

Brayden Automation Corporation PCL-1 Users Guide

Abstract: This document describes the procedure necessary for a user to communicate with USB-equipped BAC devices using a command-line host communications program running on a Windows platform.

Equipment required: The user must have access to a Windows PC with at least one USB 2.0 port, a USB cable with an A-style plug at one end, and a B-style plug at the other end. The BAC device must be powered normally, prior to any attempt to communicate. The host PC must have the BAC host executable installed, and accessible via a command-prompt window.

Preparation: After the USB cable is connected to both the PC and the BAC device, the user will need to determine the COM port that has been assigned. In Windows 7, this is accomplished in the following manner:

1. Click the Start icon, and select 'Control Panel'
2. In the Control Panel window, select 'Device Manager'
3. In the Device Manager window, expand the 'Ports' category
4. Note the entry similar to: USB Serial Port (COM9)

In this example, COM9 is the assigned serial port for this USB connection. It won't always be a '9' though, and if it is a 2-digit number, a special entry method is required, as shown below.

Execution: To begin running the host program, the user must type the following:

“pcl_host COMn” followed by the Enter key

where 'n' is the serial port assignment determined during the preparation step. If 'n' is a 2-digit number, for example 12, then the user must use this method instead:

“pcl_host \\.\COM12” followed by the Enter key

The '\\.\' (back-slash back-slash dot back-slash) is a windows convention that allows the use of 2-digit port numbers.

The user should then see the prompt: 'Enter user command:'

If the user enters a question mark '?' (quotes only used here for clarity) followed by the Enter key, the program will list the available commands for the particular BAC device for which it is designed. Commands are a single letter, where an attempt has been made to link the letter with the purpose of the command. For example, an 'M' command would be used to set the Mode a device. If a command requires additional input, then the host program will prompt the user for the necessary data. Table 1 lists the commands for the PCL-1 Pulse Current Loop product.

The command letter is case insensitive – either upper or lower-case will work the same.

A	set Average interval (1-6)
C	read Code revision level
D	set Defaults
I	get product ID - a 4-letter product code
M	set output Mode (1=Instant, 2=Average)
R	get Readbacks
S	set full Scale (1-8)
T	Test mode toggle: ramps from 4mA to 20mA
V	set pulse Value (1-65535)
X	eXit program

Table 1. PCL-1 host commands