The 8 port multi I/O board is plugged into one of the computers internal PCI or PCI Express slots. An octopus cable is then plugged into this board thus providing 8 individual RS232 ports. An RS232 cable is then run from each machine control through the workshop and connected to the octopus cable.

Once the multi I/O boards driver software is loaded the Windows operating system will recognise the individual ports which are numbered COM3 to COM10.

The main limitation using this method is that most computers only have 2 PCI slots available. This therefore limits this type of connection to 16 machines from one computer. To extend it beyond 16 machines you would have to add another computer to the system.

If your company has say 6 machines and is growing at a rate of adding 2 machines a year then this method would suffice for 5 years at which point you would then consider upgrading the system to either wireless or hub technology.

Using Multi I/O boards also increases the cable run distances. If your DNC computer is located in an office environment then a cable from each machine will have to be run to the office. This can mean having to drill holes through walls and ceilings.

**Hardware**
- I/O controller: 16C550C or compatible x 8
- Interface
  - Bus: PCI ver. 2.1 (32-bit) or ISA (16-bit)
- **Performance**
  - Speed: 50 bps to 921.6 Kbps
  - Max. No. of ports: 32 (4 boards)
- **Configuration**
  - Parity: None, Even, Odd, Space, Mark
  - Data bits: 5, 6, 7, 8
  - Stop bits: 1, 1.5, 2
  - IRQ: ISA: 2, 3, 4, 5, 7, 10 (Default), 11, 12, 15
  - PCI: Assigned by BIOS
  - I/O address: ISA: 0x0000 - 0xFFFF (Default: 0x180)
  - PCI: Assigned by BIOS
- **OS Supported**
  - (For more details, refer to the OS support section.)

**Power and Environment**
- Power Requirements:
  - C168H/PCI: 260 mA (+5V), 100 mA (+12V), 60 mA (-12V)
  - C168H: 170 mA (+5V), 100 mA (+12V), 60 mA (-12V)
- Operating Temperature: 0 to 55°C
- Regulatory Approvals: FCC, CE
- Operating Humidity: 5 to 95% RH
- Storage Temperature: -20 to 85°C
- Dimensions: C168H/PCI: 123 x 100 mm (W x D)
  - C168H/C168HS: 157 x 93 mm (W x D)

**RoHS Compliance**
- The Multi I/O board is compliant to the RoHS Directive which stands for "the restriction of the use of certain hazardous substances in electrical and electronic equipment".

ISA Multi I/O board also available.