Mach4 Parameters list:

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local value = mc.mcCntlGetPoundVar(num inst, num PoundVar);--Get a pound var value

mc.mcCntlSetPoundVar(num inst, num PoundVar, num value);--Set a pound var value

Local VARs.

NAME:	#Var Num
A	1
B	2
C	3
I	4
J	5
K	6
D	7
E	8
F	9
G	10
H	11
L	12
M	13
N	14
O	15
P	16
Q	17
R	18
S	19
T	20
U	21
V	22
W	23
X	24
Y	25
Z	26

Common vars (cleared on startup)

NAME:	#Var Num
CMN1 START	100
CMN1 END	199

Common vars (retained across startups)

NAME:	#Var Num
CMN2 START	500
CMN2 END	599
CURRENT TIP	1237 // Tool tip direction in Lathe mode for Tip Comp
FRO ON OFF	2027 // FRO On or Off
CUR DIA INDEX	2028 // Current Dia number (D)
CUR TOOL NUMBER	2029 // Current tool number (T)
CUR SELECTED TOOL	2031 // Current tool that is selected (Next T number)
CUR LENGTH INDEX	2032 // Current Length number (H)
CUR TOOL XLENGTH REGISTER	2033
CUR TOOLDIA REGISTER	2034 // Register for the amount of tool dia offset
CUR TOOL ZLENGTH REGISTER	2035
CUR TOOL YLENGTH REGISTER	2036
CUR CSS LIMIT	2130
CUR SPINDLE SFPM	2131
CUR SPINDLE SPEED	2132
TRAVERSE RATE	2133 // Rate for traverse motions
FEEDRATE	2134 // Feed rate in current units/min
ROTATION X	2135
ROTATION Y	2136
ROTATION	2137
ALM	3000 // W: Writing to this var will produce a machine alarm.
CLOCK1	3001 // R: Time, in milliseconds, since the machine was powered on.
CLOCK2	3002 // R: Accumulated time, in hours, of the machine. (Hour Meter)

CNTL1	3003 // R/W: bit 0 high suppresses single block (default == not set), bit 1 high suppresses waits on MST codes (default == not set). M SBK 0x01 M MST 0x02 M FIN 0x02 // Same as SV M MST.
CNTL2	3004 // R/W: bit 0 high disables feed hold (default == not set), bit 1 high disables FRO (default == not set), bit 2 high enables exact stop (default == not set). M FHD 0x01 M OV 0x02 M EST 0x04
SETDT	3005 // R/W: Settings Data (bit 2 = 0 Inch, bit 2 = 1 Metric)
MSGSTP	3006 // W: Writing to this var will produce a machine stop.
MRIMG	3007 // R: Status of Mirror Image.
PRSTR	3008 // R: Program restart (0 or 1)
DEFAULT UNITS	3005 // Same as SV SETDT R/W: (bit 2 = 0 Inch, bit 2 = 1 Metric)
DATE	3011 // R: Current Date (YYYYMMDD)
TIME	3012 // R: Current Time (HHMMSS)
EMPTY	3100 // R: returns NIL
PI	3101 // R: returns pi. (3.14159265358979323846)
BASE LOG E	3102 // R: returns base of natural logarithm E. (2.71828182845904523536)
PRTSA	3901 // R/W: Total number of parts.
PRTSN	3902 // R/W: Number of required parts
MAINO	4000 // Main program number.
MOD GROUP 1	4001 // Group 1 // active G-code for motion
MOD GROUP 2	4002 // Group 2 // active plane, XY-, YZ-, or XZ-plane
MOD GROUP 3	4003 // Group 3 // absolute or incremental
MOD GROUP 4	4004 // Group 4 // arc center mode

MOD GROUP 5	4005 // Group 5 // G93 (inverse time) or G94 units/min
MOD GROUP 6	4006 // Group 6 // millimeters or inches
MOD GROUP 7	4007 // Group 7 // current cutter compensation side
MOD GROUP 8	4008 // Group 8 // tool length offset
MOD GROUP 9	4009 // Group 9 // canned cycles
MOD GROUP 10	4010 // Group 10 // for cycles, old z or r plane
MOD GROUP 11	4011 // Group 11 // scale mode
MOD GROUP 12	4012 // Group 12 // modal macro (G66,G66.1,G67)
MOD GROUP 13	4013 // Group 13 // spindle mode
MOD GROUP 14	4014 // Group 14 // coordinate systems
MOD GROUP 15	4015 // Group 15 // exact path or cutting mode
MOD GROUP 16	4016 // Group 16 // coordinate system rotation mode
MOD GROUP 17	4017 // Group 17 // polar mode
MOD GROUP 18	4018 // Group 18 // compensation mode
MOD GROUP 19	4019 // Group 19 // not used
MOD GROUP 20	4020 // Group 20 // not used
MOD GROUP 21	4021 // Group 21 // not used
MOD GROUP 22	4022 // Group 22 // not used
MOD GROUP 23	4023 // Group 22 // not used
MOD GROUP 24	4024 // Group 22 // not used
MOD GROUP 25	4025 // Group 22 // not used
BUFB	4102 // last buffered B code value.
BUFD	4107 // last buffered D code value.
BUFE	4108 // last buffered E code value.
BUFF	4109 // last buffered F code value.
BUFH	4111 // last buffered H code value.
BUFM	4113 // last buffered H code value.
BUFN	4114 // last buffered N code value.
BUFO	4115 // last buffered O code value.
BUFS	4119 // last buffered S code value.
BUFT	4120 // last buffered T code value.
ORIGIN OFFSET X	4140
ORIGIN OFFSET Y	4141
ORIGIN OFFSET Z	4142
ORIGIN OFFSET A	4143
ORIGIN OFFSET B	4144
ORIGIN OFFSET C	4145

LAST OUTPUT X	5001
LAST OUTPUT Y	5002
LAST OUTPUT Z	5003
LAST OUTPUT A	5004
LAST OUTPUT B	5005
LAST OUTPUT C	5006
CURRENT MACH X	5021
CURRENT MACH Y	5022
CURRENT MACH Z	5023
CURRENT MACH A	5024
CURRENT MACH B	5025
CURRENT MACH C	5026
AXIS OFFSET X	5030 // Used to save the offset with the G92.3 command
AXIS OFFSET Y	5031
AXIS OFFSET Z	5032
AXIS OFFSET A	5033
AXIS OFFSET B	5034
AXIS OFFSET C	5035
CURRENT ABS X	5041
CURRENT ABS Y	5042
CURRENT ABS Z	5043
CURRENT ABS A	5044
CURRENT ABS B	5045
CURRENT ABS C	5046
G92 OFFSET X	5050 // Used to save the offset with the G92.3 command
G92 OFFSET Y	5051
G92 OFFSET Z	5052
G92 OFFSET A	5053
G92 OFFSET B	5054
G92 OFFSET C	5055

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PROBE POS X                      5061 // G31 Skip signal
PROBE POS Y                      5062
PROBE POS Z                      5063
PROBE POS A                      5064
PROBE POS B                      5065
PROBE POS C                      5066

PROBE MACH POS X                 5071 // G31 Skip signal machine position
PROBE MACH POS Y                 5072
PROBE MACH POS Z                 5073
PROBE MACH POS A                 5074
PROBE MACH POS B                 5075
PROBE MACH POS C                 5076

HEAD SHIFT X                     5110
HEAD SHIFT Y                     5111
HEAD SHIFT Z                     5112
HEAD SHIFT A                     5113
HEAD SHIFT B                     5114
HEAD SHIFT C                     5115

/* Turn Registers only */
/* G76 Parameters */
G76 MIN PASS DEPTH               5140
G76 FINISH DEPTH                 5141
G76 FINISH PASSES                5142
G76 THREAD ANGLE                 5143
G76 CHAMFER AMOUNT               5144
G76 CUTTING METHOD               5145
/* End of Turn Registers */

CUR COMP X                       5157 // Program x, used when cutter comp on
CUR COMP Y                       5158 // Program y, used when cutter comp on
CUR COMP Z                       5159 // Program z, used when cutter comp on
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G 30 XPOS	5181
G 30 YPOS	5182
G 30 ZPOS	5183
G 30 APOS	5184
G 30 BPOS	5185
G 30 CPOS	5186
WORK SHIFT X	5201
WORK SHIFT Y	5202
WORK SHIFT Z	5203
WORK SHIFT A	5204
WORK SHIFT B	5205
WORK SHIFT C	5206

FIXTURES START   5221   // Fixture start in Parameter list
Fixture increment is 20, Increment from
fixture to fixture. G54 – G59

G 30 P2 XPOS	5351
G 30 P2 YPOS	5352
G 30 P2 ZPOS	5353
G 30 P2 APOS	5354
G 30 P2 BPOS	5355
G 30 P2 CPOS	5356
G 30 P3 XPOS	5361
G 30 P3 YPOS	5362
G 30 P3 ZPOS	5363
G 30 P3 APOS	5364
G 30 P3 BPOS	5365
G 30 P3 CPOS	5366
G 30 P4 XPOS	5371
G 30 P4 YPOS	5372
G 30 P4 ZPOS	5373
G 30 P4 APOS	5374
G 30 P4 BPOS	5375
G 30 P4 CPOS	5376
ROTATION G68 NO R	5410

APPROACH DIST X	5440 // Approach distance for the G60 Unidirectional approach command
APPROACH DIST Y	5441
APPROACH DIST Z	5442
APPROACH DIST A	5443
APPROACH DIST B	5444
APPROACH DIST C	5445
CMN RO START	6031 // The starting common var (#500-#999) to write protect.
CMN RO END	6032 // The ending common var (#500-#999) to write protect.
PRTCNTL	6700 // Setting to 1 only allows M code specified by #6710 to increment part count. (default 0)
PRTINCM	6710 // Set to a M code that will increment part counts with or without M02 and M30 according to #6700.
PRTSA2	6711 // R/W: Total number of parts. Will change/reflect #3901 as well. (cleared on file load).
PRTST	6712 // R/W: Total number of parts machined.
PRTSN2	6713 // R/W: Number of required parts Will change/reflect #3902 as well.
FIXTURE EXPAND	7001 // Fixtures after G54.1, P1 – P120, incremented by 20 from offset to offset