

Automation Network X-Change

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Product Description

The Automation Network X-change (AN-X) product family from Quest Technical Solutions is a flexible platform for connecting to and monitoring automation networks. AN-X supports a variety of industrial networks.

AN-X acts as a bridge between a computer or other device (PLC, etc.) via Ethernet and any one of a number of automation networks.

You configure the Ethernet properties (IP address, DHCP, etc.) of AN-X using the utility provided. You configure the AN-X industrial network using simple spreadsheets, then use any web browser to download the configuration to the AN-X over Ethernet.

You can then exchange data between the computer and the industrial network.

Some AN-X platforms also support direct AN-X to AN-X exchange of data (one AN-X produces data, many AN-X modules can consume it.) For example, you can use AN-X to bridge dissimilar networks.

Networks

Modicon S908 Remote I/O Master

- scans up to 32 remote drops
- supports Quantum and 800 series I/O. Can be autoconfigured from an online network
- supports up to 15 scheduled connections with a ControlLogix processor over Ethernet, with RPIs from 5 ms to 750 ms
- referenced in the Rockwell Automation Encompass Americas program



GE Genius

- scans up to 30 Genius blocks. Supports standard Genius I/O blocks, field control I/O, and global data to and from other processors
- supports autoconfiguration from an online Genius network
- supports up to 15 scheduled connections with a ControlLogix processor over Ethernet, with RPIs from 5 ms to 750 ms
- referenced in the Rockwell Automation Encompass Americas program

Reliance AutoMax DCSNet and Remote I/O

- DCSNet master or slave
- supports scheduled connections with a ControlLogix processor over Ethernet
- is supported by the current Reliance AutoMax programming software, to connect to an AutoMax processor
- HMIs communicate with a standard PLC-5 Ethernet driver to access DCSNet data

Profibus (multiple slaves)

- supports PROFIBUS baud rates from 9600 bps to 12 Mbps.
- acts as one or more PROFIBUS slaves (up to 125, overcoming the typical 244 byte limit)
- supports scheduled connections with a ControlLogix processor over Ethernet
- HMIs communicate with a standard PLC-5 or Modbus TCP Ethernet driver to access data

Allen-Bradley Data Highway Plus

- supports all valid Data Highway Plus station numbers, all Data Highway Plus baud rates
- can be used with PLC programming software to communicate with Allen-Bradley controllers such as PLC-5 and ControlLogix over Data Highway Plus
- works with all standard HMIs

QTS is continually adding support for other networks. Contact us for information on the availability of an AN-X module for your network.

Host Access

Computers or other devices accessing AN-X can connect using Ethernet/IP, Modbus TCP, or other Ethernet protocols.

Web Access

AN-X acts as a web server. Any web browser can connect to AN-X to configure it and to view diagnostics and logs.

Applications

Various applications can use AN-X:

- HMI's can use AN-X to rapidly exchange large amounts of data with controllers. AN-X works with existing servers such as RSLinx, TOP server, InGear etc. It does not require any new server development.
- Other devices. You can use AN-X to connect otherwise incompatible devices to Automation networks. For example, you can use the Profibus universal slave AN-X to exchange data between Allen-Bradley ControlLogix processors and Siemens PLCs
- Network monitoring. Monitor the data exchange between controllers and I/O devices. Log the data values or data changes with microsecond precision
- PLC Programming. Some versions of AN-X can be used in conjunction with PLC programming software

Advantages of Using AN-X

- Removes the hardware dependence on specific format interface cards (ISA, PCI, PC Card)
- No driver or driver development required if you use standard, existing drivers or servers
- Multiple devices can connect to a network using a single AN-X. For example, multiple HMI's can connect to a network using a single AN-X, resulting in a cost saving.

Specifications

Hardware

An AN-X module consists of:

- the main board contains the processor, RAM, FLASH memory, FPGA and Ethernet hardware. This board is common to all versions of AN-X.
- a network-specific daughterboard that contains the hardware that provides the physical connection to the specific industrial network

AN-X is field upgradeable. The AN-X operating system and firmware can be upgraded over Ethernet.

Ethernet

- Standard RJ45 Ethernet connector
- Supports 10/100 megabits/second
- Activity LED
- Data rate LED
- Maximum data transfer rate over Ethernet 1.5 Mbytes/second
- Normally uses a static IP address but also supports DHCP

Power

- Power requirements: 12 - 24 VDC, 4 watts typical

Physical

- Dimensions: 107 mm X 126 mm x 34 mm (4.18" x 4.97" x 1.33"), not including connectors
- Desktop use or DIN mountable

About QTS

Quest Technical Solutions is a provider of industrial communication hardware and software. Quest employees have many years combined experience in developing industrial communications solutions.

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