



Niagara Framework 4.12

Features Overview

Niagara 4.12

Features Review

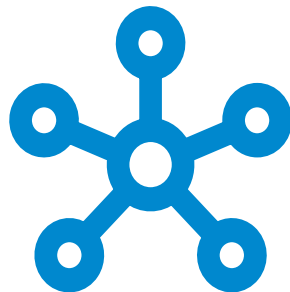
Niagara Framework[®]: Always Evolving – 4.12

Niagara 4.12 brings exciting new features that continue to evolve Niagara's key tenets of visualization, rapid deployment, security, Edge, connectivity, certification and IT compliance.



Visualization

WebWiresheet 2.0
HTML5 Niagara Point
Manager View
HTML5 BQL Query
Builder



Connectivity

MQTT – Azure Auth
HTTP Driver
MSTP Engine Optimization
MaxPro Support in Video
Framework



Security

Critical Support Updates &
Enhancements



Deployment

Internationalization
Support
Edge Tools Updates



Certification & Compliance

Expanded History
Character Limitation
BACnet Protocol
Revision 15 Update

Niagara 4.12

Visualization

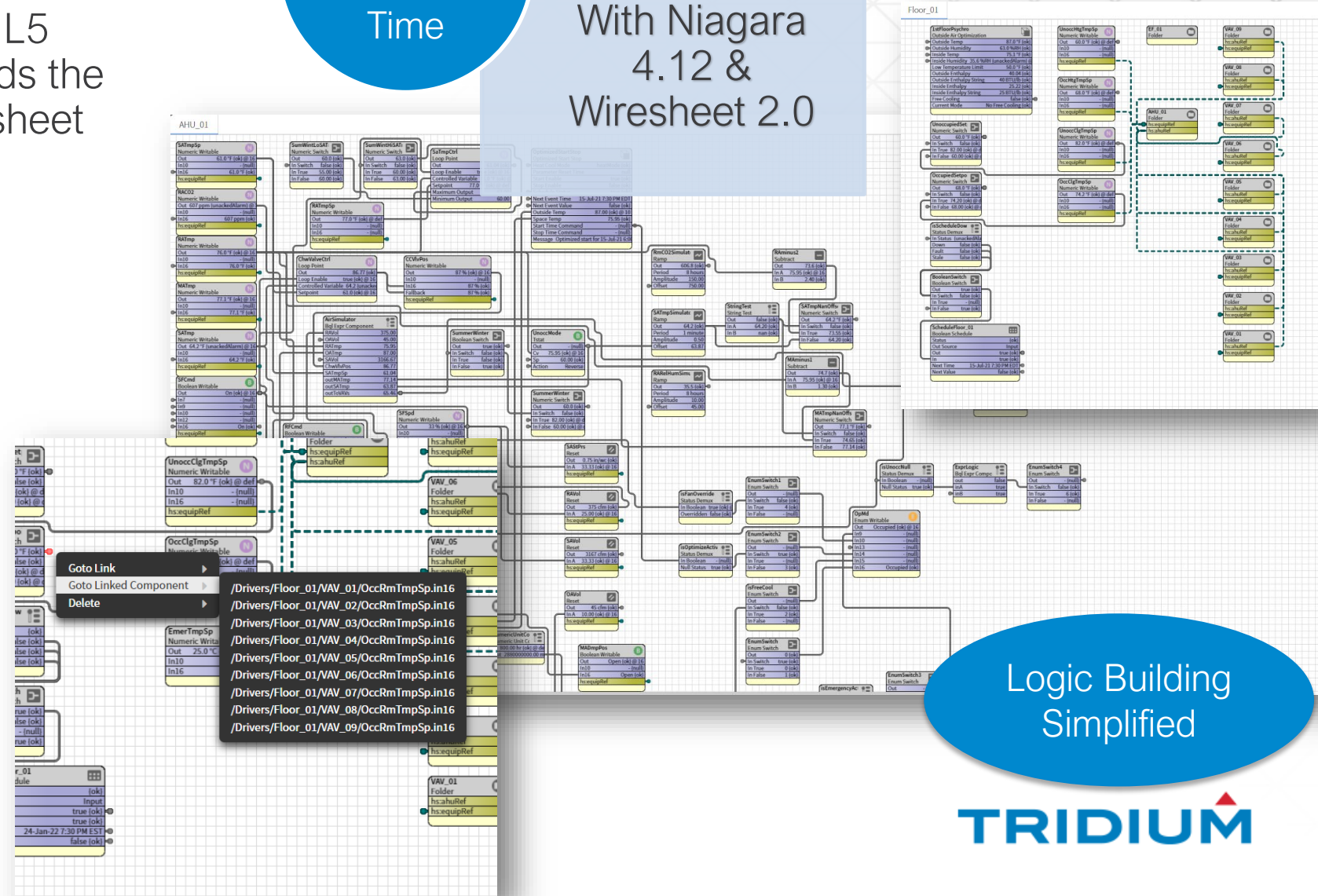
WebWiresheet 2.0

Get Back
Your
Valuable
Time

WebWiresheet is a native HTML5 configuration tool which extends the power of the Workbench Wiresheet Application into a Browser Environment

- Intuitive Linking
- Multi-Selection Mode
- Rapid Relation Marking
- Search Service Integration

With Niagara
4.12 &
Wiresheet 2.0



TRIDIUM

All items and schedules are subject to change at Tridium's sole discretion. Tridium has no obligation to deliver any future product outlined in this document.

HTML5 Niagara Network Point Manager



Extends the functionality of the Workbench Niagara Point Manager Application into a Browser Environment.

Discovery and addition of components via an enriched HTML5 Browser Interface

Drag-n-drop functionality

Improved user experience

Enhances your workflow efficiency

Provides Added Flexibility

Reduces Truck Rolls!

Slot Path	Type
/Services/SecurityService/certificates/tridium/expiry	nss:CertificateExpiryPoint
/Services/SecurityService/certificates/servercert/expiry	nss:CertificateExpiryPoint
/Services/EventService/Recompile	kitControl:GreaterThan
/Services/EventService/RecompileTime	
/Services/EventService/MultiVibrator	
/Services/EventService/LessThan	
/Services/EventService/And	
/Drivers/NiagaraNetwork/TridiumStation	

Name	Point Id
CCVlvPos	slot:/Drivers/Floor_0
DprRstSp	slot:/Drivers/Floor_0
SAFItSts	slot:/Drivers/Floor_0
LowTmpDet	slot:/Drivers/Floor_0
MATmp	slot:/Drivers/Floor_0
OADmpPos	slot:/Drivers/Floor_0
OATmp	slot:/Drivers/Floor_0
OAVol	slot:/Drivers/Floor_0
RACO2	slot:/Drivers/Floor_0

Points

station:|slot:/Drivers/NiagaraNetwork/TridiumStation/Floor_01/

40 objects

- Config
 - Station Name
 - Sys Info
 - Services
 - Save
 - Drivers
 - NiagaraNetwork
 - Status
 - Enabled
 - Fault Cause
 - Health
 - Alarm Source Info
 - Monitor
 - Ping
 - Local Station
 - Sys Def Provider
 - Tuning Policies

Ord Type: Slot

OK Cancel

HTML5 BQL Query Builder



Provides an enhanced querying workflow and improved user experience, giving you even more flexibility to quickly get the job done

- Query components via an HTML5 Browser Interface

- Configure Reports in a Browser using the Report Service

- Create BQL queries for later use across your Niagara Stations

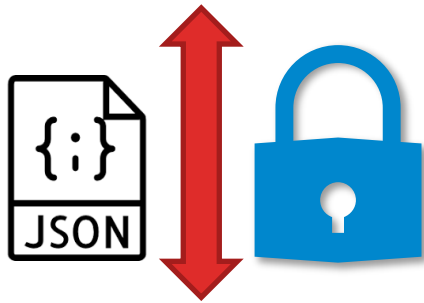
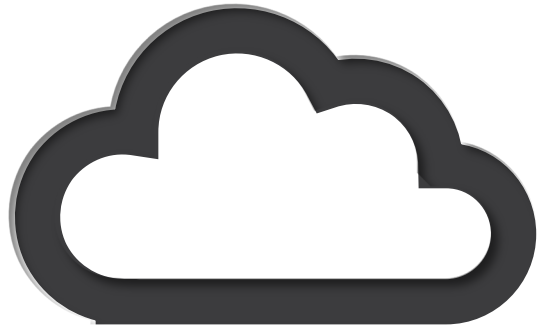
Name	Query
Example Query	station:/slot:/bql:select toPathString, handle, type, icon.encodeToString from control:NumericPoint where name like '*Tmp*' and parent.name = 'AHU_01'

Niagara 4.12

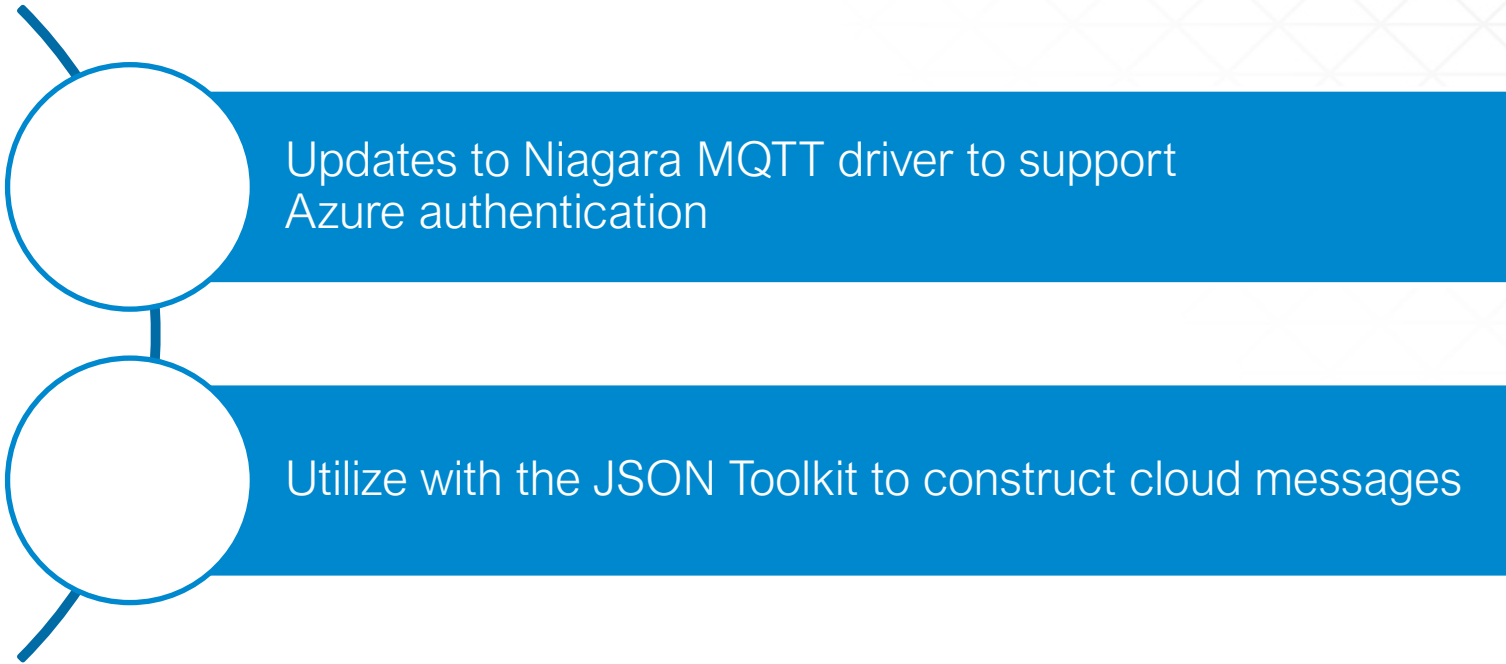
Connectivity



MQTT Driver Azure[®] Authenticator



Reduce the time and complexity of integrating Niagara with cloud solutions with updated connectivity options.





HTTP Client Driver

The HTTP Client module provides tools and a driver, which interact with HTTP services, such as web services and restful API endpoints



Permits data exchange both in and out of a station



Execute a GET, POST or PUT between Niagara and APIs or web services

SW Option for Purchase

Niagara Supervisor



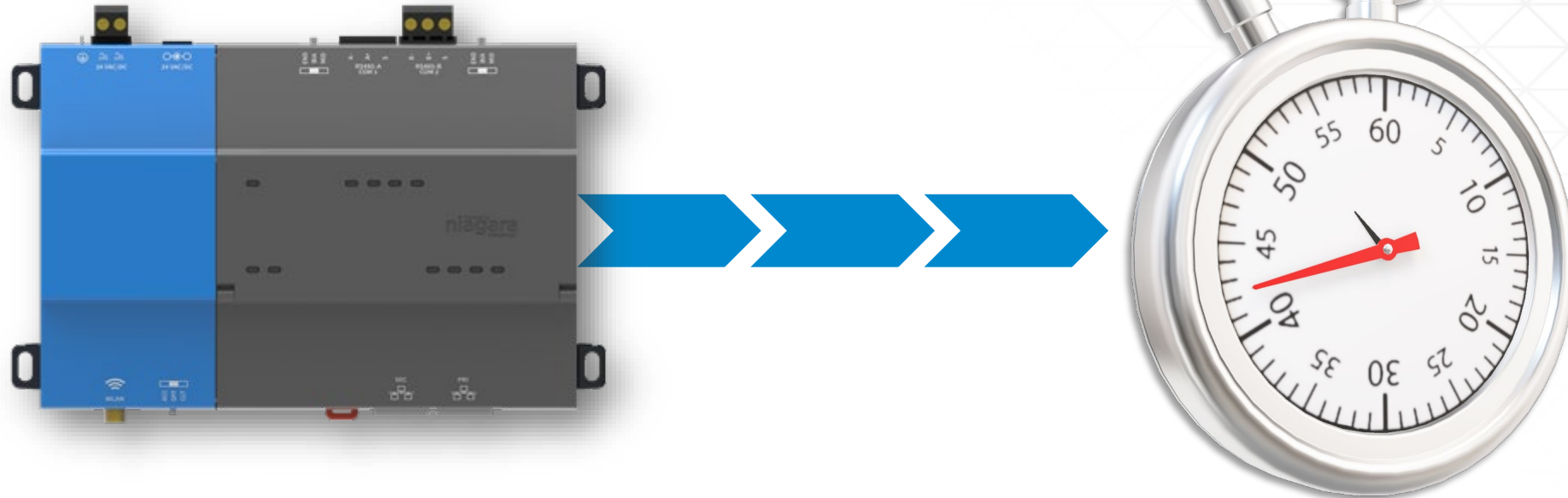
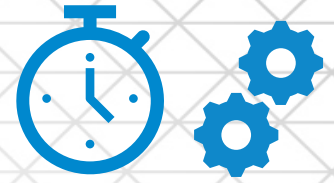
JACE



Requires Active SMA



JACE[®] MSTP Engine Optimization



Prior to 4.12, MSTP communication on a JACE was handled by the primary processor
Now in Niagara 4.12, MSTP processing has been re-engineered to utilize the on-board co-processor to ensure robust and efficient communication

TRIDIUM

Integration with Video Surveillance



Now Supported in the Video Framework

Integrate with BMS via HTML5 presentation

Stream live or recorded video feeds

Integrate video with Niagara Alarm Console

Other supported integrations

Milestone Xprotect Professional+ and Corporate

Axis Cameras (Live Viewing)



Niagara 4.12

Security



General Cyber Security Enhancements

User Prototypes & Authentication Scheme

- The SAML Authentication Scheme can now be configured to optionally merge user prototypes that match a user's prototype attributes, instead of just picking a single prototype.
- LDAP and Kerberos authentication schemes can now be configured to optionally merge user prototypes that match a user's prototype attributes, instead of just picking a single prototype.

Platform User Access

- Niagara Daemon user logins and login failures are now captured in the local station's "Security Audit Log"

Security Dashboard Enhancements

- Hidden Users are now displayed on the User Service Card

User Service

7

Number of hidden users: 1.

A Super User with name "admin" exists.

Lock Out feature is enabled in the User Service.

Number of all users in the station is: 4.

Number of Super User accounts in the station is: 2.

Password expiration is DISABLED for all users.

Concurrent sessions are ENABLED for super users: admin, lucid

Warning 2

OK 1

Info 4

[MORE](#)

Number of hidden users: 1.
Hidden users may not show up in every view. An attacker could create a hidden user that would be difficult to detect. It is not recommended to have any hidden users.

Time Range: 21-Sep-21 9:27 AM EDT to ?

test/SecurityHistory

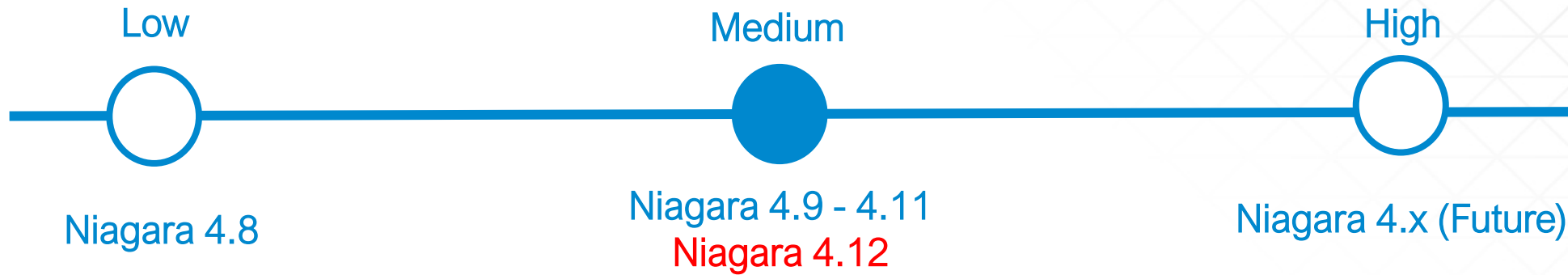
Timestamp	Operation	User Name	Message
21-Sep-21 9:27:33 AM EDT	Login	admin	/Services/FoxService/serverConnections/Session 127.0.0.1 Workbench 4.12.0.37.272
21-Sep-21 9:28:10 AM EDT	Login	[REDACTED]	Platform 127.0.0.1 Niagara/4.12.0.37.272
21-Sep-21 9:28:40 AM EDT	Login Failure	sfjkhjkh	Platform 127.0.0.1 Niagara/4.12.0.37.272
21-Sep-21 9:35:40 AM EDT	Logout	admin	/Services/FoxService/serverConnections/Session 127.0.0.1 Workbench 4.12.0.37.272
21-Sep-21 10:42:26 AM EDT	Login	admin	/Services/FoxService/serverConnections/Session 127.0.0.1 Workbench 4.12.0.37.272
21-Sep-21 10:44:02 AM EDT	Changed	admin	Property /Services/FoxService.supportLegacyClients changed from 'Default: Yes (may change in future version)' to 'No (Recommended)'
21-Sep-21 10:45:42 AM EDT	Changed	admin	Property /Services/WebService/hostHeaderValidationSettings.validateHostHeader changed from 'false' to 'true'



Securing Niagara - 3rd Party Module Signing



Default Verification Mode by Version



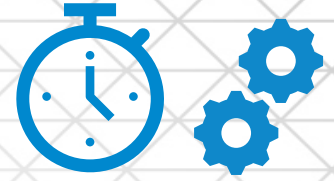
Verification Mode	Description
Low	Modules that are unsigned, untrusted, or have expired certificates will cause warnings but still function. Error if signed module modified after it was signed. Can be increased to Medium or High.
Medium	All modules must be signed by valid, trusted certificate (may be self-signed). Can be decreased to Low or increased to High.
High	All modules must be signed with CA Certificate. Can be decreased to Medium.



Niagara 4.12

Deployment

Internationalization Support



New Release Artifact which provides a delta of the lexicons added, edited or removed in the release in a user-friendly format

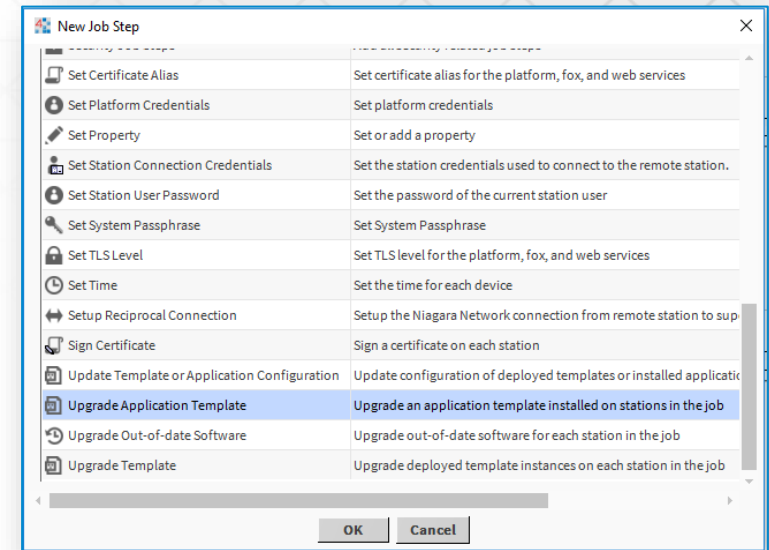
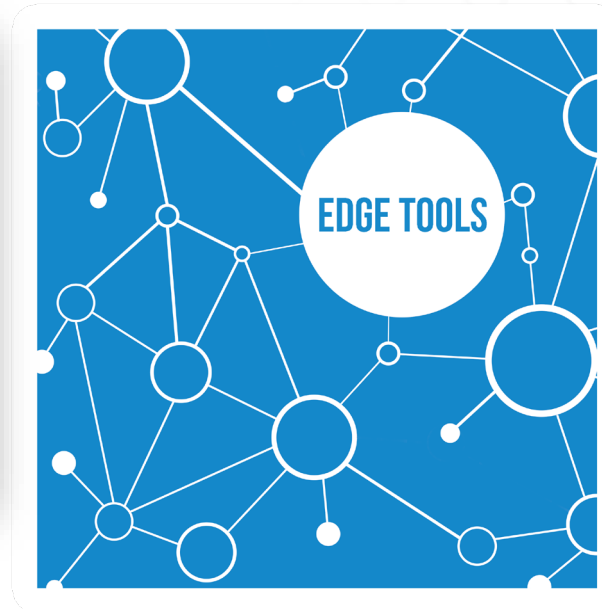
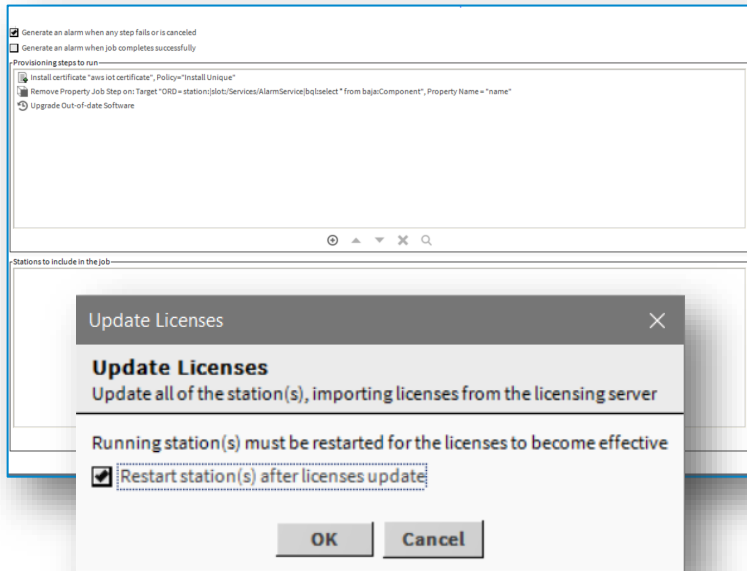
Targets Non-English-Speaking Segments

Quickly Incorporate Release Lexicon Changes into your Applications





Facilitating Niagara at the Edge



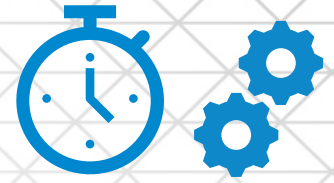
Reduce time spent installing, commissioning, and configuring multiple Niagara devices with application templates and provisioning. The latest updates to Edge Tools include:

- ❑ Enhanced Layout – Combined Network & Device Job Step Windows
- ❑ New Provisioning Job Steps – Remove Platform User, Set Platform User & Remove Property
- ❑ Upgrade License Job Step now allows users to Defer Reboot for Later

Niagara 4.12

Certification & Compliance

History Character Limit Expansion



In previous versions of the Niagara Framework, the character limit on history names was 44. Now in Niagara 4.12, the limit has been expanded to 200 characters.

Giving you back the flexibility you deserve!



Conform with any Point Naming Convention

Removes the need for cryptic point naming

Quickly Locate Niagara Histories

Supported Infrastructure

Keeping pace with advancing infrastructure to enable more efficient, long-term support.



Supported Operating Systems

Windows	Virtual Machine
Windows 10 64-bit Professional / Enterprise	VMWare ESXi 6.7
Windows 11	Mobile
Windows Server 2016	iOS 12
Windows Server 2019	iOS 13
Linux	Android 8 (Oreo)
Red Hat Enterprise Linux 7.x 64-bit	Android 9 (Pie)
RedHat Enterprise Linux 8.x 64-bit	Android 10 (Queen Cake)
Ubuntu Desktop & Server 20.04 LTS	

Supported Databases

SQL Database
MySQL Server 8.0 (mysql-connector-java-8.0.24)
MS SQL Server 2016 (v13)
MS SQL Server 2017 (v14)
MS SQL Server 2019 (v15)
SQL Database
Oracle 12c.1/2
Oracle 18c
Oracle 19c LTS
Niagara SystemDB
Orient v3

Supported Browsers

Browser
Chrome (v85)
Firefox (v81)
Microsoft Edge (v85)
Web Launcher
Mobile Browser
Safari on iOS (v13.1)
Chrome on Android (v85)



Niagara 4.12

Hidden Gems



A Collection of **Smaller Features** with each release that provides **specific ongoing value** for Niagara stations, applications, services and/or end-users

Niagara 4.12 Hidden Gems



Visualization

- HTML5 ColorEditor
- PX Transform Pane – Mirror, Flip & Rotate
- HTML5 GridTable Export

Tagging

- New Version Property on All Dictionaries
- Ad-Hoc Enum Range Support

Connectivity

- kitControl Reset Component

Niagara 4.12

Summary Review

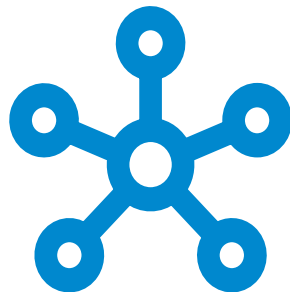
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