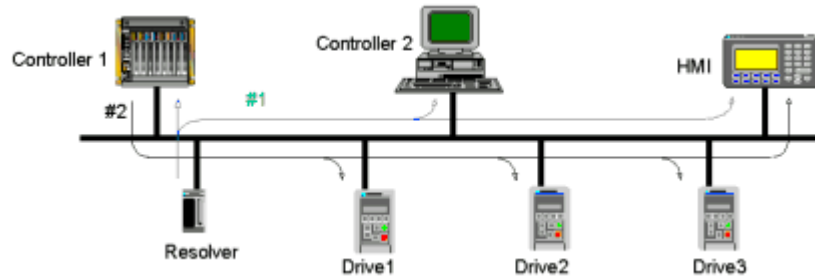




ControlNet is a real-time, control-layer network providing for high-speed transport of both time-critical I/O data and messaging data, including upload/download of programming and configuration data and peer-to-peer messaging, on a single physical media link. Deterministic and repeatable, ControlNet's high-speed (5 Mbits/sec) control and data capabilities significantly enhances I/O performance and peer-to-peer communications.

ControlNet's Media Access Method Taking full advantage of the Producer/Consumer model, ControlNet allows multiple controllers to control I/O on the same wire. This provides significant advantage over other networks, which allow only one master controller on the wire. ControlNet also allows multicast of both inputs and peer-to-peer data, thus reducing traffic on the wire and increasing system performance.



ControlNet is highly deterministic and repeatable -- critical requirements for ensuring dependable, synchronized and coordinated real-time performance. Determinism is the ability to reliably predict when data will be delivered, and repeatability ensures that transmit times are constant and unaffected by devices connecting to, or leaving, the network. These features are further enhanced with user selectable I/O and controller interlocking update times to match application requirements.

**Where is it used and with what products?**

ControlNet is specifically designed for the fast transfer of I/O data! (I/O workhorse). It is very prominent in North America and can also be found within the Process Automation Industry worldwide. The "CIP" ( Common Interface Protocol) used by ControlNet can Bridge/Rout data to DeviceNet & EtherNet/IP. All three of these industrial networks has the strong backing of Rockwell Automation.

**ControlNet & AnyBus**

HMS has a variety of products supporting ControlNet. An embedded AnyBus-S Slave Interface, an enhanced AnyBus-S Interface with AC/DC Drive Profile, the AnyBus Communicator Serial Gateway and AnyBus-X Bridge/Gateway giving you a choice to bridge ControlNet with any of 14 other fieldbus networks.

ControlNet Facts	
<b>Network Size:</b>	99 max addressable nodes. 48 taps (nodes) without a repeater
<b>Network Length:</b>	1000m (coax) @ 5Mb/s, 1000m with 2 nodes 250 m with 48 nodes, 3000m (fiber) @ 5Mb/s 5000m (coax) @ 5Mb/s with repeaters 30+ Km (fiber) with repeaters
<b>Data Packets:</b>	Variable, 0-510 bytes
<b>Bus Topology:</b>	Linear, Tree, Star, Mix of any of the 3
<b>Addressing:</b>	Peer-to-Peer, Multi-Master and Master/Slave polling, cyclic or change-of-state
<b>System Feature:</b>	Removal / Insert devices under power, Deterministic, repeatable, Intrinsic safety option, Duplicate node ID detection Message fragmentation

**ControlNet AnyBus Products**







- Embedded Products**
  - ▶ [AnyBus-S Adapter Interface](#)
  - ▶ [AnyBus-S AC/DC Drive Profile](#)
- Networking Products**
  - ▶ [AB Communicator Serial Gateway](#)
- Networking Products**
  - ▶ [AnyBus-X Bridge/Gateway](#)

**ACP&D Limited**

Units 6 & 9A,  
Charlestown Industrial Estate,  
Robinson Street,  
Ashton-under-Lyne,  
Lancashire, OL6 8NS.

Tel: +44 (0)161 343 1884  
Fax: +44 (0)161 339 0650  
e-mail: [sales@acpd.co.uk](mailto:sales@acpd.co.uk)  
Websites: [www.acpd.com](http://www.acpd.com) &  
[www.acpd.co.uk](http://www.acpd.co.uk)

