RELEASE NOTES FOR groov SERVER FOR WINDOWS

Updated May 20, 2024

groov SERVER FOR WINDOW R4.5c

May 20, 2024.

groov View

Bug Fixes

- KB88159 Large projects time out before loading in groov View Build mode
- KB90422 Hidden pages do not appear in the Manage Accounts dialog
- KB90740 Human-readable timestamps in trend downloads only work when downloading a single data series at a time
- KB90760 Errors when attempting to select CODESYS string variables in *groov* View tag browser
- KB90777 Only the first 50 configured devices or computed tags appear in groov View for editing or deletion
- KB90804 Using *groov* View Build mode from an external HDMI monitor connected to *groov* EPIC devices may cause application to hang
- KB90805 Changing the Page menu display results in an empty page when viewed on the EPIC touchscreen or external HDMI monitor
- KB90818 groov View Momentary Button may not work on a Windows device with a touch screen
- KB90856 Database error when modifying a user in *groov* View Build mode
- KB90870 OPC UA tag browsing may time out when opening folders with large number of tags

groov SERVER FOR WINDOW R4.5b

August 30, 2023.

groov View

Bug Fixes

- KB90022 After editing a computed tag's script, output doesn't change
- KB90023 After editing a computed tag, the computed tag stops working

groov SERVER FOR WINDOW R4.5a

July 5, 2023. Updated: July 27, 2023.

groov View

New Features

• *groov* View now supports secure connections to OPC UA servers/devices. Make sure the server or device complies with one of the security profiles defined in the OPC UA specification (section 6.6).



You can now hide the navigation bar for Kiosk users. Edit the project settings and enable the Hide the
navigation bar for kiosk users checkbox. The page menu, events icon, and gear menu will not be
viewable for Kiosk users.

Enhancements

- You can now set a specific page to be the default page:
 - for a user (by editing the user's account properties),
 - for a group (by editing the group's properties), or
 - for a project (by editing the project's General Settings).
- You can now enable an option to change the format of date/time in downloaded trends to make it easier to read. When you download trend data, enable the Human-readable timestamp checkbox.
- The following improvements can help make the image library easier to use:
 - When you select multiple images, the previously selected images are highlighted.
 - More information about each image is provided:
 - Size of the image in kilobytes (Kb).
 - Usage Count, to indicate the number of times an image is used by a gadget in your project.

Bug Fixes

- KB90171 Clicking on gadget with broken connection to tag shows blank properties editor
- KB90180 Cannot change array index of OPC UA array of undefined length
- KB90182 Configure Dynamic Tags button may not work after adding OPC UA device
- KB90292 groov View displays unnecessary colon when range indicator gadget is oriented vertically
- KB90439 Change to "No Tag" not applied to gadgets, events, or computed tags
- KB90448 Previously selectable CODESYS OPC UA tags now show as unsupported in the tag browser
- KB90464 Gadgets may render over the page menu in View mode
- KB90531 "between" conditional format rule doesn't work if larger value in left field
- KB90582 Upgrading a *groov* View project to R4.4 may result in 503 HTTP error
- KB90619 groov View can't access tags on an OPC UA server

groov SERVER FOR WINDOWS R4.4b

August 4, 2022.

groov View

Bug Fixes

- KB90028 Video gadgets erroneously indicate that trial period ended before it started
- KB90289 Some users can't see video from video gadgets with proxy option
- KB90330 Page access permissions reset to All Users
- KB90394 Cannot select an array index on some OPC UA array tags
- KB90399 OPC UA tags with Number type are selectable in Build mode, but report type error in View mode

groov SERVER FOR WINDOWS R4.4a

June 16, 2022



groov View

New Feature

- Tools have been added to help you more accurately lay out your gadgets on a page so that they fit on your target screen:
 - Rulers. In Build mode, you can display rulers, which appear above and to the left of your page.
 Rulers display tick marks at every grid unit, with every 10th unit labeled numerically. A thick line on each ruler visually identifies the current location of the mouse. Rulers do not appear in View mode.
 - Layout Guides. In Build mode, a horizontal or vertical line that you can place on a page to help you
 align gadgets or identify the top or bottom of the target screen. The layout guides do not appear in
 View mode. When you duplicate a page with layout guides, the guides are duplicated, which can
 help you create consistent layouts between pages.
 - Page Size Overlay. A small box that displays in View mode and shows the pixel width and height
 of the target screen. You can then use this information to set your layout guides. You can turn on the
 overlay during development and testing of your project, then turn it off before releasing your
 project for production.
- For security, Text Box Input gadgets now offer an option to mask the text the user types. When a user types a character, *groov* View replaces it with an asterisk.

Enhancements

- Added support for Microsoft Windows 11 Professional and Microsoft Windows Server 2019
- When you duplicate gadgets, the copy is placed at the bottom of the page for both the Desktop and Handheld layouts. If more than one gadget is duplicated—for example, a label and an LED—the copy maintains the same relative positions as the original.
- You can now browse through custom OPC UA data structures to select fields in the structure and use them as tags.
- The following options have been added to improve navigation of *groov* View projects in both Build mode and View mode:
 - If you organized your pages into categories, you can opt to display those categories as folders, where you can expand or collapse the folder to view the pages in that category. The setting to enable the folder view is in the View Mode section of the Project settings (in Build mode, click Configure > Project). The default is to display the list of pages as a flat list.
 - In the Events page, a Back icon has been added. When you click on it, you return to the last page you
 were viewing.
 - You can now hide the Events icon so that it doesn't display in View mode. The setting to hide the
 Events icon is in the View Mode section of the Project settings. The default is to display it.
 - The Groov View Styling section of the Project Settings page has been renamed and some of the settings have been renamed/rearranged. The section is now called View Mode. To see the new names of settings and their arrangement, see *groov* View User's Guide (form 2027).

Bug Fixes

- KB84693 In Build mode of *groov* View, changing gadget z-order only works with one gadget at a time
- KB84815 Z-order with gadgets is inconsistent
- KB90193 When copying and pasting groups of gadgets, z-order is not preserved
- KB89845 groov View may hang while using video gadgets with the proxy option enabled
- KB90109 In Build mode, unable to open an Event for editing
- KB90192 Gadget pasted to another page has incorrect position/size



groov SERVER FOR WINDOWS R4.3f

October 29, 2021

groov View

Bug Fixes

- KB90022 After editing a computed tag's script, output doesn't change
- KB90023 After editing a computed tag, the computed tag stops working

groov SERVER FOR WINDOWS R4.3e

October 26, 2021

groov View

New Feature

- Support has been added for the following new groov EPIC I/O modules:
 - GRV-MM1001-10
 - GRV-IVAPM-3

Bug Fixes

- KB89878 Auto Navigator gadget allows write-only tags to be assigned to it
- KB89919 groov View may not start when OPC UA tags are inputs to Computed Tags
- KB89626 Array element field shows -1; can't erase with Backspace key
- KB89985 Adds, deletes, or edits to computed tags disappear from Configure Tags dialog

groov SERVER FOR WINDOWS R4.3d

August 16, 2021

groov View

Bug Fixes

- KB89781 Gadgets using computed tags may show an error when groov View starts
- KB89826 groov View hangs due to lag in computed tags

groov SERVER FOR WINDOWS R4.3c

June 11, 2021

groov View

Bug Fixes

• KB89573 - Trend data not restored when groov View project restored



- KB89633 Saving groov Build pages takes a long time, or on GRV-EPIC-PR1 reports 504 Gateway
 Time-out
- KB89645 Events won't load in Build mode if an event is using an invalid tag
- KB89673 When bit 0 is selected in a gadget using bit picking, the automatic label fails to show "(bit 0)"
- KB89674 Can't select the last bit in an integer in the gadget properties panel bit selector
- KB89675 groov View bit writing doesn't work correctly for the upper 33 bits of a 64 bit integer
- KB89744 All gadgets with Computed Tags stop working
- KB89755 Page Navigators configured as links or buttons don't work when Visibility option enabled

groov SERVER FOR WINDOWS R4.3b

April 16, 2021

groov View

New Feature

groov View is now included in the new groov EPIC processor, GRV-EPIC-PR2.

Bug Fixes

- KB83816 Windows Tray Icon for *groov* Monitor Disappears
- KB87773 groov View Virtual Keyboard Off-Center and Behaves Irregularly
- KB89503 Can't Clear Bit (0-31) Field on Gadget's Properties Panel
- KB89523 groov View Classic Trend Performance Gradually Slows Down
- KB89530 Can't Set Color or Text for On/Off Text Fields When Data Source is Bit
- KB89539 Events Not Sending Email on GROOV-AR1 or GROOV-AT1
- KB89545 Timeout or "The secure channel has been closed" Error While Browsing Static Tags on a CODESYS OPC UA Server
- KB89564 Delay in Showing Data for Interactive Trends with Long Period
- KB89631 Computed Tag Reports Error When Input is String Array Tag

groov SERVER FOR WINDOWS R4.3a

January 20, 2021

groov View

New Features

Computed Tags. You can now create tags that are the result of calculations performed on other tags. Writing calculations in JavaScript, you can convert the value of a tag (for example, convert a Celsius value to Fahrenheit) or combine multiple tags into one value (for example, sum the current levels of all tanks into one value).

Select a Bit from an Integer as the Tag Value. Also known as bit picking, you can now select a bit from an integer to be the value of a tag.

Disable Communication to a Device. You can now disable communication to a device in your *groov* View project. This can be helpful with devices that incur costs: you can disable communication during times you



don't need to communicate with those devices. It can also be helpful when a device has not been installed yet or is not available.

Trends Display Average/Min/Max. Interactive trends now display average, minimum, and maximum values for each data point when the zoom level is set to a period larger than the sampling rate. When you set the zoom level to a period equal to the sampling rate, the trend displays the actual value for each data point.

Enhancements

Use Integers to Control Visibility of Gadgets. You can now use integer variables to control the visibility of gadgets.

For more information about these new features and enhancements and how to use them, see the *groov* View User's Guide (form 2027).

Bug Fixes

- KB83954 If OPC-UA Server Unavailable, Updating Static Tags and Switching to groov View May Cause Freeze
- KB88370 groov View fails to load or does not allow user to log in
- KB88691 Restored *groov* View project is Not Logging Events
- KB89200 Only 32 Colors Available on LED Gadgets With Non-Boolean Tag Types
- KB89267 Can't Switch to Build Mode When Using More Than One Percent (%) Symbol in Formatting String
- KB89328 Video Gadget May Not Load Images in Google Chrome Version 86 or Higher
- KB89350 At Symbol (@) in Video Gadget URL May Prevent Images From Loading

groov SERVER FOR WINDOWS R4.2c

September 8, 2020

groov View

New Feature

When you change the time zone on a *groov* Edge Appliance (*groov* Box), the change will be reflected in *groov* View within about a minute.

Enhancement

groov View now checks whether a gadget is invisible at the time it loads a page. If the gadget is set to be invisible, *groov* View does not display it. This may help *groov* View load pages faster. When the value of the gadget's tag (used to set the gadget's visibility) is set to true, then *groov* View displays the gadget.

Bug Fixes

- KB88783 Level Indicator in vertical orientation is shorter than before
- KB88755 Trend-pen legend text is displayed in the wrong color
- KB88788 Hover title for tags in the gadget properties panel is missing
- KB88791 Clearing a Text Area gadget's text doesn't work
- KB88809 Conditional formatting inputs may not allow decimal values
- KB88815 Cannot connect directly to groov View using port forwarding
- KB88841 Conditional formatting on gadgets with a Boolean tag display incorrect formatting
- KB88868 Level Indicator gadget label is not updated as you edit it



- KB88869 Range Indicator gadgets show incorrect border around the fill range
- KB88875 Can't import pages with Oval, Rectangle, Text Area, or Value gadgets
- KB88927 All groov View gadgets connected to the same OPC UA scanner show yellow triangles
- KB88928 OPC UA servers may return UnsignedByte values when Byte values are expected
- KB88974 After PAC Control strategy is updated, *groov* View reports tags not available
- KB88979 Hidden gadgets prevent mouse actions for gadgets lying underneath
- KB89044 groov View reports "This gadget does not have a properly configured tag" for some OPC UA array tags
- KB89054 The OPC UA tag browser allows you to assign unsupported tags to gadgets
- KB89112 "Cannot Browse" error when browsing though tags from CODESYS application
- KB89169 Square Wave A (1 sec on/off) on Data Simulator does not turn on
- KB89188 Time out error (504) when backing up large groov View project to computer
- KB89233 groov View does not display change in data type of a Data Store tag

groov SERVER FOR WINDOWS R4.2b

January 13, 2020

groov View

Enhancements

This release adds support for GRV-R7-MM1001-10, the first in the groov RIO family of remote I/O units.

Bug Fixes

KB88803 - Update Auto Tags removes valid tag on I/O unit

groov SERVER FOR WINDOWS R4.2a

December 16, 2019

Bug fixes

KB88673 - Can't open groov View, groov Manage, or groov Admin from Chrome browser on macOS or iOS

groov View

New Features

- A new Events device is available in the device/tag browser. When you configure an Event, it is added to this device. Then you can use events as input to gadgets.
- You can now make gadgets invisible, based on the value of a boolean tag. The gadget will appear on the page only if the boolean tag value is true.
- Shape gadgets are now available.
- From the browser, you can now print a *groov* View page and all the gadgets on the page will appear at a consistent scale on the paper; the browser's window size will not make them larger or smaller.
- A new gadget, called Auto Navigator, can jump to a specific page in the *groov* View project when its tag value satisfies a specific condition.



• Both Value and Text Area gadgets now support conditional formatting for their data fields. You can configure these gadgets to change the font when the value of the tag meets certain conditions.

You can learn more about all of the new features in the *groov* View User's Guide (form 2027).

Enhancements

- You can now specify the Table Index for array tags directly from Properties window.
- The log viewer has been improved to load faster and be easier to read.
- The groov View REST API has been updated to include a way to download the groov View logs in either text or JSON formats.
- Enhancements have been made to improve security.

Bug Fixes

- KB86468 Changes to name or data type of tag not reflected in gadget
- KB87361 Text doesn't appear for integer or string Value gadget with format field configured with extra text
- KB87382 Can't add a recently created user to a group
- KB87557 Changed properties of configured Modbus tag do not take effect
- KB88166 Changing the name of a data store tag does not get reflected in View mode
- KB88208 All strings written to manually configured tags on I/O unit devices are encoded in ASCII
- KB88380 Manually configured MMP tags treated as boolean tags during gadget selection
- KB88479 Build mode in groov View incorrectly reports "No Page" error
- KB88580 Momentary button doesn't write Release Value to tag
- KB88581 groov View: Mouse clicks might be ignored after page refresh
- KB88635 Incorrect tag data from multiple Modbus devices
- KB88663 Gadgets show "can't connect to controller" message
- KB88664 Strings in groov View may contain extra text at the end
- KB88665 Length field in I/O Unit Tag editor always displays 0x10
- KB88679 Connection or communication errors with Data Simulator and Local I/O

groov SERVER FOR WINDOWS R4.1e

October 4, 2019

groov View

Bug Fixes

- KB88505 Command Button gadget sends '1'; incorrectly interpreted as false
- KB88576 LED gadgets don't display fill color in iOS/iPadOS 13

groov SERVER FOR WINDOWS R4.1d

August 16, 2019



groov View

Bug Fixes

- KB87607 Help > groov Public API may result in "Can't read swagger" message
- KB88026 Open *groov* View in New Tab menu item opens *groov* Manage
- KB88135 Changing controller's string encoding doesn't take effect immediately
- KB88157 In Build mode, modules don't appear in correct slot if GRV-CSERI-4 module is on the chassis
- KB88177 Reading LBCD tag on Modbus device causes "Unknown error" and disconnection from device
- KB88253 Values for BCD tags display as raw decimal
- KB88276 Gadget data takes a long time to show on screen
- KB88308 Momentary buttons may continue writing after release
- KB88312 Tag browser reports an error on some large folders

groov SERVER FOR WINDOWS R4.1c

May 6, 2019

groov View

Bug Fixes

- KB88193 groov View gadgets may not update when time set back
- KB88221 Stack Full error and *groov* View flashes yellow triangle on gadgets

groov SERVER FOR WINDOWS R4.1b

March 19, 2019

groov View

Bug Fixes

- KB88093 Devices show degraded status, frequent yellow triangles
- KB88107 Gadgets become unusable; can't navigate through pages
- KB88078 Gadgets that worked in previous versions may not work in 4.1a and might block access to Build mode
- KB88079 When Configuring User Configured Tag, Address May Become Corrupted
- KB88103 Large Projects Time Out Before Loading in Build Mode
- KB88158 Can't assign certain system tags to some gadget types

groov SERVER FOR WINDOWS R4.1a

February 13, 2019

Fixed Bug

KB87826 - Cannot upload certificate in groov Server for Windows Certificate utility





groov View

New Features

- Licensing changes. You no longer need to purchase Plus or Enterprise licenses. Everyone has access to all features. Be sure you have an active maintenance agreement, so you can update to R4.1a and get everything you may be missing.
- Device health data. Now you can see key information about the devices your *groov* View project connects to, such as:
 - What's the average response time for tag data? Over the last minute, 5 minutes, 15 minutes?
 - How often do we see errors on the device?
 - Is the device in use? Having connection issues?
 Check out the new column in the Configure Devices and Tags dialog box and the new Device
 Health dialog box, which shows the metrics being tracked. More details are in the *groov* View User's Guide, form 2027.
- Configurable scan rates and communication timeouts. Now you can configure scan rates and timeouts for Opto 22 I/O Units, Opto 22 Controllers, Modbus Devices, and OPC UA Server devices. You can also configure string encodings for most of these.
- Backups for trend data and event notifications. You can also choose to exclude user data from the backup, which may be helpful when sending projects to Opto 22 Product Support.

Enhancements

- Support for new groov EPIC I/O modules: GRV-IDCIFQ-12 (isolated quadrature input module), GRV-IICTD-12 (ICTD input module), and GRV-IMAI-8 (milliamp input module with channel-to-channel isolation)
- Per your requests, the "Refresh groov View" option is back in the *groov* View gear menu.

Bug Fixes

- KB86945 groov View pages show a scroll bar when there's nothing to scroll to
- KB87416 In *groov* View, moving an Edit Value dialog box from a text input gadget jumps the box to the middle of the page
- KB87531 groov View yellow triangle error prevents access to trend features
- KB87623 After restoring a project on a GRV-EPIC-PR1, groov View fails to load with HTTP error 503
- KB87631 System device "System Uptime" tag is empty
- KB87668 In groov View, clearing ON or OFF latches doesn't work for groov digital modules
- KB87670 groov View doesn't respond to some Modbus device configuration options
- KB87728 In groov View's Build mode, Accounts dialog box wonth open; gives "network" error
- KB87729 If multiple Control Engine devices are used on a single IP address, but on different ports, one device going offline causes errors in others
- KB87998 groov View enters trial mode even though a valid license is installed

groov SERVER FOR WINDOWS R4.0c

June 20, 2018



groov View

Bug Fixes

KB87516 - Mobile devices will not re-subscribe to tags after sleeping for several minutes

groov SERVER FOR WINDOWS R4.0b

June 18, 2018

groov View

Bug Fixes

- KB87475 Gadgets report error messages when scanning OPC-UA devices while running groov View with an expired license
- KB83992 groov View cannot connect to a OPC-UA server after the network connection is lost and then recovered
- KB87477 Value scaling not working on Round Gauge, Range Indicator gadgets
- KB87478 groov View fails to run and returns a "503 Service Unavailable" message
- KB87496 groov View erroneously shows that it's entering trial mode when running with an expired
 maintenance

groov SERVER FOR WINDOWS R4.0a

May 21, 2018

groov View

New Features

- groov View now runs on the new groov EPIC (edge programmable industrial controller) system. groov
 View software is included with the GRV-EPIC-PR1 processor. Authorized users can view the groov View
 HMI you build on the GRVEPIC- PR1's integrated high-resolution touchscreen as well as on mobile
 devices and PCs. For more on groov EPIC, see groov System.
- You can now start a new project easily by resetting your project. This new feature makes it easier for
 system integrators or others who work on multiple projects for different customers or locations. Be sure
 to back up the existing project first. Then from the File menu, choose Reset Project. All your devices,
 pages, and trend data will be deleted, so you can start over fresh with a new project or restore a different
 project you need to work on.

Bug Fixes

- KB87151 Video gadget may be updated at a rate different from the update period.
- KB87274 Events do not work if the project has run with no tags configured
- KB87299 *groov* View displays Unicode escape sequence instead of the correct character
- KB87320 Gadgets may be very slow to receive updates in *groov* View R3.5a or R3.5b.
- KB87384 Kiosk accounts are logged out after 2 weeks even though the "Do not expire" option is checked
- KB87386 System log may show missing values for control engine errors



groov SERVER FOR WINDOWS R3.5a

March 14, 2018

Enhancement

Incorporated security fixes and updated time zone information.

groov View

New Features

- You can now configure Opto 22 SNAP PAC I/O units as devices and use their tags in a *groov* operator interface. (Configure > Devices and Tags > Add New Device). When you add an I/O unit, the units OptoMMP memory map tags become available in *groov* View.
- Whenever an event becomes active, the event notification (bell) icon now displays the number of active
 events.

Enhancements

- *groov* View has been optimized to improve performance, responsiveness, and scalability. It can now handle a much larger number of clients without putting additional load on your devices.
- View mode's navigation bar, as well as its setup and login screens, have been redesigned to be easier to use and more readable on handheld screens. Also, tap targets in handheld screens are larger.
- *groov* View now automatically displays and refreshes new and updated pages. Since it is no longer needed, the Refresh *groov* View menu item has now been removed from the Settings (gear) menu.
- You can now access the *groov* Log Viewer from the Settings menu (gear icon > View logs). The Log Viewer opens in a new browser page, and has settings to filter and search for log records.
- To align with our upcoming *groov* EPIC release, the title of this document was changed from README: *groov* App to README: *groov* View.

- KB83753 Can't log in if the time on groov box or server is earlier than the creation time of the user
 account
- KB84010 groov View gear menu does not resize properly with browser window
- KB85792 Unable to hide *groov* logo on the *groov* View login page
- KB86009 "groov Box or Server cannot be reached" when *groov* View page uses tags from device configured with IPv6 address
- KB86132 In groov, failure on a single OPC UA connection may cause tags on working OPC UA connections to fail
- KB86438 In *groov*, changing a user's password does not log them out
- KB86542 Page menu items are greyed out after About page is displayed
- KB86546 groov Data Store API reports incorrect errors after free trial expiration
- KB86553 groov Data Store may allow writes after trial period has expired
- KB86714 groov View pages with over 100 gadgets may be slow to load and update
- KB86765 Trend gadget displays yellow triangle; information box reports a "groov Box or Server cannot be reached" message
- KB86866 Invalid trend configuration can crash groov View
- KB86890 Numbers greater than 999 are missing commas in Trends
- KB86945 groov View pages show a scroll bar when there's nothing to scroll to
- KB87051 OPC-UA device tags aren't in alphabetical order



- KB87136 groov View fails to launch and recommends installing "groov version null"
- KB87145 groov View forces you to change your password every time you log in

groov SERVER FOR WINDOWS R3.4c

October 9, 2017

groov View

Enhancement

System and event logging was optimized to decrease the number of writes made to groov's internal storage.

Fixed Bugs

- KB86862 Events that use OPC-UA tags don't work after *groov* restarts
- KB86921 Event's status is Inactive when the event is Active (still in debounce period)
- KB86971 Events stop updating and sending notifications
- KB86972 groov log viewer "Advanced Configuration" settings don't take effect immediately
- KB86979 groov View reports errors for SNAP PAC controllers, but controllers look fine in PAC Control

groov SERVER FOR WINDOWS R3.4b

June 5, 2017

groov View

Fixed Bugs

- KB86674 groov may not correctly restrict access to unregistered devices
- KB86675 groov may fail to close network sockets on Modbus connection errors

groov SERVER FOR WINDOWS R3.4a

May 2, 2017

groov View

Fixed Bugs

KB86470 - Using the *groov* Data Simulator may incorrectly start trial mode

groov SERVER FOR WINDOWS R3.3b

January 5, 2017



groov View

Fixed Bugs

KB86470 - Using the *groov* Data Simulator may incorrectly start trial mode

groov SERVER FOR WINDOWS R3.3a

December 21, 2016

groov View

New Features and Enhancements

- A new Data Store device has been added so you can put data into groov from anywhere (a database, another device or system) and monitor or change it in your mobile operator interface. See the groo v Build and View User's Guide (form 2027) for details.
- Access to new Data Store devices is provided by a RESTful API to groov. Data is in standard JSON format.
 With this new API, you can use the programming tool of your choice to securely access data in a Data Store. Complete API information is linked from groov Build and on developer.opto22.com.
- You'll see changes when managing accounts: you can generate API keys for software users (software that accesses data in a Data Store), you can search if you have a long list of users, and you use icons to edit or delete users in the list.
- Starting with this release, when your *groov* version is updated (for example, from R3.2b to R3.3a), clients will also be automatically updated.

Important Note

• On a *groov* Box, updating to *groov* 3.2a or higher requires *groov* Admin version 43 or higher. For more information, see KB85947.

Fixed Bugs

- KB85999 When restoring a project in groov Build, typing in the Project Backup field produces an error
- KB86091 When scrolling in groov View, the page menu and popups are detached from the caption bar
- KB86125 Internet Explorer deletes text in *groov* text area gadgets when grouped or selected together
- KB86189 Color changes made to original or duplicate groov gadget are applied to both gadgets
- KB86221 Trend gadgets allow negative periods
- KB86330 Using Internet Explorer with groov, changes to event notification message configuration are not saved
- KB86339 groov may select incorrect tag if 2 or more OPC UA servers are configured with same namespace and tag list
- KB86362 Event Editor shows two inputs for event condition value
- KB86363 Importing Modbus tagnames containing double quotes returns an error, but names are successfully imported
- KB86424 Writing a very large string to a string tag produces a 413 error
- KB86425 Trend tags don't show up when you view Tags In Use

groov SERVER FOR WINDOWS R3.2b

October 6, 2016



groov View

Fixed Bugs

KB86282 - groov may become unresponsive or crash, and downloading system logs may result in zero byte files

groov SERVER FOR WINDOWS R3.2a

August 2, 2016

Fixed Bugs

KB84407 - In groov Server, Backup project doesn't complete the backup if you have unsaved changes and click "Yes"

KB84422 - groov Server shows "Updates Available" even though just updated

groov View

New Features and Enhancements

- A new System device has been added so you can use tags with system information in your *groov* interface. Available tags include time, date, number of current user sessions, CPU usage, uptime, and others. See the *groov* Build and View User's Guide (form 2027) for details.
- In groov View you can now download data from a Trend pen to a .csv file.
- You can see the *groov* version in *groov* View by clicking the gear icon and choosing About.
- Graphics are improved for high-resolution displays.
- Improved color schemes give better contrast.
- Starting with the next release, when your *groov* version is updated (for example, from R3.2a to R3.2b), clients will also be automatically updated.

Important Note

On a groov Box, updating to groov 3.2 requires groov Admin version 43. For more information, see KB85947.

- KB84703 *groov* project takes a long time to save if Trends have missing tags
- KB84760 Using Internet Explorer, PAC Control strategy cannot be updated
- KB84820 When Chrome browser is maximized, groov gadgets may not be properly resized
- KB84822 Special characters do not appear correctly in groov Event Status Viewer
- KB85806 OPC UA Static Array may generate index error asking for a negative index value
- KB85817 OPC UA byte array shows data type error
- KB85818 SVG image in *groov* does not appear or is out of proportion
- KB85820 Cannot write an empty string into a Modbus string tag or shorten the string
- KB85832 Changing text in a copied Text Gadget may affect the original one, and vice versa
- KB85841 Indicator Buttons don't fully display animated gifs
- KB85910 *groov* Trend gadget minimum update intervals not enforced
- KB85911 *groov* Trend gadget properties panel does not convert units in the Period and Update Interval fields
- KB85996 Failure during groov project load can hang the browser



groov SERVER FOR WINDOWS R3.1b

May 9, 2016

Fixed Bug

KB84879 - groov Server stops functioning; NoClassDefFoundError exceptions appear in message log

groov View

Enhancements

Communication failures now appear in *groov* Message Logs, to help debug the cause of communication errors.

Fixed Bugs

- KB85570 groov logo always appears when using View on an iPad
- KB85673 Results for Modbus scalers used with array tags are incorrectly rounded
- KB85713 *groov* dynamic tag array not operational
- KB85737 In *groov* Build, a configured Event condition displays incorrect boolean settings
- KB85738 Setting Lower Hysteresis in an Event condition produces error
- KB85755 PAC Controller message queue shows -12 error when *groov* project tries to get table information
- KB85756 groov View shows yellow triangle "trying to connect" error on gadget with Data Simulator tag
- KB85796 In groov Build, OPC UA Static Array tags are disabled in the Tags tree
- KB85813 groov Event Notification email not saved if only tag(s) are added
- KB85839 OPC UA dynamic array shows incorrect index range in event notification email editor

groov SERVER FOR WINDOWS R3.1a

March 10, 2016

groov View

New Features

- New global Project Settings let you use your own custom logo and colors in *groov* View. You can also freeze the title bar in *groov* View so it is always visible, even when users scroll down.
- You now have much greater control over the size, color, and formats of both graphic and text elements in gadgets. For example, you can make LEDs very small to support a dense array of them, specify font sizes within Trends and Gauges, change the color of live values, and much more.
- When you select multiple gadgets of the same type (for example, all LEDs or all Round Gauges), you can change properties for all of them at once.
- A new Image Library holds all images used in your *groov* project so you can easily locate and manage them. The same image can appear in multiple places, and when you change the image, all instances are updated.
- A new Image Indicator gadget displays images to indicate status or value. For example, you could have multiple cutaway images of a tank, each one picturing a different level between empty and full.
- Button gadgets can now be skinned with images.
- The LED gadget can show multiple colors to indicate multiple values or states, not just on and off.



- Page Navigator gadgets can be displayed as text links, buttons, or images.
- On a Modbus/TCP device, you can now read from or write to bits within an address.
- An Annual Maintenance Renewal Reminder appears in *groov* Build when your license is about to expire or has already expired. Click the reminder for renewal information and instructions.

Enhancements

- The Tags In Use dialog box now includes Events, and you can sort tags by name, controller, page, or gadget.
- Visual indicators in *groov* View let you know about loading progress, out-of range values, +/- infinity, NaN, and Invalid BCD states.
- You can set many gadget properties independently for mobile and desktop views in order to maximize their utility based on screen size.
- The Events Status and Log on mobile devices have been improved for usability.
- Range Indicators and Round Gauges have been improved to handle larger values: you can make text smaller and scale values (for example, change grams to kilograms). Also, tic marks are limited to a total of 200 marks.
- NAN and INF values have been added to the Data Simulator.

Fixed Bugs

- KB83952 Grayed out tags in the tag browser can be assigned to incorrect gadgets
- KB84713 Missing incompatible project warnings
- KB84754 Out-of-range Modbus tag address causes *groov* to freeze
- KB85313 In groov View, Round Gauge and Range Indicator gadgets may not show complete marker values
- KB85483 Security issue identified and corrected
- KB84755 In *groov* View, illegal address error or incorrect string may appear in Modbus tag
- KB85192 *groov* events cannot reference strategy table indexes
- KB83938 In groov Build, erratic browser window behavior when dragging gadgets to the page
- KB84280 In *groov* Build, dialog boxes stay open when a user is logged out by an Admin
- KB84778 Even if a *groov* event is disabled, the save changes dialog pops up when no changes are made
- KB84779 Group Header gadget doesn't render well when font size is too big for grid size
- KB84864 In notification editor, editing an array tag defaults to index 0, regardless of the index chosen
 KB84908 "Log out all users" does not log users out of the View Logs screen
- KB84872 The Value gadget does not display a NaN
- KB84983 In groov Build, minor overridden tic marks disappear if gadget has non-zero minimums
- KB84184 In *groov* Build, initial image may fail to load for Video gadget
- KB84801 Page Navigation gadget's page selector appears to support multiple links

groov SERVER FOR WINDOWS R3.0e

January 13, 2016

groov View

- KB85374 groov's error symbols break starting in Chrome 48.
- KB85284 Moderate to heavy load causes unreliable event reporting.



- KB85396 Windows 10 Edge 25 browser misaligns gadgets in *groov* View.
- KB84986 *groov*'s Operator security level lacks a logout option.

groov SERVER FOR WINDOWS R3.0d

September 14, 2015

groov View

Fixed Bugs

KB85057 - Adding or configuring a Modbus device on a Solo license causes *groov* to stop working.

groov SERVER FOR WINDOWS R3.0c

August 31, 2015

groov View

Fixed Bugs

- KB84792 Web browser error ("weak ephemeral Diffie-Hellman key") occurs when trying to connect to *groov*.
- KB85021 groov Server's pre-installed SSL certificate signature uses obsolete SHA1 digest.

Enhancements

- Momentary Button gadget can optionally detect when communications are interrupted between groov and a controller.
- Security updates
- Performance improvements

groov SERVER FOR WINDOWS R3.0b

June 17, 2015

groov View

- KB84875 Missing tags in Event Triggers will disable editing.
- KB84861 In Firefox, text can't be copied from Event Message Logs.
- KB84849 The Paste keyboard shortcut (Ctrl-V) doesn't work when pasting to a different page.
- KB84848 On iOS-based devices, *groov* title bar hotspots work inconsistently with the touch interface.
- KB84846 Strings display "no value found for tag" when used as project tags in notification emails.
- KB84829 The Line type in the Trend gadget can't be selected.
- KB84819 The QNAN tag isn't displayed properly in Event Status logs.
- KB84818 In Internet Explorer and Firefox, Event Status Viewer button stops working when you change pages using the Page Menu list in *groov* View mode.



- KB84816 In Internet Explorer and Firefox, Event Status Viewer doesn't display correctly in Build mode.
- KB84808 In *groov* Build, Modbus/TCP device slave IDs above 247 are not allowed.
- KB84805 Changed Opto 22 controller IP address does not immediately appear in the gadget palette.
- KB84799 In groov, clicking on the View Events Status page opens up tab with no scroll bars.
- KB84794 Event triggers using decimal values are not rounded off in groov View.

groov SERVER FOR WINDOWS R3.0a

May 18, 2015

groov View

New Features

- Event notifications: Now you can set up events based on one or more conditions and automatically alert selected personnel by email or text message when an event occurs.
- *groov* Solo: This new licensing option is for one Modbus/TCP device or one SNAP PAC. It offers a lower price for entry-level customers.
- Data Simulator: A built-in virtual device with a wide variety of tags allows testing and demonstrating *groov* screens without having to connect to a live machine or system.
- Improved page editing: Now you can select and drag multiple gadgets, add a grid to help page layout, and easily align and resize gadgets.
- Do not expire option for kiosk users: A new project option prevents kiosk users from being logged out. This can be used for TVs or other displays that need to remain on for long periods of time.
- Restore project in Build: Projects can now be restored in *groov* Build.

Enhancements

- Security for IP Cameras is now supported.
- Labels can now be moved to the left of a gadget.
- You can now double-click a tag to update it in the Update Tag for Gadget dialog box.
- If you refresh your browser while in Build, it will stay in Build mode.
- Error reporting has been improved.

- KB83470 *groov* gadgets cannot immediately write values after connection to a PAC has been lost and restored.
- KB84016 The Trend gadget displays the time for the device accessing *groov* rather the time for the *groov* Box location.
- KB84423 After *groov* R2.3a or R2.3b upgrade some gadgets produce tag not configured error.
- KB84398 In *groov* Build, tags from PAC controllers running the same strategy are indistinguishable from each other.
- KB84470 Modbus array sizes are not dynamically updated when changed.
- KB84098 The *groov* logo cannot be hidden in *groov* View on MAC OS and mobile iOS devices.
- KB84457 *groov* usernames and passwords cannot include special characters (%, &, etc.)
- KB84235 Timeout may occur when trying to log into *groov*.
- KB84242 Missing Page Background label.
- KB84297 CA-signed SSL certificate generated by groov SSL certificate utility cannot be installed.
- KB84302 When groov password is mistyped the "Create groov Build Account" indicator remains spinning



- KB84319 In *groov* Build, Modbus tags are not auto-selected in Update Tag dialog box
- KB84669 groov logo flashes when switching from groov Build to groov View even though logo is turned
 off

groov SERVER FOR WINDOWS R2.3c

January 29, 2015

groov View

Fixed Bugs

- KB84423 After groov R2.3a or R2.3b upgrade some gadgets produce tag not configured error.
- KB84417 groov may become unresponsive, you may be unable to login, or a login timeout occurs.
- KB84432 Can't turn on/off digital output point using Modbus communication in *groov* App

groov SERVER FOR WINDOWS R2.3b

January 20, 2015

groov View

Enhancement

Security-enabled IP cameras can now be used with the Proxy setting for groov's Video gadget.

Fixed Bugs

- KB84390 groov trends used with tables read only index 0.
- KB84389 In groov, Modbus writes don't take array indexes into account.
- KB84406 If smooth lines are chosen for a trend gadget, the gadget may not show data.

groov SERVER FOR WINDOWS R2.3a

January 5, 2015

groov View

New Features

- Support for Modbus/TCP. A new communication driver allows *groov* to act as a Modbus/TCP master and communicate with Modbus/TCP slave devices with an Ethernet connection.
- Diagnostic Logging. Now you can view the log messages that groov generates to help diagnose problems.

Enhancement

• *groov*'s protections against hacking attacks have been improved so that *groov* is now more secure than ever.



groov SERVER FOR WINDOWS R2.2c

September 22, 2014

groov View

Fixed Bug

KB84045 A security issue was identified and corrected.

groov SERVER FOR WINDOWS R2.2b

August 29, 2014

groov View

Enhancements

- The Graph gadget is now called a Trend gadget.
- The non-viewable area is now called the page stash.

Fixed Bugs

- KB84007 In *groov* View on a mobile Android device, the gear symbol menu only displays the Refresh *groov* View option.
- KB84000 A popup in *groov* R2.2a says that an older project is not compatible.
- KB83684 Objects disappear from the Desktop & Tablet window in *groov* Build.

groov SERVER FOR WINDOWS R2.2a

August 20, 2014

groov View

New Features

- Gadgets can now read and write the current value of an up or down timer tag.
- Update notification added. groov automatically checks Opto 22 servers for updates to groov App, groov
 Admin or both, and provides information on any available updates.
- A variety of new background colors have been added to groov Build, including many dark page background colors up to black. Gadgets now change color automatically to adjust to the Page background color.
- A new non-viewable scratch pad area adjacent to a page's work area allows you to put work-in-progress gadgets that not currently part of the project. Moving a gadget to the scratch pad only affects the current view, so you can have a gadget appear in the scratch pad of one view but not the other.
- New Momentary Button gadget. Similar in appearance to the Command Button gadget, a Momentary Button can simulate the behavior of a normally open or normally closed button. It writes a value once when it is pressed, and once when it is released.

Enhancements

• Graph gadget:



- If a page in groov contains a Chart gadget that has accumulated data, when the page is opened, the Chart gadget is immediately full of data.
- If *groov* Box or *groov* Server is rebooted, previously scanned values are retained.
- You can now have up to four pens per chart.
- The maximum length of a chart is now 7 days.
- Longer scan rates are now allowed.
- Page editing:
 - Sizing handles are improved and no longer affected by a gadget's z-order.
 - Page resizing now occurs smoothly. Previously, when a page was resized, the gadgets resized in a
 jumpy fashion.
- Video gadget: The new lock aspect ratio property maintains the shape of the video display.
- Value gadget: Previously the states were either on or off for Boolean tags. Now the states can be customized to something more meaningful such as open/closed or yes/no.
- Default tag names: The default tag names are now the name of the tag instead of just Label.
- A new Edit menu includes a number of commands that were previously available only by right-clicking in the interface.
- In *groov* View on touch devices, there is improved response with links and buttons.

Fixed Bugs

- KB83209 Value Limits for gadgets cannot handle very large numbers.
- KB83225 qNaN on analog output module causes *groov* error.
- KB83397 Graph gadget does not properly display error or warning icons.
- KB83686 Slider and checkbox return to current value during confirm prompt.
- KB83687 Slider confirm prompt appears when continuous attribute is enabled.
- KB83712 Text Input write errors cannot be cleared.
- KB83721 Pressing Enter or OK multiple times when changing the password in *groov* Build causes an error.
- KB83836 Under certain conditions *groov* may fail to import a PAC Control strategy.
- KB83661 Numeric keypad does not work in some text input boxes for *groov* gadget properties.
- KB83665 groov gadget text in Internet Explorer 11 does not stay within the gadget's window box boundry.
- KB83680 Entire multi-select group is de-selected in *groov* Build when you click outside a gadget boundary.
- KB83825 *groov* silently enters trial mode after *groov* has started.
- KB83950 Gadgets don't render properly in Chrome version 36.
- KB83943 Configure Devices and Tags dialog is limited to 50 devices.

groov SERVER FOR WINDOWS R2.1c

March 14, 2014

groov View

Fixed Bug

KB83710 - Reimporting a strategy in *groov* Build resets the controller's port to 1.



groov SERVER FOR WINDOWS R2.1b

March 11, 2014

Fixed Bug

KB83707 - Groov Server Fails to validate license file and reports a "Date provided was invalid" error.

groov View

The bug fixed for this version of *groov* App applies only to *groov* Server. For more information, please see the readme for *groov* Server for Windows.

groov SERVER FOR WINDOWS R2.1a

December 18, 2013

groov View

New Features and Enhancements:

- Static tag browsing has been added for OPC-UA servers. This improves *groov*'s performance and enables *groov* to handle very large OPC server configurations.
- A new Log Out All Users function in Build allows an admin user to force all users to log off.
- The Slider and Level Indicator gadgets now can be used vertically as well as horizontally.
- The Page Navigator gadget now has a label property that allows you to use a custom label instead of just the page's name.
- The Page Navigator gadget can now be linked to external web pages.
- The Video Gadget now has a reverse proxy service option. For *groov* clients outside of the firewall, this eliminates having to configure the firewall for each IP camera.
- The Video Gadget now has an optional Update Period property which can be set for each instance of the gadget.
- You can now install .NET as part of the *groov* server installation.
- To accommodate short page names, the page menu in View has a larger area for selecting a page. Previously, the touchable area was only as long as the page name, so it was very difficult to select short page names on a small mobile device.
- Groov App has better performance and response time.

Fixed Bugs

- KB83307 Error messages may not disappear after range problems have been fixed.
- KB83429 groov App password reset does not work for account holder.
- KB83468 Loading Tags dialog box stuck after changing user password andlogging out.
- KB83569 Changes to a *groov* dynamic tag's namespace index are not immediately shown.
- KB83584 The Network Info dialog box for groov Server Monitor is blank.
- KB83690 Internet Explorer 10 and 11 behaviors affect groov on an Intranet.

groov SERVER FOR WINDOWS R2.0c

December 18, 2013



groov View

Enhancement

For OPC-UA servers that use non-standard settings, you can now specify a namespace index for dynamic tags.

Fixed Bugs

- For OPC-UA dynamic tags, when a valid value is entered for the array size in the Add Dynamic Tag dialog box, the Update Dynamic Tag button is sometimes disabled preventing you from saving valid changes.
- KB83521 Page navigator gadget does not work with default Android browser.

groov SERVER FOR WINDOWS R2.0b

December 10, 2013

Fixed Bug

83535 - groov Server for Windows SSL certificate utility is not working and crashes.

groov View

This release was only for groov Server for Windows. For information, see form RM_GROOV_SERVER_WIN.

HOW TO GET HELP

If you have any questions about *groov* Server for Windows, you can call, fax, or e-mail Opto 22 Product Support.

Phone: 800-TEK-OPTO

(800-835-6786 toll-free in the U.S. and Canada)

951-695-3080

Monday through Friday, 7 a.m. to 5 p.m. Pacific Time

Email: support@opto22.com

Opto 22 website: www.opto22.com

NOTE: Email messages and phone calls to Opto 22 Product Support are grouped together and answered in the order received.

When calling or emailing for technical support, be prepared to provide the following information about your system to the Product Support engineer:

- Version information for *groov* Server for Windows and/or *groov* View.
- A description of your system equipment:
 - Computer CPU type, speed, memory, and operating system
 - Controller model and firmware version
- A description of your Setup and Configuration: how it is connected, the purpose of each device, external connections, and networks
- Specific error messages or other diagnostic indications.

