

README: groov App R3.4b

June 5, 2017

Questions

If you have questions, see [How to Get Help](#).

Each Fixed Bug is identified by its bug tracking number. If a number listed here has KB as the prefix, click the link to see a KnowledgeBase article with more information.

groov App R3.4b

June 5, 2017

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 App R3.4a

May 2, 2017

New Features and Enhancements

- The Trend gadget now offers a new interactive type of trend that shows a large number of data points over a longer period of time, up to 5 years. When you build a trend you choose between two types: classic and interactive. Classic is the original trend for a relatively small number of data points, collected over a period of up to 7 days. Interactive is the new trend for much more data over longer periods. A new navigator within the interactive trend lets you zoom in and out to see specific time periods and data details. In both trends, you can download individual pen data for the entire trend period to log it.
- You can now export and import pages, so you can move pages from one groov project to another. After importing, the page layout with gadgets becomes a new page in the project. In the new page you then configure associated tags, images, page navigators, and page permissions suited to the project.
- You can choose to use a Command Button as a navigation device in addition to sending a value to a numeric or string variable. The button can write the value and then immediately navigate to a groov page (a page you've created, the Event Status page, or the Event Logs page).

See the [groov Build and View User's Guide](#) for more details on these features.

Fixed Bugs

- [KB86382](#) - Error in groov Build when importing Modbus tags containing Unicode characters
- [KB86416](#) - Projects with many gadgets may make groov slow to start up
- [KB86453](#) - Internet Explorer does not show certain icons and does not allow dropdown lists to open
- [KB86466](#) - In groov Build, gadgets don't reflect deleted or changed Modbus tags until you refresh
- [KB86472](#) - Button gadgets don't report disconnected errors
- [KB86499](#) - groov Data Store API responds incorrectly when tag is nonexistent or out of bounds
- [KB86520](#) - Kiosk and Operator users cannot download groov trend data
- [KB86500](#) - groov Data Store API may respond with 500 Internal Server Error when reading a table tag

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groov App R3.3b

January 5, 2017

Fixed Bugs

- [KB86470](#) - Using the groov Data Simulator may incorrectly start trial mode

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groov App R3.3a

December 21, 2016

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 [groov 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

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groov App R3.2b

October 6, 2016

Fixed Bugs

- [KB86282](#) - groov may become unresponsive or crash, and downloading system logs may result in zero byte files

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groov App R3.2a

August 2, 2016

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](#).

Fixed Bugs

- [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

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groov App R3.1b

May 9, 2016

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 scalars 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

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groov App R3.1a

March 10, 2016

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

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groov App R3.0e

January 13, 2016

Fixed Bugs

- [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.

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groov App R3.0d

September 14, 2015

Fixed Bugs

- [KB85057](#) - Adding or configuring a Modbus device on a Solo license causes groov to stop working.

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groov App R3.0c

August 31, 2015

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 App R3.0b

June 22, 2015

Fixed Bugs

- [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 App R3.0a

May 18, 2015

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.

Fixed Bugs

- [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 than 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

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groov App R2.3c

January 28, 2015

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

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groov App R2.3b

January 19, 2015

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 App R2.3a

January 5, 2015

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 App R2.2c

September 22, 2014

Fixed Bug

- [KB84045](#) A security issue was identified and corrected.

groov App R2.2b

August 29, 2014

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 App R2.2a

August 20, 2014

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.

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groov App R2.1d

May 6, 2014

A new groov Box User's Guide (form 2104) has been added for GROOV-AR1. In Build, select Help > groov Box User Manual. There are no other changes for this version of groov App.

groov App R2.1c

March 14, 2014

Fixed Bug

- [KB83710](#) - Reimporting a strategy in groov Build resets the controller's port to 1.

groov App R2.1b

March 10, 2014

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 App R2.1a

March 5, 2014

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 and logging 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 App R2.0c

December 18, 2013

Enhancement

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

Fixed Bugs

- 83542 - 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.

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groov App R2.0b

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

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groov App R2.0a

November 22, 2013

New Features

- OPC-UA support allows groov to monitor and control a wide variety of third-party systems and devices
- The new Value gadget has been added

Enhancements

- Internet Explorer 10 full support
- Try Before You Buy allows you to download a fully functional version of groov Server for Windows and operate it for two hours without a license key
- Divider gadget now has a vertical option

Fixed Bugs

- 82719 Controllers having multiple strategies assigned.
- [KB82986](#) Range Indicator has missing value in range.
- [KB83220](#) Cannot load or re-load a license file after initial setup.

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groov App R1.0d

September 26, 2013

Fixed Bug

- [KB83238](#) Applying security updates in *groov* Admin prevents access to *groov* App.

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groov App R1.0c

June 28, 2013

Fixed Bug

- 82984 - Deleting a user or changing their security permissions will now take effect immediately. Previously, if the user was currently logged in when the changes were made, their previous security settings would remain in effect until they logged out.
- [KB82987](#) Deleting the current user account does not automatically logout the user.
- [KB82998](#) Range Indicator gadget cannot be re-sized in vertical mode.

groov App R1.0b

May 30, 2013

Enhancements

- A warning is now shown when updating a strategy with a file having a different name.
- The "Backup Project to Desktop" menu item has been renamed "Backup Project to Computer."

Fixed Bugs

- 82745 In larger projects with many pages, it was difficult to select a page for the Page Navigator gadget.
- 82909 It is no longer possible for an admin to change their own account type to a lower type. It was previously possible for the only admin to reduce their privileges to a lower type and effectively cause there to be no remaining admin user in the project.
- 82919 When duplicating several gadgets, some of the duplicated gadgets would not be spaced correctly.
- 82922 Entering a value for Minor Interval tic marks in the Round Gauge gadget would lead to incorrect behavior.
- 82927 A new controller's default IP address was 127.0.0.1. The IP address field is now left blank.
- [KB82938](#) Clicking on Page Navigator link to hidden page changes displayed window.
- 82955 The Page Navigator gadget did not work well with pages that have Limited Access. Now if a linked page cannot be accessed by the user, the gadget will not be visible in groov View.
- 82959 When duplicating pages, the software will now prevent pages from having the same name.

groov App R1.0a

April 16, 2013

Initial Release

How to Get Help

If you have any questions about *groov*, you can call, fax, or e-mail Opto 22 Product Support. Hours are Monday through Friday, 7 a.m. to 5 p.m. Pacific Time.

Phone: 800-TEK-OPTO (800-835-6786) or 951-695-3080

Fax: 951-695-3017

Email: support@opto22.com

Opto 22 website: www.opto22.com

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

- Version information for the *groov* Image, *groov* Admin, and *groov* Build
- 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