VMEX

USER MANUAL

11/22/2021

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General Information

VMEX is a very simple spreadsheet program. It is based on some
very simple code I found. I have added numerous improvements,
a complete math parser, saving workspaces and loading workspaces.

After every cell entry, the spreadsheet is recomputes ALL cells.

The maximum size of the spreadsheet is 99(rows) and 26(columns).
Rows should be labeled with numbers, starting from 1 to 99, and
columns should be labeled with letters, starting from A to Z.
Cells should be referenced by a letter number and row number,
with no space or symbol between; for example, E9, B88. Lowercase
and uppercase letters to reference cells are allowed and will
be recognized.

VMEX using both integer and double (floating) numbers. They can
be intermixed. The ouput from functions is always in double
format.

Commands

The following are commands that VMEX will accept. All commands
must start with an "*" and can be upper or lower case.

*BOT

Positions the spreadsheet to the bottom row.
Does NOT change the column value;

*CELLS

This is the default view for the VMEX program.
Cells may be updated on this view. After each
input, the COMPLETE workspace is recomputed.
You may navigate to other views or move the
current view around based what command is entered.

*CLEAR

This command clears the current workspace.
All data is LOST. You must *SAVE the current
workspace before the *CLEAR or any changes
made from the last *LOAD will be lost.

*DOWN

Moves the current view by 15 rows.

*EXIT

Exit the VMEX spreadsheet. All data will
NOT be saved.

*HOME

Returns the view port to the stating location.
row = 0, column = 1 (Default Home position).

*LEFT

Moves the current view LEFT 4 columns.

*LOAD

Prompts for the workspace to be loaded.

*MATH

Displays the current math values by cell.

*PROG

This command displays the program code for the current workspace. All the functions, math variables, and text variables are displayed in the cells.

*RIGHT

Move the current view **RIGHT** 4 columns.

*SAVE

Prompts for the name of the file to store the current workspace.

*TOP

Return to view to row 0,the top of sheet. The column value is NOT changed. You must use *LEFT or *RIGHT to shift the view over.

*UP

Moves the current view **UP** 15 rows.

*VIEW

Sets the view port to be displayed on the screen. You will be prompted for the ROW and then the COL entry.

ROW can be 0 to 99.
COL must start with 1 and can be up to 26.

Math Processing

A math parser written by Dr. Jack Crenshaw has been integrated
into VMEX. Operations supported are +, -, *, and /.

Mixed mode is supported.
      =a1+b1 ...etc
or
      =6+9 or =6+a1 or =b2+7

Built-in Functions

You can include functions in the spreadsheet. Functions are of the
form =AVG(A2,A5), =SUM(C1,C15). Functions **MUST** start with
the **=** (equal) character.

AVG

AVG will return the average value from the cells inside
the (...).
Ex: =AVG(B1,C1);

DATE

DATE will display in the cell, the current date. This
cell CAN NOT be used in any math activity. If you need
math ability, then use MTH, DAY or YR.
Ex: =DATE
      01/20/2021

DAY

Will return the current day as an integer.
Ex: =DAY

HOUR

Will return the current hour as an integer.

MIN

Will return the current minute as an integer.

MTH

Will return the current month as an integer.
Ex: =YR

POW

Raises a number to the indicate power.
Ex: =POW(a8,2)
      a8 = 5
      This raises a8 (5) to the 2nd power
      giviing the result of 25.

RNG

```
RNG will return the difference between the largest
and smallest value in the input.
Ex:     =RNG(C1,C3)
```

SEC

```
Will return the current second as an integer.
```

SQRT

```
Will return the square root of a cell.  The cell to
be used MUST be entered as a double (Ex: 4.0, 9.0, 15.33)
Ex:   B5  set value 9.0
      =SQRT(B5)
      Value returned is 3.0
```

SUM

```
SUM will return the cumulative total. The input must be a
horizontal or vertical 1D range of cells, described by the
end points. The formula will compute a result using only
values within the given range of cells; it should ignore empty
cells and those containing text or another formula. If there
are no values within the given range of cells, the result
should default to zero.
Ex:   =SUM(C1,C3)
```

TIME

```
Will return the current time in a string.
Ex:   =TIME
      15:33:34
```

YR

```
Will return the current year as an integer.
Ex:   =YR
```