TRS-80®
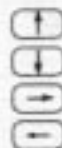
Model 100 Portable Computer

MULTIPLAN™
Quick Reference Guide

RUNNING MULTIPLAN

At the Model 100 Main Menu, use the arrow keys to position the cursor over the Multiplan program name or over the name of a worksheet. Press (ENTER).

Press (F8) to return to the Model 100 MENU.

MOVING THE CELL POINTER

(↑) (↓) (→) (←)	*Direction Keys.* Moves cell pointer in the direction indicated. Continue moving cell pointer to scroll contents of window.
(CTRL)(↑)	*Home.* Moves cell pointer to R1C1.
(CTRL)(↓)	*End.* Moves cell pointer to lower right corner of the active portion of the worksheet.
(SHIFT) + Direction Key	*Page Scroll.* Scroll to show the next window of the worksheet in the indicated direction.
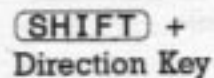
See also: Transfer Goto command

ACTION KEYS

(BREAK)
(CTRL)(C)
Cancels present operation and returns to main command line menu.

(ENTER)
Carries out a completed command selected by a function key.

(F1)-(F8)
Selects Multiplan commands

(LABEL)
Displays the command line on the bottom line of the screen display.

(TAB)
Moves to, and selects, entire contents of next field in a command line.

!
Recalculates entire worksheet. If typed in a formula, the formula is replaced by its result.

=
Tells Multiplan that the cell contains a formula.

@
Changes relative cell references to absolute references.

MULTIPLAN COMMANDS

(F1) — Edit Command

Lets you edit contents of a cell and responses in command fields. You can select the Edit command from any other Multiplan command to edit your responses.

Modes:

Edit Mode lets you use the direction keys to move the edit cursor within the command field.

Value Mode lets you use the direction keys to enter cell references while editing a command field. Press (F1) twice to enter the value mode of the Edit command.

Editing Keys

(BACKSPACE)   Deletes character to the left of the cursor

(DELETE)   Deletes character at current cursor position. Replacement text may be typed in.

(←)   Moves the edit cursor left one character if in the Edit mode; otherwise, moves the cell pointer left one cell and enters cell reference into the command field.

(→)   Moves the edit cursor right one character if in the Edit mode; otherwise, moves the cell pointer right one column and enters the cell reference into the command field.

(↓)   Value mode only. Moves the moves cell pointer down one row and enters the cell reference into the command field.

(↑)   Value mode only. Moves cell pointer up one row and enters the cell reference into the command field.

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(F2) — Blank Command

Replaces the contents of the specified cell(s) with blanks.

BLANK cells: *cell(s)*

Multiplan uses the active cell as a proposed response.

(F3) — Copy Command

Duplicates the contents of cell or group of cells.

RGHT   DOWN   FROM

Copy Right ((F2)) copies the contents of one or more cells to the specified number of cells to the right of the cell pointer.

RIGHT # cells: 1   at: *RC*

Copy Down ((F3)) copies the contents of one or more cells to the specified number of cells below the cell pointer.

DOWN # cells: 1   at: *RC*

Copy From ((F4)) copies the contents of one or more cells to another location.

FROM:*RC*   to: *RC*

Note: *RC* denotes the current cell as Multiplan's proposed response.

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F4 — Format Command

Changes the display format or width of one or more cells.

```
Cell   Wide
```

Format Cells (F2) lets you change the alignment and format.

```
Cells: RC              #Dec: 2
      Left Cen Rght    Fix Gen Gen $
```

Format Width (F3) sets the column width of all cells. The width can be from 4 to 36. The default is 9.

```
WIDTH of cells:  9
```

F5 — Name Command

Assigns a name which can be used to identify one or more cells in a command or formula.

```
NAME:                    refer to: RC
```

Note: *RC* denotes the current cell as Multiplan's proposed reponse.

F6 — Options Command

Controls two Multiplan options and displays the contents or formula of the current cell

```
FORMULA:   (formula of RC)
           Calc  !           Beep Mute
```

Calc   recalculates all formulas when you change a cell.
!   recalculates all cells only when you press ⊡.
Mute   turns off the audible alarm that indicates errors.
Beep   turns on the audible alarm that indicates errors.

F7 — Transfer Command

Loads a worksheet into memory, saves the active worksheet to cassette or disk, clears the active worksheet or moves the cell pointer.

Transfer Load (F2) loads a worksheet saved in Normal mode from either cassette or disk or a SYLK file from RAM. The active worksheet is replaced.

```
LOAD filename: filename
     Norm   SYLK
```

Note: *RC* denotes the current cell as Multiplan's proposed response.

The *filename* may be:

CAS:*filename* saves the worksheet to cassette.
          The *filename* is optional.

drive:filename saves the worksheet to disk.

Transfer Save ((F3)) saves the active worksheet
to either cassette or disk in Normal mode or to
RAM in SYLK mode.

```
SAVE filename: filename
     Norm    SYLK
```

The *filename* is the same as Transfer Load.

Transfer Clear ((F4)) clears all cells in the
active worksheet.

```
CLEAR sheet - Enter Y to confirm:
```

Transfer Goto ((F5)) moves the cell pointer to
the specified cell.

```
GOTO cell: RC
```

Note: *RC* denotes the current cell as Multiplan's
proposed response.

(F8) — Exit Multiplan

Exits Multiplan and saves the active worksheet
to RAM.

(PASTE) — Insert

Lets you insert row(s) or column(s) in the
worksheet before the specified cell.

```
PASTE #: 1           before: RC
        Row  Col
```

(PRINT) — Print Window

Prints the current window as displayed on the
screen.

(SHIFT)(PRINT) —
Print Worksheet

Prints all or a portion of the active worksheet
using the specified width.

```
width: 70              from: R1:99
```

Note: *RC* denotes the current cell as Multiplan's
proposed response.

FORMULAS

Formulas are composed of constants, references to cells, and functions.

Cell References

Rn or Cn	Active row or column.
RnCn	Intersection of row and column.
Rn:m or Cn:m	Range of rows or columns.
R[+n] or C[+n]	Row n below the active row or the column n to the right of the active column. The + sign may be omitted.
R[−n] or C[−n]	Row n above the active row or the column n to the left of the active column.
RnCn,RnCn	Union of two cells.

Operations on Numeric and Text Values

+	Add
−	Subtract
/	Divide
*	Multiply
^	Exponentiation
%	Percent

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Functions

ABS(n)	Absolute value of n.
AND(list)	True if all values in list are true; otherwise returns false.
ATAN(n)	Arctangent of n in radians.
AVERAGE(list)	Average of values in list= (SUM/COUNT).
COS(n)	Cosine of the angle n given in radians.
COLUMN( )	Current column number.
COUNT(list)	Number of values given as arguments or by reference.
EXP(n)	e to the power n
FALSE( )	Logical value False
IF(logical, Then value, Else value)	Returns Then value if logical is true; Else value if false.
INDEX(area,subscripts)	Returns the value from cell in area indicated by subscripts.

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INT(*n*) Integer portion of *n* truncated toward 0.

ISERROR(*value*) Returns True if *value* is an error value.

ISNA(*value*) Returns True if *value* is #N/A value.

LN(*n*) Base e logarithm of *n*.

LOG 10(*n*) Base 10 logarithm of *n*.

LOOKUP(*value,table*) Searches for *value* in the first row or or column of *table*. Returns the contents of a cell from the last row or column of *table*. *Table* is a group of cells on the worksheet.

The dimensions of table determine the direction of the search.

Table of Columns

value between 1000 and 1499 →	500	X	X	5	
	1000	X	X	7	← number returned
	1500	X	X	9	
	2000	X	X	13	
	2500	X	X	17	
	3000	X	X	22	
	3500	X	X	27	
	4000	X	X	33	
	4500	X	X	38	

MAX(*list*) Largest values in *list*.

MIN(*list*) Smallest values in *list*.

MOD(*divisor,dividend*) *Remainder of the integer division of dividend/divisor.*

NA( ) Returns the #N/A (not available) value.

NOT(*logical*) Returns the opposite of the *logical* value.

NPV(*rate,list*) Net present value of cash flow represented by the values in *list*.

OR(*list*) True if any value in *list* is true; otherwise returns false.

PI( ) Value of pi (3.14159...).

ROUND(*n,m*) *n* rounded to *m* decimal places.

ROW( ) Current row number.

SIGN(*n*) Returns −1 if *n*<0, 0 if *n*=0, otherwise 1 is returned.

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SIN(*n*)	Sine of the angle *n* specified in radians.
SQRT(*n*)	Square root of *n*.
STDEV(*list*)	Standard deviation of the values in *list*.
SUM(*list*)	Sum of values in *list*.
TAN(*n*)	Tangent of the angle *n*.
TRUE( )	The logical value True.

Error Values

#N/A	Data not available.
#NAME?	Name not defined.
#NUM!	Overflow or illegal arithmetic.
#DIV/0	Division by 0.
#REF!	Reference to nonexistent cell.
#NULL!	Intersection of disjoint areas.
#VALUE!	Wrong type of value used.

DELETING FILES

All files are deleted using the KILL command in BASIC.

1.   At the Model 100 Main Menu, place the cursor over BASIC and press (ENTER).

2.   Type **KILL** "name.ext" (ENTER).

3.   Type **MENU** (ENTER) (or press (F8) to return to the Model 100 Main Menu. The deleted file should no longer be on the Model 100 Main Menu.