Identification

Summary of Error Stops During Multics Initialization
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Discussion

The general policy of error handling during Multics Initialization
is to stop the processor(s) and display relevant error
information on the display panel of the offended processor.
The stopping of the processor is accomplished by executing
a DIS instruction with an address field code indicating
the general area of difficulty. Depending on the problem
area, other processor lights may be used to display further
information regarding the problem. The following charts
illustrate current error displays.

Bootstrap 1 Errors

Octal Address Field of DIS Instruction		Additional Displays Used and Meaning (All numbers are octal)	
1.	777777	PBR = 4003	Bad tape status reading in bootstrap 1
2.	222222	A = 2	Logical format error in header control word
3.	222222	A = 3 Q = Status word	Unknown status word returned on read
4.	222222	A = 4 Q = Last good record#	Bad record on tape
5.	222222	A = 5 Q = Status word	Emergency status word storage
6.	222222	A = 6 Q = Status word	Status word was not a terminate word
7.	222222	A = 7 Q = Status word	Unknown status on backspace

8.	222222	A = 10	Unexpected interrupt
9.	222222	A = 11 Q = Fault code XO = TBR X1 = Effective address X2 = PBR X3 = ICTC	Unexpected fault
10.	222222	A = 12	Improper sequence of text and linkage segs
11.	222222	A = 13	Status not expected while backspacing
12.	222222	A = 14	No more core left for allocation
13.	222222	A = 15	Missing some critical segment (i.e. SLT, STACK)

General Errors Reflected By Calls To Panic

Octal Address Field of DIS   Additional Displays Used and Meaning

1.	777777	AQ = ITS of caller	Caller called PANIC

Unexpected Faults or Interrupts After Bootstrap 1

1.	777776		Unexpected interrupt
2.	777774	A = Fault code XO = TBR X1 = Effective address X2 = PBR X3 = ICTC	Unexpected fault
2a.	777774	A = 16 X2 = FIM segno X3 = 265	Attempt to page before establishment of paging mechanism (implies some data base is too small)

Errors Occurring During Segment Loading After Bootstrap 1

1.	525252	A = 1	Record sequence error
2.	525252	A = 2 Q = Status word	Bad status from tape read or backspace

3.	525252	A = 3	Unreadable tape after 10 tries
4.	1		Error in computing absolute address