





Fast, flexible, and powerful, the OpenLNS Commissioning Tool (CT) simplifies commissioning, operating, and maintaining LONWORKS control networks.

Based on Echelon's OpenLNS network operating system, this network commissioning and management tool combines support for open LONWORKS control networks with a user-friendly Microsoft Visio interface. The result is a software tool that's robust enough to work with all your devices, yet economical enough to leave behind as an operations and maintenance tool. The OpenLNS Commissioning Tool, OpenLNS Server, and OpenLNS SDK are the three primary components of OpenLNS.

## **OpenLNS CT Features**

#### Proven

- Echelon's OpenLNS Commissioning Tool and LonMaker® products share a common core platform, which has been used in more than 90,000 systems to commission more than 5 million devices.
- Echelon's OpenLNS Commissioning Tool and LonMaker products are supported by hundreds of third-party applications.

#### **Open Standards Support**

- Compatible with all ISO/IEC 14908-1 Control Network Protocol compliant devices with no commissioning fees or credits.
- ISO/IEC 14908-2 Free Topology Twisted Pair (FT).
- ISO/IEC 14908-3 Power Line (PL).
- ISO/IEC 14908-4 Control Network IP Tunneling Protocol (IP-852).
- ANSI/CEA-709.1 and ANSI/CEA-709.1-B-2002 Control Network Protocol.
- ANSI/CEA-709.2 Power Line (PL).
- ANSI/CEA-709.3 Free Topology Twisted Pair (FT).
- ANSI/CEA-852 Control Network IP Tunneling Protocol (IP-852).
- Extensible Markup Language (XML).

#### **OpenLNS Server**

 Integrated OpenLNS Server handles all network management tasks, both for the OpenLNS Commissioning Tool and for

- all other OpenLNS applications running locally or remotely on any open network.
- The OpenLNS Server provides an open platform supporting multiple simultaneous users running multiple applications from multiple vendors.

#### Multi-Application

- Supports operator interface applications developed for the OpenLNS Server and the LNS Server, or that have drivers supporting the OpenLNS Server or LNS Server.
- Supports both OpenLNS plug-ins and LNS plug-ins for easy device configuration with device-specific plug-ins provided by many device manufacturers.
- Available OpenLNS and LNS plug-ins are listed at www.echelon.com/plugins.
- Integrates easily with third-party tools and applications with an XML file import/ export capability.

#### Free Download

- A free trial edition is available for download from www.echelon.com/ openIns. The downloadable trial edition requires but does not include Visio you can request a Visio 2010 trial from Microsoft at office.microsoft.com/en-us/ visio/ or purchase Visio 2010 or Visio 2003 separately.
- The trial edition is limited to two networks with a maximum of five devices each, runs for a maximum of 60 minutes at a time, and expires 60 days after trial activation.

 The trial edition can be converted to a full-featured OpenLNS Commissioning Tool Professional or Standard Edition with the purchase and installation of an OpenLNS Commissioning Tool Professional or Standard Activation Key.

#### **Network Design**

- Design your network by dragging and dropping OpenLNS SmartShapes<sup>®</sup> in a Visio drawing.
- Includes SmartShapes for subsystems, LONWORKS devices, functional blocks, network variables, message tags, connections, routers, and channels.
- Speeds network design with support for custom SmartShapes that you create for your frequently used device and subsystem configurations.
- Create connections between devices with a simple drag-and-drop connector tool.
- The OpenLNS CT software is compatible with Microsoft Visio 2010 and Visio 2003.
- Supports advanced LONMARK®
   features such as functional blocks,
   configuration properties, resource
   files, network variable aliases, dynamic
   network variables, dynamic func tional blocks, and changeable network
   variable types.
- Supports multi-channel networks with any combination of LONWORKS routers and LONWORKS/IP-852 routers.
- Provides automatic connection-type selection to speed network design and to reduce common errors when specifying connections.
- Provides easy migration of networks that were installed with other tools, or networks for which the database is no longer available, with support for recovery of a network design and drawing from an existing, installed network.
- Merges independent networks into a single network.
- Enables you to create accurate as-built drawings for your network at the same time you design the network.
- Imports AutoCAD drawings to use as a background for your OpenLNS CT drawings.

- Exports AutoCAD drawings representing your network designs.
- Simplifies visualizing network design with a graphical view of the functional blocks in a network and their connections.

#### **Network Commissioning**

- Commission devices from the network drawing—one at a time, in groups, or by subsystem.
- Identify devices to be commissioned by pressing a service pin, scanning a bar code, winking a device, manually entering a Neuron ID, or using automatic discovery.
- Includes the Echelon IP-852 Configuration Server that can be used to configure up to 256 IP-852 devices and routers per network.

#### **Network Operation**

- Monitor network operation directly in the network drawing, or using the integrated OpenLNS CT Browser.
- Create custom pages to monitor and control your devices using the OpenLNS Data Point SmartShape.

#### **Network Maintenance**

- Test and control device state with a simple device management window.
- Replace devices with a simple point and click in the network drawing.

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Subsystem	Device	Functional Block	Network Variable	Config Prop	Mon	Value	
Subsystem 1	iLON SmartServer- 1	Digital Input-1		SCPTlocation	N		
Subsystem 1	iLON SmartServer- 1	Digital Input-1		UCPTdioType	N	DIRECT	
Subsystem 1	iLON SmartServer- 1	Digital Input- 1	nviClsValueFb		Υ	0.0 -1	
Subsystem 1	ILON SmartServer- 1	Digital Input- 1	nvoClsSetting		Υ	SET_OFF	
Subsystem 1	iLON SmartServer- 1	Digital Input- 1	nvoClsValue		Y	0.00	
Subsystem 1	iLON SmartServer- 1	Digital Input-1	nvoClsValue	SCPTinvrtOut	N	ST_OFF	
Subsystem 1	iLON SmartServer- 1	Digital Input 2		SCPTlocation	N		
Subsystem 1	iLON SmartServer- 1	Digital Input 2		UCPTdioType	N	DIRECT	
Subsystem 1	ILON SmartServer- 1	Digital Input 2	nviClsValueFb_2		Υ	0.0 -1	
Subsystem 1	iLON SmartServer- 1	Digital Input 2	nvoClsSetting_2		Y	SET_OFF	
Subsystem 1	iLON SmartServer- 1	Digital Input 2	rwoClsValue_2		Y	0.00	
Subsystem 1	iLON SmartServer- 1	Digital Input 2	nvoClsValue_2	SCPTinvrtOut	N	ST_OFF	
Subsystem 1	ILON SmartServer- 1	Digital Output- 1		SCPTinvrtOut	N	ST_OFF	
Subsystem 1	ILON SmartServer- 1	Digital Output-1		SCPTlocation	N		
Subsystem 1	iLON SmartServer- 1	Digital Output- 1	nviClaValue		Υ	100.0 1	
Subsystem 1	iLON SmartServer- 1	Digital Output- 1	nvoClaValueFb		Υ	100.0 1	
Subsystem 1	iLON SmartServer- 1	Digital Output 2		SCPTinvrtOut	N	ST_OFF	
Subsystem 1	iLON SmartServer- 1	Digital Output 2		SCPTIocation	N		
Subsystem 1	ILON SmartServer- 1	Digital Output 2	nviClaValue_2		Υ	0.00	
Subsystem 1	iLON SmartServer- 1	Digital Output 2	nvoClaValueFb_2		Υ	0.00	
Subsystem 1	iLON SmartServer- 1	Node Object		SCPTlocation	N	Subsyster	
Subsystem 1	iLON SmartServer- 1	Node Object	nviDateEvent		Υ	0.0	
Subsystem 1	iLON SmartServer- 1	Node Object	nviRequest		Υ	1,RQ_ENA	
Subsystem 1	ILON SmartServer- 1	Node Object	nviTimeSet		Υ	0.0/00 0:0	
Subsystem 1	iLON SmartServer- 1	Node Object	nvoDateResync		Υ	100.0 1	
Subsystem 1	iLON SmartServer- 1	Node Object	nvoDeviceAlarm		Υ	AL_NO_C	
Subsystem 1	iLON SmartServer- 1	Node Object	rwolpAddress		Υ	10.3.0.79	
Subsystem 1	iLON SmartServer- 1	Node Object	nvoStatus		Υ	1 0,0,0,0,0	
Subsystem 1	ILON SmartServer- 1	Pulse Counter 1		SCPTIccation	N		
Subsystem 1	ILON SmartServer- 1	Pulse Counter 1		UCPTconversionFactor	N	11	
Subsystem 1	iLON SmartServer- 1	Pulse Counter 1		UCPTmeasinterval	N	900.0	
Subsystem 1	iLON SmartServer- 1	Pulse Counter 1	rwiPcTrigger_1		Υ	0.00	
Subsystem 1	iLON SmartServer- 1	Pulse Counter 1	nvoPcValue_1		Υ	0	
Subsystem 1	ILON SmartServer- 1	Pulse Counter 1	nvoPcValue_1	UCPTstartValue	N	0	
Subsystem 1	iLON SmartServer- 1	Pulse Counter 1	nvoPcValueDif_1		Υ	8	
Subsystem 1	il ON SmartServer-1	Pulse Counter 2		SCPTIncation	N		

#### **Network Interfaces**

 Integrated OpenLDV 4.0 driver provides compatibility with all OpenLDV 4.0-compatible network interfaces and remote network interfaces.

#### Multi-User and Multi-Network

- Supports multiple users modifying devices in the network at the same time.
- Supports remote access via LONWORKS or IP networks.
- Reduces installation time for large networks with support for merging independent networks into a single, integrated system.
- Supports multiple networks so that a single tool can be used to install many networks.

#### **Multiple Editions**

- Available in a full-featured Professional Edition for network integrators
  that includes support for an unlimited
  number of networks; and a basic
  Standard Edition that includes support
  for up to five networks for use as a
  leave-behind maintenance tool for
  each installed network.
- Versions are available with and without an integrated copy of Visio—the version without Visio is ideal for users who already have Microsoft Visio 2010 or Visio 2003, or who choose to purchase Visio separately.

#### Free Updates and Upgrades

- One year of maintenance is included with every OpenLNS Commissioning Tool — during the first year all updates and upgrades to the OpenLNS CT can be downloaded and installed for free (Visio upgrades are not included).
- Annual maintenance can be renewed any time prior to the end of the first pre-paid maintenance period and again prior to the end of each subsequent paid maintenance period — annual maintenance cannot be renewed after expiration of the last pre-paid or paid maintenance period; once renewed, all updates and upgrades can be downloaded and installed for an additional year.

#### **SPECIFICATIONS**

#### **PC** Requirements

Microsoft® Windows 7 (64-bit and 32-bit), Windows Server 2008 R2 (64-bit), Windows Server 2008 with SP2 (32-bit), Windows Vista with SP1 (32-bit), or Windows XP with SP3 (32-bit).

#### Minimum Hardware

500 MHz processor, 512 MB RAM, 2 GB available disk space, 1024 MB page file, DVD-ROM drive, 1024 x 768 or higher-resolution display with at least 256 colors, mouse or compatible pointing device, and OpenLNS or IP network interface.

#### **Recommended Configuration**

Minimum 2 GHz processor, 2 GB RAM, and 2048 MB page file.

**Compatible LNS Network Interfaces** OpenLNS CT is compatible with IP-852 and all OpenLDV 4.0-compatible network interfaces. OpenLDV 4.0 drivers are included for the i.LON 100, i.LON 600, and SmartServer remote network interfaces (RNIs); and for PCC-10, PCLTA-20, PCLTA-21, U10, and U20 local network interfaces. The OpenLDV 4.0 driver is compatible with the Echelon SLTA-10 Serial LonTalk Adapter, but requires separate installation of an SLTA driver. The PCC-10. PLCLTA-20. PCLTA-21, and SLTA-10 drivers are only compatible with 32-bit versions of Windows; all other included drivers are compatible with all supported versions of 64-bit and 32-bit Windows.

## **Compatible IP Network Interfaces**

Any PC network interface card or dialup connection with a network driver compatible with Windows TCP/IP networking; drivers included for an IP-852 interface.

Maximum Network Variable Limits 4096 maximum NVs per LONWORKS device.

#### **Maximum Network Limits**

The following maximum limits apply per network defined in OpenLNS CT:

Active OpenLNS CT remote clients: 5. Application Device Types: 32,385. Channels: 1000.

Devices: 32,385 (2 addresses required per router and network service device). Domains: 1 per network.

Network variable selectors: 12,288 bound selectors (ISO/IEC 14908-1 protocol limit)—the OpenLNS Server reuses network variable selectors and therefore the number of network variable connections is not limited by this protocol limit.

Routers: 1000.

# Maximum Limits per OpenLNS Commissioning Tool

Address table entries: 32,768.

Alias table entries: 1024.

Simultaneous outgoing transactions: 250 (when using a Layer 2 network interface or an IP-852 interface); 15 (when using a SmartServer or i.LON 600); 1 (all other interfaces).

Simultaneous incoming transactions: 250 (when using a Layer 2 network interface or an IP-852 interface); 16 (all other interfaces).

#### **DOCUMENTATION**

OpenLNS Commissioning Tool User's Guide

LONWORKS Network XML Programmer's Guide

#### **ORDERING INFORMATION**

OpenLNS Commissioning Tool Professional Edition (includes Microsoft Visio 2010 Professional) 38000-400

OpenLNS Commissioning Tool Professional Edition Without Visio (requires separate purchase of Visio 2010 or Visio 2003) 38010-400

OpenLNS Commissioning Tool Professional Edition Activation Key (used to activate the free download version of the OpenLNS CT) 38050-400 OpenLNS Commissioning Tool Professional Edition Without Visio Activation Key (requires separate purchase of Visio 2010 or Visio 2003) 38060-400

OpenLNS Commissioning Tool Standard to Professional Upgrade Key 38070-400

OpenLNS Commissioning Tool Standard Edition (includes Microsoft Visio 2010 Standard) 38100-400

OpenLNS Commissioning Tool Standard Edition Activation Key (used to activate the free download version of the OpenLNS CT) 38150-400

OpenLNS Commissioning Tool Standard Edition Without Visio Activation Key (requires separate purchase of Visio 2010 or Visio 2003) 38160-400

OpenLNS Commissioning Tool Professional Edition One-Year Maintenance Renewal 93800

OpenLNS Commissioning Tool Standard Edition One-Year Maintenance Renewal 93810

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