

# JENEsys™ Product Suite

## Technical Documentation



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## Lynxspring

Lynxspring, Inc. is a leader in web based automation technology, open modular platforms, and device-to-enterprise integration solutions.

Lynxspring's JENEsys™ solutions are a key component to extend connectivity, integration and interoperability to the millions of devices and systems deployed in the market today.

Our customers include equipment manufacturers, systems integrators and end-users around the world involved in the Building Automation, Energy, Security, Asset Monitoring, M2M and National Accounts markets.

Lynxspring embeds the revolutionary NiagaraAX Framework on the JENEsys™ solution. NiagaraAX is a powerful software suite designed for device to device connectivity and is widely accepted as a powerful automation solution by many of today's largest manufacturers.



Combined, JENEsys products, embedded with NiagaraAX, are used to develop and deploy device-to-enterprise applications, Internet-enabled products and automation solutions. Thus, providing our clients:

- ☐ Lower costs
- ☐ Comprehensive tool set
- ☐ Ability to design and meet any automation specification
- ☐ Integrated Systems and Solutions
- ☐ Leverage into Existing Systems
- ☐ Normalized Data
- ☐ Common Platform No Matter Where Installed
- ☐ Scalable; client, server, IO, field device to Enterprise
- ☐ Lynxspring Value Add
- ☐ Greater customer satisfaction



Niagara <sup>AX</sup> Framework <sup>®</sup>	RS-485 Card	Legacy Drivers	Snap! HVAC Appliance
	RS-232 Card	Open Drivers	
JENE Controllers	LON Card	Third Party Drivers	Snap! Platform
IO Modules	Power Supplies	BAS Bridge	LynxTelemetry
ProBuilder™	POTS Modem	Lynx Security	Remote RS-485 IO
Web Supervisor	LCD Interfaces	JES/eSight	JENE-202
GPRS Modem		JENE Kits	NXS and SoftJENE

## JENEsys™

JENEsys™ is a suite of Java-based hardware products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems.

JENEsys™ products are powered by the revolutionary NiagaraAX Framework®, the industry's first software technology designed to integrate diverse systems and devices into a seamless system.



## Niagara<sup>AX</sup> Framework®

Niagara<sup>AX</sup> resolves the challenges associated with open systems, integration and interoperability by integrating diverse systems and devices — regardless of manufacturer, or communication protocol — into a unified platform that is easily managed and controlled over the Internet. A scalable solution, Niagara<sup>AX</sup> increases the functionality and value of “smart devices and systems” by connecting real-time operational data to the people and systems that manage business enterprises.



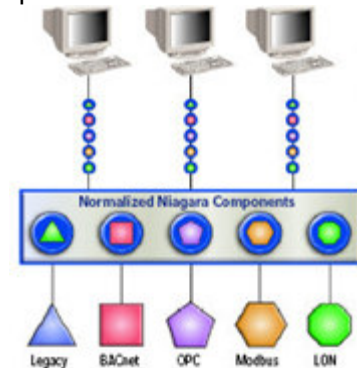
Application development with Niagara<sup>AX</sup> dramatically speeds implementation time and reduces engineering costs.

Manufacturers and developers adopt the Niagara technology to move their products and solutions to the web, reduce development time, migrate legacy systems, develop new service offerings, and open up new markets.

## Integration

System integrators use Lynxspring products to provide true open solutions to a wide range of different communication protocols, products or technologies.

***It is Much More than a Gateway;*** JENEsys™ with NiagaraAX creates a one-to-many relationship rather than a one-to-one relationship as offered with gateways. This one-to-many capability is performed using JAVA based components to NORMALIZE data into one common platform that can be used for whatever the customer needs. Add logic, export to other legacy systems, or share with your Enterprise solutions.



Thus, end users receive multiple paybacks in the form of performance efficiencies, reduced capital and operational expenses, and greater return on investments.



## JENE-PC Series Controllers

The nucleus of Lynxspring's hardware offering is the JENEsys™ PC 1000 and PC 6000 controllers. This range of platforms, all using common tools and software, provides integrators and end users with a totally unique offering for any building automation application. Choose the appropriate unit based on the size of the system integrated.

### JENE-PC1000

The JENE-PC1000 is ideal for smaller facilities, remote sites and for distributing control plant control and monitoring throughout facilities.



64 MB SDRAM (upgradable to 128MB SDRAM) & 64 MB Flash, (2) 10/100 MB Ethernet ports, (1) RS-485 serial port, (1) RS-232 serial port, NDIO port and (2) communication card option slots. Standard features include Niagara station. Standard drivers include oBIX Client/Server. The JENE-PC1000 is designed for DIN rail mounting.

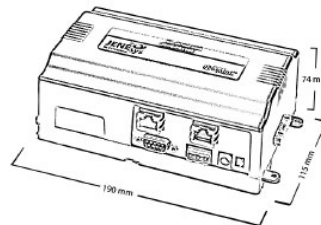
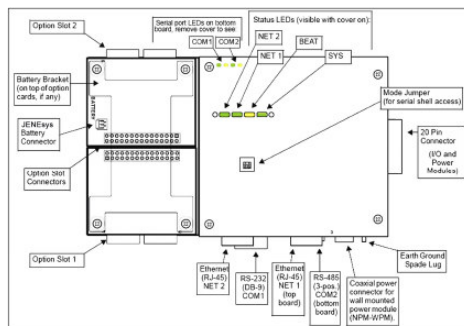
### JENE-PC6000



The JENE-PC6000 Ideal for larger facilities, multi-building applications and large-scale control system integrations.

128 MB DDR RAM (upgradable to 256 MB DDR RAM) & 128 MB Flash, (2)10/100 MB Ethernet ports, (1) RS-485 serial port, (1) RS-232 serial port, NDIO port and (2) communication card option slots. Standard features include Niagara station. Standard drivers include oBIX Client/Server. The JENE-PC6000 is designed for DIN rail mounting.

Each unit can serve data and rich graphical displays to a standard Web browser via an Ethernet LAN or remotely over the Internet or dial-up modem. These units support a wide range of field busses for connection to remote I/O and standalone controllers. Optional input/output modules can be plugged in for applications where local control is required.



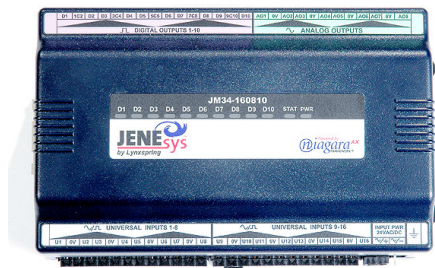
Agency Listings: UL 916, C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment", CE, FCC part 15 Class A

## JENE Input/Output Modules

JENE controllers are greatly enhanced when adding direct I/O capabilities with the JM34 and/or JM16 IO module designs. The ability to perform complex control schemes requiring I/O and point control is easily accomplished. JM34 & JM16 IO modules can be used concurrently with JENE controllers performing network management and interface duties.

### JM34-160810

The JM34-160810 I/O module is an extremely diverse 34 point control module.



16 Universal Inputs, 8 Analog Outputs, and 10 Digital Outputs

JM34-160810 is fully capable of handling the point count on everything from the largest Air Handling Unit to complex Chilled Water Plant applications.

### JM16-080404

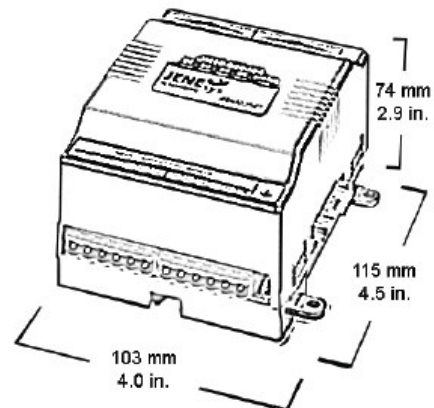
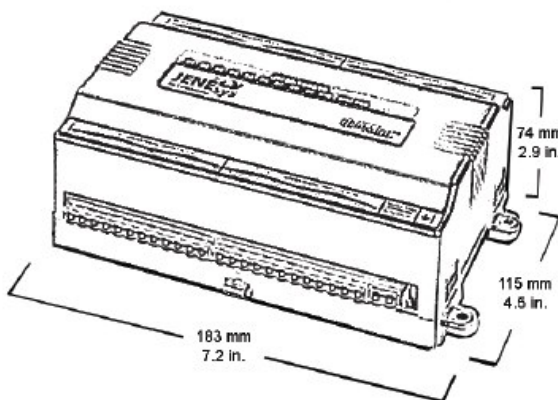


The JM16-080404 I/O module is equally diverse as the 34 point control module but now with only 16 points.

8 Universal Inputs, 4 Analog Outputs and 4 Digital Outputs.

JM16-080404 is designed for small applications or as part of a larger control scheme.

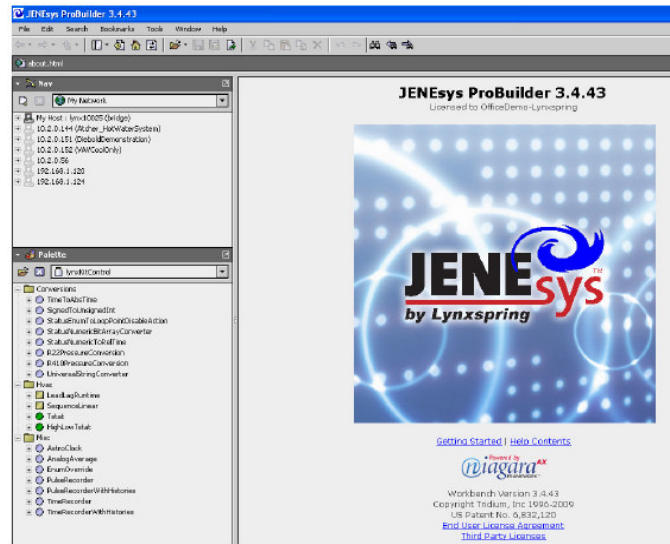
With the programming capabilities afforded by JENEsys™ and the freely programmable JENE-PC1000 and JENE-PC6000 controllers, no application is out of reach. For applications that require additional hardware points, the JM34-160810 can be mounted with (2) additional JM16-080404 I/O modules for a maximum of 66 points of IO.



## ProBuilder™

JENEsys™ ProBuilder™ software is a development and interface environment which is built around the Niagara<sup>AX</sup> Framework®. Niagara<sup>AX</sup> is a java application and that fact makes it easily portable across hardware platforms and environment. Since java is a line item program, a tool is needed to simplify the programming process and provide a method of quickly and accurately developing building automation applications. ProBuilder™ is that tool.

Basically, ProBuilder is the engineering tool that is used to create applications by defining components and wiring them together to create logic and displays. It allows the user to develop comprehensive applications for control, monitoring, alarming, data logging, reporting, and real-time data visualization using a single graphical tool.



JENEsys™ ProBuilder can run as a standalone application on a PC, can be bundled with an Web Supervisor, or be served up to a browser from an embedded JENEsys™ controller platform.

### ***Ease of Use***

As an engineering and integration system toolset, JENEsys™ ProBuilder uses an object oriented graphical programming environment which is easily learned and understood by building automation systems engineers at every level. JENEsys™ ProBuilder contains embedded design tools which eases the learning curve and masks the complexity of java programming by providing a series of libraries and canned applications (modules) which speed up development and delivery of applications.

Additionally, ProBuilder software is used to set up and commission other Lynxspring supplied devices ensuring consistently and simplicity.

## JENESys™ Web Supervisor

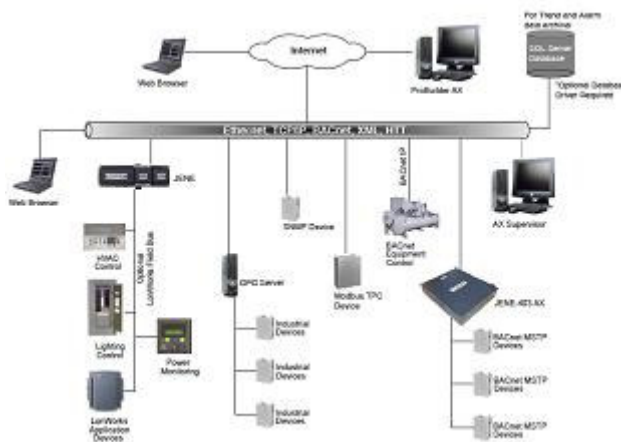
JENESys™ AX Web Supervisor is a flexible network server used in applications where multiple Niagara<sup>AX</sup> based JENE controllers will be networked together (SoftJENE®, JENE-545®, JENE-403®, or JENE-PC Controllers).

The JENESys™ AX Web Supervisor serves real time graphical information to standard web-browser clients and provides server-level functions such as: centralized data logging, archiving, alarming, real time graphical displays, master scheduling, system-wide database management, and integration with enterprise software applications. In addition, the JENESys™ AX Web Supervisor provides a comprehensive, graphical engineering toolset for application development.



### Features

- Java-enabled user interface (UI) as well as a non-Java UI for browsers.
- Supports unlimited users over the Internet / Intranet with a standard web browser.
- Optional enterprise-level data archival using SQL, Oracle or DB2 database, and HTTP/HTML/XML text formats.



- “Audit Trail” of database changes, database storage and backup, global time functions, calendar, central scheduling, control, and energy management routines.
- Sophisticated alarm processing and routing, including e-mail and paging.
- Provides access to alarms, logs, graphics, schedules, and configuration data with a standard web browser.
- Password protection and security using standard Java authentication and encryption techniques with

optional security supported via an external LDAP connection.

- HTML-based help system that includes comprehensive on-line system documentation.
- Supports multiple JENE-PC1000, JENE-PC6000 or JENE-403 stations connected to a local Ethernet network, or the Internet.
- Provides online/offline use of the Niagara Framework ProBuilder<sup>AX</sup> graphical configuration tool and a comprehensive Java Object Library.
- Optional direct Ethernet based driver support for BACnet I/P, OPC (Client), Modbus TCP, and SNMP.





## Modem Cards

JENE PC controllers can be equipped with two varieties of modems for remote connectivity when access to the buildings Ethernet is unavailable.

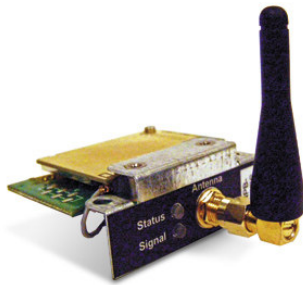
### ***JENE-PCX-GPRS***

The GPRS Modem option allows JENE PC controllers to communicate via cellular communications where connectivity to an Internet Service Provider (ISP) is unavailable or may not be practical. The GPRS Modem also allows these controllers to integrate with other system components via VPNs (Virtual Private Networks) for system expansion by combining LAN/WAN connectivity with cellular connectivity.

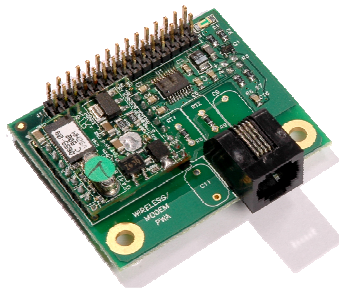
In addition, the GPRS Modem allows integrators the ability to quickly provide temporary monitoring and alarming services, monitor critical control strategies on a temporary basis and instantly provide a controlled environment during construction, before the LAN/WAN is installed.

### ***JENE-PC-MODEMCARD***

The modem card is a 56K Baud Dial-Up modem features Autodial/Autoanswer capabilities with one RJ-11 connector for the phone line. This modem is well suited for applications where a TCP network is not available and telephone service is readily available.



JENE-PCX-GPRS Modem Card



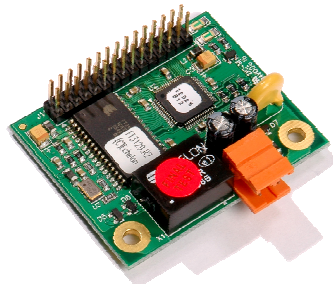
JENE-PC-MODEMCARD for POTS

Note: The GPRS modem card may reside in either one of the two 30 pin communication slots option cards. However, the dialup modem card can only reside in slot 1 which will then disable the RS-232 base port on the JENE PC controller.



## Serial Cards

There are three serial type communication cards available for JENE PC controllers. These cards enhance the JENE controllers by enabling LON communication and increasing the available ports for RS-232 and RS-485 bus connections.



JENE-PC-LONCARD

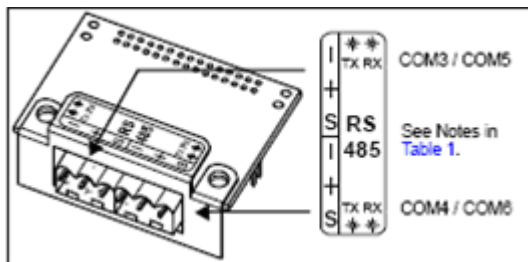
### JENE-PC-LONCARD

The LON card is a communication module that features an FTT-10A Lon (Lonworks) adaptor.

### JENE-PC-485

Up to 2 RS-485 option cards may be installed.

- If one RS-485 option in Option Slot 1, ports are COM3 and COM4.
- If two RS-485 options, ports are COM3 and COM4 for Option Slot 1, and COM5 and COM6 for Slot 2.
- If one RS-485 option in Option Slot 2, ports are COM3 and COM4 (unless Option Slot 1 has an JENE-PC-232 option card, in which case the ports are COM4 and COM5).



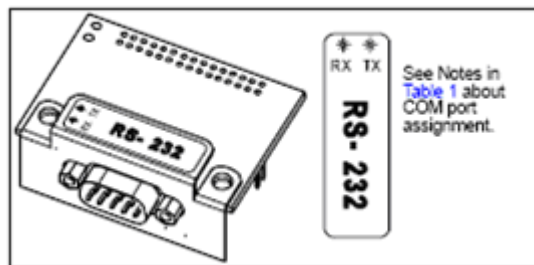
JENE-PC-485

### JENE-PC-232

Up to 2 RS-232 option cards may be installed. COM ports are assigned as follows:

- If a single RS-232 option in Option Slot 1, port is COM3.
- If two RS-232 options, ports are COM3 for Option Slot 1, and COM4 for Option Slot 2.
- If a single RS-232 option in Option Slot 2, with *another* option type in Slot 1, the COM assignment varies:

Slot 1	Slot 2 JENE-PC-232
Modem	COM 3
LON	COM 3
RS-485	COM 5



JENE-PC-232

Note: These cards may reside in one or both of the 30 pin communication option slots simultaneously. Always remove power when installing or removing option cards.

## LCD Interfaces

These operator panels give the user access to parameters without communicating directly to the BAS system. Additionally, these can be used to monitor status, adjust set points, view and acknowledge alarms, set schedules and perform other functions as required by the user. All values are displayed with explanatory text in the alphanumeric display window.



JENE-PCLCD-R

### **JENE-PCLCD-R**

This JENEsys™ PC series remote LCD Operator's Panel, is designed to be used as a remote-mounted or handheld LCD interface for JENEsys™ PC1000 & PC6000 and VYKON JACE 200 & 600 or equal type controllers.

The front panel has been updated with the latest "cap sense" button technology for better environmental protection and user experience. The unit can be powered by a 15Vdc Wal-Wart, from the controller or battery. Multiple cable lengths are also available.

A decorative trim ring for wall or panel mounting is available.



JENE-PCLCD

### **JENE-PCLCD**

This LCD replaces the controller cover and mounts directly on the JENE or JACE controller. It is designed to be used together with the JENEsys™ PC1000/6000 or JACE 2/6.

These LCD's have a display with unlimited rows (6 visible rows available for information access with a scrolling interface) of approximately 25 characters per row and seven user interface buttons.

## JENE PC Power Supplies

There are essentially three ways to get power to a JENE PC controller. However, the option you choose may be indicative of the combination of JENE's and IO that are used.



JENE-PC-WWPM-120



JENE-PC-PWR-UN



JM34-160810

### ***JENE-PC-WWPM***

The JENE-PC-WWPM is a wal-wart type power adapter that provides dependable 15W switching for JENE controllers when a JM34 point I/O module or JENE-PC-PWR-UN is not present. This model comes in two voltages 120V and 230Vac.

### ***JENE-PC-PWR-UN***

This modular unit accepts 24 volts AC at 50/60Hz or 24/48 volts DC as an input. It is a Din rail mounted unit and supplies power to the JENE PC controllers and up to four IO-16 modules. The nominal power input ranges from about 6VA minimum to 20VA with fully loaded I/O.

### ***JM34***

The JM34-160810 module has an integral power supply, which accepts 24 volt AC input and is capable of powering the JM34-160810, the JENE PC controllers and up to two additional JM16-080404 modules.

The JENE-PC-WWPM wal-wart power adaptor is used with a JENE-PCLCD-R interface when not connected to a LCD option card or powered by AA batteries. Do not use the JENE-PC-WWPM or the JENE-PC-PWR-UN power supplies if a JM34 IO module is present.

## Communication Drivers

JENEsys™ continues and expands on the integration platform native to Niagara<sup>AX</sup>. With a wide range of drivers available from Lynxspring and more still available from other companies in the Niagara community, your company is assured that integration of your building is a reality.

### *Drivers Native to Niagara*

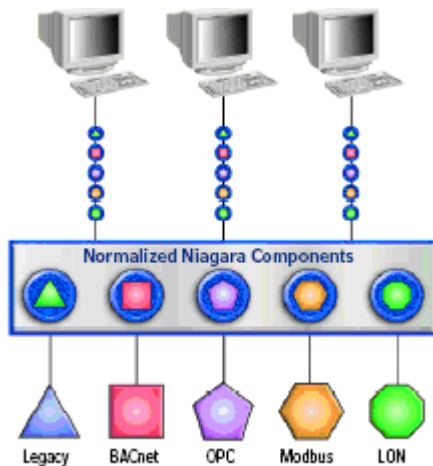
- Niagara Network (FOX)
- WEB UI
- Embedded ProBuilder
- Serial Flex
- 128 & 256 MB Extended Memory
- Etc

### *Open Drivers*

- BACnet - MS/TP, IP & Ethernet
- LON & iLON
- M-BUS
- Modbus TCP & RTU
- oBIX
- OPC
- SNMP
- Wireless - Z-Wave & ZigBee
- Johnson N2 Open Server and more.....

### *Legacy Drivers*

- American Automatrix PHP & PUP
- Andover AC256 & Infinity
- Barber Coleman GCM & ASD
- Johnson N2 Open Client
- Siebe/Robertshaw Microsmart
- Siemens System 600/Apogee
- Trend Serial and Ethernet
- VeederRoot and more.....



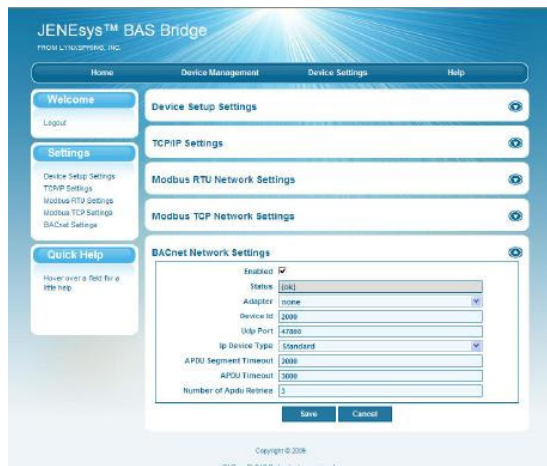
ONE-TO-MANY RELATIONSHIP WITH  
NORMALIZATION

JENEsys™ is not a gateway. It normalizes data. This means that common tools and data handling are used on any system for which a driver exists. Your technical support people use the same methods of data manipulation regardless of where the data originated or where it will end up.

## BAS Bridge

JENEsys™ BAS Bridge products demonstrate the power of Lynxspring's Appliance Technology utilizing Niagara<sup>AX</sup> as an operating system.

These products are very well suited for integrating existing BAS or Devices into a new or different vendor provided system. These products also work well for non-BAS systems such as energy dashboards or monitoring systems.



JENE-BRIDGE

### JENE-BRIDGE-PC1-AM-BIP

This JENEsys™ BAS Bridge product consist primarily of a licensed JENE-PC controller with Modbus TCP & RTU network drivers for field devices and BACnet IP/Ethernet for communication to a BAS system. It also includes software and Lynxspring's Bridge Appliance Framework.

There are two different point capacity units available; this unit has a capacity allowing up to 500<sup>1</sup> field level points.

The browser interface on the JENEsys™ BAS Bridge comes fully functional with a complete help interface. Future updates to the Bridge can be added simply through the interface. Additionally, when finished with the integrating, the normalized database can be saved and transportable to similar JENEsys™ BAS Bridge devices.

### JENE-BRIDGE-PC6-AM-BIP

This is a JENE-PC6000 model which increases the capacity for systems with up to 1<sup>2500</sup> points.

### JENE-BRIDGE-PC1-BOOSTER

Enables a JENE-PC1000 additional 1<sup>500</sup> points.

To use the product the operator is not required to be a certified Niagara programmer. The JENEsys™ BAS Bridge allows simple browser interfaces for network configuration and integration.

<sup>1</sup>

The total amount of field level points that may be integrated can vary based on the field device conditions including; the amount of devices in relation to the number of field level POINTS.



## JENE Kits

The JENE-34 control kits are designed to provide our integrators with a low cost, entry level JENEsys™ product for developing application specific controllers. Pricing on the control kits represent a discount over standard pricing. Integrators may field upgrade or add function and features to these control kits.



JENE-34 kit

### **JENE-34**

Includes a JENE PC1064 controller w/64 MB RAM and 34 Point IO Expansion Board. This kit comes with no communication or interface features.

### **JENE-34-NC**

Includes the standard JENE-34 Kit and Niagara Network (FOX) Connectivity License.

### **JENE-34-BACnet-IP**

Includes the standard JENE-34 Kit and BACnet IP Connectivity License.

### **JENE-34-MSTP**

Includes the standard JENE-34 Kit and BACnet MSTP Connectivity License.

### **JENE-34-LON**

Includes the standard JENE-34 Kit and LON Card and LON Connectivity License.

### **LC Bundles**

Combine our LC LON controllers with Belimo valves and actuators and save.

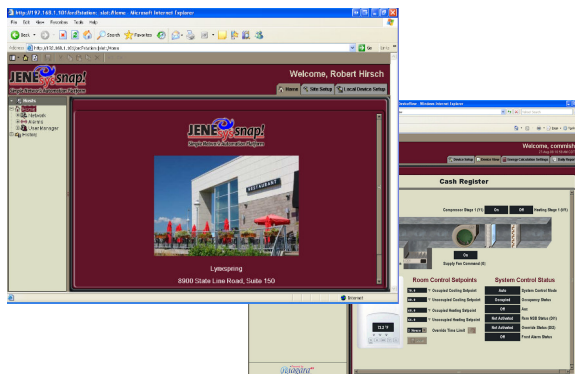
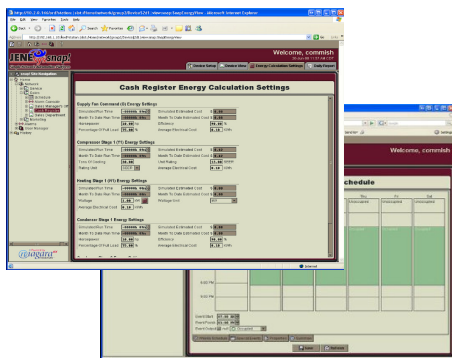


LC Bundles

Please add optional licenses and accessories to the JENE-34 kits as needed.

## JENEsys™snap! Appliance

An Appliance™ provides an "out-of-the-box" solution that transforms the JENEsys™ products into integrated, web-based solution or provides functions without the user having to become embedded in Niagara technology. An Appliance combines unique application and product knowledge with Lynxspring proven application expertise to transform a JENE into a fully Internet-enabled solution. The result is remote management with an advanced user interface that serves rich presentations through a web browser to customers or ease of use in implementation. Lynxspring Appliances can connect to a central service bureau and share information with other systems and equipment or operate as stand alone our in-house devices.



### SNAP! HVAC APPLIANCE

JENEsys™ snap! (Simple Network Automation Platform) automates the setup and operation of a web-based temperature control application for light commercial buildings. It generates a site-specific set of web pages, eliminating the need to buy or install any additional software on a computer or, as contractor, spend time creating a user interface. Just install and wire the equipment, log into JENEsys snap!, "discover" the system and easily and quickly set up the building.

JENEsys snap! produces an excellent return on investment for property owners by:

- Reducing energy costs
- Achieving utility savings through better building management and demand limiting
- Reducing maintenance costs through simplified operations
- Reducing field installation and high labor cost

JENEsys snap! is designed for national account, commercial, institutional or high-end residential property owners with split systems, rooftop units, air-handling units, or heat pumps. A JENEsys snap! network supports 1-120 thermostats.

## Security

Built on NiagaraAX, JENEsys Security Solutions extend the intelligent building concept into the physical security management world with a comprehensive, open system that integrates all common building functions — environmental control, intrusion detection, access control, lighting and energy management systems.



Security JENE-PC1000

### **Security-JENE-PC1000**

Includes 128 MB RAM/64 MB Flash, (2) 10/100 MB Ethernet ports, (1) RS-485 serial port, (1) RS-232 serial port, and (2) communication card option slots. The Security JENE-PC1000 supports up to 16 card readers, 2,500 personnel records and 5,000 transactional history records



Security JENE-PC6000

### **Security-JENE-PC6000**

Includes 256 MB RAM/128 MB Flash, (2) 10/100 MB Ethernet ports, (1) RS-485 serial port, (1) RS-232 serial port and (2) communication card option slots. The Security JENE-PC6000 supports up to 32 card readers, 10,000 personnel records, 50,000 transactional history records and security/BAS from single controller.



Security Remote Reader

### **Security-Remote Reader**

Connections for 2 Card Readers, 4 Supervised Inputs, 2 Form C Relay Outputs and 2 Digital Inputs.

Each Security JENE includes; Connections for 2 Card Readers, 6 Supervised Inputs, 4 Form C Relay Outputs, and 3 Digital Inputs. Each Security JENE and remote reader is designed for din rail mounting and has removable screw terminal connectors and status indication LEDs.

## 16 Point Remote Monitoring

You can expand a JENE controller with remote IO or use a stand-alone 16 point IO controller with embedded NiagaraAX using these products.



Remote RS-485 IO

### ***J-IO-16-485***

The J-IO-16-485 is part of the JENEsys™ family of products designed for remote monitoring and control applications that enables end-to-end automation and device-to-enterprise integration. This product allows the JENE controller to extend applications to include IO remotely located up to 4,000 feet from the JENE. Connection is via standard RS-485 communications bus.

*Up to 16 devices may be wired for up to 256 points on a single JENE. Sixteen points per device include 8 UI, 4 Relay Outputs and 4 Analog Outputs.*

## Sedona Introduction

Lynxspring is committed to the Sedona Framework™. Looking to the future, Lynxspring Business Partners will have access to a range of Sedona devices manufactured by Lynxspring and other companies that will add value and flexibility to the solutions your company delivers. This section is an introduction to Sedona and what it means for you, our business partners.

Sedona is an open source development framework that provides a complete software platform for developing, deploying, integrating and managing cost effective devices on the field bus. The Sedona Framework distributes decision making control and manageability throughout the network.



Jennic Microcontroller with Sedona and Antenna

The Sedona chip uses a module from Jennic. Jennic provides a base portfolio of wireless microcontrollers, modules, and design & development tools. The Sedona device runs 6LoWPAN over 802.15.4 and BACnet MS/TP. The serial links become high quality 802.15.4 routes within the mesh and allows every device that has the chip embedded into it to have its own Internet address

The significance of 6LoWPAN is that it introduces Internet version 6 (IPv6) addressing into building automation enhancing the current IPv4 addressing in use. The new address space supports  $2^{128}$  (about  $3.4 \times 10^{38}$ ) addresses. This address expansion provides flexibility in allocating addresses and routing traffic and eliminates the need for network address translation, which gained widespread deployment as an effort to alleviate IPv4 address exhaustion.

From a practical use perspective, the increase in addressing will enable IP addresses to the building automation device level thus ushering in new momentum in Internet capabilities.

The Sedona Framework allows manufacturers to quickly and easily build their own device-to-Internet applications rather than having to use complex and difficult embedded programming tools that exist today.

Additionally, Sedona supports an engineering tool set compatible with Niagara engineering tools such as ProBuilder allowing our partners to build on the knowledge and expertise they already have.

Lynxspring intends on offering a variety of Sedona products to our partners in the near future.



## Road Map

The Road Map section provides a description of some key Lynxspring R&D projects that are in development. Please contact your Lynxspring representatives for more information and estimated release dates or if you would like to participate in Beta release programs.

## LynxTelemetry

Lynxspring will continue to provide value-add for our partners in the form of LynxTelemetry. This web based development tool uses many of the same functions featured in the web-based tools we have developed for others in the marketplace.



## Secure & Project Administration

Log into the [www.Lynxspring.com](http://www.Lynxspring.com) web-site to begin using LynxTelemetry. This product will start by creating a project with the information you provided. Each project can be securely saved, retrieved and edited in the future. Multiple projects can exist in your company's profile. This ability creates a database that is accessible by others in your company that you have designated to have that authority.



**Customer:** Customer Name Here  
**Job Name:** Job Name  
**Unit Model #:** RN-040-4-0-BA04-CH  
**Unit Tag:** Product or Unit Name  
**Rep:** Bob  
**Date:** 06/18/2009

Conti  
20  
**N2-BC1-0M-DI**  
JENESys™

## Project Specification Database

In addition to project information; LynxTelemetry offers all aspects required for creation of a complete project's control engineering submittal. Including:

Base Points		
Terminal	Point Name	Type
U1	Supply Air Temperature Sensor	UI - Univers
U2	Outside Air Temperature Sensor	UI - Univers

Automation, Inc.

Bill of Materials

Building Automation, Inc.

1800-898-3342  
1 (512) 459-1100  
(512) 459-1215

Location:  
Bismarck

Project #3

Date:  
Tue May 19 15:48:41 CDT 2009

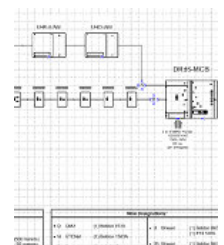
LX Series  
Innovative, Integrated, Simple

If it were any easier,  
it would program itself.

Part #	Color	Description	Qty
LX32		LX 32 Relay Panel	1
LX205200		LX 32 Relay Interior (Relays and Tablets Not Included)	1
LX6102E		LX 32 Relay Enclosure - Flush Mount	1

Bill of Material  
Hardware Points List  
Integration Points List  
Sequence of Operations  
Product Specifications & Data Sheets  
Riser Diagram  
2D Control Drawings

All database aspects created by LynxTelemetry are editable upon initial creation of the project. For example; you may change line items in the bill of material and points lists to suit your projects specific needs. You may upload the riser and line diagrams into Visio or AutoCAD and make changes. Sequence of operations is also editable. Product data sheets and product specifications can reflect your company information.



Finally when finished you may print and/or save all or part of your completed project for distribution.

Name	Site Name	Voltage	Size	Total Price	Valid?
Station Station	Yes	120	8 Modules	\$15,000.00	✓
Station Station	Yes	270	12 Modules	\$20,000.00	✓

## JENEsys™snap! Platform

The JENEsys™ Snap! Platform is Lynxspring's newest introduction of NiagaraAX platform service intended to allow JENEsys™ ProBuilder users to become more efficient and become power users quickly. This is possible because the JENEsys™ Snap! Platform creates consistency, repeatability and multi-vendor device integrations and system development much simpler and in tune for their applications than Niagara out-of-the box.



## SNAP! PLATFORM

The Simple Network Automation Platform (snap!) is designed to allow for easy setup and configuration of user defined devices. The snap! platform allows for any BACnet, LON, FOX, Modbus, or custom IO configured device to be added to another network. Snap! platform also allows Niagara TCP/IP Certified technicians to extend the capabilities of any device, that can be integrated, as well as create their own device templates to be included with the core devices.

## SNAP! PLATFORM

The Snap! Platform includes; configuration, status & energy interfaces, global internal & external system extensions, auto discovery & integration, and templates for building appliances. Using this new platform helps create consistency, repeatability and faster production using NiagaraAX.