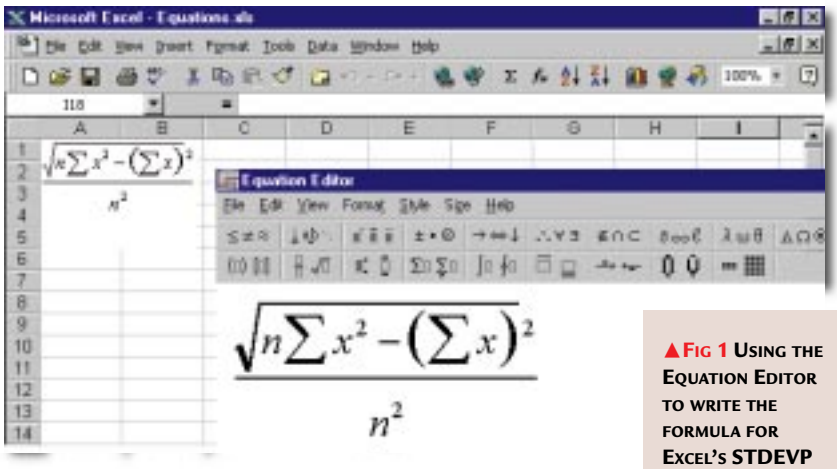
Add that into the equation

Stephen Wells looks at the Microsoft Equation Editor, which is accessible from Excel and lets you produce graphics for your equations.

Many of a spreadsheet's functions can be written as equations and this depiction of them is often provided in the help files. An engineer and a maths student both recently asked me how they could produce graphics for these or other equations. Office includes a program, the Microsoft Equation Editor, which does this. Access it from Excel: just choose Insert, Object, Microsoft Equation 3.0.

I like to run it independently [Fig 1]. In Explorer, click on Eqnedt32.exe in the C:\Program files\Common Files\MS Shared\Equation directory. When you've created your equation, just choose Edit, Select All, copy your handiwork to the Clipboard and then paste it into Excel or another program for printing.

The Equation Editor has a comprehensive help file but you can use it intuitively. You build equations simply by picking templates and symbols from the toolbar and typing variables and numbers in the slots provided. As you build an equation, the Equation Editor automatically adjusts font sizes, spacing and formatting in keeping with mathematical typesetting conventions. You can also adjust formatting as you work and redefine the automatic styles.

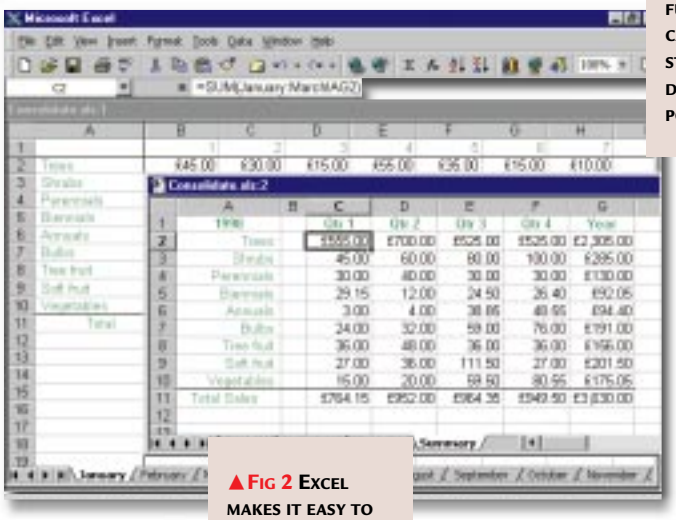


▲ FIG 1 USING THE EQUATION EDITOR TO WRITE THE FORMULA FOR EXCEL'S STDEVP FUNCTION WHICH CALCULATES THE STANDARD DEVIATION OF A POPULATION

Backup and recovery

Following the recent coverage in this column about backing up and recovering spreadsheet registry and data files, George Mucho has kindly contributed the following: "The Emergency Recovery Utility located on the Windows 95 installation disk will recover registry files and more.

"All the files can be restored by booting into DOS, finding the directory where the information was saved, and typing ERD. It is not necessary to mess around with attributes. I have been using this utility for two years now and it has never failed."



▲ FIG 2 EXCEL MAKES IT EASY TO CONSOLIDATE ANY GROUP OF SHEETS IN YOUR WORKBOOK BY USING 3D REFERENCES ON A SUMMARY SHEET

George has created an illustrated MSWord file, ERD.doc, which suggests how to use this utility and I have included it on this month's cover-mounted CD-ROM.

Consolidation

Cedric Roberts has written in several times in past years, while converting weather forecasting data from SuperCalc to Excel. He writes: "Excel is superb for my requirements and I have finished entering the data from 1956 onwards. I now want to extract information on a variety of topics: hottest day, wettest day, number of ground frosts and latest air frost."

I would recommend Cedric become familiar with the useful information in the help files in three areas: Consolidation, Microsoft Query, and the Template Wizard with Data Tracking. Excel offers you 3D formulas just as SuperCalc did.

On a summary sheet you could find the highest rainfall for the year with

```
=MAX(January:December!
Rainfall)
```

If you choose Data, Consolidate, Function you'll find nearly a dozen functions in the list box but there are many more you can enter yourself.

For other readers, Fig 2 shows a common use of the consolidation feature: summarising monthly financial records into quarters. Each of 12 worksheets holds monthly records. The 13th sheet summarises it in quarters using formulas like

```
=SUM(January:March!AG2)
```

which totals the values in cell AG2 on three separate monthly worksheets.

● **Michael Garner asks**: "I am creating a spreadsheet and have the date stored in column A. I then want the month to be stored in column B (i.e. January, February) without having to re-enter information already stored in column A. Is there any formula that I can place in column B to make this happen?"

Excel stores all elements of a date as a number. To repeat the date, enter =A1 in cell B1. If you mean you want to display the full name of the month, do it by entering =A1 and using the Custom format MMMM for B1.

To display the number representing the month (3 for March, 6 for June) use the formula =MONTH(A1) and format the cell as General.

● "**How can I count** the number of cells containing text strings?" asks Jim Smart.

One way to count the number of cells in the range B1:B8 that contain text is:

```
=COUNTA(B1:B8)-COUNT(B1:B8)
```

COUNTA tells you the number of cells which are not empty. COUNT tells you the number of cells holding numbers.

● **Anthony Atkinson wants to know**: "How do you insert symbols in Excel 97? There seems to be no way to do it from the Insert menu."

The Insert route is the way MS Word works. In Excel you have two choices. The easiest is to choose Start, Programs, Accessories, Character Map, Symbols and copy what you want. The other thing to do is learn the keyboard shortcuts or keep a list of the common ones. Make sure the Num Lock key is on. Then Alt+0188 is a quarter. Alt+0189 is a half. Alt+0234 is e with a grave accent. Ctrl+Alt+a (or Ctrl+Alt+e) is an a (or an e) with an acute accent.

Regarding those features in MS Word that are not available in Excel, Philippa Sutton makes the useful suggestion: "Regarding small caps in Excel 95, I just format the cell and then choose a Small Caps font like Copperplate gothic." Depending on the overall typographic design, that could be just the ticket.

● **Chris Eaton asks**: "How can I put the file path into an Excel header or footer?"

Choose File, Properties, Summary and enter the path under Title. Then choose View, Header and Footer, drop down the Header list and select the path.

You could alternatively enter the function, =INFO("directory") in the top row of a sheet, choose File, Page Setup, Sheet and select the Row and Headings check box. The directories of the path will be shown.

To include workbook and sheet names as well, save the file once, then use =CELL("filename").

● **Byron Simmonds wants to know**: "How can I adjust the horizontal placing of an Excel header or footer so that it lines up with an adjusted margin?"

Excel headers and footers always use a 0.75in side margin and you have to go along with it. But you can easily adjust the margin of the print area of your worksheet if you want them to line up.

● **Martin Hayes enquires**: "What's the formula for getting the 'tab' sheet name to appear in a cell on the same sheet?"

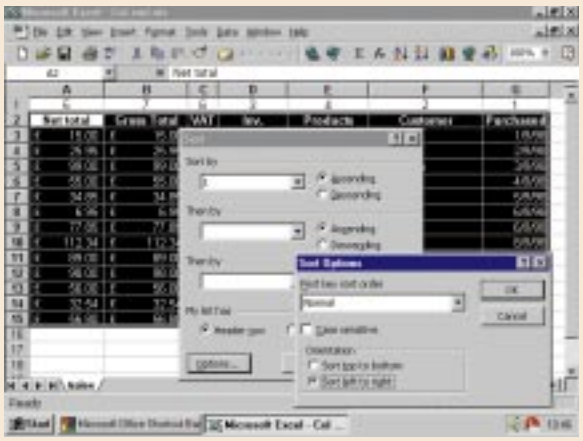
The formula in Fig 3 displays both the workbook and sheet name. Excel puts in the curly brackets when you enter this as an array with Ctrl+Shift+Enter. But as you just want the worksheet name (which appears on the tab) you might prefer the semi-automatic but simpler formula =RIGHT(CELL("Filename"),7) assuming that the name on the tab is seven characters. Change that number to suit.

SORTING COLUMNS

Requests for showing how Excel can sort columns are piling up, so here's an easy method. Say your list has seven columns and (for now) 14 rows, including the headings. Keep a safety copy of it because, during sorting, Excel won't change the addresses to which any formulas refer. Nor will it re-adjust the column widths.

1. Insert a new row at the top of your list and in it enter the order you want. In the example shown here you can see we want column G to become A, F to become B, and so on. Column B will become G.
2. Select the range A1 to G15. (In a row sort you just select one cell in the list, but this is different.) Fig 4 (*below*) shows A2 to G15 highlighted but Excel displays that.
3. Now choose Data, Sort, Options and select the "Sort left to right" button and OK.
4. The Sort dialog box should show Sort by 1. Click OK.

That's it. Sorted.



◄ **FIG 4 YOU CAN SORT COLUMNS IN EXCEL BY INSERTING A TEMPORARY ROW AT THE TOP OF YOUR LIST AND CHOOSING 'SORT LEFT TO RIGHT'**

[FIG 3] 'Tab' sheet name formula

```
{=RIGHT(CELL("Filename"),LEN(CELL("Filename"))-
MAX(IF(NOT(ISERR(SEARCH("\",CELL("Filename"),
ROW(1:255)))),SEARCH("\",CELL("Filename"),ROW(1:255))))}
```

PCW CONTACTS

Stephen Wells *welcomes readers' problems or solutions relating to spreadsheets. Write to him via the PCW editorial office (address, p10) or email* spreadsheets@pcw.co.uk