LEDsynergy
electronic displays

PLC Interface

technical

HOW CAN I CONNECT MY PLC TO A DISPLAY

A Programmable Logic Controller (PLC) is a device used to automate monitoring and control of industrial plant.

Programmable Logic Controllers were developed to provide a replacement for large relay based control panels. These systems were inflexible requiring major rewiring or replacement whenever the control sequence was to be changed.

The development of the micro processor from the mid 1970's have allowed PLC's to take on more complex tasks and larger functions as the speed of the processor increased.

There are a number of different ways that a Programmable Logic Controller (PLC) can be utilized to operate a display board, the exact method is generally dictated by the preferred method of the programmer and or the capabilities of the PLC.

The most common methods are:

ASCII
♦   Full serial messages sent in ASCII
♦   Trigger messages sent in ASCII

Line select card
♦   Individual Inputs
♦   Binary inputs
♦   BCD Inputs

ASCII
♦   Full serial messages sent in ASCII.
Using LEDsynergy protocols text messages, including headers, EOM, checksum, are sent to the display. Protocol GTX will enable long text messages to be sent. Protocol static, is a simpler format, allowing minimal sign information, enable a screen full to be updated.

♦   Trigger messages sent in ASCII
Messages are pre-stored by the customer with the display. Using keyboard or standard LEDsynergy software. These messages are then triggered by sending to the display a simple string

Line select card
♦   Individual Inputs.
Up to 32 messages can be entered into the display, by shoring ground and a relevant contact up to 3 different messages can be shown simultaneously

♦   Binary inputs
8 input pins are used to select up to 255 messages on a binary code. Normal Binary to decimal conversion will be the message that will be displayed, i.e. 10101100 = 172

♦   BCD inputs
8 input pins are used to select up to 99 messages on a bcd code. Four bits makes up one digit. 00-99 can be represented as by one byte. Valid number for BCD are 0-9, i.e. 0000 – 1001 i.e. 0101 1001 = 59