

VTScada version 12.1.56 - Released October 15, 2024

New Features

ID	Description
F1833	Watch Expressions in the Source Debugger now support script-only expressions that can be manually refreshed.
F1806	There is now a search bar and an alphabetical sorting option in the Idea Studio's widget and image palettes.
F1759	VTScada now supports Page Shuffling with OpenID connect sign ins.

Incidents Cleared

ID	Description
I23528	The Enron Modbus driver was using function code 6 instead of 16 for writing to addresses with the S8 prefix.
I23461	Improved the wording of "Restore your previous license key and deactivate first" in the activation dialog.
I23452	The OCPP Driver could show that it was still connected when it was not if the device it was connected to did not gracefully shut down.
I23422	VOIP calls used to fail for applications containing Chinese characters in their name.
I23414	The BACnet Driver failed to record successful communication counts.
I23375	Configuring an SMS appliance tag with an IP address instead of a machine name caused RPC queue congestion.
I23339	Applications with many Notebook tags were very slow to start.
I23305	The recipes in a Recipe Book were cleared after importing recipes with a wrong configuration of Excel file or sheet name.
I23276	The course simulator did not clearly identify itself as a simulator.
I23065	An Overridden value of a parameter expression in a child tag couldn't be removed.
I22958	The VTScada Internet Client (VIC) could crash in rare situations involving the embedded web browser.
I22942	The Security Guidelines Manual has been updated to reflect the importance of securing client machines when the Stay Signed In checkbox is enabled.

VTScada version 12.1.55 - Released September 24, 2024

New Features

ID	Description
F1895	The DNP3 Driver now supports master-initiated time synchronization and has the option to ignore outstation time synchronization requests.
F1783	VTScada now logs error information as text to the new file Errors12.log.

Incidents Cleared

ID	Description
I23503	The Toyopuc Driver would fail command relay attempts with an exchange number mismatch error.
I23476	Files larger than 64KB would take longer than necessary to compress into an archive using the Zip function.
I23437	The OPC Core Components have been updated to the current release (version 108.41).
I23412	Making changes to I/O tags could result in slower communications by the BACnet Driver.
I23379	When retrieving equipment type values over the ODBC, REST, and SOAP interfaces, clients would receive the equipment type's translation key rather than the equipment type in the connected user's language.
I23253	A VTScada application needed to be restarted in order to disable or enable the logging of driver communication statistics.
I23153	MadCap flare custom help files could not be accessed from the Anywhere Client.
I23094	A provider's grant information could remain visible after deleting the provider in the OAuth 2.0 Settings dialog.
I22100	The Excel add-in Tag Selection dropdown list would display Tag Selection names outside of the option's boundaries.

VTScada version 12.1.54 - Released September 12, 2024

Incidents Cleared

ID	Description
I23454	The Enron Modbus driver could not read historical data after encountering a record with a bad timestamp.
I23424	An OPC UA Client Driver experiencing communication problems consumed significantly more CPU than necessary.
I23418	OPC UA Client Driver's Server Timestamp Alarm was not automatically acknowledged even though the auto-acknowledge feature was enabled.
I23417	The Rockwell Driver became unstable when reading local variables in add-on instructions and "Not a Number" values.
I23395	A misleading dialog was displayed when user clicking on a disabled Execute/Cancel button which was associated with a feedback tag.
I23389	The performance of text drawing has been improved significantly.
I23388	Pages with lots of GUI Elements used to consume more drawing time (CPU cycles) than necessary.
I23366	The Camera widget was not resuming on thin clients following connection loss.
I23266	The JSON/XML driver could respond slowly to incoming packets when multiple driver instances had the same URL and configured at a high poll rate.

- I23236 The VOIP configuration did not allow setting a lower registration interval.
- I23051 Using the help function in the Add Property dialog opened the Copy Property dialog help documentation.

VTScada version 12.1.53 - Released September 03, 2024

New Features

ID	Description
F1897	The Mitsubishi Driver now can communicate with FX3U series PLCs using 1E frames.
F1892	The DiscreteLabelSet parameter in the StyleSettings tag is now translated when retrieved by SQL queries.
F1844	The Toyopuc Driver now supports the Relay Command function to forward commands to other PLCs on the network.
F1822	VTScada now disables opacity editing within the color selector in contexts where it is inapplicable.

Incidents Cleared

ID	Description
I23450	Drivers with Hold enabled could have reported bad values on server failover if the new server failed to communicate with the PLC.
I23425	Enabling OPC UA Client Driver Diagnostics enabled tracing for all OPC UA Client drivers.
I23391	Several tag types could not handle their "Units" parameter being supplied as valid non-text formats, such as Dictionaries or Phrase Structures.
I23382	The Modbus Driver and Toyopuc Driver could have failed to rewrite values to the PLC even if the AutoRewrite option was enabled.
I23343	Reading thousands of tags with the BACnet Driver resulted in excessive CPU use.
I23327	The Oil and Gas Solutions email template failed to email a report unless the report template was configured to send an alternate report file.
I23157	A repeating roster was only notifying the first contact of cleared alarms.

VTScada version 12.1.52 - Released August 17, 2024

New Features

ID	Description
F1871	VTScada now supports acquiring Daylight Savings Time information for a given year and time zone name.
F1841	There is now support for placeholders in parameter phrase edit field functions.
F1840	There is now an option to display a user's realm in the application title bar.

Incidents Cleared

ID	Description
I23410	The opt-out capability for receiving alarm notifications has been withdrawn.
I23385	Updating the content of an image file would not cause button widgets to display the new image on the fly.
I23364	The user was unable to set the description field of the Opto22 Mux Driver Tag.
I23331	A few Mitsubishi Driver phrases ended with extra spaces in Chinese translation.
I23319	Camera streams could buffer too many frames where client connections are slow.
I23304	Incorrect code coverage could be reported for child modules that were not in the same source file.
I23286	The Recipe Book tag would not default its I/O Device to the *Driver context type.
I23210	The "Root Tag Token" terminology pertaining to the Control Tokens subsystem was renamed to "Global Token" for better clarity.
I23202	The name of the client certificate could not be changed on a copy of an existing OPC UA Client Driver tag.
I23191	An Alarm List widget configured to ignore global tag and area filtering would continue to filter alarms from custom Alarm Databases.
I23183	The SNMP driver and agent were using less preferred implementations for generating some values used for encryption.
I22941	The Anywhere Client login page would suggest a username and password even if the user had not selected the "Remember Me" option.

VTScada version 12.1.51 - Released July 24, 2024

New Features

ID	Description
F1869	VTScada now exposes an API providing access to live MJPEG IP camera frames.
F1761	VTScada now supports opting out of receiving alarm notifications via SMS, Email or Voice for A2P 10DLC requirements.

Incidents Cleared

ID	Description
I23326	Unchecking Show Toolbar in the DrawHDV widget could set the time selection scroll bar back to the earliest possible time.
I23314	Attempting to connect to a Siemens OPC UA server could have failed.
I23306	The Enable VOIP/Twilio checkbox was not dynamically enabling or disabling the settings fields for the Default workstation if other workstation-specific VOIP/Twilio settings had been configured.
I23303	The DriverMUX could stop polling with a Modbus Driver during a failover with a valid Health Check Rate.
I23232	Multiple Write Priority Indicator widgets could have added unnecessary network traffic when monitoring the same BACnet object.
I23219	It was possible on failover that data attributes would not get updated for IO tags if a driver failed to communicate with Hold enabled.
I23033	The Fast Scan widget's name was not displayed correctly.
I22916	The properties dialogs of Pulse Input, Rate of Change, and Realm Display Setup tags were misaligned.
I22760	The Excel Add-in would display certain panel backgrounds in dark mode reducing the visibility of text and other elements.

VTScada version 12.1.50 - Released July 16, 2024

Incidents Cleared

ID	Description
I23344	PLC Alarm tags were not functional in VTScada 12.1.48 and 12.1.49.

VTScada version 12.1.49 - Released July 10, 2024

New Features

ID	Description
F1854	A new GetTagConfiguredParameters() function is now available which can be used in combination with OpChange or ModifyTags (with their Merge parameters set to false) to remove parameter overrides.
F1835	The Tag List widget now has an option to hide the scrollbar which can be used to limit the number of widgets displayed.
F1819	A new MakeAlarmRecordSpeechFile() function is now available for generating a .wav file that audibly speaks an alarm.
F1810	The I/O and Calculation tag can now be configured to write values outside of the Scaled Process Min and Max range.

Incidents Cleared

ID	Description
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I23310	The Poll Driver could get stuck if its driver was a DriverMUX and some of the IO tags were using the DriverMUX instead of the Poll Driver.
I23300	If the Secondary driver of a DriverMUX tag failed while the Primary driver was already in a failure state, the DriverMUX would still switch to the Primary driver.
I23263	Clearing the GroupLogin, NameSpaceDelimiter, and/or RootNamespace settings did not take effect until VTScada was restarted.
I23251	A plot data widget that had been paused could not be resumed without reloading the page.
I23243	VTScada was experiencing delays in receiving inbound messages when using an MTCM2-L4G1D-B03 MultiTech SMS modem.
I23194	Non-ASCII characters were not displayed properly in the body and subject of emails sent from VTScada.
I22369	Clicking a Fast Scan button on the MIC would not enable fast polling.

VTScada version 12.1.48 - Released June 25, 2024

Incidents Cleared

ID	Description
I23297	The Rockwell Driver's stats dialog could have shown Unknown Error Code for a known error.
I23278	When exporting Realm Display Setup Tags to Excel, the 'Description' header appeared as 'DSQL_PHRASEIDescription'.
I23260	Supplying a manual value to a newly created tag would log an unnecessary event.
I23257	The OCPP Driver could have shown stale values when not actively charging.
I23254	Alarm notifications could stop being sent on a roster if that roster was in the middle of a voice call when the Alarm Notification server role switched to a different machine.
I23224	The option to shelve tokens and locks was needlessly enabled.
I23222	Several tag types could not handle their "Units" parameter being supplied in valid non-text formats, such as Dictionaries or Phrase Structures.
I23212	The thin client's device name was not logged when control tokens or requests were automatically released upon logout.
I23199	In the Adjust Image dialog, you could set saturation values from 0 to 4, but the maximum possible value was 2.
I23184	The SMS Indicator widget was displaying no signal on workstations that were not connected to the SMS modem.
I23110	The comment for the property SlippyMapMaxTileSize in setup.new was misspelled.
I22884	The Rockwell Driver logged address errors inefficiently.

VTScada version 12.1.47 - Released June 12, 2024

New Features

ID	Description
F1870	The OCPP Driver now supports reporting the Name and TransactionID to IO tags for charging events.
F1804	VTScada now supports flashing the task bar when there are unacknowledged alarms.
F1781	The Workstation Status driver tag now reports current System Total Memory, System Used Memory in bytes, System Used Memory as a percentage, amount of unused RAM on the system in bytes as well as the amount of RAM available for use by applications and processes in bytes.

Incidents Cleared

ID	Description
I23274	When changing the selected tab of a folder widget between two tabs that were displaying the same page or widget but with different parameters, the page or widget in the folder widget would not restart, potentially leading to display issues.
I23238	Importing a subset of the modified files in the Import File Changes panel did not import any modified files unless all modified files were selected.
I23159	The "Serial number change" warning dialog lacked the installation ID, making it difficult to identify the machine in use.
I23117	The recipe version was reset upon re-entering the Recipe page.
I22934	The BlockWrite function could cause a crash when handling parameters provided in a specific way.
I22486	It could take two attempts to open the Application Configuration dialog when running VTScada as a service and accessing the Application Manager using a thin client session.

VTScada version 12.1.46 - Released May 29, 2024

New Features

ID	Description
F1860	The Driver Discovery tool now supports finding Delta AH, AS, and DVP series PLCs.
F1849	VTScada now supports sending SMS (text) messages via SIP/VoIP.
F1820	The VTScada OPC UA Client Driver now supports embedded OPC UA servers in a Siemens equipment.

- F1795 It's now possible to relinquish command actions from specific priorities in BACnet devices.
- F1716 The configuration panels of most control widgets have been redesigned. Control widgets can now be disabled via expressions.
- F1627 The ZLib library used by VTScada has been updated to incorporate the latest security fixes.

Incidents Cleared

ID	Description
I23206	The Control Token Box widget was requesting and releasing tokens when the page was in preview mode.
I23193	Some status information could not be read with the OCPP driver.
I23171	The SNMP Driver could cause a delay in other application processes for some time while receiving a trap in some network configurations.
I23144	It was possible for values to be assigned to the wrong tag when using shared RPC services with the TeleBUS Driver.
I23135	Tracing control token events in detail was not possible due to the absence of dedicated logging.
I23126	VTScada could use high CPU and have reduced responsiveness when a Historical Data Viewer window was minimized.
I23120	In an application with several Poll Drivers that were using the Driver Multiplexer, when one site's primary and secondary drivers were in failure, all the other Poll Drivers took longer to do their polls than when there were no failures.
I23111	The bottom of the bevel for a set of horizontal radio buttons was positioned inconsistently with that of a set of vertical radio buttons.
I23096	Control tokens could not be released via the user interface if they had been filtered out by Global Tag and Area Filtering.
I23079	It was possible for values to be assigned to the wrong tag when using shared RPC services with the Modbus Driver.
I23001	The "Add Watch Expression" option in the Source Debugger could not access a variable called "Value" in the current debug scope.
I22982	The "Are You Sure" dialog shown when canceling changes in a widget's config folder added unnecessary clicks to the cancel process.
I22901	A single bad read address with good read addresses could cause non-stop polling with the Driver Multiplexer in Primary Preferred or Secondary Preferred modes.

VTScada version 12.1.45 - Released May 14, 2024

New Features

ID	Description
F1859	VTScada now logs changes to a tag's Manual Data as an event.

F1855 The Alarm List widget can now be configured to "Ignore Global Tag & Area Filter" for situations where this filter should not affect the alarm list.

Incidents Cleared

ID	Description
I23066	Page/Widget export from Idea Studio did not include the PhraseIDs for the parameter descriptions or the page/widget title.
I23050	Certain sites were not displayed correctly in the Anywhere Client if the site relied on cross-origin requests.
I23012	Folder widget tabs used to flicker when changing between tabs with pages containing animations.
I22611	If "Automatically acknowledge alarms when they clear" was enabled, whenever an alarm cleared, it was logged as a "Normal Ack" event even if it had already been acked.

VTScada version 12.1.44 - Released April 30, 2024

New Features

ID	Description
F1853	The ancestor tags of any I/O and Calculation tag now keep count of how many child I/O tags are marked as Questionable and/or have Manual Data.

Incidents Cleared

ID	Description
I23133	Types Float, SDWord, and UDWord may not have been written correctly above register D32767 using the Delta Driver with AH series PLCs.
I23124	Twilio could have hung if the workstation-specific settings file name used a different capitalization scheme than the workstation name.
I23122	Rockwell drivers in CSP mode were unable to prioritize write actions in PLCs with a high tag count.
I23092	IO tags connected to a Modbus driver would not invalidate their values when connection to the communications server was lost.
I23073	TeleBUS driver could hang communications on a port if its Modbus read failed.
I23067	It was possible to clear the output destination of a Report tag resulting in a misconfiguration.
I23059	Recent Notebook entries were sometimes lost when restarting if the connection to the Notebook tag's historian server failed.
I23042	The OPC UA Client Driver failed to invalidate I/O data on connection loss even with the Hold parameter set to FALSE.

I22996	Item palette images would be displayed incorrectly in the Anywhere Client when choosing a Thumbnail for a folder.
I22994	The ABB Totalflow driver would always hold values on comms loss even if its Hold parameter was not set.
I22964	Poll Drivers using a Driver MUX did not poll serially.
I22947	The IO and Calculation tags whose calculated values changed frequently could bog down the network.
I22810	When the application property MakeActiveAlarmUnackedWhenUnshelved or MakeActiveAlarmUnackedWhenEnabled was set to 1, unshelving or enabling an active, acked alarm would create two entries for the alarm in the Current alarms list.
I22740	The OPC UA Client driver did not support multiple writes.

VTScada version 12.1.43 - Released April 18, 2024

New Features

ID	Description
F1832	The SMS indicator widget now features a signal strength indication, giving users a quick way to assess connectivity.

Incidents Cleared

ID	Description
I23105	Tag values could stop updating if two different active rosters tried to call out at the same time using the same VOIP configuration.
I23058	The Spinbox function when used on the Anywhere Client would not set its Trigger parameter when the user clicked the spinbox arrow buttons.
I23046	The Delta Driver would fail to write to D registers exceeding 32767 for AH series PLCs.
I23045	In rare cases, the Idea Studio could become unresponsive after hitting Cancel on the Edit OEM Page dialog.
I23034	Exporting a recipe book with a multiple of 26 ingredients to an Excel spreadsheet would cause bad recipe ingredients to be imported when importing that spreadsheet.
I23018	The Rockwell Driver did not work with the Driver Multiplexer in Automatic Selection mode.
I23016	OAuth consent could use the incorrect account if an account was already signed in on the browser.
I22987	The CSV Data driver could not correctly parse a file if it started with a byte-order mask and had no headers.
I22888	The SIP information sent to a VOIP server was missing the User-Agent field.
I22887	The Modbus and Toyopuc drivers could switch servers unexpectedly.

- I22559 If no editor was associated with VTScada .SRC files, the VTScada installer would associate WordPad, which has been deprecated by Microsoft.
- I22488 If the Report Options check boxes on the Reports page were accidentally clicked multiple times in quick succession, they would toggle indefinitely.
- I22414 The OAuth system did not have sufficient diagnostic logging for some operations.

VTScada version 12.1.42 - Released April 07, 2024

New Features

ID	Description
F1825	The Color Selector now supports the manual input of a color value in various formats.
F1823	An API to close the current pop up window has been added.
F1771	The Import File Changes panel in the Application Configuration dialog now supports the ability to add new files. This functionality was previously only available with the Application Manager's Import File Changes icon.

Incidents Cleared

ID	Description
I23048	VTScada could hang if an SMS agent unregistered before an attempt was made to send a text message.
I23043	The Honeywell Mercury driver could not be used without special permission. This restriction has been lifted.
I23025	Adding a parameter expression to the Alarm Disable parameter of the Alarm tag applied it to the Trip parameter instead.
I22985	Some redundant phrases in the language files were removed.
I22981	The Service Status and Call Manager Status widgets were not present in the Analytics\Diagnostics menu of the Idea Studio palette.
I22977	The default reporting period was not set correctly, causing the wrong index to be selected in the Report page's droplist.
I22948	Oil and Gas communication drivers did not validate history log timestamps to ensure that history records fell within a reasonable time range.
I22946	Thin clients could fail to connect through some reverse proxies.
I22940	The Anywhere Client Remember Me checkbox has been renamed to "Stay Signed In" to clarify its behavior.
I22932	The Rate of Change tag inefficiently synchronized its value between the server and client when there was no change in the value.
I22923	The selected value in a String Droplist used to get cleared when it was linked to an IO tag under a driver.

I22910	The minimum password length option could be set to zero despite users not being permitted to configure a blank password.
I22908	Bristol flow computer configuration reads in the Oil and Gas Solutions layer were inefficient.
I22861	Using the Minimum Log Interval on the IO tag could have caused an increase in loading time for historical data.
I22837	When stopping the Application Manager, the "Sign in" dialog for any running applications would appear on the primary monitor instead of the monitor where the Application Manager was running.
I22784	New VOIP log files were being generated every time a call was made, rather than extending an existing log file.
I22668	Moving a custom widget in the Idea Studio could crash VTScada if a page and widget had the same name.
I22582	Digital IO and Calculations tags could be misconfigured by using the same read and write addresses with inverted input or output enabled, resulting in a permanent mismatch color.
I22314	A tag's logging deadband could be set by a user without tag editing privileges.
I22243	VTScada did not detect an interrupted installation, leading to confusing errors about missing OEM layers.
I21582	If you created a ChangeSet with the Idea Studio open, you could get an inaccurate warning saying that the ChangeSet contained undeployed local changes.

VTScada version 12.1.41 - Released April 06, 2024

Incidents Cleared

ID	Description
I23061	Alarms could fail to activate in versions 12.1.37 to 12.1.40 for IO tags configured as Digital or Discrete. This could happen if the tag was added or modified (in any version of VTScada) via the Export/Sync Tags or Manage Types panel with the IO tag's DigitalAlarmTripOpt parameter left blank or cleared. This is not an issue if IO tags are configured via the Tag Browser.

VTScada version 12.1.40 - Released March 20, 2024

New Features

ID	Description
F1821	The DateNum function now supports range validation of day and month input parameters.
F1817	VTScada now supports setting Text and Color typed parameters of custom widgets to tag values.

- F1816 A new widget has been added for forcing communications logs to be written to disk. The widget is named "Export Comm Log Button", and can be configured for system level logs and/or application level logs.
- F1778 It is now possible to use a single Twilio account across multiple applications by allowing users to select one Twilio number per application.

Incidents Cleared

ID	Description
I22980	The Call Manager Status widget could indicate an incorrect workstation for the voice modem call interface.
I22973	SMS diagnostic logs weren't saved when the application was shut down.
I22965	The embedded browser might not have started in some rare situations, including when running outside of a visible window.
I22922	Error code 33028 on the Siemens S7 driver was listed as an unknown error and was not in the documentation.
I22918	Text could overlap with other controls on the Thin Client/Server Setup dialog when viewed in a language with longer translations than the English labels.
I22911	Alarm notification logs might have had out-of-order records or record fields in some cases.
I22886	When creating a report, if the Output Type was set to "Screen Display" and the "Use Excel to display screen reports" Option was selected, the Excel report would open behind VTScada.
I22875	When generating a report with output type set to Plain Excel XLS file, ODBC Data Source or Access MDB File, the data for some of the dates was missing.
I22826	The ABB TotalFlow Driver could fail multiple register reads if just one register was unavailable. It also could fail reads when more than 64 registers were being read.

VTScada version 12.1.39 - Released March 06, 2024

New Features

ID	Description
F1826	PDFs generated from browser instances support HTML background colors.
F1818	GetParmPhrase has been enhanced to allow for unlimited replaceable parts in a single Phrase.
F1815	I/O child tags can now be imported for Delta PLCs via a DIADesigner XML export file.
F1812	The Idea Studio now supports rotation of custom widgets that have been manually coded to allow rotation with a "CanRotate" flag.

F1811	VTScada now allows users to set default values for memory IO and Calculations tags.
F1797	We can now use a browser instance to generate PDF documents from HTML documents.
F1796	VTScada now supports creating compressed files for formats including .zip and .xlsx.
F1794	The DNP3 Driver no longer requires addresses to have the :NS suffix to enable event notifications for supporting objects.
F1780	VTScada now provides an Address Assist when IO tags are connected to a driver via a Driver Multiplexer.

Incidents Cleared

ID	Description
I22990	Switching a thin client to a backup server would cause its control tokens to be released after 60 seconds.
I22961	A poll group could hang if a Driver Multiplexer was used by a Poll Driver and tag addresses were modified, added, or removed.
I22949	VTScada could set up voice configurations for workstations that were not configured for voice. These would appear in the Call Manager Status widget, and could cause spurious alarms.
I22927	The GetTagList function was returning more tags than expected.
I22925	The control tokens system was not checking custom security privileges.
I22905	Control tokens were not released when the VTScada application shut down or experienced a crash.
I22877	Starting, stopping, and making configuration changes in large applications could be slow.
I22871	Advanced features of the BACnet driver, such as Tag Import and automatic protocol compliance, could have been unavailable for some devices.
I22842	The Rockwell Driver did not update all tag values if Hold was enabled and some tags reported address errors.
I22762	Mouse clicks could be handled by the wrong window on the VIC.
I22524	If using an account with insufficient privileges, attempting to browse tags in the Excel Add-in gave an inaccurate connection error message.

VTScada version 12.1.38 - Released February 21, 2024

Incidents Cleared

ID	Description
I22915	A Thin Client session would lose its control token ownership if the session was transferred to a backup server while in session ID ownership mode.
I22913	Spinbox buttons had no effect on the Anywhere Client.

I22907	A Bristol Flow Computer Device could have timed out before reading the configuration of its Meter Run tags with the default read timeout.
I22906	The Source Debugger was required to enable diagnostic logging on MeterConfig tags in the Oil and Gas Solutions layer.
I22903	The status indicator flickered for MQTT driver.
I22878	MQTT Driver used to hold the value when a connection was lost, even when the "Hold" checkbox was disabled.
I22876	The ABB Totalflow driver's default logging level was set too high, creating large log files.
I22872	The IO and Calculations tag could not read strings from registers when the String Length was less than or equal to the number of characters that would fit within a single register.
I22863	MultiWrite tags could not write to IO tags when a control token was required, even if the user had a token.
I22853	The Tool Tip on the Add Note button widget used to display the linked tag's name and description instead of the Tool Tip Label specified for the button.
I22851	In the advanced Edit Properties panel, the Property Name column was too narrow to see the names of the properties without them being shrunk or clipped. The column always had to be manually resized in order to read the names.
I22848	A disabled edit field used to show the prefix section and tooltip (missing translation) for single language applications.
I22845	When a user requested a control token that was already owned, the token administrator was notified via the Token Requests popup even if that administrator did not own the token.
I22819	If Alarm Notifications and Twilio were configured on different servers, sending text messages would fail.
I22735	Renaming a tag name popped up a confirmation/warning dialog. After accepting the same, saving the tag required another redundant OK button to be clicked in the properties dialog.
I22599	Poll Drivers using a Driver MUX did not poll serially.
I22345	Various controls in the Counter, Selector Switch, Totalizer properties dialogs were misaligned.

VTScada version 12.1.37 - Released February 07, 2024

New Features

ID	Description
F1803	VTScada now supports the override of the default help files for standard VTScada pages with custom help files.
F1802	The DrawHDV widget Plot View can now be configured so that the legend will only be tall enough to display all pens, up to 50% of the plot area, by default. This setting is also applied to all pop-up HDVs.
F1787	It is now possible to use Driver Redirect tags in Standard Applications.

- F1774 VTScada now supports a custom hook, PageListForGoToPageHook, which defines the list of pages that the Go To Page dialog should display for a given tag.
- F1769 When linking widgets to tags in the Idea Studio, the Tag Browser now opens to the location of the last tag linked by the user.
- F1768 Support for WebSockets has been added to VTScada.
- F1767 VTScada now supports the Open Charge Point Protocol (OCPP) for communicating with electric vehicle infrastructure via the OCPP Driver and OCPP Users tags.

Incidents Cleared

ID	Description
I22892	When drawing the Pie Chart widget and the last configured tag had an invalid name, high CPU usage would occur and UI components would become unresponsive.
I22874	A voice call could fail before the next one succeeded.
I22865	In an app with a non-functional voice modem, a "Voice call failure alarm" would recommit every 5-10 minutes.
I22864	Page and widget selection dialogs in the Idea Studio and Tag and Widget Configuration folders could have appeared empty.
I22847	Dialing prefixes would have lost a leading "+".
I22824	The Upon Change alarm setting could cause a child IO tag to be flagged as overridden even after performing a "Redefine tag type" operation on a parent tag.
I22820	A Poll Driver poll group could have hung if one of the ports being used was configured incorrectly.
I22818	The Glance meter needle color can now be customized using the image Colorize parameter.
I22812	CFX reports generated in VTScada Oil and Gas applications produced incorrect information for some fields in the report's configuration tab.
I22811	Ratcheting could not be turned off for all HDV pens by default.
I22805	The selected workstation for "VOIP Settings" and "Twilio Account Settings" in the application configuration for Alarms were not retained.
I22802	SQL Data Query Driver Tag experienced longer processing times, particularly when dealing with thousands of rows associated with historical values.
I22800	Digital Upon Change alarms could turn into regular Trip alarms by clicking Apply or OK in the IO config dialog even if no changes were made.
I22795	The poll driver could have stopped triggering the Modbus Driver to poll after adding a bad read address.
I22715	The alarm notification voice menu could be missing the first few seconds of audio when answering calls made via VOIP.
I22705	The Change Password dialog intermittently appeared only partly visible on the Anywhere Client.

- I22679 After renaming a tag that had alarming built-in and changing the alarm priority at the same time, the new alarm priority did not show in the Configured tab of the Alarm page.
- I22620 The String Droplist widget had an invalid entry labelled [None] that could not be removed. Now the presence or absence of the invalid entry can be configured via the IO tag.
- I19241 Many places where lists of applications were shown were sorted in an unexpected order.

VTScada version 12.1.36 - Released January 20, 2024

New Features

- | ID | Description |
|-----------|--|
| F1792 | Modbus, Enron, and Delta driver's communication failures are now reported through the DATA_ATTR_COMMFAIL attribute. |
| F1770 | The Alarm List widget now supports retaining the last selected option for Days of History, Text Size, and Starting List. The background and text colors can also be made transparent to allow the day time/night time color scheme to take effect. |
| F1705 | The text size is now adjustable in the Source Debugger. |

Incidents Cleared

- | ID | Description |
|-----------|--|
| I22849 | Alarm notifications using voice telephony methods didn't work if the server list used IP addresses instead of computer names. |
| I22817 | Importing language changes via an Excel file could lead to unintended conversions and #NAME? errors if phrases or phase IDs started with the = symbol. |
| I22813 | Momentary button widgets were missing on Mobile Internet Client (MIC) pages. |
| I22809 | Selecting a type other than text when editing page or widget parameters in the Idea Studio resulted in high CPU use. |
| I22804 | Timestamps in the Source Debugger were displayed in hundredths of a second rather than milliseconds. |
| I22786 | Legal email addresses could fail address validation if the address's display name contained a period character. |
| I22785 | A value of zero in the Disconnect Delay field of the TCP Port tag would have caused it to continuously connect/disconnect. |
| I22752 | If a deleted page was pinned to the taskbar, it could cause high CPU load. |
| I22678 | The use of SSL and TLS terminology in user interfaces was inconsistent. |
| I22491 | Attempting to create a second OPC Server Setup tag could temporarily interfere with the running OPC Server. |

I18052 When opening the Idea Studio, the Idea Studio's list of page tabs did not always scroll to show the active page.

VTScada version 12.1.35 - Released January 10, 2024

New Features

ID	Description
F1799	The text size is now adjustable in the Historical Data Viewer.
F1793	Coordinates in the object properties dialog in the Idea Studio can now be adjusted using spin boxes.
F1791	The Idea Studio now positions pasted graphics at the current mouse coordinates.
F1789	The Idea Studio file open dialog now remembers the previous filter option.
F1784	After opening a .profile file in the Profiler, the Profiler now shows the name of the file being viewed.
F1782	VTScada now provides more configuration options to help with more complex network configurations when using VTScada's VOIP interface.
F1775	VTScada OPC UA Client Driver now establishes a secure connection with an OPC UA server that identifies its connection message based on the identifier assigned by the Client.
F1681	Added the ability to use VOIP, Twilio, and voice modem configurations as redundant backups for voice calls initiated by the alarm notification service.
F1607	VTScada VOIP now allows encrypted call setup and encrypted audio for voice-based alarm notification.

Incidents Cleared

ID	Description
I22798	When zooming into the Anywhere Client on Apple iOS and iPadOS, a fault in the Apple device software could cause a crash on the Apple device resulting in the client reloading or logging out.
I22794	The Omron Host Link Driver may not have sent proper checksums.
I22790	Shelving an alarm would not prompt for a note on a thin client.
I22779	In custom ownership mode, control widgets could have been inoperable despite token possession.
I22778	The Enron Modbus driver would produce a false error when attempting to write multiple registers using the Modbus RTU protocol.
I22766	Logos with odd widths appeared compressed in the License Management and About dialogs.
I22761	Custom privileges in the Manage Privileges dialog were appearing as unassigned, regardless of assignment, for users other than the current user.

- I22754 Manually unshelving a cleared alarm didn't automatically acknowledge the alarm.
- I22753 Camera Viewer widgets in a subordinate application would not display correctly in a master application.
- I22749 PieChart widgets with exclusively 0 or less value tags would freeze application GUI elements when their labels were drawn.
- I22742 The "Optimize Tag Parameter Expression to only evaluate on Tag Initialization" checkbox on expressions for the Method and Enabled properties of a Roster did not perform any optimization on their expressions, and the checkbox always appeared checked, even if unchecked previously.
- I22731 Upon importing an image a second time, the Idea Studio was showing a broken image link instead of the image.
- I22727 Child tags in the tag browser would sometime appear in the incorrect order when sorting by the first indicator column.
- I22725 There was no warning for the use of deprecated shared security when configuring subordinate applications. Shared security is not supported in master or subordinate applications.
- I22720 When running the Application Manager over a thin client, adding an application using the Quick Add or Create New operations would fail.
- I22696 PLC Alarms would record "Active" events on multiple servers, leading to several "Active" records every time the alarm activated. No user would be attributed when acknowledging, shelving, or unshelving a PLC Alarm on a client workstation.
- I22691 A parameter with the same name as a child tag could be added to a custom tag type, which could prevent the child tag from showing as an immediate child in the Tag Browser.
- I22682 The Tag Browser's Advanced Filtering button had a short delay before it would respond to clicks on the Anywhere Client.
- I22666 It was too easy to accidentally delete the last security role that contained the Manager privilege, causing the application security to become locked out.
- I22635 Not all digits in the value input field were visible in the relative time range window of the Excel Add-in.
- I22629 Application Manager and other built-in layers could propagate changes from current versions of VTScada to workstations running older versions, which could lead to errors.
- I22627 A VTScada server would crash when a thin client viewed a page with the deprecated ZPipe graphic.
- I22613 The Bristol BSAP/IBP Network tag would limit the maximum number of RTUs on a level 1 IBP network to 1.
- I22580 SQL queries would return more records than requested if the LIMIT clause didn't end with an integer.

- I22490 On the Anywhere Client, droplists with background colors, such as an edited Area in a tag configuration dialog, were inconsistent with the server. Now, only the editable part of a droplist appears with a background color - the drop-down list is not affected by the background color.
- I22487 After changing a source file for a custom tag, breakpoints in the Source Debugger could fail to trigger.
- I22351 Some Anywhere Client connection error messages would not display properly.
- I22289 The PVR Report Entity tag provided a scaling factor field for PVRTagVariable and PVRExpression value types but did not scale their values.
- I21793 Thin client licenses could be shared between servers that did not have full production licenses.
- I18219 The Duration column in the Test Framework showed the time elapsed since the subtest began, not the duration since the last assert.

VTScada version 12.1.34 - Released November 29, 2023

New Features

- | ID | Description |
|-----------|---|
| I1777 | VTScada now writes to additional data fields in Oil and Gas CFX reports when reports are run against ROC or RealFlo flow computers. |
| F1765 | Additional fields have been added to the Oil and Gas Solutions layer's CFX reports when run against an ABB Totalflow flow computer. |
| F1745 | The ABB Totalflow driver no longer requires a third-party service and reads historical alarm logs. |

Incidents Cleared

- | ID | Description |
|-----------|--|
| I22732 | VTScada performance reading the history of many tags at once could go down as more applications were started or restarted. |
| I22726 | The DNP3 driver could have interpreted unflagged data from integrity polls as a change event. |
| I22724 | The driver selection dialog in the Trace Viewer was previously too narrow to show typical tag name sizes. |
| I22714 | There were some spelling mistakes and typos in the security guidelines manual. |
| I22710 | Syncing an exported tag database could incorrectly produce a "Bad tag name - parent tag not found in imported tags" error when renaming a child tag. |

- I22707 When an HP Analog Bar widget with a non-zero corner radius was displayed vertically with expected ranges equal to or greater than the configured display ranges, the expected range bar would appear with unrounded corners and wouldn't match the corner radius set by the user.
- I22693 When deleting a tag that is drawn on a page, clicking the Show Pages button would run the GoToPageHook module (if defined) instead of presenting the list of pages where the tag was drawn.
- I22692 Tiled images would produce odd graphics during thin client connections.
- I22687 The Presets droplist on the Reports page had all of its entries in sentence case except one that was in title case, "Previous Year" when it should have actually been "Previous year".
- I22683 The HP Radial Gauge and HP Analog Bar expected ranges could obscure the alarm ranges.
- I22590 The Services pages did not properly display Driver Multiplexer service names.
- I22577 When operating a digital memory tag with no value from the Tag Browser, the initial droplist selection was 0 instead of No Data.
- I21994 After deleting a child tag of a top level tag in the Tag Browser, the child tag could still be present in the tag tree.

VTScada version 12.1.33 - Released November 20, 2023

Incidents Cleared

ID	Description
I22728	The tags created automatically for SparkplugB with the MQTT Client Driver were setting the Read Address to the write address value.
I22706	A port tag could have prevented drivers from initiating comms after a loss of connection.
I22684	In a master and subordinate setup where operator notes were configured for alarm acknowledgement, shelving, or unshelving, when an alarm was acknowledged or manually shelved/unshelved in the master application, the operator wouldn't be prompted to add a note.
I22675	VTScada allowed only one application per realm, which kept multiple applications from using WSI authentication with realm area filtering, as that requires multiple applications using the same realm name.
I22672	A server switchover during an inbound call could have caused the Twilio service to hang indefinitely in rare cases.
I22669	The I/O tab of the Flow Computer tag configuration folder displayed a Barton-specific text entry field for all device types.
I22641	FunctionLib.GetAlarmStat() would sometimes return Invalid rather than 0 for tags that had no alarms.

- I22631 After configuring an alarm in the IO tag and then switching tabs, the droplist selection for that alarm would be lost and the droplist would revert back to the first alarm in the list, even if that alarm wasn't configured.
- I22588 It was difficult to see the main text in an Edit field if its prefix or suffix were very long.
- I22583 The Poll Driver's "Delay After Scan Interval" parameter title and documentation did not accurately match the parameter's function.
- I22533 The MQTT Driver would send extra Subscribe messages for SparkplugB data on startup.
- I22430 A Discrete-IO tag with an 'Upon Change' alarm may have displayed the Value as 'Upon Change' rather than the label configured for a value of 4 in the Equipment Type.
- I22321 Stopping or recompiling an application while it was paused on a breakpoint could cause VTScada to crash.

VTScada version 12.1.32 - Released November 07, 2023

New Features

- | ID | Description |
|-----------|---|
| F1734 | It is now possible to select which sign-in methods are shown on the thin client landing page. |

Incidents Cleared

- | ID | Description |
|-----------|--|
| I22702 | Due to a bug in Chromium-based browsers (Chrome and Edge), graphics could be missing on pages that used color replacement widgets. |
| I22671 | The Set Value Button widget did not support Multi-Write tags. |
| I22664 | Some branded Phrases were missing from the branding Language file. |
| I22657 | A contact's Method and Enabled settings in a Roster tag could lose their expressions if moved within the contact list or if the contact list was scrolled. |
| I22648 | A digital IO tag that had the "Invert Input" option enabled would always log a blank (invalid) entry when the application was restarted. |
| I22608 | Some port related Bristol Network Driver error codes were not documented. |
| I22597 | When the application property <code>MakeActiveAlarmUnackedWhenUnsuppressed = 1</code> , unsuppressing an active alarm would create two entries for the alarm in the Current alarms list. When <code>RecordSuppressionStatus = 0</code> and <code>MakeActiveAlarmUnackedWhenUnsuppressed = 1</code> , a suppressed active alarm would not become unacknowledged when it got unsuppressed. |

I22592	Changing the name of a workstation could result in the wrong workstation name being shown in the alarm history.
I22569	The ROC driver could report incorrect error codes when using a ROC800 or ROC800L.
I22563	The momentary button hotbox did not resize or move to match the button when the widget was resized or moved.
I22562	The default settings for Flow Computer poll groups could lead to delayed process data retrieval while initial history data was being collected.
I22537	The login dialog on a busy graphical display would sometimes miss input.
I22534	The MQTT Client Driver was using more resources than necessary processing some SparkplugB messages.
I22495	The manual RPC Performance test could hang when running the cross-application RPC test.
I22359	If VTScada was stopped manually during installation in response to the installer's warning, you would be forced to restart the installer.

VTScada version 12.1.31 - Released October 23, 2023

New Features

ID	Description
F1763	VTScada now has a Radial gauge using high performance graphical design concepts.
F1758	The Enron Modbus driver now supports reading and writing 8-character strings and reading custom-formatted history log data.

Incidents Cleared

ID	Description
I22667	A VTScada upgrade could cause other servers running older versions of VTScada to require a restart before they could perform any further configuration changes.
I22655	The BACNet Driver would stop working on upgrade if the Device Network Number was greater than 32767 and values larger than that could not be entered.
I22640	The Server List field in the Driver Multiplexer tag's config folder incorrectly displayed a warning message when the tag had valid subordinate drivers.
I22625	The description on the DNP3MaxFileSize property was incorrect.
I22619	The Numeric Entry widget would occasionally stop allowing values to be entered.
I22607	On the VIC, selecting "Go to page" from the Tag Browser with the Idea Studio minimized would open the tab in the Idea Studio but fail to automatically restore the Idea Studio.

I22593	In some circumstances a child window might not appear in a printed copy of its parent window.
I22578	Under rare circumstances VTScada could crash when a window was closed at the same time as it was being resized.
I22552	Text messages may not have been received by VTScada if the SIM card has no storage for text messages.
I22505	A double-click and quick drag in the Idea Studio on the VIC could display an unusable Properties dialog and no further interaction could be done.
I22346	Switching a port from being a listener (no address) to a client (has an address) could have caused drivers to not attempt to connect.
I22297	Text shown in LCD Meter widgets might be pushed unnecessarily to the left or cut away when the text did not fit the box.

VTScada version 12.1.30 - Released October 05, 2023

New Features

ID	Description
F1757	VTScada now includes a Recipe Import button for the Recipe Book tag to accompany the Recipe Export button.
F1751	New settings have been added to allow users to disable the auto-addition of notebooks in the same area or group when plotting tag data.
F1747	VTScada now supports tag imports from BACnet MS/TP devices via a BACnet router that is on the same subnet as VTScada.
F1737	The version of Pako (zlib) in use for the Anywhere Client was out-of-date.
F1618	It is now possible to configure address lists for thin client connections in the Thin Client/Server Setup dialog.
F1479	Added support for the latest TLS version, TLS 1.3, on Windows 11 and Server 2022. TLS 1.1 and older are no longer supported.

Incidents Cleared

ID	Description
I22617	There was no way to restore the old behavior where Alarms using Event priority would log "Events" rather than "Active/Normal" events.
I22606	Exporting more than 254 recipe ingredients to Excel would fail, producing a blank spreadsheet.
I22595	The Modbus Driver would poll all reads on application start regardless of whether a parent poll driver or driver MUX had polling disabled. It also ignored the NoInitialDriverDial setting.
I22553	The Rockwell Driver was unable to read the correct values in CSP mode.

I22532	The labels on the Show Stats dialog of the MQTT Client Driver could be interpreted as the driver having failures when it was working correctly.
I22461	The Anywhere Client would display flickering scroll bars in desktop browsers at certain window sizes.
I22450	The Tag Browser's Go to Page tool took longer than necessary.
I22433	The height of the configuration panel for the Folder widget would decrease as the folder's Tab Label Margin increased.
I22410	The Application Manager window could unexpectedly appear in front of the application window.
I22399	Text alignment was not always consistent on the Anywhere Client compared to the server and the VIC.
I22222	Configuration repository corruption introduced by low disk space conditions could spread to other machines.
I22081	Creating a new IO tag resulted in unnecessary Network Value storage and communication.

VTScada version 12.1.29 - Released September 20, 2023

New Features

ID	Description
F1749	The Dataflow Flow System RTU driver can now read analog values from the Radio Interface Module and read digital points on analog cards.

Incidents Cleared

ID	Description
I22601	It was difficult to see an expression if its evaluated value is very long.
I22574	SQL queries of the alarm list would not show the disabled status.
I22551	SparkplugB data could have been slow to retrieve for display on the HDV.
I22547	The Numeric Entry widget could prompt the user with two confirmation dialogues if the user's input contained more digits after the decimal than the widget's 'Digits After Decimal' parameter.
I22538	Making an unauthenticated SOAP request to VTScada could result in a 401 response that was missing some HTTP headers.
I22536	Some Motorola RTU error descriptions did not have enough detail.
I22528	The MQTT Client Driver could have timed out unexpectedly if the KeepAlive parameter was set low.
I22511	The active roster tag in an area could have changed on a VTScada restart.
I22508	BubbleQueueLength would not trigger on a check for decreasing queue size.
I22492	Tag selection for Header parameters in the JSON/XML driver were filtered to Numeric tags and would not work with String tags.

I22476	Certain numeric values could not be entered as text in the Idea Studio, such as a number followed by a period, or a number preceded by zeroes.
I22434	Moving menu items tags multiple lines in the tag browser previously caused the focus to change to the tag tree.
I22432	It was not possible to setup a roster callout method without pre-configuring it.
I22389	There was no reference for properly securing master-subordinate applications in the security guidelines.
I22366	The Mitsubishi driver failed to set the RPC service for port shared RPC.
I22315	The VOIP package version used in VTScada was using an older release version.

VTScada version 12.1.28 - Released September 07, 2023

New Features

ID	Description
F1754	VTScada now supports the display of a user specified tab in a folder widget.
F1753	VTScada now supports generating X509 certificates with subject alternative names.
F1740	Operators can now shelve tag alarms from the right-click context menu.
F1735	VTScada now provides a way to disable the control of output tags by using locks. A lock on a tag prevents manual control of that tag and its descendant tags until the lock is removed.
F1721	VTScada now provides better support for receiving high UDP throughput.
F1711	The CIP Protocol compliance of the Rockwell Driver has been improved, resulting in better reliability and more accurate error and general information reporting.
F1635	Alarm suppression via an expression has been separated from the alarm disable checkbox so they can be independently set in the I/O & Calculation tag and the Alarm tag. There are now options to log or not log the alarm status while an alarm is disabled or suppressed. There is now an option to log or not log suppression events.

Incidents Cleared

ID	Description
I22542	When creating a new named group a busy cursor would be displayed for the whole time that the New Widget dialog was open.
I22515	Alarm Notification may not have worked if the System Alarm Historian and the Alarm Notification services were running on different servers.

I22497	JSON files appeared as binary files in the Show Version Log changes view rather than text files, making any changes to the files not viewable.
I22483	The selected tag in a widget was not highlighted when viewed in a tag browser opened via the widgets properties dialog.
I22477	The PageTagRefMgr cache could be permanently damaged after calling GetPageTags with an Invalid page name.
I22453	Selecting 'View Alarms" from a tag context menu could lead to a filter on the incorrect tag when displaying the resulting alarm page.
I22367	DNP addressing with variation 0 would have polled a device for all points as opposed to those with VTScada addresses. Low subset devices being directly polled may be affected.
I21946	The SNMP Agent could stop responding to poll requests and the SNMPDriver could stop accepting notifications, after changes in SNMP credentials.

VTScada version 12.1.27 - Released August 11, 2023

New Features

ID	Description
F1741	VTScada now supports the referencing of colors and labels of an equipment type contained within a Style tag.
F1478	VTScada now supports the discovery of BACnet drivers on a local subnet or via BBMDs.

Incidents Cleared

ID	Description
I22514	Changing a tag value with a Numeric Entry widget resulted in multiple events in the Operator Log.
I22484	A typo has been corrected in the error dialogue presented by the Numeric Entry widget when an entered value was out of range.
I22475	GE Ethernet Driver no longer fails on digital reads over a byte boundary.
I22473	The Anywhere Client login page listed Internet Explorer as a supported client when this has been deprecated/discontinued.
I22460	Site Map and Sites pages would not display the beacon on thin client sessions.
I22454	If a custom privilege was removed via a reverse version change, there was no obvious way of removing that privilege from the page.
I22445	The arrow button to navigate to a module did not work for the Return Value in the Source Debugger.
I22413	The wrong information was traced when hiding or showing the application for a running application.
I22407	GE Serial Driver no longer fails reads/writes for %G addressing in bit and byte mode.

- I22286 Align Center and Align Middle did not always align objects accurately.
- I22262 When an HTTP reverse proxy is used, thin clients would show an "Available servers are running a different version of VTScada" error.
- I22234 In the Idea Studio, undoing a GUIText movement while still selected left the selection handles in the wrong place.

VTScada version 12.1.26 - Released July 26, 2023

New Features

ID	Description
F1750	The GetAdaptersInfo() statement now returns the IPv4 subnet broadcast address and mask for IPv4 addresses.
F1738	Motorola ACE RTU Tags now display the RTU ID in the address field of the Tag Browser.
F1703	The Numeric entry widget now supports entry of historic values with older timestamps for numeric memory tags.
F1686	VTScada now supports direct communication with PC3 and PC10 series Toyopuc PLCs with the new Toyopuc Driver.
F1655	VTScada now has more robust and independent security for internet client connections by only allowing one application per realm.
F1599	Non-realm security roles can now be selected when configuring realm user accounts.

Incidents Cleared

ID	Description
I22443	The installer progress bar dialog could generate an unexpected warning during installation.
I22439	The ScanCom Driver's config folder did not disable the ADEPTv3 Logout Delay field when the driver was configured to use ADEPTv4.
I22429	When using a Runtime or Demo license, the RPC Services page/widget/utility didn't show any information about the application's Configuration service.
I22427	The Excel add-in's Tag Browser would hide Alarm Database tags and thus their children could not be included in the query.
I22426	A driver could have failed to perform a failover when used with a Driver Multiplexer.
I22424	The Recipe Book would not write an ingredient value if it differed only slightly from the value that was already in the PLC.
I22421	Setting both "Minimum Test Rate" and "Maximum Test Rate" of a MUX tag to 0 resulted in high CPU usage.
I22417	VTScada would not run without activation during the grace period if VTScadaLight had been installed prior.
I22405	There were no limits to the size of a phrase for generating an audio file using the SpeakToFile() API.

- I22400 The contact information when adding an application to a runtime which was developed under a trial license was incorrect.
- I22392 When configured with a priority of 0, alarms did not log a return to normal event.
- I22391 Diagnostic Installation ID information was missing leading zeros in the license file.
- I22390 When calling the Replace function to replace all occurrences of a blank string, the function returned Invalid instead of returning the original string.
- I22388 The scaling section of the Glance widget's panel was not consistent with other widgets.
- I22373 The Idea Studio was slow when editing widgets drawn on many pages.
- I22370 The Show Stats and Show Comm dialogs remained visible after their buttons were toggled off.
- I22355 The VTScada tracing missed when the application had been stopped on the primary server.
- I22352 Rockwell driver was wrongfully reading PID values from non-PLC5 equipment.
- I22325 The Tesco Driver would fail to communicate when sharing a port with a Modbus Driver.
- I22301 Confirmation dialog to delete a user account showed up on wrong thin client session.
- I22268 Linking a widget to a tag with a name containing a multi-byte character resulted in a compile error.
- I22261 The installer would not prevent installing into Program Files, which would result in VTScada not functioning correctly when run.
- I22257 VTScada could crash when editing graphics containing custom expressions.
- I22196 High memory usage may have been encountered when using MJPEG video streams.
- I22190 Custom privileges were sorted according to the order in which they were created and not the order as defined in the Privileges dialog.
- I22170 Unlinked glance widgets would lose their indicator when a user opened the properties panel.
- I22120 An authorized user could, under certain conditions, inadvertently invalidate the OAuth 2.0 consent during a consent operation.
- I22106 The "Any parameter contains" filter in the Tag Browser did not work when attempting to filter the Menu folder.
- I21995 SNMP Drivers did not fail over to secondary driver or recover when used alongside a Driver MUX.
- I21892 Utility application that come with VTScada would lose any modified settings after a VTScada upgrade.

New Features

ID	Description
F1063	VTScada can now communicate with Barton Scanners running the NFlo program.

Incidents Cleared

ID	Description
I22418	The "Services" page sometimes showed the UniqueID of a driver service rather than the friendly name of the driver. The "RPC Services" utility sometimes showed only the "VTScada" application and didn't show any customer applications. Also, the "RPC Services" utility sometimes would not show the list of services for an application.
I22394	A site tag's custom map icon would not display properly if it had a Pump-Off Controller tag as a child.
I22381	Certificate requests did not support using SHA256 as a signing algorithm.
I22368	The Anywhere Client could appear restricted to a small box and be unusable if certain warning dialogs were displayed while connecting to a server.
I22363	Rectangles would not line up consistently with other graphics at different scales.
I22357	The camera widget was unable to connect to Uniview brand IP cameras.
I22348	Disabled phrase drop lists would always display a warning about missing translations even if the phrase was not missing translations.
I22341	Using the Operate functionality on a Report tag on an Internet Client would cause screen reports to show up on the server.
I22317	Nomenclature for the VTScada Thin Client privilege was inconsistent in script applications.
I22223	The OPC UA Client driver would frequently drop connection if the server timestamp was out of synchronization by a couple of minutes.
I22056	Requesting consent for OAuth within VTScada multiple times could result in issues with alarm mail handling.
I21930	The CRC function would accept table sizes beyond the supported range and generate incorrect output.
I21929	The OPC UA Client driver Value variable could become invalid.
I21683	Using a local account for service installation but not specifying the full machine name would report an error during installation.

VTScada version 12.1.24 - Released June 16, 2023

New Features

ID	Description
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- F1739 The efficiency of tag widget creation for applications with many tags has been improved.
- F1727 VTScada now provides an API to configure the RPC network priority for multi-homed systems.
- F1708 A new GetAlarmName module has been added to allow for easy access to a tag's alarm name.
- F1684 A Security Guidelines Manual is now shipped with VTScada, providing guidance on how to commission and maintain a secure installation. It is available in the Documents subfolder of the VTScada installation folder.

Incidents Cleared

ID	Description
I22374	In rare cases a read block could have stopped polling if a connection error occurred with the PLC/RTU.
I22372	The DNP3 driver did not record value attributes for Group type 30 (Analog input) variations 5 & 6.
I22365	Alarm Notification calls using Twilio could fail continuously until the application was restarted.
I22362	An incorrect tag address could result in all reads failing under the OPC UA Client Driver.
I22350	Pie chart segments connected incorrectly and failed to display single segment charts with a non-zero hole size.
I22344	Driver updates received over the network are now handled more efficiently.
I22343	The GE Series 90 driver's Address Select dialog now properly handles %S addresses.
I22339	The OAuth-General-200 section was included in the Edit Properties Advanced list of properties, when it is not useful to edit its values from this interface.
I22329	Case-sensitive changes to the name of an active Roster tag caused high CPU usage.
I22327	Pie Chart labels no longer resolve spacing conflicts vertically and will now draw connecting lines between segments and their label when a conflict occurs.
I22311	Secured subordinate pages failed to return to the default page after a sign out when viewed via a master application
I22309	Some HTTP error messages were not translated properly in Simplified Chinese and Traditional Chinese.
I22285	FormatInteger was not able to correctly handle some larger values.
I22140	Closing a profiler without stopping the profile would result in the profile continuing in the background consuming resources.
I22086	The "Thin Client Tools Access" privilege which was no longer in use by VTScada appeared in applications as well as documentation.

VTScada version 12.1.23 - Released May 31, 2023

New Features

ID	Description
F1728	The GE Series 90 driver has been enhanced to support %G (Global) data addressing.

Incidents Cleared

ID	Description
I22342	I/O and Calculations tags could be incorrectly placed in a mismatch state in busy systems.
I22299	Some tag types would not show in the sites page if there were many custom tag types.
I22291	Loading pages with many image-based widgets could take considerable time.
I22252	Alarm history reads from EC350 units using the Honeywell Mercury Driver could result in duplicate trip events in Alarm history.
I22179	Exporting translations from the languages panel to an Excel file took longer than necessary.
I22126	Incorrect quotation marks were used for French phrases.
I22110	The IEC60870-5 Driver could have had communication failures if extra bytes were transmitted between messages.
I22104	The IEC driver extracted a variety of attribute flags from the wrong variable.

VTScada version 12.1.22 - Released May 18, 2023

Incidents Cleared

ID	Description
I22308	The Modbus Compatible Device driver would not log every poll if ModiconPropagateOnlyOnDataChange was set to 0, it would only log data on change.
I22296	The view source button in the Source Debugger did not work in a child bubble.
I22293	Recipe Trigger tag could have failed to trigger after a failed write or if no recipe had ever been run.
I22287	The Omron FINS Driver wasn't able to trigger an alarm when communications were lost.
I22273	VTScada could crash when doing writes on a Poll Driver faster than it could poll its I/O Device.
I22266	A VoIP configuration which did not require server or proxy information (e.g. a VoIP to analog telephone device) still required the server and proxy fields to be populated in Application Configuration.

I22248	Some entries in the Services table were not consistent with VTScada's naming conventions.
I22244	The vertical lines connecting sibling nodes in the tag browser could be missing on reopening the tag browser
I22231	Rosters tag entries configured with parameter expressions were not retained in the contacts list.
I22229	The Driver MUX caused high CPU loading when pointing to a poll driver that isn't pointing to an IO device
I22228	A client-of-a-client using a Driver MUX could miss data updates if Ignore Inactive Subordinate is enabled.
I22187	The Modbus Driver tag could have reported a wrong value (error status) on a backup server.
I22146	The font when editing a phrase looked a bit ugly and the bottom of the multi-line edit field's down arrow was cut off when editing the phrase or the description.
I22108	A new copy of a table merged to the working copy was not used without restarting the TableInterpolation function.
I22039	Pulse Input tags would only register and log data on change.
I21924	Some phrases in category 5 - 7 were misclassified and therefore missing translations in other languages shipped with VTScada.
I17243	Trigger tags configured to trigger daily or monthly on the missing hour during spring daylight savings could trigger repeatedly following the time change.

VTScada version 12.1.21 - Released May 03, 2023

New Features

ID	Description
F1732	FloBoss 103 and FlowBoss 107 flow computer tags in the Oil & Gas Solutions layer are now compatible with recent firmware updates.

Incidents Cleared

ID	Description
I22279	Pressing F1 in the expression editor dialog could open the help system's Welcome page instead of a relevant help page.
I22251	The DNP3 Driver could not read Time objects.
I22188	The MQTT Client Driver would not record historical SparkplugB data if it was not flagged as history explicitly by the end device.
I22181	A query example provided in the REST Interface demo did not yield the intended result.
I22180	Some standard and custom widgets may not have been behaving as expected when drawn on a Sites page.
I22123	The HookPointUnits column in the alarms ODBC table showed Phrase IDs instead of translated phrases.

- I22084 Calling Replace with a zero-length string for the Search parameter caused VTScada to crash.
- I22044 Clicking the Acknowledge button in the alarm page toolbar did not acknowledge an unacknowledged shelved alarm.

VTScada version 12.1.20 - Released April 20, 2023

New Features

- | ID | Description |
|-----------|--|
| I1680 | You can now configure server-specific VOIP in the VOIP Settings section of the Application Configuration dialog. |

Incidents Cleared

- | ID | Description |
|-----------|--|
| I22260 | The Modbus Compatible Device driver could be slow to poll all addresses on startup of a large and/or busy system. |
| I22250 | VTScada would fail to retrieve data from some OPC UA servers that do not accept data filters. |
| I22237 | The Numeric Entry widget was logging changes as "Changed from New value to New value" instead of "Changed from Old value to New value". |
| I22206 | VTScada could leak memory and eventually hang or crash when an OPC DA Client repeatedly polls tag values rather than using an OPC Group to retrieve tag values as they change. |
| I22178 | VTScada could crash while processing some types of X.509 certificates. |
| I22173 | The user interface for the IO tab of an IO/Calculation tag in string mode did not have all string-related settings grouped visually. |
| I22165 | Specific widgets that had not been linked to a tag caused the window they were drawn on to remain on screen after it had been minimized. |
| I22147 | The high performance analog bar's alarm indicator could exceed the upper and lower bounds of the widget when the scaled alarm value was outside the display range. |
| I22132 | The advanced filtering window in the tag browser could remain in the foreground when using other programs. |
| I22101 | The TCP/IP Port may not open the full number of specified connections when a Modbus Compatible Device shares the port with another compatible driver. |
| I22067 | Applications configured with Subordinate Application tags with circular references caused VTScada to crash. |
| I22048 | A Mercury driver might not cleanly end its session when not created as a child of its port tag. |
| I22047 | TraceViewer traces did not contain full MQTT inbound traffic. |

I22045	Several serial port related application settings could be ignored when using a Modbus Compatible Device with a Serial Port, leading to a potential loss in communications.
I22033	The Honeywell Mercury driver would report incorrect values in the rare scenario where the RTU would incorrectly respond with an echo of the read request.
I22030	The Alarm acknowledge code could have been sent to and used by a user to acknowledge an alarm without having the alarm acknowledge privilege.
I22013	The VTScada Application Manager's startup progress indicator could have appeared next to the wrong application after scrolling.
I21942	The Modbus Driver may not have properly used settings stored in a parent tag.
I21685	Some dialogs were opening centered in the screen when they should have centered over the window that opened them.

VTScada version 12.1.19 - Released April 05, 2023

New Features

ID	Description
F1725	The API SetUserLanguage() has been created which allows users to change their language to any available language during runtime.
F1719	The installer now supports disabling the Modem TSP driver installation.
F1704	The Mitsubishi Driver now supports Q Series PLC and several types of serial frames.

Incidents Cleared

ID	Description
I22218	The Rockwell Driver did not support Long Integer addresses from MicroLogix PLCs.
I22198	Some dialogs were missing their titles.
I22186	VTScada could fail to receive data from some OPC UA servers with limited hardware resources.
I22161	The French translation for "setting" in certain contexts was incorrect.
I22118	Trace Viewer may have failed to display the Port Name field in some cases for driver traces.
I22096	There was a slow memory leak when VTScada was using TLS.
I22051	In rare circumstances after a station's driver has changed, a Derived Flow report on the new driver may be missing information.
I21906	Rectangles would not rotate correctly about the center if drawn without a border.

VTScada version 12.1.18 - Released March 21, 2023

New Features

ID	Description
F1723	Input tags using the DNP3 driver will now record attributes such as Quality and Comm Failure that can be used in graphics and reports.
F1722	The I/O & Calculations tag now has better support for "Select Before Operate" mode when used with the Set Value Button and Numeric Data Entry widgets. The Alarm tag now supports "Fail to Operate" and "Uncommanded Change of State" modes when connected to an I/O & Calculations tag.
F1720	VTScada now has the ability to accept external language translations in the form of a dictionary passed into the GetPhrase API.

Incidents Cleared

ID	Description
I22184	The address assist dialog for the Recipe Ingredient tag could present addresses with the wrong data type.
I22144	Pie chart labels corresponding to 0 value slices could overlap with other labels.
I22095	The Source Debugger would display an incorrect error message if attempting to use a script-only function in a watch expression.
I22055	Some Rockwell driver errors could not be found in the help files.
I21640	Sometimes an incoming SMS acknowledgement could fail to acknowledge the alarm in VTScada under heavy SMS volume situations.

VTScada version 12.1.17 - Released March 07, 2023

New Features

ID	Description
F1724	VTScada now supports the use of the address assist and tag import with the Autosol OPC UA server.
F1718	It is now possible to read strings from register based addresses in PLCs such Delta and Modbus by setting the "String stored in registers" flag of the IO tag along with specifying the length in bytes.
F1710	VTScada now supports filtering by address content in the Advanced filter flyout window of the tag browser.

Incidents Cleared

ID	Description
I22160	Page notes were not being added consistently to site details pages.
I22148	Reads could have gotten stuck calculating the LRC in ASCII mode of communication for the Delta Driver and Modbus Compatible Device.

- I22139 The RPC Services list had a wrong label in its properties dialog.
- I22134 An animated image with a higher FPS at minimum tag value than maximum would not display correctly.
- I22105 The OPC UA Client Driver would fail if the OPC UA server rejected a null Data Filter.
- I22029 Analog display widgets drew their values and alarms beyond both their Max/Min display ranges and past any physical limits that would exist leading to misleading readings.

VTScada version 12.1.16 - Released February 28, 2023

New Features

ID	Description
F1717	When importing gas composition results from a file in the Oil and Gas Solutions layer, the Heating Value is now imported along with the rest of the results if it is available
F1715	It is now possible to set page or widget parameters of type Text as non-translatable.
F1709	The GetModuleTimeStamp function has been added. This is an efficient way to get the timestamp of the module's source file when the module was last compiled or edited in VTScada.
F1702	There is a new Services page and widget for displaying RPC services status and performing changeover of the services during server maintenance. The interface is also available in a script application and the Trace Viewer.
F1693	The columns in the HDV's table of pens now auto-size more appropriately.

Incidents Cleared

ID	Description
I22135	RPCManager.GetInSyncServers would fail to return new information when a potential server became unavailable.
I22112	VTScada might crash when the Windows Text Cursor Indicator was turned on.
I22042	VTScada ODBC Driver would return the "Column does not exist" error when a query had consecutive spaces in column names.
I22040	Configuring the VoIP server and proxy fields was confusing because a SIP URI was required.
I21955	WinToolTipCtrl could cause a buffer overrun if it is called with an array of very large strings.
I21941	VTScada could crash when a user added a very deeply nested expression.

- I21933 If an existing widget was modified such that it displays an additional tag, then performing a Go To Page operation on that tag from the Tag Browser or Alarms page could fail to locate the pages showing that widget.
- I19967 Under rare circumstances, the addition of a page could force an application restart.

VTScada version 12.1.15 - Released February 13, 2023

New Features

- | ID | Description |
|-----------|---|
| F1701 | VTScada now supports displaying the tag name alongside the tag value in the HDV and Plot Data widgets. |
| F1698 | Test Framework asserts can now be called in steady state, so that a test can be written to wait until the assert passes, or a timeout elapses, at which time the test assert fails. |

Incidents Cleared

- | ID | Description |
|-----------|---|
| I22094 | Poll Driver's Data Age widget could display a counter value off by one. |
| I22093 | A serial port could repeatedly attempt to connect when an error occurred, even if it was no longer required to connect, which could lead to delays and timeouts processing other data. |
| I22090 | The Voice Modem Wave Bus Enumerator driver would not install on Windows Server 2012 R2. |
| I22076 | When editing a roster contact, it was impossible to select another contact's edit field without first clicking elsewhere first. |
| I22070 | Page notes would not always appear consistently on site details pages. |
| I22064 | Improved the efficiency of updating the language files. |
| I22063 | Historical data may have been slow to display when reading from the CSV Data Driver or the MQTT Client Driver. |
| I22061 | A Rockwell Driver would not read tags if the type of any of the PLC's addresses was a structure that could not be accessed externally. |
| I22032 | The MultiSmart Well tag's description was blank when configured to use a single well. |
| I22011 | Some REST clients generated charset errors when trying to query a VTScada server. |
| I22010 | Under special circumstances, modules added to an application with the same name as structures used in the code, could be used as the structure definition instead of the actual structure definition. |
| I21987 | The Tag Browser could show a blank tag list for a short time on startup before starting to load the tag list. |
| I21945 | There was a potential for a system slowdown during heavy configuration activity. |

- I21944 The Idea Studio code was less efficient than it could be when making page and widget changes.
- I21862 Double-clicking a ChangeSet in a Windows Explorer window would do nothing if a Modbus driver existed within a running application.

VTScada version 12.1.14 - Released January 25, 2023

New Features

- | ID | Description |
|-----------|---|
| F1706 | Page Button and Page Hotbox widgets can now be configured to launch the Page Menu or subordinate pages. |
| F1683 | It is now possible to reset tag parameters to their default value using the right-click menu. |

Incidents Cleared

- | ID | Description |
|-----------|--|
| I22080 | The I/O tag's properties dialog could show an equipment type that is not the actual assigned equipment type. |
| I22069 | The Delta Driver was unable to read all of the D registers in an AH PLC. |
| I22028 | Longer tag names did not fit well in the new Operate dialog window title bar. |
| I22022 | An acknowledge code was sent to email or SMS roster contacts even if a security user had not been specified in the roster configuration. |
| I22012 | A historian tag logging to a 3rd-party ODBC database could cause the application to hang. |
| I22009 | Renaming an application list in the VAM list manager could result in a missing or empty list if earlier changes were not committed beforehand. |
| I21999 | A large historian could experience a significant memory spike when it synchronized. |
| I21979 | The SQL Driver Error Codes had wrong values reported in the VTS Help documentation. |
| I21948 | The Open dialog in the Idea Studio took unnecessarily long to load. |
| I21935 | The splitter bar could disappear on reopening the Tag Browser, HDV, or Import Tag tool under specific circumstances. |
| I21794 | A tag parameter that accepts a tag or an expression may have failed to reference a tag when using an ancestor relative path. |
| I21165 | Several text functions could cause VTScada to crash if using large strings due to exceeding the maximum VTScada string length. |
| I20876 | The Alarm Notification section of the Application Configuration dialog did not include the alarm priority labels, i.e. "Critical" and "High". |

VTScada version 12.1.13 - Released January 12, 2023

New Features

ID	Description
F1712	By default, the "Go To Page" option searches the parameterized pages specified in the page menu or in page change widgets. It now is possible for an application to specify an additional set of parameterized pages that should be included in the "Go To Page" search by including a GetPagesForTagsHook callback module.
F1700	The Application Configuration dialog now provides a way to disable the Ack All button on the Alarm Page.
F1697	VTScada now supports opening source code in a preferred editor from the Source Debugger
F1696	The Source Debugger now provides a String option in the data format popup window of the module content list.
F1695	The content of the details dialog under the diagnostics tab for the OPC UA Client driver can now be copied. If using an Anywhere Client, the content can be downloaded as a text file.
F1694	VTScada now permits system integrator licenses to be moved between computers.
F1690	Digital Status and Digital I/O and Calculations tags now support toggling their values using the following widgets: Illuminated Toggle Switch, Checkbox Switch, and Toggle Button.
F0911	Added convenient programming interfaces for accessing importing application paths (the working copy path, data path, and path for trace files) among other details about the application.

Incidents Cleared

ID	Description
I22037	The Fisher ROC driver could indicate to a polling driver that communications were good when there was actually a communications error.
I22035	ReadOnlyStation configured servers can now temporarily delete pens from their own view on a HDV trend.
I22027	Whenever a VIC displayed a window containing the realm name in its title, a small amount of memory was leaked in the VIC's process.
I22025	Notes data sources now show their descriptions in the HDV.
I22019	Grundfos Dedicated Controller could fail to export the event and data logs to a csv file on the Anywhere Client.
I22017	The Rockwell Driver could lose track of existing CIP connections if their active termination was disabled.
I22016	Importing a widget which contained a period as part of the filename would display an error.
I22007	Function selector used in widget properties displayed a blank window after a minimize.

- I22005 Bar Graph and Pie Chart widgets previously had a limit on the number of linked tags.
- I22004 The BACnet driver tag import set all I/O tags to analog mode.
- I21989 The report tag could not run certain reports on a schedule. Impacted reports included the Meter Run reports in the Oil & Gas solutions layer and PVR reports.
- I21988 Some file types may not have been able to be downloaded from the browser when using an Anywhere Client.
- I21982 The MultiSmart, MPE SC, and MPE Duplexer Stations' Well\Faults\High Level tags were generating their descriptions with an unnecessary ParmPhrase call.
- I21977 New equipment types added in the StyleSettings tag could disappear when applied, or could display the phrase ID instead of the phrase.
- I21961 The OPC UA client driver would fail to browse nodes on an OPC UA server with a size limited Browse response.
- I21960 The Rotary Control widget could become "stuck" displaying a new value, and the current value, but never applying the new value.
- I21959 Deactivating an expired demo license would require assistance from support.
- I21957 The unlinked indicator could appear in the title bar if there were unlinked widgets shown in the Idea Studio Open or Export, the select widgets dialogs, or the Menu Item dialogs.
- I21950 Illuminated toggle switches flickered noticeably when the confirmation dialog was enabled.
- I21937 The I/O Multi-text widget and Recipe List's saved value cells would not display a tag value if no label was found in the equipment type of the tag being drawn.
- I21936 Some dead settings (HDVAnalogLegend* and HDVDigitalLegend*) were removed since they had no impact on HDV behavior.
- I21923 The time entry tool could show negative hours in some circumstances.
- I21922 Operator log messages were always filtered out of event history when Global Tag & Area filtering is applied
- I21921 After grouping graphics into a tag widget with "Include Trend, Context Menu, and Tooltip Options" deselected, the widget parameters would be set to incorrect values.
- I21908 The Dynacard Upload Driver tag could not be configured to reverse the X and Y coordinates of the dynacard unless the "Read Number of X-Y Points from a Variable" checkbox was also checked.
- I21887 When a page was created with spaces in its name, those spaces were dropped when the page SRC file was created, which made the page file name difficult to read.
- I21809 It was possible for VTSDriver to set RefreshReady too early for the Modbus Compatible Device driver.
- I21757 Operations on a large number of items in the Idea Studio could be slow and CPU intensive.

VTScada version 12.1.12 - Released December 01, 2022

Incidents Cleared

ID	Description
I21984	On some alarm notification call-outs using VOIP, no audio would be heard on the call until a key was pressed.
I21974	When first creating a new Roster tag, it was impossible to add contacts.
I21964	The Extended Addressing legacy Modbus driver would not work with Lufkin extended addressing.
I21963	The BACnet Driver could have tried to build messages too large for the supported packet size.
I21952	The Mitsubishi driver would incorrectly read negative signed word and unsigned double word types in ASCII mode.

VTScada version 12.1.11 - Released November 01, 2022

New Features

ID	Description
F1689	Roster tags now support expressions to be set for the Method and Enabled attributes of each contact.

Incidents Cleared

ID	Description
I21943	The BACnet Driver failed to route to devices with binary addresses containing ASCII control characters.
I21934	The incorrect Voice Modem Wave Bus Enumerator driver version would be installed on Server 2022.
I21931	It was not possible to show a Style tag's invalid value label using the IO Multi-Text Widget.
I21928	It was possible to remove the locked initial area filter in the tag browser.
I21926	Reordering contacts in a Roster was difficult.
I21915	Deleting an application that has a file with a pathname in excess of 256 characters could cause VTScada to crash.
I21898	The Mitsubishi driver would fail to write negative values for word sized outputs in ASCII mode.
I21880	VTScada could fail to maintain an OPC UA server connection if a write to the server happened too soon after connecting.
I21732	Some of the default process tags created by ROC300 and FloBoss407 flow computers in the Oil & Gas Solutions layer referenced point type 10 instead of point type 42.

VTScada version 12.1.10 - Released October 19, 2022

New Features

ID	Description
F1688	Several more drivers now show address information in the Address column of the Tag Browser.
F1687	The Rockwell Driver can now access PLC-5 and SLC controllers that don't support PCCC/CIP through a 1756-DHRIO Interface Module in a ControlLogix chassis.

Incidents Cleared

ID	Description
I21916	Custom-mode PLC alarm tags without ack or acked addresses would fail to report alarms.
I21912	The SNMPPAgent could fail to process incoming requests under specific conditions when using UDP.
I21911	If the Application Manager was set to automatically start and VTScada was running as a service, it was not possible to connect to the Application Manager using a thin client.
I21909	After an Active notification was sent to multiple contacts in a roster, and one of those notifications failed to send due to a comm error, when the alarm cleared only the first contact was sent the Normal notification.
I21897	No commit message was provided in the version log when overriding an OEM layer widget.
I21893	A Calculation IO tag could output a value within the output threshold if its calculation expression became invalid temporarily.
I21881	Some phrases in category 5 - 7 were misclassified and therefore missing translations in other languages shipped with VTScada.
I21730	It was sometimes difficult to know if the web browser for the camera widget was running properly.

VTScada version 12.1.09 - Released October 05, 2022

New Features

ID	Description
F1645	The individual field values of alarm notification messages can now be customized by a hook module which can reside in a custom tag type or in the root of the application.

Incidents Cleared

ID	Description
I21904	VTScada could crash if an incoming call was ended while the greeting speech was being spoken.
I21894	After setting a background colour in a widget, it was not possible to return to "no Color" for the background of the widget.

I21888	OAuth secured 2.0 alarm notifications could fail to notify the first email contact in a roster.
I21886	The Modbus compatible device driver could fail to read a SCADAPack datalog after upgrading to 12.1.01 or higher.
I21883	The OAuth grant scope window would not automatically close upon an external change to the active OAuth state.
I21866	Increased the number of parallel connections which can be made to a single video source server with the camera tag, and improved efficiency by re-using HTTP streams for the same camera.
I21857	The tag browser's operate dialog was unable to set to invalid tags that support invalid values.
I21832	The main window of the VIC application would open behind the browser window with no indication of it opening.
I21815	Flow computer tags can now use custom alarm/event log messages without needing to override all configuration read addresses.
I21773	GUIText Text alignment was incorrect for strings that were both squished and clipped.
I21491	VTScada took an unnecessarily long time to restart after a crash or a hard stop.

VTScada version 12.1.08 - Released September 23, 2022

New Features

ID	Description
F1682	VTScada now supports the Traditional Chinese language.
F1679	VTScada now reads OPC UA server profiles and modifies its behavior to support the OPC UA Micro Embedded profile.
F1666	The Application Manager now shows Application Starting progress and Restart Required status in place of the Application Running Indicator.

Incidents Cleared

ID	Description
I21878	It was not possible to configure a report to trigger with a tag that started with the letters "H", "D", "W", or "M".
I21876	The IEC60870 driver virtual driver failed to configure normalized ASDU types on upgrade from versions before 12.0.0.
I21874	The default MPE SC station page was missing the 24hr well level graph in version 12.1.
I21867	Some tag parameters saved as packed streams would not unpack properly in versions after 11.5.
I21859	The Modbus driver could not communicate with KOYO addresses above v24000.
I21856	Out of date terminology was used for the "Disable Context Menu" option in various widgets.

I21846	A Type-Derived Child tag could show the override orange for tag name which was not overridden.
I21844	The web browser message receive queue did not place a limit on the overall size of the queue or the number of messages which web content could place into the queue.
I21842	The available contact methods in the Roster Tag would not update until the configuration folder was closed and reopened.
I21841	It was possible for several invisible checkboxes to take focus and cause invisible tab-stops.
I21840	A user without account-managing privileges was unable to apply account changes using a changeset, and no feedback was given for account changes rejected when applying a snapshot.
I21837	The Modicon Driver would register CRC errors for responses from a Lufkin RTU using extended addressing.
I21828	Retrieving data from a historian tag logging to a 3rd-party ODBC database could cause the tag to stop working.
I21818	A badly formed phone number could cause the SMS Appliance tag to hang when sending a text message.
I21812	The RPCTimings application was not updated during installation.
I21746	Improved the performance and VTScada responsiveness with multiple MJPEG streams on display.
I21728	An Anywhere Client could fail to change over to another server.
I21541	When renaming a type-derived child tag, an unnecessary record was logged in the repository.

VTScada version 12.1.07 - Released September 08, 2022

New Features

ID	Description
F1678	The Roster tag now has a public interface for accessing its contact information for display in custom widgets.
F1677	Printing from the Sites Page has been enhanced to default to a PrintPage module in an embedded site details page if specified rather than just a screenshot.
F1675	The PLC Alarm tag now reflects the alarm state of the PLC more accurately.
F1674	A port number can now be specified in the configuration folder for a SMS appliance tag. This is useful when the COM port information for a cell modem is unavailable or incorrect from the installed device drivers.
F1659	Access to the tag value tables and the main History table is now restricted to the users with the Remote Tag Value/History Retrieve privilege.

Incidents Cleared

ID	Description
I21869	In rare cases when using thin clients, VTScada could crash.
I21854	The Rockwell driver did not match responses with their requests in CSP mode.
I21853	The GE Driver could have logged Invalids on application start or if the read addresses were changed.
I21850	If Twilio was configured to work only on a specific workstation, other workstations could not add/edit voice or text contacts in a Roster.
I21845	There were unused and missing translations in the set of VTScada phrases.
I21843	It was not possible to use the Numeric Entry widget to clear value of I/O and Calculation memory tags.
I21839	When entering a title in the Idea Studio's Add Page dialog, it was required to tab through invisible GUI elements to arrive at the OK button.
I21838	The IEC 60870-5-104 Driver would fail to complete a GI poll request when in Slave mode, sending multiple, repeated packets when an application is upgraded from VTScada 12.0.0 through 12.0.30 to a later version.
I21836	In the Roster tag contact configuration, the wrong user account may have been saved if the configurer was logged into a realm when they entered the contact username.
I21830	When a new Flow Computer tag was created, some Enron Modbus driver parameters would not be defaulted correctly if the device type was never changed.
I21824	Ad Hoc alarms had a Configuration tab within the Alarm Details dialog which did not apply to them.
I21819	The Rockwell Driver could not address words higher than 0 in physical I/O modules from SLC and MicroLogix controllers.
I21816	The changeset file name was blank when creating a changeset for the first time and unrelated apps could share retained system-level variables.
I21806	Some exported CSV files were not properly displaying UTF-8 characters in Excel.
I21798	The snapshot expression window's Tag Browser fly-out button did not open the Tag Browser to the current tag's tree level.
I21785	The Export options presented in the HDV Export Wizard were not translated.
I21729	Context menus may fail to appear or appear out of position when right-clicking an edit field in a scrolled window.

VTScada version 12.1.06 - Released August 24, 2022

New Features

ID	Description
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F1664 The BACnet driver now support message segmentation as well as Tag Import for most common objects with a Present Value property.

Incidents Cleared

ID	Description
I21834	Alarm ack codes wouldn't be sent out with alarm notifications unless the logged on user on the server was a manager.
I21833	Installing VTScada 12.1 at the root of a drive would result in some files failing to install correctly.
I21831	The VTScada process would not shut down cleanly on systems with modems.
I21827	Registers in the X, Y, B, and W ranges were misinterpreted using ASCII for values above 9 with the Mitsubishi Driver.
I21822	The Rockwell Driver did not convert DF1 station addresses correctly from octal.
I21821	Opening the Server Certificate tab in the OPC UA Client Driver config folder caused high CPU.
I21814	Disable Trends, Navigator Menu and Tooltips widget parameters are not working on the General Digital Text with Label widget in the Oil & Gas Solutions layer
I21813	When editing the State alarm of an IO-Discrete tag in the Advanced mode, the State value could not be set, even though it could be set in Basic mode.
I21808	If a FileStream was at EOF, reads would not work after a seek backwards.
I21807	The IO tag properties dialog showed the incorrect background color.
I21804	The OpenID Connect title for the VTScada Account Name field was misleading.
I21802	The privilege "Manager" and "Administrator" had the same Chinese translation, which could cause confusion when working with privileges.
I21801	The GrundfosBoosterModeSelect widget did not react to external mode changes.
I21800	The legend tool on the small maps in the Map Tile Build Download and Set Area Limiting dialogs could not be closed after opening them.
I21796	VTScada could crash when a subordinate driver of a DriverMUX (which is also the DriverMUX's parent tag) failed to communicate.
I21764	Writes via OPC connections to a read-only server were successful while they should have been denied.
I21758	Moving the mouse cursor on a VIC Idea Studio instance could cause excessive CPU consumption.
I21756	Multiple VICs running the Idea Studio on the same client machine had poor performance.
I21753	It was possible to create a Recipe Book tag with the same CSV FileName as another Recipe Book tag by accident.

- I21715 The VTScada Internet Client would install the palette file in the Windows system directory.
- I21671 The Source Debugger could cause VTScada to hang when viewing a COM Property value exposed by a COM Client if a COM Client being debugged was also hanging.
- I20784 I/O and Calculation output tags would not write their manual values.

VTScada version 12.1.05 - Released August 10, 2022

New Features

- | ID | Description |
|-----------|--|
| F1639 | It is now possible to download CSV formatted files of alarm data from the alarm page when viewing with an Anywhere Client. |

Incidents Cleared

- | ID | Description |
|-----------|---|
| I21810 | An "upon change" alarm option was not available for Discrete Calculation IO tags. |
| I21805 | The Oil and Gas Solutions application was not updated during installation. |
| I21795 | An I/O and Calculations tag might not have updated its value when its expression parameter was changed to a tag or constant. |
| I21792 | There was a memory leak when writing to Modbus compatible devices. |
| I21787 | There was a very small possibility for the Polling Driver to poll a Modbus Driver too early resulting in an initial poll missing some of the inputs. |
| I21781 | A dialog saying that DialogInitPos failed to load was displayed when debugging a child bubble. |
| I21780 | Adding a X509 certificate from the Application Manager running over a VIC connection would fail. |
| I21779 | Ad hoc alarms may not have been displayed by the Alarm Priority Icon widget or may not have appeared in the structure returned by the GetAlarmStateStats() function. |
| I21778 | If you switched to the Alarms tab on the Edit Properties panel, when you switched away it could warn you that changes had been made, even if you hadn't made any changes. |
| I21777 | Some phrases were missing French and Simplified Chinese translations. |
| I21771 | Retrieving data from tag-specific tables might not return old data when the SQL query had filters. |
| I21760 | The installer would create an install.log file in the root of the C: drive if it was cancelled early in the installation process. |
| I21755 | A Page Hotbox widget could appear in the wrong location. |

I21750	The rectangle displayed in place of a hotbox in the Idea Studio didn't match the hotbox's area for Momentary Button or the Toggle Switch widgets.
I21744	VTScada would crash during installation if installing on Windows 8 or Server 2012.
I21701	Using a combination of VICs and Anywhere Clients across an HTTP/2 proxy could cause thin client sessions to fail.
I21674	When an alarm notification was sent as a text or email, if the username of the contact was valid, it included an acknowledgement code even if the user account was disabled.
I21668	Momentary button widgets would only respond on Windows touchscreens when the Show Button option was selected with the Legacy Style option deselected. Now, Windows touchscreens are supported in all momentary button configurations except when the Show Hotbox option is enabled.
I21618	An asterisk appeared next to the top user in the accounts list while applying the deletion of another user.
I21509	The VTScada Internet Client launch dialog would not work with some pasted URLs containing escaped characters.
I21494	The ROC Driver could fail to read more than 60 history points.

VTScada version 12.1.04 - Released July 28, 2022

New Features

ID	Description
F1670	The link displayed in the VIC update dialog now downloads the new VIC installer directly.
F1632	The time at which an active alarm was acknowledged, and the time at which an unacked alarm cleared, is now displayed in the alarm details dialog, and can optionally be shown as separate columns in the alarm list.

Incidents Cleared

ID	Description
I21770	If a Roster exists in an OEM layer, and an application based on that layer has added contacts to that Roster, after upgrading to 12.1, if the OEM layer is *started* followed by the application being started, the contacts from the application layer would be lost.
I21768	Importing a changeset with OAuth 2.0 configured could cause the import to hang.
I21766	Clicking the Help button for the "MultiSpeak Registration Failed" error did not open the corresponding topic.
I21763	When exporting a report to a CSV file while using the Oil & Gas Solutions layer, dates were being formatted incorrectly

I21762	The CATM5X Driver's CCM Manager had Show Comms and Show Stats sub-modules which could never be displayed properly.
I21761	Checkboxes for excluding the Trend, Navigation and Tooltip options and the Tag Icon Marker weren't available when making a new widget from within the widget palette.
I21754	The History Stats Value dialog would keep the unsaved value when the Cancel button is pressed and display them next time the dialog was opened.
I21745	The Oil & Gas Solutions Well Test Table widget would not export data on the Anywhere Client.
I21736	The detailed statistics for a thin client session could be incorrect for long-running sessions.
I21733	A user could have specified a reversed time range in the History Statistics widget.
I21722	It was possible for Locate to attempt to read far outside of the search text which could result in a crash.
I21695	There was no warning in 12.1 if uninstalling VTScada while it was still activated.
I21636	Pop up page created without borders were opening in the middle of the screen when window coordinates were close to the edge of the display area.
I21589	Checkbox widget for Selector Switch tags did not appear to be clickable when Switch Position Feedback was supplied.
I20924	Focus boxes for ellipse and arc-based graphics did not always cover the correct area. GUIPie not rendered correctly in all circumstances.
I19496	Third party software licenses used in VTScada and other distributed products have been updated and made more accessible.

VTScada version 12.1.03 - Released July 13, 2022

New Features

ID	Description
F1668	When creating a tag widget, there are now options to exclude the Trend, Navigation and Tooltip options and/or exclude the Tag Icon Marker.
F1663	A History Statistics Value widget has been created that draws a single calculated historical tag value that is computed over a user-entered time range.
F1654	New Pie Chart and Bar Graph widgets have been added for showing multiple tag values.
F1653	VTScada now supports the Simplified Chinese language.
F1650	An optional Page Shuffle feature has been implemented in VTScada where an app may periodically change pages based upon Settings.Dynamic settings.
F1641	An "upon change" alarm option has been added to Discrete IO tags.

F1631 Certain alarm priorities can now be prevented from being acked by the Ack All button via a new option in the Alarm Priority tag. The Ack button for each individual alarm can now be disabled programmatically via a custom AlarmCellAckHook module.

Incidents Cleared

ID	Description
I21749	Signing in with OpenID Connect would display a "Sign in failed" message when used with some providers.
I21748	Duplicate notes were being added to the historian, causing systems to slow down when processing the information.
I21741	An application could become very slow and unresponsive while synchronizing tag history that contains data notes.
I21737	The VTScada Installer did not use the custom slides and wizard watermark.
I21718	VTScada would fail to acquire access tokens from Google or Microsoft.
I21694	Ungrouping a widget/group with opacity set to 0 would result in the contained graphics not being added to the container page/widget.
I21675	The Consent button in the OAuth 2.0 settings dialog would not be disabled if there were pending changes.
I21665	It was possible to change the Scan Interval parameter for an IO tag whose I/O Device was a Polling driver.
I21651	A connection could not be established by the Anywhere Client in Firefox through an HTTP/2 proxy.
I21646	If the ByteLimit parameter of BlockWrite is set to an Invalid variable it would fail to write any data.

VTScada version 12.1.02 - Released June 29, 2022

New Features

ID	Description
F1665	Deprecated drivers/modes now have a warning not to use them in favor of the new Rockwell driver type. This includes the CIP Symbolic driver and several PLC types within the Allen Bradley Driver.
F1662	A new report, Overall Total report, was added to give a single, overall total for the given time range.
F1661	Two new options have been added to the History Statistics tag that represent the change in a value over time.
F1638	The context menu is now available to all non-tag alarms and objects in an alarm list.

Incidents Cleared

ID	Description
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I21717	An option was presented on the Thin Client landing page to open the VTScada Internet Client (VIC) with no way to disable this option.
I21714	The VTScada installer would delete the wrong directory during the "Cleaning up files" phase if the installation path contained spaces.
I21713	It was possible for the Modbus Driver to report data to the wrong IO tag in a redundant server environment.
I21709	Under rare circumstances, some customers could not activate VTScada version 12.1.01.
I21708	The Enron Driver would send an extra byte in its read requests, causing the read to fail on some PLCs.
I21703	The default input deadband for analogs could be too large to see small data changes.
I21697	VTScada would still require a hardware key for some license keys.
I21693	Some drivers may have reported an unable to connect message when using a UDP or TCP port connection on startup.
I21692	The margins in the License Management dialog were not the same as the margins in the About Box which otherwise had similar appearances.
I21690	Opening a VIC from a browser with a URL containing a page specifier and/or page parameters would open the application default page without any specified parameter values.
I21688	Upgrading to 12.1 from an earlier version did not offer a new grace period to facilitate upgrades for isolated systems.
I21672	OpChange documentation and comments made it appear that the tag name parameter was required in the Parns (dictionary) parameter when it no longer was.
I21576	The Historian could have erroneously written records containing very long text fields.

VTScada version 12.1.01 - Released June 16, 2022

New Features

ID	Description
F1660	Allen Bradley DF1 Compatible PLC/RTU has been moved into a [Legacy Drivers] section of the tag type selector. The Rockwell Driver has been renamed to "Rockwell Driver (Allen Bradley Devices)" to indicate that it is the preferred driver to be used.
F1658	Logging of events for automated multi-writes can now be enabled/disabled.
F1649	The Training Simulator has been improved by removing unnecessary tags and by adding I/O for use when teaching the Recipe Management feature.

- F1648 The Web Browser widget now uses a different profile for each user in each application, and supports security options such as restricting domains and disabling JavaScript. There also are two Web Browser navigation widgets (a button and a hotbox) that can be used to control the web page currently being displayed in a Web Browser widget.
- F1646 HTTP requests now support "Digest" authentication.
- F1640 There is now a demo of the REST interface in the Examples folder.
- F1636 The Alarm List API now supports GetCurrentFilter().
- F1633 Alarm lists can now be configured to be initially sorted by a particular column and direction. They can still be sorted by other columns after the fact.
- F1630 An application property, AckAllAcksOnlyVisible, can now be used to cause the Ack All button on the Alarm Page to only acknowledge the visible alarms.
- F1629 A new Edit Roster Contacts security privilege has been created in order to give operators permission to edit contacts without requiring other privileges.
- F1628 Rockwell Driver now supports Serial and CSP Socket communication with some legacy Allen Bradley PLC's.
- F1625 VTScada's high performance widget folder now contains additional widgets for build high performance HMIs.
- F1621 VTScada has a new license activation scheme and no longer requires a dongle.
- F1620 VTScada can now import tags directly from an OPC-DA server using the OPC Client Driver.
- F1619 The Rockwell Driver now supports PLC5, SLC and MicroLogix PLC's that use Allen Bradley Data file addressing via PCCC commands.
- F1614 Support for up to 9 pumps has been added under a MultiSmart station tag.
- F1605 The MultiSmart Station tag now supports liftstations containing two wells.
- F1600 VTScada now supports SQL queries via POST requests on the REST interface.
- F1597 VTScada now supports launching the VTScada Internet Client from all supported web browsers.
- F1590 Oil and Gas Solutions tags with child Modbus and Enron drivers can now specify the Address format in support of extended addressing for the drivers.
- F1581 VTScada Agent now supports SNMPv3.

- F1563 Cloning a VTScada workstation without generating a new unique machine identifier could lead to the inability to synchronize application configurations, even after a new unique machine identifier was generated on the cloned machine. While it still is necessary to generate a new unique machine identifier when cloning a workstation, failing to do so will no longer cause synchronization problems as long as the cloned workstation is given a new name. Also, when a workstation is renamed, a new entry will appear in the Version Log rather than the old entry appearing with the new name. The old entry will still be available for review, under the old name. These entries will appear the same on all workstations, whereas before renamed workstations appeared with their original name when viewed in the Version Log from another workstation. Related to this, on upgrade, new entries will be added to the Workstations list for all renamed workstations. Their old entries will remain in the list, but will appear under the workstation's original name.
- F1562 A new column in the tag browser has been added to show attributes for tags. Searching in the tag browser has been extended to allow users to have a list of all tags marked as Questionable or having a valid Manual Value.
- F1560 A new button has been added to the Alarm List's toolbar so a user can easily discover they can copy and paste the list contents to the windows clipboard.
- F1550 You can now embed live camera feeds into VTScada pages. Web sites can also be embedded in VTScada pages.
- F1547 Support has been added for Voice Over IP (VoIP) via Session Initiation Protocol (SIP) for use with the VTScada Alarm Notification system.
- F1537 The IO tag's ConfigFolder has been enhanced to show units for some fields and the calculated Deadband is now displayed in the Deadband field as placeholder text.
- F1536 The Modbus driver was reworked to allow the reading of IO to run on a separate processor core, thereby freeing up CPU for the rest of VTScada activities. The result is greater responsiveness and the ability to handle larger applications when using the Modbus driver.
- F1464 VTScada installer has been improved with a smaller size and faster installation.
- F1427 Twilio now uses rotating URLs for additional security and no longer requires a configured VTScada account for use.
- F1400 I/O and Calculations tag and Analog Status tag are now able to set input deadband value to filter out insignificant analog noise.

- F1315 VTScada now supports running script fully in parallel, taking better advantage of multi-core processors. The Bubble function has been added, which launches a module into an isolated bubble that can run in parallel with other bubbles. There is a controlled message-passing interface for communication between a child bubble and its parent bubble. This makes it possible to run script in an isolated fashion such that it cannot read or write to objects running in other bubbles.
- F1606 The Roster tag now a) supports up to 40 contacts, b) can be configured with additional settings that affect its behaviour, c) can configure different delays in between contacts as well as repeats, d) is easier to use with the elimination of "Continue Roster Sequence", e) has an improved properties dialog.
- F1601 Honeywell Mercury Driver now supports TCP/IP communications.
- F1594 Honeywell Mercury Driver now accepts incoming calls and supports the EC 350, ERX 350 and Mini-Max versions of the RTU.
- F1592 It is now possible for steady-state-only functions to be reloaded in the Function Library without restarting the application.
- F1591 VTScada now supports the MakeParmPhrase function in the function library, which enables easier construction of parameterized phrases.
- F1582 A RecipeProportions tag has been added to allow hooked RecipeIngredients to be either adjusted to add up to the specified total, or multiplied by a scale factor before outputting to the PLC.
- F1579 A new report called "Recipe Batch Report" has been added for batches run for a RecipeBook tag.
- F1577 The Recipe Version Selector widget now allows you to sort in descending order. The Recipe Selector widget now allows you to have the last version become selected whenever a new recipe is selected.
- F1576 A Honeywell Mercury driver has been developed to work with the ECAT and Mini-AT versions of the RTU.
- F1575 Data attributes and all its bits now can be retrieved via VTScada's Remote Data Access and ODBC interface.
- F1571 The ability to issue control actions directly from the Tag Browser has been added.
- F1566 A new widget has been added to the RecipeBook tag to allow a user to skip the writing of ingredients or cancel a batch operation in case of a hang while writing. Skip and cancel options have also been added to the status bar of the Recipes page.
- F1565 VTScada now has built-in functions for table interpolation, tank shell volume corrections, and oil pressure/temperature volume corrections.
- F1559 VTScada now supports a Function Library to enhance and simplify expression-building.
- F1558 A new tag type, SQL View, has been created to specify data available to retrieve from the ODBC query interface.
- F1553 VTScada now supports using the MELSEC label addressing scheme for the iQR series PLC.

- F1551 Support for certain PID loop variables has been added to the TI505 Driver.
- F1549 The Delta Driver now supports the AX series PLC via Modbus communications.
- F1546 VTScada now supports the Mitsubishi Melsec iQR PLC series through use of a new Mitsubishi Driver tag.
- F1542 A new driver, Delta Driver, has been created for communicating with Delta PLCs using standard Modbus with Delta addressing.
- F1544 The Rockwell Driver's performance has been further optimized.
- F1538 The ModbusTransport now has Read and Write modules for performing Modbus reads and writes using standard function codes.
- F1528 Minor improvements to the Recipe tags and graphics were made.
- F1522 VTScada now has a Recipes page for configuring recipes and writing recipe ingredient values to a PLC.
- F1512 VTScada now supports configuring recipes and writing recipe ingredient values to a PLC.
- F1511 The TI505 driver can now open multiple TCP/IP connections to an RTU, reducing traffic congestion during heavy usage.
- F1480 VTScada now has support for Milsoft's DisSPatch outage management system using the MultiSpeak web services interface.
- F1456 The TCP/IP and UDP/IP Port tags are now capable of establishing multiple concurrent connections to a device, thus increasing throughput rates. Both the device being connected to and the driver being used must support concurrent connections for this to be used.
- F1434 VTScada now supports Internet Client sessions in a multi-monitor arrangement, configured using a Realm Display Setup tag. For example, with a 1x3 arrangement of equally sized monitors, 3 Display Manager instances, 1 per monitor, can be presented.
- F1422 VTScada can now import tags directly from an OPC-UA server using the OPC-UA Client Driver.
- F1360 The Modbus and Enron Modbus drivers now support extended PLC addressing and allow multiple simultaneous connections to a PLC.
- F1342 A new Rockwell Driver, combining features of the CIP/ENIP Driver and the Symbolic CIP Driver has been added.

Incidents Cleared

ID	Description
I21686	In a rare situation, VTScada could crash during installation.
I21669	In a rare situation, VTScada could crash when a window containing a DropDownList was closed.
I21655	VTScada would use more CPU than it should when editing a text expression in the Idea Studio.
I21654	Security options may not have shown up if initially opened and closed in the wrong order.
I21648	A parameter title in the Program Spawn Properties dialog would not change with the user language.

- I21644 When changing pages, the title bar would display the page name briefly before displaying the page title.
- I21634 FileDialogBox did not show subdirectories when called with CSIDL_PERSONAL (5).
- I21603 Some tag types had override/highlight problems in their config folder.
- I21565 Priority 1 and 2 alarms would be notified even if the app was configured to only notify priority 1 alarms. This has been fixed in new applications, but can be altered in existing applications using the MaxCallAlarmPriorityReported setting.
- I21564 The properties dialog of Modbus and Enron drivers was using different terminology for what is now called the "Station Address".
- I21536 When a new version of the VTScada Internet Client was installed on top of an old version, it would not include updates to the Idea Studio ribbon.
- I21518 POC-Weatherford and POC-Unico pump-off controller tags contained a large number of unused disabled alarms.
- I21514 Reading/writing of the SNMP agent configuration XML file and the related MIB generation could take very long, hog the application thread, and starve other threads.
- I21512 The VTScada ODBC Driver was unable to handle the errors returned by HTTP requests.
- I21493 If none of the contacts in a roster could be notified due to configuration or hardware issues, the roster would either flood the event history with failure messages until the notification issue is resolved, or log a single failure message with no further attempts to notify the alarm.
- I21432 Security improvements have been made to the VTScada installer.
- I21419 A rare crash could occur on a heavily loaded system.
- I21406 The MultiSmart station had several duplicated tags relating to Motor Protection.
- I21393 Users were getting a compile error when configuring an expression for a tag widget.
- I21392 FilterTagList does not accurately detect ParmPhrase structure matches.
- I21389 A new popup page could become non-popup on app restart or on deployment if it was not edited immediately after its creation.
- I21387 In rare cases, VTScada could crash after renaming a tag.
- I21373 The number of rows returned by an SQL query was limited regardless of the number of columns being retrieved, which could cause performance issues.
- I21329 The MultiSmart Station tag was missing some child tags for Unit 2.
- I21310 Un-optimized parameter expressions could cause a tag to refresh unnecessarily with a transient invalid parameter value.
- I21289 Unoptimized expressions could lead to unexpected values for interdependent tag parameters on refresh.
- I21281 VTSIO drivers are no longer installed by new VTScada installations.
- I21275 The VTScada installer might have required a reboot after installing modem drivers, even though one was not needed.

- I21243 Text on pages could disappear until VTScada was restarted.
- I21210 Cut/Copy/Paste actions in the Tag Browser, while focus is on the Search field, were also performing the action on the selected tags.
- I21194 The Edit Parameter dialog kept showing up when opening a subordinate application's page with partially specified parameters.
- I21085 When selecting a page from a subordinate application via the master application's page menu, it was possible to select a master app tag for a subordinate page's parameter value.
- I21027 Restarting VTScada could result in losing the OAuth 2 consent for grants previously acquired.
- I21009 Security improvements have been made for OAuth 2.0.
- I20723 Animated graphics on a page could fail to animate.
- I20620 Some Multismart Auxiliary Control tags were missing their data source definitions
- I20497 MultiSmart Station had duplicate and a misspelled Well\Flow Stats\Total Volume Freeze tag.
- I20279 The Poll Driver could get stuck in fast poll mode if the primary server went offline after initiating a fast poll.
- I19800 In the tag browser, non-root-level name filters with a leading "*" would yield different results for disabled and enabled tags.
- I19280 I/O and Calculations tags were logging Invalid on tag startup and configuration changes to the expression.
- I17299 The IsRunning function was very slow to execute, taking many seconds.