
From: Tridium Announcements
Sent: Friday, June 24, 2005 2:02 PM
To: CustomerMailings
Subject: Tridium Announcement - Announcing the release of NiagaraAX



Announcing the next generation of the Niagara Framework



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Downloads:

- [Niagara^{AX} Brochure](#)
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Need additional information? Contact your Tridium representative for more information on [Niagara^{AX}](#).

An Overview of [Niagara^{AX}](#)

[Niagara^{AX}](#) is a software framework and development environment that solves the challenges associated with building Internet-enabled products, device-to-enterprise applications and distributed Internet-enabled automation systems. [Niagara^{AX}](#) builds on the pioneering capabilities of Niagara R2, originally introduced in 1999, and the experience gained in deploying over 35,000 Niagara-based products operating in over 5000 installations worldwide. Niagara R2 introduced the concept of a software framework that could normalize the data and behavior of diverse devices, regardless of manufacturer or communication protocol, to enable the implementation of seamless, Internet-connected, web-based systems. [Niagara^{AX}](#) takes that concept to the next level.

New Alarming Capabilities Provides Better Visualization and User Experience

Many of the features provided by the separate Vykon Alarm Service application are now built into the core of **Niagara^{AX}**, e.g., Sortable Columns, Sound Files and the ability to add Notes to Alarms.

Reporting

Niagara^{AX} includes a comprehensive, built-in reporting system. A native query language (BQL) allows you to query and assemble data from anywhere within a station, and a built-in PDF document engine produces complete, high quality report formats – even directly from a JACE. A single click on a link in a graphic can produce a customized, dynamically created report.



[Access the Niagara^{AX} Overview White Paper](#)

Open Driver Development Toolkit

Now partners can develop their own communication drivers independent of Tridium. A comprehensive “driver framework” dramatically reduces development time and insures that all drivers are modeled in a uniform way to insure consistency and reduce complexity.

Open APIs for Developers

In **Niagara^{AX}**, all of the APIs for internal system operations are available to developers. You can create your own applications, plug-ins, wizards and drivers completely with the Framework.

For more information about this document or **Niagara^{AX}**, please contact Tridium.

The **Niagara^{AX} Product Model**

Niagara^{AX} builds on the pioneering capabilities of Niagara R2 originally introduced in 1999. Niagara R2 introduced the concept of a software framework that could normalize the data and behavior of diverse devices, regardless of manufacturer or communication protocol, to enable the implementation of seamless, Internet-connected, web-based systems.

The core concept of Niagara is its unique patented component model that transforms the data in diverse external systems into uniform software components. These components form the foundation for building rich applications to manage and control the devices. The **Niagara^{AX}** component model goes beyond unifying protocols and data from diverse systems, to unify the entire development environment used to build applications.

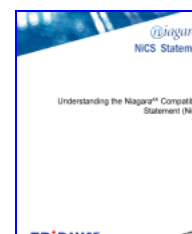


[Download the Product Model](#)

For more information about The **Niagara^{AX}** Product Model, [download](#) a printable PDF or contact Tridium.

All New Method of Defining Compatibility between Different Suppliers of Niagara-based Products

Niagara^{AX} includes an all new licensing model that enables partners to develop Niagara-based products and applications and to independently manage their compatibility. The new technology is called the Niagara Compatibility Statement (**NiCS**). Complete details of NiCS are provided in an additional document entitled [Understanding NiCS](#).



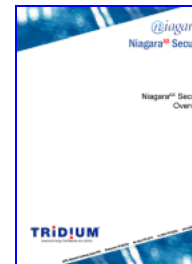
For more information about this document or **Niagara^{AX}**, please contact Tridium.

[Review the NiCS Statement](#)

Niagara^{AX} Security

Niagara^{AX} includes a comprehensive security model that provides a high degree of flexibility in managing access privileges to a **Niagara^{AX}** station (a JACE, **AX Supervisor**, or a Workbench-based tool such as Tridium's Vykon **WorkPlace^{AX}**). The security model addresses two kinds of connections that can be made to a Niagara host: a platform connection and a station connection.

For more information, on **Niagara^{AX}** Security, [download](#) a printable PDF or contact Tridium.



[Click to download the Niagara^{AX} Security document.](#)

Niagara^{AX} Frequently Asked Questions

1. What is the current compatibility between **Niagara^{AX}** and Niagara R2?

There is a range of compatibility options available for AX and R2 systems. These will be developed and grow in completeness over time. The first release of **Niagara^{AX}** is targeted primarily at new installations – meaning projects with no R2 products in place. Future releases will provide additional integration options and upgrade tools.

In the initial release AX and R2 JACEs can share data via BACnet IP. It is possible to bring data from R2 JACEs into AX-based systems via BACnet IP, and MODBUS TCP. To take advantage of the BACnet approach, the data items in the R2 JACE would need to be exposed as BACnet objects. To take advantage of the MODBUS approach the R2 JACE would need to have the MODBUS TCP/IP driver option and the objects would need to be exposed via MODBUS.

2. What integration and upgrade tools are planned for the future?

AX Communication Driver that can be loaded into an R2 JACE

Tridium will be offering a driver that will enable an R2 JACE to communicate with an AX JACE or AX Supervisor. This driver is planned to be based on the **oBIX** web-services standard that is being developed under OASIS (Organization for the Advancement of Structured Information Standards). This driver will be loaded into an R2 JACE and will expose all of the station database objects so that they can be linked to the AX station for inclusion in displays and other functions. The R2 JACEs would continue to operate with their existing database. Other than the installation of the driver, the R2 JACE will operate as it has before. Loading of the driver will be done with the R2 version of WorkPlace Pro.

Conversion Tools

After the initial release of **Niagara^{AX}**, Tridium will be focusing development resources on tools to assist in conversion of R2 stations (JACEs and Web Supervisors) to AX. Over time, these tools will provide more extensive conversion capabilities. It is expected that conversion of R2 stations to AX will always require some amount of hands-on engineering work. The amount of work will depend on the complexity and type of the database being converted.

3. Will all drivers in R2 be available with AX?

The first release of AX will not include all of the drivers currently available in R2. The initial drivers offered with AX include:

- LON (all shadow objects have been converted to AX)
- BACnet (IP, Ethernet and MSTP)
- MODBUS (TCP, and RTU)
- SNMP
- OPC

Tridium will be converting drivers over time based on market need. It is possible that some drivers will not be converted. Integration to these systems can be accomplished with R2 JACEs integrated with **Niagara^{AX}** stations installation of the oBIX driver in the R2 station.

A major addition to **Niagara^{AX}** is a driver development toolkit that allows partners to develop drivers on their own. Contact your account manager to discuss your particular driver needs.

4. What is the pricing of **Niagara^{AX}** - based products?

On a typical system, pricing for a system using **Niagara^{AX}** products will be very close to that for an equivalent Niagara R2 system, but the product model (the way in which options are priced and added to stations) is different **Niagara^{AX}**. A separate document, "Overview of the **Niagara^{AX}** Product Model", provides additional details that will help you understand the **Niagara^{AX}** product model.

Important Notes:

Purchasing of **Niagara^{AX} Products:** Partners need to have an updated partnership agreement in place in order to purchase **Niagara^{AX}**-based products. Contact your sales representative for details.

Accessing the Most Current Build and Getting Updates: Tridium will continue to offer updates to **Niagara^{AX}** to provide corrections and provide enhancements. The most current build of **Niagara^{AX}** is made available via a dedicated FTP site. Access to the FTP site requires a password which is provided upon execution of a **Niagara^{AX}** partnership agreement. Contact Sales Support at Tridium to gain access to this site.

Still have questions? Contact your Tridium representative for more information on **Niagara^{AX}**

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