

GenY32 V2.08 Release Notes

Aug 23, 2015

This version supports a new Mach3 Plug-in (V0.97), several new peripherals and a number of bug fixes. The plug-in now supports GenY32 and the new MK4FQ and PiMotion.

1.0 Mach3 Plug-in

Mach3 Plug-in (V0.97) is included in this distribution. The plugin now supports six axis. V2.08 allocates IO port J15 pins PA09-DirB, PA08-StepB, PA07-DirC and PA06-StepC. GStep supports Axis B and C as does Mach3. Mach3 port pin numbers for B and C are ignored and are not important. Motor tuning for these axis is important so they must be configured for your particular driver.

Additional drivers can easily be added to GenY32 using our MM160 or MM166 drivers or from third parties. The MM160 and MM166 both need GND and VCC (5V) in addition to the step/dir signal connections.

Configure Mach3 for your specific machine by setting steps/in, motor tuning, etc. The mapping between parallel port pin assignments and GenY32's pin assignments should be the same as if the board was driven through the parallel port.

Run the Installer - Mach_GenXYZ_0.97_Setup.exe. At the end of the installation process the installer will attempt to run vcredit_x86.exe - this program installs applications required by the VC2010Express run time. If the required files are already installed it will ask if you'd to repair the installation - just exit at that point.

1.1 The installer installs the plugin in Mach3's plugin directory - c:\Mach3\Plugin. Old plugin is overwritten.

1.2 Install the USB CDC serial driver wsc32.dll in c:\Windows.

1.3 Latest GStep V2.08 is included in this distribution. Upgrade the software in GenY32 to V2.08 by re-flashing the board. See the Technical Manual for programming instructions. Use the programming batch files included with this distribution. The DFU requires the atmel_usb_dfu.inf file.

1.4 Plug in GenY32 and test the communication dll is working by communicating with the board using a terminal emulator.

1.5 Configure GenY32's step mode, feed rate, etc and save configuration parameters (see GenY32 Technical Manual).

1.6 Start Mach3 - it will ask if you want to use the Mach_GenXYZ plugin - select it. The plugin will automatically find the correct COM port GenY32 is connected to.

1.7 After the plugin finds and connects to GenY32 the board's Red Led will start to blink slowly indicating that GenY32 has switched to Mach3 slave controller mode. Mach3 now controls the board. When Mach3 exits GenY32 returns to Conversational mode releasing control so other desktop applications can control the board.

1.8 Please send any comments, suggestions and bugs to support@soc-robotics.com.

1.9 Known anomalies

- Plugin dialog shows IP address information - support for this feature is turned off.
- Version 0.98 will support IP addressing and Raspberry PI controller integration

2.0 New Peripherals Supported

The following peripherals are now supported by V2.08.

CJ14 and Generic Analog Joystick input

CJ34 Smart Joystick input

RP12 I2C Rotary sensor

SL10 SmartLCD DRO/Display

OLED I2C display

3.0 Documentation

A new Technical User Manual is in preparation and will be released shortly.

New f top level command to support creation and loading of system configuration parameters:

fl - Mount uSD (use when inserting a new uSD after power up)

fs - Save current configuration parameters to config.txt

fp - Load configuration parameters from config.txt

fe - Dump errlog.txt file (used for diagnostics)

fd filename - Dump contents of file filename

Joystick Mode enable using 'j' command, calibration using 'k' command.

4.0 GStepD Windows GUI

Work is progressing on our new Windows GUI. The communication protocol has been modified to support faster G Code transfer by pre-parsing G0,G1 moves on the desktop and sending binary messages to the controller. The new implementation is in test.