



OBD-II ECU Simulator Configuration Utility

This utility allows the user to completely configure the OBD-II ECU simulator and save the configuration. It also provides response hosting of the OBD-II modes. Once a configuration is set, it can be saved and recalled at a later time to re-load the OBD-II ECU simulator. This allows the OBD-II ECU Simulator configuration to be changed easily and quickly.

The program begins by initializing the Com Port and testing for communication with the ECU Simulator. The Com Port must be selected manually using the 'Comm' menu. Once communications with the ECU Simulator is achieved, the program requests information through system commands to establish functionality. Com ports 1 – 8 are available for selection. Once the ECU Simulator is found, its current configuration is read and displayed.

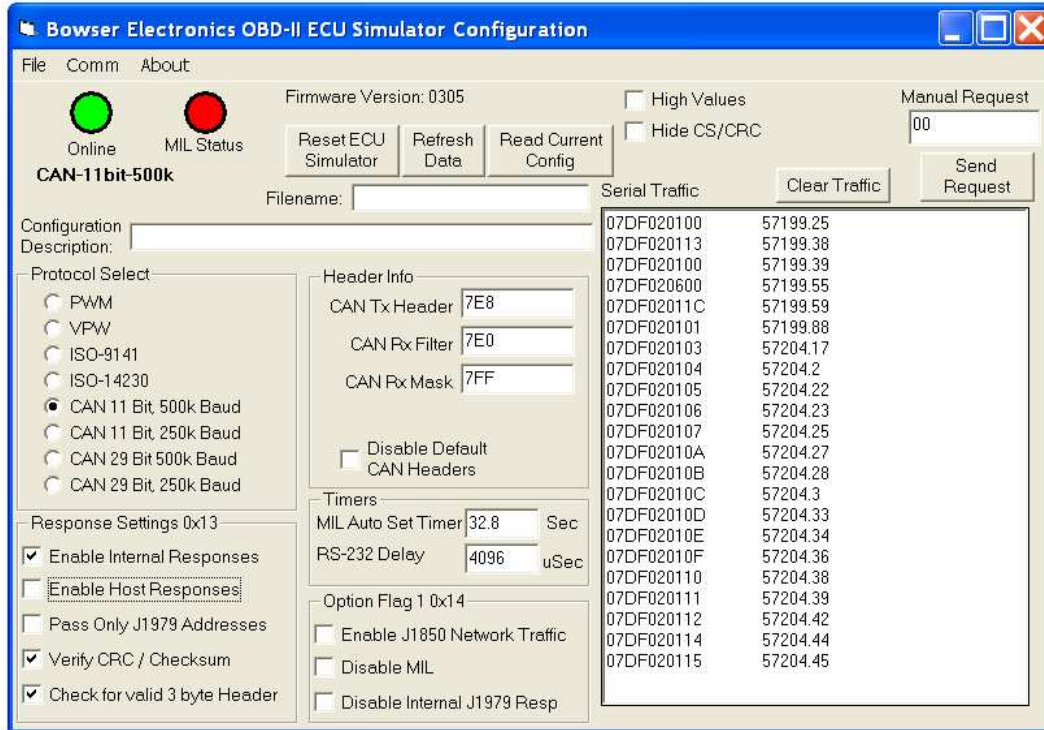
Changes can be made to the configuration by clicking the appropriate boxes. Descriptions of the configuration information are given in the OBD-II ECU Simulator Data Sheet. A description for the configuration can be typed in the Configuration Description box and that description will be saved with the rest of the configuration info. Once a configuration is saved or loaded, the filename will appear in the Filename box. If any settings are changed, the filename will be blank. To save or load a configuration, use the File – Save Current Configuration or File – Load Configuration to ECU dialogs.

The ECU Simulator can be manually configured or queried via the Manual Request. Only system commands, as described in the OBD-II ECU Simulator Data Sheet, are allowed as requests and they can be entered in the 'Manual Request' box at the top of the screen. Enter requests in two character HEX format only (i.e. 131C for command 0x13 value 0x1C). Once the request is entered, click 'Send Request' to transmit your message. The request and any replies will be displayed in the 'Serial Traffic' box.

The 'Serial Traffic' box is open to editing so you can type notes as you go, if needed. To clear the 'Response' box, click 'Clear Traffic'. Use the 'File – Save Serial Traffic' menu to save the Serial Traffic box as text file.

After the OBD-II ECU Simulator is configured, there are two operating modes for providing responses to scan tool requests. The responses can either be generated internally by the OBD-II ECU Simulator or externally by this program. Both response types are described below:

First, if the ECU Simulator is set to internally respond to requests (system command 0x13 bit 0 = set), this application merely displays those requests in the 'Serial Traffic' box. When the ECU Simulator is using internal responses, it does not need to be connected to a PC unless the configuration needs to be changed. This is the 'Stand Alone' mode.



Second, if the ECU Simulator is set for host response enable (system command 0x13 bit 1 = set) then all responses sent to the tester are generated by the application and the ECU Simulator must stay connected to the PC with this application running during operation. In this utility, the commands and responses are stored in a file ('ECUData.cmd') and loaded into an array at program startup. Further, oxygen sensor simulation (PID \$14 and \$15) are calculated as they go, and MIL status is able to be reset for 10 seconds. As requests come in, the response is looked up in the array, or calculated immediately, and the reply is sent. The request and any/all responses are displayed in the 'Response' box. Time is of the essence in this routine. The ECU Simulator will only wait 100mS for a reply and then assume none is coming. Both the incoming and outgoing messages are displayed in the Serial Traffic box.

