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GIT repository

GIT is one of a group of publicly accessible repositories for software, firmware, and documentation which implement 'versioning'. Versioning keeps track of changes to files and let's one follow those changes, revert to previous versions, and create branches so that varieties of the code can be made, and also merge branches back into the main branch.

Wiki entry: https://en.wikipedia.org/wiki/Git_%28software%29

SourceForge is another such web based versioning repository and should be familiar to MERG members as the home of JMRI: http://jmri.sourceforge.net,

The most popular web based Git repository is currently GitHub https://github.com; although there are plenty of other web, intranet and local based Git applications to choose from.

Comparison between SourceForge vs GitHub:
http://recomparison.com/comparisons/101554/sourceforge-vs-github/

To help understand how Git may be helpful to MERG here is a beginners article on GitHub:

http://readwrite.com/2013/09/30/understanding-github-a-journey-for-beginners-part-1

GPIO

General-purpose input/output is a generic pin on an integrated circuit or computer board whose behavior, including whether it is an input or output pin, is controllable by the user at run time.

GPIO pins (generally) have no predefined purpose, and go unused by default. Normally these are Tri-State pins.

GPP software

This is a company that has written a Microsoft Basic program to control a model railway from a computer.
http://www.gppsoftware.com

Ground

Electrical circuits (normally) have a common point from which voltages are measured.

Historically this was the Ground (aka Earth), and could also have been the return path for electric current.

In modern 'mains' AC power supplies, the 'Earth' line has a safety purpose and the 'Neutral' line is the 'Live' current return. NB: The Neutral is connected to Earth, somewhere further back in the supply system.

Most modern low voltage and low power electronic circuits are NOT referenced to the Earth, but the name Ground (aka GND) or Earth persists as the reference point, but more correctly its name is '0V'. These power supplies are said to be 'floating'. Floating power supply modules can sometimes be identified by the use of a 2 wire connection to the mains.

Above a certain threshold of Voltage or Power (or where a metal case/chassis is used), modern regulations mean that an Earth connection is required and those power supply modules will use a 3 wire connection to the mains. An example of this is the MERG DCC power block.