



TRiDIUM®



软件框架  
开放式模块化平台  
自动化基础架构技术  
设备到企业级集成

# solutions GUIDE





Tridium 是一个在软件框架，开放式模块化平台，自动化基础架构技术和设备到企业级集成解决方案的全球领导者。

我们的技术可以扩展当今市场上已有的成千上万的设备的连接，集成和互操作的能力。使得制造厂家可以开发能够在企业和边缘资产间通信并协作的智能系统和设备。

我们的客户遍及全球在楼宇自动化，安全，工业，家居，能源，通信，M2M和医疗工业等领域的制造厂商，系统集成商和终端用户。他们利用我们的技术开发智能设备，连接M2M，普及各种自动化解决方案。

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# Frameworks

Tridium软件框架用于开发设备到企业级应用，可支持互联网的产品和自动化解决方案的开发。软件框架是一种普遍的，可重用的用于开发应用程序，产品和解决方案的软件平台。软件框架将包括支持程序，编译器，代码库，脚本语言，API和工具套件在内的所有不同组件整合，开发项目和解决方案。使用软件框架推动开发的进程，带来了许多的好处：

- 缩短设计周期
- 加速推向市场，缩短价值创造时程
- 成本节省
- 降低风险到最小
- 便于通过
- 开发过程更有效
- 综合工具套装
- 可以满足任何规范的设计
- 创造更多特色和功能
- 提升产品品质
- 使用多少的资源
- 提高客户满意度
- 利用现有生态系统



## Niagara<sup>AX</sup> Framework<sup>®</sup>

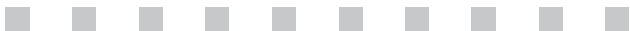
Niagara<sup>AX</sup>解决了集成系统中开发，整合和互操作的挑战，可以整合各种系统和设备到一个统一的平台，便于通过互联网控制和管理，而无需考虑制造厂商和通信协议。这是一个可扩展的解决方案。Niagara<sup>AX</sup>能够实时连接运行数据到那些管理企业级业务的人和系统，从而提升“智能设备和系统”的功能和价值。

## Sedona Framework™

Sedona Framework™是一个开源的开发框架，提供了一个完整的软件平台，用于开发，部署，集成和管理现有的最底层的设备应用。

Sedona Framework通过分布式决策让所有的设备具备控制和管理的能力，变得更加智能，能够连接到网络的任何地方。

Sedona Framework™可以让制造厂家开发自己的可以支持互联网的设备。这要比完全自己开发，或是使用当今已有的那些复杂的嵌入式开发工具要简便，快捷。







# 软件 Software

# 软件 Software



## NPM

Niagara NPM是一个紧凑型嵌入式控制器平台，在支持互联网连接和Web服务的基础上，集成了中央控制，监视，数据记录，报警，时间计划和网络管理功能。

NPM-600 是为OEM客户设计，用于各种控制设备和市场配套。



# 软件 Software



## SEDONA CHIP



Sedona 芯片使用Jennic模块，是为解决有线和无线间通信的局限性而设计。它可以无缝的融合MS/TP总线到802.15.4协议，在802.15.4和MS/TP上运行6LoWPAN，串行链路变成了高质量的网络间的802.15.4路由，让每台嵌入了该芯片的设备拥有自己的互联网地址。

# 软件 Software



## AX SUPERVISOR®

AX Supervisor® 一套灵活的网络服务器应用程序，用于多台基于 Niagara<sup>AX</sup> 的控制器联网，集中管理。AX Supervisor serves 可以将实时图形化界面显示在标准的Web浏览器客户端，提高服务器级的功能，如中央数据记录，存档，报警，实时图形显示，主时间计划控制，系统域数据。它可运行于 Windows XP, Linux, 64-bit Windows 操作系统。

AX Supervisor 同时包含了一套综合的图形化编程工具，用于各种应用的开发。



# 软件 Software



## AX SOFTJACE®

可以将Niagara<sup>AX</sup> Framework安装于您所选择的硬件之上，具备完整的实时控制，动态图形和多协议集成的能力。

AX SoftJACE®很容易实现那些特殊的应用，如：机架式安装，扩展温度范围和Windows环境下的工业套件。

SoftJACE 在一套单一软件方案下，提供了可编程控制器，多协议转换适配器，网络管理员，Web服务（可选Web用户接口），数据记录和报警服务器的功能。

AX SoftJACE 运用基于Ethernet的协议与外部设备通信，目前以支持行业内大多数的标准协议：OPC，BACnet IP，Modbus TCP，oBix，XML和SNMP。

×Ô¶»~&¿ØÖÆ



# Automation & Control

# 自动化&控制

## Automation & Control



## JACE<sup>®</sup>-2 CONTROLLER

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*64 MB RAM/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 and Web User Interface. Standard drivers include oBIX Client/Server and Niagara Network (Fox) Client/Server. The JACE<sup>®</sup>-2 is designed for DIN rail mounting.*





# 自动化&控制

## Automation & Control



### JACE®-5R-AX CONTROLLER

256 MB Ram/128 MB Flash, 10/100 MB Ethernet port,  
 (2) RS-232 serial port, (4) RS-485 isolated ports, (1) LONWORKS  
 FTT 10 port (supports maximum of 124 devices subject to  
 memory constraints, driver must be purchased separately).  
 Standard features include Niagara station and Web User Interface.  
 Requires Niagara<sup>AX</sup> 3.2 or higher.



# 自动化&控制

## Automation & Control



## JACE®-202-XPR CONTROLLER

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ÎñÄÜÁ!µÄ»ù´¿ÉÌÈÚÍÁËÖÐÑë¿ØÖÆ£-¼àÊÓ£-Êý¾Ý¼  
Â¼£-±¾£-Ê±¼ä¼Æ»®ÍíøÂÇ!ÜÀí!ÄÜ¿¼³ÉÁËI/O  
Í¿ÉÑ¿µÄGPRS Modem¿

*IBM Power PC platform @ 250MHz, 128 MB SDRAM and  
64 MB Serial flash, 128 KB Static RAM, (2) 10/100 MB Ethernet  
ports, (1) RS-232 Port, (1) RS-485 non-isolated port, (1) socket  
for optional communications card, (1) socket for optional GPRS  
modem, onboard 16 point I/O.*



# 自动化&控制 Automation & Control



## JACE®-NXS CONTROLLER

JACE®-NXS is a rugged industrial controller designed for demanding environments. It features a 650MHz Celeron processor, 512MB RAM, and a 1GB Flash drive. The unit is available in two configurations: JACE-NXS-AX-FL (with a UPS) and JACE-NXS-AX-FL (without a UPS). It supports a variety of communication protocols including RS-232, RS-485, and LONWORKS. The controller is pre-installed with Microsoft Windows XP Embedded and includes standard drivers for oBIX Client/Server, Niagara Network (Fox) Client/Server, and LON® over twisted pair.

*Unit includes (1) 10/100 Ethernet port and (1) RS-232 port, (1) isolated RS-485 port, (1) FTT10 A LONWORKS interface, 650 MHz Celeron processor, 512 MB RAM, a 1 GB Flash drive, and also includes a UPS with universal input power supply (90 – 263 volts AC; 50/60 Hz.). Includes Windows XP embedded only. Requires AX Release 3.1 or higher. Standard features include Niagara station and Web User Interface. Standard drivers include oBIX Client/Server, Niagara Network (Fox) Client/Server and LON® over twisted pair.*



# 自动化&控制 Automation & Control



## GPRS MODEM

GPRS Modem JACE<sup>®</sup>-2 JACE<sup>®</sup>-6 2000 2000  
ISP μÄ·äiñíøÄçí“DÄGPRS Modem  
2; ÉÒÔÈÃÖâÐ©; ØÖÆÆ÷Í“1ýVPN£“DéÄäÜ²; ÍøÄç£  
ÓëÆäËüíμ³¼³É£-½á“i·äiñíøÄçíLAN/WAN£³¼Ö  
Óòíø/1ãÓòíø£©À`À©Ö¹íμ³;£



Áííâ£-GPRS Modem ÉÒÔÈVagara<sup>AX</sup> μÄ·½°\_ÔÚÒ»\_ö  
Ô-ÏÈÏ·.·.ÄÏÊμÄμØ·½°Ü; j²; Êð£-îíμ³íá¹©ÁÛÊ±  
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ÔÚÁÛÊ±íá¹©μÄμ÷ÊÖ»·¾³“í»ù´jÉÍ¼àÊÖÖÐñë; ØÖÆ³í  
ÐòμÄÖËÐÐ;£

2.À

**Security**



# °2.À Security

## NIAGARA SECURITY

Niagara Security ÈÇÒ» , öÖë¶Ô°2.ÀÉè±, 3§¼ÒμÄ  
¿<sup>a</sup>.ÅÊ½¼Ü<sup>11</sup>¿ò¼Ü£¬»Niagara<sup>AX</sup> ¿<sup>a</sup>.ç£¬Í<sup>1</sup>ý  
Ò» , öxÛ<sup>0</sup>¿¿<sup>a</sup>.ÅμÄ¿μ¿¼<sup>3</sup>¼<sup>3</sup>É½<sup>2</sup>ÖpÈùÓÐμÄ<sup>1</sup>ÄÜ¿<sup>a</sup>¿<sup>a</sup>  
»·¾<sup>3</sup>¿ØÖÆ£¬ÈèÇÖ¼¿<sup>2</sup>â£¬¬ÄÄ½û¿ØÖÆ£¬ÖÖÄ÷<sup>0</sup>ÍÄÜ  
Ô<sup>1</sup>ÜÄ¿μ¿¼<sup>3</sup>£¬Niagara<sup>AX</sup> ¿<sup>a</sup>ÉÒÔ½«ÖÇÄÜ½<sup>2</sup>ÖpμÄÄ¿<sup>a</sup>¿<sup>a</sup>  
ÑÓÉ¿μ½¿¿<sup>0</sup>2.ÀμÄÄ¿<sup>0</sup>¿<sup>a</sup>¿<sup>a</sup>



# °2.À Security



## SECURITY JACE®-201

Connections for 2 Card Readers, 6 Supervised Inputs, 4 Form C Relay Outputs, and 3 Digital Inputs. 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. Contains removable screw terminal connectors and status indication LEDs. The Security JACE®-201 is designed for DIN rail mounting and supports up to 16 card readers, 2,500 personnel records and 5,000 transactional history records.



# °2.À Security



## SECURITY JACE®-601

Connections for 2 Card Readers, 6 Supervised Inputs, 4 Form C Relay Outputs, and 3 Digital Inputs. 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. Contains removable screw terminal connectors and status indication LEDs. The Security JACE®-601 is designed for DIN rail mounting and supports up to 32 card readers, 10,000 personnel records, 50,000 transactional history records and security/BAS from single controller.





# °2.À Security



## REMOTE READER MODULE

Connections for 2 Card Readers, 4 Supervised Inputs,  
2 Form C Relay Outputs and 2 Digital Inputs.  
Contains removable screw terminal connectors  
and status indication LEDs.



# 2.À Security



## NIAGARA VIDEO

Niagara Video is a powerful video management system that provides a comprehensive set of tools for monitoring and managing your video surveillance system. It is designed to be easy to use and integrate with your existing Niagara AX Framework. The software offers a wide range of features, including real-time video streaming, playback, search, and reporting. It also provides a secure and reliable environment for your video data, ensuring that your footage is always available when you need it. Niagara Video is a essential component of any modern security system, providing the tools you need to stay on top of your video surveillance.





ÄÜÔ´  
**Energy**

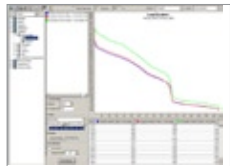
# ÄÜÔ´ Energy



## NIAGARA ENERGY

Niagara Energy is a powerful energy management system (EMS) that provides real-time monitoring and control of energy-consuming assets. It offers a comprehensive suite of tools for data collection, analysis, and reporting, enabling users to optimize energy usage and reduce costs. The software is designed for scalability and flexibility, making it suitable for a wide range of applications, from small businesses to large industrial facilities.

The system features a user-friendly interface that allows for easy navigation and data visualization. Key capabilities include: real-time monitoring of energy consumption; advanced reporting and analytics; integration with various energy sources and equipment; and robust security measures to protect sensitive data. Niagara Energy is a proven solution for organizations looking to improve their energy efficiency and operational performance.





**TRiDIUM<sup>®</sup>**

[www.tridium.com](http://www.tridium.com)