

**Title:** Verifying MultiFlex PCI 1000 Series Hardware Initialization  
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## Summary

The operating software (firmware) for PMC's PCI based MultiFlex PCI 1000 Series motion controller is loaded by the Motion Control API (MCAPI) device driver during the Windows boot-up process. The required first step of this loading process is that the MultiFlex CPU and SDRAM must be initialized. If this hardware initialization does not successfully complete:

- 1) The MCAPI device driver will be unable to load the operating software
- 2) The 'Run' LED will not be turned on
- 3) The user will be unable to communicate with the MultiFlex controller

The MultiFlex controller does not provide external initialization status (LED) indications. This TechNOTE details how the user can determine the hardware status of MultiFlex controllers installed in PC computers with XP/2000/NT operating systems.

## More Information

The utility that allows the user to query the hardware initialization status of the MultiFlex is named PCIDiag.exe. It is available as a self extracting zip file on PMC's web site at:  
<ftp://ftp.pmccorp.com/pub/mfcpci1000/pcidiagnostic.exe>

It can be run from the CD, floppy disk, or any folder. The only restriction is that both files (pcidiag.exe and pciaccess.sys) must be in the same location / folder.



In order to use the PCI Diagnostic utility you must be logged on as the System Administrator.

Starting the utility (by double clicking pcidiag.exe) will open a DOS box. At the prompt "Select operation:" enter the character 1 followed by two carriage returns.

```
1      <enter>      <enter>
```

The correct controller response (indicating that the hardware has properly initialized) is:  
">" or PMON>

To terminate the utility enter: <Ctrl> and X, and then 99 <enter>