

# Easylon® Software

Accessing Messages and Data

**Analyzer**

Network diagnosis

**OPC Server**

Access to LONWORKS network data



## Easylon® Analyzer

### Diagnosis and Management of LONWORKS® Networks

- Operates on unknown networks
- Detailed telegram information
- Consistency reports and transaction analysis
- Detailed node information and manipulation
- For Windows operating systems

The Easylon Analyzer is the pro's software tool to thoroughly investigate LONWORKS network communication and nodes properties. In combination with Interfaces<sup>+</sup> or VNI interfaces from other vendors this Windows PC based program gives insight into network behavior. The advantage of Easylon Interfaces<sup>+</sup> is their capability to run network analysis in parallel with other programs.

The Analyzer software offers comprehensive and flexible methods for data analysis. Specialists intimate with LONWORKS technology appreciate the Easylon Analyzer for its in-depth operations even allowing manipulation of the NEURON's® memory.

This diagnosis tool supports installation and maintenance of LONWORKS networks by lots of useful features.



### Requirements and Recommendations

- Windows PC with XP, Vista, 7, or Server 2003, 2008. operating system
- Easylon Interface<sup>+</sup> or Echelon VNI interface for network access. Easylon Interfaces<sup>+</sup> allow simultaneous operation with other programs. The 1-ms-time-stamps require these interfaces, too.

#### EASYLON ANALYZER

Software for use with Easylon Interface<sup>+</sup>

P.S10501

Software for use with third party interface

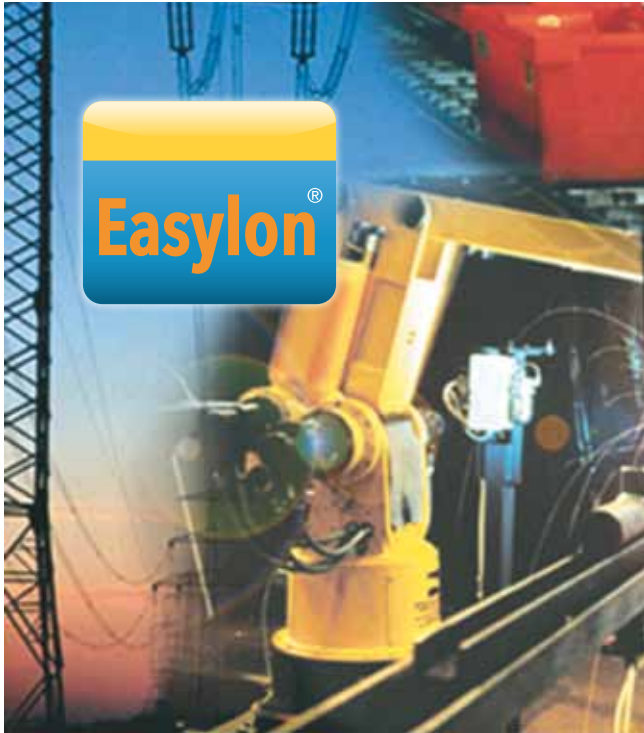
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- All telegrams on the screen  
The Easylon Analyzer records all network traffic and displays the telegrams with all relevant information. Network variable (NV) updates are displayed with correctly formatted values facilitating the immediate understanding of telegrams.
- Detailed information  
1-ms time stamps, sequence and transaction numbers, service type, source and destination addresses, text display with NV names and values formatted according to SNVT type, hex dump and CRC errors.
- Trigger and filter to find relevant events  
In order to sift out essential information from the mass of data, the Easylon Analyzer allows filtering according to address- and NV-parameters, triggering dependent on filters and logical combinations of filters and triggers.
- LNS database is not required  
The Easylon Analyzer operates on unknown networks. All relevant information is collected either by monitoring network traffic or via a "scan and upload".
- Consistency report and transaction analysis  
Are there quirks in your network? The Easylon Analyzer's consistency report tracks down nodes which have not been installed, addresses which have been assigned twice, incomplete bindings and similar problems, which other-wise would remain hidden. The transaction analysis displays erroneous transfers.
- In-depth network node information
  - The nodes list contains all detected nodes, with address information, location and self-documentation
  - The node information contains all structures of the NEURON Chip
  - Node commands comprise wink, reset, on-line, off-line, EEBlank, set location and even allow writing to the NEURON's memory.

## Easylon® OPC Server

### The OPC Server for LONWORKS®

The OPC technology presents a standard for visualization and monitoring systems to access field level data. By this standardized interface SCADA systems communicate with PLCs and field busses. Production level data are thus integrated into office applications. Even data exchange with other field bus systems is made this way.



The Easylon OPC Server was the first OPC server for LONWORKS. Since that time it underwent continuous modifications and improvements.

OPC servers operate in a client/server architecture. The Easylon OPC Server runs on a PC at the LONWORKS network. In an always updated database it provides information about the LONWORKS network objects (nodes, network variables) as OPC objects and realizes packaging, conversion and update of these objects.

As server the Easylon OPC Server accepts subscriptions from several clients and takes care of updating subscribed NV's as soon as their values change within the LONWORKS network or due to external settings.

The Easylon OPC Server enables any OPC Client to access the LONWORKS network. It is compliant with the OPC Data Access Specification. Compatibility with many clients has been proven in hundreds of customer applications all over the world and in special interoperability workshops of the OPC Foundation

Next to the use with standard client software for visualization simple client solutions can easily be realized. Examples for use with Office programs and Visual Basic are provided.

Of course the OPC servers can be simultaneously used by several clients. As customary with OPC, clients on other PCs can access the Easylon OPC Server via the PC network.

### Operating Systems

The Easylon OPC Server M is a Windows application for PCs with Windows 2000 and later. It does not require an LNS Server at the network and can operate on unknown networks.

### Demo Versions

A demo version of the OPC Servers M is available from the internet. This version offers full functionality; however, it has a limited runtime. By purchasing a license key this version can be activated for regular operation.

### Licensing

There are large networks and small ones. Therefore the Easylon OPC Server can be licensed in different scales, depending on the number of NVs monitored. Details you will find in the price list. The license key is always bound to the node-ID of the interface used to access the LONWORKS network.

### Technical Features

- OPC server for OPC Data Access V2.05a
- OPC browser hierarchical or flat
- Single fields in structured data types can be accessed
- Optionally running as service
- Multiple instances
- Tree view of the network
- Simulation mode with generation of off-line values
- Value writing out of the OPC server
- Examples for Excel and Visual Basic

## Easylon® OPC Server M

### OPC Server for all LONWORKS® Networks

- Reliable OPC server for data access
- Operates with unknown networks
- Network variable browser
- Diagnosis features, simulation mode
- Binding support
- LNS PlugIn provided

The Easylon OPC Server M gives any OPC client access to LONWORKS networks. It is characterized by its intuitional and practical handling. The software is optimal solution for networks at which an LNS server is not permanently present. Up to eight instances of the OPC Server can be installed in parallel on one PC. This allows simultaneous access to several LONWORKS networks.



The Easylon OPC Server M learns about the network structure and all relevant node information by scan and upload. This information is stored in a MS Access database. Alternatively an LNS PlugIn can be used to export this database from a network management tool.

In a tree view of the network topology all nodes are listed with network variables (NV) and configuration properties. The monitoring mode dynamically displays the values of these variables. Furthermore, values can be written into the nodes from this view. A very helpful feature while commissioning a network.

The OPC browser displays available values in the same hierarchy as the OPC server itself, thus realizing a universal naming structure of the values. The OPC server reports its usage by clients, stating the connected clients and the respective groups and items defined. A further diagnosis feature is the extensive log file, the contents of which can be parameterized.

Usually the OPC server gets current values by explicit requests. Furthermore it is possible to define bindings. The XIF editor allows setting NVs for the OPC server itself. Thus the OPC server will become a LONWORKS node to which values from the network can be bound. This is especially recommended for failure messages and alarms. Using output variables in the OPC server commands can be issued by group binding to several nodes at the same time. This reduces programming for the visualization.

### Technical Features

- Unlimited network size
- Data access by polling or binding
- Network variables and configuration properties supported
- SNVT/SCPT and UNVT/UCPT supported
- Single fields in structured data types can be accessed
- Scan/upload of LONWORKS network for automatic configuration
- Documented Microsoft Access database format
- Tree representation of the network
- Diagnosis of OPC interface, LONWORKS interface and LONWORKS devices
- Simulation mode
- Value writing out of the OPC Server
- Parameterization of log file
- Detailed settings for time response and OPC data types
- XIF editor for variable definition provided
- Up to eight instances on one PC

### System Requirements

- Microsoft Windows 2000 or later
- PC: 500 MHz Pentium, 32 MB disk space, 128 MB RAM
- Standard LONWORKS interface (no i.LON, Easylon Interface<sup>+</sup> recommended)
- LNS 3.0 or later, for use of LNS PlugIn

### EASYLON OPC SERVER M

The Easylon OPC Server M is available in different licenses, depending on the number of network variables (NV) monitored.

Full license	P.S10301
Limited to 50 NVs	P.S10302
Limited to 150 NVs	P.S10303
Limited to 600 NVs	P.S10304

