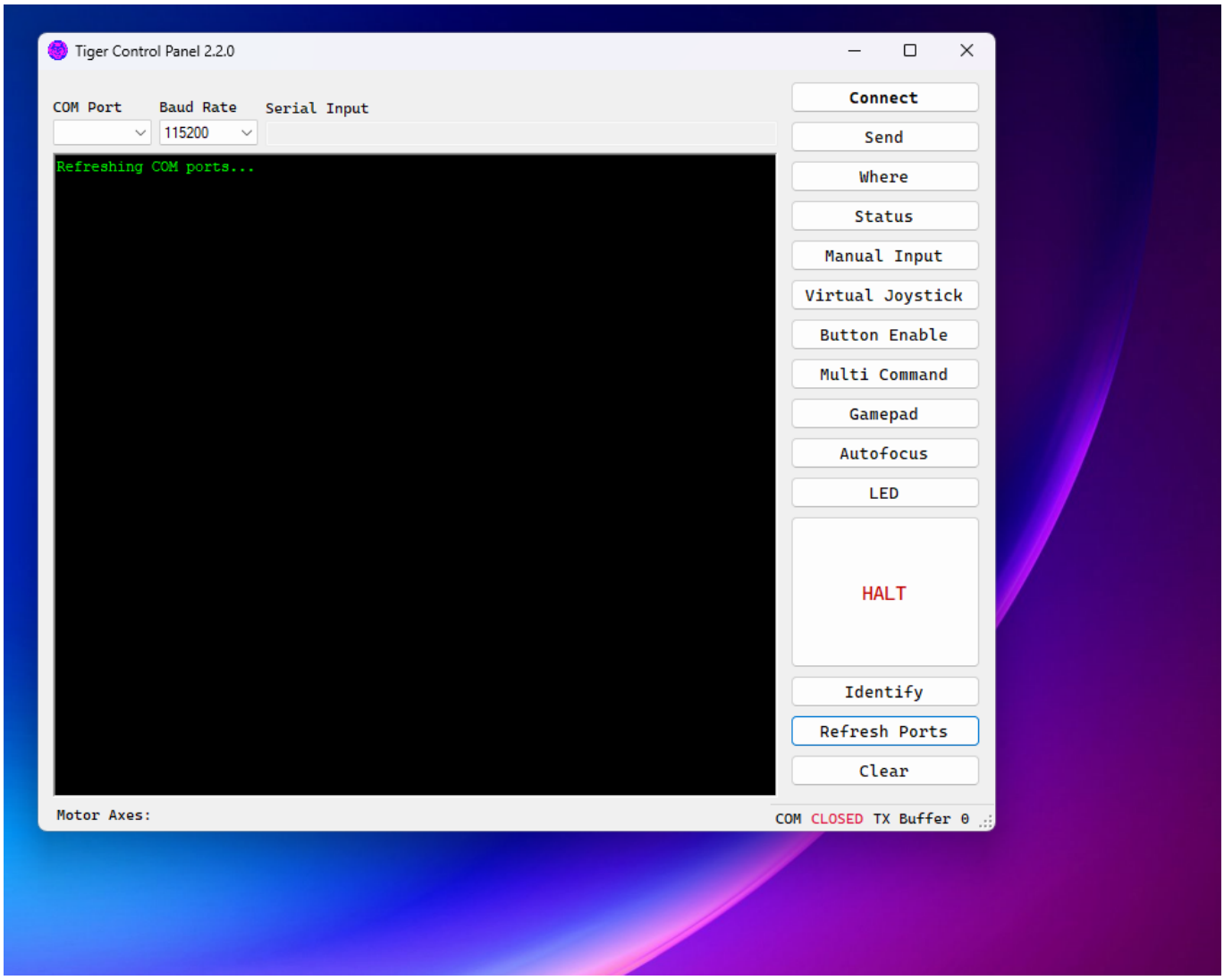
Tiger Control Panel

Tiger Control Panel (TCP) is a Windows program to communicate with the TG-1000 controller. It provides a serial terminal to send commands to the controller. t also comes with many utilities on the side panel and is able to report the position of all axes, axis limit status, toggle buttons, etc.

Latest version: Tiger Control Panel 2.2.2

Older versions can be found at the bottom of this page.



Main Window

Version History

Version	Date	Notes
2.2.0	04/01/2023	Added support for TGFW serial commands

You can open the Windows Device Manager and look for a device called “Silicon Labs CP210x(COM#)” to find the COM port.

Download the Silicon Labs drivers to connect to ASI controllers.

COM Port: select the serial port the controller will connect to when you click the connect button.

Baud Rate: select the baud rate to connect to the serial port with. This will always be 115200 for Tiger controller. The desktop controller (MS-2000 or “WK multi-axis controller”) is not currently supported.

Serial Input: input serial commands to send to the controller. Pressing the **Enter** key sends the command.

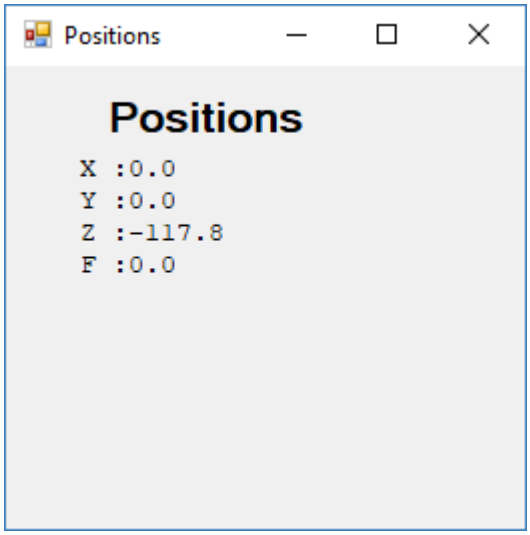
Buttons

Halt: sends the HALT to all axes on the controller. See the Command:HALT (\) for details.

Connect: opens and closes the RS-232 serial port. After opening a serial port it becomes the **Disconnect** button.

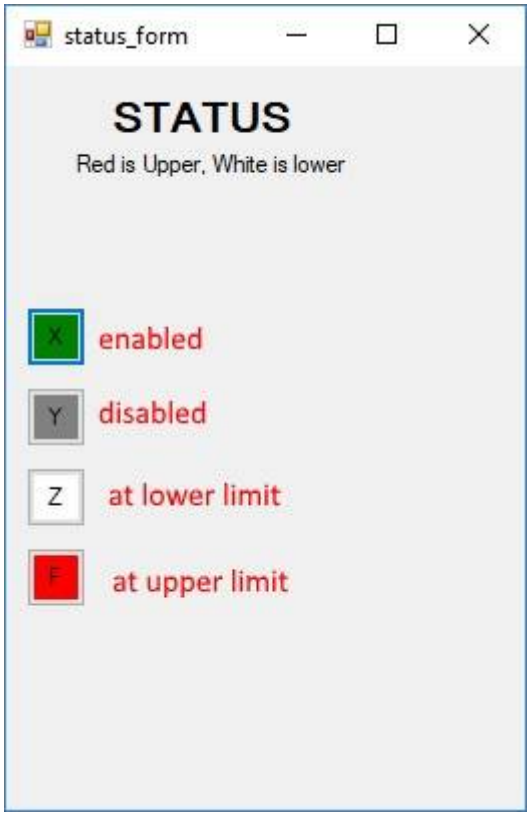
Send: sends the serial command entered in the “Serial Input” text box. Pressing the **Enter** key sends the command.

Where: opens a window that displays the position of all the axes in the controller. This window doesn't work with the filter wheel.



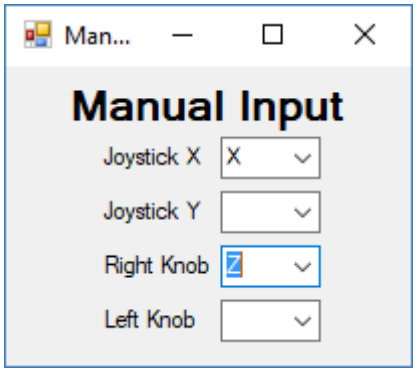
Where window

Status: opens a window that shows the axis state in color. Green for Enabled, Grey for Disabled, red when axis is at the upper limit and white when axis is at the lower limit. This window doesn't work with the filter wheel.



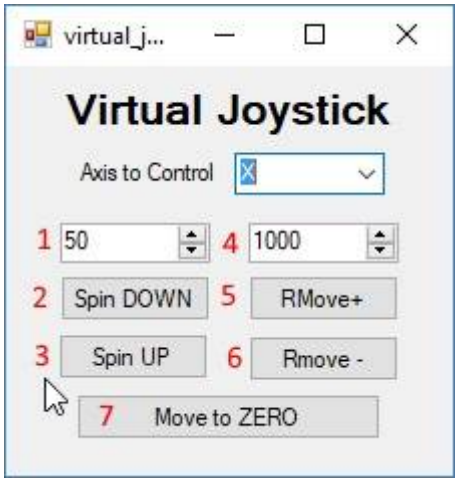
Status window

Manual Input: opens the manual input window. User can assign a manual input device like Joystick and Knobs to an axis.



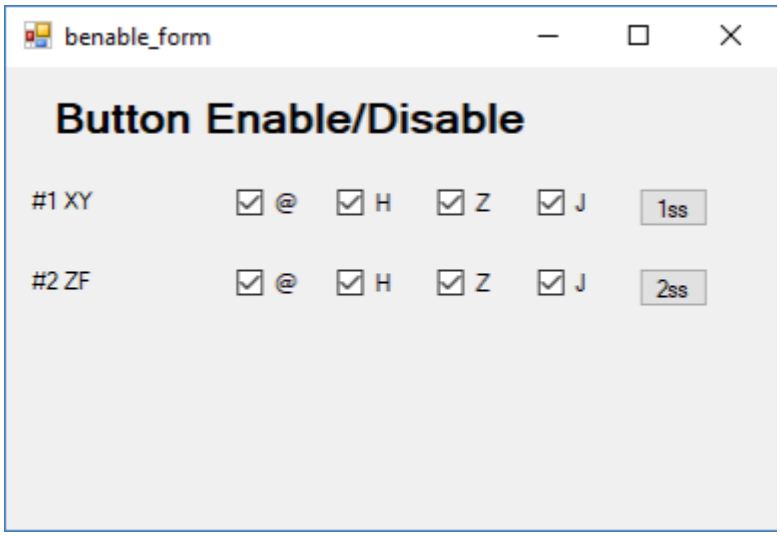
Manual input window

Virtual Joystick: opens the virtual joystick window. The user can open multiple instances of this window at the same time. It lets user move an axis with spin command or relative move command. Note: the spin command only works with motorized axes, and doesn't work with piezo, micro mirror, or tunable lens.



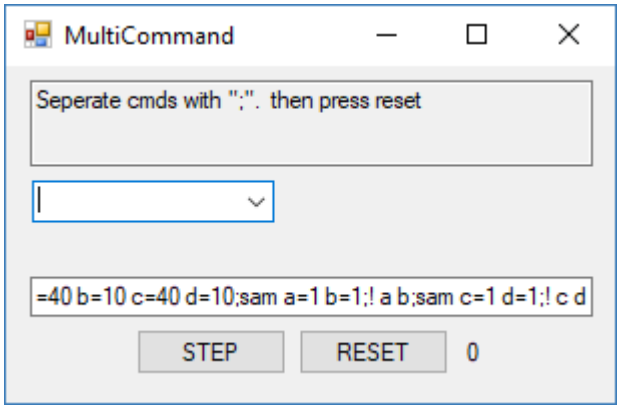
Virual Joystick Window

Button Enable: open the button enable/disable window. The user can set if a particular card in the controller should or should not respond to the button presses on the joy pod, such as @, home, zero and the joystick button. Pressing the “[addr#]ss” button would save the button state to the cards non-volatile memory.



Button Enable/Disable

Multi Command: is a utility window that lets user send a series of serial command repeatedly in order. Type a series of serial command, separate them with semi-colons `;`, then when `Step` button is pressed, the program sends the first command, when pressed again, sends the 2nd command and so on. Once it gets to the end, it will send the first command again.



MultiCommand window

Autofocus: opens the autofocus control window.

LED: opens the LED illumination control window. Use the checkbox to turn on/off a LED. The intensity box sets the LED brightness (0 to 100)

LED window

Identify: to enable all of the Tiger Control Panel utilities, the program needs to scan and identify all of the cards, axes, and modules in the controller. This is done automatically when the serial port is opened with the **Connect** button. However if there was an error, the user can re-run this scan by pressing the identify button.

Refresh Ports: refreshes the list of available COM ports in the combo box for serial port selection.

Clear: clears all text in the serial command response window.

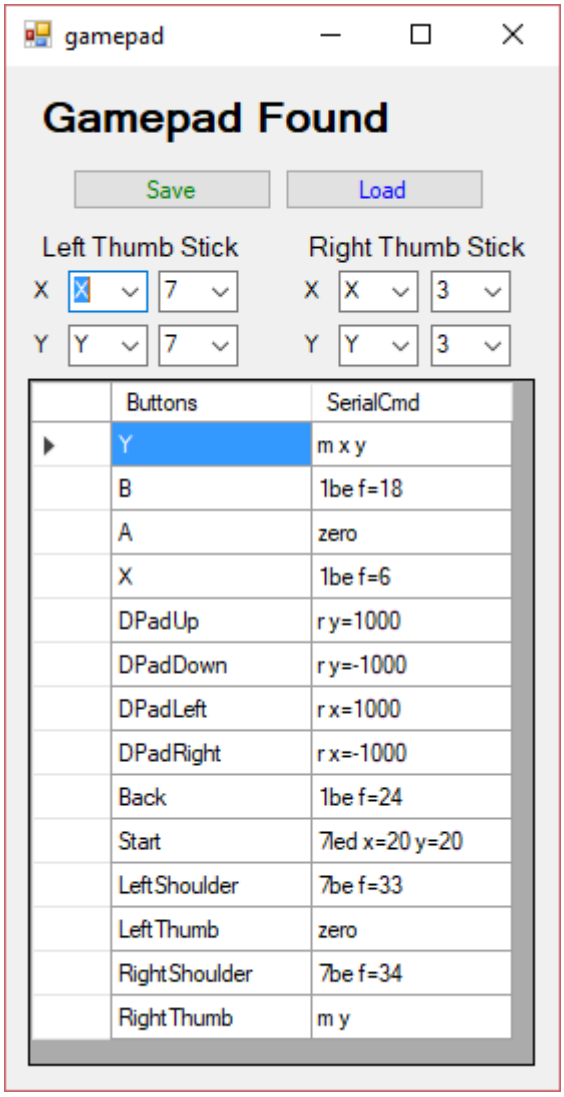
Bottom Row

Motor Axis: lists all the axes the program has found on the controller.

TX Buffer: the number of serial commands in queue waiting to be sent to the controller.

Gamepad Button

Gamepad: Opens the Gamepad UI which lets you assign functions to a XBox Controller. This module is available since version 2.1.0. First is the text “Gamepad Found” or “Gamepad NOT Found” that indicates if the UI has found a controller or not. Next is the Left and Right Thumb stick options. This lets you assign an axis and a multiplier to the controllers thumb sticks. When the thumb stick is deflected, the UI reads the deflection applies the multiplier and issues a Command:SPIN (@) that is proportional to the deflection. Note spin command only works with motorized axes, and doesn't work with piezo, micro mirror, and tunable lens. Next is the Button assignment table. The left column list all the buttons on the gamepad, and the editable right column holds the list of serial commands that will be sent on a button press. All these settings are automatically saved between sessions, however the user can use the Save and Load button to save the settings into a XML file and load them later.



Gamepad UI

Old Versions

Tiger Control Panel 2.2.1
Tiger Control Panel 2.2.0
Tiger Control Panel 2.1.0

fw1000, tiger, software