CONTROL B, *<M>ark.....*

*Note: You can bypass the Block menu to mark a block by
pressing CONTROL + the MAR REL key.*


## <U>nmark/delete a block

Once  marked,  a  block  remains  marked  until  either
deliberately unmarked, or Deleted.

> From the BLOCK menu,
>
> 1. Select *<U>nmark/delete block.*
> 2. Press RETURN.
> 3. Select *<U>nmark block.* (or *<D>elete block)*
> 4. Press RETURN.

As was the case with marking a block, you can also unmark or
delete a block directly from the keyboard, bypassing the
menu:

CONTROL + SHIFT + MAR REL  = Unmark block.

CONTROL + RIGHT DELETE KEY = Delete block.


<C>OPY BLOCK TO CURSOR LOCATION

With this option, a block of text can be repeated (copied)
into as many locations as desired, without having to remark
the block.

    1. Move the cursor to the location to which you wish
       to copy the block.
    2. Select *<C>opy block to cursor location.*
    3. Press RETURN.

This operation may be repeated as often as desired.

It too can be carried out directly from the keyboard.

    1. Position the cursor to the beginning of the block.
    2. *Delete* the block as described above using the
       CONTROL + RIGHT DELETE keys.
    3. Press CONTROL + UNDO. This "undoes" the deletion,
       returning the block to the place from which it was
       deleted.

Most deletions can only be UNDONE once. However, a deleted
block is special. *Using Control + UNDO, it can be undone as
often as you wish, until some other character it deleted.*
This technique can be used to Copy or Relocate a block
depending on how it is used.

    4. Move the cursor to the COPY destination.
    5. Press CONTROL + UNDO.
    6. Repeat steps 4 and 5 as often as you wish.


<R>ELOCATE BLOCK TO CURSOR

    1. Move the cursor to the location in the document to
       which you wish to relocate the block.
    2. Select *<R>elocate block to cursor location.*
    3. Press RETURN.

The technique discussed in the previous section can be used
even more easily to relocate a block:

1. Delete the Block with CONTROL + RIGHT DELETE.
2. Move the cursor to the destination of the block.
3. To return the block *still marked as a block*,
   press UNDO.
4. To return the *contents* of the block, without the
   block markers, press CONTROL + UNDO.


## <G>OTO PLACEMARK

This function scans the entire document looking for the
placemark selected. When found, it places the cursor on top
of the placemark and displays the surrounding portion of the
document.

From the BLOCK menu,
1. Select *<G>oto placemark.*
2. Press RETURN.
3. Type in the number of the placemark you want
   to go to, or select to goto the beginning of the
   marked block.
4. Press RETURN.


## <P>LACEMARK SET/RESET

It should be obvious that before you can goto a placemark
using the previous choice a placemark must first be set.


### To set a placemark

1. Place the cursor at the location where you wish
   a placemark.
2. From the BLOCK menu, select *<P>lacemark set/reset.*
3. Type the number (1 to 7) of the mark to be set.
4. Press RETURN.
5. Type in a name for this mark for easy reference.
6. Press RETURN.


### To remove (reset) placemark

1. Select *<P>lacemark set/reset.*
2. Type in the number of the Placemark to be
   reset (removed).
3. Press RETURN.
4. Delete the name of the mark.
5. Press RETURN.

## <S>TORE BLOCK AS A DOCUMENT ON DISK

Any marked out block can be stored as an individual doc-
ument.

From the BLOCK menu,
1. Select *<S>tore block as a document on disk.*
2. Press RETURN.
3. Select whether you want it to be indexed or
   non-indexed.
4. After the system makes a copy of the file, and
   compacts the information, it will ask you to name
   the document.
5. Type in the name for the new document.
6. Press STORE.

*NOTE:* *This copies the block of text over into a new
document and stores the it as a file. It DOES NOT
erase, or effect in any way, the text in the
current (original) document.*

Storing a block as a document has additional uses: first, a
document is shrunk to its minimum possible size in the
process of storing. Thus, if the entire document is marked
and stored, the resulting document is often many times
smaller than the original. Secondly, when a block is stored,
the same process which shrinks the document also "cleans"
it. Early in the development of the Version 2.0 editor,
documents with severe damage were often able to be partially
or fully recovered by marking the viewable portion as a
block and storing it.


## *<F>ETCH BLOCK FROM ANOTHER DOCUMENT*

This function enables you to "fetch" a block from another
view into the current view. Notice that you in effect "pull"
the data into your current document.

From the Block Menu:

1. Select *<F>etch Block from another document.*
2. Press RETURN.
3. Select the view-number of the view containing the
   document from which you wish to fetch the block.

   *Note: This menu lists only the names of documents in
   which a block has been previously marked.*

4. Press RETURN.

## *CONTROL + L = THE LOOK-FOR MENU*

```
┌─────────────────────────────────────────────────────────────
│ Please select a Look-for option and then press RETURN.
│
│ <A>gain (repeat Look-for)          <G>oto page number
│ <L>ook-for and/or Replace text     <B>eginning of document
│ <R>eplace text options             <E>nd of document
│ <C>ase sensitivity  ON             <D>ata Merge
└──────────────────────< UNDO to resume editing >──────────────< 2:51 P >
```

### <A>GAIN (REPEAT LOOK-FOR)

This function *repeats* the prior look-for action. If none was conducted, none will result. However, you may leave a piece of work while retrieved in a view and return to it much later and the defined look-for string will remain in effect. (It is actually stored in the file called EDITMSCx.TMP, where "x" is the number of the view in use. The "N" view uses the "0" file.)

### <L>OOK-FOR AND/OR REPLACE TEXT

This option is used *both* to define the text to look-for, *and,* if you like, to tell the system to *replace* the located text with something else.

From the LOOK-FOR menu:

    1. Select *<L>ook-for and/or Replace text.*
    2. Press RETURN.
    3. In the menu that appears, type in the character, word or phrase to be located.
    4. If you wish to replace the defined text with something else, enter that on the second line.
    5. Press STORE.

The system will first search for the defined text. If no match is found, you will be so informed and the cursor will remain where it started. Press STOP to halt the search.

If a match to the searched text is located, the cursor will be moved to the first character of the matched text, and you will be given three choices:

    a. To repeat the look-for again.
    b. To replace the found text with the REPLACE item on the second line, and,
    c. Unconditionally replace every occurrence of the defined text with the item from the second line.

*Note: If you place nothing on the second line, and tell the system to "replace" it with nothing, the found text is simply deleted.*

If you choose to replace only the particular occurrence, the system will do as you command, and then automatically perform the next look-for.

If you choose to Unconditionally replace all the system will proceed to pass thru the document making the changes. The system will display a count of the replaces in the Interaction window as the work proceeds.

*Note: An unconditional replace can be terminated with the* STOP *key.*


## *MULTIPLE LOOK-FOR AND REPLACE*

Above, you entered a single pair of items, one being the text to "look-for" and the other the text with which to "replace" it. You can actually enter up to *14 pairs of text to look-for and replace in a single pass thru the document.*

To enter consecutive look-for and replace pairs, instead of pressing STORE after entering the first pair, press a DOWN ARROW. Another Interaction window, identical with the first, will appear, while the contents of the first window will now be displayed in the *Document window.*

At the end of entering the second pair, another DOWN ARROW will allow you to enter a third pair, and so forth.

It is important to note that the system looks for the first pair first, then the second pair, etc. The fact that these are done in sequence allows you to use the *Look-for and Replace* function to conduct far more complex editing tasks than in any other system.

For example, suppose you have text where every line is terminated in a hard "RETURN", while paragraphs, having one blank line between them, are separated by *two* RETURNs. How could you remove the RETURNs from the end of every line, *without* collapsing the two returns between the paragraphs? With most editors, the answer is: *you can't.* However, the multiple look-for and replace mechanisms make this an easy task.

First, look-for the occurrence of *two* RETURNs, and *replace them with two RETURNs.* In other words, replace it with *itself.* Then, on the second lookfor, search for a *single* RETURN, and replace *it* with a space.

When the sequence starts, the system matches the first
character (a RETURN). It then compares it with the *second*
character. If it is *also* a RETURN, it will have found a
match for the first search condition, and will replace it
with -- two RETURNs. However, if that second character is
not a RETURN the first look-for will have failed, so it then
proceeds to the *second* look-for. If it is looking for a
RETURN, *bingo:* the single RETURN will be replaced with a
space.


## *SPECIAL CASES OF LOOK-FOR AND REPLACE*

The following special cases may be used:

1. Look-for RETURNs

The case above used this special case. To look-for a RETURN,
hold down the GRPH SHIFT (or ALT key on a QX-16) and press
the "'" (apostrophe) key to the left of the RETURN key. A
"⌡" (curly arrow) character will appear on the input line.
The system interprets this as an instruction to search for
the occurrence of a "hard carriage return" (a place where
*you* pressed the RETURN key) in your document. (You might
have noticed that whenever you enter a RETURN, a "curly
arrow" appears in the right margin.

You may look for more than one RETURN at the same time.


2. Wildcards

Wildcards allow you to look for approximate or close
matches, as well as "similar" cases.

Two wildcards can be used:

    "*" = any number of random text characters.
    "?" = any single text character.

If you were to look for "*ing" you would find *any* word
containing the characters "ing". For example, this would
find any of the following:

        telling
        following
        editing
        professionalizing
        searching
        etc.

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If you use "*ing" the cursor will be located at the *beginning* of each word. However, if you were to search for "???ing", the system will also find any of the above occurrences, but the cursor will be located 3 characters to the left of the "ing".


3. "Nothing Else" indicator

The "\" (backslash) character which is located next to the LEFT DELETE key can be used as part of a look-for to tell the system that you want to find a particular bit of text which is *not* followed by any other text.

For example, if you look-for "the\", you *will* find the word "the", but you will *not* find the word "then". Similarly, if you look-for "\a\" you would find the word "a", and no other occurrences of the letter "a" in your text.

As another example of use, if you tell the system to look-for "\????ing", you would find telling, helping or walking, but would not find charging, flying or pleasing.


## <R>EPLACE TEXT OPTIONS

This choice conducts a look-for as does the *<A>gain* choice, but whereas· *<A>gain* simply moves the cursor to the text if found, the *<R>eplace* selection offers you the same opportunity to look again, replace the single occurrence, or unconditionally replace all occurrences as are presented when first using the *<L>ook-for* options.


## <C>ASE SENSITIVITY ON/OFF

This choice allows you to further narrow and control your search activities.

If Case sensitivity is ON, and you tell the system to look-for "THE", it will not find "The", or "the". In these cases, the system assumes that a capitalized letter is different from the same letter in lower case.

Conversely, if Case sensitivity is OFF, and you tell the system to look-for "THE", it would find both "The" and "the". It assigns the same "value" for a "T" and a "t".

## <G>OTO PAGE NUMBER

This choice allows you to goto any page number in the document. You can go backward or forwards. For example, if on page 12, you can go back to page 9. And if on page 9, you could go forward to Page 12 (A simpler method of going forward to a particular page exists. See the "End of Document" section that follows).

When you GOTO a page, the cursor will be placed on the beginning of the first line of that page.

## <B>EGINNING OF DOCUMENT

This command takes your cursor immediately to the beginning of the document. Its operation is *very* fast, allowing no time to STOP on the way.

A CONTROL + W will also take you to the beginning of the document.

## <E>ND OF DOCUMENT

This command moves the cursor to the end of the document. Unlike moving to the beginning of the document, this requires that the document be "scanned" by the software. Scanning is a very complex process, but may be thought of as allowing the system to know your intentions. Are the margins at the end of the document different than they are at the beginning? Is the font the same? How about sizes and styles? The only way for the system to *know* what changes you may have made between where you are and where you want to go is to *look*.

*Enormous* improvements have been made: The Valdocs+ editor handles *far* more features (sizes, style, indent and outdent, micro-space justification and others) than did Version 1, yet the scan rate is about the same. Further improvements are planned which should further reduce scan time, perhaps substantially. The use of a RAMDISK noticeably decreases scan times.

When scanning *down* a document, the *page number* on the status line changes each time you cross from one page to the next. Also, when scanning you can press STOP, and the scan will halt at the point you have reached. These features can be used together to easily move forward to a particular page without using the *<G>oto page* option on the menu. The only disadvantage is that you cannot just set the page number and let it go -- you will have to STOP the scan at the desired point.

CONTROL + Z also issues the *<E>nd of Document* command.

## &lt;D&gt;ATA MERGE

This option allows you to merge text from a special "merge file" into selected points in the current editor document. A typical use for this feature is what is commonly called "Mailmerge".

In brief, this capability uses the "multiple Lookfor and Replace" option. The system performs a look-for on unique characters labeled ##1, ##2, ##3, etc. The data to replace is gotten from a particular file called "MAILMERG.INF".

Before the feature can by used you need to create a "Form" into which data from the merge file can be inserted. For a traditional Mailmerge operation, this would be a form letter, but in Valdocs+ it can be any sort of document into which you wish to merge specific data at specific points; you can even use this as a report generator.

The Use of *&lt;D&gt;ata Merge* for handling a "mailmerge" operation is discussed in detail in Section 4 of this manual, and will not be repeated here.

All Data merge operations presuppose that the MAILMERG.INF file is on the same drive the editor is currently using.

When *&lt;D&gt;ata Merge* is selected, the following options are presented:

> *&lt;M&gt;erge with current document* -- Choose this option to replace all occurrences of each merge code in the current document with the text from the merge-data file record as currently displayed in the document window.

> *&lt;E&gt;dit Merge-codes* -- This option allows you to change the merge-codes for the merge-data file record displayed on the screen. Use this if you created a form that used merge-codes other than ##1 etc.

> *&lt;N&gt;ext record* -- Selecting this accesses the next record in the merge-data file. It is displayed in the document window and may be edited or merged as above.

> *&lt;P&gt;revious record* -- This accesses the previous merge-data file record for processing.

> *&lt;F&gt;irst record* -- This accesses the first record in the Merge-data file for processing.

> *&lt;L&gt;ast record* -- this accesses the last record in the merge-data file for processing.

## _CONTROL + M = THE MISCELLANEOUS MENU_

```
┌──────────────────────────────────────────────────────────────────┐
│                                                                    │
│  Please select an item and then press RETURN.                      │
│                                                                    │
│  <C>hange data disk                  <E>rase screen, refile original doc.│
│  <A>vailable space/current file size  <D>elete to end of document  │
│  <L>og in different disk drive                                     │
│                                                                    │
│  ─────────────────────────────< UNDO to resume editing >───────────────< 2:53 P >│
└──────────────────────────────────────────────────────────────────┘
```

### <C>HANGE DATA DISK

_RULE: NEVER change the DATA disk without first going through
       Control M._

The reason is: Each time a DATA disk is loaded, the system
makes a "memory map," of the contents of the disk.   If
later, you change the DATA disk, without first "telling" the
system to change to a new memory map, _you risk the loss of
data._

From the Miscellaneous menu

   1. Select _<C>hange data disk._
   2. Press RETURN.


### <A>VAILABLE SPACE/CURRENT FILE SIZE

When you choose this option from the CTRL "M" menu, it will
tell you exactly how much space (in characters) is available
on the current data disk. The system then divides 3000 into
the number of characters to determine approximately how many
"pages" of space remain unused. This figure gives a rough
estimate at best. Exactly how many pages can still be input
depends on _numerous_ variables, including:

   1. The write protection delay.
   2. How often you STORE and RETRIEVE.
   3. The file formats you STORE in.
   4. How much editing you do on the file.

and other variables.

The system then tells you how many characters exist in the
current file. Note that this is not the _size of the file._
This is the _number of characters in the file;_ how much _TEXT_
you actually entered. It computes how many pages this equals
as above -- equating 3000 characters equal to 1 page. While
only an approximation, it will generally be more accurate
than the pages remaining estimate because the variables
effecting the answer are fewer and are directly related to
the formatting you use.

## <L>OG IN DIFFERENT DISK DRIVE

The subject of logging into other disk drives is covered in detail in Appendix G. It is of the greatest use to a user of a Hard disk or RAMDISK. this option is also available on the CONTROL Q menu.


## <E>RASE SCREEN, REFILE ORIGINAL DOCUMENT


Whenever data has been typed onto the screen, or if a document has been recalled through the INDEX (or RETRIEVE) key, the data on-screen can be erased.

From the Miscellaneous menu:

    1. Select <E>rase screen, Refile original Doc.
    2. Press RETURN.
    3. Select <T>hrow away current document.
    4. Press RETURN.

This operation cannot be UNDONE.

If you are editing a document which you retrieved from the index or as a non-indexed file, you are working on a temporary copy. This operation throws away the temporary ONLY. The original is uneffected.

However, if you were creating the document from scratch, this temporary copy is the ONLY copy -- and once it is thrown away -- it is gone forever.

If you defined a form and it is active in the view you are working in, the form will be re-displayed when this operation is completed.


## <D>ELETE TO END OF DOCUMENT

This is very useful for "cutting up" a long file into two or more parts for easier handling.

    1. Place cursor after the last character you want saved.
    2. Press CONTROL + M.
    3. Select <D>elete to end of document.
    4. Press RETURN.

NOTE: This function deletes FROM THE CURSOR, "to the end of the document." The text so deleted cannot be UNDONE.

## *CONTROL + O = THE ON-SCREEN FORMATING MENU*

```
┌─────────────────────────────────────────────────────────────────────
│ Choose an On-Screen Formatting option and then press STORE
│
│ <C>entering (ON/OFF)              <L>ine spacing (1, 1.5, 2, 3)
│ <J>ustify (ON/OFF)                <E>nd of section, go to new page
│ <P>aragraph indent                <R>eform entire document
│                      ─< UNDO to resume editing >──────────< 2:48 P >
└──────────────────────────────────
```

### <C>ENTERING ON/OFF

When centering is ON, all lines from the *current line
forward* will be centered.

If spaces are inserted before the text of the line, these
spaces are also centered, so the actual text will appear off
center to the right.

### *TO CENTER A REGION OR LINE*

1. Place the cursor anywhere on the line to be centered.
2. Press CONTROL + O.
3. Select *<C>entering*.

   If centering is OFF, press RETURN, and the indicator
   will toggle to ON. Conversely, if already ON,
   pressing RETURN will toggle to OFF.

4. Press UNDO to return to the editor.
5. Move the cursor down the document to the first
   line you do *not* want to center.
6. Turn centering OFF by repeating steps 1 through
   3 above.

The command to "turn centering on" is actually stored by the
system at the *end* of the prior line. Therefore, if the line
*before* your centered line or region is *deleted*, the
centering will "mysteriously" turn OFF.

When scrolling through centered lines with the up or down
arrows, the cursor will rest on the first character of the
line. When any action other than moving vertically through a
centered line is taken, such as pressing the right or left
arrows, typing any character, pressing a typestyle key, etc.
etc, this tells the editor you want to edit the line, and it
will "collapse" the line to the right. When you leave the
line, the text will center again.

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## <J>USTIFY ON/OFF

This option follows rules which are essentially identical to that of centered lines as discussed above. However, there are some additional rules and considerations that are relevant to justification only.

Justification on-screen is accomplished by inserting an approximately equal number of *individual dots* (pixels) between each word. This is called micro-space justification and gives an almost typeset appearance to justified text.

Just as spaces inserted before a centered line can upset centering, so spaces before a justified line can cause the editor to cease micro-space justification *on-screen*, although the print-out will still be micro-spaced.

If it is necessary to insert spaces before a justified line for formatting purposes, it is better to use "non-justifiable spaces". A non-justifiable space is one which remains *one character wide* and is not subject to adjustment by the system. To insert a non-justifiable space, press CONTROL + THE SPACE BAR.

Non-justifiable spaces are also used to prevent specific words from separating. For example, numbers, dates and proper names generally look better when intervening spaces are *not* justified. Use CONTROL + SPACE to "lock the words together".


## *PRINTING JUSTIFIED TEXT*

When printers of modest capability are in use, the printed output will be of the classic "hard space justified" variety. This allows justification on even the simplest printers.

However, when more capable printers are connected to the system, micro-space justification can also be printed. the system then inserts *graphic spaces* of dot width between each word, just as it does on-screen, resulting in a beautiful printed output.

However, although certain printers are capable of this technique, they may slow down *drastically* when printing in this mode (The printhead will appear to jerk back and forth). On such printers, micro-space justification can be toggled off from the PRINT menu, and hard space justification can be used. This can be especially useful for "drafts": some users choose to use the slower but more attractive method for a final copy.

On other more powerful printers, of which Epson's LQ-1500 is a prime example, micro-space printing is no slower than character printing. Thus, micro-spacing is always used.

## <P>ARAGRAPH INDENT

This option allows you to specify a paragraph Indent (or an "Out-dent) in terms of inches from the left-hand margin. When set to other than zero the cursor is placed plus or minus the left margin by the distance specified on the input line each time RETURN is pressed.

From the CTRL O Menu:

>    1. Select *<P>aragraph indent.*
>    2. Press RETURN.
>    3. Enter the desired offset in inches (and/or decimal fractions of inches)
>
>       a. An offset of 00.50 would mean that the first word of each paragraph will be indented one half inch.
>
>       b. An offset of -0.50 would cause the first word in each paragraph to start one half inch to the left of the left margin.
>
>    4. Press RETURN.

## <L>INE SPACING

From the Onscreen Menu;

>    1. Select *<L>inespacing (1, 1.5, 2, 3).*
>    2. Press RETURN until the desired spacing is high-lighted.
>    3. Press STORE.

*NOTE: Line spacing is not currently displayed on-screen. However, the number of lines per page as displayed in the "Line=" section of the Status line will change.*

Unlike earlier versions of Valdocs, you may have numerous different linespacings within a single document, and when editing, the format of a region will not be disturbed.

## <E>ND OF SECTION, GO TO NEW PAGE

From the CTRL O Menu:

>    1. Select *<E>nd of section, go to new page.*
>    2. Press RETURN.

When this option is selected, regardless of where you are on the current page, you will be moved to the next *displayed* line, and the page and line counters on the status line will show that you are on Line One of the next page.

The "page break" is indicated by the presence of a "double curly arrow" (⟫) in the right margin.

The page break can be deleted by deleting the "double curly arrow" as though it were a RETURN.

You may add text in front of the page break, and the line one of the following page will *remain* as line one. However, if you add so much text that the page break is pushed past the last line of the page, you can end up with a "mysterious" blank page printing in the middle of your document. Should this occur, simply delete the double curly arrow to delete the page break.

### <R>EFORM ENTIRE DOCUMENT

This feature is identical to the *<E>ntire Document Reform* option on the control Q menu.

When selected, your cursor will be moved to the beginning of the current document, and any margin changes, and the like will be enforced on the entire document. This is especially useful if *<A>utomatic Reform* on the Editor configuration menu is toggled to OFF in order to guarantee that the format of the document is perfect before printing.

### *CONTROL + P = THE PAGE MENU*

```
Choose a Page Formatting option and then press RETURN

<L>eft/Right margins                    <H>eader/Top margin
<P>age dimensions                       <F>ooter/Bottom margin

─────────────── < UNDO to resume editing >─────────── < 2:52 P >─
```

### <L>EFT RIGHT MARGINS

The locations of either, or both, margins can be changed using this menu.

These settings effect the width of a screen line and the width of the printout accordingly. Margin changes can be entered with or without text on the screen.

## *CHANGING MARGINS*

From the Control P Menu:

1. Select *<L>eft/Right margins.*

2. Press RETURN.

3. Select which of the two margins you wish
   to modify.

4. To enter the numeric value for the margin:

   a. Press RETURN.
   b. Enter the Value.
   c. Press RETURN again.

5. To enter the margin graphically:

   a. Press STYLE.
   b. Use the LEFT & RIGHT ARROW keys to move the
      "margin line" to the desired position.
   c. Press RETURN.

6. After one margin has been altered, you may alter the
   other before resuming editing.

7. Press STORE when both margins are adjusted to your
   satisfaction.


Margin changes proceed to the *next* margin change. Therefore,
to change margins beyond the point where a change occurs,
the second change must first be turned off. This can be done
by changing the margins at point where they were set. This
involves going thru the menus as above. Alternately, you can
delete the line *just before the margins*. As was the case
with centering and justification, the controls for the
margins are contained at the end of the *prior* line. Thus, by
deleting that line, you delete the margin changes at that
point, and the previously set margins (or the defaults) can
"trickle" through.

In the Version 1 editor, when a margin change was put into
effect, the entire document had to be reformed before
editing could continue. Among the advantages of the virtual
file system now in use, is that Margin changes only need
physically propagate in the immediate region of the change.
You are able to continue editing again almost immediately.

Margins cannot be set wider than the *page width* as defined
in the following section. Similarly, a page width cannot be
set more narrow than the Margins.

## <P>AGE DIMENSIONS

Page dimensions must be changed to accommodate the use of *paper* with different dimensions. Paper may be as wide as 17" and as long as 17".

The maximum width of a line in Valdocs+ is now 240 characters. Thus, compressed characters can fit across the full width of the largest paper size commonly available in printers.

To change Page dimensions:

> 1. Select *<P>age dimensions.*
> 2. Press RETURN.
> 3. Use UP, DOWN, LEFT and RIGHT ARROW keys to adjust
>      the size of the displayed "page" until it fits
>      that of the paper you plan to use.

*Each press of the appropriate arrow key will change the size of the page by 0.25 inches (.635 mm). In standard type font, 1 inch (2.54 cm) = ten (10) keystrokes.*

> 4. Press STORE.

To repeat the information from the previous section, the *page width must be equal to or wider than the Right margin.*

## *TOP AND BOTTOM MARGINS*

The top margin is defined as the physical number of lines between the top edge of your paper and the first line of text (Line 1 as listed on the "Line=" portion of the status line). The bottom margin is defined as the physical number of lines between the last entered line of text and the bottom edge of the paper.

The top margin, the header lines, bottom margin, footer lines, the phy*sical characteris*tics of the printer and the *physical size* of the paper interact in a fairly complex, but completely predictable way.

> 1. The top margin cannot be less than the number of
>    *unprintable lines* declared in the printer setup.
>    Unprintable lines are a *physical* characteristic of
>    your system. See Appendix B for a complete discussion
>    of this.

2. If a header exists at all, it occupies a certain number of lines. The top margin cannot be less than this value, or you are instructing your printer to put a header in the same area as other text. Again, this is a logical and physical impossibility.

3. *Thus, the minimum value of the top margin cannot be less than the sum of the unprintable lines and the line on which the header starts.*

Similarly, the bottom margin cannot be less than the number of footer lines. Also, because the system reserves at least one line for the page number, it cannot be less than 1 in any event.

The area of the page into which text can be entered is thus the physical size of the page minus the top and bottom margins. What remains are the lines into which you may enter text. The editor numbers the *usable* lines starting at 1 and totaling a maximum of whatever physical space remains after the top and bottom margins are subtracted from the page size.

If you attempt to set the top or bottom margin in such a way that it violates any of these *physical limits*, the system will refuse your instruction to change.

Thus, if the system refuses to accept a change you enter, change one or the other of the physical limits: the header or footer starting line, and the number of unprintable lines at the top.

## <E>NTER HEADER TEXT (or footer text)

1. Select *<E>nter header text.*
2. Press RETURN.
3. Enter your header or footer text on the two lines provided. Each line may be up to 63 characters in length.
4. Press STORE.

The following rules may be applied to both header and footer text:

a. The text may be left either flush LEFT, Flush Right or centered.

b. If flush left or right, it lines up with the *physical edge of the paper.*

c. If you wish the text to line up with the left
   or right margin, *you must add spaces to the left
   or right of the text string.*

d. If you add spaces to the left or right of the line
   and instruct the system to center the lines, they
   will be displaced to the left or right (Just as
   occurs in normal editing). Accordingly, to
   center a header or footer, *do not add extra spaces.*

Page numbers may be added to a header or footer line by
moving the cursor to the desired position and pressing the
**TAB  SET**  key.  A  graphic  triangle  will  appear  at  that
position. The following rules should be applied:

a. If the page numbers are to be placed flush RIGHT,
   spaces must be added after the triangle so that it
   and the spaces occupy the same number of character
   positions as the largest number in the document.
   In other words, if the number of pages were in the
   hundreds, you would need to add 2 spaces after the
   triangle to allow space on the header or footer line
   for the numerals.

b. You can create "chapter" number series by adding a
   chapter or section number as *text* followed by
   appropriate dashes, dots or commas to separate them
   from the page numbers. Follow that by the TAB SET
   key to insert the page numbers. This permits you to
   create page numbers like "2.1", "2.2", or "3-1",
   "3-2" etc.

# PRINT

At some point in time, everyone who uses a computer does some work of which a "hardcopy" is desired. At that time, press PRINT. This is true of every Valdocs module. However, the Valdocs Editor uses a broad range of system capabilities to produce a printout. This is when two modules known as the *Print Spooler* and the *Formatter* go to work.

Press the PRINT key:

```
Please choose the document you wish printed.   You may also set
the default printing selections.
<D>isplayed Document                    <S>et Printing Default Values
<I>ndexed Document(s)

       .
─────────────────────────< UNDO to resume editing >────────────< 3:06 P >─
```

When you request the system to print a document, the system builds a "spool file". That is, the system creates a file which is formatted complete with all the codes to manipulate your specific printer.

Once the "spool file" is created, the print mechanisms no longer refer to the original document *at all*. Thus, you can retrieve the original, edit it, or delete it without effecting the progress of the printing. The printing of the document will continue in the background.

Furthermore, once printing starts, you are free to leave the editor and use *any* other Valdocs program module. Printing will not be interrupted. However, if the activity you choose involves heavy disk usage, printing will slow down markedly.

Furthermore, since the "spool file" is located on the currently logged-in Data disk, you will not be permitted to log into another disk while spooling is in progress.

Printing may be halted at any time by pressing the red STOP key. Since the STOP key can halt numerous operations in the system, which *might* be going on at the same time, the system can't guess which action you want to STOP. Therefore, it temporarily suspends *all* operations and asks you *which* operation you wish to terminate.

## <D>isplayed Document

The displayed document is defined as any document which is currently residing in the editor.

*Note: If you had just retrieved the current document it will have to be fully copied into memory before any print activity except a screen-dump is done.*

    1. Select *<D>isplayed Document.*
    2. Press RETURN.

The current document will be formatted, and printing will commence. As described above, once printing starts the current document can be stored, edited, or deleted without interrupting the printing task.

## <I>ndexed Document(s)

    1. Select *<I>ndexed Document.*

    2. Press RETURN.

    3. The name of the most recent file stored will appear in the interaction window. If you wish to print only this one file, press RETURN.

    4. If you wish to print more than one file, or if the name presented is not the file you wish to print, press INDEX.

    5. The document index for that drive will be displayed. Use the UP and DOWN ARROW keys to position the cursor and press RETURN to select each file you wish to print. Press RETURN again to *unselect* a file.

    6. *The files will be printed in the order in which you mark them.*

    7. When all files to print are selected, press STORE.

    8. You have the option of printing the selected files as separate documents, where each will have its own numbered series, (The starting number for every set will be the same, and is established in the *<S>et Printing Default Options* menu), or as one document, so that each file selected will be printed with a consecutive number series, one after the other.

    9. The first file will be formatted, and printing will commence. While the first file is printing, the second file will be formatted. Printing slows down when formatting is in progress.

If the documents you wish to print are not on the currently logged-in drive, you will need to UNDO out to the editor, and use the CONTROL M L (log a different disk) or CONTROL M C (change disk) options to enter the correct index.

## <S>et Printing Default Values

The Printing default values allow you to modify a great many variables effecting the appearance of your printed output as well as to change some of the physical operations that the printer will conduct. Once set, these values remain the same until deliberately changed, even if the machine is powered off in the interim.

The Printing Default Menu works somewhat differently from other menus in the system, requiring you to proceed down the left column and then down the right column of choices in sequence.

1. Select *<S>et Printing Default Values.*

2. Press RETURN.

3. Enter the changes as desired on each line of the menu:

    a. *Don't print before [NEW] pg.# 1*

        Type in the page # of the first physical
        page of the document which you wish to
        have printed. For example, if you want to
        start printing with the 8th page of a docu-
        ment, enter an "8" on this line.

    b. *Don't print after [NEW] pg.# 9999*

        Type in the page # of the *last* physical
        page of the document which you wish to have
        printed. If you were to enter an "8" here
        also, *only* the 8th page would be printed.
        If the number on this line is greater than the
        number of pages in the document, you will
        print from the first page selected all the way
        to the end.

    c. *Start numbering with pg.# 1*

        Type in the number you want printed on the
        first page which is printed. In the example
        above, that 8th page could be given the number
        "123" or any other number between one and

9999 which you enter. The next page printed
out of that document will be given the next
number.

NOTE: *With this set to page #0, the headers and
footers, including page # will not be printed
on the first page. The headers and footers
will begin on the second physical page.*

    d.   Number pages (Y/N)   Y

If set to "N", page numbering will be
turned off.

    e.   Multiple copies (1 to 99) <u>1</u>

Type in how many copies of the same
document you want printed.

    f.   Correspondence Quality (Y/N) Y

This allows you to choose between the faster
but poorer print quality *Draft Mode,* and the
slower printing but better print quality
*Correspondence Quality Mode.* This only
applies to dot-matrix printers. See Appendix
B for a discussion of print qualities.

    g.   Continuous paper supply (Y/N)   Y

This allows you to switch between printing
on single sheets of paper, such as letter-
head, or on continuous form (perforated
pages) without going via the SETUP program.

    h.   Micro-justify  (Y/N)    N

Micro-justification of printed lines results
in a very attractive output, however, on
slower printers, it can reduce throughput
drastically. Thus, when slower printers
(Such as the Epson FX-80) are selected, this
choice appears, allowing you to turn micro-
space justification on and off. If this is
off, *Full Character justification* is used.
See Appendix B for details.

4. If you want these settings only for this printing, so that the previous defaults will remain in effect after this document or set of documents is printed, press UNDO.

5. To make the changes entered permanent (until you go in and change the settings again) press STORE.

6. If the changes are temporary, *now* select the document(s) to print. Your temporary settings will be used for this print run *only.*

7. UNDO to go to the editor.

# INDEX and RETRIEVE

An index is, first of all, an alphabetical list of names, subjects, contents of pages; it is a catalog.

The index is Valdocs' filing system for ALL your documents.

When you enter INDEX from an application, it shows the CURRENT type of Indexed files in the display. From the EDITOR, you will see your editor files, from SPREADSHEET, spreadsheet files, etc.

Use the PRIOR/NEXT page keys to "leaf" through the INDEX displayed. CTRL/UP or DOWN arrows to move to the beginning or to the end of the document.

While in the INDEX, by pressing the INDEX key again you can look at ALL TYPES of Valdocs Indexed Files on the data disk. If you want a printed out list of your INDEX file names, press PRINT. You will be able to get a printout of the current files shown on the screen, or of the entire index.

When you Cross-index the index you actually build a list which is a sub-set of the main index. All of the files on this list can be retrieved, deleted, etc. Also, if you press PRINT you are able to print out the list itself.

Careful selection of names to use in the index is important. You may use up to 110 characters, allowing quite lengthy names. If you are used to coming up with cryptic 8 character names for use with some other system, it may actually take you a while to break the habit!. Long, carefully thought out names can make retrieving a specific file a snap -- even in a *hugh* index.

For example, when you write letters, I find it a good idea to have the word LETTER as the first word in the indexed name: then the name of the person to whom it is addressed, and then a bit about the topic. There is no need to enter a date because all indexed files are *automatically* filed by date. Later, if I want to find that letter, I just cross-index on the word letter and the person's name -- I will automatically get a list of *every* letter to that person. Pulling out *the* letter is trivial.

There is *lots* of power in this indexing system -- but you must take the time to work out a usage plan that fits your needs if that power is to be realized.

**THE INDEX:**

```
┌───────────────────────< 2490K chars left on Drive BO >──────────────────────
│ Please select an option and then press RETURN.
│ (INDEX to select other indexes)
│
│ <S>elect document to Retrieve        <C>ross-reference this index
│ <D>elete documents                   <M>ove display to specific date
│ <R>ename a document                  <A>lternate display format
└───────────────────────< UNDO for Spreadsheet >──────────────< 8:16 P
```

### *INDEXER BASICS*

1. To go to PRIOR PAGE, hold down SHIFT key,
   and press UP Arrow. If the cursor is
   *in the document window* you can *also* just
   do an UP ARROW at the top of the page.

2. For the NEXT PAGE, hold down SHIFT key,
   and press Down Arrow. If the cursor is
   *in the document window* you can *also* just
   do a DOWN ARROW at the bottom of the page.

3. To go to the first document in the INDEX, hold
   down either CTRL key, then press UP arrow.

4. To go to the *last* document in the INDEX, hold
   down either CTRL key, then press DOWN arrow.

5. At the upper right of the document window you will
   see an indication of "more prior" and/or "more next".
   These exist to give you some relative idea as to
   where you are in the INDEX.

6. At the upper left of the Document window you will
   see a count of the total number of documents stored
   in this INDEX.

7. If you try to enter an index, and no files have been
   indexed, that fact will be reported in the Inter-
   action window.

8. If you *are sure* that there are files in the index,
   but the indexer says there are none, there are three
   primary reasons this might occur:

   a. You are looking at the index of the
      wrong tool. Let's say you're in the
      Spreadsheet, but forget and think you're
      looking for Editor files.

b.  You are logged into the wrong drive or user
    area. If the files were on user area zero
    (see Appendix G) but you are now on user
    area 10, all of your files might appear
    "lost".

c.  The index is a Version 1 index. The
    Valdocs+ indexer simply finds indexes to
    be missing if it has not been converted
    from Version 1 to Valdocs+ format with the
    IUTIL program (See Appendix C).

## <S>elect a Document

This function picks a document from the index and hands it
over to the program module which is currently using the
index. The name of the calling index function is displayed
on the first menu line. Thus, if you are selecting for the
editor, the line will say: *<S>elect a document to Edit*. If
you are selecting for COPYDISK, the line will say *<S>elect a
document to COPY*, etc. etc.

If the application can only use one document at a time, as
soon as you select the document by positioning the cursor
and pressing RETURN, the document will be passed over to the
application. However, if the application can process a *list*
of indexed files (such as to MAIL, PRINT or COPY), when
RETURN is pressed an asterisk will appear next to the
selected document, and you will be free to move the cursor
to select yet another document.

When you are finished selecting, press STORE.

## <D>elete documents

From the INDEX:

1.  Select *<D>elete documents.*

2.  Move the cursor to each document to be deleted.

3.  Press RETURN at each file.

4.  Press STORE when all the files to be deleted have
    been marked.

5.  Once you delete documents, *there is no way to get
    them back.* Therefore, the system gives you one last
    chance to change your mind. If you are satisfied
    that you have chosen the correct files to delete,
    select *<Y>es, delete them and their references.*

If you have made an error, by choosing *<N>o, I want to keep them*, the delete process is cancelled and you can start over.


## <R>ename a document

From the INDEX:

    1. Select *<R>ename a document.*
    2. Press RETURN.
    3. Type the new name over the old name.
    4. Press STORE.

Renaming a document has no effect on the document what-so-ever.


## <C>ross-reference this index

Especially when used in large indexes, cross-referencing is an enormously powerful tool.

From INDEX:

    1. Select *<C>ross-Reference this index.*
    2. Press RETURN.
    3. Type in the keyword(s) you want to match.

    When you type in words to "match", the system assumes that you intend the word "and" between each word. In other words, if you enter:

        Apple Peaches Pumpkin

    The system will only report that a file matches if its indexed file name contains Apple *and* Peaches *and* Pumpkin.

    However, if *you* type the word "or" between the words, like this:

        Apple or Peaches or Pumpkin

    the indexer will report that a file matches if its name contains *any* of the keywords.

*Note: It is not necessary to type in the keywords so that the spelling is perfect. You can use the same "wildcards" as you can in the editor's lookfor function, "\*" and "?" to find partial or close matches. See page 65 for a discussion on the use of wildcards.*

4. Type in the keywords you want to *exclude*.

   For example, you might want to see everything
   *except* your letters. Then, enter the word
   "letter?" on the exclusion line.

   Exclusions can also use *and* and *or*, as well as
   wildcards.

5. If you wish to limit the search to a particular
   range of dates, enter the desired time period
   in the provided space, following the format of the
   dates already presented (MM/DD/YY).


*Application Note: Here's an example of using the elements of
the system in a powerful way. Use your wordprocessor to make
an "invoicing" form. Then imagine using these capabilities
to "Find all the invoices for Mr. Smith which are not PAID,
which were written between 1 January 1984 and 3 September
1985......." As stated before, the power of the indexer is a
function of how much thought you give to the choice of
information included in the Indexed file name.*


6. When all search data have been entered, Press
   RETRIEVE.

7. Watch the Document Window. As matches are found,
   each is written in the Document window.

8. You may allow the entire index to be searched, and
   the system will show a message at the lower left of
   the Interaction window when no more matches are
   found.

9. If the name of a specific document for which you are
   searching appears in the Document window, press STOP
   to terminate the cross-index operation.

10. If no matches are found, you will be so informed.
    Either the item in fact does not exist, or your
    search was too narrow. Perhaps the spelling is
    different than you think. Try wildcards.

11. Those items which match the search criteria are now
    on a *list*. This list of documents can be massaged
    or further manipulated. You can select from it, go
    back and use different criteria to add more files
    to it, remove items from the list, etc. Remember,
    by pressing PRINT, you can print the list itself.

## <M>ove display to specific date

The entire main index can be positioned to a specific date.

1.  Select *<M>ove display to specific date.*
2.  Press RETURN.
3.  Type in the date you want displayed.
4.  Press RETRIEVE.
5.  To access files before and after use SHIFT DOWN
    ARROW or UP ARROW.


## <A>lternate display format

This format forces the display to show two lines for every
entry, and displayed the files size in K under the date.

From the INDEX:

1.  Select *<A>lternate display format.*
2.  Press RETURN.
3.  This will give you an index alternating each file
    name with the file size.


## *To view INDEXes of other applications (Draw, Mail, etc.)*

```
┌────────────────────< 2522K chars left on Drive B0 >───────────────────┐
│ Please select the document type you wish to use:                      │
│                                                                        │
│ <E>ditor                          <C>ardfile                           │
│ <D>raw                            <P>aint                              │
│ <S>preadsheet                     <O>ther                              │
│ <V>aldraw                                                              │
└──────────────────< UNDO for prior menu >─────────────< 3:04 P >─┘
```

From the INDEX:

1.  Press the INDEX key, a second time.
2.  Select the document type you want.
3.  Press RETURN.
4.  This will put you in the INDEX of that type.

If any indexed documents of the selected type exist, the
index will be displayed in the Document window. You may
choose another index type to see, or press UNDO to
manipulate that index. At the current time, the SELECTION
choice on the indexer's menu will not function, since the
editor cannot retrieve Spreadsheet files, and the Draw
program can't retrieve Editor documents, etc. You can
however delete documents and conduct other maintenance.

## *THE RETRIEVE KEY*

Enter name of document to Edit, then press RETRIEVE.
This entry is most recent; press INDEX for direct selection.

Edit ¦****** " COPYDISK "
¦ Joanie's FINAL edited version, #IV

―――――――――――――――――――――――< UNDO for Editor >――――――――――――――< 1:33 A >―

The RETRIEVE key is active in nearly all Valdocs' program
modules. It provides far more power than meets the eye, and
is worthy of mention at this time.

1. When RETRIEVE is pressed, the *most recently stored file*
is presented on the interaction window automatically. If
RETRIEVE (or two RETURNs) is pressed, the file will be
brought into whatever application you are in.

2. If INDEX is pressed, you can enter the index directly in
SELECTION mode, and choose the document(s) by positioning
the cursor and pressing RETURN.

3. If INDEX is then pressed a second time, you will be given
the full "cross-indexing" menu.

4. You may also erase the name of the most recent file using
the delete keys, or by writing over it, and enter keywords
to search for directly on the RETRIEVE line.

*This works exactly like the "Match These" selection on the
cross-indexing menu. The system assume the word "and"
between every word unless you place the word "or" between
them. Again, wildcard characters ("*" and"?") may also be
used.*

# THE VALDOCS⁺ SPREADSHEET

## What is a Spreadsheet?

Anyone who has ever had to use accounting sheets for taxes, receipts and expenditures, or inventory, will welcome the versatility of this easy-to-use spreadsheet.

A spreadsheet is an electronic "all-in-one" version of the accountant's columnar pad, pencil, and calculator, with one exception: The "sheets" are much larger. In fact, if spread out into a single sheet it would measure as large as 51.2 ft. wide by 15.6 ft. long, an area of 798.7 sq. ft. To cover an area this size would require 1222 sheets of 8.5 in. X 11 in. (21.59 cm X 27.94 cm) paper!

Spreadsheet forms can be easily constructed to suit any need. Use it as an accounting form for personal income and tax records, your family budget or business payroll records, inventories, or credits and debits, etc.


## Some Spreadsheet Basics

Like an accountants pad, a spreadsheet is divided into lines (or rows) and columns.  On the screen you will see:

1. The Column Ruler – Along the top of the screen. It identifies by letter, (A, B, C, *etc.*) the columns displayed on screen.

2. The Row Ruler – Running down the left-hand margin. It identifies by number, the rows that are displayed on screen.

3. The Pointer – The large rectangular "cursor" displayed on screen.  The pointer is one column wide and one row high.  It occupies one "Cell" of the Spreadsheet.

4. The Status Line – Along the bottom of the screen. It shows, at the left, the contents of the "cell" the Pointer currently occupies.  On the right the address of the cell the pointer is in is displayed.

**Some Definitions:**

CELL — A "box" or "blank" into which you may write
 information *ie.* text, numbers or formulas. Each
 cell is one column wide and one row high and has a
 unique "address" or identifier.

CELL ADDRESS — Cells are referred to by the letter of the
 column and the number of the row that they occupy.
 For example: The cell in the upper left-hand corner
 of the spreadsheet is called "A1" because it is in
 column A and row 1.

**Moving around the Spreadsheet:**

You move through the spreadsheet by moving the pointer. You
can do this with the ARROW keys in the Editing Group. The
SHIFTed Arrow keys work too, just as in the Valdocs Editor,
for Prior Page and Next Page; the SHIFTed Left and Right
arrows shift the entire display left or right one full
screen (less one column so you have visual continuity).

Just as in the editor, you can also:

1. Use the "Look-for", or CTRL L Menu to <G>o to... any
 cell address you specify
2. Use CTRL W and CTRL Z to go to the beginning and end
 of the spreadsheet
3. Use control keys for cursor movement.

But with the RETURN key you have an option. On the
Miscellaneous Menu (CTRL M, just like the editor) you can
set the "<P>ointer motion style" to be either "EDIT" or
"SPRD". In EDIT style pressing RETURN moves the pointer
down one row and over to the far left-hand column; just like
a RETURN. In SPRD style pressing RETURN moves the pointer
one cell in the direction that it was last moved.

*NOTE: If the Pointer motion style has been set to SPRD, an
 arrow is displayed at the far left of the Status line
 that tells you which direction the pointer will move
 when you press RETURN.*

**Access to Spreadsheet Menus:**

Like all Valdocs applications the spreadsheet is "driven" by
menus that appear in the Interaction Window at the bottom of
the screen and; like all applications which create documents
the Top-level Menu is accessed by pressing HELP.

The Top-Level Spreadsheet Menu looks like:

```
┌─────────────────────────────────────────────────────────────────────────┐
│ Please select Spreadsheet option and then press RETURN.                   │
│                                                                           │
│ <H>elp with using this spreadsheet    <L>ook-for positions, names         │
│ <O>n-screen formatting                <B>lock (move, copy, insert, etc.)  │
│ <C>alculations and functions          <U>ser-defined commands            │
│ <V>iew windows                        <M>iscellaneous                     │
└───────────────────────────< UNDO to resume entry >──── A1 ────< 8:08 P >──┘
```

If you are familiar with the Valdocs editor this menu will look very familiar to you. Like the editor, each of the choices on this menu can be accessed directly by a CTRL key combination.

        CTRL O - The On-screen formatting Menu
        CTRL V - The View windows Menu
        CTRL L - The Look-for positions, names Menu
        CTRL B - The Block (move, copy, insert *etc.*) Menu
        CTRL U - The User-defined commands Menu
        CTRL M - The Miscellaneous Menu

    **NOTE: CTRL C is not used to access the Calculations
           and functions Menu. The CALC key is used instead.

With the exception of the Calculation and functions Menu which is accessed via the **CALC** key, the same functions are provided on this menu as are provided in the editor; and they are accessed via the same keystrokes. This is not new ground for you. The similarity is no accident.

**Other Important Keys:**

The **RETRIEVE**, **STORE** and **INDEX** keys are used for storing and retrieving spreadsheets.

The **PRINT** key allows you to specify print formats and print spreadsheets.

    NOTE: You can only print the currently displayed
    spreadsheet. To print a spreadsheet that has been stored
    on disk you must first retrieve it.

The **SIZE** key toggles to compress the "on-screen" display to display more columns.

Press **SHIFT** + **CALC** to quickly "recalculate" data in the spreadsheet.

Press **DRAW** to either graph selected data from your spreadsheet or go to the Business Graphics program.

Press **EDIT** to either pass data from your spreadsheet to the editor for inclusion with a document or report or to go to the editor.

**Entering and Editing Data:**

Text and numbers are simply typed in. The spreadsheet knows the difference and treats each accordingly. You have, of course, extensive control over the format in which data is displayed via the ON-SCREEN FORMATTING (CTRL O, what else?) Menu, but we'll cover that a bit latter.

Data is entered at the current pointer location just as editor data is entered at the current cursor location, but the pointer behaves differently than a cursor does. Since the pointer occupies the full width of a column and a column can be formatted to hold from 3 to 76 characters, when you type data into a cell you will see the characters displayed in reverse-video inside the pointer itself.

The data is not actually entered into the cell until the pointer is moves the another cell. Therefore you can backspace, using the <X] key, to correct typing errors in data entry until the pointer has moved. Once the pointer has been moved to a new cell you must move it back and re-type to correct any mistakes.

   Some data entry rules:

1. When entering text the pointer will automatically move to the next cell when the current cell is full. This permits you to simply continue typing.

2. When entering numbers the system will stop and beep at you annoyingly when the current cell is full.

3. A number cannot be larger than one column. If the current column won't hold the number you want to enter, make the column wider via the CTRL O Menu.

4. If a number too large for a cell results from a calculation the cell will be filled with asterisks (*). The number is still there, if you wish to see it either make the column wider or change it's display format with the CTRL O Menu.

   Some data editing rules:

1. To delete the contents of a cell press either <X] then WORD or [X> and WORD. After the deletion the pointer will move one cell left if you used <X]; or one cell right if you used [X>.

2. Pressing <X] LINE or [X> LINE will delete the contents of all cells in the current row from the pointer position to the edge of the spreadsheet in the direction in which the delete key points.

3. To correct or change the contents of a cell once the pointer has moved off it; move the pointer back onto that cell and re-type the entry.

4. During editing the original contents of the cell being re-typed is displayed on the Status Line.

5. When typing or re-typing data into a cell pressing UNDO before the pointer has moved will restore the original cell contents.


**Simple "Scratch Pad" Calculations:**

The Valdocs Spreadsheet provides a easy method for doing simple arithmetic. If you had a bunch of numbers to add; you could do it in the Spreadsheet simply by using the numeric key exactly as though it were a desk-top calculator. For example, first move your pointer to cell A1, and then enter the following numbers at the keypad:

        121+17+32-98+5 and pressing ENTER.

The screen display will now show:

```
         :___A____:___B____:
      1:        121
      2:         17
      3:         22
      4:        -98
      5:          5
      6:         67
      7:
```

The pointer would be in cell A6 (over the number 67, which is the sum of the numbers in the five cells above) and, at the lower left of the Status Line you would see:

            @SUM(A1:A5)

displayed as the *contents* of cell A6. What is this! A formula, that's what. Here's what it means:

    @ - Means that this is a spreadsheet "function", a pre-programed mathematical operation that is provided for your use.

  SUM - Identifies this as a summation function.

A1:A5 - Are the arguments to the function. They are read "A1 thru A5" and mean "the values in cells A1 thru A5".

  ( ) - The parens enclosing "A1:A5" indicate the beginning and end of the cells the function uses.

In plain english it means: "Spreadsheet (@), you add up (SUM) the values in cells A1 thru A5 (A1:A5) and display the result in A6". That's exactly what the spreadsheet did.

How did that formula get there? Because you were using Scratch-pad math the spreadsheet automatically generated the proper formula and executed it for you. Here are the rules for Scratch-pad math:

*RULE - The Scratch-pad math mode can be used at any time except when you are entering a formula.*

*RULE - The Scratch-pad mode is activated by pressing [+] or [-] keys on the numeric key pad; except during formula entry.*

> Operating instructions - to sum a column of numbers:
>> Use the Calculator keypad to the right of the editing keys. These should be used the same as a desk or portable calculator. (number + number = answer; number - number = answer and so on.)

>> 1. Enter the first number
>> 2. Press the appropriate key [+] or [-] on the numeric key-pad
>>> * Note - pointer moves down the current column one row and depending on the key pressed, either a plus or minus sign is displayed in the current cell.
>> 3. Enter the next number to be added or subtracted from the column and press the [+] or [-] key.
>> 4. When all the numbers you wish to sum have been entered in this manner, press ENTER
>>> * Pressing ENTER instructs the spreadsheet to create and execute the formula needed to sum the column of numbers you just entered.

**Entering and editing Formulas:**

The manipulation of numbers is what spreadsheets are all about and this is accomplished by formulas. When you enter a formula into a cell you are specifying that the value to be displayed in that cell is to be the result of a mathematical calculation rather than a value entered directly.

> Formulas all have the general form: CL=X, where:

> "CL" - is the current Cell Location and specifies the cell in which the formula is stored and where the results of the calculation are to be displayed -and-

"X" - is a mathematical expression that is stored at
     cell location (CA) and whose answer when
     evaluated, will be displayed in cell "CL".

Mathematical expressions may contain: numbers; the
     arithmetic operators +, -, * (multiply) and ÷ (or
     /); cell addresses or a Spreadsheet function
     (like @SUM).

To enter a formula press the CALC key; unless you have set
your Experience Level to Expert, the following menu will
appear:

```
/‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾\
| Please enter a Formula, OR press Down-arrow for options,         |
| OR Up-arrow for Pointer Math.  Press RETURN when done.           |
|                                                                  |
| Formula:                                                         |
| Al=_____ |
|                                                                  |
\‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾< UNDO to resume entry >—— Al ——< 9:02 P >‾‾/
```

If you have declared yourself expert, pressing either HELP
or CALC one more time will get you to this menu.  Notice
that the menu's data entry line already states the current
location of the pointerm followed by an "=" sign and a blank
space in which you can enter a number or a formula.

A formula can be as simple as the value in another cell. for
example, if the line states: "Al=D5", then the *value* (the
number displayed on the screen, not a formula) in cell D5
will also be displayed in Al. As you might guess, if you
change the value in D5, and do SHIFT + CALC (recalc), the
new value in D5 will appear in Al.

From this menu you have three optional methods of entering
the "Mathematical expression" portion of the formula:

  1.  You can type the mathematical expression directly
      onto the data entry line in the menu.

*NOTE: If you are "Expert", the "Al=" would appear· on
       the Status Line when you press CALC. You can enter
       the remainder of the formula directly on the status
       line.  If you then press CALC or HELP you can access
       the next menu.*

  2.  You can press the UP ARROW key and use the "Pointer
      Math" mode to enter a Mathematical expression.

      In Pointer Math mode, you are able to move the
      pointer inside the spreadsheet to any location. As
      you move, the current Cell Location is displayed on

the status line. When RETURN is pressed, the current
location of the pointer is automatically entered in
the formula. For example:

To enter *A1 plus B1 minus C1* using Pointer math,
move the pointer to cell A1 and press [+]; then move
the pointer to B1 and press [-]; then move the
pointer to C1 and press ENTER to return to the menu.

3. You can press the DOWN ARROW key select an "option".
   The options presented provide you access to Spread-
   sheet functions (like the @SUM function). The options
   are:

   <R>ow or Column sum - The @SUM function
   <A>rithmetic functions - Presents pre-programed
        arithmetic functions from which to choose.
   <S>tatistical functions - This choice allows you
        access to pre-programed statisical functions.
   <L>ogic functions - Provides access to functions
        that allow you to "program" the spreadsheet to
        make logical tests on data and/or take action
        based on those tests.
   <T>rigonometric functions - Provides access to
        pre-programed trig functions.

   Selecting a function places it's name and the opening
   paren "(" that indicates the start of the cell range
   for the formula list on the data entry line in the
   Calculations menu.

   For example: if you selected <R>ow or Column sum, the
   data-entry line would show, "A1=@SUM(".

   You must complete the expression by typing in the
   arguments (cell addresses, numbers *etc.*) required by
   the function and the closing paren.

Once the Mathematical expression has been entered on the
data-entry line (or the Status Line if you are Expert) the
formula is complete. Press RETURN to: a) Enter the formula
in the spreadsheet; and b) Evaluate it so that the result is
displayed in the target cell.

NOTE: Formulas are "Evaluated" (executed and the resulting
value displayed) in algebraic order. Understanding the
order of evaluation is critical to writing formulas that
produce the correct result.

   ORDER OF EVALUATION: formulas are evaluated from left to
   right AND on the following priorities:

      * Multiplication and/or Division are done FIRST.
      * Addition and subtraction are done LAST.