AdvanceWrite Plus

Spreadsheet

and

Wordbase Manager

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About This Book

This book provides everything you need to know about the AdvanceWrite Plus Spreadsheet and Wordbase Manager, so that you can produce your own spreadsheets as well as retrieve information from your files successfully, with the minimum of effort. The book is laid out in two main parts, one for Spreadsheets and the other for Wordbase Manager.

Spreadsheet Manual: Newcomers to the AdvanceWrite Plus spreadsheet should read chapter 1, *Introducing the Spreadsheet*, and then work through the examples given in chapter 2, *Basic Spreadsheet Functions*. The remaining chapters contain reference material for experienced users. The Spreadsheet manual also has a Glossary, which describes technical terms used throughout this manual.

Wordbase Manager Manual: If you're new to Wordbase Management first read chapter 1, *Introducing Wordbase Manager*. The next chapter, *Searching With Wordbase*, then describes how to use AdvanceWrite Plus Wordbase Manager.

Where to Find More Information

- *Using AdvanceWrite Plus Introductory Guide* (Part No. 27546-90001).
- *Using AdvanceWrite Plus Advanced Features* (Part No. 27546-90002).
- *AdvanceWrite Plus Quick Reference Guide* (Part No. 27546-90004).
- *Setting Up AdvanceWrite Plus* (Part No. 27546-90005).

Conventions Used in This Book

Note

Both Standard and DOS keyboard layouts are catered for.
Where DOS commands are different to commands for the
Standard layout, they appear in brackets [ ] after the Standard
commands. For example,

Press (Spreadsheet) [Press (Select) and type s]

If you are using a DOS keyboard layout, (Enter) is marked as
(Return).

If you are using a Standard keyboard layout, (Cancel) is marked
as (Alt), and (Delete) is marked as (Del) .

(Copy)   Boxed words represent keys on the keyboard.

Screen   Text which you type or which appears on screen
Text   is in this typeface.

Italics   Italic text indicates that the text is a cross
                  reference either to another section of this book
                  or to another AdvanceWrite Plus book.

⬆ ⬇ ⬅ ➡   The cursor control keys.

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Introducing the Spreadsheet

If you're a newcomer to spreadsheets you should read this chapter before going on to Chapter 2, *Basic Spreadsheet Functions.*

Apart from telling you what a spreadsheet is and what it does, this chapter tells you how to start a spreadsheet, move around it and enter information, and then leave it. You are also given information on the specific characteristics of the AdvanceWrite Plus Spreadsheet, along with instructions about displaying a directory of the spreadsheets you have, and renaming and deleting spreadsheets.

Spreadsheet? What's That?

Some people may tell you that a spreadsheet is complex and hard to understand. Really it's all quite straightforward! Imagine a sheet of paper marked out with columns and rows. Well, a spreadsheet is just a computerized version of that sheet of paper. Where the columns and rows intersect they form boxes called cells. You can type text, numbers, formulas, all sorts of information into these cells, just as you write on a sheet of paper.

Here's an example of a spreadsheet:

```
                    All Star Manufacturing Company
                            Huntsville, AL
                       1986 Cash Budget (Pro Forma)

                     1st Quarter    2nd Quarter    3rd Quarter    4th Quarter      Annual
SALES                $239,976.38    $353,649.41    $271,552.22    $397,855.58    $1,263,033

Cash Receipts
 75% for current sales  $179,982.29    $265,273.06    $203,644.17    $298,391.69      $947,291
 25% for prev. qtr. sales  98,988.75     59,994.10     88,412.35     67,888.06       315,283
         TOTAL RECEIPTS $278,971.04    $325,267.16    $292,056.52    $366,279.75    $1,262,574

PURCHASES             $49,145.88     $72,425.50     $55,612.44     $81,478.69      $258,662

Cash Disbursements
 60% current purchases  $29,487.53     $43,455.30     $33,367.46     $48,887.21      $155,197
 40% prev. qtr. purchases 20,272.37     19,658.35     28,970.20     22,244.98        91,145
 Payroll (Labor Cost)   86,628.77    127,663.45     98,027.29    143,621.38       455,940
 Factory Overhead       48,936.16     72,116.45     55,375.13     81,131.00       257,558
 Operating Expense      23,924.17     35,256.67     27,072.09     39,663.75       125,916
 Machine Purchase                     60,288.00                   60,288.00       120,576
 Interest Payment                                                 26,780.00        27,040
 Cash Dividend                                                    15,450.00        15,600
 Tax Payment                           5,319.00                    5,319.00        10,638
      TOTAL DISBURSEMENTS $209,249.00   $363,757.22   $242,812.17   $443,385.32   $1,259,613

Net Cash Flow          $69,722.05    ($38,526.07)   $49,264.35    ($77,105.58)     $2,944
Beginning Cash          -8,922.40     61,462.09     24,022.67     74,001.13        -8,922
Ending Cash             60,799.65     22,936.03     73,287.02     -3,104.45        -5,977
 Less: Min. Cash Balance 6,000.00      6,000.00      6,000.00      6,000.00         6,000
Investments (Loan)     $54,799.65     $16,936.03     $67,287.02     $9,104.45       $11,977

     Assumptions:
Inflation Rate             4.00%
Growth Rate of Sales      12.00%
```

What if you want to use a spreadsheet with more columns and rows than can be displayed on your screen at one time? No problem! When you look at your screen, it's a little like looking out of the window of a moving car. The world outside isn't limited to what you can see out of the window at any one time and as the car moves, you can see new scenery. Although your screen doesn't move, you can scroll what's displayed on it up, down, left and right to display the particular part of the spreadsheet you are interested in. AdvanceWrite Plus even allows you to split the screen and display two different sections at the same time.

What Can I Use It For?

Ok, so now you know what a spreadsheet is, but how can it help you in your job? Here are just a few things you could use a spreadsheet for:

accounting
budgeting
cash flow calculation
depreciation calculation
forecasting
inventory control
investment analysis and planning
operating cost projection
payroll
planning

In short, a spreadsheet can be used for any job which you might ordinarily do by hand using a multicolumn pad. For example, you could use the spreadsheet to plan the amount of resources required for a particular part of your business and then compare this with what is actually available. You might also want to find out what the situation would be if fewer resources were made available to you. This will usually be money, but could just as easily be personnel, materials, and so on. And when you've run out of calculations to perform, you can use the spreadsheet for anything that requires typing in columns.

Why Should I Use It?

The advantage of using a spreadsheet is that it's extremely fast! A job which may have taken hours when you had to work out all of your values on a calculator and then write each one down using a pencil and paper can now be done in a fraction of the time!

Not only will your spreadsheet perform calculations quickly, it will recalculate equally quickly. So when values change, the effects of those changes on other values can be speedily recalculated for the entire spreadsheet. There are a couple of big advantages in this. One is that you can look at a number of different possible outcomes to a given problem. Suppose you are planning to expand your business. You can see how different rates of interest, fluctuating sales revenue and increases in overheads would affect your venture, simply by changing the values in the appropriate cells. And the spreadsheet will work out the new figures in the time it once took you just to rub out one figure on a page.

The other big advantage is that you can quickly find and correct errors. When you've taken hours to prepare a balance sheet using pencil, paper and calculator, finding that it doesn't balance can be a traumatic experience. It means that you've got to work through the whole sheet again looking for your mistake and correct all the values affected by it. With a spreadsheet, it's a simple task to check back over your work, find your mistake and correct it.

To cut a long story short, using a spreadsheet is going to make your life a lot easier!

The AdvanceWrite Plus Spreadsheet

With AdvanceWrite Plus you have two versions of a spreadsheet.

- The worksheet

- The text spreadsheet

You may be unused to this, because some spreadsheet programs don't allow you to insert spreadsheets into your documents. With AdvanceWrite Plus, however, you create a spreadsheet while in a document. The spreadsheet you create is called the worksheet, and it is here where you type, format, calculate and so on.

When you leave this spreadsheet it is copied back to your document, where it is referred to as the text spreadsheet. So, it is the spreadsheet that goes into your document. See the diagram overleaf.
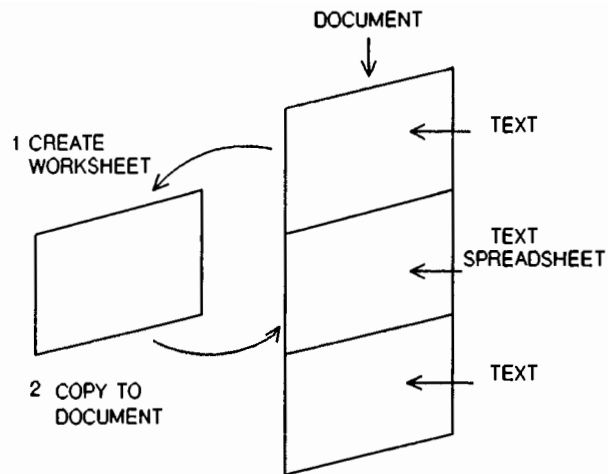
1 You create a spreadsheet while in a document. It is called the worksheet version and is always entered from your document.

2 When you leave the worksheet version of your spreadsheet, it is copied back to your document, where it is called the text spreadsheet. You can have numerous copies of the text spreadsheet.

Spreadsheet Generated Information

You can enter information, format and calculate in the worksheet spreadsheet. The information contained there is called spreadsheet generated information.

Non-Spreadsheet Generated Information

While in your document you can type on any text spreadsheet, without entering the worksheet. Such information is called non-spreadsheet generated information. It is just text, and is likely to consist of footnotes, lines and short explanations. It is not used in calculations.

Notes

- To enter information in the worksheet see *Entering Information* in this chapter.

- You can edit a text spreadsheet without affecting the worksheet. So if you are in a text spreadsheet, you can make changes to information that was generated in the worksheet. These changes are not permanent. They are replaced by the original spreadsheet generated information the next time you enter and then exit the worksheet. See *Leaving the Spreadsheet* in this chapter.

- If there is no space already there, you can create space especially for non-spreadsheet information when you exit a worksheet. See *Leaving the Spreadsheet* in this chapter.

- Non-spreadsheet information that is typed in a space can be kept each time you exit the worksheet.

- To create multiple copies of a text spreadsheet look for *Copying* in Chapter 4, *Making Changes.*

The Screen

The AdvanceWrite Plus Spreadsheet screen is designed to give you all the help and feedback that you need as you carry out tasks.

THE SPREADSHEET SCREEN

```
 V (Cell Address)                        (Spreadsheet Name)V
 A1 (Status Line_Displays Cell Status)    NAME: BALANCE
 YOUR SPEADSHEET IS READY!(Help Line)
 ┌──────────────────────────────────────────────────────────
 │  L        [ A ]      [ B ]      [ C ]      [ D ]
 │        ┌─────────────────────────────────────────────────
 │  1 :   │ ┌───────┐            Λ (Spreadsheet Column Format Line)
 │        │ └───────┘
 │  2 :   │   Λ  (Cell Pointer)
 │  3 :   │
 │  4 :   │
 │  5 :   │
 │  6 :   │
 │  7 :   │  <  (Row Numbers)
 │  8 :   │
 │  9 :   │
 │ 10 :   │
```
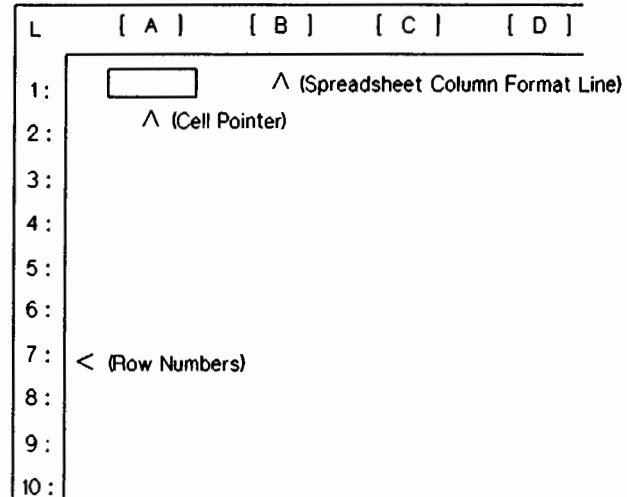
Help Line

The Spreadsheet Help Line is displayed above the Format Line. Remember to press (Help) each time you want some additional information about any function. See the next section *Getting Help*.

Status Line

On the spreadsheet this line is displayed at the very top of the screen. It always displays the location of the cell pointer (the cell address), the contents of that particular cell, the mode(s) you are using, and the name of the spreadsheet.

Format Line

The Spreadsheet Format Line is displayed as a shaded area across the top of the screen and indicates the left (L) and right (R) margins. The spreadsheet column margins are displayed as alphabetical characters with brackets around them.

Row Indicator

On the left side of the screen is a shaded area with numbers. This area displays the rows of the spreadsheet.

Cursor

When the cursor is in the spreadsheet it is always pointing to a particular cell or cells. It is then called the Cell Pointer.

On screen the spreadsheet will be similar to the diagram below. Each cell is in a specific column and a specific row. The exact location of the cell, where the column and row intersect, is called the cell address. For more information on columns, rows and gaps see *Creating a Spreadsheet* in this chapter.

COLUMN ADDRESSES

ROW
ADDRESSES

A   B   C   D

1   ←── ROW

2

3

4

COLUMN   GAP

CELLS   A1 – THE CELL POINTER'S
               HOME POSITION
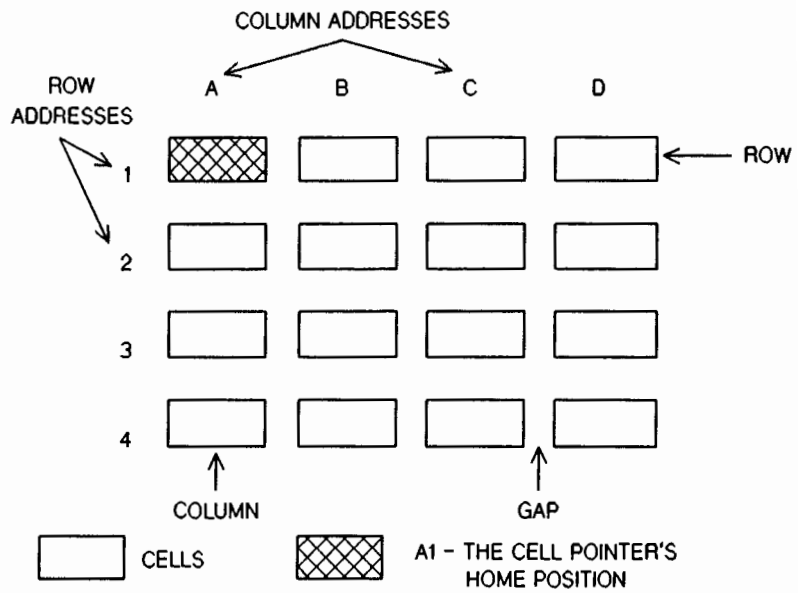
Getting Help

Before you begin to carry out tasks described in this manual remember that you can ask AdvanceWrite Plus for help whenever you need it. It appears on the Help Line, see *The Screen*. Simply press (Help) for each step of each function.

There are three levels of help that you can ask for. Also, if you press an incorrect key during a command, AdvanceWrite Plus displays the next level of help without you pressing (Help).

- LEVEL 1 displays on the Help Line anytime you start a function. This level of help is a memory jogger. It helps you remember the next step in the command.

- LEVEL 2 replaces level 1 if you press (Help). It is tutorial in design. Every option for each function and the steps for completion are shown. This level is good when you are first learning a function.

- LEVEL 3 replaces level 2 if you press (Help) a second time, once you have chosen a function. This level of help completely explains what the function does.

How to get the three levels of Help

1 Press a function key. Level 1 Help automatically displays on the Help Line.

2 Press (Help) (for level 2).

3 Start a function.

4 Press (Help) (for level 3).

How to alternate between level 1 and level 2 Help

Hold down (Control) and press (Help)

The help menu tells you if press the wrong key while using
AdvanceWrite Plus. To continue, and to clear the help menu,
press (Cancel).

How to clear the Help information

Press (Cancel)

The Cancel Key

When you start tasks you should also remember to use (Cancel).
This can be used whenever you are in the process of carrying
out a command, and you want to stop it. So if you decide to
edit, copy or erase a cell, for example, and you either make a
mistake or change your mind, you can return to how things
were before you started the command.

How to stop a command being carried out

Press (Cancel)

Note

■ You must not have pressed (Enter) before pressing (Cancel)

Creating a Spreadsheet

If you get into difficulties remember to press (Cancel), and/or see the Notes after the following steps.

How to create a new spreadsheet

1   You must be in your document. Now position the cursor where you want the spreadsheet to be inserted. A spreadsheet can be created anywhere below the first line of a document.

   Remember that pressing (Help) at each step displays the options available to you, and pressing (Cancel) removes them.

2   Press (Spreadsheet) [Press (Select) and type s]. AdvanceWrite Plus lets you create a spreadsheet in this location if one doesn't already exist.

3   Press (Enter).

4   Type a name for the spreadsheet.

5   Press (Enter).

6   AdvanceWrite Plus asks you how many columns you want in the spreadsheet. You have three options:

   ■   Press (Cancel), to accept the number of columns that will fit between the right and left margins of your document. These have a standard column width of 8 characters and gap width of 2. If you do this you can skip all the remaining steps.

- Press (Enter), to accept the number of columns (20) and the standard gap width of 2 characters. Then go on to step 10 to choose column widths.

- Type a number for the amount of columns you want and go on to step 7.

  See *Columns* under the Notes.

7 Press (Tab).

8 Type the number of gaps you want between columns. The standard is 2. See *Gaps* under the Notes.

9 Press (Enter) when the column and gap widths are correctly displayed.

10 You have two options.

- Type a number for the width you want all the columns to be (the standard is 8).

- Type a number for the width of the first column and press (Tab). Repeat the number/(Tab) process until you have set the width for each column. See *Columns* under the Notes.

  If you want to move back to a previous column hold down (Shift) and press (Tab).

11 Press (Enter).

Notes

- There must be at least one line in a document before a spreadsheet can be created.

- You can have an unlimited number of spreadsheets in one file.

- A spreadsheet name can have up to 14 characters, but only 9 show on the Status Line.

- The width of the spreadsheet cannot exceed 250 characters.

- Spreadsheets in the same document can be linked together (associated). This is useful if you exceed the maximum size of the spreadsheet. Look for associated cells in Chapter 6, *Working With Cells*.

- Unless you change it, the left margin of the worksheet version of your spreadsheet aligns with the left margin in the document.

- You can change the format of your spreadsheet once it has been created. See Chapter 5, *Formatting*.

Columns

- A column is a vertical collection of cells. Columns are automatically assigned addresses, from A to Z. Once Z is reached, addresses run from AA, AB, AC etc through to BL.

- At least 5 columns are needed when creating a new spreadsheet, but you do not have to use them all. Once the spreadsheet is created, you can delete columns to give you fewer than five.

- The standard column width is 8 characters, but this can be changed. Columns can be anything between 1 and 248 characters wide.

- The width of columns can be specified either when you select a new spreadsheet or by using (Format) for an existing spreadsheet. Look for column and gap widths in Chapter 5, *Formatting*.

- When you are typing a different column width for each column (step 10 of *How to create a new spreadsheet*) the last width you specify is used for all remaining columns of the spreadsheet.

  For example:

  A=15   B=10   C=10   D=10   E=10

  You need to specify a column width for column A (15) and column B (10) only. When you change a column width and press (Enter) only that column width is affected. See *Column and Gap Widths* in Chapter 5, *Formatting*.

- If you change column widths in step 10, the Status Line informs you of changes to the right margin.

- A spreadsheet can have up to 64 columns. It may have fewer columns if the maximum number of cells or maximum width of 250 characters, is reached before the 64-column maximum. See *Cells*, in this section.

- If all the columns in the spreadsheet fit between the margins of your document, the spreadsheet has the same right margin as the document. Otherwise, AdvanceWrite Plus expands the right margin of the spreadsheet to accommodate all the columns. See Chapter 5, *Formatting*.

- You can insert and delete columns. See Chapter 4, *Making Changes*.

- You may want to do columnar work. This is done by choosing the column widths (see Chapter 5, *Formatting*) and then connecting the cells in the columns (see *Connecting Cells* in Chapter 6, *Working With Cells*).

Gaps

- A gap is the space between columns. You can vary the gap any time you wish. Gaps are shown on the Format Line] [.

- You can choose a standard gap to separate all columns when you select a new spreadsheet. If you do not specify the width of the gaps AdvanceWrite Plus sets them for 2 characters wide.

- A gap can have from 0 to 50 characters.

  To change the gap space in an existing spreadsheet see *Column and Gap Widths*, in Chapter 5, *Formatting*.

- The right margin of the spreadsheet moves to accommodate wider gaps. However, a gap space cannot be made wider if the width of the spreadsheet has reached the 250-character maximum.

- You cannot move the cell pointer to a gap space.

Rows

- A row is a horizontal collection of cells. Each row has its own number - rows are numbered automatically from 1 to 999. Once 999 is reached, AdvanceWrite Plus begins numbering rows 000.

- A spreadsheet can have an unlimited number of rows up to the 6400 cell maximum size. See *Cells*.

- You can insert and delete rows, but you cannot insert or delete partial rows. See Chapter 4, *Making Changes*.

Cells

- A spreadsheet is a collection of cells. Each cell is in a specific column and a specific row. The exact location of the cell, where column and row intersect, is called the cell address.

- Cells can be text cells or number cells. *Entering Information*, in this chapter, deals with cell contents in detail.

- A collection of cells is called a range, which is referred to by using a range address. See Chapter 2, *Basic Spreadsheet Functions*. Ranges can also be given names so that you can refer to them quickly.

- Cells can be (a) Connected, to allow for passages of text to be displayed, and for any work in columns (b) Protected, to prevent accidental editing (c) Floated, so that they appear in the text of you document and are automatically updated when changes are made to the worksheet version of your spreadsheet (d) Inhibited, so that they are not printed and do not appear on the text spreadsheet. See Chapter 6, *Working With Cells*.

- The theoretical limit to the number of cells in a spreadsheet is 6400. However, the total depends on the number and type of data items and formulas in the spreadsheet. In practice, a spreadsheet becomes full when it contains about 2000 data items.

- Cells can be Source cells or Destination cells. For instance, if you copy from a range called Range 1, then Range 1 is said to contain the source cells. The cells that you copy Range 1 to are called the destination cells.

  Because destination cells are linked to source cells, they are locked and cannot be edited. Look for associated cells in Chapter 6, *Working With Cells*.

- Cell addresses used in formulas are always relative unless you make them absolute. See Chapter 2, *Basic Spreadsheet Functions*.

Entering an Existing Spreadsheet

How to enter an existing spreadsheet

1 Position your cursor anywhere between the Format Lines of the spreadsheet text version.

2 Press (Spreadsheet) [Press (Select) and type s].

3 Press (Enter) to enter the worksheet version of the spreadsheet.

Simple Cell Pointer Movement

Once you are in a spreadsheet you need to move around it before you can enter information. You can do this by using the cursor control keys ⊞ ⊡ ⊟ ⊞ or (Tab) and (Shift) (Tab).

For faster ways to move the cell pointer see Chapter 3, *Moving Around the Spreadsheet.*

How to move horizontally in the spreadsheet

Press ⊟ or ⊟

OR press the (Tab) key to move to the right

OR hold down (Shift) and press (Tab) to move to the left.

How to move vertically in the spreadsheet

Press ⊞ or ⊡

Entering Information

A cell can contain a number, a formula, a date or text, which you can type over and edit.

How to type information into a cell

1   Position the cell pointer on the cell where you want to type information.

2   Type the text or number.

3   Press (Enter).

OR press (Tab) (to move to the next cell in the row)

OR hold down (Shift) and press (Tab) to move to the previous cell in the row

OR press ⊞ to move up one cell

OR press ⊞ to move down one cell.

Notes

■   Cells with no information in them are said to be undefined, while cells that have information in them are defined.

■   Defined cells can be either text or numeric cells: a numeric cell can contain a number, formula or date.

Numeric cells begin with a digit (0 to 9) and are always right aligned. Text cells begin with any character other than a digit, a decimal point, or a minus symbol. Text cells can be adjusted to be left-aligned, right-aligned, justified, or centered.

The alignment of text cells, and the exact way in which numbers and dates cells are displayed (numeric format), can be changed. To do this, look for page parameters and alignment in Chapter 5, *Formatting*.

- The Status Line tells you what type of cell the cell pointer is on. If the pointer is on a text cell the Status Line tells you what the text alignment is, for example, left or right aligned. When the cell pointer is on a numeric cell, the Status Line reads NUMBER , FORMULA or DATE , depending on which it is.

- If you want to type a number but want AdvanceWrite Plus to align it as a text cell, type a space before the number. Since the space is not a digit, AdvanceWrite Plus treats it as a text cell. You may want to do this if you were typing column headings such as 1986, and 1987. It cannot be done for proper date cells.

- Cells containing text and numbers, used to identify information in other cells, are called labels. A column heading, like 1987, is therefore also called a label. Some labels may be typed over several columns and rows by connecting the cells first. See Chapter 6, *Working With Cells*.

- Cells which are to contain formulas are typed with a formula function, (Select) and F. See Chapters 2 and 7, *Basic Spreadsheet Functions* and *Manipulating Data*.

- You can perform any of the normal editing functions, such as copy, move, protect from editing, erase, center, underline and capitalize. See Chapter 4, *Making Changes.*

- If there is already information in a cell, any new information you type into the cell automatically replaces the old information when you press (Enter).

- If text is too large to fit in the cell, AdvanceWrite Plus displays as much of it as possible. Text to the right of the column is not displayed in the cell. (Up to 19 characters appear on the Status Line, and others will appear if you edit the cell.)

- To display more text, cells can be connected. See Chapter 6, *Working With Cells.* Also, cell widths can be increased. See Chapter 5, *Formatting.*

- If the number you type is too large to fit in the cell, AdvanceWrite Plus expresses it as a formula.

  For example, the number 123456789, needs a cell width of 9 characters to be displayed completely. However, if the cell width is only 6, the complete number cannot be displayed. Instead, the formula 1.23E8 appears. This means 1.23 multiplied by 10 to the power of 8.

  When the cell width is so small that the result of a formula cannot be displayed, a string of asterisks (******) appears. You can see the result by increasing the cell width or connecting the cell to others.

- With numbers, the currency symbols or thousand separators (for example, the comma in 1,000) are automatically inserted by AdvanceWrite Plus. They are determined by the settings you make for page parameters and spreadsheet defaults. See Chapter 5, *Formatting.*

- You can use either the typewriter number keys or the keys on the number keypad to type numbers. If you use (Num Lock) for typing numbers, AdvanceWrite Plus displays NUM on the Status Line.

- Parentheses, along with minus symbols after numbers, are displayed to the right of the cell in the gap. If there is no gap, these symbols are displayed in the cell. How these symbols appear depends on the settings in the defaults. See Chapter 5, *Formatting*.

- You can also type information on the text version of the spreadsheet, without affecting the worksheet. Each time you leave the worksheet you have the option of retaining or deleting this non-spreadsheet information. See *The AdvanceWrite Plus Spreadsheet* and *Leaving the Spreadsheet*, in this chapter.

Dates

There is a special way to type dates onto the spreadsheet. They should be typed into undefined cells, in the way described below. If you want to use a Gregorian number in calculations (the number days from January 1 of the year 0 to the current date) see Chapter 7, *Manipulating Data*.

How to type dates on the spreadsheet

1. Position the cell pointer where you want to type a date. Make sure you are on an undefined cell, unless you want a Gregorian date.

2. Press (Select).

3. Type D (for Date). AdvanceWrite Plus moves your cursor to the top of the screen, so you can type in the date you wish to use.

4. (Tab) and type in each part of the date.

5. Press (Enter).

   If you typed into an undefined cell the date appears. If you typed the date into a numeric cell the Gregorian number appears.

Notes

- Dates should always be typed in this way. It means they can be easily formatted and remain consistent with other date styles. See Chapter 5, *Formatting*. It also means they can be used in calculations. Date cells are the same as numeric cells and are always right-aligned.

- It is possible to type a date into a cell without using (Select) and D, by typing the month first. For example, Aug 27, 1987; not 27 Aug 1987. However, it is treated as a text cell (because it starts with a letter) and it cannot be formatted differently. The process described in *How to type dates on the spreadsheet* makes sure cells are in date format.

  You can also type column headings such as 1985, 1986, 1987 etc. without using (Select) and D. These are not treated as date cells and you can insert a space before the figure to imitate a text cell. You can therefore left-align, center or justify. See *Alignment* in Chapter 5, *Formatting*.

  With date cells, you cannot insert a space in front of a date to imitate a text cell, so alignment cannot be changed.

- You cannot select a date for cells that contain text or a formula. You must erase the contents of these cells first.

- If a string of asterisks (******) appears, increase the cell width to allow room for the date. See *Column and Gap Widths* in Chapter 5, *Formatting*.

- When the cell pointer is on an empty (undefined) cell, and a date is selected, AdvanceWrite Plus displays the current date from the operating system. You can change the date shown and this does not affect the current date of the operating system.

- You can type in a date and later convert it to a Gregorian number. See *How to change a date to a Gregorian number and vice versa*, in Chapter 7, *Manipulating Data*.

  In the page parameters, you may have set the numeric format to date format (7), see *Page Parameter Options* in Chapter 5, *Formatting*. If so, when you type numbers on the spreadsheet they automatically change to dates based on Gregorian numbers.

- If you select a date with the year 0-99, it is changed to 1900-1999.

- Date styles are: abbreviated, spelled out or numeric. These are defined on the default page. See Chapter 5, *Formatting*. However, the exact way that dates are displayed (the definition) can be changed. So existing date cells can maintain the same date style, but can have a different definition. For example:

  Original definition for Abbreviated style (1) : Jan. 17, 1984

  Revised definition for Abbreviated style (1) : 17 Jan. 84

  Chapter 5, *Formatting*, tells you how to change the definition.

Leaving the Spreadsheet

There are two ways to leave a spreadsheet:

Exit -   This <u>saves</u> any changes made to the worksheet.
           So it clears the worksheet from your screen and
           copies it into your document, along with all the
           changes you made. See overleaf for *How to
           leave the worksheet and save the changes.*

Quit -   This <u>does not save</u> any changes made to the
           worksheet. So it clears the worksheet from the
           screen, but does not copy the changes you made
           on the worksheet, over to your document. It's
           as if you had not entered the worksheet version
           at all. Quit is very useful if you make errors in
           the worksheet and want to start afresh. See
           How to quit without changing the worksheet.

Using Exit

How to leave the worksheet and save the changes

1   Press (Spreadsheet) [Press (Select)] .

2   Type x (for Exit).

3   You have two options.

- For all of the worksheet spreadsheet to appear in your document, press (Enter) and go straight to step 5.

- For a range of the worksheet spreadsheet to appear in your document, type the range address or name, or shade the amount you want to be inserted.

   For help with range addresses or shading see Chapter 2, *Basic Spreadsheet Functions.*

4   Press (Enter). The shaded amount of the spreadsheet or range you typed will be inserted into the document.

Continued...

5   You are asked whether the cells you are saving should be combined with any text in your text version. You have two main options.

■   If this is a new spreadsheet the answer you type now does not affect it, so go straight on to step 6.

■   If it is not a new spreadsheet:

type Y (for Yes) for the text version of your spreadsheet to retain any text that was typed into it while you were in your document. See the Notes on non-spreadsheet information.

OR type N (for No) if you want the non-spreadsheet information to be erased.

6   Press (Enter).

Notes

■   Your entire worksheet is saved and updated when you exit, even if only part of the worksheet is inserted into the document.

■   Once a spreadsheet has been saved, exiting it copies the new worksheet version on top of the old text version. If necessary, more lines will be added to the text version to accommodate additional lines in the worksheet.

■   Existing text in the document, below the spreadsheet location, is automatically moved down.

■   In step 4, you may want to type a range address which allows only some of the worksheet to be displayed in your document.

You may also wish to type a range address that leaves extra rows at the bottom of your text spreadsheet for non-spreadsheet information.

■ Non-spreadsheet information is information which is typed in the empty space of the text spreadsheet. You are therefore not in spreadsheet mode when you do this. See *The AdvanceWrite Plus Spreadsheet*, in this chapter.

Non-spreadsheet information can be maintained (type Y for step 5) or erased (type N for step 5), as you leave the worksheet and return to the text version.

Also called non-spreadsheet information is information typed in the worksheet, then erased, but kept for the text version. For example, you can enter a worksheet already containing information, erase a row of numbers, exit the worksheet leaving that row undefined, and type Y at step 5 for that row of numbers to remain in the text version. You must type Y each time you leave the worksheet.

■ If you have added non-spreadsheet information, be careful not to change the shape and/or format of your worksheet. Otherwise, when you exit the worksheet the repositioning of spreadsheet rows or the left margin may overwrite the non-spreadsheet information.

When you make extensive format changes to your worksheet, including changing the left margin, adjusting the gap between columns, or erasing blocks of information, type N in step 5.

This ensures that there is no non-spreadsheet information, so you have a "clean" version of the worksheet in your text. Remember that if you need to, you can always delete the text spreadsheet and re-insert a new text spreadsheet.

- When you insert the worksheet into your text, you can put different parts of it into different parts of the text. So you will have several different text spreadsheets reflecting the same worksheet. See *Making Text Copies* in Chapter 4, *Making Changes.*

Using Quit

You can make changes on the worksheet version of your spreadsheet and "quit" before the changes are permanent. This means that both the text and worksheet versions are unaffected, which is very useful when you are experimenting with figures, for example, or have made a number of errors.

How to quit without changing the worksheet

1   Press (Spreadsheet) [Press (Select)].

2   Type q (for Quit).

3   Press (Enter).

Notes

- If you want the changes to be saved permanently, use Exit.

Displaying a Spreadsheet Directory

You can display a directory of spreadsheets in any AdvanceWrite Plus file. The listing appears on the Help line.

This is helpful if you want to know what spreadsheets have been created in any one document, or if you are preparing to create another copy of an existing spreadsheet and need to know its name.

You can also display a directory of spreadsheets while you are in the worksheet version of any spreadsheet. This is useful when you are preparing to associate cells (see Chapter 6, *Working With Cells*) and want to check the name of the spreadsheet that you intend to link.

How to display a directory of spreadsheets while in your document

1   Display the document containing your spreadsheet(s).

2   Press (Spreadsheet) [Press (Select)].

3   Type L (for List). [Type s (for spreadsheet) and then type L (for List)].

How to display a directory of spreadsheets while in your worksheet

1   Display the worksheet.

2   Press (Spreadsheet) and type L (for List) [Press (Save & Display)].

3   Press (Enter).

Notes

■   You cannot edit the directory of spreadsheets or perform a command while the directory is displayed.

■   If you display a directory of spreadsheets in your file, and AdvanceWrite Plus says that it cannot find the spreadsheet, it means that there are no other spreadsheets in your document.

How to cancel the directory of spreadsheets

Press (Cancel).

Renaming a Spreadsheet

You can rename any spreadsheet while you are in the worksheet version. This is useful when you copy an existing worksheet and want to give the copy a new name, to distinguish it from the original. It's also useful if you typed in the wrong name when you were creating a spreadsheet.

How to rename a spreadsheet

1 From the worksheet version of the spreadsheet that you want to rename, press (Do).

2 Type N (for Name).

3 Type the new name for the spreadsheet.

4 Press (Enter).

5 Press (Enter) again if you're sure about renaming the spreadsheet. Otherwise, press (Cancel).

Notes

■ The new spreadsheet name appears on the Status Line.

■ A spreadsheet can be renamed as many times as you wish.

■ If you rename a spreadsheet which has floating cells in it, you need go back to your document and type in the new spreadsheet name for each floating cell. It may help to display the floating cells first. See Chapter 6, *Working With Cells*.

■ When a spreadsheet has permanent links with others, and you rename that spreadsheet, you need to re-establish the links using the new name.

Deleting a Spreadsheet

You can delete any spreadsheet from your document. It can be the entire worksheet, the entire text version or just part of a text version.

How to delete a worksheet

1   Display the text version of the spreadsheet you want to delete. Position your cursor anywhere between the Format Lines.

2   Press (Spreadsheet) [Press (Select)].

3   Press (Delete) [Type s (for Spreadsheet)].

4   Press (Enter) [Press (Delete)].

5   Press (Enter). [Press (Enter) twice.] This deletes the worksheet version of the spreadsheet. The text version of your spreadsheet is still displayed on your screen.

How to delete all or part of the text version of your spreadsheet

1   From your document, position the cursor where you want to begin deleting the spreadsheet text version. If you are deleting all of the spreadsheet place the cursor on the first character above the top Format Line.

2   Press (Delete).

3   Shade the amount you want to delete. If you're deleting all of the spreadsheet shade all of it plus one character below the bottom format line.

4   Press (Delete).

Notes

■   You may have made several text versions. See *Copying* in Chapter 4, *Making Changes*. If you delete the worksheet from one of these text versions, you can still access the worksheet from other text versions. However, if you delete the worksheet from the last text version, the worksheet is permanently deleted.

- When you delete all text versions of a spreadsheet using (Delete) and shade, and the worksheet still exists, you can re-access the worksheet anywhere in the document. To do this press (Spreadsheet) [(Select) and s] then press (Enter) and type the spreadsheet name, even though you are told a spreadsheet doesn't exist here. When you exit, it is inserted back into your document.

- When you select a spreadsheet with your cursor in a text version of a deleted worksheet, AdvanceWrite Plus asks for a name to create a new worksheet spreadsheet.

- If you try to delete a worksheet that's already deleted, AdvanceWrite Plus says it is unable to find the spreadsheet.

- If you have any unwanted Format Lines press (Shift) and (Format) to delete them. See *Formatting a Document* in the *Introductory Guide* manual.

Basic Spreadsheet Functions

This chapter covers:

- Basic Calculations
- Shading and Range Addresses
- Using Simple Formulas
- Absolute and Relative Cells
- Report of Cell Contents
- Recalculation
- Other Spreadsheet Functions

If you're new to the AdvanceWrite Plus Spreadsheet look through Chapter 1, *Introducing the Spreadsheet* before beginning this chapter. Then, to introduce you to using spreadsheets, you can work through the examples in this chapter. Start with the section called *Basic Calculations*, and always remember to keep the examples in your document, since successive exercises will build on them.

When you've worked through this, you'll have a good idea of how powerful a tool the spreadsheet is, and how easy it is to use. You can then go on to more advanced features in the remaining chapters of this manual. To help you, see the section called *Other Spreadsheet Functions*, at the end of this chapter. This tells you about the wide variety of functions that can be performed with the AdvanceWrite Plus Spreadsheet, and provides all the references you'll need.

Basic Calculations

You can work through the examples under each section to become familiar with using AdvanceWrite Plus Spreadsheet. You will find all the answers under the last section in this chapter, *Absolute and Relative Cells.*

Addition and Subtraction

An example follows the steps below.

How to add/subtract the contents of cells

1 Position the cell pointer where you want the answer to appear. This should not be in a cell included in the formula.

2 Press (Select).

3 Press F for Formula.

4 You can either add or subtract.

   ■ To Add cells, type the first cell address + the second cell address. For instance A1+A2.

   ■ To Subtract one cell from another, type the first cell address - the second cell address. For instance A1-A2.

5 Press (Enter).

   The answer appears in the cell where your cell pointer is positioned.

Notes

- In step 4, if more than two cells are being added type these as well. For example, A1+A2+A3 and so on.

- No gaps should be left when typing the formulas.

- With addition you can also use the built-in Sum formula, covered later in this chapter.

Example

To work through an example of addition and subtraction, first create a document called Doc1 and a spreadsheet (with 5 columns) called Sales. See *Creating a Spreadsheet* in Chapter 1, *Introducing the Spreadsheet.*

Now type in information until your spreadsheet looks like the one which follows. If you need to, refer to Chapter 1, *Introducing the Spreadsheet,* for details of how to enter information. The alignment of column headings can be changed later if you wish.

	A	B	C	D	E
1		YR1	YR2	Total	Rise
2	Widgets	100	150		
3	Whirlers	30	70		

To find the total number of Widgets put the cell pointer where you want the answer to appear (D2) and add cell B2 to cell C2.

To find the rise in Widgets you need to subtract cell B2 from C2, and you want the answer to appear in E2.

Go through the steps in *How to add/subtract the contents of cells.* Then try to find the answers for Whirlers, using the method you have just learned.

Division and Multiplication

An example follows the steps below.

How to divide/multiply the contents of cells

1   Position the cell pointer where you want the answer to appear. This should not be on a cell included in the formula.

2   Press (Select).

3   Press F for Formula.

4   You can either divide or multiply.

- To **Divide** cells, type the first cell address divided (use the symbol /) by the second cell address. For instance A1/A2 .

- To **Multiply** cells, type the first cell address multiplied (use the symbol *) by the second cell address. For instance A1*A2 .

5   Press (Enter).

The answer appears in the cell where your cell pointer is positioned.

Example

To work through an example of division and multiplication, create a spreadsheet (with six columns) called Orders. Type in information until it looks like the one below. Note that the alignment of column headings can be changed later if you wish.

	A	B	C	D	E	F
1		Quant	Packs	Packcost	Order	Cost
2	Widgets	250	50	20		
3	Whirlers	100	10	6		

You want to order 250 Widgets. They come in packs of 50. To find how many packs of Widgets to order, put the cell pointer where you want the answer (E2) and divide cell B2 by cell C2.

To find the cost of your order, multiply cell D2 by cell E2. You want the answer to appear in cell F2.

To do this, go through the steps in *How to divide/multiply the contents of cells*.

Now try to find the answers for Whirlers, using the method you have just learned.

Shading and Range Addresses

When carrying out functions like using formulas, connecting or copying cells or, say, floating cells in your text, you can refer to the cells by either typing a range address, or by shading them, that is, pointing to the cells you want to be used in the function. If you're learning to use spreadsheets see *How to copy a range by shading: a specific example*, and *How to copy a range by typing a range address: a specific example*.

You can also use a range name if you want to repeatedly refer to a range. See Chapter 6, *Working With Cells*.

How to shade cells

1   Choose a function, such as copy, erase or edit a formula.

2   Press (Mark).

3   The cell which your cell pointer is on is automatically shaded.

   To shade other cells press ⊞ ⊞ ⊟ ⊟

   OR press (Go To) and ⊞ ⊞ ⊟ ⊟

   OR press (Page) and ⊞ ⊞

Notes

■   If you are going to shade cells remember to place the cell pointer at the start of the range you want to shade. You <u>do not</u> need to do this if you are going to type a range address.

- The range address of the cells you shade appears on screen.

- When shading, it is possible to omit step 2 for most functions, and begin shading cells immediately. This is not the case with editing a formula or copying, however.

- For more information on (Go To) and (Page) see Chapter 3, *Moving Around the Spreadsheet*. This also covers other keys which can be used for shading: (Document), (Sent), (Para) and (Word).
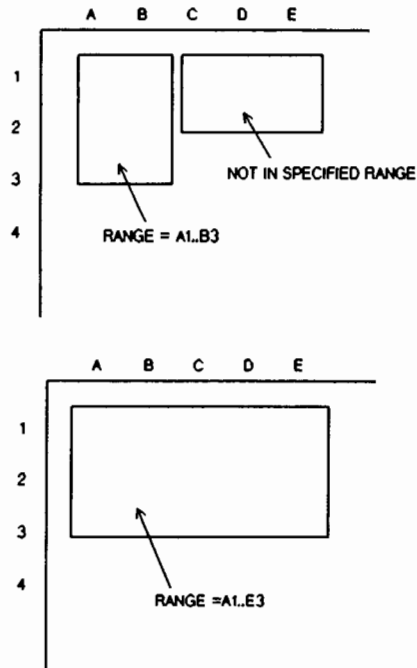
How to type a range address

1 Choose a function, such as erase, copy or edit a formula.

2 Type the cell address of the cell in the upper left corner of the range you want to name.

3 Type .. (2 periods).

4 Type the cell address of the cell in the lower right corner of the range you want to name.

Notes

- An example of a range address is A1..B3. When typing the address, no gaps are left between the characters or periods. You do not need to use capital letters.

  Note that in the following diagram, A1..B3 includes all the cells in the rectangle formed by cells A1 and B1, and A3 and B3. All cells in columns beyond column B are not included, that is C1, D1, E1, C2, D2 etc. So A1..B3 doesn't include all the cells between A1 and B3. It means the cell in the rectangle formed by A1 and B3. To include the columns beyond column B, the range address should be A1..E3.

```
     A   B   C   D   E

1   ┌───────┐ ┌───────────┐
    │       │ │           │
2   │       │ │      ↖    │
    │       │ └──────│────┘
3   │   ↖   │   NOT IN SPECIFIED RANGE
    └───│───┘
4       │
     RANGE = A1..B3
```

```
     A   B   C   D   E

1   ┌───────────────────┐
    │                   │
2   │                   │
    │       ↖           │
3   │       │           │
    └───────│───────────┘
4           │
        RANGE =A1..E3
```

Ranges are always rectangular. They can cover several rows
and columns, or just one row or one column. An example
of a range covering one row would be A1..E1. An example
of a range covering a column would be A1..A5.

■   You may want to refer to one cell only, in which case just
    type the cell address in step 2 and omit steps 3 and 4.

Example

Use the spreadsheet, called Orders, created in the previous
example. Imagine you want a copy of the figures only, to begin
on row 5, at cell A5. You need to copy the range B2. .F3. See
How to copy a range by shading: a specific example.

How to copy a range by shading: a specific example

1   Position the cell pointer at the start of the range you want to copy. This is B2.

2   Press (Copy) [Press (Do) and type c (for Copy)].

3   Press ⊞ ⊞ ⊟ ⊞ to shade the range B2. .F3.

4   Press (Enter).

5   Position the pointer where you want the copy to begin. This is A5.

6   Press (Enter).

Make another copy beginning on row 8, but this time type a range address instead of shading. Notice that you do not need to begin with the cell pointer at the start of the range you're going to copy. If you wish you can immediately position it where you want the copy to be inserted, that is A8.

How to copy a range by typing a range address: a specific example

1   Press (Copy).

2   Type the address of the range you want to copy. This is B2..F3.

3   Make sure the cell pointer is where you want the copy to start (A8), and press (Enter) twice.

Using Simple Formulas

You can make up your own formulas when you are calculating in the spreadsheet. There are also many standard formulas you can use - these are listed in Chapter 7, *Manipulating Data*. One such formula is for adding the contents of a row. An example follows the steps below.

How to add the contents of a range of cells

1 Position the cell pointer on the cell where you want the answer to appear.

2 Press (Select).

3 Type F for Formula.

4 Type the range address of the range you want to sum. Below, A1 represents the address of the first cell in the range you want to sum. Z5 represents the address of the last cell. Substitute your own values. Type:

SUM(A1..Z5)

This sums the contents of all the cells in the range.

5 Press (Enter). The formula is displayed on the Help Line and the result of the calculation is displayed in the cell.

Note

■ Formulas are always built using the formula function, (Select) and F. For more information see *Using Formulas* in Chapter 7, *Manipulating Data*.

Example

Create a spreadsheet, called Reps, with 8 columns. Accept the standard widths for columns and gaps. Now type in information until your screen looks like the one below. Note that the alignment of column headings can be changed later if you wish.

	A	B	C	D	E	F	G	H
	A	B	C	D	E	F	G	H
1	REPS	QTR1	QTR2	QTR3	QTR4	TOTAL	AVG	%TOTAL
2	Drew	102	86	74	65			
3	Flop	60	78	105	364			
4	Kirk	98	83	222	86			

To get the year's total for Drew, go through *How to add the contents of a range of cells*, using the formula: SUM(B2. .E2). You want the answer to appear in cell F2.

There is a quick method of calculating totals for the remaining representatives: work through *How to copy a formula*, on the next page.

Note that you want to position the cell pointer on cell F3 and you are copying the formula from F2. The cells you will be required to shade are F3 and F4.

Note

- If CIR appears on the Status Line, see the Notes under *Using Formulas* in Chapter 7, *Manipulating Data*.

Copying Formulas to Different Ranges of Cells

Once you have devised a formula for one group of cells you can apply it to other groups of cells. This method involves using the Recalculation function. This is vital to keeping all of your spreadsheet correct and up-to-date. See *Recalculation* in this chapter.

How to copy a formula

1 Put the cell pointer on the cell at the start of the range to which you are copying the formula.

2 Press (Copy) [Press (Do) and type c].

3 Type the cell address of the cell you are copying the formula from.

4 Press (Enter).

5 You are asked where you want to insert the copy.

   Shade the cells you are copying the formula to. To do this, press (Mark) and use the arrow keys:
   ⬆ ⬇ ⬅ ➡.

6 Press (Enter).

   The totals which appear should already be recalculated. If they are not, however, it means recalculation has been set to operate manually, so you need to press (Do) and type R (see *Recalculation*, in this chapter).

   You have now successfully applied the formula to the new cells.

Notes

- You can copy the formula by shading if you wish. In step 1, position the cell pointer on the cell that you want to copy and in step 3 press (Enter). Then shade the area to which you want to copy the formula, and press (Enter) again.

Adding Up the Contents of a Column

There is a very simple and efficient way to add up the contents of cells in a column.

How to add up the contents of a column

1 Put the cell pointer on the cell where you want the answer to appear - this cell is directly under the column you want to add up.

2 Press (Select).

3 Type c (for Column).

4 If you need to, adjust the shading with ⊞ or ⊞ to include only the cells you want in your formula.

5 Press (Enter). The answer appears.

In the example, repeat these steps for the other columns or use the method described under *How to copy a formula*.

Notes

- The formula that is built using the column add function is Sum(Column), where Column is the column that is being totaled.

- You can also press (Select) and c when you are editing a formula in the formula editing window. See Chapter 7, *Manipulating Data.*

- Only cells that contain a formula, or a number in the column you are shading, are included when you add the column.

Example

Using the "Reps" example introduced at the start of *Using Simple Formulas,* add up the contents of columns in which you have information. Start with your cell pointer on B5. See *How to add up the contents of a column.*

Working Out Averages

You can quickly and easily calculate averages using the AdvanceWrite Plus formula for averages: Avg(x).

How to calculate an average

1   Put the cell pointer on the cell where you want the answer to appear.

2   Press (Select).

3   Type F for Formula.

4   Type the formula, and the address of the range for which you want an average. Below, A1 represents the address of the first cell in the range you want an average for. Z5 represents the last cell address in that range. Substitute your own values. Type:

```
AVG(A1..Z5)
```

5   Press (Enter). The average of these cells appears.

Notes

■ In step 4 you can shade the range to be averaged, if you wish. First type Avg(, then move the pointer to the start of the range you want to average, press (Mark), shade the range, press (Enter) and type). Then go on to step 5.

Example

In the "Reps" example, introduced at the start of *Using Simple Formulas*, you have the title Avg in cell address G1. Follow the steps under *How to calculate an average* to get the average sales figures for each representative.

Note that you should start with your cell pointer on cell G2 to find the average for Drew. The first cell address of the range you want the average for is B2, and the last is E2. So type AVG(B2..E2) for step 4.

When you have this figure you can copy the Avg(x) formula to other cells. See *How to copy formulas*, in the previous section, and use what you have learned to find the averages for the remaining representatives.

Absolute and Relative Cells

When you build a formula for one cell, you may want to copy it to another cell, so that it can also be applied there. If you do this, the cell addresses in the formula you built change to reflect the position of the different cell. This is because the addresses being used in the formula are relative, not absolute.

In the diagram, for instance, the result of the formula A1+B1 would be displayed in cell C1. When you copy that same formula to cell C2, the addresses in the formula change, because they are relative. Cell C2 would therefore display the result of A2+B2. So when you copy the formula to C3, it displays the result of A3+B3. The cell addresses in the formula are relative to their new locations.

Relative Cell Reference:

Note Remember that the result of the formula is displayed in the cell. The formula itself is displayed on the Status Line.

	A	B	C
1			A1+B1
2			A2+B2
3			A3+B3

But what if you don't want the cell addresses to change? What if you want the value of cell A1 to be in all the copied formulas? The answer is to make the value of A1 absolute. This is done by typing exclamation marks (!) before column and row addresses.

In the diagram below, when you copy the formula in cell C1 to cell C2, it becomes !A!1+B2; when you copy to cell C3, it becomes !A!1+B3. So the value of cell A1 is used in each formula: it is an absolute value. You can make just a row address absolute, or just a column address, or the entire cell contents.

Absolute Cell Reference:

Note Remember that the <u>result</u> of the formula is displayed in the cell. The formula itself is displayed on the Status Line.

	A	B	C
1			!A!1+B1
2			!A!1+B2
3			!A!1+B3

Example

The example which follows highlights the importance of absolute and relative cell values when using formulas. If you're new to spreadsheets work through this example. Experienced users should refer to Chapter 7, *Manipulating Data*.

When you have worked through the Reps example in this chapter, your spreadsheet will look like the one below. If it doesn't, see *Report of Cell Contents* in this chapter.

	A	B	C	D	E	F	G	H
1	REPS	QTR1	QTR2	QTR3	QTR4	TOTAL	AVG	%TOTAL
2	Drew	102	86	74	65	327	81.75	
3	Flop	60	78	105	364	607	151.75	
4	Kirk	98	83	222	86	489	122.25	
5		260	247	401	515	1423		

What if you want to find out the percentage of sales each representative has contributed to the year's total sales? When you calculate each representative's percentage, you'll need to use the value in cell F5 every time, because cell F5 contains the year's total sales. So when you copy the formula to other cells, this value mustn't change. In other words, the cell's value must be absolute.

In cell H1, you should have %total. Now work through *How to use an absolute value: a specific example*. To get the percentage of sales Drew has contributed to the year's total a simple formula can be used: F2/F5*100.

How to use an absolute value: a specific example

If you are not working through the example in this chapter see Chapter 7, *Manipulating Data.*

1 Position the cell pointer where you want the answer to appear. In the example this is H2.

2 Press (Select).

3 Type F for Formula.

4 Cell F5 needs to have an absolute value, so both the column address (F) and the row address (5) must have an exclamation mark (!) typed in front of them. Using the formula given, type:

F2/!F!5*100

In this case the formula is for Drew's percentage of total sales, so the contents of cells F2 and F5 are used. To get Flop's contribution, F3 will need to be used, again in conjunction with F5. F5 therefore needs to be absolute because it is to be used to calculate figures for the other sales representatives.

5 Press (Enter). The answer (22.97962) appears.

Now copy the formula to cells H3 and H4. See *How to copy a formula*, in this chapter.

Once you have the answers (42.65636 and 34.36402 respectively) move up and down the column with the cursor keys. Notice that in the formula on the Status Line, all the values, except the absolute one (F5), change as you move the cell pointer.

Report of Cell Contents

If your spreadsheet doesn't look like the one under *Absolute and Relative Cells*, in this section, you should examine it to see where you went wrong. A good way of doing this is to create a report of the contents of the cells in the spreadsheet.

How to see a report of cell contents: a specific example

1   In your document, position the cursor between the Format Lines of the spreadsheet called Reps.

2   Press (Spreadsheet) [Press (Select) and type s].

3   Type R for Report.

4   Type a file name for the report file, for example, Check.

5   Press (Enter). AdvanceWrite Plus creates a file called Check. You can display and print the file in the usual way.

The report of the "Reps" example should look like the one that follows. If it doesn't, then in this form the spreadsheet is easy to examine to see where you went wrong.

Document Name - REPS

```
A1: REPS
B1: QTR1
C1: QTR2
D1: QTR3
E1: QTR4
F1: TOTAL
G1: AVG
H1: %TOTAL

A2: Drew
B2:        102
C2:         86
D2:         74
E2:         65
F2: sum(B2..E2)
G2: avg(B2..E2)
H2: F2 / !F!5 * 100

A3: Flop
B3:         60
C3:         78
D3:        105
E3:        364
F3: sum(B3..E3)
G3: avg(B3..E3)
H3: F3 / !F!5 * 100

A4: Kirk
B4:         98
C4:         83
D4:        222
E4:         86
F4: sum(B4..E4)
G4: avg(B4..E4)
H4: F4 / !F!5 * 100

B5: sum(B2..B4)
C5: sum(C2..C4)
D5: sum(D2..D4)
E5: sum(E2..E4)
F5: sum(F2..F4)
```

Recalculation

Recalculation occurs when you copy formulas to a different group of cells, and when you change the value of a cell on which other cell values depend. When recalculated, the dependent cells reflect the change.

Recalculation is usually set to operate automatically, but it can be used manually. The steps in *How to copy a formula* in this chapter assume that recalculation is set to operate automatically. So as soon as a formula is copied or a value changes, the spreadsheet is immediately updated without you having to do a thing.

When recalculation is set to operate manually, you need to press (Do) and R each time you copy a formula or change the value of a cell on which other cell values depend. This recalculates the whole spreadsheet, not just the value of the cell on which the cell pointer is positioned.

To check whether the recalculation is automatic or manual, in the worksheet press (Format) and type P. Look under *Page Parameters* in Chapter 5, *Formatting*.

Notes

- A spreadsheet can be recalculated more than once - for some complex operations it can be recalculated as many as 20 times. Also the method of recalculation can vary. Look for the number of iterations and the recalculation method under *Page Parameters* in Chapter 5, *Formatting*.

- If any errors result from recalculations, the cells that contain errors display an error message.

  AdvanceWrite Plus does not stop recalculating if an error is encountered.

Other Spreadsheet Functions

Working through the examples in this chapter highlights some of the functions that can be carried out using (Do), (Select) and (Mark). But there are many more functions available with these keys. This section provides a list of the functions under each key, and refers you to the chapters that deal with them.

To see a list of options available to you press (Do), (Select) or (Mark), and then press (Help). Once you select a function you can press (Help) again for further options and assistance. Getting help is covered in Chapter 1, *Introducing the Spreadsheet*.

The Do Key

The functions available under this key are:

Associate (Link)   You can associate one or more cells in one spreadsheet with cells in different spreadsheets. If the first cell(s) changes, the cell(s) in the other spreadsheet reflect those changes the next time it is displayed. See Chapter 6, *Working With Cells*.

Copy   You can copy a cell, range or whole spreadsheet. On the standard keyboard there is a special (Copy) key.

Set Defaults   You can change the standard (default) settings used in the spreadsheet, such as how numbers are laid out and what currency symbols to use. See Chapter 5, *Formatting*.

Erase Information	You can erase the contents of any cells. See Chapter 4, *Making Changes.*
Interchange	AdvanceWrite Plus spreadsheets can be used with spreadsheets from other programs and vice versa. On the standard keyboard there is a special (Filing) key.
Move	Information can be moved around the spreadsheet to new cells.
Name	You can choose a new name for an existing spreadsheet. See Chapter 1, *Introducing the Spreadsheet.*
Recalculate	When a value changes in the spreadsheet you can recalculate all cell values that might depend on it. This keeps them constantly up-to-date. Recalculation is covered in this chapter.
Sort the Spreadsheet	You can sort a spreadsheet to change the order in which information appears. See Chapter 7, *Manipulating Data.*

Titles	You can freeze the titles at the top and/or left of the spreadsheet. See Chapter 3, *Moving Around the Spreadsheet.*
Windows	You can split the screen either vertically or horizontally and display two portions of the same spreadsheet. See Chapter 3, *Moving Around the Spreadsheet.*

The Select Key

The functions available under this key are:

Edit	You can edit insert, delete or overstrike information in a text or number cell. See Chapter 4, *Making Changes.*
Date	You can type a date in a cell in a special way. See Chapter 5, *Formatting.*
0-9	You can use user-defined function keys. See Chapter 8, *The Keyboard.*
Keyboard	You can type foreign characters or special symbols. See Chapter 8, *The Keyboard.*
Leave the Spreadsheet	You can exit or quit the spreadsheet. On the standard keyboard you have a special (Spreadsheet) key.

Formula	You can type or edit a formula. See *Using Simple Formulas* in this chapter; and Chapter 7, *Manipulating Data.*
Column Add	You can use a built-in formula to sum a column. See *Adding Up the Contents of a Column*, in this chapter.
Keystroke File	You can define your own keystroke file when you use user-defined function keys. See Chapter 8, *The Keyboard.*

The Mark Key

You can mark selected cells in the spreadsheet to be treated differently from other cells. For instance, you can give cells different format settings to those chosen for the rest of the spreadsheet. Cells can be marked for:

Align Text in Cells	You can change the way that text aligns in certain cells. For example, should text align to the left or right? See Chapter 5, *Formatting.*
Connect Cells	You can connect a range of cells that you want AdvanceWrite Plus to treat as a single cell, or that you want a passage of text to be displayed in. For simple columnar work connecting cells is extremely useful. See Chapter 6, *Working With Cells.*

Inhibit Print of Cells	You can prevent selected cells in the worksheet from appearing in the text version or being printed. See Chapter 6, *Working With Cells.*
Display Marks	You can choose marks to display all the cells that are formula cells, for example, or all cells that are connected, protected, inhibited etc.
Name a Range	You can name any range of cells in the spreadsheet. See Chapter 6, *Working With Cells.*
Protect Cells	You can select cells for protection. This prevents accidental editing or erasure. See Chapter 6, *Working With Cells.*
Number Format	You can change the way numeric cells are formatted and displayed. See Chapter 5, *Formatting.*
Floating Cells	This is done from your document. It means that you can place a copy of a spreadsheet cell in the text of your document. Here it "floats" with its value constantly reflecting any change in the worksheet. See Chapter 6, *Working With Cells.*

Moving Around the Spreadsheet

Basic cell pointer movement is performed with the cursor control keys, and the (Shift) and (Tab) keys. See *Introducing the Spreadsheet*. However, there are a number of quicker and more sophisticated ways of moving around the spreadsheet.

This chapter covers:

- Vertical and Horizontal Movement
- Moving to Specific Cells or Ranges
- Titles
- Windows

All the keys covered in this chapter can be used for shading cells.

Vertical and Horizontal Movement

How to move to the right or left of the screen

1 Press (Page).

2 Press ⊞ or ⊟.

How to move to the top or bottom of the screen

1 Press (Page).

2 Press ⊞ to go to the top or ⊟ to go to the bottom.

Notes

- (Page) moves the cell pointer to the edges of that part of the spreadsheet page which is displayed on screen. It does not move the cell pointer to the edges of the spreadsheet itself.

- If you want to move the cell pointer to the edges of the worksheet, see (Go To) on the next page.

- (Page) does not move the cell pointer into the title area.

- (Page) can be used to shade ranges.

How to move to the edges of the spreadsheet

1 Press (Go To).

2 Press ⊞ ⊟ ⊞ or ⊞.

Notes

■ (Go To) moves the cell pointer to the edges of the worksheet itself, not just to the edges of the screen. To move to the edge of the screen only, see (Page).

■ (Go To) and ⊟ ⊞ ⊞ ⊞ can be used after pressing (Mark) for any function where a range needs to be shaded, such as naming ranges or connecting cells.

■ If the cell pointer is on or below the lowest active cell in the spreadsheet, (Go To) and ⊞ do not move the cell pointer.

■ (Go To) on its own does not move the cell pointer into title areas. See *Moving to Specific Cells*, in this chapter.

How to move to the start of the next row

Press (Line)

OR press (Enter)

Moving to Specific Cells

How to move to a specific cell or range

1 Press (Go To).

2 Type c (for Cell).

3 Type the cell address

   OR type the range name.

4 Press (Enter).

Notes

- You can (Go To) a cell that is used for a title even if titles have already been selected. See *Titles*, in this chapter.

- You can (Go To) a cell in a frozen title area.

- When you (Go To) a range name, your cell pointer is placed in the upper left corner cell of the range.

How to move to the last defined row in the worksheet

Press (Document)

OR press (Go To) and ⊞

Notes

■ If the cell pointer is above the last row which contains defined cells, pressing (Document) moves it to the last physical column of the last row that contains defined cells.

■ If the cell pointer is in a row below the last row with defined cells, pressing (Document) moves it to the last physical column in that row.

How to move to the beginning of the worksheet

Hold down (Shift) and press (Document) [Hold down (CTRL) and press (Document)]

OR press (Go To) and ⊞

Notes

■ The cell pointer goes to address A1 (the home position) if titles are not set there. See *Titles* in this chapter.

■ If titles are set, the cell pointer goes to the upper left hand corner of the area that is not part of the title.

How to go to the next cell that has an error

1 Put the cell pointer on A1.

2 Press (Go To).

3 Type E (for Error). The cell pointer moves to the next cell with an error.

Notes

- The Help line at the top of the screen tells you the type of error that is in the cell.

- If you press (Go To) and E when in the middle of the spreadsheet, only errors to the right and below the cell pointer are found.

- When you press (Go To) and E, ignore ?SEC? errors. Once all other errors are corrected, and the spreadsheet has been recalculated, the ?SEC? messages no longer appear. See chapter 10, *Spreadsheet Error Messages.*

How to display error cells

1 Press (Mark).

2 Type M for Marks

3 Type E for Error.

4 Press (Enter). The error cells are shaded.

How to stop displaying error cells

1   Press (Shift) and (Mark).

2   Type M for Marks

3   Press (Enter).

How to move to the next unprotected cell

Press (Go To) and (Tab)

OR press (Sent)

How to move back to the previous unprotected cell

Hold down (Shift) and press (Sent) [Hold down (CTRL) and press (Sent)].

Notes

■   AdvanceWrite Plus automatically skips over protected cells.

■   You do not need to have honor protection set in the page parameters to use this command. See chapter 5, *Formatting*.

How to move to the first or last defined cell in a specific direction

1   Press (Para).

2   Press ⊞ or ⊞ to move up or down in a column

   OR press ⊞ or ⊞ to move right or left in a row.

How to move to the next defined cell

   Press (Word).

How to move to the previous defined cell

   Hold down (Shift) and press (Word) [Hold down (CTRL) and press (Word)].

Notes

■   If the cell pointer is on a defined cell when you press (Para), it moves to the first/last defined cell of the same type in the direction you indicate. So if you are on a formula cell it moves to the first/last formula cell, for example.

- If the cell pointer is on an undefined cell when you press (Para), it moves to the first defined cell it can locate in the direction you indicate.

- With (Word), the cell pointer moves to the next defined cell to the right and downward of its current location. It skips undefined cells. Using (Shift) and (Word) moves it in the opposite direction.

Titles

Titles are rows and columns, to the top and left hand side of the spreadsheet, which have been frozen on screen. It means that while you move the rest of the spreadsheet around, the titles stay where they are. This helps you to compare figures in the rest of the spreadsheet with those in the titled area. Titles are an invaluable way of viewing big spreadsheets.
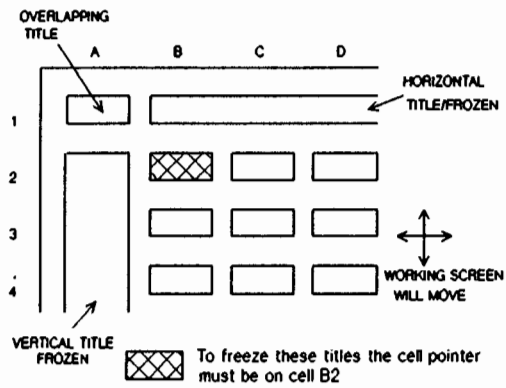
The cell pointer should be one row below and one column to the right of where you want to freeze titles. You can freeze titles anywhere on the spreadsheet.

How to freeze vertical and horizontal titles at the same time

1   Position the cell pointer one row below and one column to the right of where you want to "freeze" the titles. See the preceding diagram.

    This freezes rows above and columns to the left of the cell pointer. You cannot do both types of titles if your cell pointer is on either Row 1 or Column A.

2   Press (Do).

3   Type T (for Titles).

4   Press (Enter).

How to freeze vertical titles only

1   Position the cell pointer one column to the right of where you want to freeze the titles.

2   Press (Do).

3   Type T (for Titles).

4   Type V (for Vertical).

How to freeze horizontal titles only

1 Position the cell pointer one row below where you want
   to freeze the titles.

2 Press (Do).

3 Type T (for Titles).

4 Type H (for Horizontal).

How to undo titles

1 Hold down (Shift) and press (Do).

2 Type T (for Titles).

3 Press (Enter).

Notes

- Any row or column can be frozen as a title.

- Vertical titles freeze all columns left of the cell pointer, and
  they move up or down as the cell pointer is moved up or
  down.

- Horizontal titles freeze all rows above the cell pointer, and
  they move to the left or right as the cell pointer is moved to
  the left or right.

- Vertical titles do not move to the left as you move the cell
  pointer to the right and horizontal titles do not move up as
  you move the cell pointer down.

- Title cells that fall in both the horizontal and vertical title area are overlapping titles and do not move in any direction.

- You cannot freeze a vertical title to the left of the first column, and you must have at least one column on the screen that is not part of the title.

- You cannot freeze horizontal titles above the first row of the spreadsheet.

- You can do vertical titles and later do horizontal titles or vice versa to get both horizontal and vertical titles.

- To position your cell pointer in a title area, use (Go To) and c. When you do this AdvanceWrite Plus displays duplicate title columns.

- Once the pointer is in a title area, you can move your cursor in and out of it without having to use (Go To). When you move the cell pointer out of the duplicate title cells, they remain on screen until you remove them. To do this, move your cell pointer vertically or horizontally until they disappear. You cannot scroll them back again.

- To change the location of the title, simply Undo titles and repeat the title command with your cell pointer at the new location. See *How to undo titles*.

- You can freeze Titles and Windows at the same time. See *Windows*.

Windows

Using windows means you can simultaneously display two different sections of the same spreadsheet. The windows can be horizontal or vertical and either synchronized or unsynchronized.

How to use windows

1   Put the cell pointer on the cell where you want the screen to split.

2   Press (Do).

3   Type W (for Window).

4   You have two options. Type:

   ■ H for Horizontal windows

   ■ V for Vertical windows

5   Press (Tab).

6   You have two options. Type:

   ■ Y for Synchronized windows

   ■ N for Unsynchronized windows

7   Press (Enter).

Notes

- If windows are synchronized, the columns and/or rows in one window remain aligned with those in the other window as the cell pointer is moved.

  So when you choose synchronized and vertical windows, rows in both windows stay aligned as you press ⊞ or ⊟ to move them. When you choose synchronized and horizontal windows, columns in both windows stay aligned as you press ⊡ or ⊟ to move them.

- With unsynchronized windows, the rows and/or columns move only in the window in which the cell pointer is located.

- You can use windows and titles at the same time. See *Titles*, in this chapter.

How to move from window to window

1 Press (Go To).

2 Press (Document).

How to undo windows

1 Hold down (Shift) and press (Do).

2 Type W (for Windows).

3 Press (Enter). The window in which the cell pointer is located fills the entire screen.

Making Changes

This chapter tells you how to edit, delete or erase the contents
of cells, as well as how to copy and move cells or whole
spreadsheets. Entering information is dealt with in Chapter 1,
Introducing the Spreadsheet.

Editing

You can insert, delete, or type over information in any cell that
contains text or numbers.

How to replace the entire contents of a cell

1   Position your cell pointer on the cell that you want to
change.

2   Type the new information.

3   Press (Enter).

How to insert information

1   Put the cell pointer on the cell you want to edit.

2   Press (Select).

3   Type E (for Edit). The cell contents are displayed at the top of your screen, with your cursor.

4   Press (Insert).

5   Press ▣ or ▣ to move the cursor to the point of insert.

6   Type the characters you wish to add.

7   Press (Enter).

How to delete information

1   Put the cell pointer on the cell you want to edit.

2   Press (Select).

3   Type E (for Edit).

4   Press ▣ or ▣ to move to the character to be deleted.

5   Press (Delete). Repeat step 4 and (Delete) for each deletion.

7   Press (Enter).

Notes

■ When you are in Edit, you can insert as well as type over information and delete.

■ Note that <u>deleting is not the same as erasing</u>. If you delete all the characters in a cell, AdvanceWrite Plus treats the cell as empty, but it is still defined as a text cell. To change its status to undefined, see *Erase*, in this chapter.

■ When you press (Insert), the Status Line reads INS. Press (Insert) again to turn it off.

■ With Insert, all characters to the right of your cursor move to the right one character for each character you add. With Delete, as you delete characters, the remaining information moves to the left.

■ Changes to cell contents are not permanent until you press (Enter). If you press (Cancel) first you retrieve the original cell contents.

■ If you are going to amend several cells in a column, press ⊞ or ⊞ after each amendment. This allows you to go straight into editing the cell above (⊞) or straight into editing the cell below (⊞).

■ When editing connected cells (see Chapter 6, *Working With Cells*) the contents of all the connected cells appear on the Status Line. These contents may be longer than the screen can display, and scroll left and right as you edit.

Erase

You can erase all or part of a spreadsheet. Erasing cells does not affect the number of rows or columns in your spreadsheet; it simply removes the contents of cells. To delete columns or rows, see *Deleting Columns and Rows*, in this chapter.

When you erase the contents of a cell, that cell is considered to be an empty, undefined cell. This is therefore different to when you delete cell contents, where the cell type, either text or numeric, remains.

How to erase information

1 Position the cell pointer on the first cell whose contents you wish to erase.

2 Press (Do).

3 Type E (for Erase).

4 Shade the amount you want to erase.

5 Press (Enter).

Notes

■ Once a cell has been erased, it cannot be restored. You need to re-enter the information.

■ A cell may be a referenced cell. This means its value affects other cells. If you are about to erase a cell that is referred to elsewhere in the spreadsheet, AdvanceWrite Plus warns you. To prevent erasing press (Cancel).

To continue erasing, press (Enter). The cell's contents will be given a value of zero in any formulas which refer to the cell.

The values in cells that depend on the erased cell automatically adjust if recalculation is set to automatic. Otherwise, press (Do) and type R to recalculate. See Chapter 2, *Basic Spreadsheet Functions.*

If erased formulas or numeric cells have been referenced in other formulas, the dependent formulas show error indicators.

■ You cannot erase permanently associated cells, you must unlink them first. See Chapter 6, *Working With Cells.*

■ If you erase all the cells in a named range, the range name is no longer defined.

■ If you erase cells in a connected area, the connection is broken.

How to erase the entire spreadsheet

1   Move the cell pointer to the A1 address.

2   Press (Do).

3   Type E (for Erase).

4   Press (Document).

5   Press (Enter).

Notes

■   You cannot retrieve the contents of an erased worksheet if the worksheet was new and was never inserted into your document, i.e. you did not have a text version. An erased worksheet can be retrieved if the text version has been inserted into your document.

To do this, press (Spreadsheet) and Q (for Quit). Then select the spreadsheet again.

■   If you erase the whole spreadsheet and then exit with (Spreadsheet) and X , you see one row of the spreadsheet in your document.

Copying

You can copy cells or ranges to other locations in the same worksheet, as described below. You can also have multiple text copies of the same worksheet within the same document; or can copy both text and worksheet so they become a totally new spreadsheet, unlinked to the original.

However you choose to make a copy, it allows you to experiment with figures, and compare results with the original, for example, as well as feed in different information or try out a new format.

How to copy a range to another location in your worksheet

1   You should be in your worksheet.

   If you are going to shade the cells to be copied, make sure the cell pointer is on the first cell of the range you want to copy.

2   Press (Copy) [Press (Do) and type c (for Copy)].

3   Type the range address or name of the range you wish to copy use shading.

4   Press (Enter).

5   Position the cell pointer where you want the range to be copied. (If you wish you can press (Mark) to shade the cells to be copied to. See Notes.)

6   Press (Enter).

Notes

■ In step 5, you can shade an area (to contain the copy) that is smaller than the range you are copying. AdvanceWrite Plus copies as much as will fit into the area you shade.

If you do not shade an area, and there is not enough room to insert the range you want to copy, AdvanceWrite Plus warns you. Press (Cancel) and try a new location if you want a complete copy of the range.

■ All cell attributes are copied except associated attributes. For instance, cells that are connected, bold or protected, remain so when they are copied.

■ If the cell you are copying is a formula cell, the cell addresses used in the formula change to reflect the relative column and/or row of the new location. This is unless the original addresses are absolute. See Chapters 2 and 7, *Basic Spreadsheet Functions* and *Manipulating Data.*

■ When you copy cells to a new location, information at the new location is overwritten. If copying is going to cause overwriting, AdvanceWrite Plus warns you. Press (Cancel) and go through the steps again choosing a different location.

Making Text Copies

You can make numerous text copies of a worksheet in the same document. It means that all text copies still belong to the same worksheet: the worksheet itself has not been copied. This allows for a very quick way of updating any text copy. See Notes.

If you want text copies to have their own worksheets, i.e. the copy becomes a completely separate spreadsheet, see *Copying Text and Worksheet.*

How to make text copies of a worksheet in the same document

1   In your document, position the cursor where you want all or part of an existing spreadsheet to be copied.

2   Press (Spreadsheet) [Press (Select) and type s (for Spreadsheet)].

3   Press (Enter).

4   Type the name of the spreadsheet to be copied.

5   Press (Enter). The worksheet is displayed.

6   Press (Spreadsheet) [Press (Select)] and type x for Exit.

7 Type the name or address of the range you want to be copied into your document. Omit this step if you want the entire spreadsheet to be copied.

8 Press (Enter) twice.

Notes

- As well as letting you copy an entire worksheet, this function allows you to place different parts of the worksheet into different places in your text. For instance, a range A1 .. D2 could be used in one part of your document, a range A3 .. D3 in another part, and so on.

  So, as you exit from the worksheet in each new or different location, choose a different part of the worksheet to be used as the text version. See *Leaving the Spreadsheet* in Chapter 1, *Introducing the Spreadsheet*.

  This may also be a useful way to print a spreadsheet that would otherwise be too large for a sheet of paper. See *Page Parameters* in Chapter 5, *Formatting*.

- You can select the worksheet and make changes to it from any one of the text copies. Changes can mean figures as well as formatting changes, such as moving the left margin or increasing a column width.

  These changes to the worksheet are permanent, no matter which text version you enter the worksheet from. Other text versions reflect these changes once the worksheet is entered from them, and then exited.

However, this method of copying a spreadsheet means there is a quicker and easier way of keeping text copies up-to-date, when changes are made to the worksheet. See *Updating Multiple Text Copies* in this chapter.

If you do not want a text copy to reflect changes in the worksheet, do not enter or update it. You can, if you wish, delete the worksheet at the text version you want to remain unchanged. See *Deleting a Spreadsheet* in Chapter 1, *Introducing the Spreadsheet.*

■ You can copy different parts of a spreadsheet, or an entire spreadsheet, to eight different locations in the text document.

Updating Multiple Text Copies

What if you have several text copies of a spreadsheet and the worksheet changes? You may want to include those changes in all or some of your copies. With AdvanceWrite Plus, this can be done easily without entering the worksheet itself.

How to update multiple copies

1   From your document, position the cursor between the Format Lines of the spreadsheet you want to update.

2   Press (Spreadsheet) [Press (Select) and type s].

3   Type u (for Update).

     This updates the copy where your cursor is positioned. Repeat these steps for each text version you want to update.

Notes

■   This method of updating is used when you have made text copies in the same document. See *Making Text Copies.*

■   The worksheet is not displayed while AdvanceWrite Plus is updating.

■   If you do not want to update a text spreadsheet, do not enter the worksheet from it and then exit.

Copying Text and Worksheet

When you use this method of copying a spreadsheet, AdvanceWrite Plus copies both the text version and the worksheet version.

How to copy both the text and worksheet spreadsheets to a different location within your document, or to a new document

1   You should be in the document containing the spreadsheet you want to copy.

2   Position the cursor on the first character below the spreadsheet Format Line.

3   Press (Copy) [Press (Do) and type c].

4   Press (Document).

5   You have two options.

   ■   press (Enter) to hold a copy of your spreadsheet in a standard temporary file while you continue

   ■   type a file name for a temporary file in which to hold a copy of your spreadsheet while you continue. Then press (Enter).

6   Shade the entire text version of the spreadsheet and one character below the Format Line.

Continued...

7 Press (Enter).

8 You have two options.

   ■ to copy to a different location within your
      document, position the cursor where you want to
      insert the spreadsheet.

   ■ to copy to a new document, display the document
      where you want the spreadsheet to be copied and
      position the cursor where you want to insert the
      spreadsheet.

9 Hold down (CTRL) and press (Insert) [Press (Do) and
   (Insert)].

10 Press (Document).

11 If a copy of the spreadsheet is in the standard
    AdvanceWrite Plus temporary file, press (Enter). If you
    specified your own file name, type the name and press
    (Enter).

12 To insert both worksheet and text spreadsheets, type N
    (for No) to the question about format.

    If you type Y, only the text of the spreadsheet is inserted.
    The worksheet and text spreadsheets are not.

13 Press (Enter).

Notes

■ The Update command cannot be used. Once a spreadsheet
   is copied in this way (using a temporary file) it will not
   reflect changes made in the original spreadsheet, because
   they are now two separate spreadsheets.

- When you copy a spreadsheet to a new document, it has the same name as the original.

  When you copy a spreadsheet to a different location within your document, it has the same name as the original except that the number 1 is added to the end of the spreadsheet name. If 10 or more copies are made the first 9 have 1 to 9 appended to the original spreadsheet name; the 10th copy is 91, the 11th is 92 and so on.

  For example, if the original spreadsheet is called Sheet, the first copy you make is Sheet1, and the ninth copy is Sheet9. The tenth copy will be Sheet91 and the eleventh Sheet92.

- AdvanceWrite Plus may insert an extra Format Line when you copy in this way. You may delete it if you wish.

Moving Cells or Spreadsheets

You can move cells or ranges to other locations in the same spreadsheet, to a different spreadsheet in the same document or to a different document altogether. You can also move an entire text and worksheet, either within your document or to a new document.

How to move a range to a different location in the same spreadsheet

1 You should be in your worksheet. If you are going to shade the range to be moved, make sure the cell pointer is on the first cell of that range.

   Press (Move) [Press (Do) and type M for Move].

2 Type the range name or address of the range to be moved, or shade the range to be moved.

3 Press (Enter).

4 Position the cell pointer where you want the range to be moved to.

5 Press (Enter).

Notes

- After the move, the contents of the original cells are erased but the columns and rows are not deleted.

- If there is not enough room to insert the cells that you want to move, AdvanceWrite Plus warns you. Press (Cancel) and try again.

- When you move cells to a new location, information at the new location is overwritten. If moving is going to cause overwriting, AdvanceWrite Plus warns you. Press (Cancel) and go through the steps again using a different location.

- All cell attributes are moved. For instance, cells that are connected or protected remain so when moved. However, associated cells cannot be moved.

- When moved, cell addresses used in formulas change to reflect the relative column and/or row of the new location. This also happens if the moved cells were originally made absolute. See Chapters 2 and 7, *Basic Spreadsheet Functions* and *Manipulating Data.*

How to move a spreadsheet to a different document, or to a new location in an existing document

1 In the text spreadsheet, put the cursor on the first character below the Format Line.

2 Press (Move) [Press (Do) and type M for Move].

3 Press (Document).

4 You have two options.

   ■ press (Enter) to hold a copy of your spreadsheet in a standard temporary file while you continue

   ■ type a file name for a temporary file in which to hold a copy of your spreadsheet while you continue. Then press (Enter).

5 Shade the entire text version of the spreadsheet and one character below the text Format Line.

6 Press (Enter).

7 You have two options.

   ■ to move to a different document, display the document where you want the spreadsheet to be moved and position your cursor where you want the spreadsheet to be inserted

   ■ to move to a new location in the same document, display the document and position the cursor where you want to insert the spreadsheet

8   Hold down (CTRL) and press (Insert) [Press (Do) and (Insert)].

9   Press (Document).

10 If a copy of the spreadsheet is in the standard AdvanceWrite Plus temporary file, press (Enter). If you specified your own file name, type the name and press (Enter).

11 To insert both worksheet and text spreadsheets, type N (for No) to the question about format.

    If you type Y, only the text of the spreadsheet is inserted. The worksheet and text spreadsheets are not.

12 Press (Enter).

Notes

■   AdvanceWrite Plus moves both the text version and the worksheet version

■   You can use the moved version of your spreadsheet as usual

■   The moved spreadsheet has the same name as the original

Inserting Columns and Rows

You can add columns and/or rows anywhere in an existing spreadsheet, even if you insert them between columns or rows of information.

How to insert a column or row

1   Position the cell pointer at the point where a new column or row is to be inserted. In later steps you can choose whether it goes before or after this point.

2   Press (Insert).

3   Type c (for Column) or R (for Row).

4   Type the number of columns you wish to insert, and (Tab) to the next question if you need to.

5   Type B if you want to insert the column(s) or row(s) before the cell pointer position

    OR type A if you want to insert the column(s) or row(s) after the cell pointer position.

6   Press (Enter).

Notes

- Existing spreadsheet columns and rows automatically adjust to make room for the new ones.

- When columns are inserted they adopt the width of 8 characters. To change the width see Chapter 5, *Formatting*.

- Both relative and absolute cell references in formulas change to accommodate the new column or rows. See Chapters 2 and 7, *Basic Spreadsheet Functions* and *Manipulating Data.*

- Columns and rows cannot be inserted if (a) the insertion would split a permanently linked range of cells, or (b) the insertion causes the spreadsheet to be wider than 250 characters and/or to exceed the 6400-cell maximum. When this happens, an error is displayed, and you can delete some existing columns and/or rows and try again.

Deleting Columns and Rows

You can delete columns and/or rows from a spreadsheet.

How to delete a column

1. Position the cell pointer at the start of the column or row where you want to begin deleting.

2. Press (Delete).

3. Type c (for Column) or R (for Row).

4. Shade the columns or rows you wish to delete.

5. Press (Enter).

Notes

- Columns to the right of the deleted column move to the left after the deletion is made. Rows below the deletion move up.

- The minimum number of columns you can have in a spreadsheet is 1.

- Both relative and absolute cell references in formulas change to reflect changes in cell addresses. See Chapters 2 and 7, *Basic Spreadsheet Functions* and *Manipulating Data.*

- The cells in some columns and rows may contain formulas or numbers that reference cells elsewhere in the spreadsheet. When you are about to delete such cells AdvanceWrite Plus warns you. To prevent this, press (Cancel). To allow it, press (Enter). This deletes and invalidates the formula cells.

  If deleted formula or numeric cells have been referenced in other formulas, the dependent formulas show error indicators.

- If you want to remove only the contents of a column or row, see *Erase* in this chapter.

- You cannot delete a column or row that contains permanently linked or protected cells, unless honor protection is turned off. Look for *Page Parameters* in Chapter 5, *Formatting.*

- If cells are referenced in a destination spreadsheet, you do not receive error messages while you are deleting them. You receive error messages the next time you select the destination spreadsheet.

Text Enhancements

Once you have compiled your spreadsheet, you may want to improve its appearance by using the functions described in this section: bold, capitalize and underline. Other ways to improve the appearance of your spreadsheet are to use alignment, (Justify) and (Center), which are covered in Chapter 5, *Formatting*.

Bold

Any cells or ranges that have been typed in your spreadsheet can be made bold, or can have bold removed from them.

How to make the contents of a cell bold

1   Put the cell pointer on the cell you wish to be in bold.

2   Press (Bold) [Press (Enhance Text) and type B].

3   Shade the cells you wish to be in bold. If you only want the cell you are on to be selected, go straight to step 4.

4   Press (Enter).

How to remove bold from a cell

1   Put the cell pointer on the cell you wish to remove bold from.

2   Hold down (Shift) and press (Bold) [Hold down (Shift), press (Enhance Text) and type B].

3   Shade the cells you wish to remove bold from. If you only want the cell you are on to be selected, go straight to step 4.

4   Press (Enter).

Notes

■   A cell is the minimum you can make bold or remove bold from.

■   Once cells are in bold type they remain so when moved or copied.

Capitalized and Uncapitalized Text

You can change the text in any cell or range to capital letters, as well as change from capital to lowercase letters. You can also choose to have capitalized text as you type.

How to capitalize cell contents

1   Put the cell pointer on the cell you want to be in capital letters. If you are going to capitalize a range put the pointer at the start of the range.

2   Press (Capitalize) [Press (Enhance Text) and type u for Uppercase].

3   Shade the cells you want in capital letters. If you only want the cell you are on to be selected, go to step 4.

4   Press (Enter).

How to uncapitalize cell contents

1   Put the cell pointer on the cell you want to remove capital letters from. If you are going to uncapitalize a range put the pointer at the start of the range.

2   Hold down (Shift) and press (Capitalize) [Hold down (Shift), press (Enhance Text) and type u].

3   Shade the cells you want to remove capital letters from. If you only want the cell you are on to be selected, go straight to step 4.

4   Press (Enter).

Notes

- Once text is capitalized, it remains so when moved or copied.

- AdvanceWrite Plus cannot capitalize date cells. You need to use defaults to change a date format. See *Page Parameters* and *Dates* in Chapter 5, *Formatting*.

- One cell is the minimum that can be capitalized or uncapitalized.

How to get capitalized text as you type

Press (Caps lock).

How to stop capitalized text as you type

Press (Caps lock) again.

Notes

- When you are typing in capitalized text, CAPS is displayed on the Status Line.

Underline

You can underline or remove underlining from the contents of any cells in the spreadsheet. Underlining can be single or double.

How to underline cells

1. Put the cell pointer on the cell you want to underline. If you are going to underline a range, put the pointer at the start of the range.

2. Press (Underline) [Press (Enhance Text)].

3. Type s [Type - (dash)] for Single underline.

4. Type the range address or name, or shade the cells you wish to underline. If you only want the cell you are on to be selected, go straight to step 5.

5. Press (Enter).

How to remove underlining from cells

1. Put the cell pointer on the cell you want to remove underlining from. If you are going to remove underlining from a range, put the pointer at the start of the range.

2. Hold down (Shift) and press (Underline) [Hold down (Shift) and press (Enhance Text)].

Continued...

3 Type s [Type - (dash)] for Single underline.

4 Type the range address or name, or shade the cells you
   wish to remove underlining from. If you only want the
   cell you are on to be selected, go straight to step 5.

5 Press (Enter).

Notes

■ On some screens you are unable to see underlining. It shows
   only when printed.

■ In the worksheet, if underlining does show on screen, the
   entire cell width is underlined. However, when your
   spreadsheet is printed, the underline is changed to match the
   widest number in the column, or the length of your text.

■ The minimum amount you can underline is one cell.

■ You cannot have cells marked for underline and double
   underline at the same time. Double underlining overrides
   single underlining.

Double Underline

Instead of single underlining, you can have double underlining beneath the contents of any cell. This is especially useful for doing grand totals on the spreadsheet.

How to double underline cell contents

1 Put the cell pointer on the cell you want to double underline. If you are going to double underline a range, put the pointer at the start of the range.

2 Press (Underline) [Press (Enhance Text)].

3 Type D (for Double underline).

4 Shade the cells you wish to double underline. If you only want the cell you are on to be selected, go straight to the next step.

5 Press (Enter).

How to remove double underlining from the contents of cells

1   Position the cell pointer on the cell where you want to begin double underlining or remove double underlining.

2   Hold down (Shift) and press (Underline) [Hold down (Shift) and press (Enhance Text)].

3   Type D (for Double underline).

4   Shade the cells you wish to remove double underlining from. If you only want the cell you are on to be selected, go straight to step 5.

5   Press (Enter).

Notes

■   Double underlining only appears when the spreadsheet is printed. It does not appear on your screen. Instead, if your screen is capable of displaying single underlining, you see single underlining.

■   You can easily tell which cells are double underlined by working through *How to display double underlined cells.*

■   If you double underline cells that already have single underlining, they become double underlined.

How to display double underlined cells

1 Press (Mark).

2 Type M (for Marks) [Press (Save & Display)].

3 Type D.

4 Press (Enter). All double underlined cells become shaded.

How to stop displaying marks

1 Hold (Shift) and press (Mark).

2 Type M (for Marks).

3 Press (Enter). Shading disappears.

Formatting

You can set or change the size and layout of your spreadsheet. This means you determine how many rows, columns etc. there should be, how wide columns and gaps are, as well as the styles for dates and numbers (numeric format).

The first two sections of this chapter cover format settings which affect the entire spreadsheet. These two sections are *Page Parameters* and *Setting Spreadsheet Defaults*.

The final section covers format settings to selected cells. This is where cells or ranges can be given a different format to the rest of the spreadsheet formats. It's called *Selective Formatting*.

Note

Chapter 1, *Introducing the Spreadsheet* tells you how to set the number of columns, the gap space and the column width when starting a spreadsheet. To delete columns and rows see Chapter 4, *Making Changes*.

Page Parameters

There are two types of page parameters. There are those that you set while in the text version of your spreadsheet, which relate directly to printing the spreadsheet, and there are those that you set while in the worksheet.

For the Text Spreadsheet

When you set the page parameters from the text version of the spreadsheet, they cover page length, pitch and line spacing. To list these options place the cursor just below the Format Line in the text version of the spreadsheet and press (Format). See *Page Specifications* under the chapter *Formatting a Document*, which is in the *Introductory Guide* manual.

Remember that the spreadsheet you choose to print should not be wider than your paper, although you can use landscape printing provided you have the right printer and landscape fonts. You can, of course, inhibit the printing of as many cells as you wish, which is useful when the spreadsheet is large. You can also insert different parts of a spreadsheet into different parts of a document. See *Making Text Copies* in Chapter 4, *Making Changes*.

All other format information must be entered in the worksheet.

For the Worksheet

The page parameters you set while in the worksheet apply only to that worksheet. They cover:

- The way in which cells are formatted

- The method used for recalculation

- The protection of cells

The page parameters you set in the worksheet are important in determining both the appearance and the accuracy of your spreadsheets. With numeric cells, for instance, are currency symbols needed throughout the spreadsheet? If so, which ones, and should they be displayed to the left or right of the number?

With recalculation, do you want to change the order in which the spreadsheet is recalculated, and do you want it done automatically or manually? And with cells that have been marked for protection, should that protection actually be honored?

All of these options are available when you use (Format) to select the page parameters. Page parameters will not affect cells selectively marked for different formats, unless you unmark them. If you choose not to set any page parameters, AdvanceWrite Plus uses its own default settings.

How to set the spreadsheet page parameters from the worksheet

1   In the worksheet version of your spreadsheet, press
    (Format).

2   Type p (for Page Parameters). The following options
    appear:

    ■ Numeric Format
    ■ Precision
    ■ Text Alignment
    ■ Recalculation Method
    ■ Automatic
    ■ Number (#) of Iterations
    ■ Honor Protection

3   Press (Help) to see descriptions of the options. These are
    further explained under *Page Parameter Options*.

4   (Tab) to move forward from option to option

    OR hold down (Shift) and press (Tab) to move back to a
    previous option.

5   Type the options you want.

6   Press (Enter) when you are finished.

Notes

- You can press (Cancel) any time before pressing (Enter) to retain the original settings.

- Page parameter settings affect all cells in the spreadsheet. This is unless you have used (Mark) to selectively format cells or ranges; these are not affected until they are unmarked. Once unmarked, therefore, they return to the format and precision defined in the page parameter settings, i.e. the global formats. See *Changing Numeric Formats*, in this chapter.

- (Format) is also used to set your left margin, and adjust column/gap widths. See *Column and Gap Widths* and *Setting the Margins*, in this chapter.

Page Parameter Options

Remember to press (Help) when setting the options.

Numeric Format

This is the first option when setting the spreadsheet page parameters. It defines the format in which the numbers in cells are displayed. Once you (Tab) to the number format option, you are asked:

How should numbers appear?

You can select any one of the following options, from 1 to 7, for numeric cell format:

1 GENERAL

General numeric format means that numbers shows as many digits as will fit to the right of a decimal point. The number of decimal positions depends on the precision set. See *Precision*, option two. If the number is too large or too small to fit in the cell, scientific notation is used. See *Entering Information* in Chapter 1, *Introducing the Spreadsheet*.

2 FIXED

All numbers are shown with the same number of decimal positions. There are no thousand separators, for example, 1 000 is used, not 1,000.

3 CURRENCY

This means that currency symbols are shown. (To choose the type of symbol see *Setting Spreadsheet Defaults.*) All numbers have the same number of decimal positions, and thousand separators are used.

4 COMMA

With Comma format all numbers have the same number of decimal positions, and thousand separators are used.

5 PERCENT

Percent symbols are placed to the right of the number in the gap space. Decimal precision can be used and is the same for all numbers.

6 SCIENTIFIC

This displays the number using the power of 10.

7 DATE

If you type in numbers they are displayed as dates. Three types of style are available for date format. When you choose 7 , precision determines how dates should be formatted. See the next page parameter option, *Precision.*

Precision

This is the second option when setting the page parameters. It determines the number of digits that are displayed to the right of the decimal point or the type of style that is used for dates. When you (Tab) to the precision option you are asked:

What precision should numbers have? Or what style should the date be?

If you selected the Fixed, Currency, Comma, or Percent format, you need to state a decimal precision from 0 to 15. For example:

Number Format	Precision (Number of Decimal Points)
123.45678	5
123.45	2
123	0

If you selected the General or Scientific format, precision does not apply and the number typed for precision is ignored.

If you selected the date format (7) under the page parameter options, what you type for precision determines the style in which dates are displayed. There are three options:

1 Abbreviated Jan. 10, 1986
2 Spelled out January 10, 1986
3 Numeric   1/10/86

The exact format and order of these date style options can be changed to suit your own preferences. See *Setting Spreadsheet Defaults*, in this chapter.

When setting the page parameters in the worksheet, you should note the following points:

- AdvanceWrite Plus can display up to 15 decimal positions. Trailing zeros are dropped.

- Precision settings will not affect the value of Pi (3.141592654) or "e" (2.718281828). However, they do affect how these values are displayed.

- When precision is changed from a large to a small number, AdvanceWrite Plus rounds off the number. For example, 123.45678 (precision of 5) if changed to a precision of 2, becomes 123.46. If changed back, 123.45678 is displayed again. The rounding off therefore disappears.

- You can change the precision for selected cells. Use (Mark) to give them a different number or date format to those in the rest of the spreadsheet. See *Changing Numeric Formats*, in this chapter.

Text Alignment

This is the third option when setting the page parameters. It determines how text cells are aligned, and affects only the text entered after the change. So as you type in new text, it adopts the alignment you choose here. To selectively align cells see *Alignment, Justify* and *Center* in this chapter. When you (Tab) to this option, you are asked:

How should text be aligned?

The options you have for text alignment are:

L   Left Aligned

Sales
Marketing
Accounting

R   Right Aligned

Sales
Marketing
Accounting

J   Justified

This is an example of this option. The text is flush with both sides of the column.

C   Centered

This is
centered
text

Recalculation Method

The method used for recalculation is the fourth page parameter option, and it determines the order in which AdvanceWrite Plus performs the calculation of formulas.

Recalculation is covered in Chapter 2, *Basic Spreadsheet Functions*. When you (Tab) to the recalculation method option you are asked:

Select any one of the following options:

N for Natural. AdvanceWrite Plus recalculates in a natural or logical sequence. So a formula is only recalculated once the formulas it depends on are recalculated.

For example, the value of cell A1 may depend on the values of cells A2 and A3. Recalculation is therefore performed on these two cells before it is performed on A1. And if A2 and A3 depend on cells A4 and A5, the values of cells A4 and A5 are recalculated before any others, and so on.

R for Row by row. AdvanceWrite Plus recalculates a row at a time, starting with row 1.

C for Column by column. AdvanceWrite Plus recalculates a column at a time, starting with column A.

With row by row or column by column recalculation, some formulas may need to be recalculated more than once. For example, if a value in row 1 depends on the result of a value in row 2, you need to take the recalculated value of row 2 into account. This is done by using more than one recalculation pass. See *Number of Iterations*, which follows.

Automatic

This is the fifth page parameter option. It determines how and when you want AdvanceWrite Plus to recalculate formulas in the spreadsheet. Recalculation is covered in Chapter 2, *Basic Spreadsheet Functions*. When you (Tab) to Automatic you are asked:

`Do you want to do automatic or manual recalculation?`

The two options are:

A   for Automatic. This recalculates all the formulas in the spreadsheet any time you change a value in a cell. So all dependent cell values immediately change. Automatic is the usual option.

M   for Manual. This recalculates all the formulas in the spreadsheet only when you press (Do) and type R. You may wish to use manual if you are changing several values at once and want to avoid recalculating until all the values are entered. When values do change you must <u>remember to recalculate</u> the spreadsheet.

Number of Iterations

This is the sixth page parameter option. It determines the number of times AdvanceWrite Plus recalculates a formula when it goes through a recalculation cycle (pass). Between 1 and 20 iterations are possible, but the usual option is to have iteration set to one. This setting is unimportant if the recalculation method is set to Natural, unless there is a circular references as described in (ii) on the next page. When you (Tab) to the Iteration option you are asked:

`How many iterations do you want?`

Usually this option should be set to one, although some calculations require more than one recalculation pass if:

(i) the recalculation method is set to Row or Column. This could mean that a cell value is recalculated before other cells, on which that cell value depends, are reached in the recalculation pass.

(ii) there is a circular reference. A **Circular Reference** is where the value of a cell depends indirectly on itself, because formulas using that cell ultimately refer back to it for its value. The cell is said to be self-dependent.

For example, cell A1 may depend on the value of cell A2; cell A2 may depend on the value of cell A3; and in turn cell A3 may depend on the value of A1. (Also see Chapter 10, *Spreadsheet Error Messages.*)

Honor Protection

The seventh and final page parameter option is Honor Protection. It determines whether or not cells marked for protection will actually be protected from editing. It may be useful to turn off honor protection, make changes, and then turn it back on again. When you (Tab) to the honor protection option, you are asked:

Should protection be honored?

The options are:

Y   for Yes. When protection is honored you cannot access and/or edit any cells marked for protection. See Chapter 6, *Working With Cells.*

N   for No. This means that cells marked for protection are made accessible for editing.

Setting Spreadsheet Defaults

When you set the spreadsheet defaults you specify standard options for the:

- Type of currency symbols you want

- Decimal convention used

- Format for negative numbers

- Exact format for dates

You set the defaults while you are in the worksheet, and they apply only to that worksheet. If you choose not to set the defaults, AdvanceWrite Plus uses its own default settings.

For a list of the available options see the next section, *Default Page Options.*

How to set or change the defaults

1 In the worksheet, press (Do).

2 Type D (for Default).

3 Press (Help) to see descriptions of the options. These are further explained under *Default Page Options*.

4 (Tab) to move forward from option to option

OR hold down (Shift) and press (Tab) to move back to a previous option.

5 Type in the options you want.

6 Press (Enter).

If you selected the option to set date formats, a second set of questions is asked:

■ (Tab) to the options you want to change
■ Type in the chosen options
■ Press (Enter)

Notes

■ You can press (Cancel) any time before pressing (Enter) to retain the original settings.

■ Default settings affect all numeric cells in the spreadsheet. This is unless you have used (Mark) to selectively format cells or ranges; these are not affected until they are unmarked. Once unmarked, therefore, they return to the defaults defined for the rest of the spreadsheet. See *Changing Numeric Formats*, in this chapter.

- Spreadsheet defaults apply only to spreadsheet functions. They do not affect the default settings for word processing.

- If you want to specify special symbols for currency symbols, select the special symbol keyboard before doing defaults. See below.

Default Page Options

Remember to press (Help) for assistance. When you (Tab) to the default page options you are asked the following:

Which symbol would you like to use for currency?

AdvanceWrite Plus automatically adds up to three characters to any number that is formatted for currency.

Type any symbol or character you want to use, such as a dollar, cent or pound symbol.

To get the symbols you want you may need to select other keyboards, perhaps alternating between them.

For example, if you are using the English keyboard, number 1, and want to type a pound or cent symbol, select the Alternate Symbols Keyboard first. To do this, press (Select), type K, type 6 and press (Enter). See Chapter 8, *The Keyboard*.

Then choose the currency symbol in the default settings, exit the default settings and select the English keyboard again. If you do not select the English keyboard again, you cannot type R for the second default page option, Alignment; and you cannot type Y for the question about the date formats.

Should it appear on the left or right?

AdvanceWrite Plus places currency symbols or characters on either side of a number.

Type L for left-aligned, for example, $5

OR type R (for right-aligned -- 1c).

Which decimal convention would you like to use?

AdvanceWrite Plus can use commas, spaces, and periods for thousand separators and decimals.

Type 1 for numbers to read like this: 1,234,567.89
The comma is the thousand separator; the period is the decimal point.

OR type 2 for numbers to read like this: 1 234 567,89
The space is the thousand separator; the comma is the decimal point.

OR type 3 for numbers to read like this: 1.234.567,89
The period is the thousand separator; the comma is the decimal point.

Which negative number style do you want to use for numbers in: Fixed Format? Currency Format? Comma Format? Percent Format?

AdvanceWrite Plus can automatically select one of three styles for displaying negative numbers. You can select a different negative number style for each of the four numeric formats above. (Numeric formats are listed under *Page Parameters*, in this chapter.) The styles are:

1   Leading minus symbol, for example, -100

2   Trailing minus symbol, for example, 100-

3   Parentheses, for example, (100)

Would you like to set date formats?

If you type N for No, AdvanceWrite Plus skips the date precision questions and you have accepted the standard date format. You have completed setting the default page formats, so remember to press (Enter).

If you type Y for Yes, then press (Enter), you are asked each of the following questions for each of the three date format styles AdvanceWrite Plus can use.

What order do you want AdvanceWrite Plus to use for Month-Day-Year?

Type (Help) for more information. The order can be set for each of the three date styles that AdvanceWrite Plus uses. The three date styles are:

1   Abbreviated, for example, Aug. 17, 1987

2   Spelled-out, for example, August 17, 1987

3   Numeric, for example, 8/17/87

To define the order (month, day, year) for each of the styles choose one of the following:

Order 1 - MMDDYY - Month Day Year (e.g. August 17, 1987)

Order 2 - DDMMYY - Day Month Year (e.g. 17 August, 1987)

Order 3 - YYMMDD - Year Month Day (e.g. 1987, August 17)

Order 4 - YYDDMM - Year Day Month (e.g. 1987, 17 August)

Order 5 - MM YY - Month Year (e.g. August 1987)

Order 6 - YY MM - Year Month (e.g. 1987 August)

Which character should separate the first and second parts of your dates? Which character should separate the second and third parts of your dates?

Two questions ask you about what character separators you wish to use between the parts (month, day, year) of each date style. AdvanceWrite Plus uses periods, spaces, commas, slashes or dashes. The two questions make it easy for you to mix and match commas, periods and spaces. Only one type of separator can be specified between the parts of numeric precision.

If you use the spelled out or abbreviated style, AdvanceWrite Plus always displays a space between the first and second parts of the date. If you choose to use a space as the separator, however, AdvanceWrite Plus displays only one space.

Should months in your dates be all upper case?

This applies to abbreviated and spelled out styles for dates. Type U for upper case, for example, AUGUST.

OR type L for lower case, where only the first letter is capitalized, for example, August.

Should the year have four digits?

Type Y for Yes, for example, 1987.

OR type N for No, for example, 87

Selective Formatting

What if you want some cells to be left-aligned while all the others in your spreadsheet are right-aligned? And what if you want some cells to have percentage symbols, some to have none and others to have $ symbols?   AdvanceWrite Plus allows you to do all of these and more. This section covers:

- Dates
- Changing Numeric Formats
- Alignment
- Column and Gap Widths
- Setting the Left Margin

If you do make extensive changes to column and gap widths or the left margin, non-spreadsheet information may be erased when you exit the spreadsheet. See *Leaving the Spreadsheet* in Chapter 1, *Introducing the Spreadsheet.*

Dates

When you type dates onto the spreadsheet they adopt the format determined by the spreadsheet defaults, but you can selectively mark cells or ranges for different settings. For example, the default setting may use the date style Aug 1 1987 and you want to change selected cells to 8/1/87.

How to selectively format dates on the spreadsheet

1   Position the cell pointer where you want to change the date format. If you are going to shade a range it should be at the start of the range.

2   Press (Mark).

3   Type # (number symbol).

4   Type 7 (for date).

5   Type the number for the date precision (date style) you wish to use. These are:

   1 Abbreviated month (Jan. 17, 1984)
   2 Spelled out (January 17, 1984)
   3 Numeric format (1/17/84)

6   Press (Enter).

7   Shade the cells that are to use this date style.

8   Press (Enter).

Note

■   For further information see *Entering Information* in Chapter 1, *Introducing the Spreadsheet*. To use Gregorian numbers in calculations, see Chapter 7, *Manipulating Data*.

Changing Numeric Formats

The numeric format for the whole spreadsheet is controlled by the page parameter settings. However, you can mark cells or ranges for a numeric format different from the page parameter settings. For example, some cells can contain dollar symbols while others have pound symbols.

How to selectively change the numeric format of a cell or range

1   Position the cell pointer where you want the cell/range to have a different numeric format. If you are going to type the cell/range address you do not need to do this.

2   Press (Mark).

3   Type #.

4   Select the options.

    1   General
    2   Fixed
    3   Currency
    4   Comma
    5   Percent
    6   Scientific
    7   Date

    See *Page Parameters* in this chapter.

5   If you're not already on the next option, press (Tab).

Continued...

6 Type the precision you wish to use (0 to 15)

   OR, if you selected Date, type the appropriate date
   style (1 to 3).

7 Press (Enter).

8 Shade the cells that are to have this format, or type the
   cell/range address.

9 Press (Enter).

Notes

■ The (Mark) and # process overrides the page parameter
   settings and affects only those cells within the range you
   specify.

■ Marks to change the number format are honored only if
   there is information in the cell. You cannot mark
   undefined cells.

■ You may want some marked cells to be changed back to the
   format of the rest of the spreadsheet. See *How to return
   numeric cells to the global numeric format.*

How to return numeric cells to the global numeric format

1   Position your cell pointer where you want the new numeric formats to begin.

2   Hold down (Shift) and press (Mark).

3   Type #.

4   Shade the cells you wish to return to global format, or type the range name or address of the cells you want to return to global format.

5   Press (Enter).

Alignment

The alignment of cells throughout the spreadsheet is controlled by the page parameter settings. See *Page Parameters* in this chapter. However, you can mark certain, selected text cells for a different alignment. Chapter 1, *Introducing the Spreadsheet*, has a good example of varied alignment. Options are right-alignment, left-alignment, center or justify. See *How to change the alignment of text cells*, which follows.

How to change the alignment of text cells

1   Position the cell pointer on the cell where you want to begin the new alignment.

2   Press (Mark).

3   Type A (for Alignment).

4   Choose the option for the type of alignment you want:

   L   left-aligned
   R   right-aligned
   C   centered
   J   justified

5   Press (Enter).

6   Shade the cells that should have the new alignment

   OR type the range name or address.

7   Press (Enter).

Notes

■   If your cell pointer is on a text cell, the Status Line tells you the type of alignment.

■   If you center one cell in a row of connected cells, all the connected cells in the row become centered.

■   Numeric cells (which include date cells) are always right-aligned. However, you can change their alignment by inserting a space before the number, and then marking them for left-align, justify or center.

■ Text cells can also be marked selectively for alignment by using (Center) (Justify).

Justify

Another way of selecting individual or ranges of cells to be justified or unjustified is to use (Justify). This is useful if you want to quickly justify headings over columns, for example.

How to justify or unjustify cells

1 Position the cell pointer at the cell where you want to begin to justify or unjustify text.

2 To justify cell contents, press (Justify) [Press (Enhance Text) and type J for Justify].

OR, to unjustify cell contents, hold down (Shift) and press (Justify) [Hold down (Shift), press (Enhance Text) and type J].

3 Shade the cells you wish to justify or unjustify.

4 Press (Enter).

Notes

■ The Status Line tells you when the cell pointer is on a justified cell.

■ If you justify/unjustify one cell in a row of connected cells, all the cells in the group become justified/unjustified.

- If you unjustify cells, they change back to the alignment set in the page parameters. Also see *Alignment*, in this chapter.

- If cells are marked selectively for right or left alignment, you can later use (Justify) to override that alignment.

- Number cells can only be justified if you first insert a space in front of the number.

Center

Using (Center) allows you to quickly center or uncenter selected text cells. This is useful if you have a range of centered text cells, for instance, and want to uncenter only some of them.

How to center or uncenter selected cells or ranges after they are typed

1 Position the cell pointer at the cell where you want to begin to center or uncenter.

2 To center cells, press (Center) [Press (Enhance Text) and type c].

OR, to uncenter cells, hold down (Shift) and press (Center) [Hold down (Shift), press (Enhance Text) and type c].

3 Shade the cells you wish to center or uncenter.

4 Press (Enter).

Notes

- One cell is the minimum amount that can be centered or uncentered.

- When you center a cell in a row of connected cells, all the cells in the row become centered.

- Number cells can only be centered if you insert a space in front of the number. This is useful for headings over columns such as 1985, 1986, 1987 etc.

- To center a single heading over several columns, connect a series of cells, type the text for the heading and center it within the connected cells. To connect cells see Chapter 6, *Working With Cells*.

- If you uncenter cells, they change back to the alignment set in the page parameters. Also see *Alignment*, in this chapter.

- If cells are marked selectively for right or left alignment, you can later use (Center) to override that alignment.

Column and Gap Widths

How to change column widths

1 Position the cursor in the first column you want to change.

2 Press ⏹Format⏹.

3 Type w (for Width).

4 Type a number for the width of the column. This can be between 1 and 248.

5 You have two options.

■ If you are setting the width of only one column go straight to step 7.

■ If you are setting the width of several columns ⏹Tab⏹ to the next column and type a number for its width

OR hold down ⏹Shift⏹ and press ⏹Tab⏹ to move to the previous column.

When you do not want to change a column width ⏹Tab⏹ to the next column. However, note that pressing ⏹Tab⏹ without making changes gives a column the same width as the one before it. See Notes.

6 Repeat steps 4 and 5 until you have changed all column widths.

7 Press ⏹Enter⏹.

Notes

■ If you are on a column width setting and you (Tab) past it without making changes, it adopts the previous column's width. For example, if you start with:

A=15 B=15 C=15 D=15

and you want to change A and D to 10, when you type 10 for A, (Tab) past B and C, and type 10 for D, you get:

A=10 B=10 C=10 D=10

To prevent this you should type 15 again when you are at the column B setting.

■ When you have very few column or gap widths to change you can use the method described in *How to change the width of selected columns or gaps.*

■ If the new column width exceeds the 250-character maximum, AdvanceWrite Plus does not accept the new settings.

■ As you (Tab) from column to column, AdvanceWrite Plus displays the column address, the current width of the column, and the current right margin. The right margin setting changes as you widen or lessen column widths, and the right margin itself moves to accommodate new widths.

■ For more information on columns see Chapter 1, *Introducing the Spreadsheet.*

How to change the width of selected columns or gaps

1 Press (Format).

2 Position the cursor between [ ] to change the width of a column

   OR between] [to change the width of a gap.

3 Press (Insert) once for each space you wish to add

   OR press (Delete) once for each space you wish to delete.

4 Repeat steps 2 and 3 until you have adjusted all the columns.

5 Press (Enter).

Notes

- If you wish to change the width of several columns at the same time, see *How to change column widths*.

- You cannot insert more spaces in a column and/or gap than the 250-character maximum spreadsheet width.

- You cannot delete column or gap space if your cursor is on a bracket. It must be between the brackets.

- Allow at least one space in gaps between columns for percentage symbols, minus signs after a number, or parentheses. (These are determined by the page parameter settings). If you delete all the spaces in a gap, these symbols are shown inside the cell.

  For numbers to show negative percentages using parentheses, you need a two space gap in order for the symbols to fit.

- The right margin of the spreadsheet moves to accommodate new widths.

- You can use (Insert) and (Delete) to adjust column/gap widths and then set your left margin.

- When you exit a reformatted spreadsheet, any non-spreadsheet information you have may be overwritten. You can make sure you have a clean version of the spreadsheet in your document by typing N when asked about whether you want to combine your worksheet with text. See *The AdvanceWrite Plus Spreadsheet* and *Leaving the Spreadsheet* in Chapter 1, *Introducing the Spreadsheet.*

Setting the Left Margin

Unless you change it, the left margin of a spreadsheet is set at the same position as the left margin of your document. However, changing the margin is simple.

How to change the left margin in the spreadsheet

1   Position the cell pointer on cell address A1. Press (Format). The pointer is placed in the Format Line.

2   Move the pointer to the position where you want the left margin to be set. For guidance use the coL figure displayed at the top of the screen.

3   Press L (for Left).

4   Press (Enter). The columns adjust to the new left margin.

Notes

■   The adjusted left margin appears in the text version.

■   You can set your left margin, and at the same time use (Insert) and (Delete) to adjust the column/gap widths.

■   When you exit a reformatted spreadsheet, any non-spreadsheet information you have may be overwritten. You can make sure you have a clean version of the spreadsheet in your document by typing N when asked about whether you want to combine your worksheet with text. See *Leaving the Spreadsheet* in Chapter 1, *Introducing the Spreadsheet.*

■   The right margin of a spreadsheet is determined by the number of columns and gaps it has. See *Creating a Spreadsheet* in Chapter 1, *Introducing the Spreadsheet.*

Working With Cells

There are various ways of working with cells to make using your spreadsheet easier and more efficient. This chapter tells you how to name ranges and how to connect, associate and protect cells. You might also want to float cells in your document, as well as inhibit the printing of others.

Naming a Range of Cells

A range is a group of cells. Ranges can be given names, so that you can quickly refer to them when using formulas, for example, or when editing, copying or moving cells. Using a name is extremely useful if you frequently work on a particular range - it saves you having to type the address every time.

How to name a range of cells

1   Press (Mark).

    If you are going to shade the range you want to name, make sure your cell pointer is at the top left corner of the range.

2   Type N (for Name).

3   Type the name you want to use for the range.

4   Press (Enter).

5   Type the range address

    OR shade the cells to be in the range.

6   Press (Enter).

Notes

- Any number of cells can be named as a range, from one cell to the entire spreadsheet.

- A range name can contain up to 14 characters. Only this number shows up when you display range names.

- Range names must begin with a letter of the alphabet (A-Z) and can contain both letters or digits (0-9). Letters can be either upper or lower case. Spaces and special symbols cannot be used.

- You can name a range more than once. This is useful if you want to associate cells more than once. See *Associated Cells - Linking*, in this chapter.

- Names reserved for the AdvanceWrite Plus built-in functions cannot be used for range names.

- If the name you choose is already used, AdvanceWrite Plus asks you if you want to replace the old range with the new range or change the name.

- Range names that can also be cell addresses, such as T12, cannot be used.

How to unmark a named range

1   Hold down (Shift) and press (Mark).

2   Type N (for name).

3   Type the name of the range you want to unmark.

4   Press (Enter).

Notes

- It is a good idea to display a list of your range names before unmarking a named range. See *How to display a list of range names, then stop the display.*

- AdvanceWrite Plus tells you if a formula references a range name you are trying to unmark. If you press (Cancel), the range name is kept. If you use (Enter), the Formula displays as "?FORMULA".

How to display a list of range names, then stop the display

1   Press (Mark).

2   Type M (for Marks).

3   Type N (for Name).

4   Press (Enter).

5   Press (Cancel) to return to the worksheet.

Notes

■   It is useful to display range names to locate any ranges which you want to associate or move, for example.

■   When you display range names the screen looks like this example:

```
C5:
HERE ARE YOUR YOUR DEFINED RANGE NAMES.


prevsales ....................... G7 .. G7
growth .......................... B36 .. B36
purchase ........................ F14 .. F14
begincash ....................... C29 .. C29
disbursements ................... F26 .. F26
endcash ......................... F38 .. F38
```

■   AdvanceWrite Plus lists all range names. If all the range names won't fit on the screen, press (Enter) to see the next group of names.

Connecting Cells

You can connect cells to allow for more text in your spreadsheet. This is an excellent way of doing work in columns: see Notes. Connected cells can also contain descriptive paragraphs, for instance, or a heading that is centered over multiple columns. Cells containing information like this are referred to a labels.

How to connect cells

1 Position your cell pointer where you want to begin connecting cells.

2 Press (Mark).

3 Type c (for Connect).

4 Shade the cells you want to connect, or type a range name or address.

5 Press (Enter).

Notes

■ When your cursor is in a connected cell, the Status Line displays CONN.

■ Cells can be connected before or after the text is typed.

- Connected cells can contain up to 250 characters of text.

- If you connect number or formula cells, AdvanceWrite Plus changes them to text cells.

- You can easily do columnar work with connected cells. Just choose the column width and then connect all (or some) of the cells within the column. To adjust column widths see Chapter 5, *Formatting*.

- When you type text into connected cells you can't exceed the 250 character maximum.

- A warning message is displayed when you try to connect any cells already marked for connection. Press (Enter) to break the old connection or (Cancel) to keep it.

How to unconnect cells

1 Put the cell pointer on any cell in the connected area.

2 Hold down (Shift) and press (Mark).

3 Press c (for Connect). All connected cells in the connected are shaded.

4 Press (Enter).

Notes

- If text typed in an unconnected area is larger than a single cell (column width), you only see the amount that will fit in the individual cell.

- It is helpful to display connected areas before you unconnect them. See *How to display connected cells.*

How to display connected cells

1 Press (Mark).

2 Type M (for Marks).

3 Type C (for Connect).

4 Press (Enter). The connected cells are shaded.

How to stop displaying connected cells

1 Hold down (Shift) and press (Mark).

2 Press M (Marks).

3 Press (Enter).

Associated Cells - Linking

You can associate cells in one spreadsheet (the source) with cells in another spreadsheet (the destination). This is also called linking, and it takes place between spreadsheets within the same document. It means that when the source spreadsheet is recalculated, and changes are made to values in the source cells, the destination spreadsheet is always up-to-date. All changes are automatically reflected in the destination cells.

Linking is very useful if you exceed the spreadsheet size - you just link your spreadsheet to another one.

Cell links can be permanent or temporary.

Permanent Link: With a permanent link, the values of the source cells are copied to the destination cells each time the destination spreadsheet is displayed. Updating is therefore continuous. Destination cells that are permanently linked are considered to be "locked" - see Notes.

A permanent link between cells in one spreadsheet to cells in another also gives you the benefit of added space when you exceed the limit of 6400 cells in the first spreadsheet.

Temporary Link: When you temporarily link cells, values are copied from the source cells only once. Updating doesn't occur. A temporary link is useful if you want numerous headings to be automatically copied from one spreadsheet to another.

How to associate cells or ranges

1   You should be in the destination spreadsheet. Position
    the cell pointer where you want the destination cell to be,
    or in the upper left corner of the range.

2   Press (Do).

3   Type A (for Associate).

4   Type the name of the spreadsheet that contains the
    source cell/range.

5   Press (Enter).

6   Type the name or address of the source cell/range. (If
    you type a range address, it is treated as a range name
    and can be displayed alongside other range names.)

7   Press (Enter).

8   Type Y (for Yes) if the link is to be permanent

    OR, type N (for No) if the link is to be temporary.

9   Press (Enter).

Notes

■   Links cannot be made between cells in the same spreadsheet,
    or between cells in different documents.

■   Permanently linked cells in the destination spreadsheet are
    locked, with their values totally dependent on the source
    cells. To make sure they remain dependent and reflect the
    true value of source cells, AdvanceWrite Plus prevents them
    from being edited, moved, erased or deleted. They can,
    however, be modified - such as made bold or right aligned.

- The Status Line tells you when the cell pointer is on a locked cell.

- You cannot insert rows or columns in the middle of a locked area.

- Permanently linked cells in a destination spreadsheet assume the format of source cells, but can be marked for a different format if you wish. See Chapter 5, *Formatting*.

- You cannot link undefined cells as single cells. If you link a range, the first cell in the range must be defined for the link to occur. Other cells in the range may be undefined.

- Destination cells/ranges are updated when you select the spreadsheet mode, and display the worksheet containing the destination cells.

SPREADSHEET 1   DESTINATION SPREADSHEET 2

	A	B	C			A	B	C
1	2	3			1	2	3	
2		A1+B1			2		(5)	
3					3			
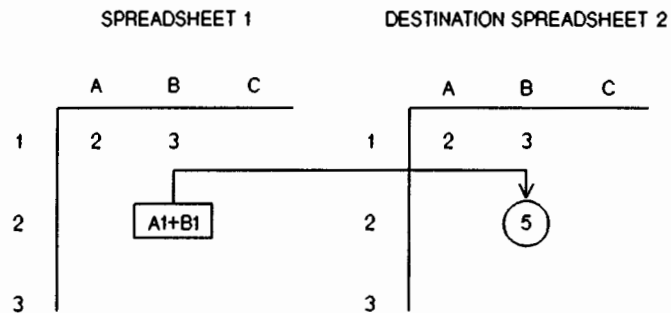
So if in spreadsheet 1, the value of A1 is changed from 2 to 6, this change is not reflected in the destination spreadsheet (2) until you enter the worksheet of spreadsheet 2. The value of B2 then changes from 5 (2+3) to 9 (6+3). With a temporary link, the destination spreadsheet does not change at all.

Permanent Link - After Change

SPREADSHEET 1   DESTINATION SPREADSHEET 2

```
        A     B     C                    A     B     C
  1     6     3                    1     6     3
                                                    ↓
  2        A1+B1                   2              ( 9 )

  3                               3
```
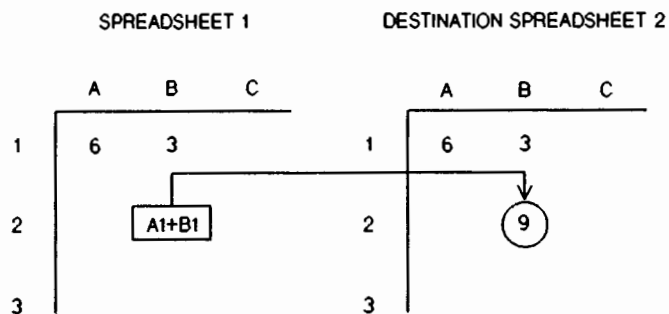
Temporary Link - After Change

SPREADSHEET 1   DESTINATION SPREADSHEET 2

```
        A     B     C                    A     B     C
  1     6     3                    1     2     3
                                                    ↓
  2        A1+B1                   2              ( 5 )

  3                               3
```
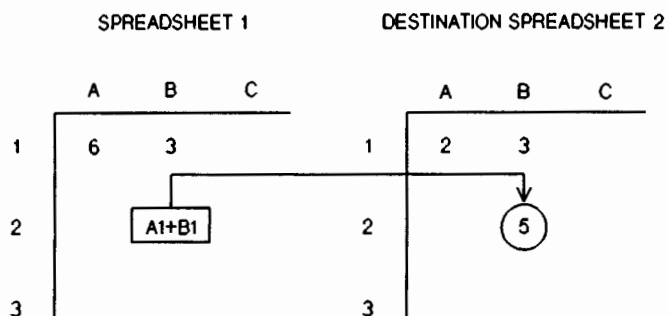
- Destination cells reflect values or results of formulas of the source cells; they do not display the formulas of the source cells on the Status Line.

- Only one permanent link can be made between cells in one spreadsheet and cells in another. However, to have several links you can give a source cell/range more than one name.

- With a permanent link, if you move, erase or delete the source cells you are not warned while in the source spreadsheet. When you next select the destination spreadsheet, you are told that links are not updated and you need to reassociate cells.

  To see which cells are not updated, display the range names in the spreadsheet; these cells will appear in bold. See *Naming a Range of Cells*, in this chapter. You can then re-establish the link to the source spreadsheet.

- When in the destination spreadsheet you may make a copy of permanently linked cells. If you do, these are neither locked nor linked to the source cells, so they do not change when the source spreadsheet is recalculated.

- Floating cells may depend on linked cells. When the values of linked cells change, so will floating cells, once the destination spreadsheet is entered. If it isn't entered, and the document containing floating cells is printed, the changed values will not be printed. You must access the destination spreadsheet first. See *Floating Cells*, in this chapter.

How to unlink destination cells/ranges

1 Position the cell pointer in the destination cell or range.

2 Hold down (Shift) and press (Do).

3 Type A (for Associated). If you hadn't already displayed it, the locked area is shaded.

4 Press (Enter).

Notes

- It is helpful to display locked areas before unlinking them. See *How to display permanently linked cells.*

- When you unlink permanent cells, they are no longer locked and can be edited, moved, erased or deleted.

How to display permanently linked cells

1 Press (Mark).

2 Type M (for Marks).

3 Type L (for Locked).

4 Press (Enter). All permanently linked cells/ranges are shaded.

How to stop displaying permanently linked cells

1 Hold (Shift) and press (Mark).

2 Type M (for Marks).

3 Press (Enter). The destination cells are no longer shaded.

Protected Cells

You can protect cells in the spreadsheet so that they are not edited accidentally. Once they are protected, and their protection is honored (see Notes), cells cannot be edited, deleted or erased.

How to protect cells

1   Position your cursor on the cell you want to protect.

2   Press (Mark).

3   Type P (for Protect).

4   Shade the cells to be protected, or type the cell/range address or name.

5   Press (Enter).

Notes

■   Protection works only when it is honored. To set to honor protection, press (Format) and type P, then (Tab) to honor protection, type Y for Yes and press (Enter). If you want to change a protected cell turn honor protection off by typing N for No.

See *Page Parameters* in Chapter 5, *Formatting*.

■   Cells that have honor protection can still be modified, such as made bold, capitalized or underlined.

- When the cell pointer is on a protected cell, the Status Line displays PROT.

- If a protected cell contains a formula, the formula is protected, but the result of the formula may change as other unprotected cell references are updated.

- When you use (Go To) / (Tab) or press (Sent), AdvanceWrite Plus moves the cell pointer to the next unprotected cell, skipping those that are protected. See Chapter 3, *Moving Around the Spreadsheet.*

How to display protected cells

1   Press (Mark).

2   Type M (for Marks).

3   Type P (for Protect).

4   Press (Enter). The protected cells are shaded.

Notes

- If you want to change cells to unprotected, it may be useful to first display the protected cells

How to stop displaying protected cells

1 Hold (Shift) and press (Mark).

2 Type M (for Marks).

3 Press (Enter).

How to unprotect cells

1 Hold down (Shift) and press (Mark).

2 Type P (for Protect).

3 Shade the cells to be unprotected, or type a cell/range name or address.

4 Press (Enter).

Floating Cells

Any cell or range can be made to float in your document. A floating cell in the document, such as total monthly sales, changes as you change the corresponding (source) cell in your worksheet.

So, as you update information in the spreadsheet, you automatically update floating cells in your document. All the updated information can be seen the next time the document is printed.

How to create a floating cell

1   In your document, position the cursor where you want the floating cell to appear.

2   Press (Mark).

3   Note that marks for floating cells overstrike any text which follows, so press (Insert) before going on to type the floating cell.

4   Type $ (dollar symbol).

5   Type the name of the spreadsheet that contains the original copy of the cell you want to float.

6   Type ; (semicolon).

7   Type the name of the range or address of the cell to be inserted.

8   Press (Enter).

9   Press (Insert) to reformat the paragraph.

How to unmark floating cells

1   Position the cursor on the $ of the floating cell.

2   Hold (Shift) and press (Mark).

3   Type $ (dollar sign).

4   Press (Enter). AdvanceWrite Plus deletes the floating cell marker and name.

Notes

■   An example of a floating cell is: $sheet1;c8 .   You can float a range if you wish.

■   You do not see the contents of floating cells on screen. The contents are inserted when the document is printed.

■   If a change is made in a spreadsheet where floating cells have been referenced, the floating cell reflects the change the next time you print the document.

When a floating cell depends on a locked cell, the source of that locked cell may have changed, but the locked cell does not yet reflect that change. This is because the spreadsheet containing the locked cell has not been entered since the change to the source cell took place. See *Associated Cells - Linking*, in this chapter.

■   Floating cells are only used in the middle of text in a document. They are not used in the worksheet.

- Wherever you have marked a floating cell in your text, AdvanceWrite Plus displays a $ (dollar symbol) followed by the spreadsheet name and cell/range address to be inserted.

  If the contents of the floating cell require fewer characters than the space taken by the spreadsheet name and cell/range address, AdvanceWrite Plus automatically moves the extra space to the end of the line.

  You need to increase the number of characters in the floating cell if the cell contents are longer than the mark. For example, the mark may be sheet1;c8 , while the cell contains 13 characters, such as $1000 000 000. Therefore increase the number of spaces in the floating cell by pressing (CTRL) and the spacebar.

- Floating cells do not reflect cell contents if you print the page. You must print the file.

- Text with floating cells can be moved or copied anywhere in the same document.

- You cannot edit the contents of a floating cell without selecting the spreadsheet.

- If you put a floating cell on a line of text which is justified, centered or indented, the line retains its characteristics.

- You cannot mark and reference a floating cell if there is no corresponding source cell.

How to display floating cells

1 Press (Mark).

2 Type M (for Marks).

3 Press (Enter). Some characters in your document become shaded. To see a description of the shaded characters, work through steps 4 to 7.

4 Position the cursor on the $ of a shaded character.

5 Press (Mark).

6 Type M (for Marks) [Press (Save & Display)].

7 Press (Enter). A shaded mark description line appears on the line below the cursor.

How to stop displaying the Mark Description Line

Press (Cancel). Some characters are still shaded.

How to stop displaying all marks

1 Hold (Shift) and press (Mark).

2 Type M (for Marks).

3 Press (Enter). Marks are no longer shaded.

Notes

- FLOATING CELL appears on the Mark Description Line when you are located on a floating cell.

- You may use any of the cursor control keys to see a description of other shaded marks in your document.

Inhibiting Cells

You can prevent cells or ranges in the worksheet version of your spreadsheet from appearing in the text version - in other words, you can inhibit them. This also means that you prevent them being printed.

How to inhibit cells

1   In the worksheet, press (Mark).

2   Press I (for Inhibit).

3   Shade the cells to be inhibited, or type the range address or name.

4   Press (Enter)

Notes

- Uninhibited cells in the text version automatically adjust to take the place of inhibited cells.

- When you leave a spreadsheet, you can also prevent cells from appearing in your text. See *Leaving the Spreadsheet* in Chapter 1, *Introducing the Spreadsheet.*

- All or part of a spreadsheet can be inhibited. If for any reason text does appear in the text version it can be deleted in the usual way.

- When the cell pointer is on an inhibited cell, the Status Line displays INH .

- If you inhibit undefined cells they become defined.

How to remove inhibit from the spreadsheet

1   Press (Shift) and (Mark).

2   Press I (for Inhibit).

3   Shade the cells to be uninhibited or type the range address or name.

4   Press (Enter).

Note

- It helps to display inhibited cells before unmarking. See *How to display inhibited cells.*

How to display inhibited cells

1   Press (Mark).

2   Type M (for Marks).

3   Type I (for Inhibit).

4   Press (Enter). Cells marked for inhibit are shaded.

How to stop displaying inhibited cells

1   Hold (Shift) and press (Mark).

2   Type M (for Marks).

3   Press (Enter). Inhibited cells are no longer shaded.

A Report of Cell Contents

You can ask AdvanceWrite Plus to create a file that shows the contents of each cell in a particular spreadsheet. This is called a report, and it can be displayed, edited and printed and used for reference. It is a very convenient way to examine your spreadsheet. A simple example of a report is in Chapter 2, *Basic Spreadsheet Functions.*

How to create a report of cell contents

1   You must be in the text version of your spreadsheet.

2   Position your cursor between the Format Lines of the spreadsheet you want to use.

3   Press (Spreadsheet) [Press (Select) and type s for Spreadsheet] .

4   Type R (for Report).

5   Type a file name for the report file. It can have any name you choose.

6   Press (Enter). You can then display the file in the usual way.

Notes

- AdvanceWrite Plus creates a separate file on your disc and this file can be displayed, edited, translated and printed.

- When you use the report file for reference, you may want to display the file and type comments to explain the formulas, links etc.

- The report has the file and spreadsheet name on the first line.

- Each cell address and its contents are shown on a separate line of the file. Formulas are shown rather than their results.

- A list of range names is printed.

Manipulating Data

This chapter covers:

- Using Formulas
- Absolute and Relative Cell References
- Dates in Formulas
- Precedence
- Built-in Functions
- Sorting a Spreadsheet

Using Formulas

A formula uses numbers, cell/range addresses and mathematical operators to perform a function or calculation.

You can type and store a formula in any cell of the spreadsheet. The cell that contains the formula displays the result of the calculation, not the formula itself. The Status Line displays the formula.

You can build your own formulas, as well as make use of the functions that are built in to AdvanceWrite Plus.

Summing the contents of a range, copying formulas, adding up the contents of columns, and working out averages are covered in Chapter 2, *Basic Spreadsheet Functions.* It is worthwhile working through the examples in the basic functions chapter if you are unfamiliar with using the AdvanceWrite Plus Spreadsheet.

How to build a formula and use it

1   Put the cell pointer on the cell where you want the result of the formula to appear. Be careful where it is placed - see Notes.

2   Press (Select).

3   Type F (for Formula). AdvanceWrite Plus places your cursor at the top of the screen.

4   You have three options.

-   Type the first entry (argument) in the formula. For example, a cell/range address, range name or constant number.

-   Move the cell pointer to the first cell you want to reference in the formula and press (Mark) and (Enter). This is the pointing method. If you want to include a range address in the formula, shade the range.

-   Type the function first followed by the cell/range address, for example: Sum(A1 . . D1). Then go to step 7.

5   Type the mathematical operator you wish to use. See Notes.

6   Repeat the steps you took in 4 and 5 until the entire formula is typed.

7   Press (Enter).

Notes

- When you type an entry into a formula, this entry is called an argument.

- AdvanceWrite Plus calculates the formula and displays the result in the formula cell. The formula itself appears on the Status Line.

- To type formulas you can use upper or lower case letters. It is not necessary to type spaces between cell/range addresses, constant numbers and mathematical operators. AdvanceWrite Plus puts them in, as well as thousand separators.

- All cell/range addresses are relative references unless you change them to absolute. See *Absolute and Relative Cell References*, in this chapter. Also see Chapter 2, *Basic Spreadsheet Functions*, for a simple example of absolute and relative cells.

- There are several mathematical operators you can use. The basic ones are:

+	PLUS	adds the preceding number (cell address/value) to the following number (cell address/value)
	$4 + 2 = 6$	
-	MINUS	subtracts the following number (cell address/value) from the preceding number (cell address/value)
	$4 - 2 = 2$	
*	MULTIPLY	multiplies the preceding number (cell address/value) by the following number (cell address/value)
	$4 * 2 = 8$	
/	DIVIDE	divides the preceding number (cell address/value) by the following number (cell address/value)
	$4 / 2 = 2$	

- Other operators are Exponentiation (**) and Unary numbers.

  Exponentiation raises a quantity to a designated power. For example, $3 ** 2$ would raise the number three to the power of 2. So $3 ** 2 = 9$.

  Unary numbers are numbers that are defined as positive or negative. In unary numbers, the minus and plus symbols are not operators; they are inseparable from the number itself and therefore define that number. For example: -7 is a unary number.

- You can also use comparison operators, which are used to compare two expressions. These are equal (=), less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal (<>).

- When typing formulas with several mathematical operations note that these operation are always performed in a specific order. For example, multiplication and division are always done before addition and subtraction.

  However, the order of precedence can be changed. You can enclose the operations you want done first in brackets - see *Precedence*, in this chapter.

- Only certain functions accept a range name or address, for example, when you want the average for the contents of cells in the range. See *Built-in Functions*.

- When a cell width is too small for a large number the number is expressed as a formula. See *Entering Information* in Chapter 1, *Introducing the Spreadsheet*.

- The cell pointer should not be on a cell whose cell address is included in the formula you are typing. For example, don't type the formula sum(A1 . . D1) and then position the cell pointer on A1, B1, C1 or D1.

  If you do this, the Status Line reads CIR , for Circular Formula, whenever you recalculate in the spreadsheet. The value of the cell which caused CIR to appear changes every time recalculation is used; this cell should not be copied to other cells in order to recalculate.

  There are three ways to permanently remove CIR from the Status Line. One is to erase the contents of the cell which holds the circular formula and exit the spreadsheet. Work through *How to identify all formula cells in a spreadsheet*, in this section, to begin searching for the circular formula.

You can also print a report of cell contents and examine it. Another method is to leave the spreadsheet by using Quit. See *Leaving the Spreadsheet* in Chapter 1, *Introducing the Spreadsheet*.

■ CIR also appears when you make a cell self-dependent. This means that because of links with other formulas a cell value becomes dependent on itself. Look for the number of iterations under *Page Parameters* in Chapter 5, *Formatting*.

■ The mathematical sentence or syntax of a formula may be typed incorrectly, for example, two mathematical operators are typed together, or the number of left parentheses is not the same as the number of right parentheses. If this is so, AdvanceWrite Plus does not calculate the formula when you press (Enter).

   Instead, your cursor is placed at the point of error, and a message tells you what the error is.

■ If the formula is correct but the calculation causes an error (for example, the number is too large), AdvanceWrite Plus displays an error indicator in the cell. You can use (Go To) and E to find the error and correct it. See Chapter 3, *Moving Around the Spreadsheet*.

■ Built-in mathematical functions can be used anywhere in a formula. See *Built-In Functions* in this chapter.

■ For scientific formulas using a math or Greek keyboard, see Chapter 8, *The Keyboard*.

How to edit a formula

1   Position the cell pointer on the formula cell you want to edit.

2   Press (Select).

3   Press F (for Formula). The formula is duplicated in the edit section at the top of your screen. You are no longer able to move your cell pointer.

4   Press ⊞ or ⊟ to position the cursor at the point in the formula where you want to make a change:

   (a) To type over an incorrect entry, simply type the change
   (b) To add new characters, press (Insert) and type the addition
   (c) To delete the information, press (Delete) once for each character you wish to delete

   If you need help see *Editing Cells* in Chapter 4, *Making Changes.*

5   When you are finished editing, press (Enter).

Notes

- While you are in edit mode you can reactivate the cell pointer: hold down (Shift) and press ⊞. Your cursor is no longer in the Edit position at the top of your screen. A message tells you that the cell pointer is active.

  To move the cursor back to the Edit position, hold down (Shift) and press ⊞. The cell pointer is no longer active.

- Protected ranges cannot be edited unless you turn the protection off using (Format) and P. See *Protected Cells* in Chapter 6, *Working With Cells*.

- You can change cell/range addresses during Edit mode. First reactivate the cell pointer (hold down (Shift) and press ⊞). Then (Mark) the new cell or range and press (Enter).

- If you are in the Insert mode when you reactivate the cell pointer, to specify a new cell or range, the cell or range you (Mark) is inserted alongside the old one. Otherwise, the address you (Mark) may overwrite information in your formula. You can then delete the old one.

How to display all formula cells in a spreadsheet

1. Press (Mark).

2. Type M (for Marks).

3. Type F (for Formula).

4. Press (Enter). All cells that contain formulas are now shaded.

Notes

- It is helpful to shade all formula cells if you want to determine quickly where formulas are located for review.

- You can move among the shaded formula cells by moving your cell pointer as usual.

How to stop displaying formula cells

1. Hold down (Shift) and press (Mark).

2. Type M (for Marks).

3. Press (Enter). Cells containing formulas are no longer shaded.

Absolute and Relative Cell References

To use a spreadsheet efficiently you need to be able to include absolute values in formulas. This means that an address used in a formula stays the same (is absolute) regardless of the formula's location or its relationship to the cell addresses.

Unless you make a cell address absolute, it is relative, which means the address changes relative to its location.

For more information, and a simple example of absolute cell references, see Chapter 2, *Basic Spreadsheet Functions*.

How to indicate an absolute column address for a cell

1   Type ! (exclamation point).

2   Type the column address.

3   Type the row address.

How to indicate an absolute row address for a cell

1   Type the column address.

2   Type ! (exclamation point).

3   Type the row address.

How to indicate an absolute row and column reference

1   Type ! (exclamation point).

2   Type the column address.

3   Type ! (exclamation point).

4   Type the row address.

Notes

- All cell addresses in formulas are relative unless you make them absolute.

- Cells that are not likely to be copied do not need to have absolute addresses.

- Absolute cells can be moved, copied and deleted, as well as marked selectively for different formats etc.

Dates in Formulas

It is possible to type a date cell and use its Gregorian number in calculations. A Gregorian number is the number of days from January 1st of the year zero (0) to the date specified in the cell. For example, the Gregorian number for March 24, 1987, is 725819 - that is the number of days from January 1st of the year 0 to March 24, 1987.

How to change a date to a Gregorian number and vice versa

1   Put the cell pointer on the date you want to convert. If you want to convert a range put it on the cell at the start of the range.

2   Press (Mark).

Continued...

3 Type # (number symbol).

4 You have the following options.

   ■ To convert from a date to a Gregorian number, type
      a number for the numeric format (comma, currency
      etc.) you want. Do not use the date format option
      (7).

   ■ To convert from a Gregorian number to a date,
      type 7 for the number format.

5 Press (Enter).

6 Shade the cells that are to take the new number
   representation.

7 Press (Enter).

   Remember that to change the number format for the
   whole spreadsheet you can reset the page parameters.

Notes

■ If a date is selected when the cell pointer is on a cell with a
   number in it, that number is treated as a Gregorian number.
   It is converted to a normal date display at the top of your
   screen. If you wish, you can type in a new date and have
   its Gregorian number representation appear in the cell.

■ See Chapter 5, *Formatting*, for numeric format.

■ Also see *Date Functions* under *Built-in Functions* in this
   chapter.

Precedence

Mathematical operations in a formula are always performed in a specific order.

This order that operators are calculated in is referred to as precedence. It means that some operators precede others in the order of operation, no matter where they appear in the formula.

For example, multiplication and division are always done before addition and subtraction. This rule holds true no matter in what order the operators appear in the formula.

B1 + A1 * D1	AdvanceWrite Plus will multiply 4
2 + 4 * 3	times 3 and then add 2 to the product. The answer will be 14.

To change the order, you can enclose the operations you want done first in parentheses - see *Changing the Order*, later in this section.

The Order of Precedence

First Exponentiation (**) and Unary Numbers (- or +)

Second Multiplication (*) and Division(/)

Third Addition (+) and Subtraction (-)

- Exponentiation and Unary numbers (see *Using Formulas* in this chapter) have first order of precedence.

- Exponentiation and unary operations have equal precedence.

- If more than one exponentiation and/or unary number operators appear together in the formula, the one on the right takes precedence over the one on the left. For example,

$$3 ** 2 ** 10$$

Performed second   Performed first

However, using parentheses

$$(3 ** 2) ** 10$$
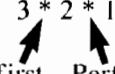
Performed first   Performed second

- Multiplication and division have second order of precedence. They are performed before addition and subtraction unless parentheses surround the addition and subtraction. For example:

$$3 + 5 * 7 / 4 ** 2 \qquad 3 + ((5 * 7)/4) ** 2$$

4th   2nd   3rd   1st   4th   1st   2nd   3rd
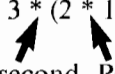
- Multiplication and division have equal precedence.

- If there is more than one multiplication and/or division operator in a formula, the operator(s) on the left take precedence over the one(s) on the right. For example:

$$3 * 2 * 10$$

Performed first   Performed second

However, using parentheses:

$$3 * (2 * 10)$$

Performed second   Performed first

- Addition and subtraction have third order of precedence. They are performed last unless enclosed between parentheses.   For example:

$$3 + 5 * 7 / 4 ** 2 \qquad (3 + 5) * 7 / 4 ** 2$$

4th 2nd 3rd 1st   1st 3rd 4th 2nd
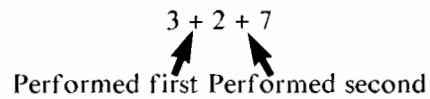
- Addition and subtraction have equal precedence.

- If there is more than one addition and/or subtraction operator in the formula, the operator(s) on the left take precedence over the one(s) on the right.   For example:

$$3 + 2 + 7$$
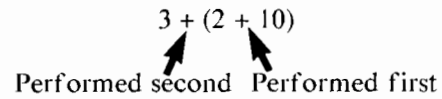
Performed first Performed second

However, using parentheses:

$$3 + (2 + 10)$$

Performed second   Performed first

- If all the mathematical operators in a formula have the same priority (such as subtraction and addition), AdvanceWrite Plus performs the calculation left to right, except for exponentiation (**).

Changing the Order

You can change the order of precedence by enclosing in parentheses operators of lower precedence, that you want performed first. AdvanceWrite Plus completes all operations within parentheses before following the normal rules of calculations.

For example, if you want to make sure that the following calculation is performed in the order of entry, enclose second priority operations within parentheses.

(B1 + A1) * D1   AdvanceWrite Plus adds 2 to 4 and then
(2 + 4) * 3   multiplies the sum by 3. The answer is 18.

You can nest one set of parentheses inside another set - this allows you to determine different levels of precedence. AdvanceWrite Plus first performs on the operators deepest in the nest, and then moves out to the others in turn. For example:

$$(((3 + 5) * 7) / 4) ** 2$$

1st 2nd 3rd 4th

Built-in Functions

AdvanceWrite Plus has several built-in mathematical functions that you can use to perform calculations. A list of these functions is on the following pages.

How to use built-in mathematical functions in a formula

1 Position your cell pointer on the cell where the result of the formula should appear.

2 Select the Formula function:

    (a) Press (Select)
    (b) Type F (for Formula)

3 Type the formula as usual, either by the cell pointing method or by typing in the addresses.

4 When you reach a point where you wish to use a built-in function, type the appropriate function name (see the following section, *What Built-In Functions Are Available?*).

5 If a cell or range address is required, it must be surrounded by parentheses immediately following the built-in function name.

6 When the formula is complete, press (Enter).

Notes

- If the built-in function requires more than one number or cell/range address, they must all be surrounded by one set of parentheses and separated by commas or semicolons.

- If you have specified a comma as the decimal separator on your default page, you must use semicolons to separate numbers or cell/range addresses between the parentheses.

- Built-in functions are not calculated until you press (Enter) after typing the entire formula. If it is mathematically impossible to calculate the formula as specified, you will not know until you press (Enter). Then AdvanceWrite Plus displays an error indicator in the formula cell.

- Each built-in function is treated as a subformula in the main formula.

- Results of built-in functions are treated as a single number in the formula.

What Built-in Functions Are Available?

There are six types of built-in formula functions:

- Mathematic and Trigonometric
- Value
- Date
- Financial
- List and Statistical
- Table lookup

Each is explained in this section.

Mathematic and Trigonometric Functions

AdvanceWrite Plus has several mathematic and trigonometric function that can be used in engineering and academic applications. When using these functions you should note the following:

- x and/or y must be specified as a single number, cell address or formula that results in a single number. Range names or addresses cannot be specified for x and/or y, unless they refer to a range that is only one cell.

- x and/or y can be equal to sum (range name) or (2 + 3) since they are both formulas that would result in a single number.

- A radian is a unit of measure of arc. Degrees are another unit of measure of arc. There are 360 degrees in a full circle. There are 2 * pi radians in a full circle. D (degrees) is equal to 2 * pi * D/360 radians.

  R (radians) is equal to 360 * R/(2 * pi) degrees.

- If cell D1 has a value in degrees that you want to convert to radians, use the formula 2 * pi * D1/360.

- If cell R1 has a value in radians that you want to convert to degrees, use the formula: (360 * R1) / (2 * pi).

FUNCTION	DESCRIPTION
abs(x)	Results in the absolute value of x

Absolute means the resulting number will always be a positive number. If negative it is converted to positive. For example:

$$abs(-6.3) = 6.3.$$
$$abs(6.3) = 6.3$$

acos(x)

The result will be a number (specified in radians) that is the arc cosine of x. By the definition of the arc cosine: $acos(cos(x)) = x$. For example:

$$acos(0.707) = pi/4 = 0.785 \text{ since}$$
$$cos(pi/4) = cos(0.785) = 0.707$$

asin(x)

Results in a number (specified in radians) that is the arc sine of x. By the definition of the arc sine function: $asin(sin(x)) = x$. For example:

$$asin(1) = pi/2 = 1.561 \text{ since}$$
$$sin(pi/2) = 1$$

atan(x)

Results in a number (specified in radians) that is the arc tangent of x. By the definition of arc tangent: $atan(tan(x)) = x$. For example:

$$atan(1) = pi/4 = 0.785 \text{ since}$$
$$tan(pi/4) = tan(0.785) = 1$$

cos(x)   x must be specified in radians. This function results in a number (with no unit) that is the cosine of x. For example:

$$\cos(pi/4) = \cos(0.785) = 0.707$$
$$\cos(0) = 1$$

exp(x)   Results in a number that is equal to "e" raised to the power of x. "e" is the base of natural logarithms and is approximately 2.71828128. For example:

$$\exp(2) = e**2 = 7.389$$

int(x)   Results in the integer part of x.

Integers are whole numbers, rounded down. Therefore, the integer of 1.5 is the whole number 1. For example:

$$int(5.147) = 5$$
$$int(-5.147) = 5$$

ln(x)   Results in a number that is the natural logarithm of x. By the definition of the logarithm function, $\ln(\exp(x)) = x$ for all positive values of x. For example:

$$\ln(7.389) = 2 \text{ since}$$
$$\exp(2) = 7.389$$

Computer Museum

log(x)   Results in a number that is the logarithm base ten of x. By the definition of the logarithm function, $\log(10**x) = x$ for all positive values of x. For example:

$$\log(100) = 2 \text{ since}$$
$$10**2 = 100$$

mod(x,y)   Results in a number that is the remainder when x is divided by y. This is the modulo function. For example:

$$\text{mod}(10,3) = 1$$

The result of 10 divided by 3 is 3, with 1 remaining.

pi   Results in a value of pi (approximately 3.141592654). The Precision of the cell does not affect the Precision of pi. For example, the circumference of a circle C:

$$C = pi * d = pi * 2 * R$$

Where d is the diameter of a circle and R is the radius.

random

Results in a number that is greater than or equal to zero (0) but less than one (1). The number will be selected randomly and used as a number in your formula.

A new number will be generated each time the formula is calculated.

To generate a random integer (whole number) between zero (0) and ten (10), use the formula int (11 * random).

round(x, n)

x is the number, cell contents, or formula to be rounded.

N is the number of digits you want x to be rounded to.

If n is a positive number, x is rounded so that the number of decimal positions will equal n. For example:

round(123.45, 1) results in 123.5

round(123.45, 0) results in 123

If N is a negative number, x is rounded to the nearest (n)'th power of ten. For example:

round(123.45, -1) results in 1210 (rounded to the nearest 10)

sin(x)

x must be specified in radians. This function will result in a number (with no unit) that is the sine of x. For example:

$$\sin(\mathrm{pi}/2) = \sin(1.571) = 1$$
$$\sin(2*\mathrm{pi}*45/360) =$$
$$\sin(45 \text{ degrees}) = .707$$

sqr(x)

Results in a number that is the square root of x. You cannot take the square root of a negative number. For example, sqr9 = 3

tan(x)

x must be specified in radians. This function will result in a number (with no units) that is the tangent of x. The formula for tan(x) is: $\tan(x) = \sin(x)/\cos(x)$. For example:

$$\tan(\mathrm{pi}/4) = \tan(0.785) = 1$$
$$\tan(\mathrm{pi}) = 0$$

Value Functions

You can ask AdvanceWrite Plus to generate a specific number or message based on the evaluation of cells and/or ranges.

When evaluating the value of cells/ranges, the following rules apply:

If a number is zero (0), the value is considered to be false.

If a number is anything other than zero (0), the value is considered to be true.

False results in a 0 being returned to the formula. True results in 1 being returned to the formula.

You should also note the following points:

- x and/or y must be specified as a single number, cell address, or formula that will result in a single number. Range names or address cannot be specified for "x" and/or "y" unless they refer to a single cell.

- x and/or y can be equal to sum (range name) or 2 + 3 since they are both formulas that will result in a single number.

- "List" refers to a sequence of items that is used as a parameter. Each item in the sequence can be a number, cell address, subformula, or range.

- If the item is a number or cell address, the value is passed to the function.

- Cells that do not contain a formula or number are treated as if they have a value of zero (0).

- If the item is a subformula, the subformula is calculated and the resulting number is passed to the function as one item.

- If the item is a range, each cell in the range is examined.

If a cell in the range is not a number or formula, it is
ignored and not passed to the function.

If a cell in the range is a number or formula, its value is
passed to the function as a single item.

- Using a range name or address as an item is an easy way to
  pass several items to the function without doing a lot of
  typing.

Value functions that you can use in a formula are:

FUNCTION   DESCRIPTION

and(list)   If all items in the list specified are true (a
             number other than zero), the value of the
             function will be one (1). Otherwise, the value
             will be zero(0). For example:

$$and(47, 65, 128.46, -900) = 1$$
$$and(73, 23, 0, 32, 700) = 0$$

false   Results in the value of false (zero) being used
             wherever this function is used. So false = 0.

true   Results in the value of true (one) being used
             wherever this function is used. So true = 1.

**if(condition,
truevalue, falsevalue)**

Condition is a mathematical relationship between two values (numbers, cell addresses, or formulas that result in a single value) that is either true or false. Truevalue and falsevalue are considered to be a separate single number, cell address, or formula that generates a single number.

For example:

$$if (A1 > B1, A1 - B1 * .10, 0)$$
$$then\ condition = (A1 > B1)$$
$$truevalue = (A1-B1* .10)$$
$$falsevalue = (0)$$

In this case, if the contents of A1 are greater than the contents of B1, the condition is true and the formula or number for truevalue is used.

If the contents of A1 are less than or equal to the contents of B1, the condition is false and the formula or number for falsevalue is used.

not(x)

This function reverses the normal value of true and false.

Without "not" function, Zero (0) equals false, and all other numbers equal true. With "not" function, Zero (0) equals true, and all other numbers equal false.

Therefore, if x is false (a zero), the number one will be generated. If x is true (any number other than zero), a zero is generated.

or(list)

Results in a true value (1) if any of the items in the list are true.

Only one cell in the entire list has to have a value other than zero for or(list) to result in true. For example:

$$or(456, 846, 315, 0, 324) = 1$$

error

Will display an ?ERROR in the formula cell.

All dependent formulas (formulas that reference the original formula cell) will also show ?ERROR in the cell when recalculation is done. For example, if:

$$(A1 > B1, C1, ERROR)$$

and the result of the subformula is A1/B1 is true (A1 is greater than B1) then C1 will be returned as the result of the formula. If the result of the subformula is false (A1 is less than B1) then ERROR is returned as the result of the formula.

iserr(x)

If the calculation of the formula x results in an ?ERROR, the result of this function will be 1 (true). Otherwise, there is no error and the result will be zero (false). This helps you determine if there is an error in a particular formula. For example:

$$iserr(C4)$$

If the result of the formula in cell C4 is ?ERROR, this formula will return 1. If the result in the formula is anything else this formula will return 0.

n/a

The value of this cell is not available, so ?N/A will be shown in the cell. Any formulas that reference this cell will also show ?N/A.

This function is useful to show that a particular cell entry is not available for use. For example:

$$(A1 > 10, na, 0.1 * A1)$$

will show ?N/A if a value bigger than 10 is put in cell A1.

isna(x)

If the calculation of the formula results in an N/A condition, the number 1 (true) will be generated. Otherwise an N/A condition does not exist, and the number zero (false) will be generated. For example:

$$isna(C4)$$

If the result of the formula in cell C4 is N/A this formula will return 1. If the result of the formula is anything else, this formula will return 0.

Date Functions

You can ask AdvanceWrite Plus to perform calculations based on a date or a series of dates. This is useful when trying to determine aging reports, or other time-related functions. If you simply need to place a date in your spreadsheet see *Entering Information* in Chapter 2, *Basic Spreadsheet Functions.*

Internally, AdvanceWrite Plus stores dates as Gregorian numbers. See *Dates in Formulas* in this chapter.

If a cell is marked for date format, it appears in one of the three date styles available. Despite the fact that a cell marked for date format no longer looks like a number, it can still be used as a number in calculations.

Before using the date functions you should note the following:

- The Gregorian Date is a Gregorian number representing a date in internal form. If Gregorian Date is a cell reference, it may be displayed in date format.

- If the Day, Month or Year functions reference cells that do not contain a formula or a number, those cells are treated as if their date were January 1 of the year 0.

- The today function is updated each time you select the AdvanceWrite Plus Spreadsheet to reflect the operating system date entered when you turned on the computer. The system date will not be changed by this function.

- All items in date formulas must refer to a single value. They cannot refer to a range.

- If the item is a subformula, the subformula is calculated and the resulting number is passed to the function as one item.

- Using a range name or address as an item is an easy way to pass several items to the function without doing a lot of typing.

FUNCTION	DESCRIPTION
date (year, month, day)	Results in a Gregorian Number representation of the year, month and day specified in the formula.
day (Gregorian Date)	Results in the day of the month specified in the Gregorian Date.
month (Gregorian Date)	Results in the month specified in the Gregorian Date.
today	Results in the operating system date, represented as a Gregorian Number.
year (Gregorian Date)	Results in the year specified in the Gregorian Date.

Financial Functions

Before using the various financial functions you should note the following:

- In all the financial functions, money received is entered or displayed as a positive value. Money which is paid out is entered or displayed as a negative value.

- Two terms you will meet here are annuity and amortized loan. An annuity is a sum of money paid at regular intervals. An annuity may be a payment you make every month to a savings account or a payment you receive from a retirement account.

  An amortized loan is a loan that is paid off gradually by periodic payments on the principal.

- It is not necessary to type spaces between the elements of the formula. However, it is necessary to type commas (if a period is used as a decimal separator) or semicolons (if a comma is used as a decimal separator).

- Percentages (interest rates) must be typed as decimal numbers. Do not use percent symbols (%). 14% should be typed as 0.14.

- Principal, payment, initial investment, present value, future value, and loan payment (currency) must not include currency symbols or thousand separators.

- You can enter values for financial functions that are impossible to calculate. For example, a monthly payment on a loan which is too small to ever pay off the loan because of the interest charged. In this case the result of the formula will display as ?BADPAR. Check your figures carefully.

fv(term, investment rate, present value, payment, payments/year, mode)

Calculates the future value of an annuity.

> TERM is the number of months of the investment. It can be indicated by typing the rate in the formula, by typing a subformula, or by referencing a cell in the spreadsheet.

> INVESTMENT RATE is the annual investment rate. It is indicated as a decimal number and can be typed in the formula, by typing a subformula, or located in a cell in the spreadsheet.

> PRESENT VALUE can be a real number, a subformula, or the contents of a cell in the spreadsheet.

> PAYMENT is the amount of a single payment. The number can be typed in the formula, be a subformula, or in a cell on the spreadsheet.

> PAYMENT/YEAR is the number of payments per year (quarterly, semi-annually, etc). It is specified in the form of a number (4 payments per year is quarterly) that can be typed in the formula, typed as a subformula, or located at a cell address in the spreadsheet.

> MODE is the payment mode factor, with 0 indicating end and 1 indicating start.

For example: fv(36, .12, 1000, -100, 12, 0) = 2876.92. This determines the value of $1,000 invested at 12% interest for 36 months, with monthly payments of $100.

irr(initial investment, cash-flow range)

Calculates the internal rate of return of an investment within a particular cash-flow range.

> INITIAL INVESTMENT can be a real number, a subformula, or the contents of a cell in the spreadsheet.

> CASH-FLOW RANGE must be defined as a segment of a row or column in the spreadsheet or a range name.

> This internal rate of return function may result in an invalid measure of return if negative cash-flow occurs. If this is the case you will see ?IRR in the cell containing the formula when it is recalculated.

For example, if cash-flow is the range of values 200, 325, 300, 280 and 270, then irr(1000, cash-flow) = 11.3%. The formula determines the internal rate of return, in percent, of an initial investment of $1000 and five cash returns.

loanamt(term, rate, payment, payments/year)

Calculates the amount of an amortized loan.

> TERM is the number of months before the loan is due. It can be typed in the formula (in months), can be typed as a subformula, or can appear in a cell of the spreadsheet.

> RATE is the annual interest rate of the loan. It is specified as a decimal number (percent) and can be typed in the formula, be typed as a subformula, or be the contents of a cell in the spreadsheet.

> PAYMENT is the amount of a single payment. The number can be typed in the formula, be a subformula, or be in a cell.

PAYMENTS/YEAR is the number of payments to be made in a year. This number can either be typed in the formula, a subformula, or a cell of the spreadsheet.

For example, loanamt(360, .15, -500, 12) = 39 543.07. This determines the amount of a 30 year amortized loan if monthly payments are $500 and the interest rate is 15%.

loanpmt(term, interest, principal, payments/year)

Calculates the amount of each payment for an amortized loan.

TERM is the period of time (in months) that it will take to repay the loan. It can be specified by typing the number in the in the formula, calculated in a subformula, or by referencing a cell.

INTEREST is the annual interest rate. It should be specified as a decimal number (percent) and can be typed in the formula, calculated in a subformula, or typed in a cell on the spreadsheet.

PRINCIPAL is the amount of money being borrowed. It can be specified by typing a number in the formula, as a subformula, or by referencing a cell.

PAYMENTS/YEAR is the number of payments to be made in a 12-month period. It can be specified by typing the number in the formula, a subformula, or by referencing a cell.

For example: loanpmt(360, .15, 50000, 12) = -632.22. This determines the amount of each payment on a loan of $50,000, at 15% interest, over 30 years, if a payment is made monthly.

loanrate(term, principal, payment, payment/year)

Calculates the interest rate for an amortized loan.

> TERM is the period of time (in months) that it will take to repay the loan. It can be specified by typing the number in the formula, calculated in a subformula, or by referencing a cell.

> PRINCIPAL is the amount of money being borrowed. It can be specified by typing a number in the formula, subformula or by referencing a cell.

> PAYMENT is the amount of a single payment. The number should not include currency symbols and can be typed in the formula, in a cell of the spreadsheet, or calculated in a subformula

> PAYMENTS/YEAR is the number of payments to be made in a 12-month period. It can be specified by typing a number in the formula, as a subformula, or by referencing a cell.

For example: loanrate(360, 40000, -500, 12) = 14.8%. This determines the interest rate needed to have a monthly payment of $500, for 30 years, on a loan of $40,000.

loanterm(rate, principal, payment, payment/year)

Calculates the term (number of months) of an amortized loan.

> RATE is the interest rate of the loan. It is specified as a decimal number (percent) and can be typed in the formula, in a cell of the spreadsheet or calculated in a subformula

> PRINCIPAL is the amount of money borrowed. It can be typed in the formula or in a cell of the spreadsheet, or calculated in a subformula.

PAYMENT is the amount of a single payment. The number should not include currency symbols and can be typed in the formula, in a cell of the spreadsheet, or calculated in a subformula.

PAYMENT/YEAR is the number of payments to be made each year. This number can be typed in the formula, in a cell of the spreadsheet, or calculated in a subformula.

For example: loanterm (.18, 3000, -124.9, 12) = 30. This determines how many months it would take to pay off a loan for $3,000 if the interest rate were 18% and you made one payment per month of $124.90.

mirr(initial investment, safe rate, cash-flow range)

Calculates the modified internal rate of return.

INITIAL INVESTMENT can be a real number, a subformula, or the contents of a cell in the spreadsheet.

SAFE RATE can be a real number, a subformula, or the contents of a cell in the spreadsheet. It is the safe rate of return you would receive from an investment.

CASH-FLOW RANGE must be defined as a segment of a row or column in the spreadsheet, or a range name.

For example, if the cash-flow range is 200, 325, 300, 280 and 270, then: mirr(1000, .12, cash-flow) = 11.6%. This determines the rate of return of an initial investment of $1000 and where the expected cash-flows will be reinvested at a 12% interest rate.

npv(interest rate, initial payment, cash-flow range)

Calculates the net present value of a range of cash flows at the current interest rate.

> INTEREST RATE is the interest rate paid for the available cash. The number can be typed in the formula, in a cell, or calculated in a subformula.

> CASH-FLOW RANGE is a range of cells in the spreadsheet that represents the available cash for a period of time. Ranges must be defined as a segment of a row or column.

For example: npv(.10, -1000, cash-flow) = 34.70. This determines the net present value (34.70) if the current rate of interest is 10%, the initial payment is $1000 and the cash-flow range is 200, 325, 300, 280 and 270.

payment(term, interest, present value, payments/year, future value, mode)

Calculates the amount of each payment for an annuity.

> TERM is the period of time (in months) that it will take to repay the loan. It can be specified by typing the number in the formula, by referencing a cell, or as a subformula.

> INTEREST is the annual interest rate. It should be specified as a decimal number (percent) and can be typed in the formula, by referencing a cell, or as a subformula.

> PRESENT VALUE is the amount of money initially invested. It can be specified by typing the number in the formula, by referencing a cell, or as a subformula.

> PAYMENTS/YEAR is the number of payments to be made in a 12-month period. It can be specified by typing the number in the formula, by referencing a cell, or as a subformula.

FUTURE VALUE represents how much money you want to have at the end of the investment period. The number can be typed in the formula, in a cell on the spreadsheet, or as a subformula.

MODE is the payment mode factor, with 0 indicating end, and 1 indicating start.

For example: payment(360, .15, 1000, 12, 87000, 0) = -25.21. this determines how much must be deposited monthly if the initial investment is $1,000 and you want to have $87,000 at the end of 30 years.

pv(term, investment rate, payment, payments/year, future value, mode)

Calculates the present value (or required money) for an investment to mature to a desired future amount.

TERM is the length of time (in months) that the money will be invested. This number can be typed in the formula, in a cell on the spreadsheet, or as a subformula.

INVESTMENT RATE is the rate of return on the investment. It should be indicated by a decimal number (percent) and can be typed in the formula, in a cell on the spreadsheet, or as a subformula.

PAYMENT is the amount of a single payment. The number can be typed in the formula, in a cell, or as a subformula.

PAYMENTS/YEAR is the number of payments per year (quarterly, monthly, semiannually, etc.), specified in the form of a number (e.g. 4 periods per year, is quarterly). The number can be typed in the formula, in a cell on the spreadsheet, or calculated in a subformula.

FUTURE VALUE represents how much money you want to have at the end of the investment period. The number

can be typed in the formula, in a cell on the spreadsheet, or can be a subformula.

MODE is the payment mode factor, with 0 indicating end and 1 indicating start.

For example: pv(240, .10, -50, 12, 50000, 0) = -1641.84. This determines how much must be invested now at 10% interest to have $50,000 in 20 years, if $50 is deposited at end of each month.

rate(term, present value, payment, payment/year, future value, mode)

Calculates the annual interest rate for an annuity.

TERM is the period of time (in months) that it will take to repay the loan. It can be specified by typing the number in the formula, by referencing a cell, or as a subformula.

PRESENT VALUE is the amount of money initially invested. It can be typed in the formula, in a cell on the spreadsheet, or as a subformula.

PAYMENT is the amount of a single payment. The number should not include currency symbols and can be typed in the formula, in a cell or the spreadsheet, or as subformula.

PAYMENTS/YEAR is the number of payments to be made in a 12-month period. It can be specified by typing the number in the formula, by referencing a cell, or as a subformula.

FUTURE VALUE represents how much money you want to have at the end of the investment period. The number can be typed in the formula, in a cell on the spreadsheet, or as a subformula.

MODE is the payment mode factor, with 0 indicating end and 1 indicating start.

For example: rate(24, -1000, -100, 12, 5000, 0) = 29.4%. This determines the interest rate required in to realize $5,000 at the end of 2 years, if $1,000 is invested initially and you make monthly payments of $100, at the end of each month.

term(interest rate, present value, payment, payments/year, future value, mode)

Calculates the number of payments necessary to pay an annuity.

INTEREST RATE is the rate of return on the investment. It should be indicated by a decimal number (percent) and can be typed in the formula, in a cell of the spreadsheet, or as a subformula.

PRESENT VALUE is the amount of money initially invested. It can be typed in the formula, in a cell of the spreadsheet, or as a subformula.

PAYMENT is the amount of a single payment. The number should not include currency symbols and can be typed in the formula, calculated in a subformula, or typed in a cell of the spreadsheet.

PAYMENTS/YEAR is the number of payments to be made in a 12-month period. It can be specified by typing the number in the formula, by referencing a cell, or as a subformula.

FUTURE VALUE represents how much money you want to have at the end of the investment period. The number can be typed in the formula, in a cell of the spreadsheet, or as a subformula.

MODE is the payment mode factor, with 0 indicating end and 1 indicating start.

For example: term(.15, 1000, -100, 12, 5000, 0) = 50. This determines how many monthly payments of $100 must be made if $1,000 is initially invested and you want to have $5,000 at the end of the term.

List and Statistical Functions

Before using these functions you should note the following:

- x and/or y must be specified as a single number, cell address, or formula that will result in a single number. Range names or addresses cannot be specified for x and/or y unless they refer to a single cell.

- x and/or y can be equal to sum (range name) or 2 + 3 since they are both formulas that will result in a single number.

- "List" refers to a sequence of items that will be used as a parameter. Each item in the sequence can be a number, cell address, or subformula. The entire list may be a range or range name.

- If the item is a number or cell address, the value is passed to the function.

- Cells that do not contain a formula or number are treated as if they had a value of zero (0).

- If the item is a subformula, the subformula is calculated and the resulting number is passed to the function as one item.

- If the list is a range or range name each cell in the range is examined.

  When a cell in the range is not a number or formula, it is ignored and not passed to the function.

  When a cell in the range is a number or formula, its value is passed to the function as a single item.

- Using a range name or address as an item is an easy way to pass several items to the function without doing a lot of typing.

FUNCTION	DESCRIPTION
avg(list)	Results in a number that is the average of all items in the list. For example, avg(4, 6, 5, 7, 8) = 6. When you type a range address or name in the parentheses, any cells in the range that are not numbers or formulas are not counted.
choose(n, list)	Results in a number equal to the n+1th item in the list. For example, choose(4, total) results in a number equal to the 5th item in the range named "total".

count(list)	Results in a number that is equal to the total number of items in the list. The items are counted. For example, count(A1. .E2) = 10. This is if all the cells in that range are defined. Undefined cells are not counted.
max(list)	Results in a number that is equal to the largest item in the list. For example, if Range1 is 1, 2, 3, 4, then max(Range1) = 4.
min(list)	Results in a number that is equal to the smallest number in the list. Using the above example, min(Range1) would return a result of 1.
std(list)	Results in a number that is equal to the standard deviation of all items in the list. For example, std(1, 2, 3, 4) = 1.11.
sum(list)	Results in a number that is equal to the sum of all items in the list. For example, sum(1, 2, 3, 4) = 10.
var(list)	Results in a number that is equal to the variance of all items in the list. For example, var(1, 2, 3, 4) = 1.25.

Table Lookup Functions

Table Lookup functions allow you to search large tables of information. With income tax tables, for example, the amount a person pays in tax may depend on income and tax status, so you can quickly find out exactly what that amount is.

	A	B	C	D	E
1		$1000	$2000	$3000	$4000
2	Tax Status Y	10	15	20	25
3	Tax Status Z	30	35	40	45

In the example, the figures in row 1 represent tax brackets. If a person's tax status was Z, and income was $2400, table lookup would allow you to search the columns for the amount of tax that person should pay. In this case, income lies above $2000 but falls below the next tax bracket of $3000, so column C is searched. With a tax status of Z, tax payable is 35.

The principle of Table Lookup is the same for horizontal and vertical lookup.

hlookup(x, range, offset)

Looks horizontally across the first row of a chosen range, and searches for a number that is less than or equal to a value that you specify (x). If 2400 is selected as the value of x, AdvanceWrite Plus searches the first row for a number greater than 2400 and then looks back one column. In the example, it finds 3000 and goes back to the previous column (2000).

After looking back one column, AdvanceWrite Plus then looks down that column by the number of rows you specify in the Offset. In the example, the specified row would be the one containing tax status Z. AdvanceWrite Plus then returns the value of the cell from that location (35).

x is the number you want to look up. It can be a number, cell address, or subformula. The value of x will fall between the value of the found cell and the value of the cell to the left of it.

RANGE is the range name or address of the rows and columns you wish to use as the look-up table. This range may be all or part of your spreadsheet. The first row of the range is used as the Lookup Table, so its values are used for the lookup. The Lookup Table in the example is row 1, because it contains the tax brackets.

OFFSET is the number of the rows, below the first row of the range, that AdvanceWrite Plus should look for the value to return. An offset of 0 says use the first row of the range. An offset of 1 selects the second row, an so on.

In the example at the start of this section, if income is $2400 and tax status is Z, the formula would be:

hlookup(2400,B1..E3,2) = 35.

If the tax status is 1, the formula would be:

hlookup(2400,B1..E3,1) = 15.

vlookup(x, range, offset)

The principle is the same as for hlookup (see the example under *hlookup*) except vlookup looks vertically down the first column of a chosen range for a number less than or equal to a value that you specify (x). If 1000 is selected as the value of x, AdvanceWrite Plus searches down the first column for a number greater than 1000 and then looks back one row.

After looking up one row, AdvanceWrite Plus then looks across that row by the number of columns you specify in the Offset. It returns the value of the cell from that location.

"x" is the number you want to look up. It can be a number, cell address, or subformula. The value of x will fall between the value of the found cell and the value of the cell above it.

RANGE is the range name or address of the rows and columns you wish to define as the lookup table. This range may be all or part of your spreadsheet.

OFFSET is the number of columns, to the right of the first column of the range, that AdvanceWrite Plus should look for the value to return. An offset of 0 says use the first column of the range. An offset of 1 selects the second column.

For example, the formula vlookup(2400, A1..D4, 2), looks up the number 2400 on the first <u>column</u> of a range from A1 to D4. Also see *hlookup*.

Sorting a Spreadsheet

You can arrange the information in your spreadsheet to suit particular needs which may arise. For instance, you may have an alphabetical list of sales representatives, but you also need to list the representatives in an order based on total sales and location.

A problem like this could be quickly and easily overcome by making a copy of the alphabetical list and using the AdvanceWrite Plus Sort facility to rearrange it.

For example:

Alphabetical List

List Sorted by Total Sales
and Location Code

	A	B	C			A	B	C
1	REPS	TOTAL	LCODE		1	REPS	TOTAL	LCODE
2	Drew	217	A		2	Upster	287	C
3	Flop	187	C		3	Parson	287	B
4	Kirk	247	C		4	Kirk	247	C
5	Mann	168	B		5	Drew	217	A
6	Parson	287	B		6	Flop	187	C
7	Turner	133	A		7	Mann	168	B
8	Upster	287	C		8	Turner	133	A

You can sort by date, title, an amount, or whatever makes the data in your spreadsheet easier to understand. AdvanceWrite Plus lets you sort up to five fields. A field is simply a column address. In the example, the spreadsheet has been sorted for two fields, first Total Sales (B1) and second, Location Code (C1).

These two fields are referred to as Sort Keys, because they determine the order of the rows below them. The rows are called records, and they can be sorted in either ascending or descending order.

In the example, the highest sales figures could come first (descending) or the lowest (ascending). Because descending order was chosen, Upster and Parson head the list with the highest total sales. However, Upster comes before Parson because the second field to sort on is Location Code, and in descending order C comes before B.

If Location Code had been the first field to be sorted the resulting list would have been quite different. For example:

List Sorted by Location Code
and Total Sales

	A	B	C
	A	B	C
1	REPS	TOTAL	LCODE
2	Upster	287	C
3	Kirk	247	C
4	Flop	187	C
5	Parson	287	B
6	Mann	168	B
7	Drew	217	A
8	Turner	133	A

How to sort your spreadsheet

1   Press (Do).

2   Type s (for Sort).

3   Type the cell address of the first field (i.e. column title) that you want to sort the spreadsheet on.

4   Press (Tab).

5   Repeat steps 3 and 4 for the number of fields you want to sort. (The maximum is 5.)

6   You are asked what order you would like to sort the spreadsheet in.

    For ascending order, type A

    OR for descending order, type D

7   Type the number of rows you want per record to be sorted. See Notes.

8   Choose the amount of the spreadsheet you want to sort:

    For the entire spreadsheet, type W (for Whole)

    OR for certain rows only, type R (for Rows)

    OR for an amount you specify, type A (for Amount)

9   Press (Enter). If you typed w in step 8 the spreadsheet is
    sorted. Otherwise continue.

10 To sort by rows or any amount type the range name or
    address of the range you want to sort

    OR shade the range you want to sort.

11 Press (Enter).

Notes

■   You can specify up to 5 fields on each sort.

■   Each field must be a cell address in the first record (row or
    rows) being sorted. AdvanceWrite Plus tells you if the sort
    field you have chosen is the first record or not.

■   AdvanceWrite Plus begins by sorting the spreadsheet on the
    first field you specify. If any records are duplicated in the
    first field, AdvanceWrite Plus then uses the second field
    you specify to sort those fields.

    The example at the start of this section shows this. Upster
    and Parson both have the highest sales total. However,
    because the second sort field is location code, and the
    spreadsheet is being sorted in descending order, Upster (code
    C) is listed before Parson (code B).

    This process is repeated for each of the five fields you
    specify.

- Ascending order means lesser to greater; descending order means the opposite.

- Numeric cells are always sorted in front of text cells. The column titles will therefore be sorted.

- If you want to sort by rows, you can only specify amounts of whole rows.

- If you want to sort any amount, you can specify a partial range of rows or columns to be sorted.

- In step 7, you can tell AdvanceWrite Plus how many rows you want to make up one record. AdvanceWrite Plus uses the number you type here to determine how many rows to move down before sorting the next record. Use this option if the information you want to sort is on more than one line.

  You can choose up to 5 rows in 1 record.

The Keyboard

This chapter covers:

- User-Defined Function Keys
- Repeat Last Command
- Changing the Keyboard

User-Defined Function Keys

You can define commands and/or keystrokes that can be recorded under and accessed by any of the 10 number keys. This means that frequently used combinations of functions or keystrokes can be combined to be played back by touching only one key. The keystrokes you record are kept in a special file, a keystroke file, on your disc.

Up to 10 different command/keystroke sequences or 1000 keystrokes may be recorded per keystroke file. You can, at any time, make an active keystroke file access different sets of commands in another file. This means that you have the ability to record and access as many keystroke combinations as you wish.

See Chapter 1, *Introduction to Advanced Features*, in the *Advanced Features* manual.

How to record keystrokes or commands

1 From your worksheet, place the cell pointer on the cell where you want to start the keystroke/command sequence.

2 Press (Select).

3 Press the number (0 to 9) you want to use to play back the keystrokes/commands you are about to type.

4 Press (Enter).

5 Type the keystrokes/commands you want to record, including any (Enter) keystrokes. The keystrokes/commands are performed as they are being recorded.

6 When you are finished, press (Select).

7 Type the number shown on the Help line. This number should be the number you typed in step 3 above.

8 Press (Enter). To play back see *How to play back recorded keystroke sequences* in this section.

Notes

■ When you record a series of keystrokes/commands under a particular key, anything previously recorded under that key is erased.

■ You can record a maximum of 1000 keystrokes/commands in each keystroke file. This means you can have one key with 1000 keystrokes, or 10 keys with 100 keystrokes each.

- If you exceed the maximum number of keystrokes possible while recording under a particular key, a message on the Help line appears when you end the recording sequence. The keystrokes you typed for that number are not be saved. Either re-type the sequence using fewer keys, or use a different keystroke file with fewer keystrokes recorded under the other numbers.

- The default keystrokes file used in the spreadsheet are the same as those used in word processing. You can create your own keystroke file if you wish

How to play back recorded keystrokes sequences

1   Position your cursor where you want the play back to begin.

2   Hold down (CTRL) [(Alt)] and type the appropriate number key.

Notes

- You can cancel the play back of any keystrokes/commands at any time by pressing (Cancel).

- If the keystrokes/commands you are playing back are not allowed at this time (connecting cells while in a formula window), the play back will automatically stop.

How to record a keystroke sequence that automatically starts the play back of another keystroke sequence

1   Place the cell pointer where you want the keystroke sequence that you are recording to be carried out.

2   Press (Select).

3   Press the number (0 to 9) you want to use to play back the keystrokes/commands you are about to type.

4   Press (Enter).

5   Type the keystrokes/commands you want to record.

6   When you reach the point where you want to start playing back the other keystroke sequence, hold down (CTRL) [(Alt)] and type the number of the second keystroke sequence to be played back.

Notes

■   If the keystrokes/commands you are playing back under one key end by starting commands recorded under another key, the second key's commands will begin playing as soon as the first key's commands are finished playing.

■   After typing the number of the second sequence to be played back in step 6, recording of the first sequence automatically stops.

■   The keys recorded under the number you type in step 6 will not be played back while you are recording the keystrokes. If you want to see the commands recorded under the second key, you will need to play them back manually.

- The number you type in step 6 can be the same number you typed in step 3. When you play back the keystrokes, the command sequence will be continuously repeated until you press (Cancel).

How to select a different keystroke file

1   Press (Select).

2   Type U (for User-Defined Key File).

3   Type the name of the keystroke file you want to use.

    If the file is on a different disc/directory than your default, specify the path name before you type the filename. The drive identifier must be followed by a colon, and the pathname (if used) must be followed by a backslash.

4   Press (Enter).

Notes

- If the name you specify in step 3 does not exist, AdvanceWrite Plus will automatically create a new keystroke file. There will be no commands recorded under any keys.

- If the file name you type in step 3 does exist, AdvanceWrite Plus immediately plays back any keystrokes/commands recorded under the number 0 of the new keystroke file. When these have been played, or if no commands are recorded under the number 0, the keystrokes under all numbers are replaced with those in the new keystroke file.

- If you want to be able to select a keystroke file without playing back any keys automatically when the file is selected, do not record any keystrokes/commands under the number 0.

- If you wish to use the default keystroke file, do not type a filename in step 3. Instead, just press (Enter). AdvanceWrite Plus will not play back any keystrokes at this time, but will replace the old keystrokes with the keystrokes in the default keystroke file.

- When you start AdvanceWrite Plus, the default keystroke file is automatically used.

- You can create a keystroke file for each spreadsheet you create. That way, you can use different user-defined keystrokes (macros) for each spreadsheet.

How to record a keystroke sequence that loads keystrokes/commands from a different keystroke file

1 Place the cell pointer where you want the keystroke sequence that you are recording to be carried out.

2 Press (Select).

3 Press the number (1 through 0) you want to use to play back the keystrokes/commands you are about to type.

4 Press (Enter).

5 Type the keystrokes/commands you want to record.

Continued...

6 When you reach the point where you want to change to the new keystroke file, press (Select).

7 Type u (for user defined key file).

8 Type the name of the keystroke file you want to change to.

9 Press (Enter). Recording of keystrokes/commands stops.

Notes

- Any keystrokes recorded under key 0 of the new keystroke file is automatically played back immediately after selecting the new keystroke file.

- If you wish to use the default keystroke file, do not type a filename in step 8. Instead, just press (Enter). AdvanceWrite Plus will not play back any keystrokes at this time, but will replace the old keystrokes with the keystrokes in the default keystroke file.

- By having key 0 of the newly selected keystroke file invoke other user defined keys, or another keystroke file, you will be able to chain your keystrokes indefinitely.

Repeat Last Command

You can repeat the last command you gave AdvanceWrite Plus. This is helpful if you want to do the same function more than once without issuing the entire command sequence again.

How to repeat the last command you gave AdvanceWrite Plus

1   Position the cell pointer where you want to begin.

2   Hold down (CTRL) [(Alt)].

3   Press = (equals sign)

Notes

- Any command that begins with a function key as well as (Go To) or (Mark) command, may be repeated.

- All keystrokes you typed during the command are played back.

- You may use the Repeat Last Command function more than once if you wish.

- Operation of the Repeat Last Command function is very similar to operation of User Defined Function Keys.

- You may cancel the command you are repeating by pressing (Cancel).

Changing the Keyboard

You can change your normal, English keyboard into a foreign keyboard or a math/Greek keyboard. This is very useful if you want to type equations on the spreadsheet or need special scientific symbols. Characters with accents are displayed correctly.

How to select the keyboard for your spreadsheet

1　Press (Select).

2　Type K (for Keyboard).

3　Type the number for the keyboard you want to select:

1 English/USA
2 French
3 Canadian
4 Spanish
5 Math/Greek
6 Alternate Symbols
7 German
8 Italian
9 Swiss French
10 UK/English
11 Swedish/Finnish
12 Norwegian/Danish
13 Danish II
14 Swiss German
15 Dvorak

4　Press (Enter).

Notes

■ When setting the spreadsheet defaults you may need change keyboards for currency signs.

■ Keyboard charts are in the *Advanced Features* manual. See *Alternate Keyboards* in the Chapter, *Introduction to Advanced Features.*

■ When typing an accented character, type the accent mark first. You will not notice anything on the screen until you type the character. The character with the accent then appears.

■ Before attempting to print text created using either a foreign or math/Greek keyboard, check your printer type style. The type style you are using must support the characters generated by your keyboard and displayed on your screen.

■ If the printwheel number you are using supports the foreign characters in your text, make sure you have specified that printwheel number in your word processing default page or have typed a wheel mark ((Mark) and w) in the text.

■ For a list of foreign characters supported by dot-matrix printers, see your printer documentation disc.

■ While you may use math/Greek characters to represent equations in your spreadsheet, all formulas can be entered using the English keyboard.

Using Other Spreadsheets

AdvanceWrite Plus spreadsheets can be changed to Document Interchange Format (DIF), so that you can use them with other spreadsheet programs.

This means that you can use another program within your AdvanceWrite Plus worksheet, or you can use your AdvanceWrite Plus worksheet in another program. The ability to "interchange" like this is especially useful when you want to use data collected from another spreadsheet program.

How to interchange all or part of your spreadsheet to DIF format

1   Display the worksheet version of the spreadsheet you want to interchange. To change part of the spreadsheet, position the cell pointer in the upper left hand corner of the range you want to interchange.

2   Press (Filing) [Press (Do)].

3   Type I (for Interchange).

4 Type s (for AdvanceWrite Plus Spreadsheet to DIF) and press (Enter).

5 Type the filename you want to use for the DIF file.

6 Press (Enter).

7 Type the title you want to give to the DIF version of the spreadsheet

   OR press (Enter) if you do not want a title.

8 Press (Enter).

9 Type w (for Whole spreadsheet)

   OR type A (for Any amount)

10 Press (Enter). If you typed w AdvanceWrite Plus interchanges your entire worksheet to DIF format. Otherwise continue.

11 Shade the amount you want to interchange

   OR type the range name or address.

12 Press (Enter). AdvanceWrite Plus interchanges the amount of the worksheet which you specified to DIF format.

Notes

- Formulas in the worksheet are not interchanged. Instead, the results of the formulas are placed in the corresponding cells in the DIF file.

- AdvanceWrite Plus tells you if the name you chose for your DIF file already exists. If this happens, you can press (Enter) to replace the old file with the new one, or press (Cancel).

  You can type any name for the title, including the name you used for the file itself.

- The name you type for the title can be the same name you used for the filename, or can be the name you chose for the worksheet, or any other name you choose.

- Neither the worksheet version nor the text version of your spreadsheet will change. You are able to use them as usual after you have finished interchanging.

How to interchange a DIF file to an AdvanceWrite Plus Spreadsheet

1   Display the spreadsheet that you want to contain the information from the DIF file.

2   Position the cell pointer in the upper left hand corner of the range that is to hold the interchanged information.

3   Press (Filing) [Press (Do)].

Continued...

4 Type I (for Interchange).

5 Type D (for DIF to AdvanceWrite Plus) and press (Enter).

6 Type the name of the DIF file you want to interchange to AdvanceWrite Plus Spreadsheet format.

7 Press (Enter). AdvanceWrite Plus interchanges the DIF file into your worksheet beginning at the location of the cell pointer.

Notes

- If there are not enough columns in the worksheet to insert all the columns from the DIF file, an error message appears. The DIF file is not interchanged to an AdvanceWrite Plus spreadsheet.

- Any non-numeric text in the DIF file is interchanged as text cells in the AdvanceWrite Plus worksheet. This includes formulas that were placed in the DIF file by another package. Once interchanging is complete, you can change the other package's formulas to their AdvanceWrite Plus equivalents.

- Numbers from the DIF file assume the numeric format you have set in your page parameters. You can go back later and change the numeric format for specific cells if you like.

- If text information does not fit in the cell, you do not see it all. You can later change the cell widths to see all the text. See Chapter 5, *Formatting*.

Spreadsheet Error Messages

Error Indicators

You can quickly tell where there are errors in your spreadsheet. AdvanceWrite Plus displays error indicators in cells which contain errors. To quickly get to errors press (Go To) and type E. See Chapter 3, *Moving Around the Spreadsheet.*

The error indicators are:

?NEGPAR?   This appears in a cell where a negative number has been used for an argument that requires a positive number or zero.

?UNDER?   The number resulting from this formula is too small to be represented in internal form.

?OVER?   The number resulting from this formula is too large to be represented in internal form.

?LOOKUP?   The number you are trying to look up is smaller than the value of the 1st cell in the table, or the specified offset goes outside the table, or the range is one row and the offset 1 or more rows.

?N/A?   One of the cells used in this formula has
                 been given the value of "not available".

?ERROR?   This cell has been given the value of
                 "error".

?FORMULA?   There is an error in this formula.

?DIV/0?   This formula asks AdvanceWrite Plus to
                 divide by zero.

?IRR?   There is an error in the arguments for
                 internal rate of return.

?SEC?   This error is a secondary error. The error
                 is not caused by this formula. The cause
                 originates in a formula with a different
                 error message. When all other errors have
                 been corrected, AdvanceWrite Plus will
                 correct this error.

?BADPAR?   This error will occur when the parameters in a financial function such as loanrate do not allow an answer for that function.

CIR   This means Circular Formula. This is an error if you are trying to insert the result of a formula in a cell which is referenced in that formula. It may be, however, that you have created a self-dependent cell, where because of links with other formulas a cell value becomes dependent on itself.

Look for the number of iterations under *Page Parameters* in Chapter 5, *Formatting.* Also see *Using Formulas* in Chapter 7, *Manipulating Data.*

Notes

- A formula that does not need information from any other formula is called a primary formula.

- Errors in primary formulas always indicate the cause of this error.

- A formula that does require information from another formula is called a secondary formula.

- Errors in a secondary formula that originate in the primary formula always show ?SEC? as an error indicator.

Spreadsheet Help Messages

SS-1

That key is not part of this command. Press (Help) and try again.

AdvanceWrite Plus displays this message if you accidentally press a key that is not part of the command in progress. Press and try again. Once you begin a command, you can always press and AdvanceWrite Plus displays the correct command options and keystrokes.

SS-2

The edit window is active. Use shift/down arrow to return to worksheet.

You have selected the edit or formula mode and your cursor is still in the edit window at the top of your screen. Hold down (Shift) and press ⊞ to move back to the worksheet.

SS-3

The cell pointer is active. Use shift/up arrow to move to edit window.

AdvanceWrite Plus displays this message after you hold down (Shift) and press ⊞ to let you know you are no longer in the edit window.

SS-4

The option you selected is not correct. Press (Help) to see the choices.

Check the steps for completing this function. Perhaps you have mistyped some part of the function or have forgotten something.

SS-5

The number you typed is either too large or too small. Try again.

AdvanceWrite Plus displays this message if you attempt to type a number that either has too many digits (too large) or too many decimal places (too small) for the system to either display or store.

SS-6

You need to type a number for this function. Try again.

AdvanceWrite Plus displays this message if you type non-numeric characters when a number is required. Press (Cancel) and try again. Press (Help) for assistance.

SS-7

Unable to understand what you have typed here. Try again.

AdvanceWrite Plus displays this message if a formula is mistyped. Check the cell addresses, function names and range names for the correct spelling.

SS-8

You need to type a number or number reference here. Try again.

AdvanceWrite Plus displays this message if you type something other than a number, cell address, function name, range name or number at this point. Press (Cancel) and try again.

SS-9

You need a) here. Count the (or check the parameters required.

AdvanceWrite Plus displays this message if you don't have the same number of left and right parentheses in a formula or if the system was expecting a) in a formula and did not find it. This could happen, for instance, if you gave a function more arguments than it required.

SS-10

`You need a number, number reference, or range here. Try again.`

AdvanceWrite Plus displays this message if you type a formula and leave out the (after a function name.

SS-11

`The character here is incorrect for this formula. Try again.`

AdvanceWrite Plus displays this message if you have typed the formula incorrectly. Check to see if you are missing an operator (+, -, *, /).

SS-12

`The formula you have typed is incomplete. Try again.`

AdvanceWrite Plus displays this message when you type a formula with a function and the function needs more arguments than you give it. Type in the missing argument(s) and try again.

SS-13

`You must type a comma or semicolon here. Try again.`

AdvanceWrite Plus displays this message when you type a function and a comma or semicolon is missing. Function arguments must be separated by commas or semicolons. You must use semicolon if the decimal point is a comma.

SS-14

`The cell you have specified is not in this spreadsheet. Try again.`

AdvanceWrite Plus displays this message if you type a cell address incorrectly and, there is no such address in the spreadsheet you are working on.

SS-15

This error is from a negative number used incorrectly in the formula.

When evaluating the formula for this cell, or a cell it depended on, the system tried to perform SQR < LN, or LOG on a negative number. These functions have no meaning for negative arguments. Check the numbers or cell addresses you are using and try again.

SS-16

The number or result of this formula is too small to display.

The AdvanceWrite Plus Spreadsheet can store numbers with a magnitude as small as 1E-307 (this is a number like 0.001 but with 306 zeros between the decimal point and the one.) If a calculation results in a number that is smaller than 1E-307, we cannot represent it in our internal format. This results in an error. The cell whose formula results in a number too small, and any cell that depends on it, shows this error.

SS-17

The result of this formula is too large to display.

AdvanceWrite Plus can store numbers with a magnitude as big as 1E308. (This is a number with 308 zeros following it.) If a calculation results in a number that is bigger than 1E308, we cannot represent it in our internal format. This results in an error. The cell, and any cell that depends on it, whose formula results in a number too large will show this error.

SS-18   This cell is protected. You cannot change it with honor
protection on.

If you have marked a particular cell to be protected, and
protection is being honored, you cannot change or delete the
cell. If it is important to delete or modify this particular cell,
you will need to remove the protection marks from the cell or
change the Format parameters to not honor protection.

SS-19   Your spreadsheet is full. There is no more room to add rows
or columns.

AdvanceWrite Plus displays this message when the function
you are attempting exceeds the 6400 cell limit in your
spreadsheet. This may be because you have tried to add too
many rows or columns. Delete some rows or columns, or
create another spreadsheet and link the two.

SS-20   The spreadsheet cannot accept any more columns.   CANCEL

The maximum number of columns available on an
AdvanceWrite Plus Spreadsheet is 64. If you attempt to add
more columns to the spreadsheet you will exceed the
maximum width of 64 columns.

SS-21   The range name you have specified already exists. Try
another name.

AdvanceWrite Plus will display this message if you try to
name a range with a range name that already exists. You will
need to either choose another range name, or rename the other
range so that you can use that name again.

SS-22

Your spreadsheet is completely full! Try again using fewer
cells.

The function you have just attempted would result in more
than the maximum of 6400 cells available on the spreadsheet.
You can delete some unnecessary rows or columns, or you can
create another spreadsheet in your document to include
additional information.

SS-23

The range name you typed can't be found. Display range
names. Try again.

If you mistype a range name, AdvanceWrite Plus will not be
able to locate that range and this message will be displayed.
Check the spelling and retype it.

SS-24

The cell address you typed is invalid. (Cancel) and try
again.

You have mistyped the cell address you require. AdvanceWrite
Plus will display this message if you specify a cell by address
and there is no such address. For instance, if you have 15
columns in the spreadsheet and you specify an address
such as R1.

SS-25

You have recorded the maximum number of keystrokes
available. CANCEL.

AdvanceWrite Plus will display this message if you attempt to
record more than the maximum 1000 keystrokes available for
all your macros.

SS-26

`There are no keystrokes recorded for the key you used.   Try another key.`

When you record keystrokes in a spreadsheet, give those keystrokes a number to designate them (1 through 0). If you attempt to playback those recorded keystrokes by specifying an incorrect number (one that does not designate recorded keystrokes), AdvanceWrite Plus will display this message. You typed the wrong number. Try again.

SS-27

`The name of the spreadsheet you used cannot be found. CANCEL & try again.`

AdvanceWrite Plus will display this message if you specify a spreadsheet that does not exist when copying or moving from source spreadsheet. Check the spelling, press (Cancel) and try again.

SS-28

`The association you want can't be completed. Press (Help) and try again.`

You may not have two (2) identical ranges from one (1) source spreadsheet associated with the same destination spreadsheet. AdvanceWrite Plus will display this message if you attempt to link two identical ranges into the same spreadsheet.

SS-29

The cell address you have specified cannot be found. Try
again.

If you specify a cell address that does not exist, AdvanceWrite
Plus will display this message. For example, your spreadsheet
spans row M through column 120 and you specify an address
such as N12, P100, B125 or similar nonexistent addresses.

SS-30

Not used.

SS-31

This error is from an invalid range for horizontal or
vertical lookup.

This occurs when you are using horizontal lookup and the
value of the first cell in the range you specify is less than the
value of x, in the formula hlookup(x, range, offset).

So if you specify x as being 3, and the value of the first cell in
the range is 1, you will get this error message.

Vlookup (vertical lookup) works in a similar way.

SS-32   This cell or a cell relative to it has been designated not available.

AdvanceWrite Plus will display this message when a source cell has been marked as not available by giving it a formula with the NA function in it.

SS-33   This cell or a cell relative to it has been designated as an error.

This cell or a cell that it depends on has been given the value of error by entering a formula containing the error function. When this happens, AdvanceWrite Plus will display this message.

SS-34   The range you have specified is invalid. CANCEL and try again.

AdvanceWrite Plus displays this message if you mistype or incorrectly spell a specified range name. Check the spelling and try again.

SS-35   CAUTION! Existing cells at this location will be replaced if you press Enter.

AdvanceWrite Plus will display this message when moving or copying, if the area you want to move or copy to has cells in it already. If your continue, these cells will be written over and their original values will be lost.

`CAUTION! Connections at the source of this move or copy will be broken.`

AdvanceWrite Plus displays this message when you try to move or copy a range that contains part of a connected area.

For example:
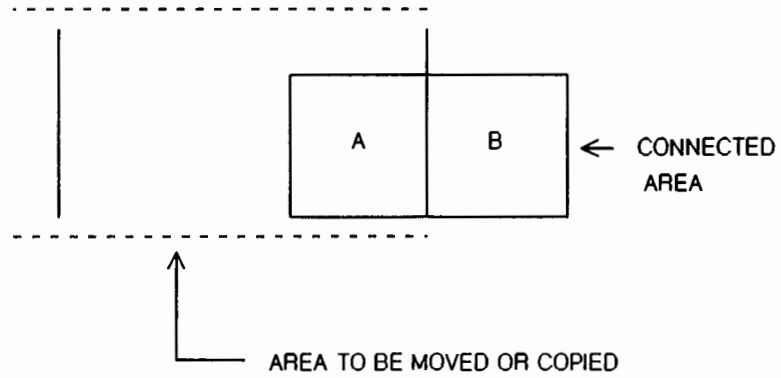
The area to be moved or copied does not include all of the connected area. When you copy, because the connected area A and B will not be changed, it stays connected. In the copy, however, region A is not connected to B, because there is no corresponding region B to connect to.

When you move, A is actually moved, and becomes separated from B. So A and B are no longer connected.

SS-37   CAUTION! Connections where the cells will be inserted will be broken.

AdvanceWrite Plus will display this message if you attempt to move or copy and the area that will be written over contains a connected area that is partially outside of that area.

Moving or copying will overwrite part of a that connected area and the remaining part will be disconnected. A warning like this also appears when you type more than 250 characters in a connected area.

SS-38   CAUTION! Formulas use cells that will be overwritten if you insert now.

AdvanceWrite Plus displays this message if you are moving or copying and cells to be overwritten by the move or copy are referenced in formulas elsewhere in the spreadsheet, thus making the references invalid. If you continue the invalidated cell address in the formulas will be replaced with ?ERR? and the cell will be marked with a ?FORMULA error.

SS-39   CAUTION! Ranges or range names will change shape if you insert now.

AdvanceWrite Plus will display this message if you are moving or copying and the result causes the diagonal defining corners of the range to change. If you move only one defining corner of a range, you will change its shape.

For example, if you have a range C3. .D5 (say Range 1) and you try to move cells B2. .C3 (say Range 2) the cells you are moving include the top corner of Range 1. If you move to A4. .B5, Range 1 changes shape and is then B5. .D5. You can move the cells back if you wish.
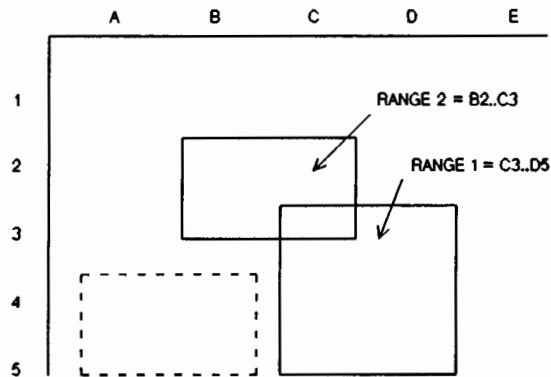
Moving the corner of a range may produce invalid ranges. This is true if the top-left corner of the original range is no longer above and to the left of the original bottom right corner. This happens in the above example if cells B2. .C3 are moved to cell E5: you get an invalid range for Range 1 of F6. .D8.

Note that this applies to both named and unnamed ranges.

SS-40

`The range you want to insert won't fit in this space.`
`CANCEL & try again.`

If there is not enough space in the area that you wish to move a range to, AdvanceWrite Plus will display this message. This is because part of the range would then be outside of the spreadsheet.

You may have enough space left on the spreadsheet, to insert columns. If so you can create space and try to move or copy this range again.

SS-41   Cells cannot be inserted on top of protected or locked cells. CANCEL.

You have previously protected or locked the range to prevent deletion or modification in the space where you now want to insert cells. Either you can insert a new column and rows in this space or remove the protect marks in the range.

SS-42   The range where you want to insert cells overlaps the original range.

The system will not allow you to do this.

SS-43   The function just completed has caused errors. Use (Go To) and E to find them.

When you see this message displayed, press (Go To) and type E to see the errors or modifications that have been created. Such errors might be invalidated cell addresses or invalid ranges. AdvanceWrite Plus displays this message after a move, copy or delete of cells that result in errors and/or modifications.

SS-44   Not used.

SS-45   Not used.

SS-46

You can't associate the same cells twice using the same
name. Try again.

You cannot have two links to the same range from one
spreadsheet to another. If you attempt to associate these same
cells AdvanceWrite Plus will display this message. Instead you
may have several names that refer to the same range. Then,
you can have one link to each name in the other spreadsheet.

SS-47

This cell is locked. You cannot change it. CANCEL.

AdvanceWrite Plus displays this message if you are attempting
to modify or delete a cell that has previously been linked to a
source spreadsheet. You will not be able to complete this
function unless you wish to undo the link. Press (Cancel).

SS-48

The formula in this cell contains errors or refers to
nonexistent cells.

You will need to check the formula for this cell or a
dependent cell to see the error. Some part of the formula has
been invalidated and is marked with ?ERR? as a result of a
move, copy, or delete. You may wish to display the formula
cells on your spreadsheet to see more clearly where all of the
formulas are written.

SS-49

The error in this cell results from an attempt to divide by
zero.

Check the formula for this cell and the dependent cell(s) in
your spreadsheet. The formula will need to be rewritten to
allow for recalculation, or your input data needs to be
corrected.

SS-50
The cells you want to move are locked. CANCEL.

Locked cells are linked to another spreadsheet and cannot be moved. If you need to move them, you must unlink and erase the linked cells and then create a new link.

SS-51
You can only use a single cell address for this function. Try again.

Because only certain functions accept a range as an argument, the other functions will report an error if a range is given unless the range contains only one cell. Then it is treated just as a cell address. This will also occur with an unnamed range like A1..A20. This is normally detected when you enter a formula, but it can show up following a recalculation.

SS-52
You must specify a range or range name for this function. Try again.

Some functions require a range name as an argument, AdvanceWrite Plus will display this message if you type a formula using this function without specifying one. Such functions are: HLookup, VLookup, irr, npv, fmrr.

SS-53
Your spreadsheet can't be made that wide. This function can't be done.

AdvanceWrite Plus will display this message if the command you are trying to complete will result in exceeding the maximum spreadsheet width of 250 characters.

SS-54

You cannot delete all the columns in the spreadsheet. CANCEL.

When you create a spreadsheet, you must have at least five (5) columns. After the spreadsheet has been created, it is possible to delete columns, however you must have at least one (1) column to maintain the spreadsheet form at.

SS-55

CAUTION! Formulas refer to the cell or range about to be deleted.

AdvanceWrite Plus will display this message if the user is attempting to delete a cell or range that is referenced by formula(s) elsewhere in the spreadsheet. If you do delete these cell(s) the system will go to the formula(s) that reference them and replace the cell address with ?ERR? and mark the cell with ?FORMULA.

SS-56

CAUTION! Ranges will change dimensions if you delete this area.

When you delete (or insert) rows or columns in the middle of a range, the range shrinks (or grows) appropriately. AdvanceWrite Plus displays this message to let you know that this will happen.

SS-57

Not used.

SS-58

Unable to do the titles you want. Move the cell pointer and try again.

AdvanceWrite Plus will display this message if you try to set top titles with the cursor at the top of the window or if you try to set left titles with the cursor at the left of the window. Move the cell pointer and try again.

SS-59   You want more columns or rows than can be in a title. Move
              & try again.

              There is a maximum limit of ten title rows. If you have
              horizontal windows (one on top of the other), the combined
              total title rows must be 10 or less. i.e. You can have six in one
              and four in the other, or five and five or any combination
              that adds up to ten. If you have vertical windows, both can
              have up to 10 title rows.

SS-60   You can only display one window at a time. CANCEL.

              AdvanceWrite Plus will display this message if you have
              vertical windows and attempt to do horizontal windows, or
              vice versa.

SS-61   The window must contain at least one row or column. Move
              and try again.

              AdvanceWrite Plus will display this message if you are
              attempting to create a vertical window with the cell pointer
              on the left edge of the screen, or if you are attempting to
              create horizontal window with the cell pointer at the top edge
              of the screen. Move the cell pointer and try again.

SS-62   There isn't enough space to open a window here. Move and try
              again.

              AdvanceWrite Plus will display this message if you attempt to
              create a vertical window near the right edge of the screen and
              there is not enough room for one full column and the row
              headings (the row numbers in reverse video).

SS-63   You can't disconnect cells that are not connected. CANCEL.

You are trying to do a (Shift) (Mark) and C to disconnect a cell and the cell is not connected. If you want to see which cells in the spreadsheet are connected press (Mark) and type M and then C.

SS-64   Unable to determine the internal rate of return from this information.

Something is wrong with the formula or information you typed when trying to calculate internal rate of return. Perhaps you mistyped something or left something out. Check the formula and try again, or your formula could indicate a negative rate of return.

SS-65   You cannot enter a date in a text or formula cell. CANCEL.

You can only enter a date in a numeric or undefined cell, not a text or formula cell. When AdvanceWrite Plus displays this message, press (Cancel), then erase the cell and try again.

SS-66   This range name is actually a function name. Use another name instead.

You cannot name a range the same name as one of the AdvanceWrite Plus functions. Choose another name for the range you want to specify.

SS-67   The function you want would use more memory than is available. CANCEL.

AdvanceWrite Plus will display this message if you are trying to perform a copy or insert and there isn't enough memory available to create the new cells. You can delete cells elsewhere to make room for this function.

SS-68   Not used.

SS-69   Your right margin has moved because you have added some
             columns.

When you insert (add) new columns In your spreadsheet, the
right margin moves to allow for this addition. AdvanceWrite
Plus will display this message to inform you of this move.

SS-70   The range name you used contains invalid character(s).   Try
             again.

In spreadsheet, a name must start with a letter (A - Z) and only
contain letters and digits (0 - 9). Check the spelling of the
name you specified and try again.

SS-71   CAUTION! You are deleting a range name that is referenced in
             a formula.

You are attempting to delete a range name that is referenced
in a formula. The formula is dependent on this range name
and deleting it will invalidate the formula. If you continue, the
system will go to all the formulas in the spreadsheet that
reference this range and replace the range name with ?ERR?.
The cell containing the formula will be marked with ?FORMULA.

SS-72   This error results from invalid data being typed for a loan
             calculation.

AdvanceWrite Plus will display this message when something is
missing in data being typed for a loan calculation or if you are
attempting to compute interest rates with figures that do not
lead to a possible answer.

SS-73   CAUTION! If the deletion is completed, range names will be deleted.

If one or both defining corners of a named or unnamed range are going to be overwritten by a move or deleted by a delete, you will see this message displayed. If you continue, all references to this range will be replaced with ?ERR?. Cells containing the reference will be marked with ?FORMULA. A named range will be deleted.

SS-74   This area was never permanently linked. CANCEL.

You are attempting to remove a link by pressing (Shift) and then (Do) and A from cells that are not associated. Press (Cancel). If you need to determine which cells have been associated, you can press (Mark) M and then L, and the linked cells will be displayed in reverse video.

SS-75   Links are not updated. Reassociate the destination with the source.

AdvanceWrite Plus will display this message to tell you that although you have changed the cell(s) in a source link in your spreadsheet, the destination values have not been effected. This is because you have moved the location of the linked cell or range in the source spreadsheet. You need to reassociate the destination spreadsheet to the source.

SS-76   The area you want to insert into is locked. CANCEL.

If you try to insert a row or column into the middle of a
locked area, AdvanceWrite Plus will display this message. The
locked area is a link to another spreadsheet. We cannot break
this area into two parts by inserting a row or column into it
because the link to the other spreadsheet would no longer
work correctly. You can insert columns before or after the
locked area and you can insert rows above or below the
locked area. You can display the links to other spreadsheets
and then unlink the area and insert the row or column.

SS-77   This error is a secondary error. Correct the primary errors
                             first.

This error appears in the formula cell when AdvanceWrite
Plus cannot recalculate the result because of an error in a
formula referenced by that cell. Use (Go to) and e to find the
errors in the primary cells and correct them. The secondary
errors will disappear when the primary errors are corrected.

SS-78   You did not specify any sort fields. Try again.

You can specify up to five (5) fields in your spreadsheet to
sort at one time. You need to type in an answer to this
question. Try the command again.

SS-79   Something is wrong with your sort. Call HP HelpLine and
                             describe.

This is an AdvanceWrite Plus internal error. You need to call
HP HelpLine for assistance.

SS-80

AdvanceWrite Plus can only sort up to 1000 records. CANCEL and try again with fewer.

You can sort a maximum of 1000 records at once and you have specified more than that. Press (Cancel) and specify a number under 1000.

SS-81

The sort field you specified is not in the first record. Try again.

You need to specify the sort field in the first record you want AdvanceWrite Plus to begin sorting. Press (Cancel) and try again.

SS-82

You have a blank field before the last field to be sorted. Try again.

When you have filled in the window on your screen you skipped one. Try the command again and make sure that there are no blanks before the last one.

SS-83

AdvanceWrite Plus can't find the DIF file. Type a different name and ENTER, or CANCEL.

The name you typed for the DIF file you are creating was either misspelled or does not exist. Check the spelling by looking at your directory and try again.

SS-84   AdvanceWrite Plus cannot create the DIF file. CANCEL and try
a new name.

The name you chose to give the DIF file you are creating
either has too many characters in it or you are using
characters not permitted in a file name. Press (Cancel). Try a
different file name.

SS-85   That file is not a DIF file. CANCEL and check the spelling
or directory.

AdvanceWrite Plus does not recognize the DIF file you
specified. Check your directory for the spelling and try again.

SS-86   Your disk is full! CANCEL and delete some files. Then try
again.

Your disk is too full to complete the function. You will need
to press (Cancel) and delete some files to make some room.
Try again.

SS-87   Either this number contains a character or this text starts
with a number.

You have typed a number with a character in it or typed some
text that begins with a number. Try again and type your
number or text and press (Enter).

SS-88   The name you gave this spreadsheet is the same as its
original name.

You have renamed a spreadsheet then gone back to rename it
again using its original name.

SS-89

The spreadsheet name you used already exists. CANCEL and try another name.

You are trying to rename a spreadsheet and the name you have chosen is identical to one used for another spreadsheet in your document. Select a new name and repeat the renaming process.

SS-90

This formula requires too many levels of evaluation

It is possible to construct a spreadsheet that causes AdvanceWrite Plus to run out of stack memory when calculating the sheet. This happens only if you are using the Natural order of calculation.

When Natural order is used, a formula is evaluated by first evaluating any cells referenced in the formula; then the cells referenced in these cells are evaluated, and so on. This goes on until AdvanceWrite Plus encounters cells that have already been evaluated. Each level of evaluation uses memory, and if there are too many levels of evaluation, AdvanceWrite Plus runs out of memory.

If this happens, the cell that was originally being evaluated is flagged with a DEPTH error. With simple formulas you can have approximately 50 levels of evaluation without error. More complicated formulas allow fewer levels of evaluation.

Spreadsheet Glossary

Absolute Reference   Cells references that remain the same no matter what locations they are in.

Address   A cell location, designated by a column and row.

Alignment   In the spreadsheet you can choose to have text cells lined up on the right, the left, centered or justified automatically.

Argument   The part of a formula that is acted on by mathematical operators. In the formula, A1 * B1, A1 and B1 are arguments.

Associated Cell   Cells in one or more spreadsheets that are joined together by a associate command and reflect the values as a result of recalculation in the source spreadsheet. Also called Linking.

Cell   A position on the spreadsheet into which numbers or text may be typed. The number of columns in a spreadsheet multiplied by the number of rows will equal the number of possible cells.

Cell Pointer   The cursor, when it is located in a particular cell.

Column   A spreadsheet is divided by columns horizontally in a vertical sequence of cells. Columns are part of the spreadsheet matrix.

Comparison Operators Used to compare two expressions: equal (=), less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal (<>).

Connected Cell Several cells connected together, usually for the purpose of typing descriptive headings and/or paragraphs.

Current Cells The cell in which the cell pointer is located.

Date Precision Determines the formatting of dates on the spreadsheet. AdvanceWrite Plus has three date formats:

Abbreviated precision - Sept. 17 1987
Spelled-out precision - September 17 1987
Numeric precision - - -9/17/87

The default precision is determined for all number and date formats by the format page parameter settings.

Default Settings Options available for use on the AdvanceWrite Plus Spreadsheet, such as which currency symbols to use and how numbers should be formatted.

Defined Cell A cell that contains either text, numbers or a formula.

Destination Cell The cell on a spreadsheet that is receiving values as a result of linking with a source cell on another spreadsheet. So if you copy a cell (the "Source") that copy is the destination cell. See *Source Cell.*

Exponentiation The process of raising a quantity to a designated power of ten. 2^2 (two to the second power = 4).

Expression

A series of primary operands separated by operators. An expression can be a single operand. 1 + 1 is an expression.

Field

When you sort a spreadsheet you sort it according to fields. A field is simply a column address, and it contains the subject which you want to sort under. You can sort by date, title, an amount, or whatever makes the data in your spreadsheet easier to understand. See *Sort Key* and *Record*.

Floating Cell

A cell that is referenced in the body of a text document with a (Mark) $ and reflects changes made to the spreadsheet cell as it is recalculated.

Formula

Any combination of numbers, cell address and/or functions that make up the instructions for the contents of a cell. The parameters, method and order with which a calculation is performed.

Functions

Ready-made formulas which are built-in.

Gap

The space, or empty cell between columns of numbers or text.

Gregorian Date

The number days from January 1 of the year 0 to the current date.

Inhibited Cell

Cells that are in the worksheet version of the spreadsheet, but not in the text version due to a (Mark) and I.

Integer

A whole number which does not contain a decimal fraction. 1, 2, & 3 are integers, 7.25 and 9.001 are not.

Iteration	The number of times that the spreadsheet will be recalculated. The user has an option to choose the number of iterations when formatting.
Locked Cell	A cell in a destination spreadsheet that is associated (linked) with a source spreadsheet and depends on that source for its value. Whenever you link in the spreadsheet you automatically lock the destination cells, therefore they can't be accessed.
Label	Any text or numbers that you want to use as an identifier.
Numeric Format	Determines the format of the numbers in a spreadsheet. The options available are: General, Fixed, Currency, Comma, Percent, Scientific and Date.
Operand	Constants, cell address, single-cell range, single-cell named range, function.
Operator	Plus (+), Minus (-), Multiply (*), Divide (/), Exponentiation (**). Also see *Comparison Operators*.
Precedence	Rules to determine exactly what order in which operators will be used.

The operators have the following precedence:

```
**  +N -N   exponentiation, unary numbers (plus, minus)
*  /        multiplication, division
+  -        addition, subtraction
```

When there is a choice, the highest precedence operation is done first. For operations of equal precedence, calculations are done left to right. This means that the operator that is leftmost in the expression is acted on first.

Protected Cell

A cell(s) on the spreadsheet that is protected against any editing, or recalculation.

Range

A group of spreadsheet cells,

Recalculation

The process of changing and updating the spreadsheet as a result of changed values used by mathematical functions.

Automatic Recalculation - When this option is chosen, the spreadsheet recalculates automatically each time a value is changed.

Manual Recalculation - This option results in the spreadsheet being recalculated only when the user presses (Do) and types R.

Records

The rows are called records, and they can be sorted in either ascending or descending order. Also see *Field* and *Sort Key*.

Relative Reference

Cell addresses on the spreadsheet that change in relation to their location.

Row

A left to right series of cells. A spreadsheet is divided vertically into rows.

Scientific Format

A page parameter option available on the spreadsheet that will display numbers using the power of ten.

Sort Key	When you choose the fields you want to sort a spreadsheet with, these fields are referred to as Sort Keys, because they determine the order of the rows below them. Also see *Record* and *Field*.
Source	Cells can be source cells or destination cells. For example, if you copy from a range called Range 1, then Range 1 is said to contain the Source Cells.
Synchronized Windows	An option available on the spreadsheet that enables you to scroll through two parts of a spreadsheet at the same time and in a synchronized way.
Titles	A function of the spreadsheet that "freezes" the horizontal and vertical headings and descriptions so that you can scroll through the columns and rows and leave the headings and descriptions in place on the screen.
Undefined Cell	A cell(s) that contains nothing.
Values	A number or something that represents a number. The result of a formula is a value, as is the number 10.
Worksheet	The spreadsheet when in the spreadsheet mode.
Window(s)	A view through the screen of one or more areas of the same spreadsheet.

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Introducing Wordbase Manager

What is Wordbase Manager?

Have you ever had to search through document after document looking for a particular piece of information? If you have then you know what a long and laborious job it can be. Not only do you have to read through an entire document, but you often don't know if that document actually contains the information you want in the first place. And when all your documents are stored on a computer, you have to print them out or display them on the screen before you can even read them. . .

Wordbase Manager is an ideal solution to your problem! It's an easy-to-use addition to AdvanceWrite Plus which searches through the files on your disc, looking for whatever words and phrases you ask it to. Each time Wordbase Manager finds them, it makes a note of the name of the file and the line number in a fraction of the time it would take you to do it yourself.

It's like having an extremely efficient and obedient researcher at your side. In fact that's exactly what Wordbase Manager is, an electronic researcher for your electronic office.

Computer
Museum

How Can It Help Me?

You can use Wordbase Manager for any job that requires searching through AdvanceWrite Plus files for particular words or phrases, and then making a note of where they occur.

In a personnel department, for instance, Wordbase Manager can be used to search through applicants' files. By searching for specific qualities, such as "management experience", "negotiating skills", "economics degree", you can quickly prepare a shortlist of candidates who fit the requirements for a particular job.

For the legal profession, Wordbase Manager is invaluable. It greatly reduces the time taken to prepare depositions because you only have to ask Wordbase Manager to look for particular case names or points of law.

If you have to prepare a business presentation you can use Wordbase Manager to search through minutes, reports, any kind of AdvanceWrite Plus document on file, including spreadsheets, for information on your subject.

How Does It Work?

Suppose you have to prepare a report for a project you are working on. You could use Wordbase Manager to search through your files looking for any references to the project name and note any pages on which it appears.

Wordbase Manager allows you to look for a number of words either linked (cat AND dog) or separately (cat OR dog). This means that you can widen or narrow the scope of your search.

For example, if you were only interested in the amount of money allocated to or used by your project, you could choose to search for the project name AND the word "budget". In this case, Wordbase Manager would only pick up references containing both words. However, if you choose to search for the project name OR the word "budget", Wordbase Manager would pick up any reference to either word.

If you choose to search for the project name AND the word "budget", you can also specify how close together the two words should be. For example, you might want to look at text where the two words appear on the same line, so you would specify 1 line. Alternatively, if you wanted to look at any paragraph in which both words appear, you could specify something like 10 or 15 lines. Either way Wordbase Manager would find the references for you. You can even combine AND and OR for more thorough searches.

After you've used Wordbase Manager once, you'll wonder why anyone would ever want to search through documents in any other way!

Starting Wordbase Manager

This section tells you how to start and stop Wordbase Manager. If you are new to Wordbase Manager, read the beginning of this chapter first.

How to start Wordbase Manager

1   You should be at the scratchpad. Make sure that (Num Lock) is off, and press (Wordbase) [Press (Select) and type w].

2   Press (Enter). This takes you to the Wordbase Manager Main Menu. Here you can choose whether to search or to set the defaults for Wordbase Manager. See Chapter 2, *Searching With Wordbase*, or Chapter 3, *Setting Wordbase Defaults*.

Notes

- If you were editing a document before selecting Wordbase Manager, the document is automatically saved.

- When you enter Wordbase Manager while you are printing a document, printing stops. It starts again when you exit Wordbase Manager.

- Depending on the amount of memory your computer has, you may be asked to remove the AdvanceWrite Plus Work Disc #2, and insert the AdvanceWrite Plus Work Disc #1 in drive A. If so, follow the instructions and press (Enter).

Leaving Wordbase Manager

When you exit Wordbase Manager you are returned to word processing.

How to leave Wordbase Manager

1   First get back to the Wordbase Manager Main Screen. To do this press (Cancel).

2   You are asked whether you would like to locate or index files, change defaults or exit. Type x (for exit).

3   Press (Enter). You are returned to the scratchpad.

Searching with Wordbase

This chapter tells you how to index files and locate words and phrases. First make sure you have looked through Chapter 1, *Introducing Wordbase Manager*, which explains how to get to the Wordbase Manager Main Menu.

Indexing Your Files

Before trying to search through your files you must index them. This means that AdvanceWrite Plus sets up a special file containing all the words on your disc, with cross references to the files and directories they are contained in.

How to index files before you begin locating words/phrases

1   At the Wordbase Manager Main Menu type L (for Locate).

2   Press (Enter).

3   To index your files type I (for Index).

4   (Tab) to the prompt about the drive you want to use. Now type the letter of the drive that holds the disc/directory/file(s) you want to index.

Continued...

5　At the directory prompt type the name of the directory that holds the file(s) you want to index. Leave this blank if you intend to index the entire disc, or a specific file with no parent directory.

6　Press (Tab).

7　If you only want to index one file, type the file name. Otherwise, leave the file name option blank for all files on the directory/disc to be indexed.

8　You can ignore the question about the type of result, since at this stage you are only indexing. Press (Enter).

Each file on your disc is listed as the index is being built. When the indexing is finished, you are returned to the main menu.

Notes

- You can index as you search: type B (for Both) at step 3 and refer to *Locating Words and Phrases*, which follows.

- Indexed files remain indexed unless they are edited. Once edited they need to be indexed again. You can index just one file if you wish - see step 7.

- Wordbase Manager creates a file called WORDBASE.I on the disc where indexing takes place. This file holds the information that Wordbase Manager has used to locate words in your text. It is not an AdvanceWrite Plus text file. Make sure not to delete it from your disc, or you will have to re-index your files.

Locating Words and Phrases

Make sure you index your files before you trying to locate
words/phrases. Indexing can be done before you search (see
Indexing) or as you search. Indexing as you search is covered in
the steps below. When you locate words and phrases you have
the options of:

- Whether to use AND and OR, or both. See *Using
  AND and OR*, and *Using AND With OR*, in this
  chapter. You may not want to use them at all; if you
  are searching for just one word, for example.

- How you want to display the results of your search.
  Refer to *Seeing the Results*, in this chapter.

How to locate words/phrases and print or display the results

1 At the Main Menu type L (for Locate).

2 Press (Enter).

3 You have three options:

   - To locate words/phrases type L

   - To index and locate at the same time type B (for
     Both).

     Then answer the remaining steps in the same way as
     you do for locating words/phrases

   - To index only, see *Indexing Your Files* at the start of
     this chapter

                                        Continued...

4   Type the first word or phrase you want to find and
    press (Tab).

5   If you have no more words/phrases go straight to step 7.
    If you have more, take one of the following options:

    ■ Type o to search for the previous phrase OR the
       next phrase

    ■ Type A to search for the previous phrase AND the
       next phrase

    ■ To combine AND with OR, type A or o depending
       on whether words or phrases must be found together
       (A) or separately (o)

    For more help press (Help) and see *Using AND and OR*,
    and *Using AND With OR*, in this chapter.

6   Repeat steps 4 and 5 for each word or phrase you want
    to locate.

7   If the options for the drive, directory name and file
    name are already displayed as you want them, go straight
    on to step 12.

    If they are not, (Tab) to the prompt about the drive you
    want to use. Now type the letter of the drive that holds
    the directory/file(s) where you want to locate
    words/phrases.

8   At the prompt about the directory, type the name of the
    directory that holds the file(s) where you want to locate
    words/phrases. Leave this blank if you intend to search
    the entire disc or a specific file with no parent directory.

                                                    Continued...

9   Press (Tab).

10 If you only want to locate words/phrases in one file, type
    the file name. Otherwise, leave the file name option
    blank for all files on the disc/directory to be searched.

11 (Tab) to the next option. There are four possibilities.
    Type:

    1 to have the complete files printed
    2 to display the files where words/phrases occur
    3 to have a report printed
    4 to have a report displayed

    For more help press (Help) and/or look for *Seeing the
    Results* in this chapter.

12 Press (Enter).

    If you used AND, you are asked how many lines apart
    you want the AND phrases to be. Type the number and
    press (Enter).

    Once the process is over repeat each step for any other
    disc/directory/file that you want to search through.

Notes

■   When you type only one phrase, all the words in that phrase
    must occur together in the document for Wordbase
    Manager to find them.

For example, if you type Oscar Corporation on one line, Wordbase Manager finds "Oscar Corporation", "Oscar Corporation Software" and "The Oscar Corporation". It does not find "Oscar Software Corporation" or "Oscar Incorporated".

However, if you type just Oscar, all these references are found.

■ If you typed ? in step 11, see *How to display the next occurrence of a word or phrase*, in this chapter.

■ When both indexing and searching are done, Wordbase Manager indexes first, then locates words and phrases.

■ The options you choose for indexing and locating remain until you change them or exit from Wordbase Manager.

■ Only AdvanceWrite Plus text files are indexed or searched. ASCII files, merge records files, DIF files, DCA documents and documents created by other programs are skipped.

■ For more information, see *Seeing the Results, Using AND and OR*, and *Using AND With OR*, which follow.

Seeing the Results

There are four ways to see the results of your search. You are asked to choose which way you want to view the results as you are about to start a search (see *Locating Words and Phrases*). When you type:

1. the complete file(s) is printed, containing the words/phrases you specify

2. a file is displayed, containing each occurrence of the word/phrase that you asked for. See *How to display the next occurrence of a word/phrase*

3. a report is printed

4. a report is displayed

You can set Wordbase Manager so that the same number appears every time. See Chapter 3, *Setting Wordbase Defaults*.

Notes

- When words or phrases occur more than once in a file, AdvanceWrite Plus prints/displays the file only once.

- Before printing the file(s), AdvanceWrite Plus prints a report.

  A report lists the location of the words and phrases found, the directory name and file name of the document(s) that contain the phrases, and the page and line number for each occurrence of the word or phrase.

- While a report is being printed you cannot use word processing. You are returned to word processing when AdvanceWrite Plus begins printing the files (documents) themselves.

- While AdvanceWrite Plus displays a report, you cannot use word processing. You are returned to word processing when all words/phrases are found.

- If there are more occurrences of the word or phrase than can be displayed on the screen, AdvanceWrite Plus pauses until you want to continue. See *Looking at Reports.*

- When Wordbase Manager displays a file (option 2) you can do basic editing.

Looking at Reports

You may have chosen to display a report in *How to locate words/phrases and print or display the results.* This means you typed 4 for step 11. If so, as the report is being created on screen, you can make it pause and restart, or cancel it. If the report fills the screen see *How to display more words/phrases, or cancel.*

How to pause the location display then restart it

1 Type P (for Pause). The display pauses at the point where you typed P.

2 Type R (for Restart). The screen clears and the display restarts at the point where it left off.

How to cancel the display of file locations

1   Type c (for Cancel).

2   Type c again. You are returned to the Wordbase Manager Main Menu.

How to display more words/phrases, or cancel

When the screen has enough words/phrases on it, you are asked whether you want to see more. There are two options.

■   Type M to see More

■   Type c and press (Enter) to Cancel the search. You are returned to the Wordbase Manager Main Menu.

Looking at Displayed Files

In *How to locate words/phrases and print or display the results,* you may have chosen to display a document, and each occurrence of a word or phrase in it. This means you typed 2 for step 11. If so, the document is displayed on screen with the first occurrence of the word or phrase highlighted. Move to the next word or phrase by using the following steps.

How to display the next occurrence of a word/phrase

1 Press (Wordbase) [Press (Select)].

2 Type N (for Next).

3 Press (Enter). A prompt tells you when all the references have been found, and you are returned to Word Processing. To clear the prompt, press (Enter) again.

How to cancel the display of documents containing located words/phrases

1   Press (Wordbase) [Press (Select)].

2   Type c (for Cancel).

3   Press (Enter). A prompt tells you that all the references have been found, and you are returned to Word Processing. To clear the prompt, press (Cancel).

Notes

■   When there is another occurrence, in the same file, of the word or phrase you are searching for, AdvanceWrite Plus goes to that location in the file, before looking in other files.

■   When there is another occurrence of the word or phrase in a different file, AdvanceWrite Plus saves the file on the screen, and displays the new document. The cursor is at the location of the word or phrase.

■   If there are no more occurrences of the word or phrase, AdvanceWrite Plus tells you. You are returned to word processing mode, and the last file that was displayed remains on the screen.

Printing

How to stop printing the files containing located words/phrases

1   Hold (Shift) and press (Print).

2   Type c (for Cancel).

The printer stops shortly after giving the command.

Notes

■   If you are printing or merging, you cannot display
    occurrences. Either wait until the print/merge is complete,
    or cancel the print job and try again.

■   A document is printed using the print options previously set
    for that document. You cannot set these options when
    printing them.

Using AND and OR

With Wordbase Manager you can look for several words or
phrases which are either linked (Oscar Corporation AND Office
Automation Software) or separate (Oscar Corporation OR
Office Automation Software). This considerably narrows your
search.

Notes

■   When you tell Wordbase Manager to find one phrase AND
    another phrase, you tie the two phrases together. This
    means that Wordbase Manager searches for those phrases

when they occur in a file together, within a certain number of lines that you are asked to specify. A phrase is not found unless the other is present within that number of lines.

- Words/phrases are found regardless of their order.

- If you use AND to link more than two phrases together, all the phrases linked with AND must be present in a document before Wordbase Manager finds them. So, if you type `Oscar AND Corporation AND Software`, all three words must be in the file.

- When you specify a number of lines apart that AND phrases can be, this number can be anything from 1 to 99 lines. The larger the number you use, the broader the search.

- If you type `Oscar Corporation AND Office Automation Software`, therefore separating the two phrases with AND, Wordbase Manager finds them only if both phrases occur with that exact wording, within the number of lines you specify.

  For example, Wordbase Manager would find "The Oscar Corporation" AND "Office Automation Software for the eighties" if they were together within a chosen number of lines. "Oscar Corporation" AND "Office Automation Word Processing" would not be found, even if the two phrases were within those lines.

- When you tell Wordbase Manager to find one word/phrase OR another word/phrase, the two are not tied together. This means that Wordbase Manager searches for them separately. If either one appears in the document, Wordbase finds it - both words or phrases do not need to be in the same document for Wordbase Manager to find them.

- Also see *How Does it Work* in Chapter 1, *Introducing Wordbase Manager.*

Using AND With OR

You can combine the use of AND and OR to give you more control over finding phrases.

For example, imagine that a job has opened up in your company's purchasing department for a purchasing manager. You would like to promote someone who already works at the company to the position. You have job histories for each employee in AdvanceWrite Plus documents, and decide to use Wordbase Manager to help you find likely candidates. The person who is needed for the position should have had experience either as a Purchasing Manager or a Purchasing Agent.

The chart on the next page lists some sample combinations of Purchasing Agent and Purchasing Manager that you could give Wordbase Manager, along with what Wordbase Manager would or would not find.

Notes

- If you have several phrases tied together with AND, and then another phrase which is linked with OR, the OR phrase breaks the tie between the AND phrases and what follows.

- Words/phrases are found regardless of their order.

- See *Using AND and OR, How Does it Work*, in Chapter 1 *Introducing Wordbase Manager*.

When You Search For:	Wordbase Manager FINDS:	Wordbase Manager DOES NOT FIND:
Purchasing Agent AND Purchasing Manager.	People with both Purchasing Agent and Purchasing Manager experience.	People with experience as one but not the other. Someone with experience as "Manager of Purchasing".
Purchasing Agent OR Purchasing Manager.	People with experience as either Purchasing Agent or Purchasing Manager.	Someone with experience as Manager of Purchasing, or an Operations Manager with responsibility for purchasing.
Purchasing Agent OR Manager.	People with experience as Purchasing Agent or anyone who has the word Manager in their resume.	Purchasing Manager specifically. (Will find it along with other Managers.)
Purchasing AND Agent OR Purchasing AND Manager.	People with experience as a Purchasing Agent or as a Purchasing Manager. Names do not have to be in order.	Purchasing alone, Manager alone, or Agent alone.

Setting Wordbase Defaults

You can set standard options for Wordbase Manager. These options are:

- the disc drive you want to use
- the directory name
- the file name
- how the results are displayed

How to set the Wordbase Manager defaults

1 At the Wordbase Manager Main Menu, type D (for Defaults).

2 Press (Enter). If you are using flexible discs, remove the Write Protect Tab from your AdvanceWrite Plus disc.

3 (Tab) from option to option on the Default Page, making the changes you want.

   Press (Help) for more information and/or refer to *Seeing the Results* in Chapter 2, *Searching With Wordbase*.

4 When you are finished selecting options, press (Enter). If you are using flexible discs, replace the Write Protect Tab on your AdvanceWrite Plus disc.

Notes

- The settings you choose are displayed on the Wordbase Manager Locate screen.

- You can selectively change the settings when you locate or index words or phrases.

- Your default settings for Wordbase Manager do not affect your settings for Word Processing or AdvanceWrite Plus Spreadsheet.

Wordbase Manager Help Messages

WBM-1

```
The number you typed is either too large or too small.  Try
again.
```

AdvanceWrite Plus displays this message when you type a number that does not fit the options available for the function you are trying to do. If you are not sure of the options, press (Help) for a complete list of what is available.

WBM-2

```
The choice you made is incorrect for this option. Try another
one.
```

AdvanceWrite Plus displays this message when you type a choice that does not match the available options for the function you are trying to do. Press (Help) for a complete list of the options available.

WBM-3

The drive/directory you specified cannot be found. Try again.

AdvanceWrite Plus displays this message when you attempt to locate or index files on a disc drive that does not exist. Press (Cancel) and check the option you gave for the disc drive. Make the correction and try again.

WBM-4

There is not enough room on the disk to create the index.

AdvanceWrite Plus displays this message when there is not enough room available on the disc you are indexing to create the index. The index is kept in the root (\) directory of the disc in a file called WORDBASE.I. You need to copy some of the files to another disc to make more room, and try the index again.

WBM-5

Unable to read the disk. Copy the files to a new disk and try again.

AdvanceWrite Plus displays this message when it is having trouble reading the information on the disc. Press (Cancel) to stop Wordbase Manager. Copy the files on the disc to a new formatted disc, and try the operation again.

WBM-6

There is not enough room on the disk to create the index.

AdvanceWrite Plus displays this message when it encounters difficulty writing to the disc. Maybe the disc is full, or there is no room to create a new file. Copy the files to a new disc and try again.

WBM-7

Your system does not have enough memory ·to run Wordbase Manager.

This is an internal AdvanceWrite Plus error message and should not appear.

WBM-8

Unable to locate words or phases until you index your files.

AdvanceWrite Plus displays this message when you tell it to locate words or phrases on your disc, but you have not indexed your documents yet. Press (Cancel), and use the option to index and locate.

WBM-9

```
Your wordbase function has been canceled.
```

AdvanceWrite Plus displays this message after you cancel a command while it is still running. This is an informative message to let you know that AdvanceWrite Plus has done as you asked.

WBM-10

```
That key is not part of this command. Try again.
```

AdvanceWrite Plus displays this message when you type an option that is inappropriate for the command you are trying to do. Press (Help) to see a list of the available choices and try again.

WBM-18

```
Unable to find the directory or file you asked for the
search/index.
```

AdvanceWrite Plus displays this Message when you tell Wordbase Manager to locate or index documents in a file or directory that does not exist. Perhaps you put the wrong disc in the drive, or you specified the wrong file name or directory name. Press (Cancel). Check the directory and your options and try again.

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