

# Niagara 4.8 Release Notes

## Information

### Description

## Issues fixed in Niagara 4.8 Release

### Release Notes not assigned to a module

<b>HAREMB-1036</b>	Edge10 - Unexpected Bridge Priority values for RSTP configuration
<p>Prior to Niagara 4.8, the TCP/IP Host Editor and JACE System Shell Menu presented the incorrect display value for BridgePriority STP values "28762" and "61140". This is a display only issue and even if these (non-default) values were used, the correct value "28672" and "61440" would be used by the STP configuration. This has been corrected.</p>	
<b>HAREMB-1107</b>	JACE-8000 "System clock modified" goes back, then later comes forward
<p>RTC and OS time on the JACE-8000 would sometimes keep drifting far apart. Time synchronization between RTC and OS has been reworked to prevent this from happening.</p>	
<b>HAREMB-1162</b>	USB bus re-enumerates under heavy communications load
<p>Increased usb message buffer sizes on usb rs485 and rs232 modules. Increased usb tx message buffer sizes for usb serial driver. Fixed mstp state machine condition that could sometimes cause token to be incorrectly retransmitted or dropped. Improved reliability of MSTP over JACE-8000 usb-serial subsystem has been improved</p>	
<b>HAREMB-507</b>	JACE-8000 defaults to factory recovery even if USB backup is present
<p>If a user holds the backup/restore button during boot, and has a USB device mounted into the front panel USB backup/restore port, and the user does not register a keystroke via the serial terminal connection to indicate a restore is desired, previously the unit would have automatically entered the recovery process. With this release, the recovery/restore process will be aborted and the unit will continue with normal boot. If recovery is desired, no USB device can be mounted into the backup/restore port.</p>	
<b>NCCB-19235</b>	After selecting Make Trend as "False" in the runtime block, it renders data in the trend request.
<p>Runtime block is a special block, where the TrendData and ValueData both are valid. 'makeTrend' property is now removed as it is not being used.</p>	
<b>NCCB-33083</b>	MultiTrend Ord scheme throws exception when used as multi ord scheme
<p>MultiTrend Ord Scheme will not throw an error/exception when used as multi ord scheme</p>	
<b>NCCB-33290</b>	Read Range Request to a non array object with an array index.
<p>For Recipient_List property of Notification Class Object, Device_Address_Binding, Active_COV_Subscriptions properties of Device Object, List_Of_Object_Property_References</p>	

property of Schedule Object, Log\_Buffer property of Trend Log Object, Alarm\_Values, Fault\_Values properties of Multi-state Input and Multi-state Output Objects and Date\_List property of Calendar Object, Time\_Synchronization\_Recipients, UTC\_Time\_Synchronization\_Recipients and Restart\_Notification\_Recipients properties of Device Object should return property is not an array with read range with array index valid value

**NCCB-34322**

I-Am broadcast optimization for BBMD

Prior to this fix, I-AM response to WHO-IS request was a GLOBAL\_BROADCAST. Now I-AM response is a unicast to the source of the WHO-IS request.

**NCCB-34384**

Area Information is displayed after disabling the Area Normalization and updating the report

From first refresh, the floor area value correctly appears in the NodeEditor.

**NCCB-34812**

Session timeout: Continue option does not work when Station tab is not focused

The continue option in the session timeout warning dialog would not properly reset the session timeout if a tab for the station was not in focus, causing the session to time out shortly after selecting continue. This has been corrected and the session timeout is properly reset. This introduced a breaking change documented at [https://www.niagara-community.com/articles/Developer\\_Document/Breaking-Change-Session-Timeout-API](https://www.niagara-community.com/articles/Developer_Document/Breaking-Change-Session-Timeout-API).

**NCCB-35801**

If data is missing in the Average Profile Chart, the x axis values are displayed with uneven intervals.

Fixed to show equal intervals of time stamp in x axis

**NCCB-35901**

Bulk Deploy does not recognize Excel (.xlsx) workbooks

Bulk deploy operations can now use the .xlsx file format.

**NCCB-36092**

On deleting a point, baseline editor still shows the old point's name

On deleting a point, baseline editor now removes the point name when the node is deleted.

**NCCB-36364**

Analytics performance issues with UX Controls in PX views

Fixed Analytics Performance issues with UX Controls in PX views

**NCCB-36484**

Missing Data Strategy Editor does not restrict the K Value limit to 30

K nearest neighbor algorithm, in the Missing Data Strategy editor, now allows K values between 1 and 30 only. Higher K values affect system performance.

**NCCB-36809**

The Daylight Saving Time shift from EDT to EST is shown horizontally in web table Binding

The Daylight Saving Time shift from EDT to EST is now fixed to show correctly in web table Binding.

<b>NCCB-37010</b>	Charts show the word "value" on the Y axis which should show units
"value" text on the y-axis is now removed.	
<b>NCCB-37021</b>	AnalyticsWebChart should default to "Line" instead of "Bar".
Fixed to set the default chart type to line chart	
<b>NCCB-37335</b>	Niagara Daemon Servlets that extend DaemonServlet do not have thread safe XML response
Prior versions of the Niagara Daemon could fail to respond with valid XML if multiple clients were requesting the same servlet information at once. This could manifest as an error dialog appearing when using multiple Platform Administration Views connected to the same platform. This has been corrected.	
<b>NCCB-37649</b>	Workbench TCP/IP Host Editor creates malformed STP link.cfg file
The TCP/IP Host Editor created a malformed link.cfg configuration file when using non-default STP settings on an Edge10 device. This has been corrected. Use the Serial Shell to configure the STP settings if required.	
<b>NCCB-37883</b>	Time Range FROM Today - x Days to +1 Days does not display Day x
Fixed to stop incorrect conversion of days to weeks when the user selects "From" option in the 'Time Range' drop down.	
<b>NCCB-38287</b>	In Time Range Offset block, when selecting "End" as Time Range Part, the time stamps are not offsetting towards the end
In Time Range Offset block, when "End" is selected as Time Range, and an offset is given, the timestamps are now offsetting correctly.	
<b>NCCB-38966</b>	The units for Area Normalization are not displayed correctly
The units for Area Normalization are now displayed correctly	
<b>NCCB-38980</b>	Changing the time range in the binding and selecting "Use Request Time Range" in the Algorithm rollup block does not work.
Changing the time range in the binding and selecting "Use Request Time Range" in the Algorithm rollup block will work as expected	
<b>NCCB-39046</b>	If configuration for a chart is changed in the browser, the settings and data are not updated in PDF Export
If you want to export the chart and retain all of the changes that you have made, you need to do the following: 1. Export the modified chart to a Station File (see "Exporting a chart (Workbench or browser)" in Niagara Web Charts Guide. 2. Create a Px view for this chart and load the exported Station File to this Px view. The chart will display with the modifications included. More information can be obtained from Niagara Analytics documentation pdfs.	

<b>NCCB-39987</b>	Charts exported from analytics in csv format return an empty text file in workbench
Charts exported from analytics in CSV format now displays the file correctly	
<b>NCCB-40332</b>	Status filter FE is not editable when added through Analytics Data Manager
Status filter FE is now editable when added through 'new' button on the Analytics Data Manager	
<b>NCCB-40578</b>	No Data is displayed when all the filters are selected form the Status Filter
When all the status filters are selected, data with 'ok' status is returned	
<b>NCCB-40579</b>	In Web table if data is in fault condition the status is shown as -
Statuses on the web Table now display all statuses correctly.	
<b>NCCB-40609</b>	If Time Range is set in the time range selector and then changed to "Today", a message is displayed indicating it cannot save.
Time range change is able to save the setting with Today selected	
<b>NCCB-40623</b>	Add URL whitelist for WebStart/WebLauncher
By default, WebStart and WebLauncher can no longer be used to navigate to arbitrary Web addresses directly. The only way to directly load external URLs in WebStart is by entering a whitelist in the station's system property for niagara.webbrowser.urlWhitelist system property. See NCCB-42011 for details for syntax. If there are hyperlinks between stations and they are in each other's whitelists, then consider that you may still want to open a different WebLauncher or Webstart instance when you get to their login pages, as this ensures the modules that are loaded are specific to the station you are viewing.	
<b>NCCB-40625</b>	Bajaux BacnetDate field editor does not display localized day of week
In previous versions of Bacnet, the BacnetDate bajaux editor did not support localization. This is fixed now and users can select or edit BacnetDate in their local language.	
<b>NCCB-40677</b>	The Rollup block, when used in algorithms, is not returning data as per the Request Rollup and Request Time Range
The Rollup block, when used in algorithms, returns data as per the Request Rollup and Request Time Range	
<b>NCCB-40909</b>	Data is not rendering correctly from algorithm with Sliding Window and COV History Extension
EnumSchedule output is handled as part of this defect and appropriate Enum value can be used for the Algorithm Blocks (Sliding Window and other Functional Blocks).	
<b>NCCB-41284</b>	Day Time Range includes 12:00 AM from next day which adds an extra record to the result
Charts and tables will not include today's data if we select yesterday as time range.	

## Description (cont.)

**Release Notes assigned to one or more modules**

<b>NCCB-19952</b>	Linux Installer, nre	Workbench/station fail to start if niagara_home path contains spaces
In previous versions of Niagara, spaces in the installation path would cause Station and Workbench to fail to start. This has been resolved.		
<b>NCCB-35108</b>	Linux Installer	Branded Linux Niagara install fails to validate brand, does not create directories
Previous versions of the Niagara Linux installer could incorrectly reject customized brand identifiers, incorrectly labeling them as containing invalid characters. This has been corrected.		
<b>NCCB-37915</b>	Linux Installer	Linux uninstaller version injection regression
The Linux uninstall script incorrectly referenced the version of Niagara to uninstall. This resulted in odd display issues in and could result in some items not being removed during uninstall. This has been fixed. In affected versions, the uninstaller may not correctly remove Desktop and Menu shortcuts; these items can be manually removed.		
<b>NCCB-27471</b>	alarm, backup, baja, email, hx, kitPx, queryTable, schedule, smartTableHx	BHxDynamicTimeRangeFE and other Hx Views do not use the user language when its different from the platform language
In Niagara 4.8 there is now a new public api called LexiconModule. Its similar to Lexicon and LexiconText and its used to help ensure that you are using the User's locale in any Lexicon translation. The constructor to LexiconModule takes just a ModuleName and all the translation calls like "get", "getText" and "getHtmlSafe" take Contexts and keys so you can ensure that the User's locale is used and not the platform locale. Many HxViews like HxDynamicTimeRangeFE have been changed to use that new api and ensure the User's locale is used whenever relevant.		
<b>NCCB-30294</b>	alarm	Alarm Database UX views have non-localized text
All text in the bajux Alarm Database Views is now localizable. The following keys were added to the alarm lexicon: * alarm.alarm=Alarm * alarm.db.perPage={0} per page * alarm.db.isEmpty=Alarm database is empty * alarm.dialog.close=Close * alarm.db.clearBeforeTimestamp=This operation will CLEAR alarm records before {0} from the database. * alarm.db.clearOlderAlarms=This operation will CLEAR all alarms older than the selected alarm from the database. * alarm.db.clearSelectedAlarms=This operation will CLEAR the selected alarms from the database. * alarm.db.clearAllAlarms=This operation will CLEAR ALL alarms from the database. * cannotBeUndone=The operation CANNOT be undone. * continue=Do you wish to continue? * alarm.table.page.noResults=No results * alarm.table.page.pageOf=Page {0} of {1} Additionally, the keys from alarmData columns were changes from alarm.console.columns.* to alarmData.* to allow reuse of lexicon values used in the bajau Alarm Console.		
<b>NCCB-32994</b>	alarm	% symbol in point facets causes errors for sms and email alarm recipients
BFormat fields are now handled properly in the alarm recipient message body, which allows '%' symbols to be used in values that are sent to an alarm such as when the units of a numeric value are percent.		
<b>NCCB-</b>	alarm	Alarm Database Time does not match Alarm Db View time

<b>33627</b>		due to TimeZone differences
<p>In earlier versions of Niagara, the Alarm Database View displayed timestamps in the timezone of the web browser (without noting which timezone was being used). This would make it appear as though the alarms had different times than those in the bajau based versions of those views. The Alarm Database views now display timestamps in the TimeZone of the Alarm (based on the alarmData.TimeZone facet). Additionally, these views now also use the display name for Alarm Classes.</p>		
<b>NCCB-38896</b>	alarm	AlarmSourceExt AckedTransitions ToNormal bit not set when an alarm is active
<p>When the most recent alarm to change to a Normal state is acknowledged, the AckedTransitions property ToNormal bit will now be set, even if the point is currently in an alarm state.</p>		
<b>NCCB-37618</b>	alarmOrion, orion, rdbMySQL	Secure connections in MySql 5.1.42/8.0 do not work with AlarmOrion and Entsec because SSL certificate is not available at BOrionService.started
<p>When using MySQL secure connections with Orion services, Orion would fail to obtain a secure connection when starting. This has been resolved.</p>		
<b>NCCB-39264</b>	backup	Station based backup restore log emulation contains improper print lines
<p>Previous versions of Niagara would improperly print the new line character to the Application Director output when restoring a Backup distribution file using the Niagara Station Backup Service based restore method. Distribution File based installations were unaffected. This behavior has been corrected.</p>		
<b>NCCB-39509</b>	backup, niagarad	BStationSurrogate restartStationAsync function does not respect restart override settings, prevents station restart in Backup Service unless auto restart
<p>Previous versions of the Niagara Station Backup Service could fail to restart a Niagara Station when instructed if the Niagara Station did not exit cleanly as part of the Backup restore. This known usage of this type of restore functionality was present in the Enterprise Security product. To workaround this behavior, ensure that the "Auto Restart" option is selected in the Application Director. This has been corrected.</p>		
<b>NCCB-10527</b>	bacnet	localDevice activeCovSubscriptions list not always cleaned up
<p>From build AX 3.8.501, Niagara 4.4.94.16, Niagara 4.6.96.30, Niagara 4.7.110.34 and Niagara 4.8.0.76 build, any COV subscription is canceled or expired on a bacnet object, removes corresponding COV subscription component from proxy point and COV subscription component ord from the active COV subscription list. And does stops other COV subscriptions to the same point from getting COV notification.</p>		
<b>NCCB-24820</b>	bacnet	BACnet normal(noAckRequired) alarms cause unacked offNormal(ackRequired) alarms to disappear
<p>If ackRequired for toNormal state is unchecked and alarm goes from offNormal to normal then alarm won't disappear from console.</p>		
<b>NCCB-32810</b>	bacnet	Multistate Value object in fault state allows to write 0 to present value
<p>With this defect resolution Multistate Value Objects should not allow a "0" to be written to its present_value property from a client using WriteProperty API.</p>		

<b>NCCB-34739</b>	bacnet, webEditors	BACnet UX point manager does not handle duplicate names
Fixes an issue in Ux manager views where duplicate discovered points added to the database table would throw an exception. They are now handled in the same way as workbench views by suggesting an alternative name.		
<b>NCCB-34819</b>	bacnet	Bacnet covSubscription exists even after subscription has expired
If any COV subscription is canceled/expired on a bacnet object, it will remove corresponding COV subscription component from proxy point and COV subscription component ord from the active COV subscription list.		
<b>NCCB-37344</b>	bacnet	Bacnet Network does not initialize properly when installed via Application Template
Some BACnet point references and other types of references were non-functional after an application template installation, requiring a station restart to reset the references. This has been corrected.		
<b>NCCB-38226</b>	bacnet	BACnet Confirmed Request max-APDU-length-accepted bit flags off-by-one
Fixed the corner cases where we were out of bacnet spec section 20.1.2.5		
<b>NCCB-38557</b>	bacnet	Bacnet driver lockup on NPSDK platform
Earlier while adding bacnet points the driver waits the entire 'lockup threshold' time for many responses which actually arrived very quickly. Now they can discover and learn 250 bacnet points without any lockups on their device (instead of failing around 15 points before).		
<b>NCCB-40713</b>	bacnet, baja	Bacnet Analog Output Descriptor sends 0.0 to Numeric Writable on station startup
On station restart, BACnet Analog output/value priority array value was getting set to 0.0 if it was null. Now the value is retained on station restart.		
<b>NCCB-42738</b>	bacnet	BACnet MOU-B: Doesn't receive any packets/logs while deleting any object using 'delete' button from keyboard
Documentation is added to clarify how the Delete key action works to delete only a local object without sending a remote Delete Object request. Users must use the Delete button in the AWS Object Config Manager view to remote Delete Object request.		
<b>NCCB-36829</b>	baja, wbutil	Category Browser and Category Sheet views error on save when user does not have admin invoke privileges
The Category Browser and Category Sheet views could throw a nuisance exception (ActionInvokeException) upon saving a modification if the user had admin write privileges but not admin invoke privileges against the CategoryService. The modification would be saved despite the nuisance error. A user with admin invoke privileges against the CategoryService wouldn't have such problems. This nuisance error has now been fixed so that it won't be displayed on saves even for users with admin write privileges against the CategoryService.		
<b>NCCB-37204</b>	baja, bajai	Performance problem with non-Simple OrdTargets getting resolved twice on Px Page load

Previously, all non-Components (Simples, Structs, Histories, query results, etc.) were resolved twice on a Px Page load. Now only non-Components that are BValues (Simples and Structs) are resolved twice. Objects that extend BObject directly such as histories and query results will now only be resolved once on a Px page load. If you have an ORD scheme that resolves to a Simple or Struct and you want to take advantage of this new caching, you can either add "|cache:" to the end of your ORD to signify that caching is OK, or you can subclass from this new BOrdScheme subclass: `baja's com.tridium.util.BBinderCacheScheme`. This new caching behavior can be turned off with this system property: `bajai.binder.legacyCache=true`

<b>NCCB-35852</b>	bajaScript	baja.Format JSDoc is incomplete
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Minor improvements to baja.Format JSDoc

<b>NCCB-36146</b>	bajaScript	baja.AbsTime#toString shows seconds and millis by default
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Previously the default behavior of AbsTime.js did not match that of AbsTime.java and so bajaux and bajai views were by default inconsistent. Now the bajaux view has been changed to match the bajai version, and both by default do not display seconds or milliseconds, only date and time. Third party developers who intend to display seconds and/or milliseconds can now achieve this by editing their facets and setting `showSeconds=true` and `showMilliseconds=true`.

<b>NCCB-36860</b>	bajaScript	AbsTime#toString() with showSeconds: true now defaults to showDate: false
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baja.AbsTime#toString defaulted the showDate and showTime facets to false, whereas the Java version defaulted them to true. This has been fixed so the toString behavior should be identical in Workbench and browser.

<b>NCCB-38165</b>	bajaScript	BajaScript can fail to start in IE on an intranet site
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When WebSockets were enabled, BajaScript would sometimes fail to start in Internet Explorer when loaded from an intranet site due to Internet Explorer switching to Compatibility Mode, where WebSockets are not supported. This has been resolved so that it will fall back to HTTP polling when in Compatibility Mode. Note that this will adversely impact performance, so it is advised to configure Internet Options to disable Compatibility Mode for BajaScript sites.

<b>NCCB-38378</b>	bajaScript	BajaScript simples should return primitive values from valueOf()
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baja.Simple#valueOf would sometimes return the Simple instance itself instead of a primitive value as expected. Now, all Simples will return the string encoding from valueOf(), except those specifically overridden to behave differently.

<b>NCCB-38441</b>	bajaScript	baja.Format does not support conditional format syntax, time(), or user()
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BajaScript BFormat now supports conditional format syntax as well as user() and time() scripts.

<b>NCCB-38978</b>	bajaScript	baja.Facets will not correctly encode ORDs
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BajaScript Facets instances that included ORDs would not be correctly encoded to string. This prevented them being programmatically saved to the station or sent to RPCs. Facets that contain ORDs will now be correctly encoded. In addition, DynamicEnum, Marker, Ord, and TimeZone are now available in the HTML5 Facets editor.

<b>NCCB-</b>	bajaScript	HTML5 graphics not showing up in cross-site frame
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<b>39558</b>		
<p>The Html5HxProfile can now correctly show HTML files that reference another station's bajaux widgets without cross-origin errors. Please note that a separate login may be required. The other station's WebService's XFrameOptions must be lowered to "any" for this to work.</p>		
<b>NCCB-40585</b>	bajaScript	BajaScript baja.RelTime does not respect showMilliseconds facet in toString()
<p>A BajaScript RelTime slot would not respect the showMilliseconds facet used by Times and AbsTimes. Instead it required a duplicate showMillis facet. This has been fixed so that showMilliseconds will be respected.</p>		
<b>NCCB-41054</b>	bajaScript	BajaScript wrongly processes unsolicited BOX frames from other server sessions and does not close session on window unload
<p>When BajaScript is running in an iframe that shares a login with its parent frame, it will attempt to use the session of the top-level frame rather than opening its own session. Previously, each BajaScript instance could sometimes process messages intended for the other instance. In some cases this would cause errors such as prematurely unmounting a component. This became especially pronounced in Chrome 75. When a window or iframe is closed, BajaScript sends a message to the server to close its corresponding server session using a synchronous XMLHttpRequest. In Chrome 75, sync XHRs ceased working from window unload event listeners. To fix this, BajaScript will no longer process unsolicited frames from other server sessions, and the request to close the server session is now done via navigator.sendBeacon, which can be safely called from a window unload handler. Note that due to <a href="https://bugs.webkit.org/show_bug.cgi?id=188329">https://bugs.webkit.org/show_bug.cgi?id=188329</a>, iOS versions 12.1 and earlier do not allow navigator.sendBeacon to be called from a window unload handler. This means that on these iOS devices, when reloading a BajaScript page, the old session may not be closed immediately and some extra data may be sent to your browser for the 60 seconds it takes for the previous server session to time out. To remedy this, update to iOS 12.2 or newer.</p>		
<b>NCCB-36387</b>	bajau	PxInclude does not scale correctly when used in a responsive pane
<p>Adding a PxInclude to a ReponsivePane inside of a FlowPane would cause the contents of that PxInclude to always scale down to the minimum allowable size. This has been resolved so the contents should only scale down if required.</p>		
<b>NCCB-37295</b>	bajau	CanvasPanes as border children of EdgePane always shrink to minimum size
<p>Adding a CanvasPane, with scaling configured, as a child of an EdgePane, GridPane, and certain other panes would cause that CanvasPane to always scale down to its minimum size. This has been corrected, so the CanvasPane should default to its preferred size and only scale down if there is not enough space available.</p>		
<b>NCCB-39574</b>	bajau	BDialog created from standard Exceptions shows message twice
<p>Previous versions of Niagara 4 BDialogs might contain duplicate text messages when constructed with both a String and Throwable arguments. The construction process has been corrected such that duplicate text is not displayed.</p>		
<b>NCCB-37378</b>	bajaux	Bajaux BacnetDate editor throws error when using localized days of the week
<p>The BacnetDate HTML5 field editor was incorrectly encoding the day of the week part using the user language configured. This has now been fixed so the BacnetDate HTML5 field editor will consistently encode and decode the day of the week.</p>		

<b>NCCB-38008</b>	bajaux	When CommandButton is initialized in a non-button element, it can be clicked even when disabled
<p>bajaux CommandButtons that are initialized in a non-button element, like a span, will no longer invoke their Commands when clicked. Additional rules to themeZebra, themeLucid have been added so that these elements (with the <code>ux-disabled</code> class and either of the <code>ux-btn</code> or <code>ux-btn-tb</code> classes) will no longer highlight at all when clicked. In addition, the <code>ux-disabled</code> rule in <code>module://web/rc/theme/theme.css</code> has been relocated so that the <code>cursor: default;</code> rule will override the <code>cursor: pointer;</code> rule on buttons. Therefore, the pointer finger will no longer appear when hovering over a disabled button.</p>		
<b>NCCB-36675</b>	batchJob, provisioningNiagara	4.6+ Hosted provisioning jobs fail running against PC based 4.3 Stations with "default credentials or passphrase" false positive
<p>Niagara 4.6 introduced a verification step that ensured certain provisioning steps could not be run on devices that were still using the default platform credentials. This verification was malfunctioning when a Niagara 4.6 Station was provisioning Niagara 4.3 and earlier Supervisor hosts (not JACES), or when Niagara 4.6 Station was provisioning any AX host. This has been corrected.</p>		
<b>NCCB-19575</b>	chart, history, hx	History Chart Builder embedded in a PX page fails in the browser
<p>The AX History Chart Builder view will now correctly build charts when embedded in a Px page viewed in the browser.</p>		
<b>NCCB-35850</b>	cryptoCore, web	Google Chrome will not trust self-signed certificates with IP Address for CN and SAN
<p>A defect has been addressed that resulted in an incorrect subject alternative name entry being created when submitting an IP address instead of a DNS name. Newly created certificates will now create the proper subject alternative name entry with the appropriate general name type.</p>		
<b>NCCB-36506</b>	cryptoCore	NETWORK_COMMUNICATION SSLSockets parameter in module permissions prevents station start
<p>Fixed an issue where the 'SSLSockets' parameter for the NETWORK_COMMUNICATION permission group caused the station or Workbench not to boot in non-FIPS mode.</p>		
<b>NCCB-39226</b>	cryptoCore	Only one TLS connection can be opened at a time
<p>Fixed an issue where TLS connections can cause other, concurrent connections to wait indefinitely.</p>		
<b>NCCB-40984</b>	docDeveloper	missing bajadocs in 4.4U3, 4.7U1 and 4.8
<p>The API help page did not display all available Bajadoc pages; this has been corrected and all Bajadoc pages are shown in the index. For affected versions, Bajadocs may still be accessed by searching for them using the <code>_Find Bajadoc (Ctrl + F1)_</code> option from the <code>_Search_</code> menu.</p>		
<b>NCCB-31522</b>	driver, niagaraDriver, workbench	Tuning Policy Name selection is broken in certain views
<p>Prior to this fix, when modifying a 'Tuning Policy' property (typically seen on a driver point's proxy extension), depending on the root of the active Workbench view, the pull down selection may or may not have been populated correctly with the available tuning policies installed at the network level. This defect has now been resolved so that the available tuning policies will properly display in Workbench. Note that this fix does not apply to web based views, only Workbench.</p>		

<b>NCCB-39759</b>	edgelO	Edge 10 - edgelo write value ignored and no rewrite
Fixed to check the read and write values of the proxy point, if they are not equal, rewrite again.		
<b>NCCB-40726</b>	export, webEditors	Px view exports from browser do not work with non-slot ord schemes like hierarchy
Exporting a PxView on a non-slot ord like hierarchy, handle, or virtual ords was causing an error when generating the PDF file from the browser. PxViews with relative bindings were also corrected.		
<b>NCCB-38067</b>	file, webEditors	Column headers in exported CSV do not respect unit conversion (bajau)
Export header with correct unit annotation in Table to CSV / History Table to CSV when unitConversion is specified in the export configuration.		
<b>NCCB-34686</b>	fips, provisioningNiagara	In FIPS Mode, Workbench Job Service reports successful provisioning jobs as failing
Fixed an issue where provisioning steps involving a password that were run using a FIPS enabled supervisor would throw an exception and show failure upon completion even if the step completed successfully.		
<b>NCCB-21705</b>	fox	Fox Multicast always sends roll call announcement on default gateway adapter
Niagara network discovery has been enhanced to support discovery of Niagara devices attached to any active network interface of the discovering device This includes devices connected to a JACE via Wi-Fi or the secondary network interface. Previously, Niagara network discovery would only discover devices attached to the primary network interface of the discovering device.		
<b>NCCB-11685</b>	gx, hx	Pie Chart and Arcs in HX view not displaying pie correctly
Pie Charts and Arc now render properly in Hxpx.		
<b>NCCB-34395</b>	gx, hx	Line widgets are inconsistent in Hx
Previously, lines in Hx would sometimes draw with incorrect line widths or coordinates. Lines in Hx graphics should now match the display in Workbench.		
<b>NCCB-42626</b>	haystack	Haystack dictionary auto-import breaking hierarchies
A Haystack tag dictionary already in a station is no longer imported automatically when the station starts after upgrading the haystack module. This prevents new implied equipRef and siteRef relations from appearing in the station and affecting hierarchies and NEQL results. The latest tag, tag group, and relation definitions can be imported by invoking the Import action on HsTagDictionary component. When adding a new Haystack tag dictionary to a station, the palette includes versions with and without the new implied equipRef and siteRef relations.		
<b>NCCB-42852</b>	haystack	EquipRelation should not be implied on points with NullProxyExts
The smart hs:equipRef relation is no longer implied on points with a NullProxyExt including components in the kitControl module such as Add and And. This relation will still be implied on proxy points where the ProxyExt is something other than NullProxyExt. If a direct hs:equipRef relation is added between a point with a NullProxyExt and a component tagged with hs:equip and		

that hs:equip component has an hs:siteRef relation to a component tagged with hs:site, an hs:siteRef will still implied between the point and the hs:site component.

<b>NCCB-29786</b>	history, niagaraDriver	Unable to open histories if NiagaraNetwork is deleted
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You are now able to view histories from Niagara Workbench without a NiagaraNetwork present in your station. You now only need to have a HistoryService in your station.

<b>NCCB-36479</b>	history	The 'Change Tolerance' property on COV History Ext should assume units of parent point
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The changeTolerance slot of NumericCovHistoryExt will now get the differential units of the parent numeric point's unit facet. This will allow the changeTolerance to operate correctly when units are being converted on the workbench

<b>NCCB-37503</b>	history	LogHistory station database file stops updating when you change the debug service
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Logging handlers that are not defined in the logging.properties file will now persist through a reload of the logging system; such as the one caused by updating the debug service.

<b>NCCB-37548</b>	history	Hx History Table view column headers do not show up as localizable entries in the Lexicon Tool
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Even though they were previously localizable (if you knew what lexicon entries to manually add), the Hx History Table view column headers were not showing up as available entries to edit in Workbench's Lexicon Tool. This has now been resolved, such that the default lexicons for the aaphp-rt, bacnet-rt, bacnetAws-rt, batchJob-rt, and history-rt were updated to include the missing lexicon entries so that they are now available from the Lexicon Tool for editing.

<b>NCCB-37568</b>	history	History Db Maintenance has incorrect selector labels
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Improved the consistency of lexicon text between the browser and workbench history modules.

<b>NCCB-38480</b>	history	History can force expensive resize operation if not properly closed, delaying subsequent station startup
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Prior to this fix, if a station was not shutdown gracefully (e.g. using station kill or power loss), upon the next station restart, it was possible for histories with a full policy set to roll to have to perform an expensive resize operation in order to stay at the configured capacity. Since this could affect multiple histories, station startup was delayed waiting for these expensive resize operations to complete. This has now been resolved, so that under such conditions histories can more efficiently trim themselves and there is a smaller impact on the station startup time.

<b>NCCB-5492</b>	history, rdb, rdbSqlServer	Unable to export histories that contain +/-inf/-inf as a value
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We have provided 2 options for dealing with infinite values. You can choose between these options with a Boolean property called "exportInvalidValues" that was added to BRdbmsHistoryExport. # If exportInvalidValues is false it will not insert +/- inf and nan values from the history into the database. # If exportInvalidValues is true +/- infinity values will be inserted as a +/- Double.MAX\_VALUE if the database does not support infinite values. Otherwise it will insert the infinite value. Currently only Oracle supports infinite values for doubles and floats. "exportInvalidValues" has a default value of false

<b>NCCB-20420</b>	hx	Shapes with non-integer positions do not render in hpx
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Shapes with non-integer positions now render in hpx		
<b>NCCB-30925</b>	hx, themeZebra	Use of Source Sans Pro font in N4 px pages fails in browser
Solved issue where Sans Source Pro font in N4 px pages rendered incorrectly in web browsers.		
<b>NCCB-32700</b>	hx	HxPxBorderPanels render content incorrectly when label property is non-null
When a Label was added to a BorderPane, the border would not paint correctly when viewed in a browser. This has been corrected.		
<b>NCCB-36000</b>	hx	Some HxViews like HxHistoryTable fail to load page if contents include backslash "\"
Various HxViews like the HxHistoryTable and the HxAlarmConsole failed to load if their content contained a backslash "\". This has been corrected.		
<b>NCCB-36114</b>	hx	Value Binding in Hx TabbedPane prevents entire HxPx page from loading
If you have a TabbedPane with ValueBindings on it, then the HxPx page of that view stopped rendering in Niagara 4.4. This has been corrected.		
<b>NCCB-36254</b>	hx	Navigating between views in HTML5 Hx Profile causes slow memory leak
A slow memory leak caused by navigating between different views in the HTML5 Hx Profile has been resolved.		
<b>NCCB-36359</b>	hx, workbench	Enabled flag is not respected on WebWidgets in Px pages
On Px pages, The state of BWebWidget.enabled will now properly call Widget.setEnabled() based on state changes to that property. BWbViewBinding now has a new configurable property called requiredPermissions. When the user's permissions on the BOrd do not meet those permissions, the degradeBehavior will now take effect.		
<b>NCCB-38278</b>	hx	hxPx has a slow memory leak due to strings being passed to setTimeout
A slow memory leak caused by leaving an HxPx graphic running in the browser for a very long period of time has been resolved.		
<b>NCCB-38290</b>	hx	HxPx renders bajoui:Line wrong with non-null fill
The "fill" property previously caused painting problems on Lines when it was non-default in hpx. This should now work properly.		
<b>NCCB-36023</b>	jxBrowser, report	Report Service exports of web widgets fails because system account cannot extract JxBrowser
When generating a report containing WebWidgets, JxBrowser will fail to initialize and the WebWidgets will not render due to file permission with the system account. In Niagara 4.8 changes have been made to ensure JxBrowser can properly initialize when used in a station environment. If you still have this problem after updating to a version with the fix, you may need to delete this		

directory to get things initialized correctly: C:\WINDOWS\system32\config\systemprofile\AppData\Local\JxBrowser		
<b>NCCB-39792</b>	jxBrowser	Security Fix for jxBrowser/Chrome in Workbench
A security fix was made in jxBrowser that addresses a vulnerability in Chrome (CVE-2019-5786). Workbench utilized jxBrowser for presenting web views in Workbench. The fix mitigates this vulnerability.		
<b>NCCB-39504</b>	kitControl	kitControl RaiseLower component causes ExpiredTicketException
Added Cancel Synchronization Offlimits boolean property to RaiseLower component. This property is available on the RaiseLower component in 3.8. The default value is false. When set to true, the DriveTime property value will not be doubled moving to the limit positions: 0.0 or 100.0. Also, corrected a bug that resulted in intermittent ExpiredTicketExceptions.		
<b>NCCB-36680</b>	lexicon	German lexicon not using translations for bql and bajaux
Prior to 4.7, the German localization module 'niagaraLexiconDe-rt' has translations for bql and bajaux, but it does not use them. This has been fixed in 4.8. As a workaround for previous versions, one can expand the contents of niagaraLexiconDe-rt to !lexicon\de.		
<b>NCCB-37399</b>	mobile	MobilePx: Binding a BoundLabel to ControlPoint no longer works due to 'Cannot read property 'getType' of undefined'
On mobile Px pages, Labels that were bound to a ControlPoint with a status of Null or OK would sometimes cause the page to fail to load. This has been resolved.		
<b>NCCB-37819</b>	mobile	Niagara Mobile History Table no longer loads
Niagara Mobile History Table would fail to load when webdev was turned off. This has been fixed.		
<b>NCCB-37820</b>	mobile	Niagara Mobile History App fails to load all histories when there is a non-standard history in the station
When a history contained a Type that had not yet been imported by Niagara Mobile History, the table would fail to load. This has been fixed.		
<b>NCCB-39178</b>	nSnmpp, snmp	snmp driver includes own local device as part of globalCapacity.devices
1) nSnmpp Local device will not be counted against license global device limit. 2) Class BSnmppNetworkObject has been deprecated from 4.7 update2 version.		
<b>NCCB-36064</b>	neql	NEQL search and hierarchy traversal speed degradation
After adding some optimizations, neql searches and hierarchy traversals should be as fast or faster than 4.4u1.		
<b>NCCB-37687</b>	neql	Performance degradation for NEQL queries dependent on relations
There was a performance degradation for NEQL queries that depended on relations. The NEQL		

engine has been enhanced to resolve that degradation.		
<b>NCCB-39054</b>	neql, tagDictionary	The BooleanFilter tag rule condition only considers the first relation
All relations are now considered when evaluating BooleanFilter tag rule conditions		
<b>NCCB-36628</b>	niagaraVirtual	Niagara Virtual display String can fail if its remote Niagara type cannot be resolved locally
Starting in Niagara 4.6, a minor regression defect was introduced that could cause display Strings for Niagara virtuals to experience exceptions. This would only happen if the client station (supervisor) did not have a module that was installed on the remote station, and the client navigated to a Niagara virtual property sheet view for a remote type that the client station could not resolve due to the missing module. In such a scenario, the display string for the Niagara virtual would have an error message. The workaround was to install the missing module on the client station. However, this defect has now been fixed (starting in Niagara 4.8), so the workaround is no longer required.		
<b>NCCB-36629</b>	niagaraVirtual	Backups in Slot Paths don't translate properly in on-demand Px Graphics for Niagara Virtuals
In cases where you have a subordinate station (e.g. JACE) reporting to a supervisor and you have enabled the on-demand Px Graphics for Niagara Virtuals. If the subordinate station contains Px graphics that utilize relative SlotPath ORD bindings with backups ("./"), when those graphics are subsequently translated/loaded in the supervisor upon accessing the Niagara virtual component, those backups will not be translated properly and the virtual ORD bindings in the Niagara Virtual Px graphic will not display properly. This is particularly evident when using the 'Relativize Ords' command in the Px Editor (or in template creation), as it could automatically create backups in SlotPath ORD bindings, thus leading to this downstream problem. This defect has now been fixed so that these ORDs will properly translate and display in on-demand Niagara Virtual Px graphics (only requiring the supervisor station to be upgraded).		
<b>NCCB-36833</b>	niagarad, platDaemon, platform	Application Director Stream To File gets truncated when Paused and Loaded.
Prior to Niagara 4.8 pausing the output dialog of a Application Director "Stream to File" operation could truncate the stream file content if more than 32K output had been read while streaming. This has been corrected to never truncate the stream file. Do not pause a "Stream to File" operation to avoid this condition.		
<b>NCCB-36934</b>	niagarad, nre	Client passwords corrupted by Station Copier
Previously, it was possible for client passwords to become corrupt when using Station Copier to transfer a station from a remote platform to workbench, and cause Station Copier to fail when attempting to transfer the station back to a remote platform. This has been corrected and passwords will be properly transferred. For affected versions, a workaround for this problem is to either reboot the remote platform prior to copying the station, or, for stations that have already been copied with corrupt passwords, use the Workbench "Bog File Protection" tool to "Force any password values that depend on the current file protection to be cleared." and re-enter any client passwords in the bog.		
<b>NCCB-37369</b>	niagarad, platCrypto	Platform Certificate Management "User Trust Store" generates too many Niagara Daemon "crypto" servlet requests.
The User Trust Store view of the platform Certificate Management was making excessive requests to the platform and causing the requests to be mishandled, leading to error messages in the workbench console. The number of requests has been greatly reduced to minimize the chance of errors occurring.		
<b>NCCB-</b>	niagarad	Niagara Daemon WebServer only prints last-ditch

<b>37632</b>		exception to standard output
<p>Versions prior to Niagara 4.8R would not include stack trace information when the Niagara Daemon encountered errors like:</p> <p>SEVERE [...] [webserver] unhandled throwable (java.lang.NullPointerException) encountered, closing connection</p> <p>Stack trace information will now be logged to better understand the nature of the failure.</p>		
<b>NCCB-41523</b>	niagarad, platDaemon	DaemonResponseException while commissioning over low bandwidth network
<p>Prior versions of Niagara may fail to transfer a file if the transfer time took longer than 3 minutes to complete. This behavior would be more likely to occur on Niagara Daemon connections across slower network infrastructures. This has been corrected.</p>		
<b>NCCB-36337</b>	nre	Allowed Hosts exemptions intermittently become unapproved
<p>A TLS connection that fails due to a server certificate no longer unapprove the exemption for that host.</p>		
<b>NCCB-38181</b>	nre	Set the default hostname verifier to the TridiumHostnameVerifier
<p>Previously, attempting to make a connection using <code>HttpsURLConnection</code> to a server using a certificate that does not match its hostname would fail even if an exemption exists for the hostname and certificate in Allowed Hosts. This has been corrected and exemptions will be properly handled when using <code>HttpsURLConnection</code>.</p>		
<b>NCCB-38305</b>	nre	Client TLS handshake can get stuck in an infinite loop
<p>Previously, making a TLS connection to a server who's certificate has changed from Workbench or Station could cause the connection to hang indefinitely. This has been resolved. Workaround for affected versions is to kill the hung Workbench or Station and restart.</p>		
<b>NCCB-12669</b>	obixDriver	N4: oBIX: Audit & Log History archival fails in oBIX client with EOF Exception
<p>Previously, the obixDriver would have a problem exporting the AudiHistory and LogHistory from the station. This problem has been corrected, and those histories can now be safely exported to an OBIX client.</p>		
<b>NCCB-36560</b>	obixDriver	Obix Alarms: Fault State Alarms are stored as OffNormal SourceState in Obix client device
<p>The OBIX client alarm import mechanism has been modified to reflect incoming fault alarms as fault alarms in the local Niagara alarm console, instead of classifying all incoming alarms as offnormals.</p>		
<b>NCCB-36562</b>	obixDriver	Obix Alarms: Alarm gets Acked upon Force clearing alarms from obix client
<p>Attempting to forceClear an alarm that was received by the station from an OBIX server would previously only acknowledge the alarm to the server. If the server was a Niagara station itself, the alarm would not be cleared on the server. This has been corrected, so if both stations are 4.8 or later, an attempt is made to force clear the alarm on the server as well. If the attempt fails, the alarm is simply acknowledged as before.</p>		

<b>NCCB-38969</b>	opcUaClient	Duplicate alarms are shown in OPC UA client
Every event state transition results in a single alarm routed from OPC UA server to client.		
<b>NCCB-42702</b>	opcUaClient	OPC UA: Alarms doesn't route to the client side
From OPCUA build 1.0.108 build on receiving event opc-ua client will compare the complete source node while updating the alarm and update the last event message text on corresponding alarm extension.		
<b>NCCB-37617</b>	orion	AlarmOrion and Entsec do not work with the MySQL Connector/J 5.1.42 or 8.0 because tables cannot be created
Tables creation will work with Orion database with latest MySQL Connector for both SSL and NonSSL connection		
<b>NCCB-27227</b>	pdf	Transparent PNGs in exported PX pages are low quality
When exporting a Px page containing a transparent PNG image, the transparency would often appear blocky or pixelated in the PDF. This has been improved with alpha support so transparent PNGs render correctly.		
<b>NCCB-40698</b>	pdf, web, webChart, workbench	WebWidget PDF Export fails for any non-mounted ORD result like BQL and Analytics
Previously, exporting WebWidgets on Px pages with bindings to unmounted results like BQL scheme results failed. This has been corrected. You can also now mark your WebWidget as exportable to PDF with the new public marker interface <code>javax.baja.web.BIJavaScriptToPdf</code> .		
<b>NCCB-10103</b>	platDaemon	After a restart some messages are not displayed in the Application Director.
Niagara 4.8 increases the default Niagara Station output buffer size from 32K to 256K. The maximum size has increased from 100K to 512K. This will permit larger captures of Niagara Station output in the Application Director.		
<b>NCCB-38203</b>	platDaemon	Rebooting at prompt from "Extended Master Secret" setting does not apply change
Niagara versions 4.6 and 4.7 would fail to apply the configured "Extended Master Secret" Niagara Daemon TLS property if the user selected "Yes" at the reboot prompt presented. To workaround this in affected versions, please select "No" at the reboot prompt and then manually reboot the device once the re-connection completes. This has been corrected by updating the dialog to recommend this updated workflow.		
<b>NCCB-39187</b>	platDaemon, platform - Install API	Commissioning Wizard says it cannot install core software, then proceeds to install core software
If enabled runtime profiles were subtracted from a target device at Commissioning time, the Wizard could incorrectly report that core software for that device could not be installed. This report was incorrect, as the Review Step would include necessary core software. This incorrect notification has now been corrected and updated to indicate which core software will be installed.		
<b>NCCB-</b>	platWifi	Remove WifiPlatformService Plugin from 4x code base, not

<b>23972</b>		used
<p>Prior versions of the Niagara Framework included a WiFi Platform Service Workbench view that appeared to be improperly loaded. A WiFi Platform Service message may have been visible in the Niagara Station startup: "Cannot load native wireless library". This Platform Service view and this message have been removed.</p>		
<b>NCCB-40582</b>	platform	EDGE10 fails to change IP address via HxTcpIpPlatformServiceView when in daisy chain mode
<p>Prior to platform-wb.jar 4.7.110.32.1, changes to the EDGE10 primary adapter through the Hx view would not be applied on save if the host was configured to use 'Daisy Chain' link settings. The HX behavior has now been corrected. As a workaround, use Workbench platform based TCP/IP Configuration View or Workbench station based TCP/IP Platform Service View to make the changes instead of the Hx View.</p>		
<b>NCCB-40590</b>	platform	JACE-8000 platform configured with NTP logs AccessControlException on Station save
<p>Previous versions of Niagara could show an AccessControlException during the Niagara Station save procedure if the NtpPlatformService was enabled on a QNX platform. This error does not impact the functionality of the service. This exception behavior has been corrected.</p>		
<b>NCCB-38944</b>	portalApi	portalApi does not download all license certificates on Workbench start
<p>Prior to Niagara 4.8, Workbench could fail to download a license certificate, even though it exists on Niagara Central, when first started. This has been corrected.</p>		
<b>NCCB-36388</b>	program	program recompile tool fails if code signing certificate configured
<p>The Program Recompilе Tool would fail with "Program can not be signed: Not a private key." if a code signing certificate was configured. This has been corrected and the Program Recompilе Tool completes successfully.</p>		
<b>NCCB-36738</b>	provisioningNiagara	Export csr job step fails with NPE
<p>Export CSR job step no longer fails with Null Pointer Exception.</p>		
<b>NCCB-37400</b>	provisioningNiagara	Filename gets incremented instead of replaced when 'Copy Templates'
<p>When running Copy Templates command from the Niagara Network Job Builder view on the Provisioning Network Extension, existing files will be overwritten on the supervisor if the file names match. Prior to this, the file name was appended with a number if it already exists at the destination.</p>		
<b>NCCB-19508</b>	pxEditor	PxEditor's BDouble editor can read but not write in the user's specified number format
<p>Previously, DoubleCE and FloatCE (used for editing numeric properties in the Px Editor) could only read numbers using a dot for a decimal separator. They can now successfully read numbers using the decimal separator appropriate to the current locale.</p>		
<b>NCCB-34657</b>	pxEditor	Resizing Px widgets on a scaled CanvasPane results in rounding errors
<p>When scaling was applied to a CanvasPane in the Px Editor, widgets moved or resized in that CanvasPane could end up with dimensions that were not rounded to the nearest pixel, e.g.</p>		

x=100.00000001 instead of x=100. Widgets will now always drop exactly onto a pixel in a scaled CanvasPane when snap is on.		
<b>NCCB-39191</b>	rdb	Rdbms history export fails if the source HistoryConfig contains additional frozen slots
BHistoryConfig subclasses with additional frozen properties can now be used with RdbmsExport.		
<b>NCCB-41398</b>	rdb	Backport NCCB-39191 fix to Ax : Rdbms history export fails if the source HistoryConfig contains additional frozen slots
BHistoryConfig subclasses with additional frozen properties can now be used with RdbmsExport.		
<b>NCCB-34818</b>	rdbMySQL	MySQL connection failure using Niagara 4.6
For better compatibility with the latest MySQL Connector, a default serverTimezone property of UTC is sent to the server unless otherwise specified in the MySQLDatabase connection properties. This has no effect on Niagara timestamps sent to or retrieved from the database.		
<b>NCCB-35430</b>	rdbMySQL	Secure connections to MySQL database fails with exceptions for latest MySQL Connector/J 5.1.42 or 8.0
The rdbMySql driver has been updated to support the latest MySQL Connector/J. We recommend upgrading to the latest MySQL Connector/J 8.0. In order to use this connector, you'll need to rename the jar file to "mysql-connector-java.jar" If you're using a certificate that's not signed by a CA in the System Trust Store, you can import the signer certificate into your station's User Trust Store and configure the My Sql Server Cert property to point to the alias of that certificate.		
<b>NCCB-39585</b>	rdbSqlServer	SqlServerDatabase does not support dynamic port discovery
Dynamic port discovery can now be enabled with SqlServerDatabase by setting the PortNumber property to 0 and adding "instanceName=databseInstanceName;" to the ExtraConnectionProperties property.		
<b>NCCB-37020</b>	report	Report palette is now missing Section Header' and Report Pane'
The ReportPane and the SectionHeader has been missing from the report module palette. This has been corrected.		
<b>NCCB-42043</b>	report	html grid table ignores BCompGridColumn ord property for BSingleQueryRow
The HTML Component grid displayed incorrect values for query templates with columns that had slot references. This has been fixed and the HTML Component grid shall now display the correct values respecting slot ords in columns.		
<b>NCCB-33403</b>	saml	The Niagara SAML Service Provider does not support encrypted assertions, when the assertion uses the XML tag 'saml:EncryptedAssertion'
Added support for SAML EncryptedAssertions, via the samlEncryption-rt module's BSamlXmlDecrypter. Patches are available for Niagara 4.4u1, 4.4u2, 4.6 and 4.7.		
<b>NCCB-</b>	saml	Station must be set to UTC timezone or IdP rejects SAML

<b>35769</b>		messages as expired
Fixed an issue where stations using a SAMLAuthenticationScheme had to be set to the UTC timezone when used with certain Identity Providers.		
<b>NCCB-39167</b>	saml	SAMLAuthenticationScheme cannot handle signed response with EncryptedAssertion
Previously, SAML authentication would fail when the IDP sends responses with encrypted assertions and message-level signatures. This has been corrected.		
<b>NCCB-41272</b>	saml	SAML authentication ignores default and mobile web profile in prototype
The web_WebProfileConfig and web_MobileWebProfileConfig properties are no longer ignored when a new SAML user is created		
<b>NCCB-31477</b>	schedule	ScheduleSelectors do not utilize facets in bajaux
Schedule Selectors now support enum range facets.		
<b>NCCB-33895</b>	schedule	Cannot select 3rd party calendar schedules when adding reference type special events
3rd party calendar schedules are again listed when adding a reference type special event to a schedule.		
<b>NCCB-37875</b>	schedule	bajaux Scheduler cannot edit events down to the second
Starting in Niagara 4.8, the showSeconds and showMilliseconds facets on any Weekly Schedule will be respected in the HTML5 Scheduler.		
<b>NCCB-41081</b>	schedule	TriggerScheduler in station prevents Html5HxProfile from loading
In Early Access 4.8 Trigger schedulers do not work from Hx profiles, this has been corrected.		
<b>NCCB-36113</b>	seriesTransform, webChart	Provide options to remove line gaps and remove hidden gaps by default
Web Chart now defaults to no longer creating a gap in the data when there is a hidden Trend Record, Null status, or non-finite value like <code>+inf</code> . If you prefer gaps to be shown, a new chart setting has been added to return the gaps to their previous behavior: just set "Show Data Gaps" to "Yes." By default, gaps from start flags will still be shown, but these can now be turned off by changing the chart setting "Show Start Trend Gaps" to "No."		
<b>NCCB-39931</b>	smartTableHx	SmartTable Shift-click deselection broken
SmartTable now handles shift-click delection properly.		
<b>NCCB-40198</b>	smartTableHx	Station Manager Pop-up menu labels display with "&nbsp;"
Builds 4.8.0.8 had issue in showing the labels of right click menu and buttons in backups screen. This issue is fixed in the later builds.		

<b>NCCB-41477</b>	smartTableHx	Security Appliance: Page over button not working for Consolidated Histories
<p>Entsec build 4.8.0.24 and earlier had issue in pagination of reports when the report type is selected as "Optimized" for Consolidated queries on the supervisor like the Audit and Attendance History. This issue is fixed in the builds 4.8.0.25 onwards. As a workaround in previous versions, go to the column chooser command switch the report type from "Optimized" to "Full report". Make sure to switch back to optimized after the station is upgraded to the fix version as this is more efficient for a station's limited resources.</p>		
<b>NCCB-38994</b>	snmp	Excessive poll cycle times when using the snmp driver
<p>The poll cycles are consistent with whatever is configured</p>		
<b>NCCB-24007</b>	tagDictionary	NEQL search on inbound implied relation is not returning any results
<p>Previously, an implied relation such as n:parent would handle its outbound relation and the inbound complementary relation, n:child in this example. This prevented NEQL searches using the inbound relation from returning all results without resorting to poorly performing workarounds. Now, the implied relation handles both the inbound and outbound versions of itself and searches involving relations are accurate and performant.</p>		
<b>NCCB-35159</b>	tagDictionary	Tag groups no longer copied along with component
<p>In version 4.3, the endpoint ord of a tag group relation was changed from a slot path to a handle ord. While this changes allows a tag dictionary to be renamed without breaking the tag group relation, it prevents tag groups from being copied along with the components on which the tag groups are applied. Therefore, the use of a slot path ord has been resumed and tag groups will now be copied correctly. These slot path ords are corrected when relevant renames occur.</p>		
<b>NCCB-35431</b>	template	Station template does not capture files
<p>Creating a station template will now contain all files in the /shared directory</p>		
<b>NCCB-35433</b>	template	Station template fails to set configuration properties
<p>Station templates which require configuration changes upon deployment no longer fail to save values.</p>		
<b>NCCB-35823</b>	template	Template config string tag configuration slots are tags
<p>Value tags selected as configurations of a template could be interpreted by the system as tags on the TemplateConfig component of a deployed template. This could lead to incorrect results when using hierarchies or NEQL queries. The default name of these configurations has been changed so the system won't use them as tags. The METADATA flag is also removed so these slots won't be badged as tags in a nav tree.</p>		
<b>NCCB-36037</b>	template	Tab for creating Application template is named incorrectly
<p>The filename extension for application template files shown in the Template View has been corrected to ".napl".</p>		

<b>NCCB-36090</b>	template	Cannot use bulk deploy to deploy a template directly to the station Config folder
Previously, bulk deployment could not deploy component templates to the station root folder. Now, these deployments can be made by leaving the Parent Component Slot Path cell empty in the bulk deployment spreadsheet.		
<b>NCCB-36500</b>	template	Create Station template fails if Px page contains PxInclude with null ord
We are catching the exception that was causing template creation to fail and logging a warning about the null PxInclude for the user.		
<b>NCCB-36516</b>	template	All types of templates failed to load with OracleDatabase component.
Templates will now load and save when a database component is attached.		
<b>NCCB-36695</b>	template	Cannot have multiple Px images with the same name in device or application template
Corrected improper handling of template files in subdirectories when file names were identical.		
<b>NCCB-36696</b>	template	Cannot have Px files outside of default location in application template
Application templates now preserve and install most types of files that are found in the station home directory.		
<b>NCCB-37377</b>	template	webCharts are not loading on Px view after installing an application template
Application templates now preserve and install most types of files that are found in the station home directory.		
<b>NCCB-37934</b>	template	Deploying a template with input or output configurations may fail or leave connections unresolved
Corrected conditions that would sometimes prevent deploying a template with defined input connections due to IndexOutOfBoundsException. Note that templates currently restrict output link connections to only BControlPoint instances. If a different component type (a schedule, for example) is desired for the output link connection, connect it first to a control point of the appropriate type and tag the control point so the template bind hints will pick it up.		
<b>NCCB-38151</b>	template	Bulk Deploy fails input links
In some cases the Bulk Deploy process would not resolve template input slots declared in the Excel worksheet. The result could be undefined input links, which would show up in the Template Manager view on the station's Template Service.		
<b>NCCB-39513</b>	template	Template loses display name
Previously, if a root component created from a template was given a display name after creation and then the template was changed and an upgrade applied via the template service, the display name would be removed. This behavior has been modified so that display names are maintained after the template from which the root component was created is modified and subsequently upgraded.		

<b>NCCB-40826</b>	template	Configuration slots fail to set value when Application Templates are deployed via provisioning
Bulk Deployment of templates that contained configurations for custom Types that extended from concrete BStatusValue Types (BStatusNumeric, BStatusString, etc.) could generate a ClassCastException and fail to deploy correctly. This has been fixed to allow this type of deployment.		
<b>NCCB-42556</b>	template	Unable to set platform credentials via template configuration
Device platform credentials can now be selected as configurations when creating a template. Device station (Fox) credentials were already supported as configurations.		
<b>NCCB-39463</b>	themeLucid, web	Lucid Theme: Unable to see user selection in the right click menus with webdev on
With webdev off, right-click context menus in the HTML5 Hx Profile when using the Lucid theme would not correctly highlight on mouseover. This has been corrected so the highlight will occur whether webdev is on or off.		
<b>NCCB-25653</b>	wbapplet	Web Start/Web Launcher URL does not change upon navigation to different views
The address bar in Web Start was not getting updated between navigation to different views. That has now been fixed and the address bar shall show the correct view,		
<b>NCCB-36209</b>	wbapplet, web	Loading WebWidget in Web Start can re-show login page and cause module download corruption
When loading a WebWidget in Web Start for the first time in a session, it may sometimes have shown the login page instead of your WebWidget. If this happens or the WebService is restarted during your connection, any new module or lexicon resources will be downloaded and stored incorrectly. This has been corrected. If you suspect your module resources have been corrupted, delete this directory so the modules can be re-downloaded correctly: C:\Users\Local\AppData\Local\niagara\n4applet\_		
<b>NCCB-25634</b>	weather	WeatherService fails to load in browser if 'Name' has a special character
Previous versions of the Niagara HxWeatherManager would incorrectly attempt to escape special characters in the name value of a HX WeatherReport. If the WeatherReport name contained the characters '~!@#%^^' you may see a HTTP ERROR 500 when loading the Hx WeatherManager. To avoid this issue, do not use any special characters in the name of a WeatherReport.		
<b>NCCB-33156</b>	webChart	WebChart: scaling should ignore min/max facets by default and provide options to use them
WebChart will no longer look at a point's facets for 'min' and 'max' by default. If you prefer this behavior, there is now a chart option for "Facets Limit Mode" that defaults to "off," but can also be set to "inclusive" (the old behavior), or to "locked" which will force the min and max to those values. In all of these settings, "chartMin" and "chartMax" facet keys can be used as a higher-priority substitute for "min" and "max." Even if the "Facet Limit Mode" is "off," this can be overridden for specific series if a facet key of "chartLimitMode" is supplied with the corresponding values of "inclusive" or "locked." If you are not using a chart file to load a WebChart, then there used to be no way to preset any options. Now you can change the default options: there is now a Property called "defaultOptions" that can be modified on a Px page and defaults to "file:^charts/defaultOptions.chart". Even when not on a Px page, non-chart files will load their options from this file if it exists and the user has permissions to view it. This includes the ability to change all options, so even the default time range can now be changed.		

<b>NCCB-33228</b>	webChart, webEditors	WebChart fails to load when encountering invalid units
WebChart failed to load when a point or history had custom Unit which wasn't in the Unit.xml database. This has been corrected. Custom unit.xml symbols also now properly display on the bajaux PropertySheet of NumericWritables. As a workaround in previous version, the unit.xml can be modified to include those missing units.		
<b>NCCB-35863</b>	webChart	Exporting histories to a chart file does not relativize any points with histories
Added support for relative ords when saving chart files for n:history tags and points with history extensions. Solved issue when editing chart files with relative ords not correctly re-saving relative ords.		
<b>NCCB-39555</b>	webChart	Predefined chart displays can show incorrect time periods
When loading a predefined chart or if the Data Zoom or Time Zoom was active while switching time ranges, it is possible that some of the data would not show up on the chart unless it was manually zoomed to. In addition, there was another problem with not showing a ToolTip when the sampling could not be turned off due to too many points, and another problem with persisting an unlock of an axis that was previously locked. These problems have all been corrected.		
<b>NCCB-29589</b>	webEditors	Enumerated points do not display configured facets in using html5 profile
Resolved issue with EnumRange displaying the wrong value when facets are used to override the enum display strings in HTML5 Profile.		
<b>NCCB-36129</b>	webEditors	HTML5 Property Sheet fails to load if a slot is named "toString"
In BajaScript, <code>baja.Complex#getDisplayName</code> would sometimes return the wrong value for a slot named "toString". The HTML5 Property Sheet would also fail to load if a slot was named "toString". Both issues have been fixed.		
<b>NCCB-36141</b>	webEditors	Manager Column Chooser no longer shows which columns are already visible
When showing or hiding table columns in HTML5 views, the checkmark icon showing whether the column was shown was not visible in the Zebra theme. This has been corrected so the checkmark is always visible.		
<b>NCCB-37586</b>	webEditors	bajaux Job log now shows [Object Promise] instead of timestamp
When viewing the contents of a job log from the HTML5 Property Sheet, timestamps would appear as <code>\[Object Promise\]</code> instead of the correct timestamp. The correct timestamp will now be shown.		
<b>NCCB-38091</b>	webEditors	bajaux exporting fails for manager views that have folders
BajaUx manager views containing folders can now be exported.		
<b>NCCB-40605</b>	webEditors	Bajaux PropertySheet commands do not show BComponent.checkSetFlags and other check method errors to users

When editing flags, facets, slot names, or slot display names on the HTML5 Property Sheet, any errors that originate server-side will now be displayed in an error dialog.		
<b>NCCB-41530</b>	webEditors	CircularGauge does not honor unitConversion point facet
Circular Gauge now presents the properly converted tick marks when the unitConversion point facet is used.		
<b>NCCB-37564</b>	wiresheet	Wiresheet will not load if two components share more than one link and the source slot of one link is hidden
Previously, if a wiresheet wire was hidden, it would cause a NullPointerException to be thrown when the wiresheet was displayed. This has been fixed so that the exception is no longer thrown, and the hidden wire is simply not displayed.		
<b>NCCB-31016</b>	workbench	SanSerif font is the widget default and causes problems
Resolved an issue that caused hpx default font to render incorrectly.		
<b>NCCB-34392</b>	workbench	Cannot scroll Workbench panes with 2 fingers on the trackpad
Improvements have been made to allow for smooth trackpad scrolling. If you are a developer overriding BWidget.mouseWheel, make sure to use the BMouseEvent.getPreciseWheelRotation. Here is an example: <code>@Override public void mouseWheel(BMouseEvent event) { vbar.scrollByUnits(event.getPreciseWheelRotation()); }</code>		
<b>NCCB-37349</b>	workbench	Pseudo Categories don't respect readonly for non-superuser Category browser/CategorySheet
Currently, if a user does not have adequate permissions to make category changes, he is still able to make edits in the Category Sheet and Category Browser but saving the views results in an exception. This has been fixed and now if the user does not have admin write privileges for his role AND does have admin write privileges to categories then the Category Sheet and Category Browser cells will be read only. Additionally, if the user has operator read permissions to a category, he will now be able to see the real names of the categories in the Category Browser and Category Sheet instead of pseudo names like "Category 1", "Category 2", etc.		

Description (cont.)

Description (cont.)

Legacy Source

Legacy KB #

Legacy Created Date

Legacy Created By

Legacy Last Modified Date

Legacy Last Modified By

Files

**File**