Parallel Port – ECP Mode

Introduction:
The Parallel Port is a commonly used port for interfacing to external devices, in particular printers. This port will allow the input of up to 9 bits or the output of 12 bits at any one given time, thus requiring minimal external circuitry to implement many simpler tasks. The port is composed of 4 control lines, 5 status lines and 8 data lines. It’s found commonly on the back of your PC as a D-Type 25 Pin female connector.

Newer Parallel Port’s are standardized under the IEEE 1284 standard first released in 1994. This standard defines 5 modes of operation which are as follows:
1. Compatibility Mode.
2. Nibble Mode. (Protocol not Described in this Document)
3. Byte Mode. (Protocol not Described in this Document)
4. EPP Mode (Enhanced Parallel Port).
5. ECP Mode (Extended Capabilities Port).

EPP/ECP (Enhanced Parallel Port/Enhanced Capability Port) is a standard signaling method for bi-directional parallel communication between a computer and peripheral devices that offers the potential for much higher rates of data transfer than the original parallel signaling methods. EPP is for non-printer peripherals. ECP is for printers and scanners. EPP/ECP Modes are part of IEEE Standard 1284.
Verify the parallel ports settings in Windows with this method:
1. Start -> Settings -> Control Panel
2. Click on the ‘System’ icon to get the System Properties Window.
3. Click on the Hardware Tab.
4. Click on the ‘Device Manager’
5. Click the ‘+’ next to ‘Ports (COM & LPT)’ to expand the tree.
6. The printer port (LPT) should be listed with a description of the type of printer port. ie “ECP Printer Port (LPT1)”
7. If the parallel port mode is not in the description right mouse click the printer port and select properties to review the available parallel settings. Below is an example:

ECP is the desired printer port type for communicating with printers.
EPP is the desired parallel port type for communicating with storage devices.