

Using jmCLIG Firmware Modules

jmCLIG generates interactive firmware. It is not really intended to be used from a terminal application, this is the unfriendly way of doing it; but you can do it.

You can use these modules in any software having access to a serial port. (VB, C#, C++, Matlab, Excell, Labview...)

These firmware modules have their graphical interface counterparts. These GUI will be presented in jmGUI Modules documentation.

To interact with your firmware, you need to install the serial USB driver to communicate with mbed platform.

<http://mbed.org/handbook/Windows-serial-configuration>

Once the serial driver is installed, you can use a standard communication terminal like HyperTerminal.



```
jmSerialCom
USB COM9
list
12:17:47 PM list
jmCLIG Version 2011.01.05
Instance Saturday, February 12, 2011 11:21 AM
Commands:
.....
iport
iports
GPPG0
gpioBits
gpioBit
bitRead
list
ver
help
feedback
echo
motor
GPPMT
motorSpeed
pulse
pulseInit
pulseStop
GPPP0
stepper
stepperStop
GPPST
stepSpeed
stepperAxis
GPPSTA
swRead
swInit
GPPS0
init
.....
```

On Vista64 this communication utility does not exist anymore.

When you reset mbed:

jmCLIG version and instance will be printed out.

If you send command: list

All available command names will be printed out.

If you need help on a command, you just type the name without arguments and command line format will be printed out.

help 1 enables on-chip help

help 0 disables on-chip help

echo, feedback and help are commands that can turn on or off messages from firmware.

For more information, take a look at the source files.

jmAll

jmAll firmware contains all presently available modules for proof of concept.

To try the modules, download the firmware from mbed.org

After downloading the firmware into your mbed, reset it.

Open your terminal program, connect to the serial port where mbed is wired and connect.

Resetting mbed while you are connected will print jmCLIG version and instance.

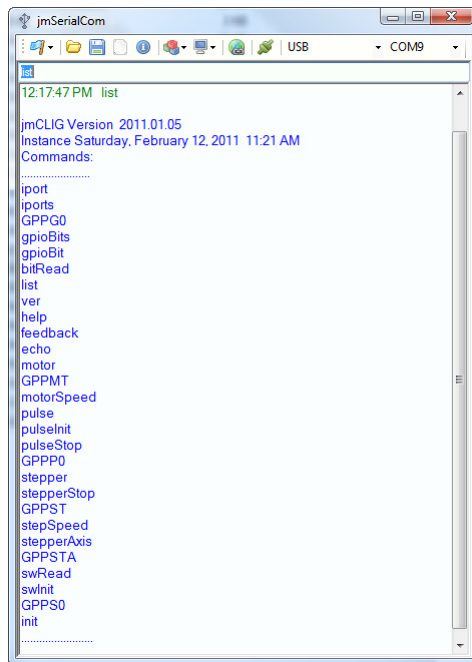
After hitting enter key, a list of all commands will be shown.

Most Important Commands

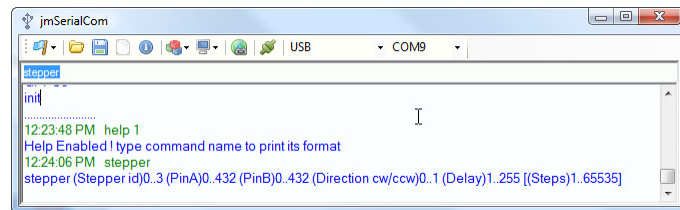
- list
- help

list give you all available commands.

Type list to get the command name list. All command lines must be followed by a hit on enter key.



```
jmSerialCom
12:17:47 PM list
jmCLIG Version 2011.01.05
Instance Saturday, February 12, 2011 11:21 AM
Commands:
.....
iport
iports
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help
feedback
echo
motor
GPPMT
motorSpeed
pulse
pulseInit
pulseStop
GPPP0
stepper
stepperStop
GPPST
stepSpeed
stepperAxis
GPPSTA
swRead
swInit
GPPS0
init
.....
```



```
jmSerialCom
init
12:23:48 PM help 1
Help Enabled! type command name to print its format
12:24:06 PM stepper
stepper (Stepper id)0..3 (PinA)0..432 (PinB)0..432 (Direction cw/ccw)0..1 (Delay)1..255 [(Steps)1..65535]
```

help 1 enables on-chip help. help 0 disables on-chip help.

In the picture above, help has been enabled.

Commands sent to the chip are green, chip reports in blue.

stepper with no parameters has then been sent and the chip sent back the stepper command format.

Between parentheses are clues followed by valid numbers.

Something between brackets is optional.

Example: `stepper 0 118 123 0 44` Pin information is Port*100 + bit position (0..31)

id is 0 PinA is Port1.18 PinB is Port1.23 Direction is 0 Delay between steps are 44

Since no Steps quantity was given, stepper will run in continuous mode. If a step quantity is given, stepper will stop after that amount of steps.

When a command is sent or when an event happens inside the chip, the chip will send a report.