VME BPM - Bug #9790

Data access exception in transition board control task

08/05/2015 09:36 AM - John Diamond

Status:	Closed	**Start date:**	08/05/2015
Priority:	Normal	**Due date:**	
Assignee:	John Diamond	**% Done:**	0%
Category:		**Estimated time:**	0.00 hour
Target version:		**Spent time:**	1.00 hour

Description

Noticed the following on TG9 last night:

```
data access
Exception current instruction address: 0x0ec16304
Machine Status Register: 0x0000b030
Data Access Register: 0x81998717
Condition Register: 0x40000044
Data storage interrupt Register: 0x42000000
Task: 0xe4471e0 "BPMTCT"
```

Looks like it happens at the beginning of the cycle right before the control loops get initialized:

```
tstbpm:vmebpm> traceShow
         0 uS e4471e0       BPMTCT: acnet/trace.c:trc_excHook() trace freeze at level 31
         0 uS e4471e0       BPMTCT: acnet/trace.c:trc_excHook() trc_excHook (tid=0x0e4471e0,vecNum
=768,exc_stack_frame=0x0e446e48)
         0 uS       0       (null): TBPool.cpp:_handleCLStart() mcu id: 1, tb channel a set to 0,
b set to 0
         0 uS       0       (null): TBPool.cpp:_handleCLStart() mcu id: 1, tb channel a set to 0,
b set to 0
         0 uS       0       (null): TBPool.cpp:_handleCLStart() mcu id: 0, tb channel a set to 0,
b set to 0
         0 uS       0       (null): TBPool.cpp:_handleCLStart() mcu id: 0, tb channel a set to 0,
b set to 0
         0 uS       0       (null): TBPool.cpp:_handleCLStart() mcu id: 1, tb channel a set to 0,
b set to 0
         0 uS       0       (null): TBPool.cpp:_handleCLStart() mcu id: 1, tb channel a set to 0,
b set to 0
         0 uS       0       (null): TBPool.cpp:_handleCLStart() mcu id: 0, tb channel a set to 0,
b set to 0
         0 uS       0       (null): TBPool.cpp:_handleCLStart() mcu id: 0, tb channel a set to 0,
b set to 0
         0 uS       0       (null): TBPool.cpp:_handleCLStart() Using intensity profile #0
         0 uS       0       (null): TBPool.cpp:_handleCLStart() i:beam = 0 E12
         0 uS       0       (null): TBPool.cpp:_handleCLStart() Received TYPE_SET_ATTENUATORS mess
age.
```

Only 1 of the 3 expected transition boards are on the CANbus at the moment. Suspect that the cause is the transition board control task attempting to set the initial attenuator values on transition boards that aren't there.

History

#1 - 08/05/2015 01:28 PM - John Diamond

- Status changed from New to Resolved

Traced the problem to a null pointer de-reference in the transition board control task code.

#2 - 08/07/2015 02:30 PM - John Diamond

- Status changed from Resolved to Closed