



Using the Communications Terminal Program to Communicate with Quantum Composer Pulse Generators

The Communications Terminal program is a convenient way to remotely interface with Quantum Composers pulse generators and is provided with every pulse generator.

Installation

To install the Communications Terminal program run the "Serial Comm Terminal Setup" executable located on the cd rom under Software\Comm Terminal. The program will be installed on to your hard drive under the program files (x86) directory (\Program Files (x86)\Quantum Composers\Comm Terminal) in Windows 7 and the standard program files directory for all other versions of Windows.

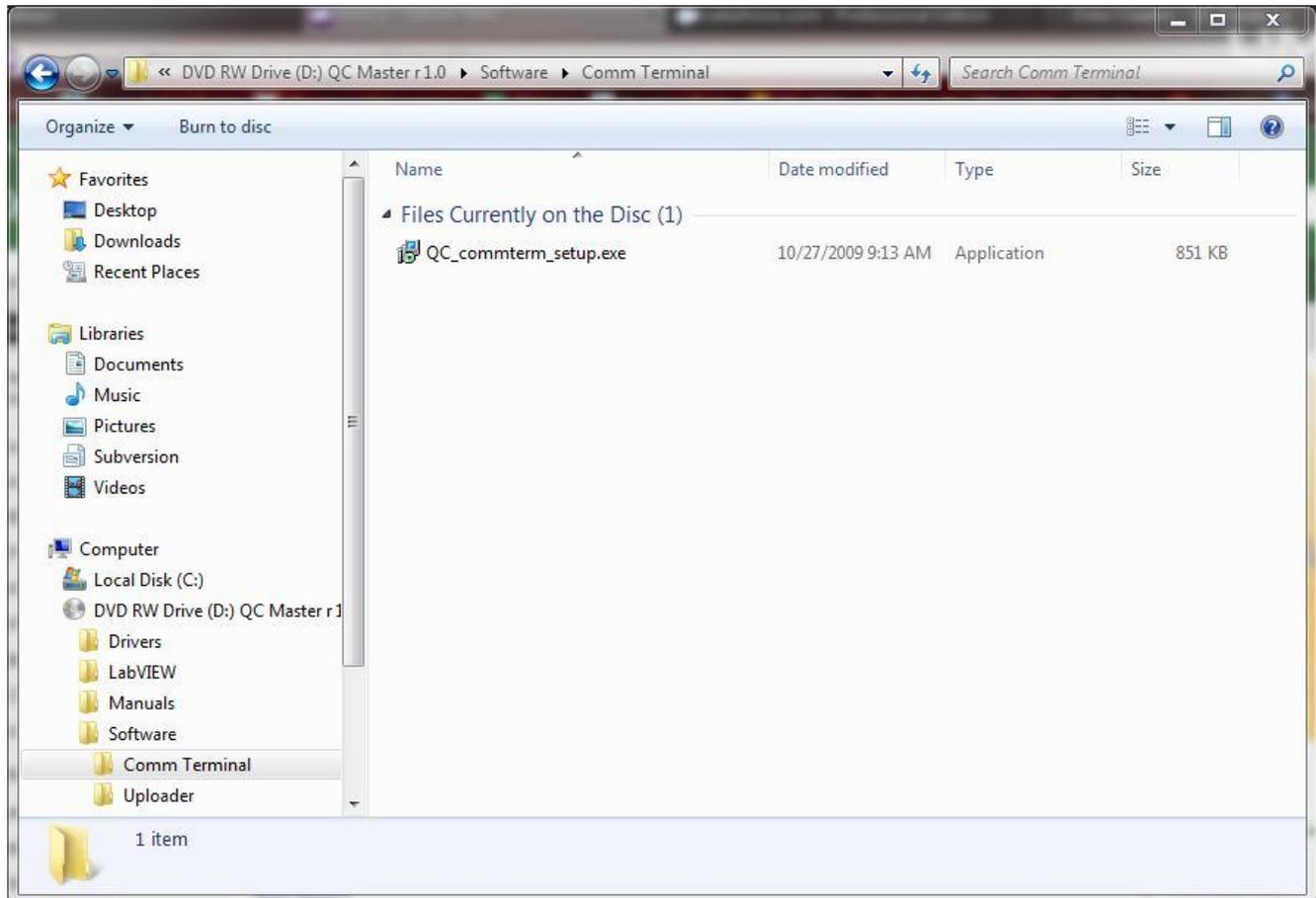


Figure 1

Software Configuration

Upon initialization of the software for the first time the program will state that a comm port needs to be selected. A communication port must be selected before the communication properties can be configured. In order to use the Communications Terminal program to communicate with Quantum Composers' pulse generators the communication properties need to be configured. The communication properties can be accessed under the tools menu button.

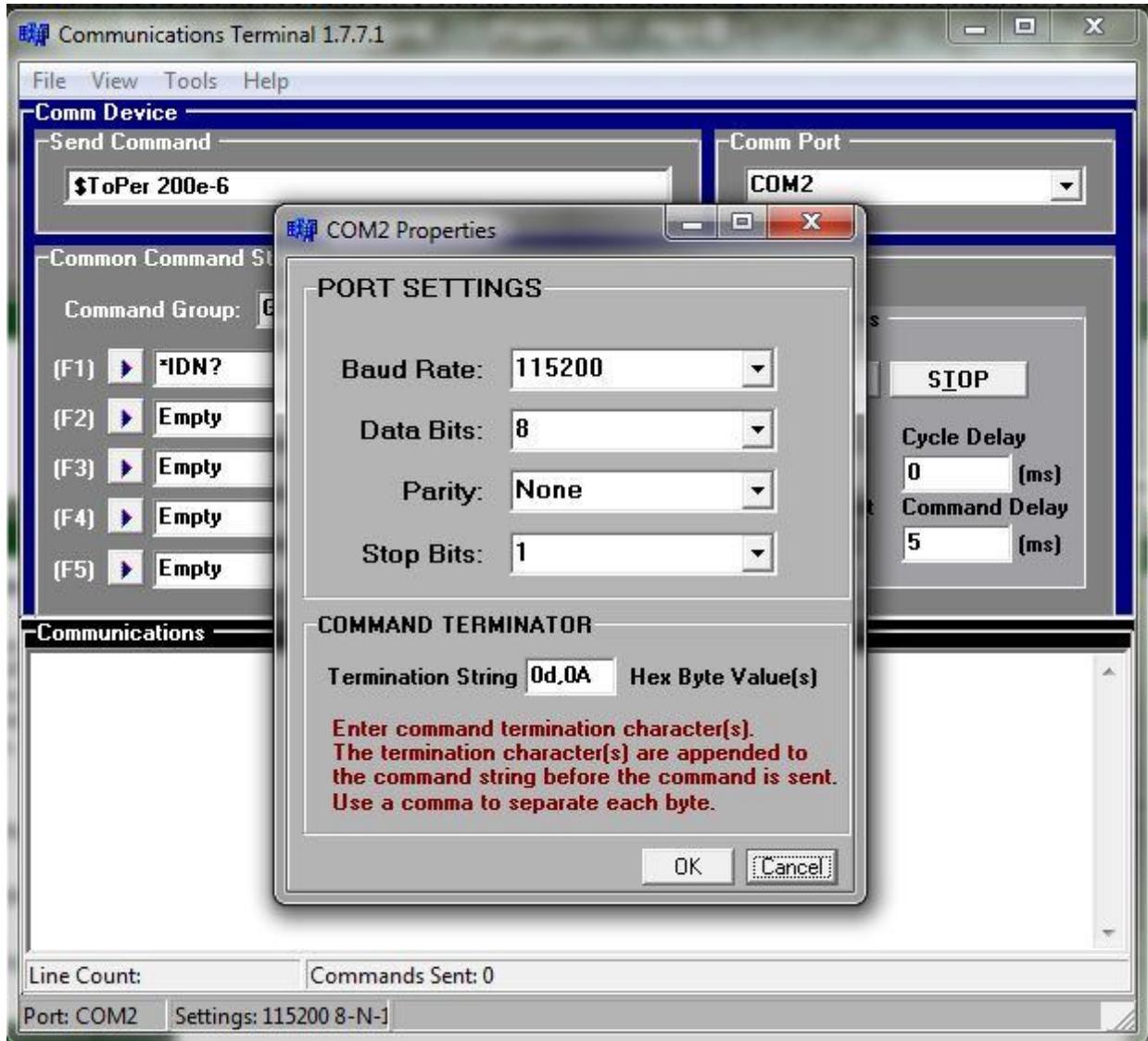


Figure 2

The baud rate for the software needs to be set to match the Baud rate settings of the unit. The software default Baud rate is set to 115200. The unit baud rate settings can be accessed by pressing the function button then the system button on the unit itself. The number of data bits needs to be set to 8, the parity set to none, and the number of stop bits set to 1. The command terminators should be set to 0D,0A to ensure proper line termination.

Communication

Communicating with the pulse generator can be achieved in one of three ways; single commands sent manually, up to 5 commands sent in a cycle (or number of cycles), or by loading a command file.

Single commands can be sent manually by typing the command into the send command field and pressing enter. The sent command and the unit response we appear in the communications box.

Up to 5 commands can also be sent to the unit sequentially by using the common command strings portion of the program. Type up to five commands (in F1 through F5) in the order in which the commands are to be sent to the unit. Select the cycle box next to the commands that are being sent to the unit and press the start button under Cycle Controls. The commands will be sent to the unit one time in the order they were placed in the command string. The number of cycles can be changed in the #Cycles box.

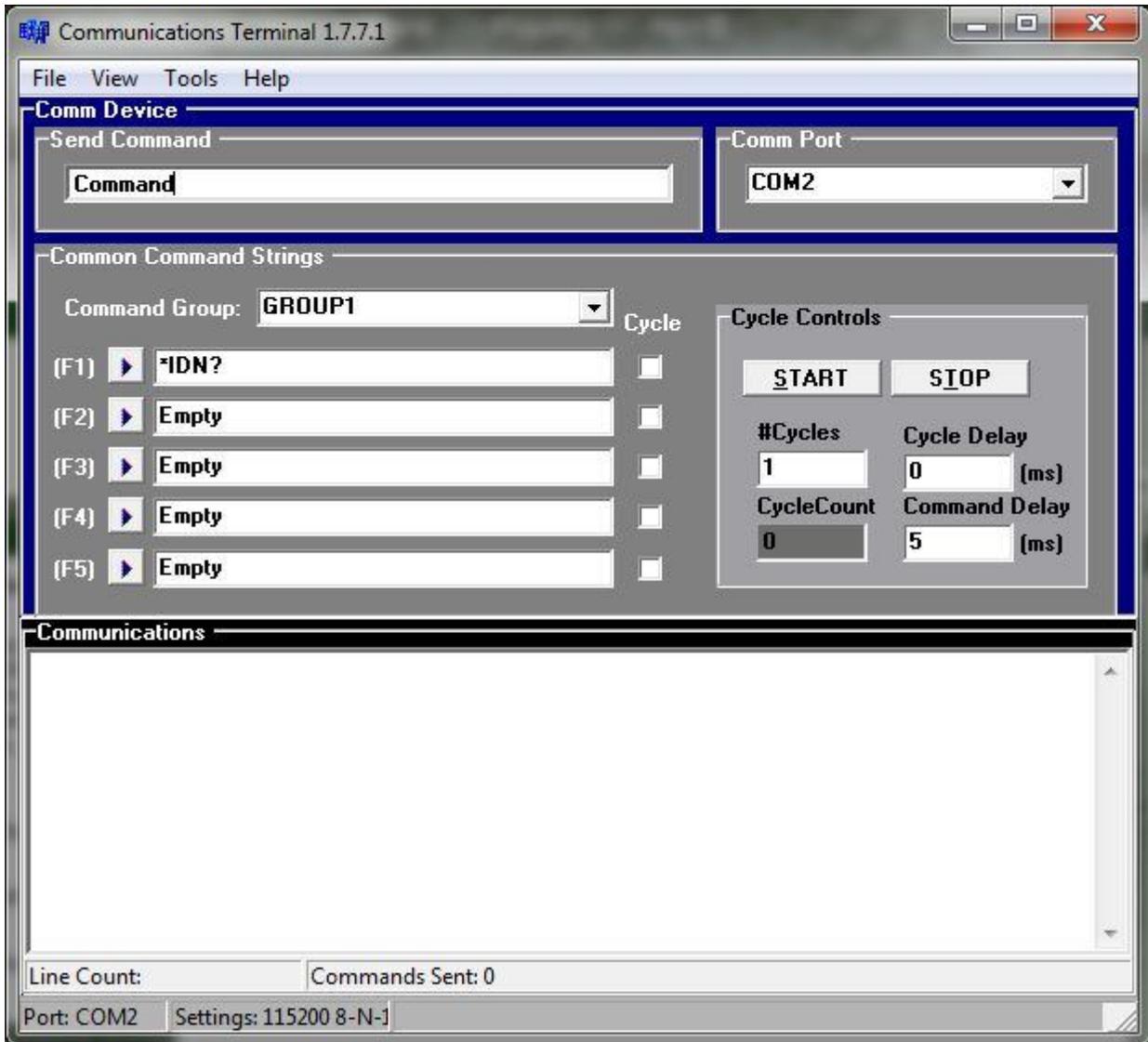


Figure 3

Large numbers of commands can be sent sequentially by using the command file function. Command files are lists of commands saved in a text file. The files are loaded by selecting file, open command input file.

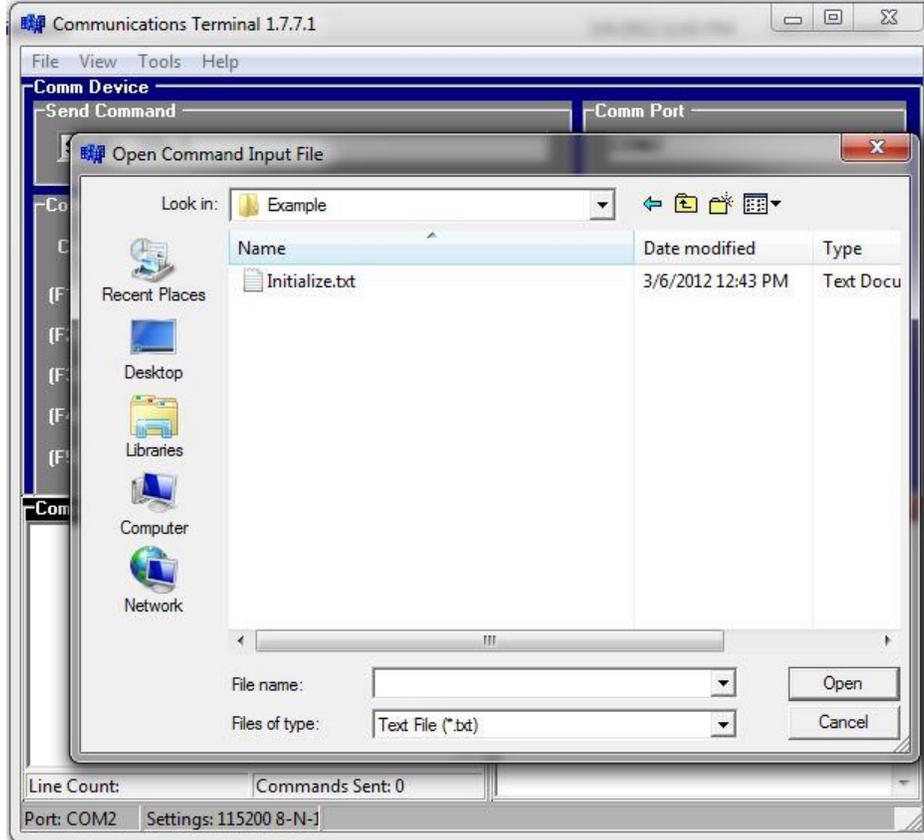


Figure 4

The command file will open in the lower right hand corner of the program and show the command list (Figure 5).

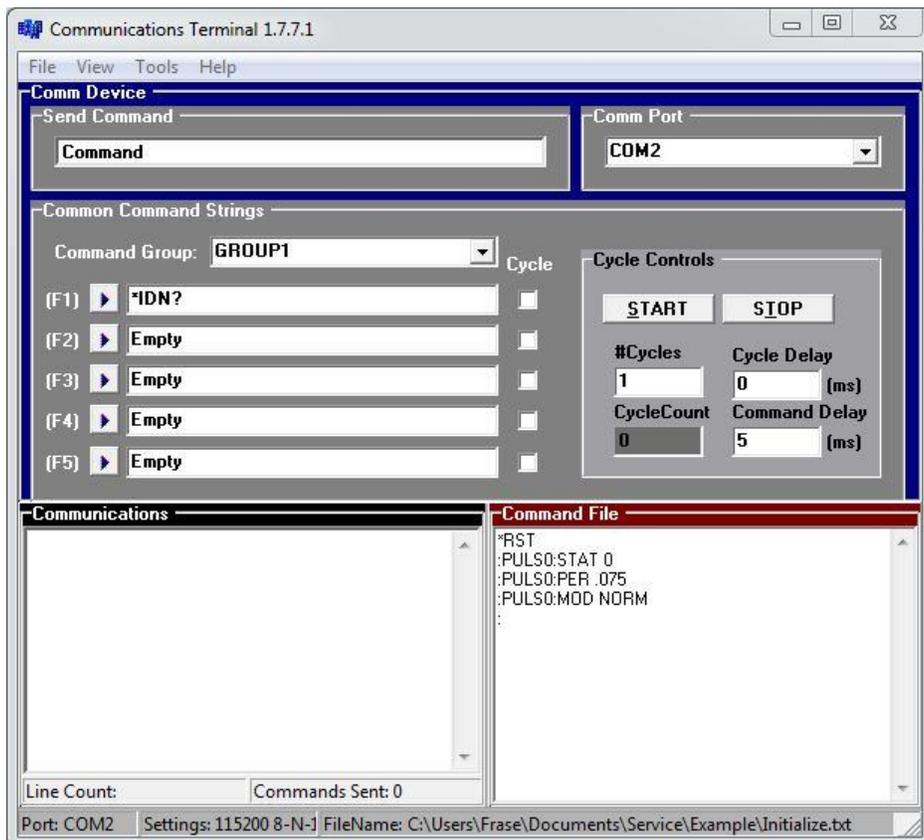


Figure 5

Press the start button under the cycle controls to send the commands to the instrument. The commands and responses will appear in the lower left hand box (Figure 6). The commands will appear in black text and the responses will appear in green text. To send the command string to the unit continually change the number of cycles to 0.

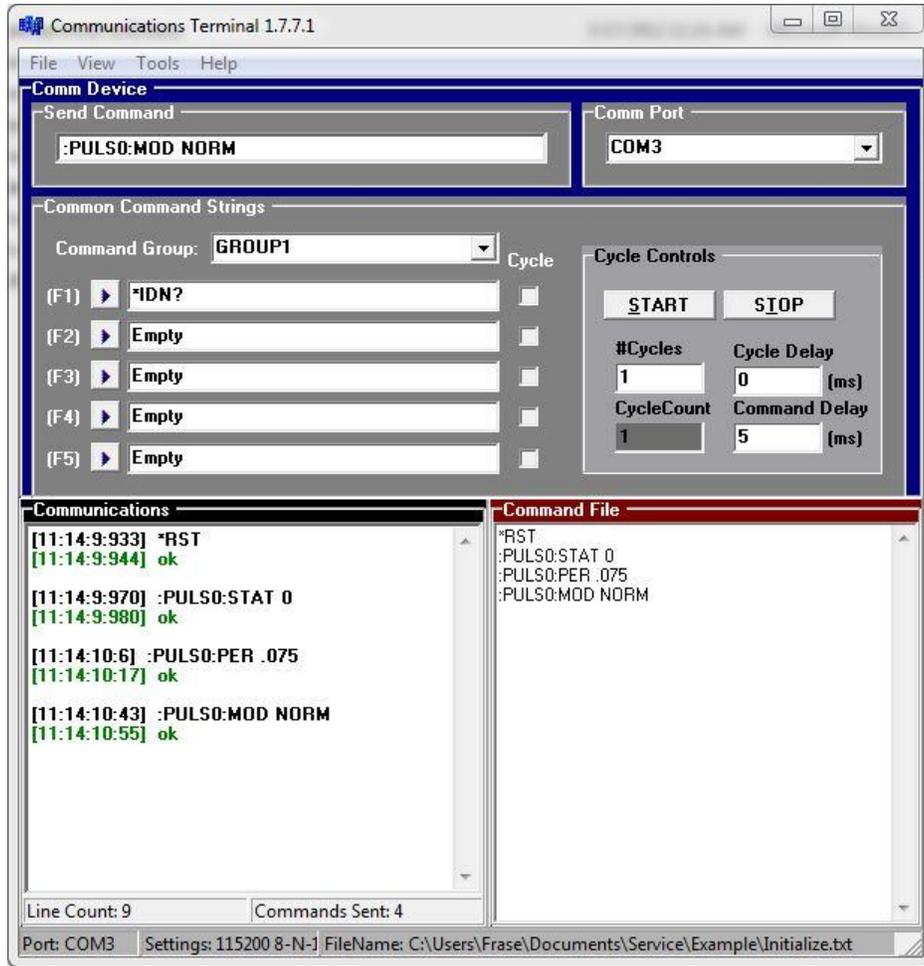


Figure 6

The Communications Terminal software works with all communication ports on all standard Quantum Composer's pulse generators. The 9200 Sapphire series pulse generator can be controlled by the Communications Terminal software using the 9200 commands even though that model comes with its own unique graphical user interface (GUI) software package.

The Communications Terminal software is one way Quantum Composers has made controlling/communicating with our pulse generators remotely quicker and easier for users. If there are any questions about how any of our units operate or if there are special requirements for your project, please contact support@quantumcomposers.com and view our website at www.Quantumcomposers.com for our latest product offerings.