

# JACE-6E

## Overview



The JACE-6E™ is a compact, embedded controller/server platform. Building on the JACE-600, it combines integrated control, supervision, data logging, alarming, scheduling and network management functions with Internet connectivity and web serving capabilities in a small, compact platform. The JACE-6E makes it possible to control and manage external devices over the Internet and present real-time information to users in web-based graphical views.

The JACE-6E is a member of Tridium's suite of controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. These products are powered by the revolutionary Niagara<sup>AX</sup> Framework®, the industry's leading software technology designed to integrate diverse systems and devices into a seamless system. Niagara supports a wide range of protocols including LonWorks™, BACnet™, Modbus, oBIX and Internet standards. The AX Framework also includes integrated network management tools to support the design, configuration, installation and maintenance of interoperable networks.

The JACE-6E enhancements include data recovery services for battery less operation and increased operating ambient temperature. Battery maintenance is no longer necessary when using data recovery services. However, the JACE-6E can still be installed with an optional battery and can provide up to 10 minutes of operation during power outages and disturbances if equipped.

## Applications

The JACE-6E is ideal for smaller facilities, remote sites, and for distributing control and monitoring throughout large facilities. Optional input/output modules can be plugged in for applications where local control is required. The JACE-6E also supports a wide range of field busses for connection to remote I/O and standalone controllers. In small facility applications, the JACE-6E is all you need for a complete system.

The JACE-6E serves data and rich graphical displays to a standard web browser via an Ethernet LAN or remotely over the Internet, or dial-up modem. 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 JACEs into a single unified application. The AX Supervisor can manage global control functions, support data passing over multiple networks, connect to enterprise level software applications, and host multiple, simultaneous client workstations connected over the local network, the Internet, or dial-up modem.

## Features

- Embedded PowerPC Platform@ 524MHz
- Supports open and legacy protocols
- QNX Real-time Operating System
- Web User interface (standard) serves rich graphical browser presentations

- Run stand-alone control, energy management, and integration applications within the JACE-6E series controllers
- Supports two optional communications boards
- Optional 16 and 34 point I/O Modules
- Data Recovery Services prevents data loss during power interruptions
- Optional battery is available for extended runtime

## Ordering Information

### JACE and Memory Upgrade Option

Part Number	Description
T-600E	Base Unit including two Ethernet ports, one RS-232 port, one RS-485 port, Web User Interface and Niagara Connectivity included. oBIX Client/Server driver included.
NPB-256	Upgrade RAM memory to 256 MB DDR.

### Optional Communications Cards

Part Number	Description
NPB-LON	Optional 78 Kbps FTT10 A Lon Adapter
NPB-232	NPB-232 - Optional RS-232 port adapter with 9 pin D- shell connector
NPB-2X-485	Optional dual port RS-485 adapter; electrically isolated
T-NPB-GPRS-W	GPRS Modem Option Card
NPB-ZWAVE-US	ZWAVE Option Card for North America
NPB-ZWAVE-EU	ZWAVE Option Card for Europe
NPB-SED-001	Sedona Wireless Option Card

### Power Supply & Optional Power Modules

Note: All modules are universal input 90 – 240 volts, 50/60 Hz.; the model numbers below represent the various plug configurations only (except NPB-PWR-UN)

Part Number	Description
NPB-PWR	Optional: 24 Volt AC/DC power supply module, Din Rail mounted
WPM-US	120 Vac, 50-60 Hz. US
WPM-EU	230 Vac. 50-60 Hz. Europe/Asia
WPM-UK	WPM-UK - 230 Vac 50-60 Hz. UK
WPM-JP	100 Vac 50-60 Hz. Japan
NPB-PWR-UN	Optional universal voltage input power supply module, Din Rail mounted. Input voltage is 90-263 Volts AC, 50/60 Hz auto adjusting. Acceptable for ambient temperatures between 0-50degC
NPB-BATT	Optional Battery Kit. Provides up to 10 minutes of runtime during power outages and disturbances

### Optional IO Modules

Part Number	Description
IO-16	Optional 16 point IO module; directly connects to JACE IO connector.
IO-34	Optional 34 point IO Module; directly connects to JACE IO connector.
IO-16-485	Optional remote 16 point IO module, RS-485 bus connected to JACE-6E; up to 16 units may be connected max., additional power supply required to power the remote IO.

## Specifications

### Platform

- PowerPC 440 524 MHz processor
- 128MB DDR RAM & 128 MB Serial Flash
- Optional 256 MB DDR RAM
- SRAM Data Recovery Services
- Real-time clock

### Operating System

- QNX Real-time Operating System
- Oracle Hotspot Java 5 VM
- Niagara<sup>AX</sup> 3.6 or later

### Optional I/O Modules

#### *IO-34 - 34 Point I/O Module*

- Max of 1 per JACE-6E; includes integral 24 volt AC/DC input power supply for JACE 2 and IO; no other power required
- 16 Universal Inputs (Type 3 (10k) Thermistors, 0-1000 ohm, 0-10 volts, 0-20 mA with external resistor)
- 10 relay outputs (Form A contacts, 24 VAC @.5 amp rated)
- 8 analog outputs (0-10 volt DC)

#### *IO-16 - 16 Point I/O Module*

- Up to 4 per JACE-6E, 2 per JACE-6E if combined with a 34 Point I/O module
- 8 Universal Inputs (Type 3 (10k) Thermistors, 0-1000 ohm, 0-10 volts, 0-20 mA with external resistor)
- 4 relay outputs (Form A contacts, 24 VAC @.5 amp rated)
- 4 analog outputs (0-10 volt DC)

#### *IO-16-485 Remote IO module*

- 16 IO Points per device
- 8 Universal Inputs - Type 3 (10k) Thermistors, 0-100K ohm, 0-10 vdc, 0-20 mA with external resistor
- 4 relay outputs (Form A contacts, 24 VAC @ .5 amp rated)
- 4 analog outputs (0-10 vdc)
- Up to 16 remote IO-16-485 modules max per JACE-6E

### Power Options

- Direct connect (Pin compatible) with the NPB-PWR & NPB-PWR-UN power supplies.
- Modules can be powered directly from select JACE models with 15VDC outputs.
- External 15 VDC power supply
- DIN rail or surface mounting
- Optional battery kit provides up to 10 minutes of runtime during power outages and disturbances

### Chassis

- Construction: Plastic, din rail or screw mount chassis, plastic cover
- Cooling: Internal air convection

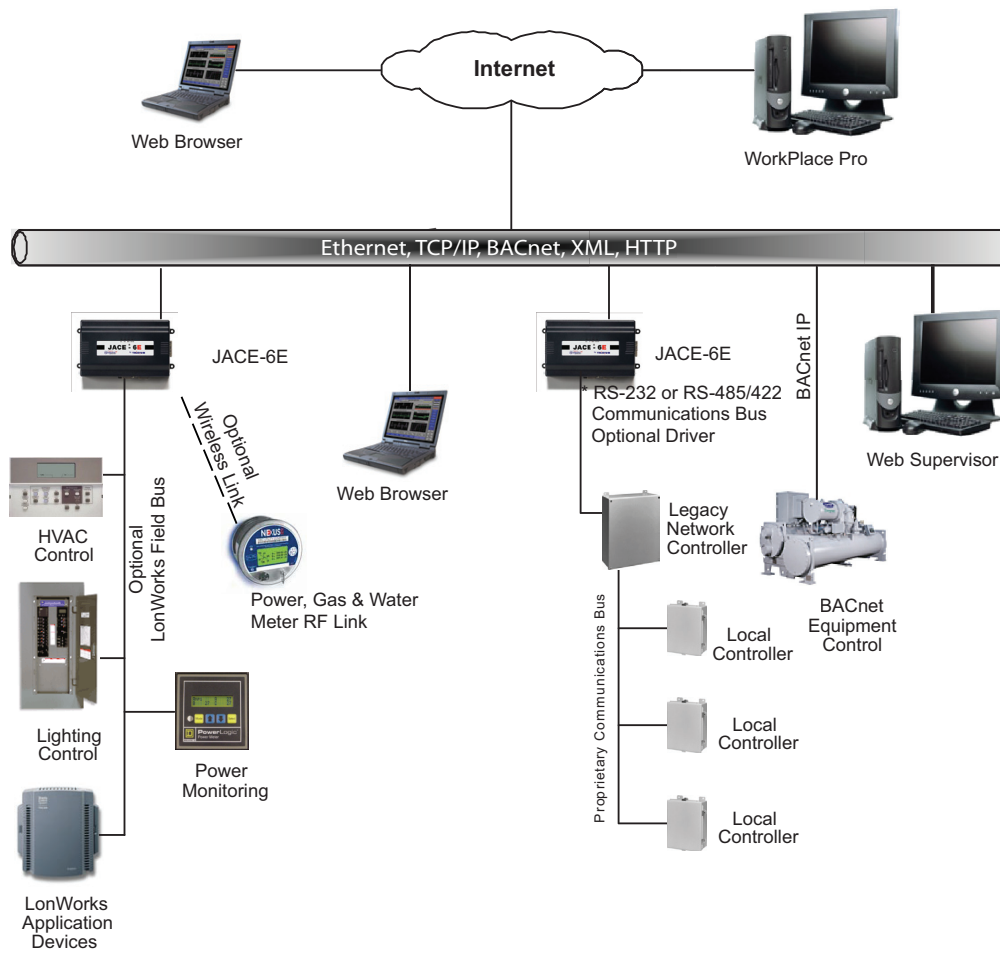
### Environment

- Operating temperature range: 0-60C(32°F to 140°F)
- Operating temperature range: 0-50C(32°F to 122°F) w/ optional battery kit
- Storage Temperature range: 0° to 70°C (32°F to 158°F)
- Relative humidity range: 5% to 95%, non-condensing

### Agency Listings

- RoHS Compliant 
- BTL 
- UL 916
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- CE
- FCC part 15 Class A.

# Architecture



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