PMC
Precision MicroControl Corp.
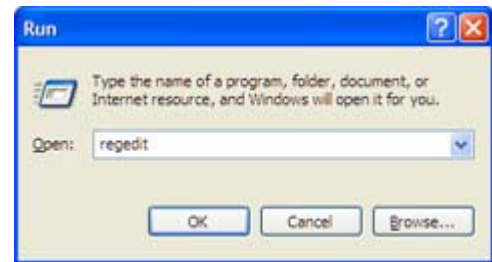
Title:	Registry Keys Used for Ram-Based Firmware
Products(s):	MultiFlex PCI Series, DCX-PCI300, DCX-PCI100
Keywords:	firmware, Windows, Flash Wizard
ID#:	TN1054
Date:	April 27, 2004

Summary

The operating software (firmware) for PMC's newest motion controllers is loaded by the Motion Control API (MCAPI) device driver during the Windows boot-up process. To locate the firmware files the device driver uses specific keys in the Windows registry. The preferred method of updating the firmware files and registry keys is with the automated Flash Wizard utility, however advanced users may use the Windows Registry Editor to manually check or update the firmware file settings.

More Information

Using Registry Editor incorrectly can cause serious problems that may require that you reinstall your operating system. Information and tips about using the registry editor may be found at http://support.microsoft.com, Knowledge Base article #323170. To launch the registry editor click Start to open the Windows start menu and click Run to bring up the run dialog. Enter "regedit" (without the quotes) in the open field and click OK.

The MCAPI firmware settings are located under the registry key **HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MCAPI**. The name and path of the firmware to use for each controller model is stored as a string value with the value named for the controller model – DCXPCI100Firmware for the DCX-PCI100 controller, MFXPCI1FIRMWARE for the MultiFlex PCI1000 series, etc. To install new firmware copy the firmware file to a folder on the PC and edit the appropriate string value for your controller type so that it contains the full path and filename of the new firmware file.

The folder where the firmware files are stored must be accessible to the MCAPI device driver during bootup. Network shares, removable media devices, and specialty file systems are not recommended as they may not be accessible until after windows has finished booting. We recommend you place firmware files in the **system32\drivers** folder located under the folder where Windows is installed (commonly **C:\Windows**) as this folder is guaranteed to be accessible during bootup. Windows 98/Me users must use the old MSDOS 8.3 (short filename) format for the name and path. This is due to the fact that under Windows 98/Me support for the long filename file system is not loaded until the end of bootup.