TI-99/4A
Microsoft™ Multiplan™

Electronic Worksheet
Reference Card

This card provides information you may wish to look up if you are already familiar with Multiplan. For more comprehensive information, see the User's Guide.

TEXAS INSTRUMENTS
INCORPORATED

The Keyboard

Multiplan has two "cursors": the cell pointer and the edit cursor. Certain keys are reserved for moving the cell pointer while others move only the edit cursor.

Moving the Cell Pointer, Scrolling

FCTN E (up) **FCTN X** (down) **FCTN S** (left) **FCTN D** (right)	(Direction Keys) Move cell pointer in direction indicated. Continue moving cell pointer to scroll contents of window.
CTRL E (up) **CTRL X** (down) **CTRL S** (left) **CTRL D** (right)	(Page Scroll) Scroll to show the next window-sized section of the worksheet in the indicated direction.
CTRL W or **CTRL 6**	(NEXT WINDOW) Moves cell pointer to next window.
CTRL 3 or **CTRL F**	(NEXT UNLOCKED CELL) Moves cell pointer to next unlocked, nonblank cell.
CTRL 1 or **CTRL Q**	(HOME) Moves cell pointer to R1C1.
CTRL Z or **FCTN 1**	(LOWER RIGHT) Moves cell pointer to lower right corner of the active portion of the worksheet.

Action Keys

SPACE BAR	(SPACE) Selects next item on menu.
FCTN 9 or **CTRL H**	(BACKSPACE) Selects previous item on menu.
CTRL A, CTRL 2, or **CTRL I**	(TAB) Selects the entire contents of a field and moves to the next field of a command line.
CTRL C or **CTRL =**	(CANCEL) Cancels present operation and returns to the main command menu.
FCTN 4	(PRINT CANCEL) Cancels a printout and returns to the main command menu, if printing is in progress.
ENTER or **CTRL M**	(ENTER) Starts a command selected from a menu or carries out a completed command.
FCTN I or **FCTN 7**	(HELP) Requests information about the selected command or command in progress.
FCTN 8	(RECALC) Recalculates entire worksheet. If typed in a formula, the formula will be replaced by its result.
−, +, 0, 1, ...9	Invoke the Value command.

Editing Keys

Editing keys may be used any time command parameters are filled in. Text may be inserted in front of the selection just by typing it.

Exceptions:

1. After a TAB, the proposed response will be replaced by what is typed;
2. In reference fields, the characters typed are appended to the proposed response when appropriate.

FCTN 9 or **CTRL H** (BACKSPACE) Deletes character to the left of the selection.

FCTN 0 or **CTRL Y** (DELETE) Deletes selected characters. Replacement text may be typed in.

CTRL 4 or **CTRL L** (CHARACTER FORWARD) Selects character to the right of the current selection.

FCTN 4 or **CTRL K** (CHARACTER BACK) Selects character to the left of the current selection.

CTRL 5 or **CTRL P** (WORD FORWARD) Selects word to the right of the current selection.

FCTN 5 or **CTRL O** (WORD BACK) Selects word to the left of the current selection.

CTRL 7 (REFERENCE) Changes relative references to absolute.

Direction Keys May be used to insert a reference that is relative to the current active cell; step through a set of legal values for a command parameter; insert a name in a formula when preceded by RECALC.

Format Choices

Some of the choices in Format subcommands are represented by a single character. These choices are explained here.

Alignment

D	(Default) Aligns as specified in the Format Default command.
C	Centers cell display within column.
G	(General) Aligns text left, number right (initial default).
L	Aligns cell display to the left.
R	Aligns cell display to the right.
—	Does not change alignment.

Format Code

Def	(Default) Formats as specified in the Format Default command.
Cont	Continues long text across column boundaries as long as adjoining cells are empty and also formatted "Cont."
Exp	(Exponential) Displays numbers as decimal times the power of 10.
Fix	(Fixed) Displays number of decimal places specified in "# of decimals" field.
Gen	(General) Displays numbers in most appropiate form considering the size of the cell and of the number (initial default).
Int	(Integer) Displays number as integer.
$	Displays numbers with leading dollar sign and 2 decimal places. Encloses negative numbers in parentheses.
*	(Bar graph) Displays as many asterisks as the value of the number.
%	(Percent) Displays the number times 100 followed by the percent sign.

The Help Feature

For helpful information on Multiplan, use the built-in Help feature. Pressing **FCTN I** helps you with your current command and selecting the Help command helps you with selected topics.

HELP: Resume Start Next Previous Applications
Commands Editing Formulas Keyboard

HELP Resume	Returns to the worksheet state where Help was requested.
HELP Start	Begins Help tutorial.
HELP Next	Moves to next screenful in the Help text.
HELP Previous	Moves to the previous screenful in the Help text.
HELP Applications	Lists a number of common problems together with the commands that address them.
HELP Commands	Describes command selection and lists all commands.
HELP Editing	Describes editing.
HELP Formulas	Lists all functions and formula composition rules.
HELP Keyboard	Describes the keyboard.

Functions

Operations on Numeric and Text Values

+	Add
−	Subtract
/	Divide
*	Multiply
^	Exponentiation
%	Percent, same as /100
&	String concatenation

Functions of Groups of Cells

AND(List)	True if (and only if) all values are true; otherwise returns false.
AVERAGE(List)	The average of the values (= SUM/COUNT).
COUNT(List)	Number of values given as arguments or by reference.
MAX(List)	Largest of the values.
MIN(List)	Smallest of the values.
NPV(Rate, List)	Net present value of the cash flow represented by the values on the list.
OR(List)	True if (and only if) any of the values are true; otherwise returns false.
STDEV(List)	The standard deviation of the values.
SUM(List)	The sum of the values.

Mathematical, Logical, and Text Functions

ABS(N)	Absolute value of N.
ATAN(N)	Arctangent of N in radians.
COS(N)	Cosine of the angle N given in radians.
COLUMN()	Current column number.
DOLLAR(N)	The text string showing the value N in $ format.
EXP(N)	e to the power N.
FALSE()	The logical value False.
FIXED(N,m)	The text containing N in Fixed format with m decimals. m = 0 is the same as Int format.
IF(Logical, Then Value, Else Value)	Returns the Then Value if Logical expression is true; the Else Value if false.
INDEX(Area, Subscripts)	Returns the value from cell in Area indicated by Subscripts.
INT(N)	The integer portion of N truncated toward 0.

ISERROR(Value)	Returns True if (and only if) Value is an error value.		
ISNA(Value)	Returns True if (and only if) Value is an #N/A value.		
LEN(T)	The length of the text T in characters.		
LN(N)	The base e logarithm of N.		
LOG10(N)	The base 10 logarithm of N.		
LOOKUP(Value,Table)			
	If Table (a rectangular group of cells) is higher than wide, Multiplan searches for the first row in the first column that contains a number less than or equal to Value. The result is the value in the last column of the same row. For a table wider than high, rows and columns are interchanged.		

Table of Columns

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

MID(T,s,c)	The c number of character starting at s of the text T.
MOD(Divisor,Dividend)	
	The 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.
PI()	The value of pi (3.14159...).
REPT(T,n)	The text T repeated n times.
ROUND(N,m)	N rounded to m decimal places.
ROW()	The current row number.
SIGN(N)	Returns -1 if $N < 0$, 0 if $N = 0$, otherwise 1.
SIN(N)	The sine of the angle N specified in radians.
SQRT(N)	The square root of N.
TAN(N)	The tangent of the angle N.
TRUE()	The logical value True.
VALUE(T)	The text T must contain the text representation of a numeric constant. The value of that constant is returned.

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.

| HOME | TAB | NXT UNL CELL | FORWARD CHAR | FORWARD WORD | CHANGE WINDOW | HELP | RECALC | BACK SPACE | DELETE FORWARD | CANCEL |
| LOWER RIGHT | | | BACK CHAR | BACK WORD | RELABS REF | | | | | |

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