

TECHNICAL NOTE

July 11, 2002

SUBJECT: MPIII Communication Problem With Some Laptop Computers

PROBLEM: Certain laptop computers (notably DELL models) have exhibited a communication problem when connected to the MPIII PC Interface. This communication problem is indicated by an inability to “talk” with MPIII Tracers when the DATATRACE for Windows (DTW) program is started.

CAUSE: The cause of the problem is the default settings used for the Serial Port. If the MPIII PC Interface is connected to the laptop, when the computer is first turned on, the computer sets the RS232 port pins in an “unusual” state. In this state the computer causes the infrared LEDs of the Interface to be inappropriately turned on. This rapidly discharges the capacitor in the PC Interface circuit making communication impossible. When this occurs, it may take 5 minutes or more after the DTW program is started for the capacitor to recharge to allow communication with the MPIII Tracers.

When the DTW program is shut down, the port pins may return to their “bad” state which will continue to create problems in the future.

CURE: There are three courses of action for this problem: the first two “fixes” are “work-arounds”, while the third one fixes the underlying problem of the incorrect settings.

It should be noted that the third “fix” involves making changes to the computer’s registry entries. **This is a dangerous procedure that should only be attempted by someone with technical experience. Incorrect deletions or entries in the registry could make your computer stop working.**

PROCEDURE:

1. Connect the PC Interface to the laptop ONLY while the DTW program is running and disconnect the Interface BEFORE shutting the DTW program down.
2. Use a USB to RS232 adaptor. This assumes the laptop has an unused USB connector. Depending on the laptop configuration the USB port should be designated as either COMM 1 or COMM 2.

3. Make changes to the computer's registry. **Do these procedures only if you are extremely comfortable with editing your computer's registry file, otherwise refer this change to a qualified computer technician.** (This procedure was provided from the DellTalk.us.Dell.com web site.)
 - Click Start|Run, type REGEDIT, press OK.
 - Edit the following key:
HKEY_LOCAL_MACHINE\CurrentControlSet\Services\VXD\VCOMM
 - Change: "ENABLE POWER MANAGEMENT" from "0000 01 00 00 00" to "0000 00 00 00 00". The editor allows you to change each block of 00, not the block of 0000.

CAUTIONS/NOTES:

Please note that editing the registry is not supported by Mesa Laboratories (or Dell). Be exceedingly careful when modifying registry entries as deletion or removal of an incorrect key may necessitate reloading the Operating System.