



Title: Unable to Open Controller, Driver Out of Handles
Product: MCAPI
Keywords: LabVIEW, Visual Basic, VB, Driver, Handle
ID#: TN1043
Date: June 24, 2002

Summary

During the development and debugging of an application program that uses the Motion Control API (MCAPI) it is possible to exhaust the supply of MCAPI program handles, especially from interpreted development environments such as Visual Basic and LabVIEW.

More Information

An application program that uses the MCAPI for motion control will typically open one or more MCAPI handles at the beginning of the program, and close those handles before the application exits. Once all MCAPI based application programs have finished running and exited, the Windows operating system unloads the MCAPI DLL (library) from memory. When MCAPI detects that it is being unloaded, it automatically cleans up any handles that were not correctly closed by application programs.

When an application program is being debugged it is very common for the program's execution to be aborted before the MCAPI handles are closed. Normally, the automatic clean-up feature of the MCAPI will close the open handles for the programmer. Unfortunately, when debugging applications in the integrated development environment (IDE) of some programming environments, including Visual Basic and LabVIEW, the IDE keeps the MCAPI DLL locked in memory even after the application program has exited. Eventually you will run out of handles and a call to the function **MCOpen()** will return an error instead of a valid handle. By exiting from the IDE you allow MCAPI to perform its automatic clean up and make the handles available again for program use. Be sure you exit from any other MCAPI programs (e.g. Status, Pos, MCSpy, CWDemo, WinCtl, etc.) before you restart the IDE, or Windows will not unload the MCAPI DLL.

Always check the handle returned by **MCOpen()** for errors! Examples of proper error handling are provided in the Online Help for the **MCOpen()** function, as well as in the source code example programs included with the Motion Control API.