

COMMERCIAL-IN CONFIDENCE

Perq Fault Dictionary - The key to the diagnostic display
(DDS) 24 Oct 80.

As of 24 Oct 80, the DDS is meaningful
only when booting from the hard disk, not when
booting from floppy disk.

<u>Display</u>	<u>Description</u>
000	Boot never got going, StackReset doesn't work or other major problem in the processor board.
001	Simple Branches fail
002	Main Data Path Failure
003	Dual Address failure on Registers
004	Y Ram Failure
005	Const/Carry Propagate failure
006	ALU failure
007	Conditional Branch failure
008	Looping failure
009	Control Store (or Write Control Store) failure
010	Hung in Disk Boot
011	Memory Data Error
012	Memory Address Error
013	Disk didn't come ready
014	Couldn't boot from either disks
015 - 020	Bad Interrupts Reading Floppy Disk Data
030	VFY Hung
050	Bad Error Message from VFY
051	Empty stack bit not working
052	Could not load TOS
053	Push did not work
054	Stack Empty did not go off
055	Data error in push
056	Empty or Full set when that is not the case
057	Data error in bit 15 of the stack
058	Stack empty set when the stack is full
059	Data error on stack
060	Data error after POP. Bit 14
061	Data error after POP. Bit 13
062	Data error after POP. Bit 12
063	Data error after POP. Bit 11
064	Data error after POP. Bit 10
065	Data error after POP. Bit 9
066	Data error after POP. Bit 8
067	Data error after POP. Bit 7

068 Data error after POP. Bit 6
069 Data error after POP. Bit 5
070 Data error after POP. Bit 4
071 Data error after POP. Bit 3
072 Data error after POP. Bit 2
073 Empty wrong.
074 Data error after POP. Bit 1
075 Data error after POP. Bit 0
076 Empty not set after all pops.
077 Call test failed
078 Odd didn't jump on a 1.
079 Odd jumped on a 0.
080 Byte sign didn't jump on 200.
081 Byte sign jumped on 0.
082 C19 didn't jump when it should have.
083 BCP[3] didn't jump when it should have.
084 C19 jumped when it shouldn't have.
085 BCP[3] jumped when it shouldn't have.
086 GTR didn't jump.
087 GTR jumped when it shouldn't have.
088 GEQ didn't jump.
089 GEQ jumped when it shouldn't have.
090 LSS didn't jump when it should have.
091 LSS jumped when it shouldn't have.
092 LEQ didn't jump.
093 LEQ jumped when it shouldn't have.
094 GEQ didn't jump on equal.
095 LEQ didn't jump on equal.
096 Carry didn't jump when it should have.
097 Carry jumped when it shouldn't have.
098 Overflow didn't jump when it should have.
099 Overflow jumped when it shouldn't have.
100 And-Not ALU function failed.
101 Or ALU function failed.
102 Or-Not ALU function failed.
103 And ALU function failed.
104 Or-Not ALU function failed.
105 Not-A ALU function failed.
106 Not-B ALU function failed.
107 Xor ALU function failed.
108 Xnor ALU function failed.
109 OldCarry-Add ALU function failed.
110 OldCarry-Sub ALU function failed.
111 OldCarry-Add /w No OldCarry failed.
112 Fetch error on Force Bad Parity.
113 Unexpected Parity error.
114 No parity errors on force bad parity.
115 Wrong address on force bad parity.
116 Upper 4 bit test failed.
117 MDX test failed.
118 Stack upper bits test failed.
119 Dual Addr/Fetch4 test failed.
120 Unexpected refill.

121 BPC test failed.
122 Fetch4 test failed.
123 Fetch4R test failed
124 Store4 test failed.
125 Fetch2 test failed.
126 Store2 test failed.
127 NextOp test failed.
128 Fetch/Store overlap failed.
129 Bad interrupt Loc 4.
130 Bad interrupt Loc 14.
131 Bad interrupt Loc 20.
132 Bad interrupt Loc 30.
133 Memory error on No Dual Addr test.
134 Memory error on No Dual Addr Invert.
135 Field didn't work
136 Dispatch did not jump
137 Wrong Dispatch target

150 Sysb not loaded correctly or hung
151 Sysb did not complete
152 Disk Error
153 CheckSum error in microcode
154 CheckSum error in QCode

199 System not entered - calls or assignments don't work.

200 System entered, InitMemory to be called.
201 InitMemory entered.
202 System version number set.
203 Memory manager output file opened.
204 SAT and SIT pointers initialized, StackSegment number initialized.
205 Before marking booted segments in-use.
206 Booted segments marked in-use.
207 Segment created to sit on the unused memory.
210 Before building SIT.
211 SIT entries built.
212 SIT entries linked together.
213 Unused segment numbers linked together into the freelist.
214 SIT built.
215 InitMemory complete, ready to return to System.

300 InitIO to be called.
301 InitIO entered.
302 IO segment allocated and locked down.
303 Buffers allocated.
310 InitInterruptVectors to be called.
320 InitInterruptVectors complete, InitDeviceTable to be called.
330 InitDeviceTable complete, InitScreen to be called.

340 InitScreen complete, InitTablet to be called.
350 InitTablet complete, InitCursor to be called.
360 InitTablet complete.
370 Microcode informed that the device table has been
initialized, IO microcode initialization complete,
IO microcode initialization complete,
LocateDskHeads to be called.
371 LocateDskHeads entered, buffers allocated.
372 Microcode instructed to consider current position
as cylinder 0.
373 Disk heads at cylinder 0 or disk busted.
374 Disk heads at cylinder 0 (not busted).
375 Microcode instructed to consider current position
as cylinder 0.
376 Dummy read of cylinder 0, sector 0 complete,
about to dispose
buffers and exit LocateDskHeads.
380 LocateDskHeads complete, FindSize to be called.
381 FindSize entered and buffers allocated.
382 Size of disk determined, about to dispose buffers
and exit FindSize.
390 FindSize complete.
400 Keyboard enabled.
410 EnableTablet to be called.
411 EnableTablet entered, Stanley tablet enabled,
buffers allocated.
412 First GPIB command built.
413 First GPIB command sent to Z80.
414 Second GPIB command built.
415 Second GPIB command sent to Z80.
416 Third GPIB command built
417 Third GPIB command sent to Z80.
418 Fourth GPIB command built
419 Fourth GPIB command sent to Z80, about to dispose
buffers and
exit EnableTablet.
420 EnableTablet complete.
499 Clock enabled, about to exit InitIO.

500 InitIO complete, InitStream to be called.

600 InitStream complete, FSInit to be called.

700 FSInit complete.

800 Command file and Console opened.

999 System fully initialized, system title line to be
printed.