Lon Network Tool

LNT 505

ABB

Lon Network Tool

Product Guide

LNT 505

1MRS750829-MBG

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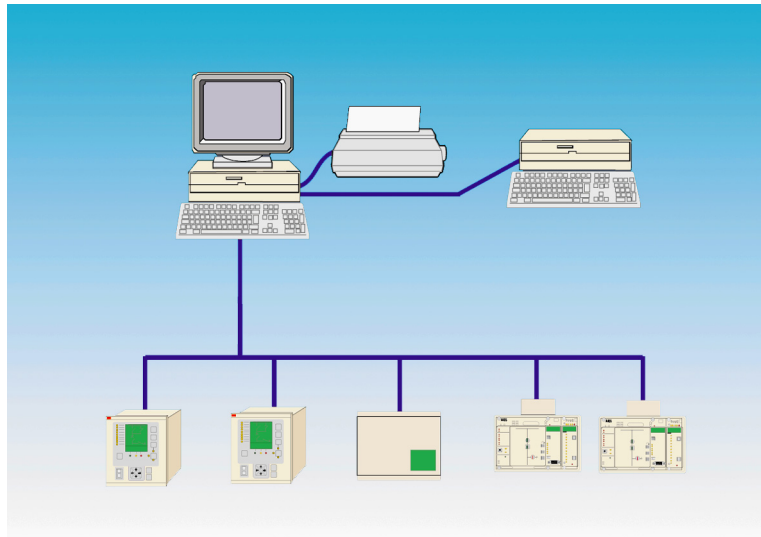Version: C/09.05.2006
Data subject to change without notice

Features

- Configuration operations can be performed to a project (network of several nodes) or to a single LonWorks node

- Network configuration can be created without a physical network configuration and downloaded to the network later

- A Lon Network Tool configuration can be created by connecting to an existing network and uploading the structure of the network

- Predefined diagnostic queries can be defined and saved/reloaded

- Several reports each with information about the network configuration can be created, stored on a hard disk and printed

- Configuration information is stored in the database of the Lon Network Tool

- Symbolic names for network nodes and connections

- Data transfer by exporting and importing network configurations or configurations of a single LonWorks node

- A 'Device type' concept allowing the creation of LonWorks nodes by using a predefined device type as a template

- A separate communication utility (Lon NetAgent)

- SNVT support for network variable connection creation and value display

- LonTalk File Transfer support

- Easy drag-and-drop operations

- Graphical display of nodes with user-selectable bitmaps

- Special support for gateways between LonTalk and SPA bus networks

- Context-sensitive help utility and Operator's Manual in English

- A true Windows™ based application, developed following the Microsoft® Windows™ Interface Guidelines

Application

The Lon Network Tool is a multi-purpose tool for LonWorks network configuration. All the functions required for setting up and configuring a LonWorks network are easily accessible in a single tool program.

The Lon Network Tool provides an efficient way for connecting protective relays using LonWorks network.

Design

With the Lon Network Tool a project containing several LonWorks nodes can be created, or the configuration operations can be targeted to a single LonWorks node. The same tool can be effectively used when processing large systems or when a single LonWorks device should be configured.

A key concept on the Lon Network Tool operating is a Device type. Device types are templates for creating device instances (individual LonWorks nodes). Using predefined device types a basic user can create complex network configurations without worrying about the structures of the devices. On the other hand, a power user can design new device types or modify existing device types during device instance creation.

Each LonWorks device must be configured and installed to the network before it can communicate with other nodes. The installation operation involves updating of one or more of the Neuron Chip configuration tables, depending on the factory settings of the device and the desired network configuration. The Lon Network Tool allows the installation to be performed without extra effort: A minimum of information is required from the basic user, but a more advanced power user has control over every setting of the device.

Another operation which must be done before the node becomes operable is the creation of the bindings. The node should be connected to other LonWorks nodes (which also have

been installed to the network). The binding operation also involves updating of several configuration tables. The Lon Network Tool provides a user-friendly way to create this configuration information and keep it in good order. An object model has been adopted: The user creates/modifies/deletes connection objects containing attributes specifying the inputs and outputs of the connection. The documentation utility can be used to produce human-readable information about the network configuration.

Creating a binding involves selecting of a data source and a target. When processing large networks with large devices the number of possible sources and targets may grow up to several thousands. In the Lon Network Tool separate controls for selecting the nodes and their outputs and inputs are used to make the connection creation as easy as possible. The Lon Network Tool also provides valid default configuration settings for each connection, so there is no need for the user to know the details of the connection.

A special support for gateways between Lon-Talk and SPA bus networks (SPA-ZC100) exists on the Lon Network Tool: All the configuration settings of a gateway between Lon-Talk and SPA bus networks can be modified with the tool. The base system software (main program) includes the client version of the MicroSCADA kernel, engineering and communication configuration tools.

Technical data

Table 1: System requirements

Required hardware	Platform	IBM® PC AT® compatible personal computer with an Intel® Pentium® processor or later
	Memory	A minimum of 32 MB RAM
	Hard disk	A minimum of 40 MB free hard disk space
	Graphics display mode	A VGA or SVGA display
	Miscellaneous	CD-ROM drive Mouse or other pointing device
	LonWorks™ interface	PCLTA (PC LonTalk® Adapter)
Required software	Operating system	Microsoft® Windows NT™, version 4.0
	Drivers	Appropriate driver for the LonWorks™ interface used
The drivers required for the Lon Network Tool comes with the hardware required for the LonWorks™ connection.		

Table 2: Program parameters

Maximum number of nodes on a network	700
Maximum number of network variables on a node	10000
Maximum number of network variable connections	600
Maximum number of routers on a network	50
Maximum number of LSG devices on a project	255
Maximum number of device types on LNT 505 installation	50
Special	Support for SPA-ZC 100

Ordering

When ordering, please specify:

Ordering information	Ordering example
1. Type designation and quantity The delivery includes one CD-ROM disk containing the LNT 505 software and the documentation in electronic format. The manuals listed in the References chapter are in English.	LNT 505 (1MRS 151400), 1 piece
2. Customer name	
3. Version number of earlier LNT 505 product	1.0.1c

Order numbers

The Lon Network Tool LNT 505	1MRS 151400

References

Additional information

Installation and Commissioning Manual	1MRS751705-MUM
Operator's Manual	1MRS751706-MUM

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ABB Oy
Distribution Automation
P.O. Box 699
FI-65101 Vaasa, FINLAND
Tel +358 10 22 11
Fax +358 10 224 1094
www.abb.com/substationautomation