Getting Started

In this section, we will cover the basic information needed to set up proper communication with your G.C. or Data System hardware. The Windows version of PeakSimple requires the use of the serial port interface that is built into most 8610-C and Model 310 gas chromatographs. This data acquisition and interface unit permits you to acquire up to four separate channels of data simultaneously without the need for additional hardware or acquisition boards.

The earlier IBM PC-compatible ISA expansion bus data acquisition cards (AD100 and AD110) used by PeakSimple II and PeakSimple III data systems are not supported by PeakSimple for Windows. However, all chromatograms acquired using DOS-based PeakSimple II and PeakSimple III continue to be compatible with this Windows version and may be imported as native files.

Identifying Your COM Port

Before attempting to establish communication between your G.C. and the serial data system interface, be sure to check that all the necessary electrical connections have been made, including the connection of any optional remote start cables.

Select an unused serial port on your PC and identify the COM port number assigned to it. It is important that this port NOT SHARE AN INTERRUPT with any other device used in your computer. Typical PCs are equipped with two COM (or serial) ports. COM 1 is typically used by the mouse or some other pointing device. COM 2 may be open (unused) or shared with another device, such as a fax modem, scanner or other peripheral. Determine which COM port you will use and remove any other device that may be in contention with that specific COM port number. Refer to your PC’s hardware manual for instructions on changing COM port addresses and device drivers.

Most COM ports are provided with DB-9 connectors (nine pins configured in two rows - 5 pins over 4 pins - within a D-shaped plug or chassis connector). If your PC has a DB-25 serial port (25-pin connector), you will require a DB-25 to DB-9 adapter.
Establishing Communication

The cable provided with your G.C. or data system has a male DB-9 plug on one end and a female DB-9 connector on the other end. Plug one end of this cable into your available computer COM port and plug the other end into the G.C. or Data System DB-9 connector and tighten the retaining screws.

Plug your G.C. or Data System into an approved GFCI protected outlet and turn the power switch to the ‘ON’ position. Start PeakSimple by double-clicking on the PeakSimple icon (or by clicking ‘Start’, ‘Programs’, ‘PeakSimple’ in Windows 95). When PeakSimple loads, it will automatically attempt communication with your G.C. or Data System using COM 1 as the default COM port.

If the serial port interface does not respond, you will see the following error messages appear on the screen: “Can’t wake- check power and cable” followed by the message “Acquisition system is not functioning”.

These messages indicate that your computer cannot communicate with your G.C. or Data System through the default COM port, COM 1. You will need to set up the correct COM port in PeakSimple. To do this, click on the EDIT pull-down menu and select OVERALL. Change the PORT NUMBER to the COM port into which you chose to plug your interface cable. Click O.K.

If at anytime you wish to force PeakSimple to reinitialize communication, click on the ACQUISITION pull-down menu and select RE-INITIALIZE. If the COM port information is correct and communication errors still appear when the computer attempts to activate the serial port interface, check the serial port connections at both ends of the interface cable for loose connections. Also, visually check the serial cable for nicks or cuts.

It is important to understand that in order for PeakSimple to communicate with your G.C. or Data System, at least ONE channel must be ACTIVE. To determine which channels are active, click on the EDIT pull-down menu and select CHANNELS. A channel is active if the box next to ACTIVE is marked with a checkmark. The EDIT-CHANNELS menu is described in greater detail in the EDIT section in this manual.