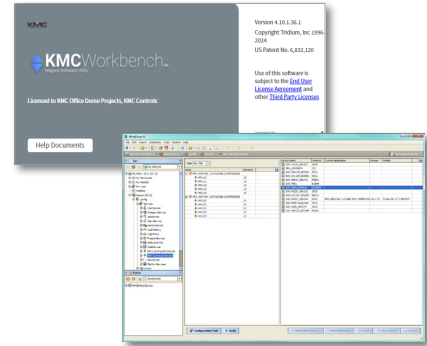# Niagara Product Selection Guide

For KMC Supervisor, Workbench, Converge, GFX, and JACE

CONTENTS

INTRODUCTION

What Is Niagara 4?

Niagara is an open, Java-based framework that can connect almost any embedded device or system—regardless of manufacturer or communication protocol. It includes a graphical toolset that enables users to build applications in a drag-and-drop environment and easily manage assets using a standard Web browser.

Niagara 4 (or N4) is the latest implementation of the framework, with an HTML5 interface, enhanced security, and other features.

What Is KMC Niagara Supervisor?

The KMC **N4** Supervisor, which hosts KMC Workbench, is a flexible network server software application used in environments where multiple Niagara 4-based JACE controllers are networked together. The KMC N4 Supervisor can also communicate with remote JACE controllers. The N4 Supervisor serves real-time graphical information to standard web-browser clients and provides server-level functions such as centralized data logging, archiving, alarming, trending, master scheduling, system-wide database management, and integration with enterprise software applications.

NOTE: A **software maintenance agreement** (**SMA**) must also be purchased with all N4 supervisors (P/N SUP-xxx-SMA-xxx) and JACE controllers (P/N SMA-xxx-xxx).

What Is KMC Niagara Workbench?

KMC Workbench is an engineering tool from which the database is developed and various other engineering actions, such as controller configuration and programming, are conducted.

What Is KMC Converge?

KMC Converge adds functionality to Niagara for setting up BACnet controllers from KMC Controls. KMC Converge is a tool set that runs in Niagara Workbench. It is used to configure and deploy KMC's Application Library and customize programmable KMC BACnet controllers.

KMC Converge is installed via two modules: kmcBACnet (controller programming) and kmcConverge (deployment service).

NOTE: See also the **data sheet and other documentation for KMC Converge**.

What Is KMC Converge GFX?

KMC Converge GFX is a tool set used to configure and generate responsive HTML5 graphics from KMC Workbench or any other open brand of the Niagara Framework. Converge GFX automatically generates an HTML5 web interface for controllers deployed using KMC's Application Library. The interface may be further customized with additional points and navigation. GFX graphics are created in Workbench and hosted on a station. Converge GFX is in addition to the standard graphics included with Niagara.

KMC Converge GFX is installed via one module: kmcConvergeGFX.
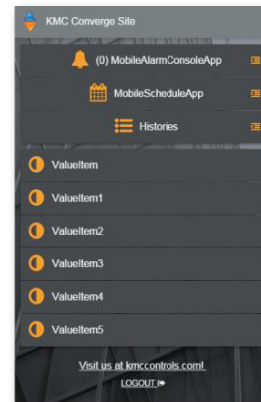
What Is KMC Converge Training?

KMC Controls offers training in using KMC Converge. To take a training class, log in to the **KMC Controls website** and navigate to the **Training** section for a schedule of classes and additional information.

What Is -3P?

The "-3P" in a product part number designates "Third Party". The "-3P" products can be licensed to open Niagara products that were sourced from Niagara vendors other than KMC.

What Is a Host ID and Win ID?

The Host ID for a JACE controller is determined at the factory, and a corresponding license file for that specific JACE is stored on a licensing server. The Win ID is the computer/server version of the Niagara Host ID. The Win ID is generated by the Supervisor/Workbench software at installation.

A page created in KMC Converge GFX

All Supervisor/Workbench licenses are bound to that Win ID just as all JACE licenses are bound to the Host ID. (For more information, see Niagara documentation.)

What Is the Niagara NiCS?

The Niagara Compatibility Statement (NiCS) is a licensing model in Niagara that provides OEMs with the ability to define the various levels and types of Niagara interoperability their products will support. The statement can limit what tools can run on a station or what Workbench software can connect to a station. (For more information, see Niagara documentation.)

As an open-branded OEM, KMC Controls is not restricted by the brand of station or workbench for Niagara connections.

Where Are the KMC Software Downloads?

These software modules can be downloaded (after logging in) from the KMC web site:

- **KMC Converge and GFX** (contains Converge and GFX modules)
- **KMC Workbench Supervisor** (contains all KMC Niagara product modules)

The files are contained within the **Software** section under **Documents**. The modules require the appropriate licenses and certificates emailed from KMC Customer Service to operate.

What Is a JACE?

A JACE (Java Application Control Engine) is a compact, embedded controller/server device that provides connectivity to building automation systems via the Niagara framework. A JACE combines integrated control, supervision, data logging, alarming, scheduling, and network management functions with Internet connectivity and web-serving capabilities in a small, compact platform. A JACE makes it possible to control and manage external devices over the Internet and present real-time information to users in web-based graphical views.

See **KMC JACE (Hardware) Products on page 4** for details.

KMC NIAGARA (SOFTWARE) PRODUCTS

KMC Converge (Tool Set for KMC Workbench)

P/N: CONVERGE

Converge application only. Order to add to an existing **KMC** Workbench.

Requirements:

- Workbench.
- License requires Host ID or Win ID.

AFTER purchasing:

- Download **KMC Converge and GFX Modules** from the website and install KMC BACnet and KMC Converge.jar files.
- KMC emails relevant licenses and certificates to you.

KMC Converge (Tool Set for Third-Party Workbench)

P/N: CONVERGE-3P

Converge application only. Order to add to an existing **Third-Party** Workbench.

Requirements:

- Workbench.
- License requires Host ID.

AFTER purchasing:

- Download **KMC Converge and GFX Modules** from the website and install KMC BACnet and KMC Converge.jar files.
- KMC emails relevant licenses and certificates to you.

KMC Converge GFX (KMC JACE-Hosted Graphics)

P/N: CONVERGE-GFX

HTML5 graphics toolset for a **KMC JACE**, hosted on the JACE.

Requirements:

- Workbench.
- JACE hardware license requires Host ID or Serial Number.
- Soft JACE license requires Win ID.

AFTER purchasing:

- Download **KMC Converge and GFX Modules** from the website and install KMC BACnet, Converge, and GFX .jar files.*
- KMC emails relevant licenses and certificates to you.

*NOTE: Converge must be loaded into the station (but it does not need to be licensed) for GFX to function.

KMC Converge GFX (Third-Party JACE-Hosted Graphics)

P/N: CONVERGE-GFX-3P

HTML5 graphics toolset for a **Third-Party JACE**, hosted on the JACE.

Requirements:

- JACE hardware license requires Host ID or Serial Number.
- Soft JACE license requires Win ID.

AFTER purchasing:

- Download **KMC Converge and GFX Modules** from the website and install KMC BACnet, Converge, and GFX .jar files.*
- KMC emails relevant licenses and certificates to you.

*NOTE: Converge must be loaded into the station (but it does not need to be licensed) for GFX to function.

KMC Converge GFX (KMC Supervisor-Hosted Graphics)

P/N: CONVERGE-GFX-SUP

HTML5 graphics toolset for a **KMC Supervisor** (Workbench server), hosted on the Supervisor.

Requirements:

- Supervisor (such as KMN-S-AX-3, KMN-S-AX-100, KMN-S-AX-ENT, KMN-S-N4-1, KMN-S-N4-10, KMN-S-N4-100, KMN-S-N4-2, KMN-S-N4-3, or KMN-S-N4-UNL).
- Workbench.
- License requires Win ID.

AFTER purchasing:

- Download **KMC Converge and GFX Modules** from the web site and install KMC BACnet, Converge, and GFX .jar files.*
- KMC emails relevant licenses and certificates to you.

*NOTE: Converge must be loaded into the station (but it does not need to be licensed) for GFX to function.

KMC Converge GFX (Third-Party Supervisor Hosted)

P/N: CONVERGE-GFX-SUP-3P

HTML5 graphics tool set for a **Third-Party Supervisor** (Workbench server), hosted on the Supervisor.

Requirements: License requires Win ID.

KMC NIAGARA (SOFTWARE) PRODUCTS (CONTINUED)

AFTER purchasing:

- Download **KMC Converge and GFX Modules** from the website and install KMC BACnet, Converge, and GFX .jar files.*
- KMC emails relevant licenses and certificates to you.

*NOTE: Converge must be loaded into the station (but it does not need to be licensed) for GFX to function.

KMC Niagara N4 Workbench with Converge (Office DEMO)

P/N: KMN-S-ENG-DEMO

Office Demo is a technician's Workbench tool to create stations on a local PC. All Tridium and KMC drivers and services are licensed, including GFX.

NOTE: After the SI provides the N4 certification document, N4 functionality is activated.

Requirements: License requires Win ID.

AFTER purchasing:

- Download **KMC Workbench N4** from the website and run the setup.
- KMC emails relevant licenses and certificates to you.

KMC JACE (HARDWARE) PRODUCTS
JACE 8000 Series

P/N:

- **KMN-J-8005:** JACE 8000 licensed for up to 5 devices (250 points)
- **KMN-J-8010:** JACE 8000 licensed for up to 10 devices (500 points)
- **KMN-J-8025:** JACE 8000 licensed for up to 25 devices (1,250 points)
- **KMN-J-8100:** JACE 8000 licensed for up to 100 devices (5,000 points)
- **KMN-J-8200:** JACE 8000 licensed for up to 200 devices (10,000 points)

Requirements: Niagara 4

NOTE: A **software maintenance agreement** (**SMA**) must **also be purchased** with all N4 supervisors (P/N **SUP-xxx-SMA-xxx**) and JACE controllers (P/N **SMA-xxx-xxx**).

JACE 9000 Series

P/N:

- **KMN-J-9005:** JACE 9000 licensed for up to 5 devices (250 points)
- **KMN-J-9010:** JACE 9000 licensed for up to 10 devices (500 points)
- **KMN-J-9025:** JACE 9000 licensed for up to 25 devices (1,250 points)

KMC Niagara Supervisor (for Windows)

This should be purchased to install a JACE or Supervisor on projects.

P/N:

- **KMN-S-N4-0**: N4 Supervisor for **0** Niagara devices
- **KMN-S-N4-1**: N4 Supervisor for **1** Niagara devices
- **KMN-S-N4-2**: N4 Supervisor for **2** Niagara devices
- **KMN-S-N4-3**: N4 Supervisor for **3** Niagara devices
- **KMN-S-N4-10**: N4 Supervisor for **10** Niagara devices
- **KMN-S-N4-100**: N4 Supervisor for **100** Niagara devices
- **KMN-S-N4-UNL**: N4 Supervisor for **unlimited** Niagara devices

Requirements: Licensed to end user computer/server Win ID number.

NOTE: A **software maintenance agreement** (**SMA**) must also be purchased with all N4 supervisors (P/N **SUP-xxx-SMA-xxx**) and JACE controllers (P/N **SMA-xxx-xxx**).

Device Support: SUP-DEVICE-xxx N4 Supervisor Device Pack (options from 10 to 1,000 devices)

AFTER purchasing:

- Download **KMC Workbench N4** from the website and run the setup.
- KMC emails relevant licenses and certificates to you.

JACE 8000

JACE 9000

- **KMN-J-9100:** JACE 9000 licensed for up to 100 devices (5,000 points)
- **KMN-J-9200:** JACE 9000 licensed for up to 200 devices (10,000 points)

Requirements: Niagara 4.13

NOTE: A **software maintenance agreement** (**SMA**) must **also be purchased** with all N4 supervisors (P/N **SUP-xxx-SMA-xxx**) and JACE controllers (P/N **SMA-xxx-xxx**).

Optional JACE 8000 and JACE 9000 device upgrades

- **DEVICE-1**: One device (50 points) upgrade
- **DEVICE-10**: Up to 10 devices (500 points) upgrade
- **DEVICE-25**: Up to 25 devices (1,250 points) upgrade
- **DEVICE-50**: Up to 50 devices (2,500 points) upgrade

Popular JACE Accessories

- **WPM-8000**: Universal power supply for JACE 8000 and JACE 9000 controllers
- **NPB-8000-2X-485**: Add-on RS-485 dual-port module for JACE 8000 and JACE 9000 controllers
- **NPB-8000-LON**: Add-on LON single-port FTT10A module for JACE 8000 and JACE 9000 controllers
- **IO-R-16**: JACE 8000 and JACE 9000 16 point IO
- **IO-R-34**: JACE 8000 and JACE 9000 34 point IO

See the KMC Controls website for many other accessories.

See product data sheets for more information.

KMC SETUP TOOLS FOR KMC CONQUEST CONTROLLERS

The following table shows how KMC Converge modules fit into the family of tools for configuring, programming, and creating web page graphics for KMC Conquest controllers.

SETUP PROCESS			KMC CONTROLS TOOL
Configuration	**Programming (Control Basic)**	**Web Page Graphics***	
✔			Conquest NetSensor
✔			Internal configuration web pages in Conquest Ethernet "E" models**
✔			KMC Connect Lite™ (NFC) app***
✔	✔		KMC Connect™ software
✔****	✔****	✔	TotalControl™ software
✔	✔		KMC Converge™ module for Niagara Workbench
		✔	KMC Converge **GFX** module for Niagara Workbench

*Custom graphical user-interface web pages can be hosted on a remote web server, but not in the controller.

Conquest Ethernet-enabled "E" models with the latest firmware can be configured with an HTML5 compatible web browser from pages served from within the controller. For information, see the **Conquest Ethernet Controller Configuration Web Pages Application Guide.

***Near Field Communication via enabled smart phone or tablet running the KMC Connect Lite app.

****Full configuration and programming of KMC Conquest controllers is supported starting with TotalControl ver. 4.0.

SUPPORT

For more information, see the data sheets and other support documents on the respective product series pages on the KMC Controls web site (**www.kmccontrols.com**).