
Niagara^{AX} Technical Certification Program

The goal of the 5-day Niagara^{AX} Technical Certification Program (TCP) course is to help a broad range of distribution partners in the building automation, energy services, power/utility, and industrial sectors gain the level of technical expertise necessary to effectively and efficiently design, engineer, and program projects using the Niagara^{AX} Framework.



Course Description

The goal of the Niagara^{AX} TCP course is to provide level-two technical training for those responsible for building and supporting station databases and their interface. It is designed to enable systems integrators to effectively use the features of the Niagara^{AX} Framework to engineer and support control solutions.

Successful completion of this course attests to the ability of the candidate to plan, develop, and maintain Niagara^{AX} control applications.

The course length is five days and can be offered at your site. Participants are required to attend with their laptop PC pre-loaded with the current version of Vykon AX Supervisor software installed and licensed.

The primary training resource used is the *Niagara^{AX} Technical Certification Student Guide*.

Audience

This course is intended for Tridium systems integrators, OEM and other business partners, distributors, and advanced end-users. The course is specifically targeted at Applications Engineers and Field Engineers responsible for building station databases.

Prerequisites

TCP candidates should have a strong foundation in the areas of BAS control applications, installing digital control equipment, configuring and operating Windows workstations, networking techniques, LonWorks system integration techniques, Internet technologies, and general system programming.

It is assumed that the candidate has a general familiarity with Vykon AX Supervisor software.

Student Workstation

Each participant must attend with a laptop/desktop PC running WindowsXP Professional and the current release of Vykon AX Supervisor software installed and licensed.

Important: Each laptop must have a local administrative level (Windows) user account established with a known user name and password.

Niagara^{AX} compatible JACE controller and field bus hardware (two LON controllers and one BACnet device) are recommended for each attendee. However, this is not mandatory. In lieu of field bus hardware, the training can be conducted running a virtual station on the student's PC.

Certification

Certification is optional. The course can be offered with formal certification requirements and without.

Certification requirements include completing and successfully passing a hands-on certification lab. The lab is designed to give candidates real-world experience in application development, engineering, and implementing control solutions. Employees and business partners of Tridium that successfully complete TCP requirements receive certification from Tridium.

Optionally, this course can be offered without certification testing. Participants that complete non-certification training receive a certificate of attendance.

Training Paths

This course provides level-two training. It is oftentimes preceded by three days of level-one end-user training.

Major Topic Areas

Major topic areas included in the Niagara^{AX} TCP session are listed below. Each section combines lecture and hands-on lab exercises.

- **Niagara^{AX} Fundamentals.** An introduction to the Niagara^{AX} software architecture and its component structure, Niagara^{AX} platforms and tools, and creating a new station.
- **Customizing the Workbench^{AX} Environment.** Managing tabs, customizing the New menu, and Workbench options.
- **Security, User Administration, and Licensing.** Working with security categories and creating station user accounts.
- **Data and Control Model.** Working with control components to build control applications.
- **Integrations.** Working with the driver architecture to integrate open protocol field devices including Niagara, LonWorks, and BACnet.
- **Histories and Alarming.** Working with history extensions to collect and archive trended data. Also, working with the Alarm service to monitor, generate, and manage alarms and alerts.
- **Px Views.** Working with the Px Editor to create graphical presentations of real-time data.

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