

**Software version history:**

Released Version	Description
iX 2.40 SP6 hotfix	Service Pack including improvements and bug fixes.
iX 2.40 SP6	Service Pack including improvements and bug fixes.
iX 2.40 SP5	Service Pack including improvements and support for the following targets: <ul style="list-style-type: none"> <li>• X2 base v2 product family.</li> </ul>
iX 2.40 SP4	Service Pack including improvements and support for the following targets: <ul style="list-style-type: none"> <li>• C2 base 12 and C2 pro 12</li> </ul>
iX 2.40 SP3	Service Pack including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>• BoX2 extreme SC</li> </ul>
iX 2.40 SP2	Service Pack including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>• C2 panel PC targets</li> </ul>
iX 2.40 SP1	Service Pack including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>• X2 extreme SC</li> </ul>
iX 2.40	New release including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>• BoX2, X2 extreme sealed</li> </ul>
iX 2.30 SP1	Service Pack including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>• X2 extreme, X2 pro 7 - 2eth</li> </ul>
iX 2.30	New release including improvements and bug fixes
iX 2.20 SP2	Service Pack including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>• X2 base, X2 pro, X2 marine, X2 control and X2 motion</li> </ul>
iX 2.20 SP1	Service Pack including improvements and bug fixes.
iX 2.20	New release including improvements and bug fixes
iX 2.10 SP3	Service Pack including improvements, bug fixes and support for iX T7BR
iX 2.10 SP2	Service Pack including small improvements and bug fixes
iX 2.10 SP1	Service Pack including small improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>• iX T4A SoftControl, T7A SoftControl, T10A SoftControl</li> <li>• iX T7B SoftControl, T12B SoftControl, T15B SoftControl</li> </ul>
iX 2.10	New release including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>• iX T7AM, iX T15BR, iX T15BM</li> </ul>
iX 2.0 SP1	Service Pack including bug fixes and a small improvement
iX 2.0	New release including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>• iX T7B, iX T12B, iX T15B, iX T12C, iX T15C and iX T21C</li> </ul>
iX 1.31	New release including improvements, bug fixes

iX 1.30	New release including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>iX T4A, iX T7A and iX T10A</li> </ul>
iX 1.20 SP2	Service Pack including support for iX TA Panels, improvements and bug fixes
iX 1.20 SP1	Service Pack including improvements and bug fixes
iX 1.20	New release including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>iX Panel K60, iX Panel K70 and iX Panel K100</li> </ul>
iX 1.10	New release including improvements, bug fixes and support for the following targets: <ul style="list-style-type: none"> <li>iX Panel T40, iX Panel T60, iX Panel T70, iX Panel T100 and iX Panel T150</li> </ul>
iX 1.0 SP1	New release including improvements and bug fixes
iX 1.0	Initial release of iX Developer with support for the following targets: <ul style="list-style-type: none"> <li>iX Panels Pro</li> <li>PC</li> </ul>
Supported operating systems	Description and comments
The following versions of Microsoft operating systems are supported:	Windows 10 Home, Pro and Enterprise editions: <ul style="list-style-type: none"> <li>versions 21H2, 21H1, 20H2</li> </ul> Windows 11 Home, Pro and Enterprise editions: <ul style="list-style-type: none"> <li>version 21H2</li> </ul>

## New features, removed functionality and bug fixes in iX Developer 2.40 SP6

Version	New features/ Bug fix	ID (internal)	Description
2.40 SP6 b2.46.87. hotfix	New features	65345	Update OPC UA SDK to v1.7.7 due to security vulnerability. Note: Old clients (iX clients created before 2.40 SP7) using deprecated security policy will not be able to connect to user's OPC UA server project (with username and password authentication enabled) after updating to this 2.40 SP7 version. This is because, the default security policy has been updated to a more secure one. If such old clients still need to be used, user can convert the iX OPC UA client projects to 2.40 SP7. If it is not possible to update the project, the user can still get the connection working by allowing deprecated security policy in the iX OPC UA server configuration, though it is not recommended from a cyber security standpoint.
		66964	Update OPC Foundation UA SDK to latest version in iX.
	Bug fixes		No new bug fixes.
2.40 SP6	New features		No new features.
b 2.46.49	Bug fixes	39537	Fixed issue with OPC UA Import Tags. Adding structured tags from Nexto PLC via OPC UA is taking a very long time.

41025	Fixed issue with Multi action recursive call to the start screen causing a crash and fixed so that ComboBox SelectionChanged event is not fired twice when a screen is opened.
44865	Fixed issue with PC Runtime crashing at start-up after re-starting several times.
47065	Fixed issue where clients were not possible to reconnect after a project transfer to an HMI acting as OPC UA server if username and password is used. To keep connections to server after re-download, cert files should be kept on the panel.
48013	Fixed issue with import of certain tags (which are absolute identifier) from Prosys OPC UA server.
48392	Fixed issue with RS485-port changing to RS422 when converting between different targets. Known affected products were X2 pro/control/marine/extreme.
50307	Fixed issues with: <ul style="list-style-type: none"> <li>- Properties are now excluded when importing OPC UA nodes to a flat list.</li> <li>- The tags/nodes with properties can now be imported.</li> <li>- Improved performance when importing few tags/nodes.</li> </ul>
50664	Fixed issue with OPC UA Import Tags. It is now possible to import from servers containing nodes with circular type references. Recursive calls for import to flat list has been removed. Checks for circular references when importing to structured tags list has been added.
51646	Fixed issue with Date time on panels running Windows CE8. If the panel's clock was set to an earlier time, it would make some tags to stop updating.
54065	Fixed issue with having a high value in the Time Scale Major Tick Count would increase load times. This has now been capped to a value no higher than 100.
55529	Fixed issue with Remote Alarm Client crashing if Alarm Viewer is issuing a lot of commands at a high rate.
56312	Fixed issue with Data Logger. Data Logger items cannot be called "Time" or "Id" because these names are reserved.
56713	Fixed issue with OPC UA Import tags/nodes that were not possible to import when having properties.
57599	Fixed issue with SD card option for FTP settings. The possibility to enable SD card access in FTP settings is disabled for panels not supporting SD card.
58227	Fixed issue with corrupted security.xml in runtime. A backup file is created to be used if Security.xml is corrupted.

		58298	Fixed issue where new client and old server (pre SP5) can no longer connect if username and password are used.
		58301	Fixed issue for OPC UA client connection with "Allow non-secure connection" settings when using username/password for authentication and "None" security policy is used by the server.
		58843	Fixed issue with min/max dynamics for circular meter accidentally made available when an older bug was fixed. Min/max dynamics has been disabled for circular meter once again.
		59765	Fixed issue with iX Watchdog not working properly.
		59858	Fixed issue for legacy project conversion where controls would not get connected to tags using gain and offset.
		60154	Fixed issue with namespace settings in OPC UA client properties not being populated with server data until at least 1 tag has been imported. Button "Sync Namespace" has been added to allow the user to import or sync namespace settings without importing any tags.
2.40 SP5 b2.45.167	New features	58280	Fixed issue where signing of executables were missing certificate time stamp. Issue could cause problems starting iX Developer if using high security settings in Windows. The certificate expires on December 16'th 2020 and issue could appear from there on in previous versions.
	Bug fixes		Database storage on SD card.
2.40 SP5 b2.45.162	New features		Change active controller without reboot of panel. (If controller allows.).
			Support for 64-bit data types. (If controller allows.).
			Screen Alias import and export.
			Recipe import and export in design time.
			Improved conversion log. Now also possible to open in other applications.
			Several additional dynamic properties converted.
			Improved Alarm Server conversion.
			Alarm Summary signals converted.
			Block signals converted.
			Recipe conversion and import of legacy runtime recipes.
			Improved conversion for Alarm block and Alarm banners.

		Conversion bugfixes.
		OPC UA stack update.
Bug fixes	35468	Fixed issue with Trend Viewer object does not update correctly when changing time span. Added setting to cache additional data. Warning! This setting will affect how much memory the application uses.
	38107	Fixed issue where tags were not updated or activated in very specific situations.
	39951	Fixed issue with conversion being stopped due to duplicate title.
	40063	Added possibility to disable "login failed message" when user is logging in.
	40270	Fixed issue with referenced assemblies in screen reference file having incorrect location.
	41715	Fixed issue with bitmap generation of button objects might cause "invisible" buttons.
	44362	Fixed issue where tags are not deactivated correctly when jumping to another screen from a popup screen.
	44540	Fixed issue where index registers are not converted.
	44761	Fixed timing related startup issue by adding a new Watchdog functionality.
	45187	Fixed issue where lines look crooked after conversion. However, some lines are actually a few pixels wrong in Information Designer. This is not visible due to the low resolution of the workspace and on old panels. Those lines may still be crooked after conversion.
	45190	Fixed issue where pictures in Button objects are not resized correctly during conversion.
	45685	Fixed issue with converting applications that includes Hexadecimal write "actions".
	46483	Fixed issue with visible Dynamics not always converted correctly.
	46555	Documented limitations with mismatch in iX runtime version vs design time version.
	46649	Fixed issue with iX PC Alarm Viewer selected alarm text not visible due to bad contrast between background and text color.
46983	Fixed issue with OPC UA read requests ignores maximum server settings.	

47299	Fixed issue with errors when converting Digital Fill objects for E1012/E1022/E1032 panels.
47347	Fixed issue with partially drawn popup-screens with full graphic acceleration on Windows 7/10.
47521	Fixed issue with browse pictures for objects builds up memory usage.
47638	Fixed issue with Data Exchange scaling not working correctly when using Interval as trigger.
48051	Fixed issue with importing recipes causing exceptions and failing without error.
48369	Fixed issue with not possible to open script page with Visual Studio open.
48488	Fixed documentation with duplicated steps for the Editing Recipes Offline example in iX help.
48635	Fixed issue where Report Export does not correctly convert from XLS to PDF when using Page Layout.
48871	Fixed issue with recipe action on lightweight tag does not update values correctly.
48915	Fixed issue with iX Developer crash caused by clicking around in "Actions" in the Property Grid.
49970	Fixed issue with crash when when trying to access and write in SessionSettings.xml (not running as admin)
50327	Fixed issue where iX Close screen action causes NotSupportedException crash.
50340	Fixed issue with iX Developer "Save As" also saving changes to the original project.
51456	Fixed issue with Expression causing a NULL value logged in the Datalogger.
51464	Fixed issue with Linear Meter does not correctly save the Max Value parameter if it's set to 0.
51887	Fixed issue with Alarm signals for Remote Acknowledge not converted correctly.
51916	Fixed issue where iX incorrectly binds tag to index registry during conversion.
51957	Fixed issue where tags used in expressions are not set to Always Active during conversion.

	52624	Fixed issue with files being deleted when trying to add Pictures.
	54114	Fixed issue where incorrect Tags are assigned to Analog Numerics during Project conversion.
	54406	Fixed issue with not possible to convert project using modified K60 Template Project.
	55589	Fixed issue with HASP related blue screen during installation.

**New features, removed functionality and bug fixes in iX Developer 2.40 SP4**

Version	New features/ Bug fix	ID (internal)	Description
2.40 SP4	New features		No new features.
b2.44.56	Bug fixes	58280	Fixed issue where signing of executables were missing certificate time stamp. Issue could cause problems starting iX Developer if using high security settings in Windows. The certificate expires on December 16'th 2020 and issue could appear from there on in previous versions.
2.40 SP4	New features		Added acirro+ functionality.
b2.44.53			Designtime and PC Runtime upgraded to .NET Framework 4.8.
			Removed the requirement to install .NET Framework 3.5 for Designtime and PC Runtime.
			Added a new setting in the "Options" to enable SNTP time synchronization by default for new projects.
			Added new targets C2 base 12 and C2 pro 12.
			New default resolution for C2 base 18 and C2 pro 18 targets.
2.40 SP3	New features		No new features.
b2.43.24	Bug fixes	58280	Fixed issue where signing of executables were missing certificate time stamp. Issue could cause problems starting iX Developer if using high security settings in Windows. The certificate expires on December 16'th 2020 and issue could appear from there on in previous versions.
2.40 SP3	Bug fixes	47348	Fixed issue with incorrectly displayed multipicture object when converting to iX Developer 2.40 SP2.
b2.43.17		46597	Fixed issue with transfer error when downloading PC project.
		41185	Fixed issue with project transfer error when Kaspersky Anti-Virus is installed as well.
2.40 SP2	New features		No new features.
b2.42.232	Bug fixes	58280	Fixed issue where signing of executables were missing certificate time stamp. Issue could cause problems starting iX Developer if using high security settings in Windows. The certificate expires on December 16'th 2020 and issue could appear from there on in previous versions.



2.40 SP2  b2.42.138	New features		Audit Trail support for logging USB storage devices.
			Possibility to set poll group times to 25ms for BoX2 targets (not Base).
			Removed support for Windows 8.1.
			Improved conversion of Information Designer and E-Designer projects to iX.
			Improved cyber security.
			.NET Framework 4.7.2 compatibility.
	Bug fixes	46083	Database -> CSV export action consumes much more CPU and memory in iX Developer 2.4x compared to previous versions
		44786	Build Error after converting iX project using Load Recipe action
		44728	Fixed issue with X2 marine HB only having system tags for 2 cpu cores instead of 4.
		44464	Fixed issue with project not downloading because project files are never fully erased from panel.
		44461	Fixed issue with tag import crash when import file contained invalid datatype.
		44431	Fixed issue with grouped trend viewers that would offset the plot area of the trend viewer.
		44353	Fixed issue with that the bitmap generation logic did not take gradients into account.
		44153	Label controls are off by a few pixels in runtime (panels).
44140		Fixed issue with failed project transfer if there are many files stored in Project Files folder.	
44044		Fixed issue with NullReferenceException when trying to start and debug iX application from Visual Studio.	
43886	Fixed issue with crash if alarm text contained a numeric value that was greater than max value of an INT32.		
43831	Fixed issue with iX not handling deletion of tags correctly after using create series functionality. This caused a "tag reference could not be found" build error.		
43820	Fixed issue with that the bitmap generation logic did not take gradients into account.		

		42997	Fixed issue with ObjectDisposedException when changing to a language that requires a reboot.
		42308	Fixed issue with recipe values being saved even if there is communication error.
		41955	Fixed issue that uploading source from HMI to an already existing folder would delete files recursively.
		41755	Fixed issue with project conversion from older version of iX where a crash occurred if opening a generate report multi action on the scheduler after conversion had finished.
		41437	Fixed issue with exported recipe files not being encoded in UTF-8-BOM format.
		41308	Fixed issue with incorrectly displayed picture in runtime for button object with configured transparent multi pictures.
		41172	Fixed issue with no build error if alias instance tag is missing.
		40980	Fixed issue with recipes not working when using more than 998 recipe items. Now the recipe designer is capped to 998 recipe items to avoid database error.
		40923	Fixed issue with build error when using LINQ.
		40025	Fixed issue with ListView 3:rd party control leading to crash in iX Developer when building project.
		35464	Fixed issue with unclear error messages.
2.40 SP1	New features		No new features.
b2.41.220	Bug fixes	58280	Fixed issue where signing of executables were missing certificate time stamp. Issue could cause problems starting iX Developer if using high security settings in Windows. The certificate expires on December 16'th 2020 and issue could appear from there on in previous versions.
2.40 SP1 b2.41.177	Bug fixes	44135	Fixed issue with label controls being off by a few pixels in runtime (panels).
2.40 SP1 b2.41.161	New features		Support of X2 extreme SC.
			Improved conversion of Information Designer and E-Designer projects to iX.
			Improved database backup and added support of database restore.
			Added support of importing OPC UA tags.

			.NET Framework 4.7.2.
			Added anonymized usage telemetry.
	Bug fixes	41554	Fixed issue with not being able to connect to OPC UA server in HMI if both LAN ports are connected.
		41005	Fixed issue with iX Developer freezing when entering a high value for Major Ticks on a trend viewer from the property grid.
		40988	Fixed issue with slow iX installation on Windows 10.
		40896	Fixed issue with not being able to install iX Runtime without Internet connection.
		40878	Fixed issue with not being able to convert project with a combination of long tag names used in project and a long project path.
		40857	Fixed issue with trend viewer curves not being aligned correctly with the horizontal grid lines.
		40677	Fixed issue with iX application freezing when using script to close popup screen together with a Close Screen action.
		40274	Fixed issue with missing system tag for each CPU load core on X2 extreme panel targets.
		40164	Fixed issue with iX application freezing and stops responding when closing popup screen.
		40161	Fixed issue with being able to scroll past alarms in the alarm viewer when using filtering.
		39933	Fixed issue with out of memory exception when operating and navigating between screens with trend viewers.
		39905	Fixed issue with SystemTagCurrentUser system tag being out of sync with the controller tag.
		39895	Fixed issue with crash when grouping/ungrouping objects on screen if Object Browser has not been opened before.
		39827	Fixed issue with data logger table being cleared at download even though no changes to the log items for that data logger have been made.
		39436	Fixed issue with application crash if logging in with script hooked up to events that are triggered before start screen is displayed.

		39405	Fixed issue with moving tags via copy/paste clipboard prevents tags from other projects being altered.
		39268	Fixed issue with gain/offset on internal variables from Information Designer import gives build error.
		39263	Fixed issue with blacklisted referenced assemblies not being downloaded if references in script.
		38641	Fixed issue with iX not being able to handle different decimal separators for tag export/import to Excel file.
		38276	Fixed issue with internal variables being converted with connection to controller on Information Designer import.
		38271	Fixed issue with color dynamics with low values not being properly converted on Information Designer import.
		38236	Fixed issue with text objects with dynamics not being properly converted on Information Designer import.
		38234	Fixed issue with tags connected to ASCII/Text objects being converted to int16 datatype instead of string datatype on Information Designer import.
		37223	Fixed issue with not being able to login if user has been added using an Unicode keyboard.
		37144	Fixed issue with missing error handling when using enable/disable alarms via a remote alarm server connection.
		35444	Fixed issue with parts of the application not being translated/updated after boot.
2.40	New features		No new features.
b2.40.61	Bug fixes	58280	Fixed issue where signing of executables were missing certificate time stamp. Issue could cause problems starting iX Developer if using high security settings in Windows. The certificate expires on December 16'th 2020 and issue could appear from there on in previous versions.
2.40	New features		Support of BoX2.
b2.40.44			Improved conversion of Information Designer and E-Designer projects to iX.

		New and improved Transfer Client.
		Customization of tag visibility on OPC UA server.
		Support for BACnet.* *contact your local Beijer Electronics representative for more information.
		.NET Framework 4.7.1 compatibility.
		Fast data logging on PC RT.* *contact your local Beijer Electronics representative for more information.
		Internal software improvements.
Bug fixes	38544	Fixed issue where application crashes when navigating in video using progress/seek bar.
	35443	Fixed issue with printing issues found only on Windows 10 .NET Framework 4.7.
	37547	Fixed issue with the property "AutomationProperties.LiveSettings" existing in iX Developer on PC with .NET 4.7.
	32719	Fixed issue with installation failing because of a certain registry value.
	35931	Fixed issue with not being able to import altered Excel file for Multiple Languages.
	34704	Fixed issue with PDF Viewer causing panel to freeze.
	35445	Fixed issue with demo message shown initially even if USB-dongle is connected to PC.
	32653	Fixed issue with null reference exception thrown when adding group to alarm server or text library.
	34279	Fixed issue with several SystemTagDateTime tags connected to controller tags made application throw exception.
	32029	Fixed issue with not being able to embed polyline object in button (via Component Library).

33176	Fixed issue with using dynamics on Viewer objects leading to crash on PC platform and XAML error if converting project to CE.
2586	Fixed issue with object browser not updating if an object is renamed.
33067	Fixed issue with Alarm Viewer remaining unchanged after update to a new version.
7461	Fixed issue with dynamic read only having a bug on start-up affecting analog numeric in PC-based application.
33443	Fixed the issue with the Object Browser not being correctly updated the first time starting a new project.
32743	Fixed issue with IntelliSense not working for referenced assemblies.
32576	Fixed issue with validation error after performing renaming of the report several times.
33178	Fixed issue with iX Developer installation failing if certain record is presented in Win Registry.
10668	Fixed issue with Resco objects (e.g RollerPanel, TouchComboBox) getting the wrong font size/object size depending on Windows DPI setting.
19938	Fixed issue with OPC UA client failing to connect to OPC UA server, if server has tags with bad quality.
30565	Fixed issue with no error message being displayed when the destination path does not exist after generating a report for PC with destination selected as Path.
30876	Fixed issue with bad audit trail description text for alarms.
8509	Fixed issue with column headers of the Alarm Viewer object not displaying correctly at run-time.
23591	Fixed issue with OPC UA client on X2 panels (excluding X2 base) not supporting password using AuthenticationSessionRequest.
31743	Fixed issue with the process of generating a PDF with some fonts taking time.
32383	Fixed issue with estimation of database file size being inaccurate.

	32110	Fixed issue with wrong data type in recipe when updating data type in tags.
	31964	Fixed issue with no possibility to set parent screen after renaming screen.
	31908	Extended login/logout script functionality and included option for enabling/disabling the login/logout success message.
	31822	Fixed issue with Tag action: Generate Report action not being converted properly between different versions.
	31775	Fixed issue with OPC UA Server not communicating if Switch is not connected while booting up.
	30819	Fixed issue with Trend Viewer and Data Logger logging data as Daylight Saving is enabled even though it's disabled.
	28797	Fixed issue with WPF UserControl getting a build error in iX.
	23283	Fixed issue with applications with e.g. Traditional Chinese keyboards not starting correctly.
	22410	Fixed issue with Media player files not being transferred to correct path.
	21485	Fixed issue with Recipe import and export not handling apostrophes and carriage return correctly.
	20763	Fixed issue with references not being updated when a tag is renamed.
	20505	Fixed issue with screen events not being fired correctly after a screen has been renamed.
	18250	Fixed issue with picture inside button on background screen not loading when the project is opened.
	16126	Fixed issue with Load, Save and Delete Recipe actions not storing recipe field name in Audit Trail.
	15365	Fixed issue with Progress Bar object making it impossible to write a new value via Analog Numeric object, if the objects are placed in the same screen in CE platform.
	14018	Fixed issue with overwriting an old project with a new one, using Save As.





**New features, removed functionality and bug fixes in iX Developer 2.30**

Version	New features/ Bug fix	ID (internal)	Description
2.30 SP1  b2.31.67	New features		Added option to have custom mouse delay time on each object.
			Added support for wide scrollbars on TxC target.
			Added option to set colors for pie and donut charts.
			Added functionality to allow use of tag names in the published OPC UA ids.
			Added script functionality to remove the login or logout success dialog.
	Bug fixes	19569	Fixed issue with buttons not being visible when DPI is greater than 100% when adding dynamic alarm text to alarms.
		23530	Fixed issue with not being able to export tags to Excel file in Windows 10.
		23591	Fixed issue with OPC UA Client not supporting password using AuthenticationSessionRequest for X2 pro, X2 marine, X2 control, X2 motion and X2 extreme targets.
		31015	Fixed issue with Microsoft Translator.
		31730	Fixed issue not being able to simulate iX application.
2.30  b2.30.24	New features		Option to disable alarms in alarm viewer functionalities has been added.  <ul style="list-style-type: none"> <li>- Enable/disable alarms in Runtime. Toggles the enable status of the selected alarm in the viewer. Number of disabled alarms are shown on screen.</li> <li>- Manage alarms. Manage enable status of alarms in a popup window.</li> </ul>
			PDF Report generation functionalities added. Report can be saved as a simplified PDF file.  Limitations: <ul style="list-style-type: none"> <li>- Cannot convert diagrams</li> <li>- Not all excel features are supported.</li> </ul>

			QR Code functionality added to Miscellaneous Control Objects. The QR Code control object generates and draws a QR Code object from regular text and can either be generated from a constant string or connected to a tag.
			<p>From v2.30 it is possible to have multiple installations of iX Developer versions from the same generation on the same target PC in design time. E.g. One version of iX 1.x (e.g. 1.31), and one version of iX 2.0 to iX 2.20 SP2 (e.g. 2.20 SP1), and iX 2.30 and all following version after that.</p> <p>Note! It is not possible to have two versions open at the same time and copy/paste from one version to another.</p> <p>When starting a newly installed version for the first time, the user gets the option to import settings (Product Key features, Recent projects, Added items in Component Library, and Additional controls) from the previous version.</p>
			Acrobat Reader version 9 no longer required for PdfViewer for PC runtime. PdfViewer incorporated into iX Developer.
			Cyber Security Best Practice Guide added to Reference manual.
			New License system PC RT has been implemented to support Soft Keys.
			Marine Thruster Needle available in Runtime CE.
			<p>ID to iX feature added:</p> <ul style="list-style-type: none"> <li>- Border style to bevel style for applicable objects.</li> <li>- Convert lines (for one pixel horizontal lines).</li> <li>- Offset/gain conversion general (removed feature), supports all applicable objects.</li> <li>- Filled dynamics doesn't work if static Filled is checked in ID rectangle object.</li> <li>- Scale object size and font size when changed resolution.</li> <li>- Improved conversion of colors for monochrome panels.</li> </ul>
			Default value set to cyclic for Audit trail logging strategy.
			Report file names can be made FTP friendly. Enable FTP Friendly Names functionality has been added in the Advanced Project Settings for Print screen, Audit trail, Export recipe, and Generate report. Enabling the FTP Friendly Names replaces any spaces and dots in the file name.

			Added new System Tag "Max screen cache memory load" which could be set to 50-90%.
			A warning is shown if no or too weak password is used when configuring the Remote Access, FTP, OPC UA or Web server.
	Bug fixes	9890	Fixed issue with improper tag names in alarm list import causing compilation errors.
		10780	Fixed issue with if you have more than 1000 files in the export folder, no new exports are written is fixed.  Added new options in the export settings for handling if the folder limit is exceeded in Windows CE projects. In CE platform, the maximum number of files which can be stored in a folder is 900 files.  Actions that can be taken if folder limit is reached; Delete older files or Group files by date.
		13446	Fixed issue with adding a "Generate report"-action from property grid generated a build error.
		16547	Fixed issue that Trend Viewer Legend cannot show Chinese characters in panel targets.
		17634	Fixed issue that Data exchange direction was set to default (None) when import and merge tags with no direction data.
		18550	Fixed issue with Analog numeric dynamics outline not working.
		19671	Fixed issue with unable to get service IMultiLanguageServer when converting to another target.
		20076	Fixed issue with action setting/writing wrong value to controller.
		20314	Fixed issue with tag action making the application start up with an empty grey screen.
		20923	Added information to documentation about the issue with dongle can't be found if an iX application is started using windows remote desktop connection.
	21214	Fixed issue that alarms triggered simultaneously are not in the same order in different Alarm Viewers.	

	21488	Fixed issue with MediaPlayer source file not connected.
	21708	Fixed issue that Runtime data is not kept when upgrading to 2.20 on PC/TxC target.
	21884	Fixed issue that visible dynamics on some objects does not work if language is not equal to default language.
	21935	Fixed issue with TrendViewer curve update.
	22017	Fixed issue with animated gif-files. An animated gif that uses > 25 MB RAM generates a build error.
	22036	Fixed issue that Error-text in input validation message is not translated.
	22049	Fixed issue that application can be seen in Task Manager as a running process but no visible GUI.
	22287	Fixed issue with screen change times are increasing the first time after changing the language (PC Runtime).
	22289	Fixed issue with Developer reboot when trying to repair corrupt project.
	22343	Fixed issue with numerical keyboard not opening in runtime.
	22376	Fixed issue with apostrophes in file path resulting opening error in Developer. An apostrophe generates a build error.
	22402	Fixed issue with corrupt tag data when importing tags.
	22605	Fixed issue with AlarmItem Expression triggers value changing and writing result to tag.
	22673	Fixed issue with alarm acknowledge error.
	22878	Fixed issue that application might present wrong tag value.
	22887	Fixed issue with keyboard in 4 inch panel (is cut when preview window is displayed).
	23079	Fixed issue with opening Help Files on Turkish Windows.

	23087	Fixed issue that AlarmViewer/Text Library is not updated correctly after reboot.
	23169	Fixed issue with RAM usage increasing the screen update time increases for popups and screens (PC Runtime).
	23243	Fixed issue when opening projects created in previous versions with specific panel models as targets.
	23380	Fixed issue with multiple OPC UA clients configured and running (PC Runtime).
	23382	Fixed issue with support for Digital Outputs missing for some panels/targets.
	23392	Fixed issue that iX application is running, but no GUI.
	23416	Fixed issue that language is not updated correctly after reboot.
	23454	Fixed issue with Information Designer Import on X2 panel.
	23521	Fixed issue with converting TxB-application to X2.
	23545	Fixed issue with possibility to start multiple instances/processes of an iX application (PC Runtime).
	23592	Updated documentation about scripting issues with multilanguage on popup screen.
	23623	Fixed issue with screen change on alias screen with PDF viewer using the Alarm Info event.
	23646	Fixed issue with Alarm Viewer update.
	23681	Fixed issue with objects in popup not displaying values.
	23790	Fixed issue with iX application not responding.
	23927	Fixed issue with Garbage Collection blocking the UI refresh after jumping through several screens.
	23958	Fixed issue with security issue when logged out on screen with access rights.

		24228	Fixed issue with wrong tag value included in dynamic alarm text.
		28476	Fixed merge issue when template tag address change.
		28717	Fixed problem with import of specific Exter project.
		29321	Clarification that Media Player, PDF Viewer and Web Browser functionality is not supported on X2 panels 4" and 7" (except for X2 marine 7 HB SC).
		29426	Fixed issues with visualizing the communication driver help file.
		29990	Fixed issue with incorrect COM port configuration after changing target.

**New features, removed functionality and bug fixes in iX Developer 2.20**

Version	New features/ Bug fix	ID (internal)	Description
2.20 SP2	New features		A new look in the help files for the communication drivers.
b2.22.184			Improved Tag Monitor so that it now stores and remembers which tags that was used even if the project is restarted.
			Added system tag to show panel's serial number. Available on X2 Pro, X2 Marine, X2 Control and X2 Motion.
			Added system tags to control Digital Outputs. Two digital outputs available on X2 marine 7 HB SC, X2 marine 15 SC and X2 marine 15 HB SC.
			Added system tags to show flash memory diagnostics. Available on X2 Pro, X2 Marine, X2 Control and X2 Motion.
			Added system tags to show different core levels. CPU Load per core for all X2 panels with multi-core CPU on X2 Pro, X2 Marine, X2 Control and X2 Motion.
			Implemented a "Clear all caching from screens" function.
			Added conversion of Dynamic Decimals on AnalogNumeric from InformationDesigner. When importing a project from InformationDesigner, any AnalogNumeric with number of decimals dynamics is converted to an AnalogNumeric with the number of decimals dynamics set. If the dynamic decimals is controlled by a digital signal it is not converted.

		Added conversion of Dynamic Min/Max values on AnalogNumeric from InformationDesigner. When importing a project from InformationDesigner, any AnalogNumeric with dynamic max/min value is converted to an AnalogNumeric with dynamics on max/min value (visible in dynamics general tab). If the dynamic max/min value is controlled by a digital signal it will not be converted.
		Added conversion of Digital Dynamics Filled from InformationDesigner. When importing a project from InformationDesigner, any Dynamics Filled value (two values) on an object will be converted to dynamic fill with the same color on the converted object in iX Developer.
		New features implemented for Media Player in X2 panels. X2 pro 4, X2 pro 7, X2 control 7, X2 motion 4, X2 motion 7, X2 marine 7 and X2 marine 7 SC support format: .mpeg1. All other X2 panels support the following formats: .mpeg1, .avi, .wav, .au, .aif, .wma, .wmv, .mp3 and .mp4. Audio output not supported.
Removed		Support for TA panels have been removed.
		OPC Classic is not supported for X2 control, x2 motion, X2 marine and X2 pro series (OPC Classic is no longer supported by Microsoft Compact 2013).
Bug fixes	#22049	Corrected issue where iX application could be seen in Task Manager as a running process but no visible GUI on PC/TxC platform.
	#22289	Fixed issue when trying to open a project with corrupt tag file
	#21708	Fixed issue with Runtime data when upgrading to iX 2.20 on PC/TxC target
	#21884	Fixed visible dynamics on some objects which didn't work if language != default language
	#22343	Fixed issue with numeric keyboard not appearing
	#18983	Fixed update of timestamps on Client side AlarmViewer in real time.
	#19206	Fixed issue where alarms could get stuck in Inactive-mode in the AlarmViewer.
	#19638	Added documentation for the Database Cleanup Action.



		#20197	Fixed issue where the alarm distributor client's database table could grow out of control.
		#20484	Fixed issue during panel boot connected to an error in a specific XML document.
		#20766	Corrected conversion issue with the action Database Export when connected to the scheduler.
2.20 SP1  b2.21.28	New features		Added new tab functionality: Close All and Close All But This
			Added size recommendations for projects. Refer to the manual for specific recommendations.
			Added functionality so that the "download all source code" check box in the download window is remembered. Also added "Transfer Options" to the options window, where this check box's initial value can be set.
	Removed		Support for SQL CE was removed.
			The bundled database viewer application was removed.
	Bug fixes	#4597	Fixed issue where 3 <sup>rd</sup> party control caused a crash when screen jumping to a screen with alarm viewer object.
		#6585	Fixed issue with gain entries being overwritten when importing variables.
		#8870	Fixed issue where screen jumps to a screen with alarm viewer were slow.
		#9694	Fixed issue with failing project transfer when project's database is large.
		#12774	Fixed issue where importing large recipe collections was slow.
		#12953	Fixed issue where default text values were not shown after import or export of multiple languages.
		#13046	Fixed issue where a screen with many analog numerics opened slowly on certain targets.
		#13406	Fixed issue where import tags gave an exception when using multiple controllers.
#13472	Fixed issue with the edit button being disabled for exported projects.		

		#13522	Fixed issue where the user would get an error saying “DataItem doesn’t belong to a global data item or index register”.
		#14503	Fixed issue where the value changed event of an analog numeric was fired when closing screen, even if the value was not changed.
		#15198	Fixed issue with database being invalidated when importing a tag list without changes.
		#16101	Fixed issue with the application error when using acknowledge all alarms action.
		#16339	Fixed issue with memory leakage when the database reached its maximum size.
		#16572	Fixed issue with numeric keyboard and screen delay.
		#17121	Fixed conversion problems which caused a “Project cannot open due to an unknown failure” message.
		#17147	Fixed issue with an error, caused by the docking control, which occurred when the software tried to open a window.
		#17319	Fixed issue where the selected alarm would change if a new alarm was triggered. The selection will now follow the alarm as it moves down in the list. If the selected alarm is removed from the list, the selection will reset to the topmost alarm.
		#18031	Fixed crash if using alias tags on screen open event.
		#18247	Fixed issue with the media player lagging.
		#18269	Fixed issue with sort order in the project creation wizard.
		#18289	Fixed issue where modified screen saver settings were not downloaded to the panel.
		#18370	Fixed issue with default tag read access with aliases.
		#18510	Fixed issue where action on an internal bool or string tag with condition !=0 would result in an exception being thrown.
		#18568	Fixed issue where converted project would crash in simulation mode.
		#18633	Fixed issue with word wrap not working for certain languages.

	#18634	Fixed issue where some pictures or symbols would be invisible after project conversion.
	#18860	Fixed so that default time zone for new projects is “None” on all platforms.
	#18929	Fixed crash when downloading to target running a project from an older version.
	#18992	Fixed bootup crash where internal tags would be added to the controller file.
	#19101	Corrected the Chinese translation in the start dialog.
	#19033	Fixed crash in simulation mode with project containing SQLite script with join commands.
	#19496	Fixed bug where scaled tag values were stored with too many decimals.
	#19937	Fixed issues with MouseEnter/MouseLeave events when security was configured.
	#19922	Fixed COM registration error when restoring from USB.
	#19983	Fixed issue where decimal values were exported as strings.
	#20013	Fixed issue where dynamic text was not correctly stored in the alarm server.
	#20114	Fixed a security issue where some objects were accessible when they shouldn't be.
	#20267	Fixed issue where export of two recipes with the same setup would generate two different layouts in the export file.
	#20348	Fixed issue where all objects were greyed out in the object dropdown.
	#20412	Fixed issue where the verify project function was not working properly.

<p>2.20 b2.20.2296</p>	<p>New features</p>		<p>Added support for Foreground screen.</p>
			<p>Added support for read/write Tag expressions.</p>
			<p>Added support for passive value change events.</p> <ul style="list-style-type: none"> <li>- The passive event will only trigger when the tag is active, and the tag can be deactivated when it is not in use.</li> </ul>
			<p>Added new object, Tag Monitor.</p>
			<p>Improved performance</p> <ul style="list-style-type: none"> <li>- Screen switching time.</li> <li>- Faster value update rate on screen</li> <li>- Startup time of panel.</li> <li>- Smaller project size. Shorter transfer time More utilized CPU and memory usage.</li> <li>- Added support for screen caching.</li> <li>- Added support for objects with built-in bitmaps will render without transparency <ul style="list-style-type: none"> <li>o Styled buttons</li> <li>o Circular meter</li> <li>o Linear meter</li> <li>o Trend viewer</li> <li>o Certain conditions must be fulfilled, e.g. no dynamics</li> </ul> </li> <li>- Optimized Function key code generation</li> <li>- Report Generator</li> </ul>
			<p>Added support for SQLite, database. This database is recommended to use.</p>

			Added Database System Tags <ul style="list-style-type: none"><li>- Database Error Active</li><li>- Database Error Message</li><li>- Database Max Size Exceeded</li></ul>
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		<p>Added Database settings in Project Group</p> <ul style="list-style-type: none"> <li>- Database , selection of the type of SQL database</li> <li>- Max size, when exceeded System Tag “Database Max Size Exceeded” is set</li> <li>- Back Up database at startup.</li> </ul>
		<p>Added action “Back Up all Databases for recovery”.</p>
		<p>Changed action names for backup actions for database. New names:</p> <ul style="list-style-type: none"> <li>- Back Up Alarm, Data Logger and Recipe Database</li> <li>- Back Up Alarm, Data Logger and Recipe Database for Project Restore</li> </ul>
		<p>Improved handling of database, not deleting all databases when recipe values or Data Logger changed.</p>
		<p>Improved handling of non-volatile values. Non-volatile values are now kept in storage when new version of project downloaded to panel and no longer cleared at startup, i.e. reset to default or initial value, if specified.</p> <p>If previous behavior wanted, use "Clear non-volatile values" action in combination with the "Close application" action.</p>
		<p>Improved Key beep handling.</p>
		<p>Added support for OPC UA when simulating project.</p>
		<p>Support for Windows 8.1.</p>
		<p>Support for Windows 10.</p>
		<p>Improved support for Chinese virtual keyboard.</p> <p>Feature is available for iX TxA/iX TxE/iX TxF-2 panels with image version 1.11 build 1238 or higher and on iX TxBx panels with image version 1.4 build 21 or higher.</p>
		<p>Support for Hebrew, Arabic and Korean virtual keyboards is now also available on iX TxBx panels with image version 1.4 build 21 or higher.</p>
		<p>Improved installation, only one .exe file and improved look and feel.</p>
		<p>Added backup button before conversion between panel types or between versions (2.10-&gt;2.20).</p>

			Improved Security, making it possible to change the AutomaticLogoutMinutes and the AutomaticLogoutEnabled properties in Runtime via script.
	Removed		Windows XP is no longer a supported operating system.
			Windows Vista is no longer a supported operating system for iX Runtime. Still supported for iX Developer.
			Preload of screens is replaced by possibility of caching screens.
	Bug fixes	#10087	Fixed issue in iX Web Browser. Address and Home properties were replaced with null values if the address does not exist on local network of the build computer.
		#10316	Fixed issues with recipe database table layout which was rearranged when changing names on recipe items in DesignTime. Now Recipe data columns are always sorted in alphabetical order.
		#13685	Fixed issue with a System.IO.IOException that occurred regularly in log.log files.
		#13687	Fixed issue with sending queries to Non Volatile Database even if no Non Volatile tags were used.
		#13820	Fixed issue with Tag actions which were not working on Closed Event for a Modal Popup screen on panel targets, based on CE OS.
		#14366	Fixed issue with hourglass that was visible infinitely when running OPC UA on iX TxA.
		#14698	Fixed issue with TrendViewer Legend. Float values are now readable in historic mode.
		#14754	Fixed issue with data decimals which were truncated when importing tag list using switch /ImportTag.
		#14967	Fixed issue when using iX OPC UA Server. After communication error recovery, old stored value was presented until next Value read refresh (Polling rate time).

		#15040	Fixed issue with OPC DA Client Memory leak when reconnecting to an OPC server.
		#15175	Fixed issue in Multiple Languages. Strange object text when copying object containing multiline.
		#15268	Fixed issue with newly created alarms that are shown in simulation mode but don't show up on TxB panel.
		#15592 #16582	Fixed issue with Data Logger logging double rows/the same active time twice.
		#16101	Fixed issue with Application crash System.InvalidOperationException.
		#16957	Using Beijer Alarm template does no longer generate a build error
		#17240	Target Memory is now aligned between "Create new project"-wizard and when building the project, showing the same value.
		#17307	Fixed issue with Korean keyboard which did not display characters, only  -characters, when Arial font was used in project.
2.10 SP3 b2.16.154	New features		Support for Chinese Characters in Alarm Distribution via SMS  Feature currently only available for iX TxA/iX TxE/iX TxF-2 panels with image version 1.11 build 1238 or higher.
			Support for Chinese Characters Alarm Distribution via printer
			Decreased web client timeout from 15 to 5 minutes.
			Support for setting own user key for translation by Microsoft Translator
			Support for Google Translate and for setting own user key.
			Reference Manual added to the Start-menu.
			Support for Hebrew virtual keyboard.  Feature currently only available for iX TxA/iX TxE/iX TxF-2 panels with image version 1.11 build 1238 or higher.



			<p>Support for Arabic virtual keyboard.</p> <p>Feature currently only available for iX TxA/iX TxE/iX TxF-2 panels with image version 1.11 build 1238 or higher.</p>
			<p>Support for Korean virtual keyboard.</p> <p>Feature currently only available for iX TxA/iX TxE/iX TxF-2 panels with image version 1.11 build 1238 or higher.</p>
			<p>Enabled FTP access from SD card and USB memory.</p> <p>Feature currently only available for iX TxA/iX TxE/iX TxF-2 panels with image version 1.11 build 1238 or higher.</p>
			<p>Parameter collection for the alarm distributor's e-mail device expanded with alarm group.</p>
			<p>Improved conversion between Information Designer and iX, regarding Macro.</p>
			<p>Included signed Java applet, which make it possible using Remote Access Viewer even after Java 7u51 update and to use VNC from Web browser even after Java v8 update 25 is installed on PC.</p>
			<p>Added HEX and RGB values for color in property grid.</p>
			<p>Resolved issue with keeping the chosen column width of the Database Viewer in Runtime.</p>
			<p>Added support for SSL encryption of E-mails.</p> <p>Enhanced performance of the advanced encryption is currently only supported in iX TxA/iX TxE/iX TxF-2 panels with image version 1.11 build 1238 or higher.</p>
	Bug fixes	#13280	<p>Resolved issue with backlight setting "Keep on if notifier window is visible". The setting was not saved after a power cycle of the panel, but is now saved.</p>
		#13337	<p>Resolved issue with Alarms that were not visible if action "Show Screen" was set for the Alarm Group.</p>
		#13395	<p>Resolved issue with Analog numeric objects showing numbers outside the object, if outline was used.</p>

		#13432	Resolved issue with Ellipse objects that were not rendered correctly on panel targets, based on CE OS.
		#14042	Resolved issue, when getting an error message saying "Current row was deleted" due to corrupt database and the panel hanged in the startup phase. Now the database is automatically repaired and the panel is restarted.
		#14207	Resolved issue when changing Daylight saving from summer to winter time which did not work correctly in iX TxA panels.
		#14320	Solved issue with tags indicating that they were bad in the tag server when they were not automatically flagged as bad in the OPC/UA server.
2.10 SP2 b2.15.5751	Changed functionality		The default value for Security – Access denied visibility has changed from <b>Normal</b> to <b>Disabled</b> .
	Bug fixes	#8443	Resolved issue with missing backslash “\” on iX virtual keyboards.
		#9695	Resolved issue with error message shown for Database viewer object in TxC RT the first time it is opened.
		#9859	Resolved issue with misaligned lines when converting to another target
		#9954	Resolved issue with change of Date and Time in RT that affected the sampling interval of Data Logger
		#9981	Resolved issue with misaligned lines and objects caused by resizing PC project
		#11340	Resolved issue with exporting of Remote Acknowledge Expressions for Alarms
		#12185	Resolved issue with iX Design Time crash when Component Library is expanded
		#12513	Resolved issue with Trend Viewer Legend, not able to access all curves on PC/iX RT
		#12532	Resolved issue in Alarm Viewer - Alarm text not updated if language was changed

	#12549	Resolved issue with database export actions, when configured in scheduler the time format in generated files was changed if project was upgraded from 2.0 to iX 2.10 or iX 2.10 SP1
	#12856	Resolved issue where iX Runtime crashes without generating any crash logs
	#12926	Solved issue with freezing iX Developer when changing target from T7A to PC.
	#13126	Resolved issue with Analog Numeric objects, that could get wrong size in panel runtime/simulator
	#13149	Resolved issue with Audit Trail settings when it comes to Alarm Viewer actions
	#13151	Improved performance when browsing external OPC server.
	#13156	Resolved issue with Remote Access - View Only / Full Access, password does not work
	#13174	Resolved issue with application that did not start up in RT when project was downloaded
	#13182	Resolve issue with panel crash if analog numeric objects have no fill color and screen has no fill color and bevel is used.
	#13278	Resolved issue where lines could be misaligned when converting to another target
	#13350	Resolved issue for iX PC application which took very long to start and when started it crashed within a few days with a System.ArgumentOutOfRangeException exception
	#13360	Resolved issue when changing date/time and then stopping Data Logger, the timestamp of the empty row that was generated in the database was wrong
	#13369	Resolved issue with crash when both OPC UA Client and OPC UA Server is used in the same project
	#13566	Resolve issue where SystemTagScreenName and SystemTagScreenID did not update correctly at moderate CPU loads

		#13646	Resolved issue with tag value that got stuck after momentary action
		#13759	Resolved issue with iX Developer calculating project size incorrectly
		#13860/ #13861	Resolved issues with Data Logger: <ul style="list-style-type: none"> <li>Exceeding maximum number of logged rows</li> <li>Rows missing</li> <li>Multiple log entries for the same time</li> </ul>
2.10 SP1 b2.15.469	Function		Support for new panel targets: iX T4A SoftControl,T7A SoftControl,T10A SoftControl iX T7B SoftControl,T12B SoftControl,T15B SoftControl
			Version check on PC and iX T12C, iX T15C, iX T21C targets. Not possible to download project to mismatching Runtime versions.
			Added OPC UA client subscription settings: Max subscriptions and Max items per subscription.
			Improved tree view visualization when importing tags from OPC servers not supporting browsing of groups and items.
			Alarm Viewer button functionality now available as separate actions, in order to interact with Alarm Viewer from any screen object in the same screen as the Alarm Viewer, or a local Function Key.
	Bug fixes	#4045	Resolved issue Mismatch on drawn objects supporting Bevel and Outline when you check between Designtime and Runtime on iX TxA and TxB panel types.
		#7072	RollerPanel object leak memory on iX TxA and TxB panel types in Runtime is resolved.
		#7083	Animated Label object leak memory on iX TxA and TxB panel types in Runtime is resolved.
		#7095	Action Menu leak memory on iX TxA and TxB panel types in Runtime.
		#7182	Issue resolved when using Chinese OS the font msjh.ttf is selected. This increased the project size with approximately 20 MB
		#7394	When repeat count is active for all alarms and "show latest occurrence" is set in alarm server settings. The alarms always come in the order of first occurrence, even if one alarm is "counted up", is resolved.

		#7448	Changing the name of an alarm group didn't remove the old group name from the alarm viewer filter settings is resolved.
		#9120	When using the OPC UA feature and Multiple tags connected to the same OPC UA address can get out of synch upon rapid toggling, is resolved.
		#9220	When configured and saving a project with panel in Portrait mode could cause that the screen layout will now be shown inside the panel frame area.
		#9324	If you export all the recipes in a recipe collection to a CSV-file (comma or semicolon separated) and then import that CSV-file back into the recipe collection citation marks are added around string tags, is resolved.
		#11058	Norwegian is now available in Bing translation dialog.

	#11066	In Designtime you can't reuse Dynamic text in Alarmrow when export/import alarms between different iX projects, is resolved.
	#11541	3:rd party controls change names when saving/reloading/converting the project. Result that the project didn't work as expected and Script was not executed correctly, is resolved.
	#12073	Visible dynamics was lost when importing Exter project with objects that having visible dynamics. is resolved.
	#12190	Some objects that is used in the component library in 2.0 SP1 is not converted properly when the project is opened in 2.10. If one object isn't converted the whole screen ends up empty.
	#12205	Miscellaneous issues when converting projects from iX 2.0 to 2.10 is resolved.
	#12207	After upgraded to iX 2.10 and using TxA FW b1080, the application could crash when pre-loading the screens was activated is resolved.
	#12269	If you install iX Developer on a PC that already has Microsoft .NET 4.5 installed then the .NET 4.0 framework will not be installed. This lead to a warning shown in iX Developer.  Suppressed the warning in the iX logger, since the correct assembly will be resolved from the GAC (Global Assembly Cache) internal in the operating system.
	#12443	Using a SetAnalog action and set the value to zero on the first try will could cause mismatch of the value, is resolved.
	#12489	Resolved issue when using the OPC UA feature and idling panel when rest of system reboots will cause a Memory leak in the panel.
	#12494	iX Developer could crash when clicking on Translate button when Custom Culture feature was installed on PC.
	#12495	TxA and TxB panels - Multipicture objects was stretched even though stretch was disabled if lock aspect ratio was disabled.
	#12504	TouchComboBox - Size of dropdown list is changed in iX 2.10 compared to iX 2.0. Now it's possible to view as many items as possible on the screen.
	#12574	Analog numeric: Decimal input limits results in strange error message is resolved.

		#12602	Resolved issue in iX Developer DesignTime, reduce the memory consumption, especially for large projects (about 1MB RAM) to avoid OutOfMemoryException.
		#12859	Alarm Distributor, only one of a number of buffered alarms is printed on USB printer is resolved.
		#12889	Text object in Combo box was cut in half, is resolved.
iX 2.10 b2.10.1042	Function		Support for new panels: iX T7AM, iX T15BR and iX T15BM.
			Improved Project and ip settings copy, from SD card and USB
			New action for Project database backup
			SNTP client
			Support for Portuguese language in Developer
			Improved property grid. <ul style="list-style-type: none"> <li>• Possibility to make own favorite property grid</li> <li>• Enhanced action functionality in the property grid</li> <li>• Possibility to expand/collapse groups of properties</li> <li>• Possibility to copy properties</li> </ul> Show only changed properties
			Direct address input on object using Tag browser
			Remove unused tags. Unused tags can be detected and deleted
			Improved translations
			Import of multiple pictures
			Smooth movement of needle in Circular meter object
			Text id on Multiple Languages
			Improved filter functionality in component library
			400 vector based XAML symbols added to the component library
	Support for XAML object		
	Script action, to be able to run functions from a script module		

			Object variations. Functionality to directly show pre-made graphical design and to save your self-created graphical design.
			Color change on Alarm Viewer, Database Viewer and AuditTrail Viewer
			New Action group "Recent", show 4 latest used actions
			Improved picture browse dialog
			System text import, pre-made texts for some languages
			Shortened startup time for iX Developer
			Support for additional customer features
			Removed obsolete component library symbols
	Removed		ValueOn / ValueOff event now works on internal tags
	Bug fixes	#3639/ #4091	Screen Close Action does now work correctly if more than one popup are displayed at the same time
		#6995	Popup Numeric keypad from an Analog Numeric object is now not displaying the Prefix and Suffix in it.
		#7285	Resolved issue when Roller Panel in some cases never stopped rolling
		#7598	Resolved issue that there in some cases could be a mismatch between visual tags and tags.neo file after removing tags created using Create series on an object
		#7888	Issue with mismatching Data Types iX Developer <> output when importing Information Designer project containing ASCII object, is resolved.
		#8067	Resolved issues with resizing line that could result in either not resizing at all or if possible a negative value could be achieved
		#8185	Resolved issue that in some cases, when using Create series, changing the address of one tag could change the address of a second tag
		#8312	Resolved issue with memory leak in Alarm Distributor
		#8325	Resolved issue that boot-up time of iX-application was affected by number of logged rows in database



	#8429	Issue with objects moving relative to each other, when using snap to grid and several objects moved simultaneously, is resolved
	#8493	Resolved issue with dynamic min/max of trend curves that did not show its history properly, when leaving screen and coming back
	#8524/ #9137	Removed possibility to edit Outline Thickness in Property Grid for grouped objects, since iX could in some cases crash when changing outline thickness on grouped objects
	#8554	Resolved issue with too many active tags that would make the application crash. The limit is now four times higher
	#8631	Resolved issue with strange time sync problems, by synchronizing between system tag writes
	#8632	Resolved issue with not updating System Tag for Latest Loaded Recipe Name, even if the recipe data was transferred to the controller
	#8697	iX Developer is now able to handle Database export to write-protected ("Locked") SD card, which could crash the runtime before.
	#8780	Resolved issue with default style for button, which could lead to that configuring a button with no outline still resulted in a button with an outline in runtime (WinCE only), by adding a new button default style to be used in design time.
	#8855	Resolved issue with erroneous data in Exported CSV files
	#9002	Resolved issue in Webserver that iX.Tag.subscribeToChange now only should execute the connected function if the value of the tag is changed
	#9073	Resolved memory leak issue, that could result in application runs out of memory and closes, by improving logging to database
	#9287	Resolved issue with communication error notification window that became stuck after a while even if communication was reestablished. The issue was due to date change
	#9334	Resolved issue with application crash when making >1000 screen changes, when having communication error.
	#9360	Resolved issue with graphics corruption in runtime, when an even outline thickness is used at Dynamic move.

	#9362	Resolved issue with text position within analog numeric when aligning text to the right. This did not look good in runtime compared to design time
	#9364	Resolved issue with outline thickness on analog numeric, that did not look good in simulation or in runtime (WinCE only),
	#9507	Resolved issue with Alarm Distributor resending alarm mails at startup if multiple alarms were triggered in rapid succession
	#9509	Resolved issue with Close Application -action that did not work. Still the project does not restart automatically, if no tag is connected to any controller
	#9511	Resolved issue with memory leak while communication error
	#9583	Resolved issue with bit actions (e.g Set/Reset/Toggle) that did not update the tag value, when in Recipe Offline mode
	#9637	Resolved issue with memory leak and application crash, when using distributing alarms
	#9710	Resolved issues with changing language (directly or through a tag) when doing a screen jump. Sometimes not all texts were translated
	#9789	Resolved issue, that it was not possible to download project to panel if project name or path to project did include "İ" when using Turkish operating system
	#9954	Resolved issue with change of Date and Time in runtime that affected the sampling interval of Data logger.
	#10187	Resolved issue with settings for Visible/isEnabled that were not converted correctly, when converting project from iX 1.31 to iX 2.0
	#10369	Resolved issue when importing a screen containing a control connected to a text library group, the library was not imported, and no build or runtime errors were generated. Now a build error is generated
	#10542	Resolved issue when adding a new language to Demo sample for PC 1024x768, that generated a crash in multiple languages
	#10801	Resolved issue with stopped polling on all configured stations, when having a project with a communication driver with several stations (for example Modbus Master) and first configured station (node) goes down.

		#11541	Resolved issue with third party controls that changed names when saving/reloading/convertng the project.
		#11917	Resolved Webserver issue when sending requests via REST-API. This will now not generate high CPU-load and increased memory consumption.

### Bug fixes in iX Developer 2.0 SP1

Version	Function / Bug fix	ID (internal)	Description
iX 2.0 SP1 b2.0.463	Function		Improved functionality for the onscreen numeric keyboard, changing showing (.) or (,) depending on region setting.
	Bug fixes	#7942	iX TxC application crashes after boot-up, AlarmDistributor could not be created
		#7961	iX crashes when selecting tag/Data Logger item in Trend Viewer (if Accessibility tools are enabled)
		#7978	Estonian flag is not correct (Component Library)
		#8076	ValueChanged event triggers multiple times, when using PreventDuplicateEvents=false on Tag
		#8085	Alarm communication between server and client interrupts from time to time when there is a clock drift
		#8200	Unable to download application over Ethernet to QTERM-A7. Download times out.
		#8215	Runtime crash when trying to export Data Logger or Recipe from a PC Runtime Database that is larger than 256 MB.
		#8225	New framework 4.5 properties show up in Property Grid, even if they shouldn't.
		#8159	Visible dynamic ignored when using blink. When blink turned off visible dynamic also ignored.

	#8160	Blink and visible on same tag on rectangle freeze object in visible state if two objects configured.
	#8161	Dynamic visible tag is overruled by security visibility.
	#8167	Redesign of security and dynamic IsEnabled to work together.
	#8396	Not possible to install on WinXP without internet connection (framework 3.5).
	#7835	Backlight is turned on even if "Keep backlight on if the notifier window is visible" is disabled.
	#7838	Non-volatile internal tag cannot be used as "Tag for current Language".
	#7839	Dynamic min/max value on Y-axis causes X-axis (time scale) to reset itself in History Mode.
	#7845	Tags still poll when the Data Logger is stopped even if they are not used by other objects anywhere else.
	#7849	Keyboard covers security dialog.
	#7882	Visibility/Dynamics with the object Line over another Line shows the wrong thickness.
	#7886	TrendViewer's Curve Visible property does not work the same way as in iX 1.31.
	#7887	MouseUp Action not working properly on grouped buttons.
	#8247	iX Developer: Project download does not include the time settings correctly when time zone is set to GMT in project.
	#8256	AlarmItem state is not translated in runtime.
	#7431	Cannot access Driver Routing Parameters in iX Dev 2.0.
	#7550	FTP paths containing national characters making it impossible to connect.
	#7136	Unable to Build / Rebuild panel project if screen resolution is 1024x768 and iX Developer is maximized in W7 64-bit.

		#7164	Tags connected to an OPC server gets stuck if set/reset too quickly from a "momentary" button.
		#7165	Recipe Import - Not working with scaled tags.
		#7167	Not possible so save/build iX 1.31 project in iX 2.0, due to Database export actions located in designers wasn't converted.
		#7274	Fixed memory leak in Group objects on PC platform.
		#7399	Copy tags from tag list doesn't work.
		#7410	Reconnection OPC Client does not work correctly, [RST] packet from server is ignored.
		#7297	Value of external tags are frozen directly after a screen jump.
		#7604	Dynamic - Visibility doesn't work with grouped line object.
		#7613	Jump to previous screen does not work if pop up windows have been displayed.
		#3646	Logged in user is not added to Audit Trail database at an Alarm Acknowledge event.

**New features, removed functionality and bug fixes in iX Developer 2.0**

Version	Function / Bug fix	ID (internal)	Description
iX 2.0 b2.0.356	Function		Support for new panels: iX T7B, iX T12B and iX T15B. Support for new panels: iX T12C, iX T15C and iX T21C.
			X/Y Chart
			Alias
			Array Tags
			Improved Screen Explorer
			Import/Export Recipe to FTP/USB/CF

		OPC UA Client
		OPC UA Server
		Web server Requires panel image version b148 (iX TxA) or greater.
		New display tag
		Report Generator - Enhanced printing function Requires panel image version b148 (iX TxA) or greater.
		Upload/download and verify project from panel Requires panel image version b148 (iX TxA) or greater.
		Action Menu object
		Animated Label object
		Touch Combo Box object
		Touch Listbox object
		Roller Panel object
		Scale Dynamics in RT CE
		Trend and Data Logger separated.  When converting project from previous iX versions all curves in trends will still exist but configured as realtime trends. Manual configuration will be needed to log history data.
		Styled System Dialogs
		Multi Text for button
		Improved ADP import
		Rebuild Project Button
		Project transfer: Only files in the root folder of Project Files is deleted.
		Context sensitive help
		Database Clear Action

			Data Logger start/stop
			Analog numeric: Show with the character # the number of characters in Designtime when "Limit number of characters" is checked.
			Font color icon in Ribbon is updated to the color of the selected object.
			Key combination to create e.g circle from ellipse, square from rectangle and straight lines.
			Possibility to save favourite colors in color picker dialog.
			Renaming of screens, tags, recipes etc -> Update all references so that you don't get build errors.
			Improved Audit Trail Viewer RT.
			Improved Enter-behaviour in minitoolbar when choosing tags.
			Improved RT Keyboard handling.
			Print Screen Action.
	Removed		Support for old panels removed (T40, T60, T70, T100, T150, K60, K70 and K100). Projects created for these panels can be converted to the newer panels by the following steps.  <ol style="list-style-type: none"> <li>1) Convert the project to corresponding TAx panel or iX TxA in a pre iX 2.0 version.</li> <li>2) In iX 2.0, convert the project from TAx panel or iX TxA panel to any of the newer panels, iX TxA, iX TxB or iX TxC.</li> </ol>
			Some script functionality is removed.
	Bug fixes	#5709	Analog numeric String with Limit Characters do not work for numbers.
		#5705	Problem with Font when installing iX.
		#5812	All added picture previews found in designer are turned upside down.
		#4997	Database Export - Audit Trail, does not work.
		#5535	iX RT Analog Numeric, comma(,) input does not work from a physically connected alphanumeric keyboard.
		#4998	Database viewer in iX for T150 cannot show Chinese language.
		#5613	Style "eclipse" reverse the scale on "slider" and "linear meter" objects.

	#5644	Data Logger "log changes only" tickbox has no effect. All values are logged.
	#5541	iX crash when trying to enter a value in the controller field when using magnification in OS.
	#4788	Action Close, has different behaviour if you're using it as single action or multi action.
	#4758	OPC Dataltem is dropped if closing the screen directly after assigning the values to the OPC Dataltems.
	#5426	Modbus Master Driver - Import/Export to Excel does not work.
	#5038	Alarm distributor don't support ÅÄÖ if using Print Device (Serial Printer).
	#5529	Chinese doesn't work in the Audit Trail Viewer.
	#4089	iX Alarm Item Action -> Show Screen Action with position X/Y given does not open the popup.
	#4993	Blink for Dynamics can't be cleared.
	#4983	Using national characters in the project name causes the project startup to fail after a transfer to a panel.
	#4379	Graphic drawing: When selecting object they move 1-2 pixels.
	#4735	Screen actions can be set but doesn't work.
	#5873	Possible to access C# functions, events and properties not supported by Compact Framework.
	#6067	Analognumeric validation warning color always shown when value changed from lower limit to upper limit.
	#6235	MouseUp event actions are not performed on buttons that are pressed when a screen jump is triggered.
	#6243	iX alarm viewer, ack all action re-acks all previously ack'ed alarms. Breaks functionality of Alarm Distributor.
	#6271	Multi-Language editing objects in closed screen, old text overwrites new.
	#6512	Turkish i in a Script will make iX freeze.



**New features and bug fixes in iX Developer 1.31**

Version	Function / Bug fix	ID (internal)	Description
iX 1.31 b1.31.93	Function		Analog meter with clockwise/anti clockwise scale.
			Added QTERM A7 and A12 panels support in iX developer standard version.
			Portrait / landscape mode for iX T7A, iX T10A panels. Require panel image version b141 or greater.
			Added system tags for LED control iX TxA panels. Require panel image version b141 or greater.
			Pincode/password for access to servicemenu in iX TxA panels. Require iX TxA panel image version b141 or greater.
			New transfer functionality for PC with Xp operating system.  For Windows 7 and Vista operating system the current transfer to folder functionality must be used.
			Improved Information Designer Import.
			Added ADP import.
	Bug fixes	#3461	F5 and F6 altered, F5=build/RUN, F6=Validate.
		#4669	Alarm Viewer - Shading effect making text less readable corrected.
		#4773	iX RT crashes when changing languages.
		#4777	iX TxA Downloading recipe crashes the application.
		#4908	iX panels reboots and freezes in controller settings after security auto logout.
		#4969	Database size not allowed to exceed 256Mb limit corrected for PC.  Max database size PC: 3999 Mb. iX panel: 128Mb.
		#5032	Polyline not working on some installations of iX due to regions setting.
#5140	Graphic drawing: When marking object they move 1-2 pixels.		

		#5130	Multilanguage text can be duplicated making it impossible to open project. "An item with same key has already been added."
		#5057	Opc Client crashes the application because of overflow when calculating downtime.
		#4868	System.IndexOutOfRangeException: Index was outside the bounds of the array.
		#5160	Line and Polyline is not possible to select if "Snap object to grid" is enabled.
		#4571 #4724	Better support for large pictures in iX.
		#4670, #4434	Improved handling when converting applications.
iX 1.30 b1.30.445	Function		Support for iX T4A, iX T7A and iX T10A
			New images for iX Panels with support for new hardware version, IML_b0373 och IML_b0374.
			New menu languages: Simplified Chinese and Traditional Chinese.
			Support for Simplified Chinese and Traditional Chinese input keyboards in runtime.
			Improved performance when building and compiling a project.
			Improved performance at screen switch time.
			Support for animated .GIF objects.
			Improved layout in runtime for small displays: Styles, adjusted for small displays, added. Larger handle for sliders. Number of major ticks reduced for meter. Possibility to choose horizontal or arc shaped scale for circular meter.
			Improved Alarm Viewer:

			Improved performance. Improved design. Improvements when using Alarm Viewer in smaller displays.
			Support for showing number of occurrences of alarm in Alarm Viewer.
			Support for making security settings for each screen.
			Global grid settings for screen designer added.
			Multistate button object added.
			Structure of component library improved.
			Support for database export.
	Bug fixes	#2885 (#3288)	Dynamic visibility stopped working as soon as security was assigned to an object.
		#3204 (#3224)	iX runtime issue when using custom pictures in symbols.
		#2918 (3207)	iX runtime terminated if an object was grouped together with AlarmViewer.
		#3114	iX Panel TA150 froze when the AutoLogout action and Automatic screen jump were performed simultaneously.
		#3149	Trend would sometimes terminate when new data was triggered and the trend was disposed due to a coming screen change.
		#3313	Automatic logout failed after a while when making repeated screen jumps at high frequency.
		#3372	Trend terminated when automatic logout and screen change were performed at high frequency.
		#3404	Automatic logout and screen change at high frequency made panel locked in screen change after a while.
		#3177	Automatic logout based on security settings did not work in runtime.

**New features and bug fixes in iX Developer 1.20 SP2**

Version	Function / Bug fix	ID (internal)	Description
iX 1.20 b1.22.12	Function		Support for iX Panel TA70, iX Panel TA100 and iX Panel TA150.
			Possibility to change driver settings and panel IP address in runtime.
	Bug fixes	#2341	Tag import did not support offset/gain.
		#2115	Cancel in screen script for popup screen would position the popup screen behind the regular screen in runtime.
		#83	The MouseDown action (for button) on EPC would trigger e.g. a digital bit twice when pressed.

**New features and bug fixes in iX Developer 1.20 SP1**

Version	Function /Bug fix	ID (internal)	Description
iX 1.20 b1.20.530	Function		New merge strategy in case of name conflict when importing tags, alarm items or text libraries.
			New merge switch when importing tags from the command line: <b>/MergeImportTags</b> Imported tags are merged with existing tags. Values from the import file are copied to existing tags. If the switch is omitted, an overwrite is made = existing tags are removed and new tags are created with values from the import file.
iX 1.20 b1.20.530	Bug fixes	#2113	iX Developer projects were dependent on regional/culture settings on the computer. iX Developer did not store region-dependent operating system settings. When opening a project with another regional setting it did not work in all cases, depending of the different settings for selected regions (ex. comma vs. decimal point).
		#2114	EPC Runtime in demo mode: Problem to read BIOS and find "iX" license handling.
		#2222	Adding GeneralDynamic to IsReadOnly on an analog numeric and connecting it to a tag with local data type bool and globals as default would generate an error in runtime.

**New features and bug fixes in iX Developer 1.20**

Version	Function /Bug fix	Description
iX 1.20 b1.20.506	Function	New menu languages: Italian, Spanish, French.
		Support for keyboard panels (K60, K70, K100).
		Navigation Manager pan/zoom tool.
		Debug button for script debugging.
		Tags: Startup value added. Nonvolatile option added. Datatype for global tags can be different than the connected controller tags. Tag import with file preview and tree structure view for struct/arrays.
		Expressions on tag value, allow for bit addressing in words, math functions etc.
		Separate objects for Picture and Multipicture.
		Import/export of alarms added.
		Popup windows : flexible position.
		Trend improvements: Values cursor added. Individual ON/OFF of curves. Zoom/pan. Performance.
		Improved FDA Show all actions in grid with checkboxes. Cyclic datalogging. FDA Description on all objects.
		Improved Circular Meter with added color scale functions.
		Buttons stylable.
		Database viewer object added.
		Text library: value intervals added.
		Blink support for graphical objects.
		Create series in designtime added.
		New system tags: Current user, CE Image version.
		New action: Close application.
		Communication drivers now support for tunneling, transparent mode.
iX 1.20 b1.20.506	Bug fixes	Branding support implemented.

		VNC: Remote Access Dosent work with Decanter project, VSC.exe stops working when connecting.
		VNC server in iX can only handle 7 characters in password.
		Trend: Dynamic Min / Max dosent update on trend when changing values (must shange screen to get new values in trend).
		Unable to enter number in analog numeric if display format is string. If you first write 123 and hit enter the you can't enter a new value.
		Audit Trail: You have 2 value field, not logic.

### New features and bug fixes in iX Developer 1.10

Version	Function /Bug fix	Description
iX 1.10 b1.10.99	Function	Support for Google/Microsoft automatic translation in Multiple languages function.
		Two new system tags: Image version and iX version.
		Forced write action for tags.
		Change of OPC server connection in startup wizard.
		New default style for some objects and new quick styles.
		Performance improvements in design time: - Startup time
		Performance improvements in runtime CE: - Startup time
		Support for PC/ iX Panel Pro /iX Panel T40, T60, T70, T100, T150
		Application conversion iX Panel <-> iX Panel Pro/PC.
		Automatic graphic resizing when changing screen resolution.
		Import of Information Designer projects.
		The new designer tool Object Browser makes it possible to - Lock/unlock individual objects. - Hide/show individual objects. - Move objects in Z-order.
		The new designer tool Cross References - Shows where a tag is used. - Possibility to jump to referenced location.
		Tag filter with IntelliSense/auto complete (also in screen objects).
		Screen templates/library makes it possible to - Import template screens (tags can be added automatically). - Save screen as template screen.
		New Property Grid with - All object settings in one place. - Advanced settings added.
		User-configurable Quick styles.
		Blend-style position/size-cursors.
		Popup screen position and size can be set with mouse.
		Selectable grid settings.