User Interface

Version: 1.0.0

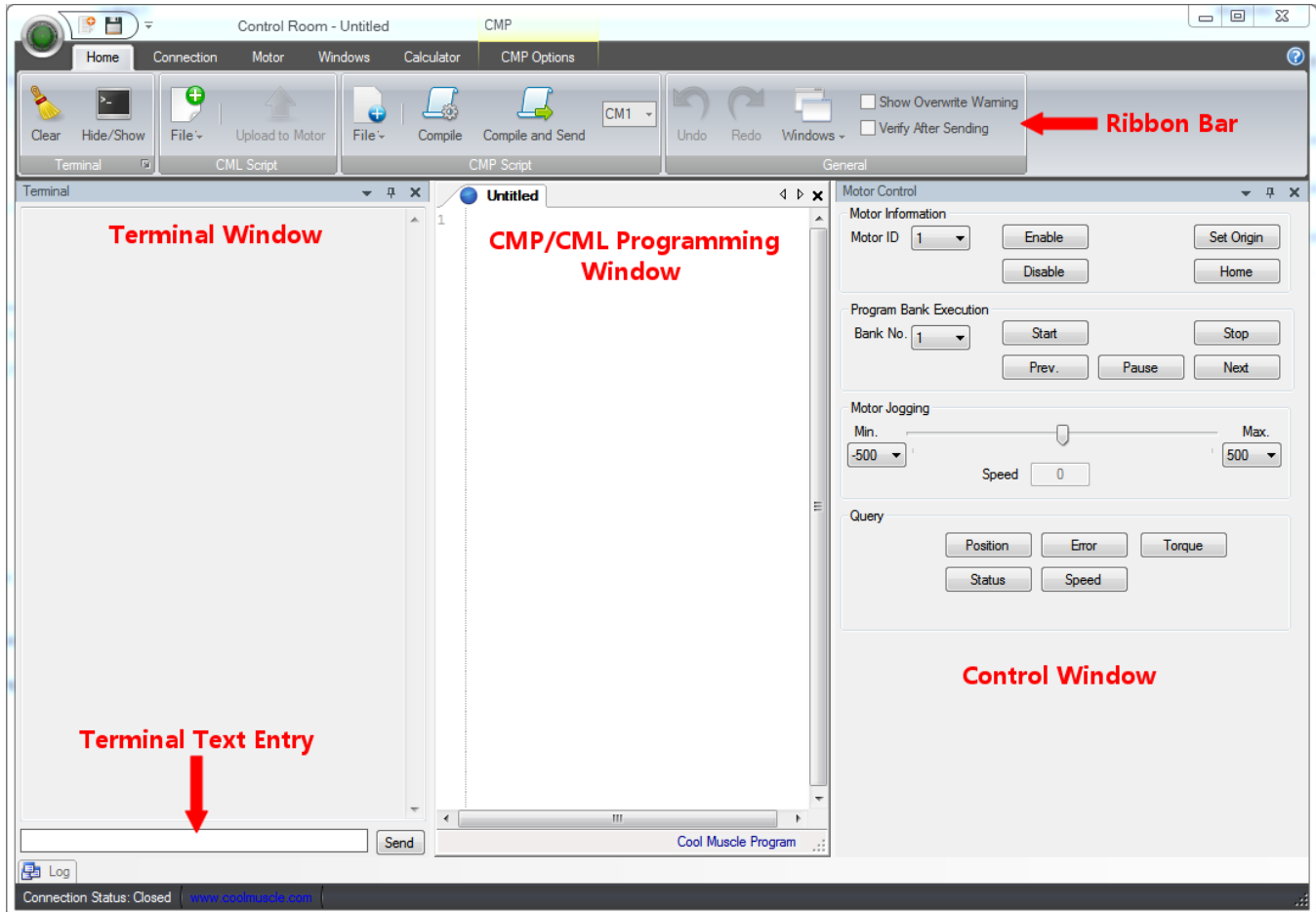The Control Room interface is made up of only a few elements.

Fig. 15 - Control Room User Interface

Ribbon Bar

The Ribbon bar along the top of the program is similar to most other Windows software in that this is where you will find the shortcuts to the majority of the functions of the program. This is where most of the important elements will be found. There are 6 different ribbons available from the tabs along the top.

Home
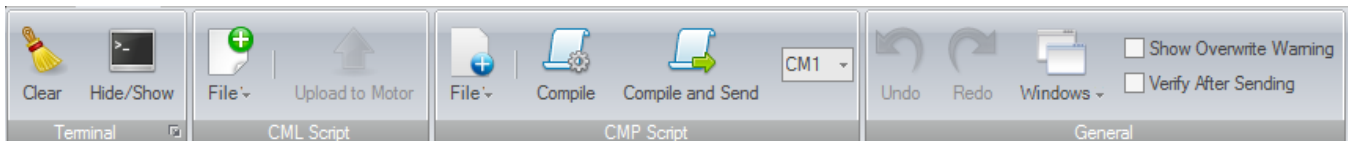
The Home ribbon contains most of the basic functions you will need. The first two buttons allow you to clear any text from the terminal window, or show /hide the terminal window. The next two sections allow you to create a new file or upload a file to a motor, depending on whether you are editing a CMP file or a CML file. For more information on this, see CML vs. CMP. The final section are some general options, such as undo and redo, as well as the window button which allows you to open or close windows individually. There are also two selection boxes: the top one allows you to select to show a warning when overwriting a program on a motor, as well as an option to have the software verify a program after it is sent to the motor to ensure that everything was received correctly.

Connection
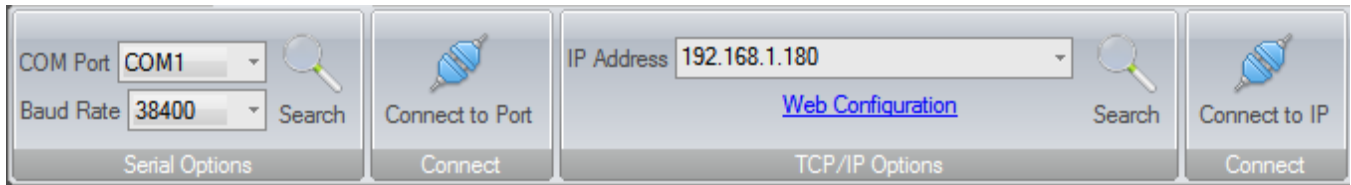
The connection Ribbon will be the first ribbon you see when starting Control Room. This ribbon contains the options for connecting to a motor. There are two methods for connecting to a motor: via serial port, or via TCP/IP. The first option allows you to select a COM port and baud rate, and connect to port. If you do not know the COM port or baud rate, you can also press the search button and the software will scan the available COM ports for a cool muscle motor.

In order to connect to a motor via TCP/IP using an IPX module, you can enter the IP address if it is known and press connect to IP. If the IP address is dynamic or unknown, you can also search for the IP as long as it is on the same network as the computer. Selecting web configuration will allow you access to the advanced configuration menu of the IPX module. You should not need to edit these options by default.
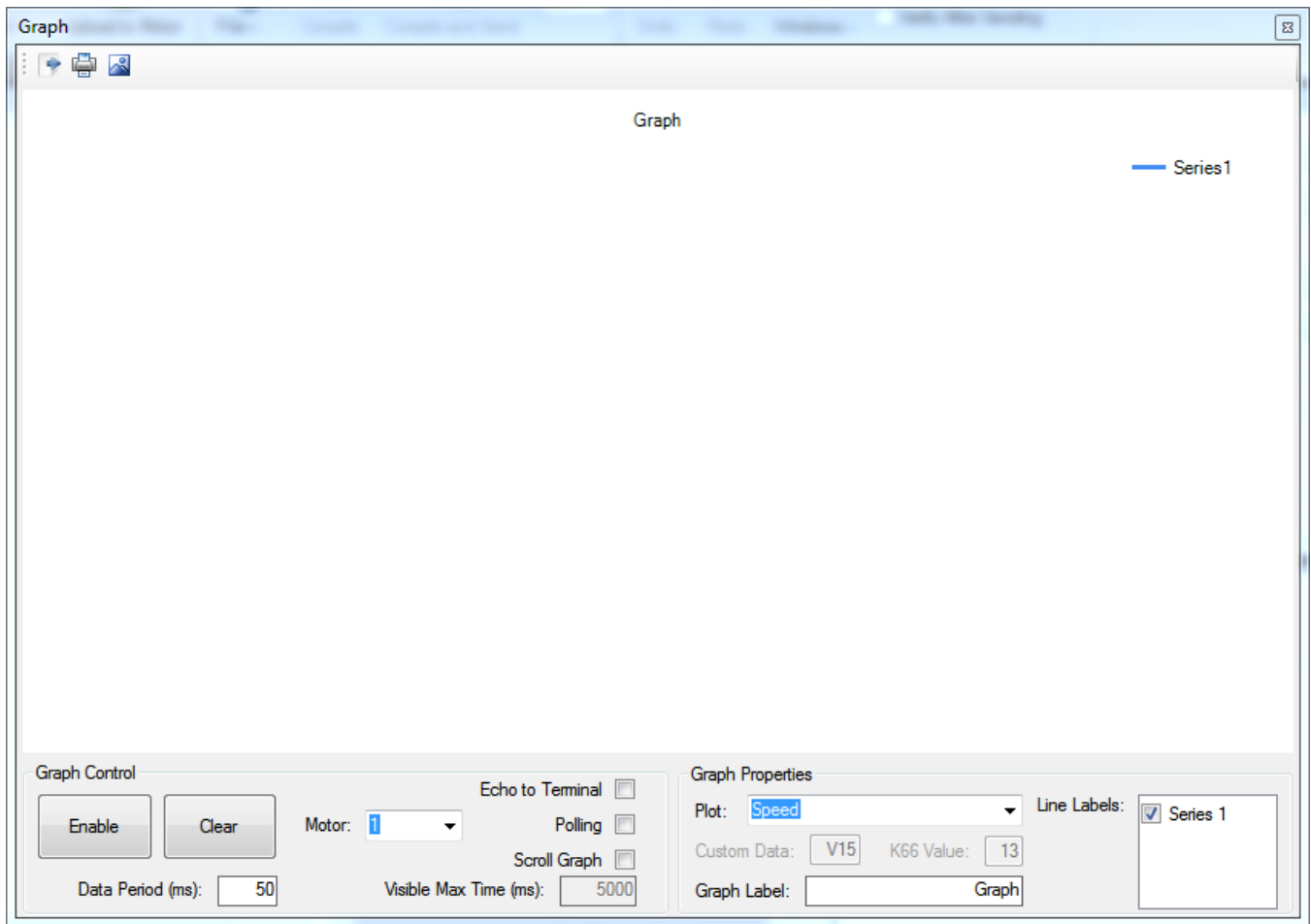
Windows
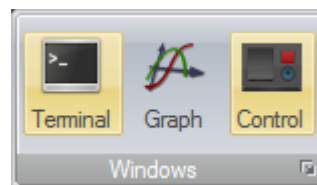
The windows ribbon allows you to turn on or off the various windows.

Terminal

The terminal window is the main path of communication for messages sent from and to the motor. Any information transmitted from the motor will appear in the terminal window. You can also use the terminal text entry to send single line commands to the motor, one at a time. If you want to query anything from the motor, you can send that command here and the response from the motor will be displayed in the above terminal window.

Graph

The graph window allows you to get real time information from the motor. By selecting speed, position, or torque from the plot menu and selecting enable, the software will graph those values from the motor. There is also an option to graph a custom value, such as a variable in the motor which you want feedback on. You can also graph other ranges of values by selecting the K66 option. The time between graph points in milliseconds can be adjusted by changing the value in the data period field. 10ms is the lowest recommended value.

In the top left corner of the graph window, you can also outputs the graph as an image, print the graph, or output the graph as a set of comma separated values for use in a spreadsheet program.

Control
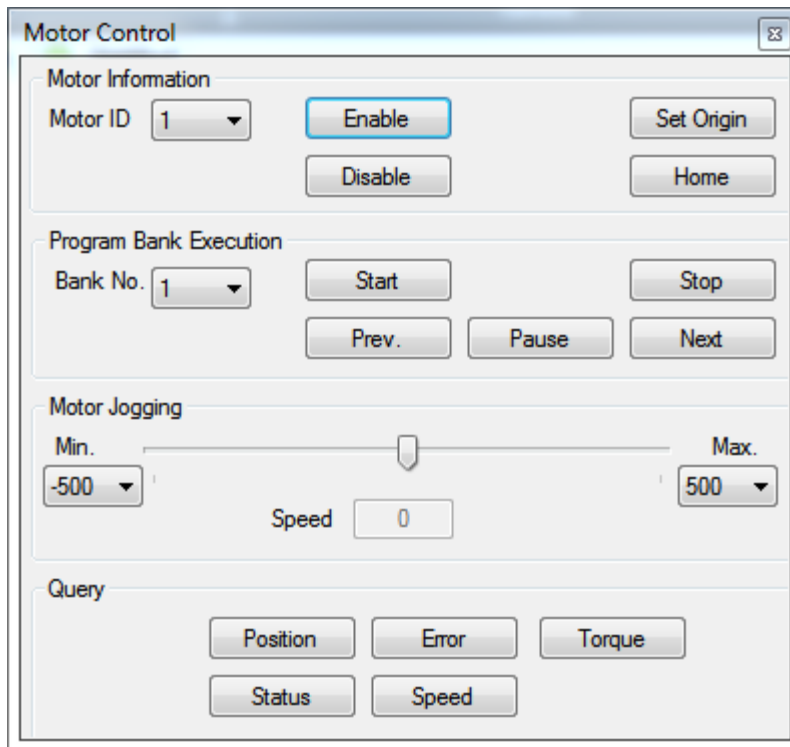
The control window presents a set of commonly used simple controls and queries as easy to use buttons. You can perform functions such as enable /disable the motor, as well as setting the origin, homing, stepping through a program bank or jogging the motor in either direction with the an easy to use interface. The query section also allows you to check the current position, speed, torque, position error, and status. The responses from the queries will appear in the terminal window.

CMP/CML

The CMP/CML window is window that you will probably spend the most time in. This is the area in which you will write any programs to be downloaded to a motor. The text size in the window can be changed by holding in the CTRL key and moving the mouse wheel up or down. In the case of a CMP window, this will also allow you to write comments, named variables and other advanced functions of a CMP program. For more details, see *CML vs. CMP*.
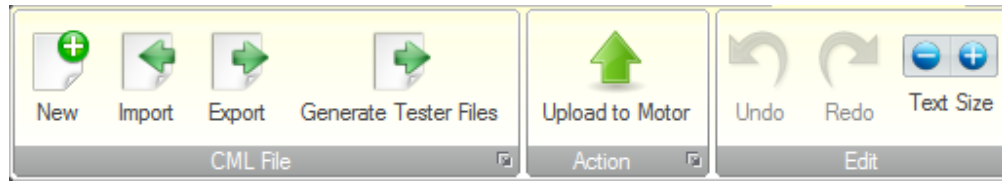
Calculator
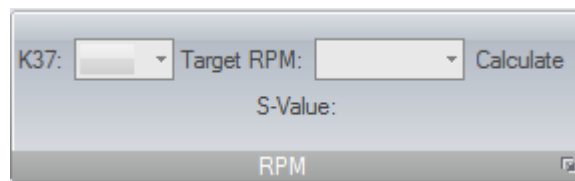
The calculator ribbon is a tool to help you calculate a desired speed value. First select the value of K37 you are using and then enter the speed value you are looking to achieve in RPM. When you press calculate, the software will output the S parameter value that you should use to achieve this.

CMP/CML Options
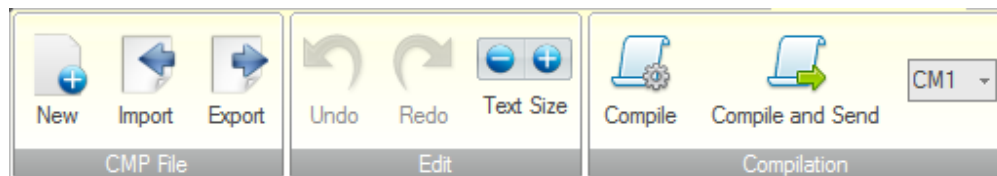
A final ribbon tab will appear if you are editing a CMP or CML file depending on which you are using. There are different options depending on which type of file you are editing. Each ribbon will allow you to import or export a file or create a new file. Undo, redo, and the text size options are also available for each type of file. The CMP ribbon will allow you to compile the file for a CM1 or CM2 motor as well as send it to the connected motor. The CML ribbon will allow you to upload the file to a connected motor, but it will also allow you to generate test files if you are using a CM2 motor diagnostic tool.