GM-Calc

User Manual

A Sam Coupe Spreadsheet

OCR & PDF By SPT 2003
Sam Coupe Software & Manual Preservation Project

GM-CALC (VERSION 1.2)

Contents

A SAM COUPE SPEEADSEET

Inert disk: Press F9; Allow 10 secs to load:

Important note

On loading GM-Calc for the first time a facility to backup the disk is provided. We recommend that a backup be made immediately and the backup disk used for all future work.

1. The Worksheet Screen

Worksheet - This is a grid made up of horizontal rows and vertical columns. The worksheet contains a maximum of 100 rows and 52 columns. Each intersection is called a cell.

Cell - There are 5200 cells available on the worksheet. Each cell can contain one of the following :-

Numeric value
Absolute numeric value
Text string
Formula

Rows - Each row is identified by a number, i.e. 1 to 100.

Columns - The columns are identified as letters from A, through Z, to AZ, thus giving 52 columns.

Cell Pointer - The cell pointer is the highlighted cell. Using the cursor direction keys can move this.

Cell Input - Valid cell entries are C9,A9,AX40,AR100,etc .

Range Input - Valid range inputs are entered by separating the cells with a full stop.

E.g. A1.AZ100 (entire worksheet)

2. Moving around the Worksheet.

The cell pointer can be moved around the worksheet in a number of ways :-

Up - Cursor up/Joystick up
Down - Cursor down/Joystick down
Left - Cursor left/Joystick left
Right - Cursor right/Joystick right

the movement around the worksheet including :-

F0 - Go to cell Al and redisplay the worksheet
SHIFT F0 - Go to cell AZ100 and redisplay the worksheet
F4 - Go to a selected cell

If the next required cell is off screen then the screen will automatically scroll and display the column or row, as appropriate.

3. Entering data into a cell.

Numeric values

The keys available for entering numeric data into a worksheet cell are ;-

F2 - Enter a numeric value
SHIFT .F2 - Edit a numeric value

The spreadsheet automatically formats all numeric values to 2 decimal places.

Text entries

SHIFT Fl - Edit text in cell

As with most spreadsheet packages the facility to enter text greater than 9 characters in length is available. The program automatically places the text in subsequent columns.

Formula entry

The function keys available for manipulating formulae are: -

F3 - Enter a formula at the current cell
SHIFT F3 - Edit formula at the current cell
F6 - Copy the formula at the current cell to anew cell adjusting the cell pointers
(See later notes).
SHIFT F6 - Copy the formula at the current cell to a new cell without adjusting the formula.

A formula is an instruction to calculate with numbers. Included in the formula can be numbers, cell addresses and operators such as + or -. A formula results in a value at the current cell. A number of functions available in Sam Basic can also be used, such as COS and SIN. Further functions have been incorporated into the system including SUM, AVE, CNT, MAX, MIN.

Example formulae

B4+B5 - Add contents of cell B4 and B5
(B4+B5)*B6 - Add contents of cells B4 and B5, and multiply the result by the contents
of cell B6
B1*(COS (B4)) - Multiply contents of cell Bl by the cosine of eel 1 B4

Important Note: - As with Basic this program relies on the correct use of brackets in calculations.

4. Statistical functions

SUMCB1.C3) - Add the numeric contents of the cells Bl, B2, B3, C1, C2 and C3.

AVE (B1.C3) - Adds the numeric contents of the Specified range, and divides by the count
thus producing the average.

CNT (B1.C3) - Gives the number of numeric cells in the range specified.

MAX (B1.C3) - Returns the maximum numeric value in the range specified.

MIN (B1.C3) - Returns the minimum numeric value in the range specified.

Copying a formula.

An option is available from the main menu, which allows the copying of a cell range. This function copies all cells and will adjust formulae accordingly. Function key F6 allows the copying to another cell (with necessary adjustment) of a formula pointed to by the cell pointer.

For example,

Requirement - Copy formula at cell B8 to cell range (C8.E8)

CELL B8 - (SUM (B2.B6)+SUM(D2.D6))*C4

when copied would produce the following :-

CELL C8 - (SUM(C2.C6)+SUM(E2.E6))!l!D4
CELL D8 - (SUM(D2.D6)+SUM(F2.F6))*E4
CELL E8 - (SUM(E2.E6)+SUM(G2.G6))*F4

If SHIFT F6 was used then the cells would then contain exact copies of the formula in cell B8.

Absolute values.

A numeric value can be made absolute by pressing; -

SHIFT F4 - Make cell, if numeric, absolute

The facility for making a cell absolute is provided so that should a formula containing reference to that cell be copied, then the program will not adjust the absolute cell address.

Cel1 C4 is absolute.

Requirement - Copy formula at cell B8 to cell F8

CELL B8 - (SUM (B2.B6)+SUM (D2.D6))*C4

when copied to cell F8 would read,

CELL F8 - (SUM (F2.F6)+SUM (H2.H6))*C4

This facility is invaluable when calculating VAT returns etc.

5. The Menu options.

The Main menus are pull down menus and can be accessed using the following methods: -

F9/Joystick Fire - Display menu options

At this stage the top line of worksheet will display 4 menu headings. If none of these are required then abort by pressing F9 again.

Left Cursor/Joystick Left - Move left one menu
Right Cursor/Joystick Right - Move right one menu
Return/Joystick Fire - Select current menu
F9 - Return to worksheet

Once the menu has been selected, press Return/Fire, to view the further options. These are a list of facilities available from the menu.

Up Cursor/Joystick Up - Move Up one option
Down Cursor/Joystick Down - Move Down one option
Return/Joystick Fire - Select current option
F9 - Return to worksheet

Menu 1 - *System Options*

Re-Calculate - Also available by pressing F7, this function will recalculate all the formulae in the current worksheet, and then re-display the current view area. Note that the only time a formula is automatically updated is on entry.

Help/Info - The Help screen can be displayed using this option or by pressing F8. Once the screen is displayed press Space Bar to return to the worksheet.

Clear Sheet - This option clears all cells and formulae of data. Confirmation is required to prevent any errors.

Graph Sheet - The program will show a selected range of numeric data in the form of an Histogram Graph. The user is requested to input the range for display. Note that a maximum of 48 bars can be displaced. Once the user has entered the relevant titles the graph will be displayed. Also, when titles have been entered then these titles will become default. When the graph is displayed press the "D" key to Dump the graph to the printer. Press space bar to return to the worksheet.

Menu 2 - *Disk Options*

Load File - Enter the filename for loading. Note that files are stored in the following format; -

SHEET.W - Worksheet data

SHEET.F - Formula data

When entering the filename for loading the above the user would simple enter SHEET.

Save File - The user is requested to enter the filename to save, e.g., for the above example the user would type SHEET.

Directory - All files on the disk can be displayed using this option.

Menu 3 - Print Options

Print Formulae - This option outputs all the formulae for the current sheet to the printer.

Print Range - Outputs the selected range of cells to the printer. Note that only 8 columns can be printed on an 80-column printer unless it is in condensed mode.

Pica - Set Epson compatible printer to PICA print.
Comp Pica - Set Epson compatible printer to CONDENSED PICA print.
NLQ - Set Epson compatible printer to NLQ print.
Comp NLQ - Set Epson compatible printer to CONDENSED NLQ print.

Menu 4 - *Further* Options

Range Copy - Input the range to copy and the cell for the range to copy to. Formulae are also copied, but F7 must be used to calculate.

Range Erase - Clear all cells and formulas from the selected range.

Sort Range - Sorts a range of cells according to the values in a column within the range. For example, range (A1.G10) can be sorted. The sort column has to be in the range and the range input should be, for example, Bl. Cells can be sorted in ascending or descending numeric values. Formulae are also sorted.

Month Data - An added extra is the facility to display the month names in columns or cells. The month data is stored as Jan, Feb, etc. Place the cell pointer on the cell for January and the selected row or column entry.

6- Program Function Keys

Key(s)	Function
F0	Go to cell Al and redisplay the worksheet
Fl	Enter text up to 45 characters in length
F2	Enter a numeric value
F3	Enter a formula at the current cell
F4	Go to a selected cell
F5	Display the contents of a cell
F6	Copy and adjust a formula
F7	Re-calculate all formulas
F8	Display the help screen
F9	Select pull down menus (also abort menu)
SHIFT F0	Go to end of sheet (Cell AZ100)
SHIFT Fl	Edit a text string
SHIFT F2	Edit a numeric value
SHIFT F3	Edit a formula
SHIFT F4	Make a numeric cell absolute
SHIFT F5	Sort a specified Cell Range
SHIFT F6	Duplicate a formula
SHIFT F7	*** Available to user ***
SHIFT F8	*** Available to user ***
SHIFT F9	*** Available to user ***

7. Program Details

The arrays used for the worksheet are: -

(1) WSHT$(MAXROW, MAXCOL, 10)

Where MAXROW = 100 and MAXCOL = 52

The first character of each array element identifies the type of cell: -

N - Numeric Value
$ - Absolute numeric value
T - Text string
C - Continuation text string
F - Formula

(2) FORM$ MAXFORM, 50)

Where MAXFORM=100.

FORM$(n, 1 to 3)=numeric value of column
FORM$(n, 4 to 6)=numeric value of row
FORM$(n, 7 to 50)=formula text

♦ End ♦