

Master Board Command Set

List of commands for the ICE Master Board.

#Slave

Description

Arguments:

```
[Int] BOARD
```

Example:

```
#Slave 3
3
```

Sets that the Master board will communicate with ICE Slave number BOARD. If BOARD is not specified, returns the ICE Slave number it is currently communicating with.

#Devices

Description

Arguments:

```
No Arguments Taken
```

Example:

```
#Devices
1: Temp Controller
2: None
...
```

Shows a list of all connected devices. <html></div></html>

#Enumerate

Description

Arguments:

```
No Arguments Taken
```

Example:

```
#Enumerate
2 1 3 0 0 0 0 0
```

Returns the device ID's of attached devices in a single line (useful for machine parsing).

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#Shutdown

Description

Arguments:

No Arguments Taken

Example:

```
#Shutdown  
Shutting down...
```

Fully powers off ICE platform. Restarting requires physical intervention (power button press) by user.

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#Sleep

Description

Arguments:

No Arguments Taken

Example:

```
#Sleep  
Sleeping...
```

Puts ICE platform into a low power state from which it can be woken via serial connection. All power to attached ICE devices will be turned off during sleep. Note: This isn't currently implemented.

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#PowerOn

Description

Arguments:

No Arguments Taken

Example:

```
#PowerOn  
Sytem Power ON
```

Enables power to all attached ICE devices. <html></div></html>

#PowerOff

Arguments:

Description

No Arguments Taken

Example:

#PowerOff
System Power OFF

Disables power to all attached ICE devices. All devices are notified before shutdown to perform a safe power off.

#RawMode

Arguments:

Description

[B00L] ENABLE

Example:

#RawMode T
ON

Switches command mode into raw mode. Argument is either 'T' for on or 'F' for off. Raw mode disables the use of ASCII command mnemonics, instead using integer command ID's.

#Status

Arguments:

Description

No Arguments Taken

Example:

#Status
ON

Returns state of power supplies to slave boards as either ON of OFF.

#Version

Description

Arguments:

```
[Int] ADDRESS
```

Example:

```
#Version 2  
6.2 0.0 5.2 5998
```

If called with no arguments, returns the version information for the master board. If called with an integer argument, will return the version information for the slave board at that address. The format is the version of the PCB, the CPLD firmware, the microcontroller firmware, and finally the serial number of the board. <html></div></html>

#Interactive

Description

Arguments:

```
[BOOL] ENABLE
```

Example:

```
#Interactive T  
ON
```

Switches serial interface between an interactive mode (featuring prompts and local echo) to a programmatic mode. Defaults to programmatic mode (false). <html></div></html>

#BulkRead

Description

Arguments:

```
[Int] BLOCKS
```

Example:

```
#BulkRead 1  
f3 e2 14 a4 cc 7d d4  
e3
```

Reads block RAM from current slave. Takes number of blocks to read as an argument. Each block is 8 bytes, returned as hex. The master will return the requested number of bytes (BLOCKS x 8) separated by spaces and then finish with a line return. Requesting a large number of blocks takes processing and I/O time on the bus, so larger requests may take time to return. <html></div></html>

#Interlock

Arguments:

Description

[BOOL] ENABLE

Example:

#Interlock T
ON

Displays status of safety interlock if no argument is given. If master board is set to “OEM” mode by factory, then providing a T/F argument manually sets the interlock state. <html></div></html>

#SaveSettings

Arguments:

Description

No Arguments Taken

Example:

#SaveSettings
SUCCESS

Saves all user settings to non-volatile memory. <html></div></html>

#UseInterlock

Arguments:

Description

[BOOL] ENABLE

Example:

#UseInterlock T
ON

Sets whether the master board should check for interlock state. If set to F (false), then the interlock will always be disabled. This can only be set if OEM mode is on. Otherwise it is a read only command. <html></div></html>

#ShadowUSART Description

Arguments:

```
[BOOL] ENABLE
```

Example:

```
#ShadowUSART T  
ON
```

If set to T (true), all serial commands on will be echoed on both serial (USB and TTL) interfaces.

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#AutoPower Description

Arguments:

```
[BOOL] ENABLE
```

Example:

```
#AutoPower T  
ON
```

If set to T (true), then the unit will automatically turn on power to the slave boards after bootup. Otherwise, power to slave boards will remain off but the master board will accept commands.

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#UseLCD Description

Arguments:

```
[BOOL] ENABLE
```

Example:

```
#UseLCD T  
ON
```

If set the T (true), then the LCD will be used. Otherwise, it will be powered off. <html></div></html>

#PauseLCD

Description

Arguments:

```
[BOOL] ENABLE
```

Example:

```
#PauseLCD T  
ON
```

If set to T (true), then LCD communication will be halted. This is useful to prevent the LCD from consuming I2C bus bandwidth during heavy I/O operations by the user. <html></div></html>

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