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**

<table>
<thead>
<tr>
<th>Octal Address Field of DIS Instruction</th>
<th>Additional Displays Used and Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 777777</td>
<td>PBR = 4003</td>
</tr>
<tr>
<td>2. 222222</td>
<td>A = 2</td>
</tr>
<tr>
<td>3. 222222</td>
<td>A = 3, Q = Status word</td>
</tr>
<tr>
<td>4. 222222</td>
<td>A = 4, Q = Last good record</td>
</tr>
<tr>
<td>5. 222222</td>
<td>A = 5, Q = Status word</td>
</tr>
<tr>
<td>6. 222222</td>
<td>A = 6, Q = Status word</td>
</tr>
<tr>
<td>7. 222222</td>
<td>A = 7, Q = Status word</td>
</tr>
</tbody>
</table>
8. 222222 A = 10 Unexpected interrupt

9. 222222 A = 11 Unexpected fault
   Q = Fault code
   X0 = TBR
   X1 = Effective address
   X2 = PBR
   X3 = ICTC

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 Unexpected fault
   X0 = TBR
   X1 = Effective address
   X2 = PBR
   X3 = ICTC

2a. 777774 A = 16 Attempt to page before establishment of paging mechanism
   X2 = FIM segno (implies some data base is too small)
   X3 = 265

Errors Occurring During Segment Loading After Bootstrap 1

1. 525252 A = 1 Record sequence error

2. 525252 A = 2 Bad status from tape read or backspace
3.  525252  \( A = 3 \)  Unreadable tape after 10 tries
4.  1  Error in computing absolute address