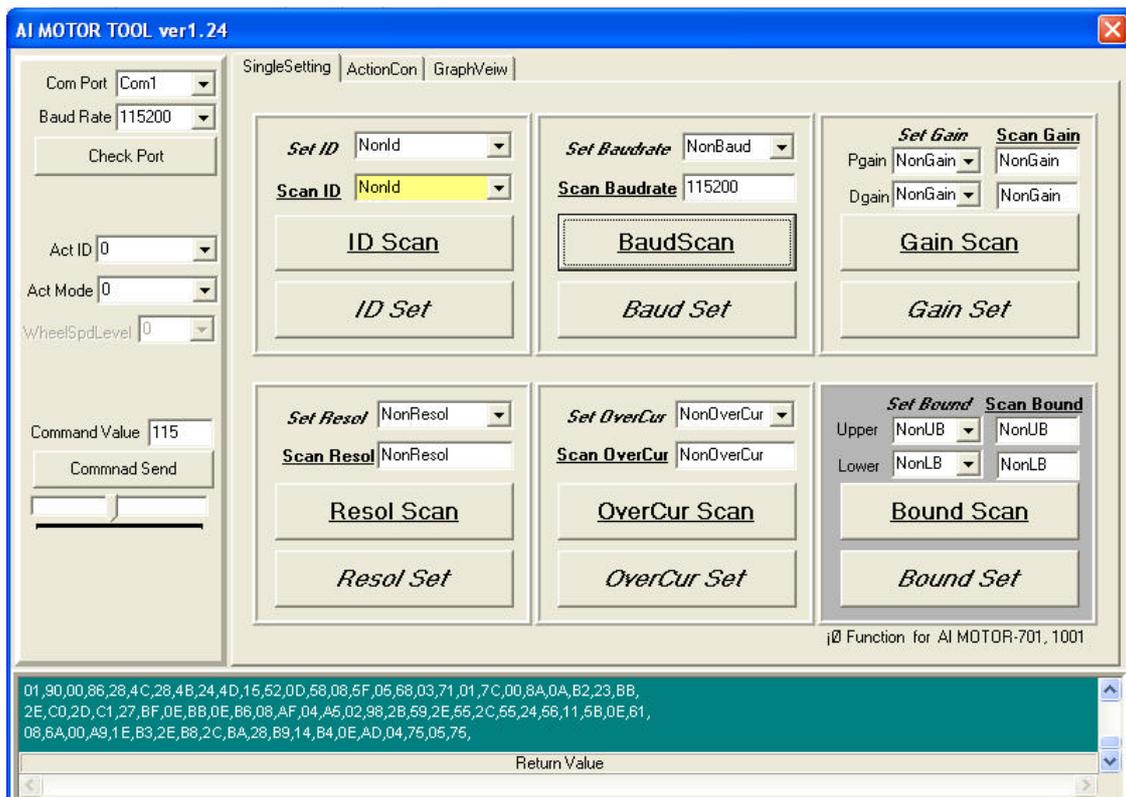




AI Motor Tool Getting Started Guide



1. Introduction

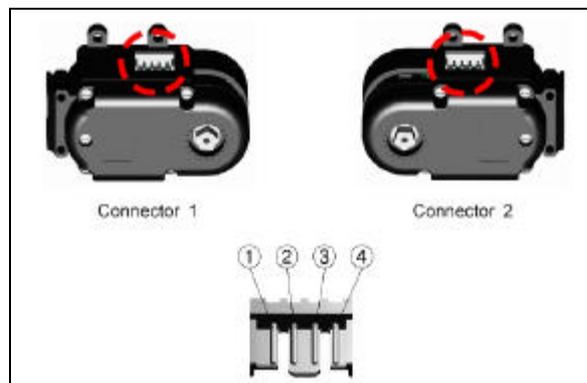
The AI Motor Tool Getting Started Guide is an instruction brief designed to fast track the learning curve for the AI Series Motors through the use of the AI Motor Tool. It should be used in conjunction with the relevant AI Motor Users Manual.

The latest version of the AI Motor Tool software can be found at our web site, www.tribotix.com.

2. Getting Started

2.1 The Hardware

- Fasten the relevant AI Motor to the evaluation board (MGR-BPT232) as designated by the printed circuit board footprint.
- Take one end of the interface connector cable and plug it into one of the available Evaluation Board plugs.
- As can be seen in the diagram below, the connectors on the AI module are located on either side of the module. Take the other end of the interface connector cable and plug it into one side of the AI module.



The pin out for these connectors is as follows:

Pin	Function
1	+ve
2	Tx of AI Motor
3	Rx of AI Motor
4	0V

- Connect the serial cable between the PC and to the keyed plug on the Evaluation Board.
- Connect the DC supply.
- Turn on SW1 and ensure that the Red +5V LED is on.

2.2 The Software

- Start the AI Motor Tool Software
- Select the appropriate serial port from the Main Control Panel (refer Figure 1). The default is Com1 at 115200 baud.
- Conduct a Baud Scan to initialize communication (refer Figure 2).

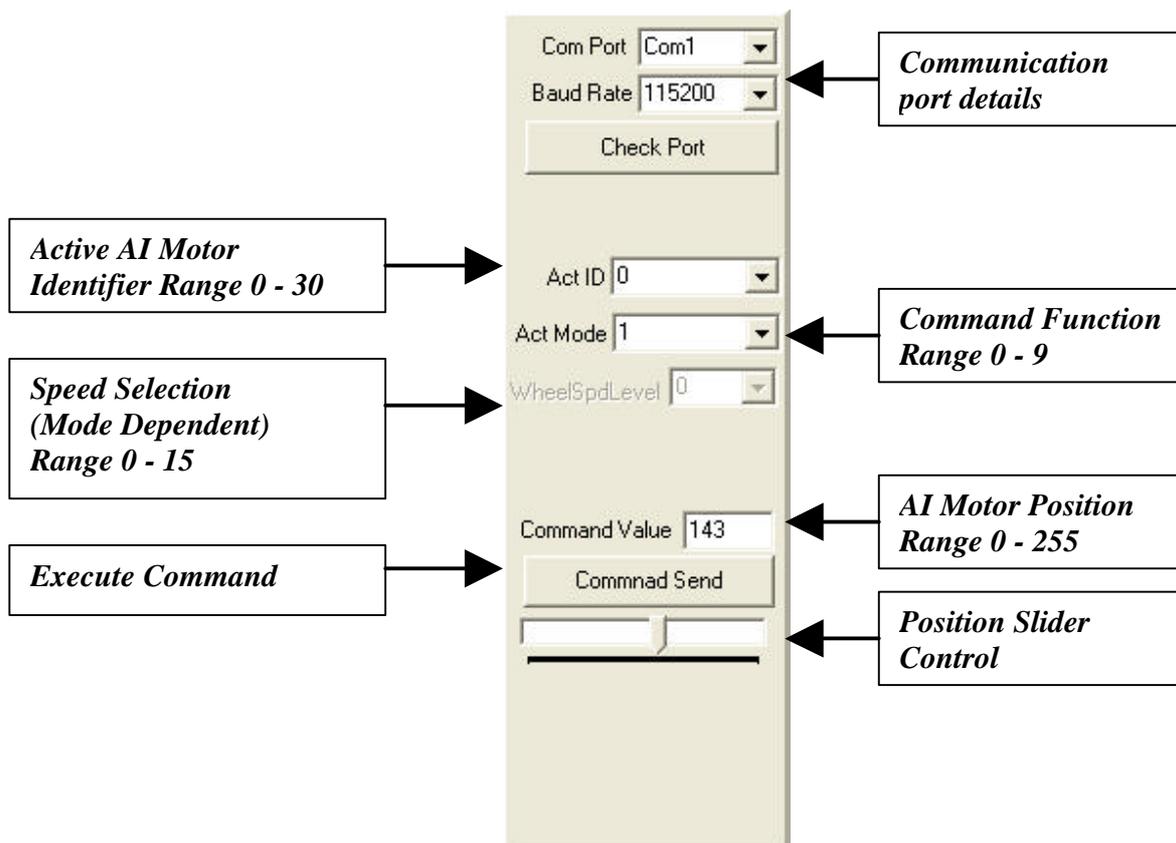


Figure 1 – Main Control Panel

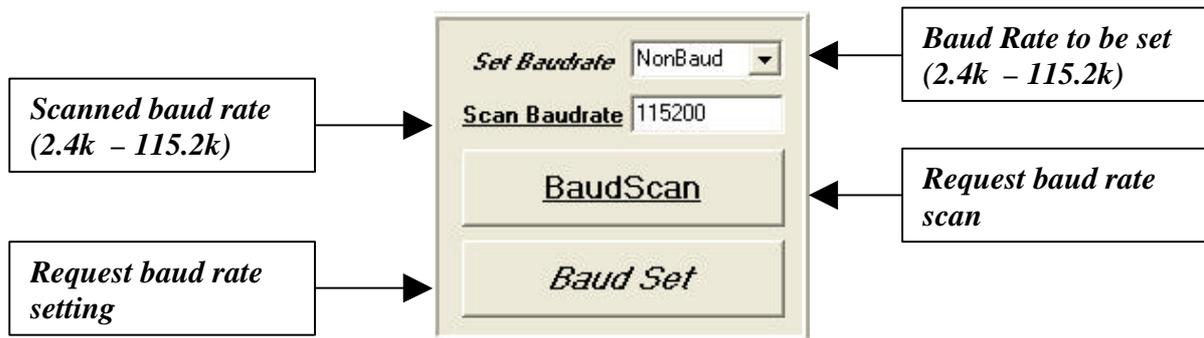


Figure 2 – Baud Scan/Set Function

2.3 Fundamental Testing

- Ensure that the ACT ID is 0 (Figure 1).
- Ensure that the ACT MODE is 1 (Figure 1)
- Using the position slider, move it back and forth. The AI Motor will rotate to the angle determined by the slider position.
- Now that fundamental motion has been established, the user can now experiment with alternative command functions and speed selections.

2.4 Adding Additional AI Motors

- Switch off the 5V (SW1).
- Remove the interface connector from the Evaluation board to allow another AI Motor to be configured.
- Mechanically connect another AI Motor to the primary motor using one of the coupling pieces (A selection is provided with each AI Motor kit).
- Connect this AI Motor with an interface connector as described in section 2.1.
- Switch on the 5V
- Conduct a Baud Scan
- Conduct an ID Scan (Refer Figure 3).
- Using the drop box of the ID Set Function, select ID 1 and conduct an ID Set.

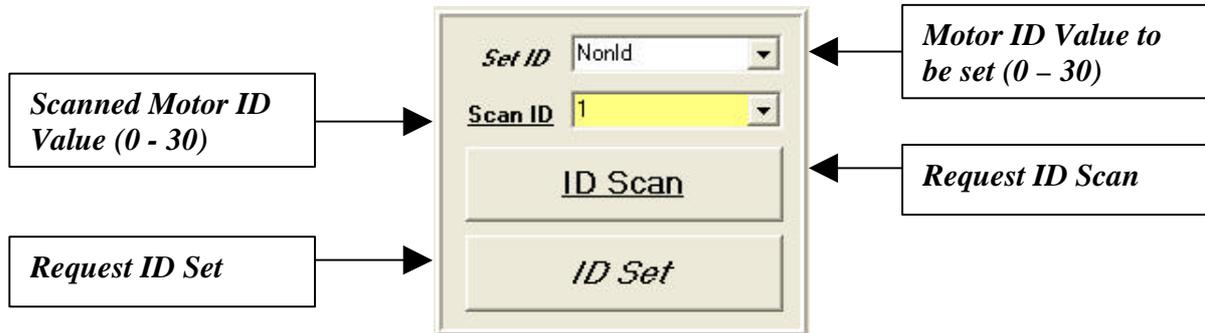


Figure 3 - ID Scan/Set Function

2.5 Action Control Panel

- Select the ActionCon Panel (Refer Figure 4)

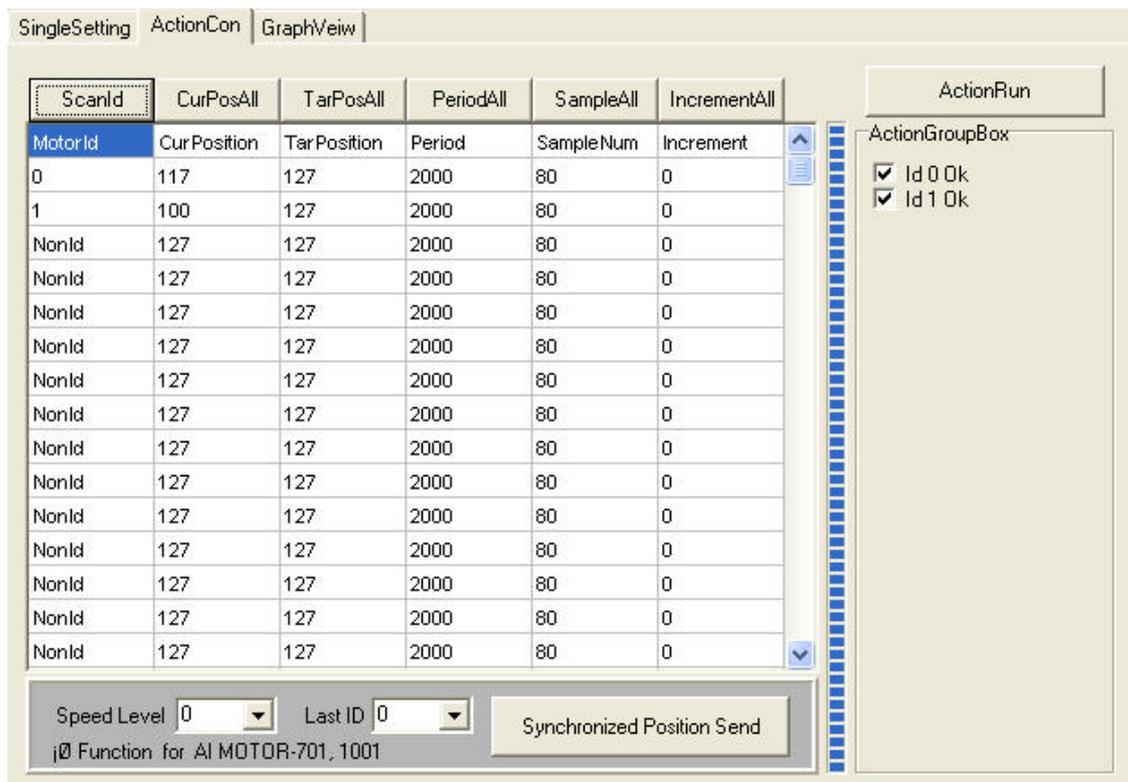


Figure 4 – Action Control Panel

- Select the ScanID Tab.
- The software will scan the AIMotor Network and list all the motors connected and their parameters.
- Change the “TarPosition” (Targeted Position) to an alternative angular value for each of the motors.
- Select the ActionRun tab and the motors will rotate to their new locations.

2.6 Graphical Function Panel

- Select the GraphView Panel (Refer Figure 5).

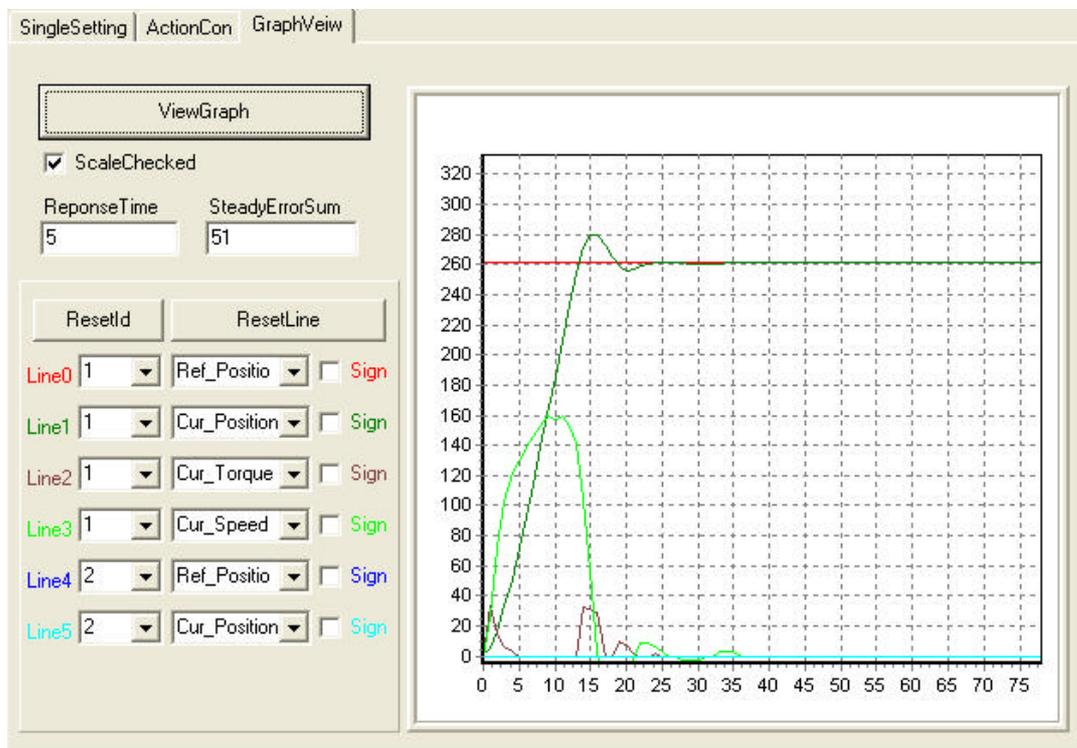


Figure 5 – Graphical Function

- Select the Motor ID and function to graph from the appropriate drop down boxes.
- Return to the Action Control Panel and change the TarPosition of the AI Motor to be graphed.
- Select the ActionRun tab to execute the position change request.
- Return to the Graphical Function Panel
- Select the ViewGraph button and observe the desired plots.