

WVS•VORTEX(1),WCSCOMEN

1	•THIS IS A	COPYRIGHTED PROGRAM,COPYRIGHT 1975 BY VARIAN DATA MACHINE	00	00001
2	•		00	00002
3	•	THE FOLLOWING ARE SUPPLEMENTAL OPCODES	00	00003
4	•	FOR USE WITH THE MICRO ASSEMBLER	00	00004
5	•		00	00005
6	•		00	00006
7	ADD	EQU 9	00	00007
8	ALUC	EQU 8	00	00008
9	ALUD	EQU 6	00	00009
10	ALUS	EQU 7	00	00010
11	ALUZ	EQU 9	00	00011
12	AND	EQU X'B	00	00012
13	AONES	EQU 2	00	00013
14	AZERO	EQU 1	00	00014
15	ASGPR	EQU 0	00	00015
16	ASGPRL	EQU 2	00	00016
17	ASGPRR	EQU 3	00	00017
18	ASP	EQU 1	00	00018
19	ASSPEC	EQU 0	00	00019
20	BSSALU	EQU 7	00	00020
21	BSSMIR	EQU X'F	00	00021
22	BSSOVR	EQU 3	00	00022
23	BSSP	EQU X'B	00	00023
24	B\$GPR	EQU 0	00	00024
25	B\$SPEC	EQU 1	00	00025
26	CRY1	EQU 3	00	00026
27	DECA	EQU X'F	00	00027
28	DECB	EQU 9	00	00028
29	DECODE	EQU 4	00	00029
30	DECODS	EQU 5	00	00030
31	EOR	EQU 6	00	00031
32	FT	EQU 3	00	00032
33	GPROUT	EQU 1	00	00033
34	GPRS	EQU X'D	00	00034
35	IBRSI	EQU 1	00	00035
36	IFSALU	EQU 4	00	00036
37	IFSMIR	EQU X'C	00	00037
38	IFSOVR	EQU 0	00	00038
39	IFSP	EQU 8	00	00039
40	INCA	EQU 0	00	00040
41	INCB	EQU 1	00	00041
42	INCP	EQU 4	00	00042
43	INCSC	EQU 5	00	00043
44	IOR	EQU 2	00	00044
45	IOSR	EQU 1	00	00045
46	KOUT	EQU 6	00	00046
47	LFT	EQU 0	00	00047
48	LIT	EQU 3	00	00048
49	LOG	EQU 1	00	00049
50	MEMC	EQU 1	00	00050
51	MEMCS	EQU 2	00	00051
52	MIR	EQU 1	00	00052
53	MIRS	EQU X'B	00	00053
54	MSK	EQU 2	00	00054
55	NORM	EQU X'E	00	00055
56	NOTA	EQU 0	00	00056

57	NOTB	EQU	5	00	00057
58	OF\$ALU	EQU	5	00	00058
59	OF\$MIR	EQU	X'D	00	00059
60	OF\$OVR	EQU	1	00	00060
61	OF\$P	EQU	9	00	00061
62	ORLZ	EQU	7	00	00062
63	OLSE	EQU	5	00	00063
64	ONES	EQU	3	00	00064
65	OPR	EQU	0	00	00065
66	OPROUT	EQU	3	00	00066
67	OR	EQU	1	00	00067
68	ORSE	EQU	4	00	00068
69	ORZF	EQU	6	00	00069
70	OSSALU	EQU	6	00	00070
71	OSSMIR	EQU	X'E	00	00071
72	OSSOVR	EQU	2	00	00072
73	OSSP	EQU	X'A	00	00073
74	OVFL	EQU	0	00	00074
75	PJMP	EQU	3	00	00075
76	PJMPS	EQU	4	00	00076
77	POUT	EQU	1	00	00077
78	POPDEL	EQU	1	00	00078
79	POPJMP	EQU	4	00	00079
80	PUSH	EQU	2	00	00080
81	QUOS	EQU	X'F	00	00081
82	RO	EQU	0	00	00082
83	R1	EQU	1	00	00083
84	R2	EQU	2	00	00084
85	R3	EQU	3	00	00085
86	R4	EQU	4	00	00086
87	R5	EQU	5	00	00087
88	R6	EQU	6	00	00088
89	R7	EQU	7	00	00089
90	R8	EQU	8	00	00090
91	R9	EQU	9	00	00091
92	RA	EQU	X'A	00	00092
93	RB	EQU	X'B	00	00093
94	RC	EQU	X'C	00	00094
95	RD	EQU	X'D	00	00095
96	RE	EQU	X'E	00	00096
97	RF	EQU	X'F	00	00097
98	RGHT	EQU	1	00	00098
99	ROVFL	EQU	4	00	00099
100	SCOUT	EQU	2	00	00100
101	SFTC	EQU	X'C	00	00101
102	SHFA	EQU	X'C	00	00102
103	SHFT	EQU	X'A	00	00103
104	SHFTOP	EQU	1	00	00104
105	SOVFL	EQU	2	00	00105
106	SPEC	EQU	0	00	00106
107	SSW1	EQU	4	00	00107
108	SSW2	EQU	3	00	00108
109	SSW3	EQU	2	00	00109
110	STACK	EQU	X'D	00	00110
111	STAT	EQU	3	00	00111
112	SUB	EQU	6	00	00112
113	SSALU	EQU	2	00	00113

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114 SSOVFL EQU      6          00 00114
115 SSOVFS EQU      8          00 00115
116 SSSHFT EQU      1          00 00116
117 TCB EQU         2          00 00117
118 TESTT EQU       3          00 00118
119 TESTF EQU       2          00 00119
120 TFIR EQU        5          00 00120
121 TRNA EQU       X'F        00 00121
122 TRNB EQU       X'A        00 00122
123 TT EQU         2          00 00123
124 WAITMD EQU      1          00 00124
125 ZERO EQU       3          00 00125
126 EJEC
127 *
128 *   FOLLOWING ARE ROM STANDARD STATE ADDRESSES
129 *
130 SS1M EQU       X'13E      RESTART PIPELINE @ P
131 SS2M EQU       X'092      MAINTAIN PIPELINE
132 SS3M EQU       X'02D      DECODE NEXT INSTRUCTION (IN IBR)
133 EJEC
134 P EQU         X'400
135 ALOC 0
136 .....
137 *   BCS ENTRY POINTS FOR COMMERCIAL
138 *   FIRMWARE IN SECOND PAGE
139 .....
140 *
141 *   DECIMAL MATH ENTRY
142 *
143   ORG       X'12
144   GEN       /P(DE00+P),10(PJMP),SFO,TF0
145 *
146 *   STORE REGISTER ENTRY
147 *   SAVE P IN RF
148   ORG       X'F
149   GEN       /P(RSTENT+P),10(PJMP),SFO,TF0
150 *
151 *   LOAD REGISTER ENTRY
152 *   SAVE P IN RF
153   ORG       X'10
154   GEN       /P(RLDENT+P),10(PJMP),SFO,TF0
155 *
156 *   DECODE ENTRY
157 *   FETCH NEXT ORCODE THROUGH PSEUDO-P
158   ORG       X'11
159   GEN       /P(DECENT+P),10(PJMP),SFO,TF0
160 *
161 *   MEMORY BLOCK MOVE/COMPARE
162 *   SAVE P IN RA AND SELECT OP
163   ORG       X'13
164   GEN       /P(MCMEMT+P),10(PJMP),SFO,TF0
165 DE00 ORG       X'12
166 RSTENT EQU    X'F
167 RLDENT EQU    X'10
168 DECENT EQU    X'11
169 MCMEMT EQU    X'13
170 END

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