EtherNet/IP

Datasheet– Rev. 3

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CP_R2_019 F

straton



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1. EtherNet/IP Scanner/ Adapter

EtherNet/IP (Ethernet Industrial Protocol) is an open communications protocol for communication between industrial control systems and their components, such as a programmable automation controller, programmable logic controller or an I/O system. The application layer of this protocol is based on the Common Industrial Protocol (CIP™) managed by the ODVA.

The implementation of EtherNet/IP in the straton products supports both Scanner and Adapter. The configuration is convenient through an integrated configuration tool to create the mapping of the CIP I/O assemblies for the server as well as the client. Additionally, a client configuration tool allows the exchanging of EtherNet/IP tag-based devices such as PLCs.

More about Ethernet/IP: http://www.odva.org/

2. Configuration of Ethernet/ IP

COPA-DATA provides an integrated configuration tool for the EtherNet/IP Scanner and Adapter based on the Driver Development Kit. The result is a transparent integration of this additional Fieldbus in the straton IEC 61131-3 programming environment. The LAN adapter to be used can be chosen.

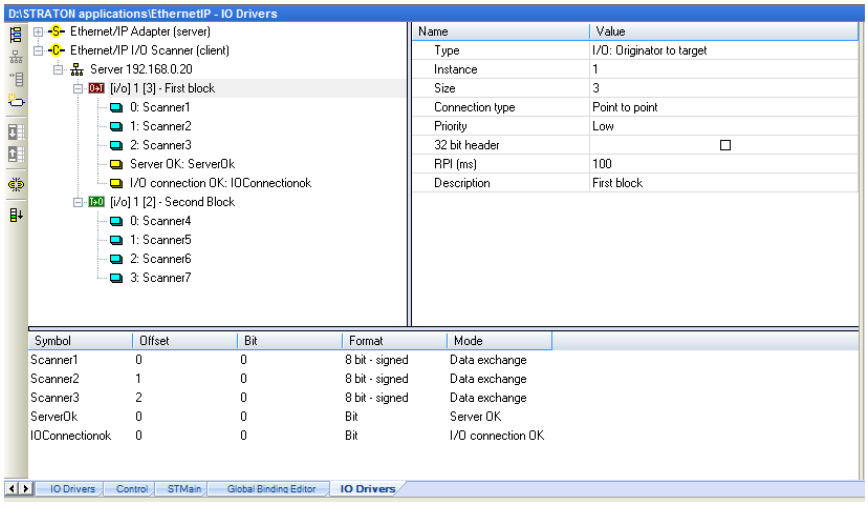

Figure 1: EtherNet/IP Configuration

2.1. EtherNet/IP IO Client

The T5 runtime includes fully integrated Ethernet/IP client driver for exchanging CIP I/O assemblies as an Ethernet/IP scanner in your applications.

2.2. EtherNet/IP Adapter

The T5 runtime includes fully integrated Ethernet/IP server driver for exchanging CIP I/O assemblies as an Ethernet/IP adapter in your applications.

2.3. Point IO

A couple of new features are introduced to simplify the interface of the editor for first users. A "start page" provides most useful shortcuts for getting started. Through the "Tools / Customize" command, some feature sets can be shown or hidden in order to match the best adapted user interface.

Point IO Modules supported

Reference	Description
1734-ARM	Address reserve
1734-IB2	2 digital inputs
1734-OB2E	2 digital outputs
1734-OB8E	8 digital outputs
1734-IV8	8 digital inputs
1734-IB8	digital inputs
1734-OW4	4 relay outputs
1734-IE2C	2 analog inputs
1734-OE2C	2 analog outputs
1734-VHSC24	High speed counter module
1734-OB4	4 digital outputs
1734-IB4	4 digital inputs
1734-OE2V	2 analog outputs
1734-IE2V	2 analog inputs

2.4. Flex IO

Flex IO modules supported

Reference	Description
1794-OB32P	32 digital outputs
1794-IB32	32 digital inputs
1794-IV16	16 digital inputs
1794-IB16	16 digital inputs
1794-OB16P	16 digital outputs
1794-OW8	8 relay outputs
1794-IP4	4 pulse inputs
1794-OE4	4 analog outputs
1794-IE8	8 analog inputs
1794-IF4I	4 analog inputs

2.5. EtherNet/IP Tag Client

ControlLogix Programmable Controllers supporting Ethernet/IP are common in manufacturing operations worldwide. These Programmable Controllers manage conveyor lines, water treatment plants, breweries and every other kind of industrial environment imaginable.

straton provide an easy-to-use driver to read and write tags from the data table of a ControlLogix.

All you need to do is give your tag client enabled device an Ethernet TCP/IP Address. Then input the tag names to read from and the tag names to write to. It's that easy! Data is flowing directly from the tags in the data table of your ControlLogix or CompactLogix Programmable Controller into your application.

3. Integration of EtherNet/IP

The straton communication stack is a package for OEMs anxious to integrate the EtherNet/IP in their products line. OEMs using straton can easily integrate the EtherNet/IP technologies in their actual solution. The data to be exchanged directly with the local database or using straton as a gateway to exchange the data through the supported fieldbus like MODBUS or proprietary CAN.

The supported stack version is now 2.38

The package includes:

- The EtherNet/IP Integrated Configuration Tool for the straton Universal Development Tool.
- The Scanner implementation
- The Adapter implementation
- Integration in the straton runtime
- 'C' source code of the protocol and integration



The package includes only the integration of the EtherNet/IP protocol in straton the source code of the low layer of the protocol and right to use it need to be purchased from Real Time Automation Inc.