OVERVIEW
Using Efficient Building Automation Corporation’s Circon Network Integrator integration software, System Integrators can create, commission and maintain open, interoperable, multiple vendor facility automation systems. By combining familiar, intuitive Windows®-based presentation with Echelon® Corporation’s powerful LNS® client-server network operating system, Network Integrator delivers the power to implement advanced, peer-to-peer LonWorks networks while being an economical leave behind tool for network maintenance and operations.

Adherence to LonMark® standards is integral with Network Integrator: standard functional profiles, device resource files, configuration properties, changeable types, dynamic network variables, and network variable aliases are all supported, and that means lifecycle savings by allowing you to choose best of breed components from Circon and other LonWorks-certified device manufacturers.

Network Integrator is fully integrated with the LNS network operating system and LNS server, Turbo Edition. LNS is the defacto industry standard platform for supporting multiple vendor, interoperable LonWorks networks. LNS client-server architecture allows multiple Network Integrator users to access a network simultaneously, from local or remote locations.

By conforming to the LNS plug-in standard, Network Integrator enables device plug-in software from any manufacturer to enhance productivity, allowing system integrators to install and maintain associated devices.

Network merge allows a large system to be installed as multiple independent networks initially, and later merged into one integrated network.

ORDERING INFORMATION
Part numbers:
11-0300: NI / LNS Turbo / 64 Device Credits
11-0301: NI / LNS 3.0 to Turbo Upgrade

ADVANTAGES
→ Provides design, commissioning, operation and maintenance for open, interoperable, multiple vendor LonWorks networks
→ Includes industry standard LNS network operating system, Turbo Edition
→ Supports all LonMark interoperability standards
→ Allows monitoring and configuring of devices without plug-ins, with integrated Inspector utility
→ Merges independent networks into one network
→ Simplifies replication of similar networks, subsystems and devices with XML export/import
→ Provides an economical leave behind tool for network maintenance and operations
→ Saves time and unnecessary service calls with flexible remote-access options
→ Prevents unauthorized system access with multiple level password protection
→ Integrates seamlessly with Visual Integrator to provide a complete operator workstation HMI
FEATURES

NETWORK INTEGRATION
→ Create new networks and add new subsystems, channels, routers and devices
→ Create network variables and message tag connections using Connection Wizard
→ Copy and paste subsystems and devices
→ Merge multiple independent networks
→ Import device templates from XIFs
→ Discover uncommissioned devices on network
→ Supports LonMark devices and LonMark features such as standard functional profiles, configuration properties, and resource files
→ Perform device maintenance functions: test, reset, repair, replace, wink, online, offline, download a new program
→ Generate network database reports
→ Export/import/merge network database via XML
→ Conforms to the LNS plug-in standard, works with any device manufacturer’s LNS plug-ins
→ Monitor and configure devices without plug-ins
→ Perform LonMaker®-compatible network database backup and restore

INTUITIVE HUMAN-MACHINE INTERFACE
→ Native Windows-based application that uses standard Windows-like presentation
→ Navigate among networks, channels, subsystems, and devices using familiar Windows Explorer tree view

LOCAL AND REMOTE NETWORK ACCESS
→ Operate locally or remotely via Internet or other IP networks
→ Dialup remote networks using modems over public standard telephone network
→ Support multiple networks

ACCESS SECURITY
→ Prevent access by unauthorized operator with username and password security check
→ Log operator actions in audit trail database

MAXIMUM LIMITS PER NETWORK
→ Application device types: 32,385 maximum
→ Channels: 1,000 maximum
→ Devices: 32,385 maximum (each router or network service device counts as two devices)
→ Domain: 1 maximum per network
→ Routers: 1,000 maximum

DEVICE CREDITS
→ When a device is commissioned, an LNS device credit is consumed
→ First 64 LNS device credits included at no charge with Network Integrator
→ Additional credits can be purchased from Echelon Corporation

PLATFORM REQUIREMENTS
→ Operating Systems: Windows XP, Windows Vista
→ LNS Server Turbo Edition
→ Processor: 1 GHz 32-bit (x86) or higher
→ Memory: 1 GB minimum
→ Hard drive: 1 GB minimum free disk space, ATA-100 interface
→ Display: video card and monitor with1024 x 768 pixel resolution or greater
→ LonWorks network interface: LNS or IP network interface required

EFFICIENT BUILDING AUTOMATION CORPORATION
401 – 8342 130th Street, Surrey BC, Canada V3W 8J9
Telephone: +1 604.248.4404 Facsimile: +1 604.248.4405
Website: www.circon.com

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OVERVIEW

Using Efficient Building Automation Corporation’s Circon Visual Integrator HMI software, facility owners and managers can accurately and reliably gather information from a facility, take actions that help minimize costs, save energy and improve comfort. Visual Integrator (VI) is a fully featured facility management interface to your open, interoperable DDC systems.

The intuitive graphical user interface, customized to each facility, allows you to navigate quickly through the entire system, from the high level view, to individual buildings, to detailed equipment views. You can monitor the system to verify operation, diagnose problems and respond immediately when necessary. Setpoints and operating values are displayed in real time, and operator changes to schedules, setpoints and operating parameters are accomplished with ease.

Using remote or local access, VI expands with your facility, to other sites across town or across the country. With remote access you save the time and cost of unnecessary service calls.

Alarms are displayed the moment they are received. You know when, where and why a problem has occurred, allowing immediate corrective action long before comfort or safety is affected.

VI’s extensive historical alarm, event and trend data logging combined with comprehensive trend charting and reports packages allow you to analyze operating strategies and plan your maintenance resources to meet the needs of an ever changing business environment.

VI works with open, interoperable LonWorks® networks meaning lifecycle savings through allowing the choice of best of breed components from Circon and other manufacturers of LonWorks technology devices.

ADVANTAGES

→ Simplifies the creation of facility management HMIs for open, interoperable LonWorks networks, using built-in fully-featured graphical design tools and libraries

→ Enhanced graphical user interface provides intuitive navigation from a high level site map to complex equipment details

→ Works with Echelon® Corporation’s LNS® Turbo Edition.

→ Supports accurate and reliable analysis, troubleshooting and maintenance planning using extensive alarm, event and trend logging

→ Prevents unauthorized system access with multiple level password protection

→ Provides alarm history and operator audit trail reports

→ Allows design and commissioning of LonWorks networks with Network Editor add-on; an economical leave behind tool for maintenance and operations

→ Integrates LNS plug-ins to enable multiple vendor device configuration and management

→ Saves time and unnecessary service calls with flexible remote-access options

ORDERING INFORMATION

Part numbers (all with LNS® Turbo):
11-0303: VI Single site / 10 devices / 1 device credit
11-0304: VI Single site / 10 devices / 64 device credits
11-0305: VI Single site / 64 devices / 1 device credit
11-0306: VI Single site / 64 devices / 64 device credits
11-0307: VI Single site / 132 devices / 1 device credit
11-0308: VI Single site / 132 devices / 64 device credits
11-0309: VI Multi site / unlimited devices / 1 device credit
FEATURES

INTUITIVE HUMAN-MACHINE INTERFACE
→ Native Windows®-based application that uses standard Windows presentation
→ Navigate among customers, sites, schedules and devices using familiar Windows Explorer tree view and multi-tab view
→ View navigation tree, graphics and alarms on one screen

GRAPHICS DEVELOPMENT
→ Create custom equipment views, site maps and more with complete freedom using built-in Graphics Editor
→ Reduce development time with graphics images library
→ Enhance graphics usability with ActiveX controls library
→ Generate graphics automatically with Document Wizard

SCHEDULING
→ Create schedules graphically using Network Scheduler
→ Include Normal, Holiday and Override events
→ Deploy device-resident or PC-resident scheduling

CONTINUOUS DATA LOGGING
→ Log alarms, events, trend and I/O runtime data
→ Store information in SQL database for easy access and enterprise level information exporting

COMPREHENSIVE, ACCURATE TRENDING
→ Plot data with multiple I/O points per chart
→ Customize plots for colors, title, legend and more
→ Combine historical and realtime trending
→ Print trend plots on networked Windows-supported printers

STANDARD AND CUSTOM REPORTS
→ View standard reports with data in tabular format

LOCAL AND REMOTE SITE ACCESS
→ Operate local site via LonWorks or IP network
→ Access remote sites over Internet or IP networks
→ Dialup remote sites using modems over public standard telephone system
→ Work with multiple customers and sites

ALARMING AND ALARM MANAGEMENT
→ Annunciate alarms immediately when received
→ Acknowledge and clear alarms by authorized operator
→ Filter alarms view by customer, site, priority and alarm state
→ Send alarm notification by email

ACCESS SECURITY
→ Prevent access by unauthorized operator with username and password security check
→ Assign permissions to operator groups to restrict access to customers, sites and functions
→ Log operator actions in audit trail database

NETWORK INTEGRATION AND MAINTENANCE
→ Fully integrated with Echelon LNS Turbo Edition
→ Launch LNS device plug-ins for device configuration and detailed device diagnostics
→ Create, commission and maintain open, multivendor, interoperable LonWorks network with Network Editor add-on
→ Create and restore site or database backup
→ Synchronize devices with PC’s local date and time

SYSTEM REQUIREMENTS - V1 LNS SERVER
→ Operating systems: Windows XP, Windows Vista
→ Microsoft SQL Server 2005 (Express Edition included)
→ LNS Server Turbo Edition
→ Processor: 1 GHz 32-bit (x86) or higher
→ Memory: 1 GB RAM minimum
→ Hard drive: 2 GB minimum free disk space, ATA-100

EFFICIENT BUILDING AUTOMATION CORPORATION
401 – 8342 130th Street, Surrey BC, Canada V3W 8J9
Telephone: +1 604.248.4404  Facsimile: +1 604.248.4405
Website: www.circon.com

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SOFTWARE PROGRAMMING TOOL

OVERVIEW

To solve today’s sophisticated and challenging control problems, to implement custom, complex DDC control sequences, to integrate products from multiple vendors, the HVAC controls market needs a comprehensive but easy-to-use programming tool.

Efficient Building Automation Corporation’s Circon BASIC programming language and the Circon BASIC Compiler software, in conjunction with Circon’s 300-series programmable controllers, enable you to meet these challenges and provide tailored solutions that exceed your customer’s expectations.

APPLICATIONS

Circon BASIC is flexible and powerful, allowing a user with limited programming experience to implement more complicated control sequences. Circon BASIC is very similar to most other BASIC languages with its familiar English-like programming syntax.

It is enhanced with many built-in subroutines and functions that extend its capabilities for control systems applications. These important capabilities allow a Circon BASIC program to interact with the physical input and output points of the controller and its functional blocks, use network variables to communicate application information with any other device on the LonWorks® network, and to run multiple independent tasks simultaneously.

The Circon BASIC Compiler is included at no charge as part of both the LNS plug-ins and AX wizards device support files, and is fully compatible with Echelon® Corporation’s LNS® and Tridium’s Niagara®.

ORDERING INFORMATION

Part numbers:
11-0030: LNS Device Support
11-0410: AX Wizards Device Support

ADVANTAGES

→ Compatible with all Circon 300-series programmable controllers for application flexibility

→ Familiar, easy to use, industry-standard BASIC programming language enables faster program implementation, even for users with limited programming experience

→ Enhanced with built-in functions that make complicated control sequences easier to implement

→ Accesses LonWorks® network variables for full interoperability with other devices

→ Runs as an LNS plug-in or NiagaraAX wizard for optimum program development flexibility
SUPPORTED CIRCON DEVICES

The Circon CBASIC Compiler can be used to develop custom programs for the following Circon devices:

- **UHC-300** 22-point HVAC Programmable Controller
- **UHC-320** 13-point HVAC Programmable Controller
- **SCC-310-PRG** Programmable Terminal Unit Controller (relay outputs)
- **VAV-332-PRG** Variable Air Volume (VAV) Single Duct/Dual Duct Terminal Unit Controller (programmable, TRIAC outputs, integrated damper motor, integrated pressure sensor)
- **VAV-332-XPR** Variable Air Volume (VAV) Single Duct/Dual Duct Terminal Unit Controller (programmable, TRIAC outputs, external damper motor, integrated pressure sensor)
OVERVIEW

Efficient Building Automation Corporation’s AX Wizards Device Support is a complete software package that allows System Integrators to configure and program Circon LonMark®-certified HVAC controllers from within the NiagaraAX WorkBench. NiagaraAX, a vendor and protocol neutral software platform developed and marketed by Tridium®, is a leading framework and development environment for implementing building automation systems.

AX Wizards integrate seamlessly with the NiagaraAX WorkBench LonWorks® protocol driver and database to provide a natural extension to the WorkBench environment.

AX Wizards includes a palette of device templates that allow drag-and-drop addition of Circon controllers into the LonWorks network, making it fast and easy to integrate them into a NiagaraAX based building automation system.

To ensure error-free configuration of controller I/O points and equipment control options, AX Wizards provides a familiar point-and-click interface with comprehensive data validation. All configuration properties for a controller is combined into one window with a tree-view navigator pane to move between the configuration panes.

Context-sensitive help provides instant access to detailed technical explanations of controller operation and configuration options.

AX Wizards includes device support files that improve the usability of Circon controllers within the WorkBench environment. By allowing meaningful names and properly formatted values for network variables and configuration properties to be displayed, the creation and maintenance of graphics, alarms and trends for Circon controllers is made streamlined and less error-prone.

The Circon AX Wizards Device Support package is provided freely at no charge to EBAC partners.

ORDERING INFORMATION

Part number:
11-0410: AX Wizards Device Support
SUPPORTED CIRCON DEVICES

SOFTWARE COMPATIBILITY
Circon AX Wizards Device Support is compatible with NiagaraAX version 3.3.22.
Prerequisites: NiagaraAX LonWorks driver and Web Services.

DEVICE COMPATIBILITY
The latest models of the following Circon devices are supported:

Programmable Controllers
- UHC-300  22-point HVAC Programmable Controller
- UHC-320  13-point HVAC Programmable Controller
- SCC-310-PRG  Programmable Terminal Unit Controller (relay outputs)
- VAV-332-PRG  Variable Air Volume (VAV) Single Duct/Dual Duct Terminal Unit Controller (programmable, TRIAC outputs, integrated damper motor, integrated pressure sensor)
- VAV-332-XPR  Variable Air Volume (VAV) Single Duct/Dual Duct Terminal Unit Controller (programmable, TRIAC outputs, external damper motor, integrated pressure sensor)

Application Specific Controllers
- SCC-310-AHC  Air Handler Terminal Unit Controller (configurable, relay outputs)
- SCC-300-FCC  Fan Coil Terminal Unit Controller (configurable, TRIAC outputs)
- SCC-310-FCC  Fan Coil Terminal Unit Controller (configurable, relay outputs)
- SCC-310-GPC  General Purpose Terminal Unit Controller (configurable, relay outputs)
- SCC-310-HPC  Heat Pump Terminal Unit Controller (configurable, relay outputs)
- SCC-310-RTC  Rooftop AC Terminal Unit Controller (configurable, relay outputs)
- SCC-310-UVC  Unit Ventilator Terminal Unit Controller (configurable, relay outputs)
- VAV-332-IMV  Variable Air Volume (VAV) Single Duct Terminal Unit Controller (configurable, TRIAC outputs, integrated damper motor, integrated pressure sensor)
- VAV-332-XMV  Variable Air Volume (VAV) Single Duct Terminal Unit Controller (configurable, TRIAC outputs, external damper motor, integrated pressure sensor)

EFFICIENT BUILDING AUTOMATION CORPORATION
401 – 8342 130th Street, Surrey BC, Canada V3W 8J9
Telephone: +1 604.248.4404  Facsimile: +1 604.248.4405
Website: www.circon.com

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