Issue Key	Module	Release Note
NCCB-29232	alarm	Prior to this fix, when there were many open alarms and the Alarm Service capacity was changed, refreshing the UX alarm console would result in exception messages in the station log. These messages are no longer logged under the same conditions.
NCCB-29893	alarm, alarmOrion	The HTML5 Alarm Console view was loading much slower than the AX Alarm Console view when using the OrionAlarmService for a large number of open alarms. Sometimes the view could even timeout waiting for results to load. After this fix, the HTML5 Alarm Console view's loading performance should be similar to the AX Alarm Console view for the same number of open alarms sourced from the OrionAlarmService.
NCCB-56434	alarm	UxMedia BoundTables to bql results for an AlarmClass or ConsoleRecipient type would fail to load any results. This has been corrected.
NCCB-56619	alarm	Previously, some timestamps from BACnet alarms written to the alarm database could not be read back correctly. This has been corrected.
NCCB-58291	alarm	Under certain conditions in the past, an alarm record's 'Normal Time' would not be properly updated (and incorrectly left at Null) even when the source state had returned to normal. For example, this incorrect 'Normal Time' could occur after the source state had transitioned from Fault, to Offnormal, to Normal, to Offnormal, and then back to Normal. This defect has now been fixed, so that the alarm record's 'Normal Time' should be properly updated under such conditions.
NCCB-60425	alarm	When connected to a station using Workbench, if an ArchiveAlarmProvider is not present in a station's Alarm Service, an excessive number of synchronous Fox messages would be sent to the station to check for the presence of an ArchiveAlarmProvider, resulting in frequent performance degradation of Workbench. With this fix, the conditions under which a station will be queried for the presence of an ArchiveAlarmProvider have been narrowed, resulting in fewer Fox messages being sent and improved Workbench performance.
NCCB-61106	alarm	Prior to this fix, the Time Range specified for Alarm queries in Database Maintenance was not being honored, causing all queries to fall back to specifying the 'Default' time range. Alarm queries for a given time range now return only those alarm records for the given time range.
NCCB-57528	analytics	Corrected an issue where the Analytics Engine reported an Out of Memory error when the number of points exceeded 65,000.
NCCB-58150	analytics	Analytics Report permissions notes for reports is displayed in error div based on the user permissions
NCCB-40872	bacnet	Previously, the name of the history associated with a BACnet trend log extension was configured to "stationName_handleOrd" regardless of the value in the HistoryName property. The name of the history will now be derived from the BFormat value in the

		HistoryName property just like other history extensions. The unused HistoryNameFormat property has been hidden as it is on the history:HistoryExt type.
NCCB-53831	bacnet	The SubscribeCOVProperty service was added in BACnet protocol revision 2. A previous fix accounted for the protocol revision when adding a discovered device. However, some devices at or above protocol revision 2 do not send the subscribe-cov-property bit of the Device object's Protocol_Services_Supported property. This would prevent adding those discovered devices. Now, in addition to the protocol revision check, the presence of this bit is also checked. If the bit is missing, it is assumed that the SubscribeCOVProperty service is not supported.
NCCB-55970	bacnet	Previously, for discovered BACnet points that represent INTEGER type properties, the Enum Point icon would be displayed in the discovery pane and only enum and boolean point types would be available when adding the discovered point. Now, the Numeric Point icon is displayed and numeric point types are also available.
NCCB-56198	bacnet, webEditors	When you changed the Type for the Add Command in a ux Point Manager, it would ignore the preferred Discovery Name and change the name to the Type's displayName. This has been corrected, any preferred Discovery Name will not be modified during a Type change.
NCCB-56227	bacnet	Previously, a value of 4194303 (the unconfigured instance number) would be rejected as out of range when written to the notification class property of an event enrollment object. Now, that value is accepted and causes the associated alarm source ext's alarm class to be set to an empty string. No events from the event enrollment object will be visible through BACnet when the notification class is set to 4194303.
NCCB-57624	bacnet	The BACnet Event Enrollment object allows devices to subscribe for events on any property of any object. In Niagara, these subscriptions are handled with alarm source extensions on points that poll these BACnet properties. If a point for a particular property does not exist, one will be created. Previously, the type of the created property point was based on the property's parent object type and not the property's type. Now, the property point type will be based on the property's type. For example, a point for the Object Name property of a Binary Input object will be a String instead of a Boolean point. The property point will also have a meaningful name so it is easier to find among the other device points.
NCCB-57715	bacnet	Previously, when attempting to read the State Text property of a BACnet Multi-State object with an array index equal to the number of State Text values, an error for Invalid Array Index was returned. Now, the last State Text value will be correctly returned.
NCCB-58136	bacnet	Previously, if the remote device for a BACnet trend log extension was unavailable, the error "device:unknown-device" was returned.

		Now the correct error, "communication:unknown-device", will be returned.
NCCB-58628	bacnet	Previously, BACnet character string values encoded in the IBM/Microsoft DBCS or ISO 10646 (UCS-4) formats were not decoded correctly. This has been fixed. Also, any future decoding issues of the message text parameter in confirmed or unconfirmed event notification service requests or the acknowledgement source parameter of the acknowledge alarm service request will not prevent processing these requests.
NCCB-58849	bacnet	As of 4.12, the BACnet driver is protocol revision 15 compliant. However, the protocol revision property on the BACnet network's local device still showed "14" and would return that value if read over BACnet. This has been fixed to show and read "15".
NCCB-59117	bacnet	According to the standard, the BACnet present value property of an object must be prevented from being changed by software local to the BACnet device in which the object resides when the BACnet out of service property is true. Previously, when a writable Niagara point was exported to BACnet with an output or value prioritized descriptor and the BACnet out of service property was set to true and an input slot was changed either directly or through a link, the out slot and, therefore, the BACnet present value property would be changed. Now, the out slot will not be changed by any changes to the input slots but only through BACnet writes to the present value property when out of service is true.
NCCB-60274	bacnet	Previously, when the BACnet export table contained schedule and point descriptors, a deadlock could occur at station start. This has been fixed. Also, when descriptors were associated with objects with the same parent component, removing one of those objects would not cause the descriptor to be removed. Now, when objects with the same parent or when the parent itself is removed, associated descriptors will also be removed.
NCCB-61732	bacnet	Previously, an upload would be triggered before the station had started. This upload included a ping that could timeout because an MSTP link layer in co-processor mode was not yet ready. This timeout would cause devices on this link layer to be marked down. Now, the upload is triggered on the first successful message received from the device, which will allow link layers to finish initialization.
NCCB-62023	bacnet	Earlier, Whenever we connect to BACnet devices like lon, it would become available in the IP Link Layer's network adapter dropdown, Now the issue has been resolved by using below system properties. niagara.bacnet.included.ip.adapters: This is ';' separated list of regex pattern that determine which network adapters will be available in the adapter dropdown. If it is empty or not defined, It lists all adapters in the dropdown niagara.bacnet.excluded.ip.adapters: This is ';' separated list of regex pattern that determine which network adapters will be excluded from the adapter dropdown.

NCCB-38110	baja, hx, workbench	To make this work a breaking change was implemented. This change changed the 2nd parameter in baja's IFormat.java interface from a BFacet to a Context. This allows for a more complete context and security checking downstream when the interface is used.
NCCB-56416	baja, jxBrowser	When running station side pdf generation of web widgets you may see AccessControlException for setContextClassLoader. This and some other security manager permissions have been corrected.
NCCB-61575	baja	Relative hyperlinks (ORDs) to virtual components, especially those containing backups, could sometimes resolve to an unexpected location depending on the base of the ORD. For example, if the hyperlink was included in virtual Px view in a supervisor's hierarchy (scoped against the SystemDb), it could sometimes resolve to an unexpected location due to relative virtual paths (typically relative backup paths) against a hierarchy ORD base. This defect has now been fixed, so that those hyperlinks should resolve correctly.
NCCB-62821	baja, workbench	When navigating in Workbench, certain relative hyperlinks containing queries (such as tag-based hyperlinks in Px views) could cause the resolved ORD for the target of the hyperlink to grow on each subsequent hyperlink. For example, if you have two Px views that can hyperlink back and forth to each other via query-based relative hyperlink ORDs, like the following: neql:traverse n:child-> where n:name='AHU01'|single: and then to hyperlink back to the parent Px view: neql:traverse n:parent->|single: Clicking these hyperlinks back and forth a few times would cause the ORD of the target to grow until it got too large and caused an error. Going forward, this defect has been fixed, so that an optimal ORD will be used for the target of the hyperlink, preventing the growing ORD from occurring.
NCCB-10159	bajaScript, box	When using a Component to resolve a Format in BajaScript (including for bindings in UxMedia pages), the slots of the component's parent and all parents up to the station root will also be loaded. This matches Workbench behavior, and will allow calls such as parent.displayName to resolve correctly. Please note that the Format call does not subscribe the parent, only perform a one-time loading of its slots. This means that accessing parent properties may result in out-of-date results, and may vary depending on whether the parent has already been subscribed by another view or binding. This is true both in UxMedia and Workbench.
NCCB-55298	bajaScript	In Niagara 4.11 Release, in the browser, if you attempt to navigate to an nspace ord within your hierarchy (like if you have a SystemDb setup with the Niagara Network System Index), the webpage will never finish loading due to an infinite loop. Please upgrade to Niagara 4.11U1 or higher for a fix.

NCCB-55910	bajaScript	In previous versions, a custom contact menu registration via a BIJavaScriptMenuAgent subclass would not work for a history, alarm, or file space, this has been corrected.

NCCB-56514	bajaScript, mobile	baja.Ord.js#toUri now handles correctly hyperlinking to ords that include "#" and ";"
NCCB-59411	bajaScript	When using the BajaScript function baja.registry.getConcreteTypes(), any types retrieved that were not already imported using importTypes() would pollute the registry, so any new instances of those types created would be missing their slots. getConcreteTypes() now retrieves the fully-realized Types, including all their slot information and Type Extensions.
NCCB-54973	bajaui	Now when you save in the PxEditor and a PxProperty has the same name and Value a PxInclude property, it will now encode the px page properly.
NCCB-56412	bajaui, themeLucid, themeZebra	In prior versions of Niagara, a PxInclude with a ScrollPane and background set to null/default was incorrectly blocking (or adding a white background) the contents beneath it. This has been fixed now by adding a transparent background when a px (with a ScrollPane) is added into another Px as a PxInclude.
NCCB-56474	bajaui	There were certain almost square rectangles with non-integer positions which would disappear in HxPx, but be visible in UxMedia. These should now be visible. As a workaround in affected versions, switching to UxMedia should also resolve the issue.
NCCB-56591	bajaui, kitPx	UxMedia now has more consistent blinking=true behavior for BBoundLabel and other Label subclasses.
NCCB-56596	bajaui	Various Workbench dialogs show field editors like the PropertySheetFE were not large enough when they were the root of a dialog for an action argument. Now you can customize the initial sizing of your WbFieldEditor when its launched via BWbFieldEditor.dialog (like for an action argument), just have the fieldeditor also implement javax.baja.workbench.fieldeditor.BWbFieldEditor.IDialogContentProvider interface. Your fieldeditor will be given a getDialogContent() where you can either adjust your current widget or wrap it in additional panes (like a ScrollPane and a ConstraintedPane).
NCCB-57832	bajaui	In prior versions of Niagara, an issue in the visibility implementation of blinking Labels was causing the Widget to be visible when it was supposed to be hidden. This issue is fixed now and based on the blinking status of the Widget, the visibility will also updated appropriately.
NCCB-51042	bajaux	When saving changes to a user's web profile using the HTML5 Property Sheet, clicking Save would save the changes. but the Property Sheet would still think it was modified until you clicked Save again. Now, just clicking Save once will correctly commit changes to a user's web profile.
NCCB-51869	bajaux, uxBuilder	When the visibility attribute of a child of a FlowPane is animated, the space used by a widget will no longer sit empty when it is hidden.
NCCB-60169	bajaux	UxMedia now supports ords for Action Bindings that have been nequalized.
NCCB-9324	bajaux	Widget#isInitialized now returns false on INITIALIZE_FAIL_EVENT.
NCCB-49513	batchJob	The BatchJob clearOldRecords action used to run continuously, even when there were no histories to clear. This would trigger an unnecessary invoke audit. To prevent this nuisance audit, the clear operation is now executed only when there are histories to be cleared.

NCCB-54252	cryptoCore	Resolved an issue with JarSignatureRegistry that would occasionally produce a warning and unnecessary delay during startup of Workbench or Platform instances.
NCCB-56382	cryptoCore	Added a new button in software manager "{*}Rebuild Module Signatures{*}" that allows updating module signatures without requiring a platform reboot.
NCCB-50089	devkit, ndriver	In previous versions of Niagara, the output of the New Driver Wizard would not compile until Slot-o-matic was run on it. This has been fixed.
NCCB-56060	fox, kitControl	A rare deadlock could occur when a DiscreteTotalizerExt on a point was proxied from a remote station (e.g. supervisor) via NiagaraNetwork. This deadlock condition has now been resolved.
NCCB-54851	gauth	Corrected an issue which prevented 2 factor authentication users from being able to reset their password in a browser or Workbench.
NCCB-55589	jetty, web	Attempting to access a station URL with special characters in it prior to authentication could cause a 400 error instead of redirecting to the login page.
NCCB-55936	jetty	Fixed an issue where simultaneous HTTP requests can sometimes result in an IllegalStateException.
NCCB-54988	jsonToolkit	Prior to Niagara 4.13, the rename of bound objects would not be reflected in the JSON schema when the name of the binding was used as the source for a JSON object. This has now been fixed and the new name will be used in the next generated JSON output of the schema, after the renaming.
NCCB-57748	jxBrowser	In any Niagara version that uses JxBrowser 7.22 to 7.25 (4.11U1 and some EA versions), if you change a "<select>" in a Wb WebWidget, it will incorrectly focus on the previous input and can remove that input's select value. This has been corrected.
NCCB-61420	jxBrowser	When a Future WebLauncher is released with JxBrowser 7.30.3 or higher, these web-rt.jar and jxBrowser-wb.jar patches are required inorder for DefaultWbProfiles to use JxBrowser for its WebWidgets. Without these patches, then WebLauncher should gracefully fallback to JavaFx Browser.
NCCB-62465	jxBrowser	In previous WebLauncher versions, there was a "Save Password" dialog when logging into a station. This same dialog could also sometimes show up on PropertySheets and was not desired there so this feature has been disabled; no more native JxBrowser save password dialogs will show up now.
NCCB-47736	kitControl	The out slot value is switched properly based on the inSwitch slot value and configured status flags are propagated from both the inSwitch slot and the applicable value slot (inTrue or inFalse). Also fixed for the same scenario of the inSelect slot of the select components.
NCCB-60581	mbus	A regression was introduced into the 4.12 M-bus driver where it incorrectly handled the sign bit of negative 16-bit numeric values, presenting them as a positive value. This has been corrected in 4.12u2 and 4.12u1 patches. Other numeric types were not affected.
NCCB-56230	migrator	AX to N4 migration process should no longer throw NullPointerException if the main bog or embedded bog files don't contain a "Drivers" component.
NCCB-45992	modbus	A write of multiple present values for Modbus preset coils would result in a malformed message under certain conditions.

NCCB-56339	mqtt	Users were unable to add slots to MqttDevice components due to a check that restricted adding more than one authenticator also being applied to slots. *Now users can add any number of valid slots to MqttDevice components but not more than one authenticator.*

NCCB-58330	nMilestone	Corrected an issue where Milestone camera discovery was not working. Cameras under xprotect network can now be discovered.
NCCB-49858	nSnmp, snmp	In previous versions, there was a typo in a property ie "Mip Server". It's now fixed to "Mib Server".
NCCB-56347	nSnmp	SNMP traps now are now able to resolve BFormat strings generated in alarm data.
NCCB-57336	ndriver, nSnmp	In previous versions, socket errors for nDriver-based drivers using UDP could rarely cause connectivity loss until a station restart. It is now possible for nDriver driver authors to configure the behavior on a UDP socket error using the "getReconnectOnError" method added to "BUdpCommConfig". The default behavior has not changed from prior versions, and driver authors will need to opt-in to the new behavior if desired. However, the nSnmp driver *has* been updated to reconnect if a socket error occurs. In the unlikely event that this behavior change causes connectivity issues, the "niagara.nsnmp.reconnectOnFailure" System Property can be set to "false" to restore the old behavior.
NCCB-59958	niagaraVirtual	Starting in the initial release of Niagara 4.12, the display names of actions on Niagara virtual points would sometimes incorrectly display as "unsupported" when using certain Workbench views. This defect did not affect browser views. This defect has now been fixed so that the proper action display names are used for Niagara virtuals viewed from Workbench.
NCCB-48970	opcUaClient	OPCUA Network device manager did not show correct button states.
NCCB-48976	opcUaClient, opcUaServer	Client driver's security mode dropdown was not intuitive and had typos.
NCCB-55567	opcUaClient, opcUaServer	The OpcUa client component of the driver has been updated to allow for utilizing a password protected private key in the station's keystore.
NCCB-58646	opcUaClient	Discovery component "serverRoot" will now be transient along with all its children. These components will not persist through a restart and will not be recorded by the Data Recovery Service.
NCCB-59040	opcUaClient	OPCUA Device Property Sheet and Client Point Manager used to timeout while synchronously unsubscribing/subscribing to large number of points in the database.
NCCB-60164	opcUaClient	Event acknowledgement didn't use to get passed to the OPCUA server.

NCCB-60188	opcUaClient	OPCUA Device Property Sheet and Client Point Manager used to timeout while synchronously unsubscribing/subscribing to large number of points in the database.
NCCB-61218	opcUaClient	Station faced high heap usage while discovering and adding points in the OPCUA client point manager.
NCCB-48969	opcUaServer	Namespace URL was not modifiable while creating a new namespace from OPCUA server device manager view. It always used the default values.
NCCB-58794	opcUaServer	Incorrect user credentials in OPCUA Device used to cause memory leaks.
NCCB-58804	opcUaServer	Enums used to show as numeric, boolean or strings on the discovery table in the OPCUA client point manager.
NCCB-59576	opcUaServer	Points which didn't see any value change for a long time used to go into a fault state.
NCCB-25535	opcua, opcUaClient	Point Type dropdown didn't use to populate while creating a new alarm point from the 'OpcUaClientAlarmManager' view.
NCCB-63059	orientSystemDb	For certain supported Linux environments, depending on particular installation settings, the Orient System Database selection could fail to startup due to an AccessControlException. This defect has now been resolved.
NCCB-60658	platMstp	For Edge10, resolved issue where mstp coprocessor mode was enabled by default even though Edge10 doesn't support coprocessor mode.
NCCB-56410	provisioningNiagara	The NiagaraNetwork ProvisioningExt could cause a 100% CPU condition if a failure to decrypt platform credentials occurred. The Platform Connection will now enter a fault state with the message "Password keyring failure" to prevent this condition.
NCCB-58344	saml	The 'Time Skew' property is now properly applied when validating the 'notBefore' or 'notOnOrAfter' attributes on the Conditions and Subject Confirmation Data elements in a SAMLResponse, allowing for some time drift between the IdP and the station.
NCCB-51093	schedule, wiresheet	WebWiresheet and bajaux Schedule now work on a scaled CanvasPane
NCCB-57246	schedule	Previously in UxMedia, when you viewed a Schedule output on a Bound Label, the facets would not be respected. This has now been corrected.
NCCB-58915	schedule	Audit entries were not being properly recorded on the supervisor side when schedules were modified via Niagara virtuals. There were audit entries on the subordinate station side in such cases. Going forward, audit entries for modifications to schedules via Niagara virtuals will also be recorded on the supervisor side in addition to the subordinate side.
NCCB-40824	template	Corrected an anomaly with creating Application and Station templates which include Edge10 ACE applications. The process is now the same as creating non-ACE templates.

NCCB-41527	template	Handling of empty target Hint and slots was not handled. Hence, Added out as default target hint to fix the issue.
NCCB-56159	template	Fixed an issue sometimes causing a composite link not found warning message in Template Editor after duplicating a template.
NCCB-56197	template	Updating templates with history extensions would sometimes create a new history or cause a duplicate history-name fault.
NCCB-57249	template	When template files were transferred from another computer or in other cases where the template file-modified timestamp is updated without changing the file contents, the template service and template editor would falsely indicate that instances are out of date. When this occurred for subtemplates, the template editor Save button would get stuck enabled. When multiple subtemplate instances are linked together through I/O or external links or references, deploying the containing template could cause error or warning messages in station or Workbench output and a failure to present those links in Workbench.
NCCB-57342	template	A component with px graphic views that are broken due to missing px or image files would fail to be made into a template, generating an "Unresolved Exception" error. This has been corrected by allowing the template creation while logging warnings about the missing files.
NCCB-58899	template	Outputs and relations of a template would not be reported when no bindings to them resulted from deployment.
NCCB-55453	uxBuilder	The edit button of driver managers now disables if all currently selections are deselected. For instance, all rows in the main driver table are deleted.
NCCB-53285	web	LoginFileServlet will now cache file contents, this helps with both lowering memory consumption and speeding up repeated access to the login page.
NCCB-57421	web	Fixed an issue where login failed if the "Remember User Id Cookie" option on the Web Service was set to false.
NCCB-59545	web	For ReportService pdf generation, users should no longer have to approve a self-signed cert for generating pdfs in the station that have WebWidgets. If JxBrowser has any chromium.exe crashes, reviewing the spy page for "local:|spy:/jxBrowser" should reveal both the location of those crash files and how many crashes are present. When the JavaFx Workbench Web Browser is used (JxBrowser may be disabled or not working) and the user needs to approve a self-signed certificate, a certificate approval dialog should show up. Once approved, the user should be able to press refresh and view their desired page without any certificate errors.
NCCB-11608	webChart	BackgroundAreaColor property in Axis the tab of webchart was removed and this property will not be available even if the chart was already saved/configured with it.

NCCB-15424	webChart	In a Web Chart with more than one series showing, right-clicking and removing the same series twice quickly will no longer cause the wrong series to be removed.
NCCB-45307	webChart	WebChart should now work better on a scaled CanvasPane in Firefox
NCCB-51571	webChart	The webChart now displays data properly when the data must be reloaded after pan and zoom such as when clicking okay on the settings dialog. Also, the shade chart now displays darker colors for higher values and lighter colors for lower values when displaying numeric data. This is opposite of how numeric data was handled previously.
NCCB-57497	webChart	On a webChart when use the "CSV" exporter, the seconds should now be included by default. Additional facets like "showMilliseconds" and "timeFormat" are also now supported,
NCCB-23947	webEditors	If you need to use a uxFieldEditor slot facet with a RequireJS module ID instead of a type spec, and you do not want a popout command to appear on the Property Sheet, you can now also apply an enablePopOut=false facet to disable the popout.
NCCB-44425	webEditors	The UserManager can now be embedded on a Px page and accessed by a user that does not have read permissions to the default prototype.
NCCB-59567	webEditors	In 4.12 Release. the Html5HxProfile would fail to hyperlink you in the browser when created a BoundLabel with a hyperlink to a specific bajaui View Query like the Ax Wiresheet. In previous releases like 4.11 it would hyperlink you to the Default View which was also sometimes incorrect. Now with this fix, if there is BIJavascript agent registered on the WbView (like in this case, the bajaux wiresheet), that BIJavascript will now be the view that is chosen for any HxProfile. In the Html5HxProfile, if no such agent registration is present, this scenario will continue to fallback to the default view. In other profiles like the DefaultHxProfile, this will continue to be an Invalid Ord.
NCCB-59766	webEditors, workbench	In previous releases when using JavaFx in workbench, using the WebChart Export when using the Download option did not work. This has been corrected.
NCCB-45459	workbench	In previous versions, attempting to export to pdf or any of the other server side exporters would fail when this was attempted with from a WbWebProfile using a ChartWiget within WebLauncher, even when JxBrowser was available to run. Now, as long as JxBrowser is able to run there, the exports should work fine.
NCCB-59315	workbench	Starting with this change, the Refresh button should be snappier for WebWidgets. If you do have a problem with a WebWidget, similar to Chrome, you can Hold down Ctrl to get the legacy behavior with the slower load and the fresh Browser instance.