

GM-Calc

User Manual

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Sam Coupe Software & Manual Preservation Project

A Sam Coupe Spreadsheet

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GM-CALC (Version 1.2)

Contents

1. The worksheet.
2. Moving around the worksheet.
3. Entering data into a cell.
4. Statistical functions.
5. Menu options (1-4).
6. Program function keys.
7. Program details.

A SAM COUPE SPEEADSEEET

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

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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 A1 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 F1 - 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 a new 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

$B1*(\text{COS}(B4))$ - Multiply contents of cell B1 by the cosine of cell 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 B1, 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 - $(\text{SUM}(B2.B6)+\text{SUM}(D2.D6))*C4$

when copied would produce the following :-

CELL C8 - $(\text{SUM}(C2.C6)+\text{SUM}(E2.E6))*D4$

CELL D8 - $(\text{SUM}(D2.D6)+\text{SUM}(F2.F6))*E4$

CELL E8 - $(\text{SUM}(E2.E6)+\text{SUM}(G2.G6))*F4$

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.

Cell C4 is absolute.

Requirement - Copy formula at cell B8 to cell F8

CELL B8 - $(\text{SUM}(B2.B6)+\text{SUM}(D2.D6))*C4$

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.

P

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, B1. Cells can be sorted in ascending or descending numeric values. Formulae are also sorted.

M

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 A1 and redisplay the worksheet

F1 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 F1 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

N End N