

## JACE-200



### Overview

Tridium's JACE-200™ (Java Application Control Engine) is a compact, embedded controller/server platform. 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-200 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-200 is a member of Tridium's suite of Java-based controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. Tridium products are powered by the revolutionary Niagara<sup>AX</sup> Framework®, the industry's first 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.

### Applications

The JACE-200 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-200 also supports a wide range of field busses for connection to remote I/O and stand-alone controllers. In small facility applications, the JACE-200 is all you need for a complete system.

The JACE-200 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, Niagara<sup>AX</sup> 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 Power PC platform @ 250 MHz
- Supports open and legacy protocols
- Web User interface serves rich presentations and live data to a browser
- Run stand-alone control, energy management, and multi-protocol integration
- Standard and optional communications boards
- Can be expanded with optional 16 and 34 point I/O Modules
- Small compact design is easy to install and supports multiple power options
- Optional 16 and 34 point I/O modules

## Ordering Information - JACE and Memory Upgrade Option

Part Number	Description
JACE-200	Base Unit including two Ethernet ports, one RS-232 port, and one RS-485 port. Web User Interface and Niagara Connectivity included. oBIX Client/Server driver included.
NPB-128	NPB-128 - Memory upgrade option. Upgrades JACE-2 to 128 MB SDRAM

## Ordering Information - 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

## Ordering Information - Power Supply & Optional Power Modules

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

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

## Specifications

### Platform

- PowerPC 405EP 250 MHz processor
- 64MB SDRAM & 64 MB Serial Flash (optional 128 MB SDRAM)
- Battery Backup - 5 minutes typical - shutdown begins within 10 seconds
- Real-time clock - 3 month backup max via battery

### Operating System

- QNX RTOS
- IBM J9 JVM Java Virtual Machine
- Niagara<sup>AX</sup>

### Communications

- 2 Ethernet Ports – 10/100 Mbps (RJ-45 Connectors)
- 1 RS 232 Port (9 pin D-shell connector)
- 1 RS 485 non isolated port (3 Screw Connector on base board)

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



### Chassis

- Construction: Plastic, din rail or screw mount chassis, plastic cover
- Cooling: Internal air convection
- Dimensions: 6.313" (16.04 cm) W x 4.820"(12.24 cm) H (including connectors) x 2.438" (6.19 cm) D

### Environment

- Operating temperature range: 0° to 50°C (32°F to 122°F)
- Storage Temperature range: 0° to 60°C (32°F to 140°F)
- Relative humidity range: 5% to 95%, non-condensing

### Agency Listings

-  RoHS Compliant
-  BTL B-BC BACnet Building controller listed when the BACnet driver is installed and configured
- UL 916
- C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 "Signal Equipment"
- CE
- FCC part 15 Class A
- C-tick (Australia)

### Optional I/O Modules

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

- Max of 1 per Jace-200; 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-200, 2 per Jace-200 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)

# Architecture

