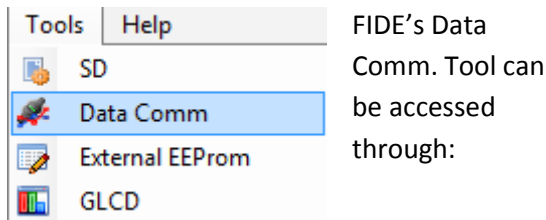


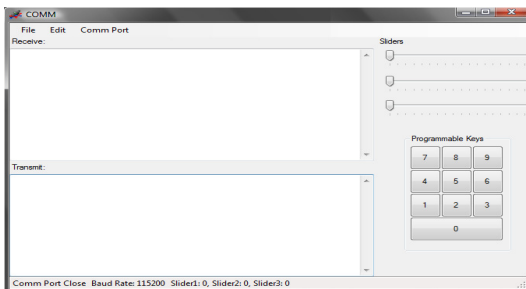
Application Notes

The Data Communication Tool is a utility that comes with FIDE to aid users in communicating with the FlamingICE using serial RS232 through the USB port.



FIDE > Tools > Data Comm

The Data Comm. Tool should launch and you should see something like the following.



From here, data through the specified COM Port can be transmitted and received using the appropriate textboxes.


Data Comm. Tool

Configuring the Communication Port

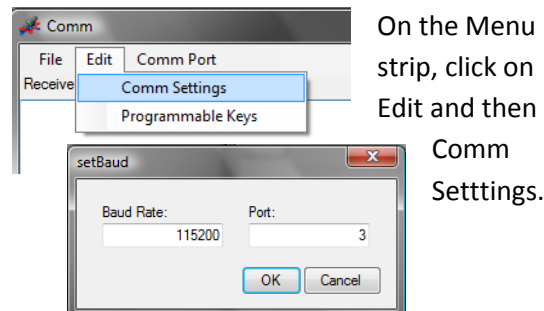
Upon launching the tool, you should first configure the settings.

NOTE: If you are using the same port as the one you use to download the program to the FlamingICE chip, please make sure that you **close the port in FIDE** before opening the port in the Comm. tool.

Here's how:



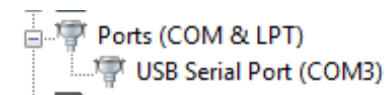
At the top right side of FIDE, just above the debug window, you should see 3 icons that look something like this. The icon highlighted indicates that the port is closed. If the icon in your FIDE does not show this, click on it and the port should close, changing the icon as well.



The setBaud Dialog box should launch.

Make sure that the baud rate is set to 115200, and the port should tally with the one obtained from the Device Manager. You can get the port numbers through:

Control Panel > System > Device Manager > Ports

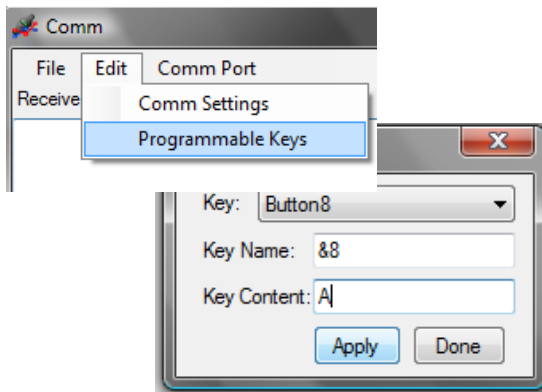


In this case, the port number is COM3.

Press *OK* when you're done and the port should automatically open if the port number is valid.

Configuring the Programmable Keys

Under Edit, launched the programmable keys dialog to enable hotkey editing.



The programmable key layout corresponds to that on a full QWERTY keyboard numpad. According to the numbers on the programmable key layout, you can change its name and content. Changing the Name changes what you see on the programmable key buttons. Changing the content changes the value that you are transmitting when the key is pressed or the buttons on the winform clicked. Take note that the characters entered are all in ascii. For example, setting button 8's key content to a capital A would be equivalent

to value 65. This is the value received by the FI chip. Please refer to the appendix for a full ascii chart.

Take note that to use hotkeys, the ampersand(&) must be present in the Key Name.

For example,

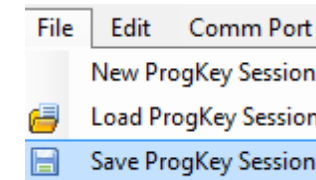
&8 would cause button 8 to be pressed on the screen when pressed on the keyboard. Same goes when you do something like this: If you have a key name by the name of <M&y Key> in button 8, button 8 will be pressed when you type *alt + y* since the ampersand is in front of the letter 'y'.

To enable the hotkeys,

Press the alt key. Note the difference when the hotkeys are enabled and when they are not. The underline indicates that the hotkeys are enabled. (Refer to image below)



Saving the Session



When you're done with changing the key contents and names, you can save the session by clicking on:

File > Save ProgKey Session.

You can load it up the next time you want to use it.

APPENDIX – ASCII CHART

| Dec | Hex | Name | Char | Dec | Hex | Char | Dec | Hex | Char | Dec | Hex | Char |
|-----|-----|-------------------|------|-----|-----|-------|-----|-----|------|-----|-----|------|
| 0 | 0 | Null | NUL | 32 | 20 | Space | 64 | 40 | @ | 96 | 60 | ` |
| 1 | 1 | Start of heading | SOH | 33 | 21 | ! | 65 | 41 | A | 97 | 61 | a |
| 2 | 2 | Start of text | STX | 34 | 22 | " | 66 | 42 | B | 98 | 62 | b |
| 3 | 3 | End of text | ETX | 35 | 23 | # | 67 | 43 | C | 99 | 63 | c |
| 4 | 4 | End of xmit | EOT | 36 | 24 | \$ | 68 | 44 | D | 100 | 64 | d |
| 5 | 5 | Enquiry | ENQ | 37 | 25 | % | 69 | 45 | E | 101 | 65 | e |
| 6 | 6 | Acknowledge | ACK | 38 | 26 | & | 70 | 46 | F | 102 | 66 | f |
| 7 | 7 | Bell | BEL | 39 | 27 | ' | 71 | 47 | G | 103 | 67 | g |
| 8 | 8 | Backspace | BS | 40 | 28 | (| 72 | 48 | H | 104 | 68 | h |
| 9 | 9 | Horizontal tab | HT | 41 | 29 |) | 73 | 49 | I | 105 | 69 | i |
| 10 | 0A | Line feed | LF | 42 | 2A | * | 74 | 4A | J | 106 | 6A | j |
| 11 | 0B | Vertical tab | VT | 43 | 2B | + | 75 | 4B | K | 107 | 6B | k |
| 12 | 0C | Form feed | FF | 44 | 2C | , | 76 | 4C | L | 108 | 6C | l |
| 13 | 0D | Carriage feed | CR | 45 | 2D | - | 77 | 4D | M | 109 | 6D | m |
| 14 | 0E | Shift out | SO | 46 | 2E | . | 78 | 4E | N | 110 | 6E | n |
| 15 | 0F | Shift in | SI | 47 | 2F | / | 79 | 4F | O | 111 | 6F | o |
| 16 | 10 | Data line escape | DLE | 48 | 30 | 0 | 80 | 50 | P | 112 | 70 | p |
| 17 | 11 | Device control 1 | DC1 | 49 | 31 | 1 | 81 | 51 | Q | 113 | 71 | q |
| 18 | 12 | Device control 2 | DC2 | 50 | 32 | 2 | 82 | 52 | R | 114 | 72 | r |
| 19 | 13 | Device control 3 | DC3 | 51 | 33 | 3 | 83 | 53 | S | 115 | 73 | s |
| 20 | 14 | Device control 4 | DC4 | 52 | 34 | 4 | 84 | 54 | T | 116 | 74 | t |
| 21 | 15 | Neg acknowledge | NAK | 53 | 35 | 5 | 85 | 55 | U | 117 | 75 | u |
| 22 | 16 | Synchronous idle | SYN | 54 | 36 | 6 | 86 | 56 | V | 118 | 76 | v |
| 23 | 17 | End of xmit block | ETB | 55 | 37 | 7 | 87 | 57 | W | 119 | 77 | w |
| 24 | 18 | Cancel | CAN | 56 | 38 | 8 | 88 | 58 | X | 120 | 78 | x |
| 25 | 19 | End of medium | EM | 57 | 39 | 9 | 89 | 59 | Y | 121 | 79 | y |
| 26 | 1A | Substitute | SUB | 58 | 3A | : | 90 | 5A | Z | 122 | 7A | z |
| 27 | 1B | Escape | ESC | 59 | 3B | ; | 91 | 5B | [| 123 | 7B | { |
| 28 | 1C | File separator | FS | 60 | 3C | < | 92 | 5C | \ | 124 | 7C | |
| 29 | 1D | Group separator | GS | 61 | 3D | = | 93 | 5D |] | 125 | 7D | } |
| 30 | 1E | Record separator | RS | 62 | 3E | > | 94 | 5E | ^ | 126 | 7E | ~ |
| 31 | 1F | Unit separator | US | 63 | 3F | ? | 95 | 5F | _ | 127 | 7F | DEL |