Overview

The JENEsys® JENE-PC603 is an embedded controller/server platform designed for remote monitoring and control applications. The unit combines integrated control, supervision, data logging, alarming, scheduling and network management functions, integrated I/O with Internet connectivity and web serving capabilities in a small, compact platform. The JENE-PC603 makes it possible to control and manage external devices over the Internet and present real time information to users in web-based graphical views.

In addition to supporting Niagara^AX^ Framework applications, the JENE-PC603 can optionally support Niagara R2 applications. This option provides the ideal platform for projects currently utilizing Niagara R2 technology where cost effective migration to the Niagara^AX^ Framework is desired. The Niagara^AX^ Framework compatible platform can be installed an optionally configured to support a facility utilizing a Niagara R2 Framework application today. At a later date, the facility can migrate to a Niagara^AX^ Framework application, thus spreading the cost of the migration across multiple phases.

The JENE-PC603 is part of the JENEsys portfolio of Java-based controller/server products, software applications and tools, designed to integrate a variety of devices and protocols into unified, distributed systems. JENEsys products are powered by the Niagara^AX^ Framework, the industry's leading software technology that integrates diverse systems and devices into a seamless system. Niagara^AX^ supports a range of protocols including LonWorks®, BACnet®, Modbus, oBIX and many Internet standards. The Niagara^AX^ Framework also includes integrated management tools to support the design, configuration and maintenance of a unified, real-time controls network. The integral I/O, LonWorks FTT-10A port, RS-485 port, RS-232 port, metal enclosure and line voltage input power supply, make this platform ideal for a wide variety of integration applications.

Applications

The JENE-PC603 is ideal for small facilities, remote sites, and for distributing control and monitoring throughout large facilities. It is also ideal for managing and controlling today's energy applications. On-board universal inputs and Form C relay outputs are available for applications where local control is required. The JENE-PC603 includes one LonWorks FTT-10A port and on RS-485 port providing support for a wide range of field buss connections to remote I/O and stand-alone controllers. In small facility applications, the JENE-PC603 is all you need for a complete system. The JENE-PC603 serves data and rich graphical displays to a standard web browser via an Ethernet LAN or remotely over the Internet. In larger facilities, multi-building applications and large-scale control system integrations, AX Supervisor™ software can be used to aggregate information (real-time data, history, alarms, etc.) from large numbers of JENE-PC603 controllers into a single unified application.

Features

- Embedded PowerPC Platform @ 524MHz

- One LonWorks FTT10A port for LON device integration

- Direct, on-board I/O with six universal inputs and 4 Form C relay outputs

- One RS-485 port for connection to open and proprietary protocol devices

- One RS-232 port for integration or technical support

- WebUI services to support many simultaneous users over the intranet or Internet via a standard web browser

- One Niagara^AX^ Framework option slot supporting JENE-PC-XXX option modules. This features is not available for Niagara R2 applications.

Specifications

Platform:
- PowerPC 440 524MHz Processor
- 128MB DDR RAM & 128 MB Serial Flash
- Optional 256 MB DDR RAM
- SLA Battery Backup
- Real-time clock

Operating System:
- QNX RTOS (Real-time Operating System)
- Sun HotSpot JVM Java Virtual Machine
- Niagara^{AX} 3.6.45 or later

Chassis
- Housed metal enclosure, intended for indoor wall mounting only
- Cooling: Internal air convection
- Dimensions: 11" Wide X 14" High X 2.5" Deep (27.94 cm Wide X 35.56 cm High X 6.35 cm Deep)
- Weight: Net 4 lbs. (1.814 kg), Gross 5 lbs. (2.268 kg)

Environment
- Operating temperature range: 0^0 to 50^0 C (32^0F to 122^0F)
- Storage temperature range: 0^0 to 70^0C (32^0F to 158^0F)
- Relative humidity range: 5% to 95% ,non-condensing

Power Options:
- JENE-PC603: 120 Vac, 50/60 Hz
- JENE-PC603I: 230 Vac, 50/60 Hz
- 25 VA maximum
- Lead wires for hot/neutral (wire nut), stud for ground connection. JENE-PC603I has two-screw terminal strip for AC power connections, plus a stud for ground

Agency Listings
- UL 916, FCC part 15 Class B, RoHS Compliant
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Single Equipment"
- BTL B-BC BACnet Building Controller listed when the BACnet driver is installed and configured

Communications:
- Two Ethernet Ports - 10/100 Mbps (RJ-45 Connectors)
- One RJ-45 connector for RS-232 Port
- One screw terminal RS-485 Port (up to 78,600 baud for MSTP)
- One LonWorks port - FTT-10A with Weidmuller connector
- One Niagara^{AX} 32 Pin Option Card Slot

Inputs/Outputs
- Four Form C (SPDT) relay outputs rated for 24 Vac/dc @ 2 Amps resistive
  - One LED indicator for each relay
- Six Universal Inputs for 10K ohm Type III
  - (10K 4A1-International) Thermistor, 4/20 mA current loop, 0-10 volt, or dry contact
  - 12-bit A/D converter
  - Thermistor Sensor Range -23.3^0C to 57.2^0C (-10^0F to 135^0F). Input accuracy is in the range of 1% of span, type III thermistor curve supported
  - 0-10 volt or 4/20 mA accuracy is 2% of span, without user calibration. Uses an external resistor for current input (four provided). Self powered or board powered sensors accepted
  - Dry contacts (on UI) 20 Hz max. Frequency (25 ms minimum pulse width). 3V open circuit, 300 mA short-circuit current
- Board provides 20 Vdc @80 mA to drive 4/20 mA powered sensors
- 24 Vdc terminal and external resistor can be used if monitoring contacts that require higher voltages or higher current
- All I/O connections are screw terminals on 0.2" centers

Available Niagara^{AX} Option Modules
- JENE-PC-LONCARD - Lon Card
- JENE-PC-232   RS-232 Card
- JENE-PC-485   Dual port RS-485 Card
- JENE-PC-GPRS-W   GPRS Modem with Wyless SIM Card
- JENE-PC-ZWAVE-US   ZWAVE Card/Driver US
- JENE-PC-SED-001   Sedona Wired/Wireless Card

Other
- Maximum LON devices = up to 124
- Maximum MSTP devices per RS-485 port = 31 standard load
  - 124 1/4 load devices; requires one MSTP driver per port
  - Port speeds supported are:
    - 4,800 baud; 9,600 baud; 19,200 baud; 38,400 baud; 57,600 baud; 76,800 baud

Battery Backup
- Battery backup provided for all on board functions
- Battery is monitored and trickle charged
- Battery maintains processor operation through power failures for a pre-determined interval, then writes all data to flash memory, shuts processor down, and maintains clock for a minimum of five years

Ordering Information

JENE-PC603 Series Controller

Model #	Description
JENE-PC603	Base Unit including two Ethernet ports, one RS-232 port, one LonWorks® FTT-10A port, six universal inputs, and four Form C relay outputs. Web User Interface and Niagara Connectivity licenses are included. oBix Client/Server and LonWorks drivers are included.
JENE-PC603I	Base Unit including two Ethernet ports, one RS-232 port, one LonWorks® FTT-10A port, six universal inputs, and four Form C relay outputs. Web User Interface and Niagara Connectivity licenses are included. oBix Client/Server and LonWorks drivers are included. For International installations.
JENE-PC6XX-RB-R2	Niagara R2 application option which allows the installer to utilize a Niagara R2 based station on the JENE-PC603 platform. Includes Niagara R2 station license and individual drivers transferred from original license.