

AutoPilot® for Archer

Instruction Manual



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Introduction

AutoPilot for Archer enables multi-site, PC-based facilities management for Archer monitoring and control systems from Burk technology. Built-in reports are easily tailored to individual needs, and can be printed automatically or emailed as PDF files.

AutoPilot for Archer's fully customizable interface makes managing remote sites easy for operators, engineers and managers. The PTT Flipbook graphical display element makes it easy to examine current and past push-to-talk events including forward power, reflected power and VSWR values.

With AutoPilot for Archer, you can:

- Monitor and control multiple Archer sites in real-time.
- Automatically print or email reports to station personnel.
- Build custom screens to tailor the software to your exact needs.

Read the Getting Started section for help setting up AutoPilot for Archer for the first time. To get the most out of the AutoPilot for Archer software, see the In Depth section. For detailed information about specific topics, see the [REFERENCE](#) section.

Getting Started

Overview

Working with Docking Windows

Moving Docking Windows

The position of each toolbar can be changed by clicking on the title area and dragging it. The toolbars can be undocked into a floating window, or docked to the top, bottom, and sides of the screen. Dropping one toolbar on top of another combines the two into the same space, allowing selection of one toolbar at a time with tabs. To separate tabbed toolbars, click and hold the tab and drag away from the toolbar.

Auto Hide

 Docking windows have an auto hide feature, allowing them to disappear from view when unneeded to maximize the available screen space for monitoring and control.

To turn auto hide on or off, click the pushpin icon in the upper right of a toolbar's title bar. A vertical pushpin indicates that auto hide is off and the toolbar is locked into place until you move it or turn auto hide on. A horizontal pushpin means auto hide is on. When you remove the mouse from the toolbar area, the toolbar will collapse into a tab on the perimeter of the screen. To display the toolbar again, simply move your mouse over the tab.

Auto hide does not close the windows – they collapse into tabs on the sides or bottom (depending on docked location) of the AutoPilot for Archer window. To have the window reappear, simply move your mouse over the tab. This causes the window to expand, allowing you to use it. To hide the window again, move the mouse away from the window and it will collapse after a few seconds.

When Auto Hide is enabled, clicking the window’s title area or icon tab will lock focus on the window, and the toolbar will not hide again until you click a different area in the program to change focus.

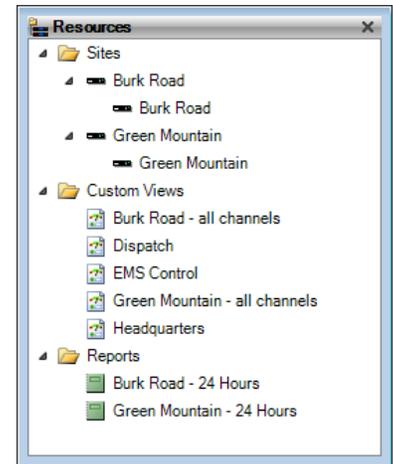
Resources

The Resources window is the main tool used for selecting items to work with in AutoPilot for Archer. The Resources window shows your Archer sites, Custom Views, and Reports.

To view an item, click on its icon. By default, Reports require a double-click to open. You can change this behavior in the Options dialog.

Each item in the Resources window has a context menu, accessed by a right-click that shows a list of actions that can be performed on that item.

By default, the Resources window is docked to the left hand side of the screen. You can move, hide, or close the window to suit your needs.



New items (sites, custom views, or reports) are created in the Resources window. Once created, these items are available to drag into the Navigator to group them into categorized views that you define, as described in the next section. To completely delete an item, delete it from the Resources window.

Navigator

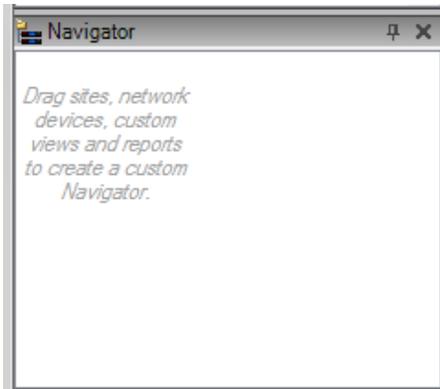
The Navigator lets you organize items from the Resources window into groups. Using a hierarchical network view, similar to a Windows-style file system, you can create new folders and drag in sites, custom views and reports from the Resources window wherever you like.

These groupings make it easy for you to view your data in a way that is meaningful to you. For example, if you manage a state-wide network, you could create a folder for each county including that county’s sites, reports and custom views. The county folders could be sub-folders in a state-wide folder that includes a high level custom view based on a state map. The organization is entirely flexible.

Create as many views within the Navigator as you like. Multiple copies of sites, custom views and reports can be displayed in the Navigator, giving you complete flexibility in displaying your assets. The original, underlying data remains unchanged and is displayed in the Resources window.

To completely delete an item, delete it from the Resources window. This will automatically remove all instances of the item from the Navigator.

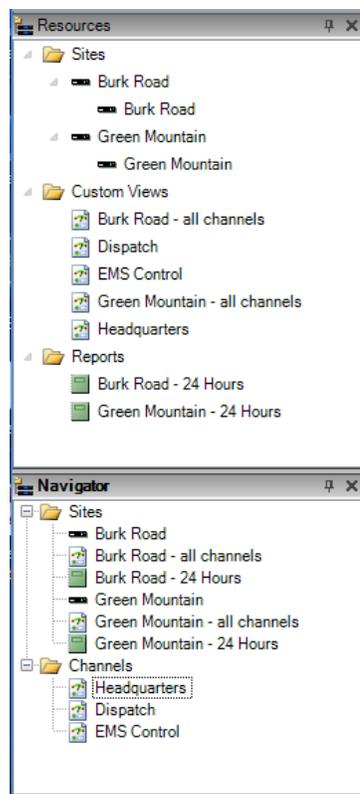
The Navigator starts out unpopulated.



Unpopulated Navigator

To create a network topology within the Navigator, add new folders and drag sites, custom views, and reports from the Resources window. You can nest folders within folders to create hierarchies.

In this example, the folder 'Sites' contains all the site-related information while a second folder collects custom views associated with channels.



Copies of Items Dragged from Resources Window to Navigator

Resources Tool Tips

Tool tips are available for most Resources window and Navigator icons. Hover over an icon to see more information about it.



Navigator Tool Tip

Default Views

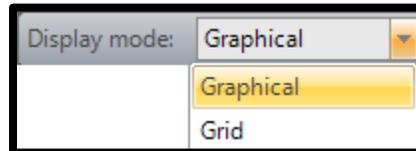
AutoPilot for Archer can display a Default View for each site without any additional configuration. To open a default view, click on the site's icon in the Resources window or Navigator. The Default View will show all of the channels on the selected site, using the labels and colors configured for the site.

Opening Default Views with a single click can be disabled in the Options dialog. To open a default view when this is the case, double-click on the site or right-click and select "Default View".

Default Views may also be opened in a new window by right-clicking on the site and selecting "Default View in New Window".

Default View Display Modes

AutoPilot for Archer offers two types of default views: Graphical or Grid. To select a display mode, use the drop-down in the Default View tool bar.



Display Mode Selector

Graphical View

The Graphical View is the primary Default View. The Graphical View displays site data using realistic analog gauges and LEDs



Archer Graphical View

Grid View

The Grid View displays all of the site's channels in a three-pane grid (metering, status, and commands). Warning conditions are highlighted in yellow and critical conditions in red. This allows an operator to quickly assess site conditions, and maximizes the amount of data that can be easily read on one page.

| # | Meter | Value | Units | # | Status | # | Lower | Raise |
|---|-----------------------|-------|-------|---|----------------------|---|-------|----------------------|
| 1 | Headquarters Fwd... | 0 | W | 1 | Headquarters PTT Off | 1 | Off 1 | Restart Headquarters |
| 2 | Headquarters Rfl P... | 0 | W | 3 | Dispatch PTT Off | 2 | Off 2 | Restart Dispatch |
| 3 | Dispatch Fwd Pwr | 0 | W | 5 | EMS Control PTT Off | 3 | Off 3 | Restart EMS Control |
| 4 | Dispatch Rfl Pwr | | | | | | | |
| 5 | EMS Control Fwd... | 0 | W | | | | | |
| 6 | EMS Control Rfl Pwr | 0 | W | | | | | |
| 7 | Combiner Out Fwd... | 0 | W | | | | | |
| 8 | Combiner Out Rfl P... | 0 | W | | | | | |

Grid View

Custom Views Overview

Custom Views allow you to completely customize the look and feel of AutoPilot for Archer to suit your needs. For more information about *Creating Custom Views*.

Custom Views offer a wide variety of onscreen components to display site data. Custom Views can include any number of channels of any type, from multiple sites.

Popular uses of Custom Views include:

- Interfaces specifically designed for operators, engineers, dispatchers, etc.
- Summary screens showing high-level site data from multiple sites.
- "Drill-down" interfaces allowing users to click on status indicators to learn more about alarm conditions.
- Map views to show status indicators on state or county, regional, or national maps, corresponding with the location of the site.

To open a Custom View, click on the desired view in the Resources window or Navigator (Custom Views appear in the "Custom Views" folder in the Resources window). Note that single-clicking to open a Custom View can be disabled in the Options dialog. If this is the case, double-click on the Custom View or right-click and select "Show View".

To open a Custom View in a new Window, right-click on the Custom View in the Resources or Navigator window and select "Show View in New Window".

Note: *You can open a Custom View outside of AutoPilot for Archer by double-clicking the Custom View file in Windows.*

Linking Sites to Custom Views

To use a Custom View instead of the Default View for a site, right-click on the site in the Resources window or Navigator and select "Link Custom View". AutoPilot for Archer will prompt you for the desired Custom View file. Once you have linked a site to a Custom View, clicking on the site in the Resources window or Navigator will open the Custom View instead of the Default View.

To restore the default behavior, right-click on the site and select "Unlink Custom View".

Note: *You can still access a Default View for a site when linked to a Custom View by right-clicking on the site and selecting "Default View".*

Reports Overview

AutoPilot for Archer Reports all you to format and print/display your logged data from one or more sites. Reports can be viewed onscreen, printed to paper, or saved as a PDF file. AutoPilot for Archer can automatically print a report on a regular basis, as well as automatically email a PDF of the report to one or more email addresses.

A Report in AutoPilot for Archer is a template, describing what data should be included and how it should look. Whenever you run a report, AutoPilot for Archer pulls the appropriate data from the database. Once you have created your report, you can run it as often as needed, and do not need to edit it to update your data.

To learn how to create a report, read

| | Green Headqu (W) | Green Headqu (W) | Green Dispatc (W) | Green Dispatc (W) | Green EMS Co (W) | Green EMS Co (W) | Green Combin (W) | Green Combin (W) | Green Headqu (W) |
|--|-------------------------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|
| <i>(Monday, September 11, 2017 continued...)</i> | | | | | | | | | |
| 3:59:57 PM | Green Mountain Headquarters PTT On | | | | | | | | |
| 3:59:58 PM | 95.9 | 9.1 | | | | | 62.2 | 4.8 | |
| 3:59:59 PM | 95.9 | 9.1 | | | | | 62.1 | 4.8 | |
| 4:00:00 PM | Green Mountain Headquarters PTT Off | | | | | | | | |
| 4:00:01 PM | 95.9 | 9.1 | | | | | 0.0 | 0.0 | |
| 4:00:02 PM | 96.2 | 0.0 | | | | | 62.3 | 4.8 | |
| 4:00:12 PM | Green Mountain Headquarters PTT On | | | | | | | | |
| 4:00:13 PM | 96.0 | 9.1 | | | | | 62.2 | 4.8 | |
| 4:00:14 PM | 96.0 | 9.1 | | | | | 62.2 | 4.8 | |
| 4:00:15 PM | 95.9 | 9.1 | | | | | 62.2 | 0.0 | |
| 4:00:16 PM | Green Mountain Headquarters PTT Off | | | | | | | | |
| 4:00:16 PM | | | | | | | 0.0 | 0.0 | |
| 4:00:17 PM | | | | | | | 0.0 | 0.0 | |
| 4:00:19 PM | 96.0 | 9.1 | | | | | 62.2 | 4.8 | |
| 4:00:19 PM | Green Mountain Headquarters PTT On | | | | | | | | |
| 4:00:20 PM | 96.0 | 9.1 | | | | | 62.2 | 4.8 | |
| 4:00:21 PM | 95.9 | 9.1 | | | | | 62.2 | 4.8 | |
| 4:00:22 PM | 95.8 | 9.1 | | | | | 0.0 | 4.8 | |
| 4:00:23 PM | Green Mountain Headquarters PTT Off | | | | | | | | |
| 4:00:23 PM | 95.8 | 9.1 | | | | | 0.0 | 4.8 | |
| 4:00:32 PM | 96.0 | 9.1 | | | | | 62.2 | 4.8 | |
| 4:00:32 PM | Green Mountain Headquarters PTT On | | | | | | | | |
| 4:00:33 PM | 96.0 | 9.1 | | | | | 62.2 | 4.8 | |
| 4:00:34 PM | 0.0 | 9.1 | | | | | 0.0 | 4.8 | |
| 4:00:34 PM | Green Mountain Headquarters PTT Off | | | | | | | | |
| 4:00:37 PM | 96.0 | 9.1 | | | | | 62.2 | 0.0 | |
| 4:00:38 PM | 96.0 | 9.1 | | | | | 62.2 | 0.0 | |
| 4:00:38 PM | Green Mountain Headquarters PTT Off | | | | | | | | |
| 4:00:39 PM | | | | | | | 0.0 | 0.0 | |
| 4:00:41 PM | 96.1 | 0.0 | | | | | 62.3 | 4.8 | |
| 4:00:41 PM | Green Mountain Headquarters PTT On | | | | | | | | |
| 4:00:42 PM | 95.9 | 9.1 | | | | | 62.2 | 4.8 | |
| 4:00:43 PM | 95.9 | 0.0 | | | | | 62.2 | 0.0 | |
| 4:00:43 PM | Green Mountain Headquarters PTT Off | | | | | | | | |
| 4:00:44 PM | | | | | | | 0.0 | 0.0 | |
| 4:00:46 PM | 0.0 | 9.1 | | | | | | | |
| 4:00:46 PM | Green Mountain Headquarters PTT On | | | | | | | | |
| 4:00:47 PM | 95.9 | 9.1 | | | | | 62.2 | 4.8 | |
| 4:00:48 PM | 95.8 | 9.1 | | | | | 62.1 | 4.8 | |
| 4:00:49 PM | 95.8 | 9.1 | | | | | 62.1 | 4.8 | |
| 4:00:50 PM | 95.8 | 9.1 | | | | | 62.1 | 4.8 | |
| 4:00:52 PM | 95.8 | 0.0 | | | | | 0.0 | 4.8 | |
| 4:00:52 PM | Green Mountain Headquarters PTT Off | | | | | | | | |
| 4:01:01 PM | | | 4.7 | 0.0 | | | 0.0 | 4.8 | |
| 4:01:01 PM | Green Mountain Dispatch PTT On | | | | | | | | |
| 4:01:02 PM | | | 4.7 | 0.5 | | | 60.8 | 4.8 | |

Monday, September 11, 2017

Page 4

CREATING Reports .

Running Reports

To run a report, you can print it directly, or view a print preview (either in AutoPilot for Archer's main window or in a new window). The print preview display also allows you to save to PDF.



"Save to PDF" from the Print Preview window

Note: AutoPilot for Archer requires that you have a default printer selected in Windows to run a report - even if you are not printing to paper. If you do not have a printer installed, you can add a printer to Windows even if one is not connected to your computer.

To print directly, select the Report in the Resources window or Navigator and select "Print..." from the File menu.

To run a print preview, select the Report in the Resources window or Navigator and select "Print Preview" from the File menu. You can also simply double-click on the Report in the Resources window or Navigator.

To open a print preview in a new window, select the Report in the Resources window or Navigator and select "Print Preview in New Window" from the File menu.

Note: If desired, you can set AutoPilot for Archer to automatically open a print preview when you select a Report in the Resources window or Navigator. To enable this feature, access it from the Options dialog.

Alarms Overview

Alarms are generated by the remote control and reported to AutoPilot for Archer. Any time an alarm is received, AutoPilot for Archer logs the alarm to the database – even if logging is disabled.

| Terminology | |
|-------------------------|--|
| Active Alarm | An alarm whose channel is presently still in an alarm state is active. |
| Inactive Alarm | An alarm whose channel is no longer in an alarm state is inactive. |
| Incidental Alarm | If an alarm does not have a state that will cause it to become inactive, it is an incidental alarm. |
| Cleared Alarm | An alarm can be cleared by a user running AutoPilot for Archer, or by another source (such as a Web Interface user). |
| System Alarm | A system alarm is generated by the remote control to indicate an internal error or problem. |
| Duplicate Alarm | An alarm is a duplicate if it has the same source channel as another alarm. |

| | |
|-----------------------|---|
| Alarm Severity | Alarms are either warning or critical conditions. AutoPilot for Archer displays the alarm severity, and uses it to color code alarms in Reports. |
| Alarm Priority | Alarm priority is a numeric value assigned to an alarm condition to help an AutoPilot for Archer user determine which alarms are the most or least important. |

The Alarm List

The Alarm List displays all alarms on all currently connected sites. By default, the Alarm List is docked on the bottom of the screen. This is the primary means by which AutoPilot for Archer displays alarm information, and allows you to clear alarm conditions.

| Date/Time | Duration | Network | Site | Severity | Priority | Alarm Type | Message | Time Cleared |
|----------------------|----------|----------------|----------------|----------|----------|------------|-----------------------------|--------------|
| 5/19/2006 1:50:24 AM | | Green Mountain | Green Mountain | Warning | N/A | Low Limit | Combiner Out Fwd Pwr 62.2 W | |
| 5/19/2006 1:50:19 AM | | Green Mountain | Green Mountain | Warning | N/A | Low Limit | Combiner Out Fwd Pwr 62.1 W | |
| 5/19/2006 1:50:15 AM | | Green Mountain | Green Mountain | Warning | N/A | Low Limit | Combiner Out Fwd Pwr 62.1 W | |
| 5/19/2006 1:50:13 AM | | Green Mountain | Green Mountain | Critical | N/A | Low Limit | Headquarters Fwd Pwr 0.0 W | |
| 5/19/2006 1:50:11 AM | | Green Mountain | Green Mountain | Warning | N/A | Low Limit | Combiner Out Fwd Pwr 62.1 W | |
| 5/19/2006 1:50:10 AM | | Green Mountain | Green Mountain | Critical | N/A | Low Limit | Headquarters Fwd Pwr 0.0 W | |
| 5/19/2006 1:50:07 AM | | Green Mountain | Green Mountain | Critical | N/A | Low Limit | Headquarters Fwd Pwr 0.0 W | |
| 5/19/2006 1:50:03 AM | | Green Mountain | Green Mountain | Warning | N/A | Low Limit | Combiner Out Fwd Pwr 62.4 W | |

Alarm List

Tool Bar Buttons

The Alarm List has its own tool bar, allowing you to clear one or more alarms and change how alarms are displayed.

| | |
|--|--|
|  Clear All Alarms | Clears every alarm in the Alarm List. |
|  Clear Selected Alarms | Clears the icon or icons that are current selected in the Alarm List. |
|  Show Cleared Alarms | When "Show Cleared Alarms" is enabled, the Alarm List will include alarms that have already been cleared. Cleared alarms are show in gray, italicized text. |
|  Show Active Alarms Only | When "Show Active Alarms Only" is enabled, the Alarm List will only show "active" alarms. |
|  Show Duplicate Alarms | When "Show Duplicate Alarms" is enabled, the Alarm List will show every instance of an alarm. When not enabled, the Alarm List will hide duplicate alarms, and display "More..." next to an alarm if duplicates exist. |

To display the Site Alarm list, right click on a site in either the Navigator or Resources pane.

| Fields | |
|---------------------|---|
| Date/Time | The date and time (in the local time zone) when the alarm occurred. |
| Duration | For inactive alarms, the duration (hours, minutes, and seconds) for which the alarm was active. |
| Network | The name of the Network in AutoPilot for Archer where this alarm occurred. |
| Site | The name of the Site where this alarm occurred. |
| Severity | The severity (warning or critical) of the alarm. |
| Priority | The priority of the alarm (1 – 255). |
| Alarm Type | Describes the source of the alarm (meter, status, system, user, etc). |
| Message | Describes the alarm condition. |
| Time Cleared | For cleared alarms, the date and time (in the local time zone) when the alarm was cleared. |

To clear alarms on a single site only, open the Site Alarms list. To sort alarms by one of the fields above, click on the field in the list's header. Click again to sort in the opposite direction.

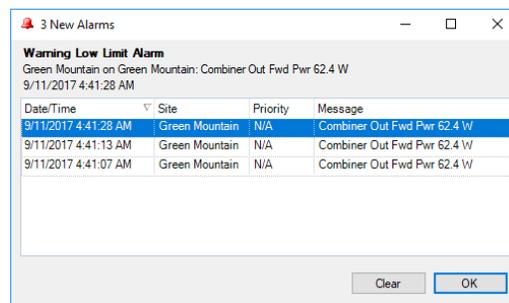
Icons

The following icons are displayed in the Alarm List to describe the type and state of an alarm:

| | |
|---|--|
|  Active Alarm | This alarm is active, not cleared, and occurred before AutoPilot for Archer connected to the site. |
|  New Active Alarm | This alarm is active, not cleared, and happed after AutoPilot for Archer connected to the site. |
|  Inactive Alarm | This alarm is no longer active. |
|  Incidental Alarm | This is an incidental alarm that occurred before AutoPilot for Archer connected to the site. |
|  New Incidental Alarm | This is an incidental alarm that occurred after AutoPilot for Archer connected to the site. |
|  Cleared Alarm | This alarm has been cleared with the Clear Alarm command and can no longer become active. |

Alarm Notifications

In addition to the Alarm List, AutoPilot for Archer can notify you of alarm conditions using the New Alarm dialog, the New Alarm Desktop Alert, and sounds.



New Alarm Dialog



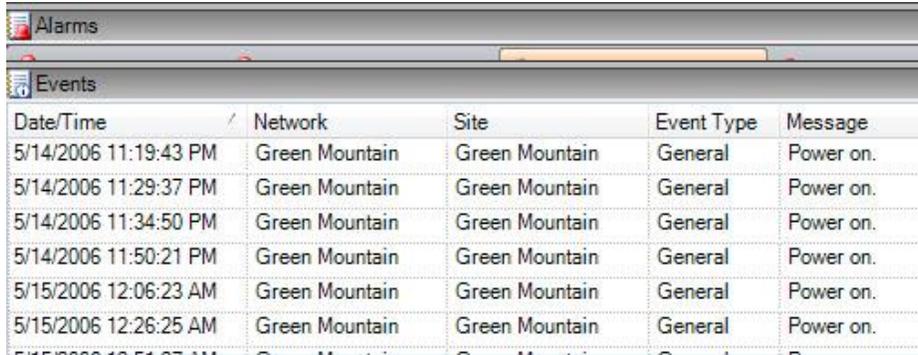
New Alarm Desktop Alert

Events

The Archer includes an onboard Event List. The Event List displays site activity such as commands, connections, etc.

Event List

The Event List in AutoPilot for Archer is, by default, displayed docked to the bottom of the screen in a tabbed group with the Alarm List.



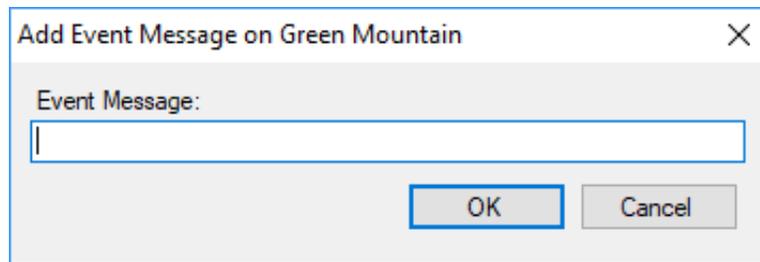
| Date/Time | Network | Site | Event Type | Message |
|-----------------------|----------------|----------------|------------|-----------|
| 5/14/2006 11:19:43 PM | Green Mountain | Green Mountain | General | Power on. |
| 5/14/2006 11:29:37 PM | Green Mountain | Green Mountain | General | Power on. |
| 5/14/2006 11:34:50 PM | Green Mountain | Green Mountain | General | Power on. |
| 5/14/2006 11:50:21 PM | Green Mountain | Green Mountain | General | Power on. |
| 5/15/2006 12:06:23 AM | Green Mountain | Green Mountain | General | Power on. |
| 5/15/2006 12:26:25 AM | Green Mountain | Green Mountain | General | Power on. |

Event List

| Fields | |
|-------------------|--|
| Date/Time | The date and time (in the local time zone) when the event occurred. |
| Network | The name of the Network in AutoPilot for Archer where this event occurred. |
| Site | The name of the Site where this event occurred. |
| Event Type | Describes the source of the event (macro, command, error, etc). |
| Message | Describes the event. |

Adding Events

Archer supports user-generated events. To add an event to the Archer, right-click on the icon for the desired site in the Resources window or Navigator and select "Add Event Message...". Enter a message for the event and click OK.



Add Event Message on Green Mountain

Event Message:

OK Cancel

Add Event Message Dialog

Adding an Archer Network and Site

To add a new Archer network, click File -> New -> Archer Network... to bring up the Archer Network Wizard.

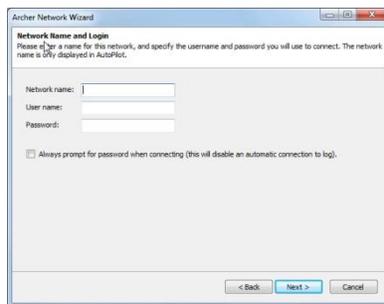
Once the wizard is complete, your Archer Network (and its site) will appear in the Resources window.

To change your settings you can return to the wizard later by right-clicking a network in the Resources window and choosing "Edit Archer Network...".

Archer Network Wizard

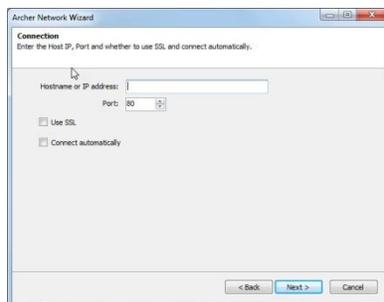


Welcome
Click "Next" to start the Wizard.



Network Name and Login
Enter a name to describe this Archer Network. The name will be displayed through AutoPilot for Archer.

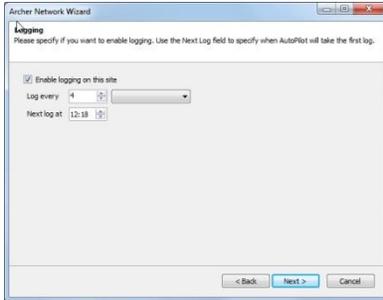
Enter your user name and password for this Network.
Enable Always prompt for password when connecting if you want to disable an automatic connection to log.



Connection
Enter the hostname or IP address of the host.
Select the host port.

Select settings for SSL and automatic connection.

Connect automatically
When checked, AutoPilot for Archer will automatically connect to this site on startup.



Logging

If desired, AutoPilot for Archer can enable logging on the site.

Enable logging

Checking this box enables logging for the selected site(s).

Log every

This is the frequency, in minutes or hours, at which AutoPilot for Archer will take its log.

Next log

This is the time of day when AutoPilot for Archer will take its first log. AutoPilot for Archer will always add the logging interval to the next log time to determine when it is time to log again. By doing so, AutoPilot for Archer can keep to a regular "pattern" for its log (such as every hour on the hour).

Finish

Click Finish to save your Archer Network and close the wizard.

Creating Custom Views

Custom Views allow you to tailor AutoPilot for Archer's interface to suit your operation's needs. You can create Custom Views using built-in templates, or from scratch with the Custom View Editor.

| Terminology | |
|-----------------------------|--|
| Custom View Control | A Custom View Control is an onscreen element such as a graphical meter, status LED, or command button. |
| Binding | Binding a Custom View Control to a remote control channel or other parameter creates a link between that parameter's value or associated action and the behavior of the control. Binding to a meter channel causes the control to display the meter's value. Binding to a status condition causes the control to display the status condition (on or off). Binding to a command causes the control to execute that command when clicked. |
| Control Properties | A control's properties are attributes that define its appearance and behavior, such as colors, limits, and labels. |
| Custom View Template | A Custom View Template is a pre-defined Custom View that you can associate with your site. You can edit the resulting Custom View to tailor it to your specific needs. |
| Selection Handles | Selection handles are squares that appear around a selected control. Selection handles are used to indicate which control or controls are selected, and to resize the control. |

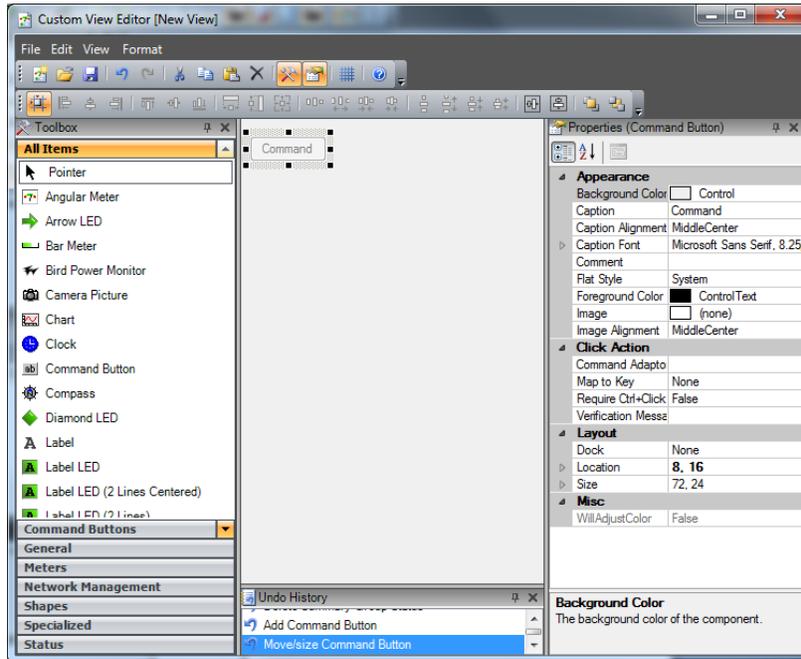
Custom View Editor Overview

The Custom View Editor allows you to create and edit Custom Views. To create a new Custom View, open the Custom View Editor (File → New → Custom View)

The components of the editor are described below.

Canvas

The canvas is where you will arrange your Custom View controls. When you display your Custom View in AutoPilot for Archer, only the canvas is shown.



Canvas

Grid

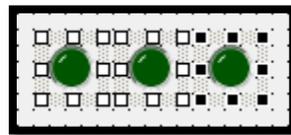
By default, the Custom View Editor displays grid dots on the canvas. The grid is useful for aligning and positioning controls.

You can turn the grid on or off by clicking "Show Grid" from the View menu in the Custom View Editor.

Primary Control Selection

When more than one control is selected, one control is the primary control. Some actions in the Custom View Editor only apply to the primary selection, or otherwise relate to it.

The primary control is indicated by normal selection handles (black, by default). Secondary selection handles are shown using a reverse color scheme.

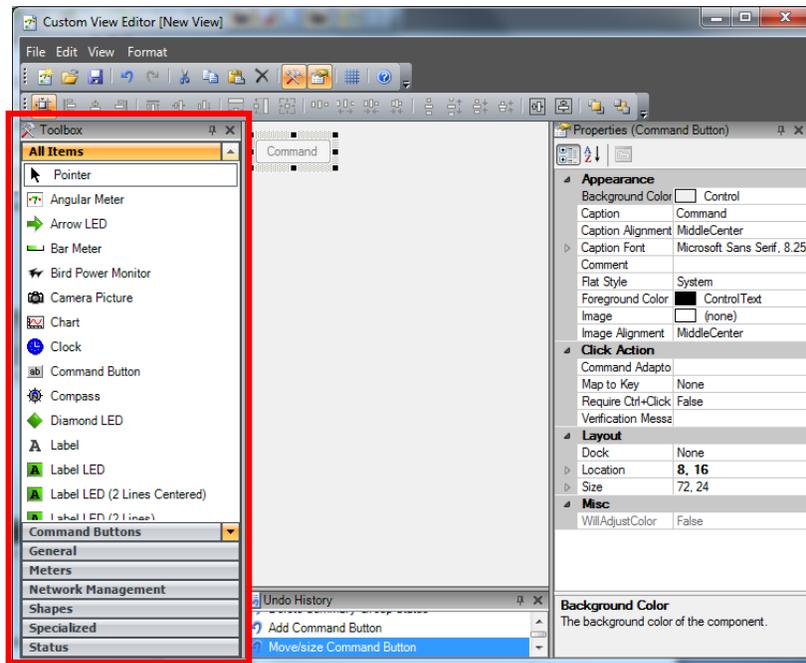


Multiple controls selected. The primary control is shown with black selection handles.

Note: When displayed in AutoPilot for Archer, your Custom View will not show the grid.

Toolbox

The toolbox is a categorized list of all the Custom View controls available to you. Each control appears in its associated category (Meters, Status, etc), as well as in the "All Items" category. To add a control to the canvas, click and drag the control to the desired location. When you release the mouse button, the Custom View Editor will add a new instance of the selected control to the canvas.



Toolbox

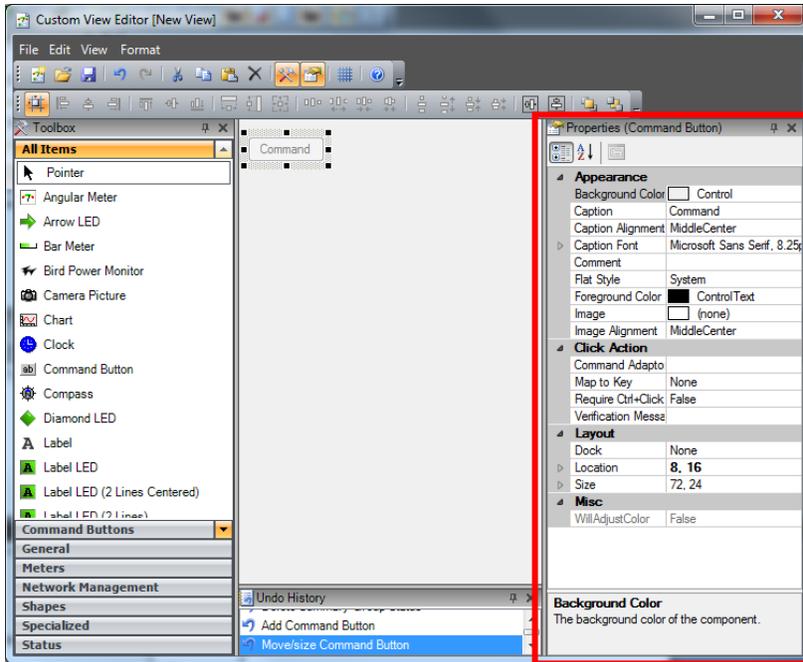
Properties

The properties grid displays and allows you to edit all of the properties for the selected control.

To change a property, select its value in the grid and replace it with the desired value. Some properties use a pull down menu or popup dialog (indicated by a "..." button).

A description of each property appears at the bottom of the property grid when a property row is selected.

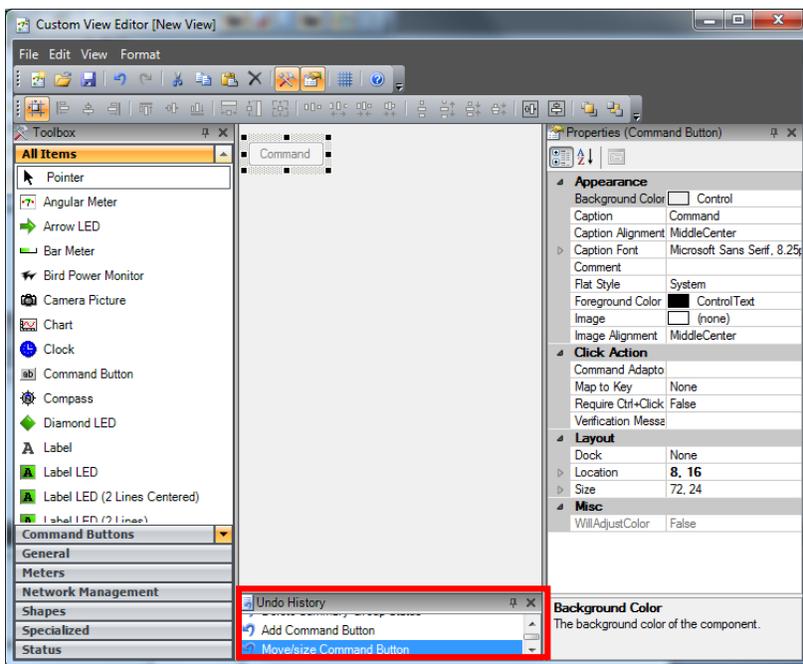
Note: If more than one control is selected, the properties grid uses the primary control (see above).



Properties

Undo History

The undo history list displays recently performed actions that you can undo (or redo). Double-clicking on an item in the list will undo or redo that action.



Undo History

Adding, Positioning and Sizing Controls

To add a control to the Custom View canvas, click and drag the control from the toolbox and drop it onto the canvas.

To move a control already on the canvas, simply click and drag to reposition it.

To resize a control, select the control by clicking on it and use the grab handles to resize it. Controls can be resized horizontally or vertically, or diagonally using the corner handles.

Snap to Grid

To make it easier to align and position controls, the Custom View Editor can force controls to conform to the grid as they are moved and sized. This functionality is enabled by default, and can be toggled by selecting "Snap to Grid" from the Format menu.

Positioning Controls on Top or Below Other Controls

Use "Send to Back" and "Bring to Front" from the Format menu to position controls above or below other controls on the canvas.

Sizing and Aligning Controls Relative to Other Controls

The Custom View Editor has several tools that allow you to size and align controls relative to other controls on the canvas. These are useful tools to help create Custom Views with a polished, professional appearance.

To use these tools, select multiple components at once by using Ctrl+Click or clicking and dragging a selection rectangle around the desired controls to activate the toolbar. The toolbar contains the buttons described below.

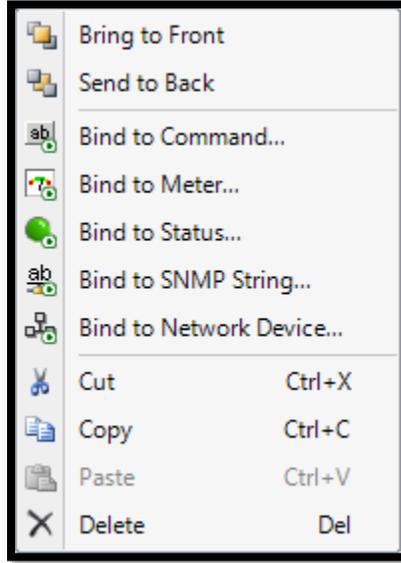
| | |
|--|---|
|  Align Lefts | Aligns all the controls on the left hand side. |
|  Align Centers | Aligns all the controls in the center. |
|  Align Rights | Aligns all the controls on the right hand side. |
|  Align Tops | Aligns all the controls on the top. |
|  Align Middles | Aligns all the controls in the middle. |
|  Align Bottoms | Aligns all the controls on the bottom. |
|  Make Same Width | Sets all the controls to the same width. |
|  Make Same Height | Sets all the controls to the same height. |
|  Make Same Size | Sets all the controls to the same size. |
|  Make Horizontal Space Equal | Spaces all the controls so that horizontal spacing is equal between each control. |
|  Increase Horizontal Space | Increases the horizontal spacing between each control. |
|  Decrease Horizontal Space | Decreases the horizontal spacing between each control. |
|  Remove Horizontal Space | Removes all horizontal spacing between the controls. |
|  Make Vertical Space Equal | Spaces all the controls so that vertical spacing is equal between each control. |
|  Increase Vertical Space | Increases the vertical spacing between each control. |
|  Decrease Vertical Space | Decreases the vertical spacing between each control. |
|  Remove Vertical Space | Removes all vertical spacing between the controls. |
|  Center Horizontally in View | Positions the controls in the center of the view horizontally. |
|  Center Vertically in View | Positions the controls in the center of the view vertically. |

Binding to Channels

Binding a control to a channel connects its value or action to the selected channel. Controls can be bound to the following:

- Commands (relays on a remote control or actions performed in AutoPilot for Archer).
- Meters
- Status (remote control status channels or other site conditions).

To bind a control, right click on the control and select the type of channel to which you want to bind.

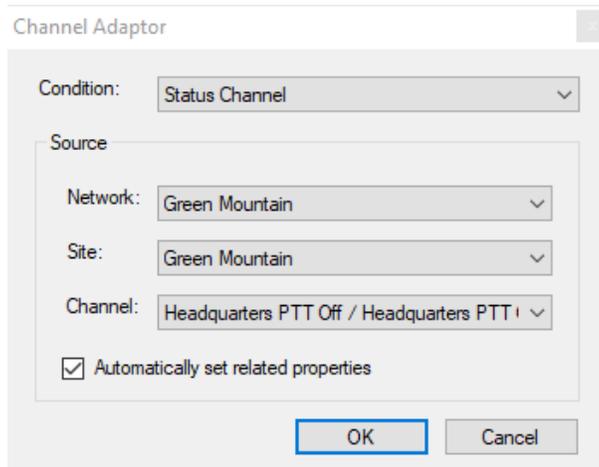


Context menu used to bind channels. Normally, unavailable channel types are grayed out.

Binding Dialogs

To finish binding a channel, use the binding dialog to select the channel (or other data) to which you want to bind.

Check "Automatically set related properties" if you want the properties for this control to match the settings for the target channel. For example, if you are binding a graphical meter to a meter channel, checking this box will set the min and max values and colors to match the configuration of the meter channel.



This is an example of a binding dialog. The dialog varies based on the type of channel and other selections.

Customizing Control Properties

Every Custom View control has its own set of properties that you can use to customize its appearance and behavior. These properties are displayed in the properties window, docked, by default, to the right side of the screen.

To adjust a property, simply select it in the grid and enter the desired value.

Some properties use a drop-down display or popup dialog to support more advanced editing. Some properties have expand/collapse buttons to show more/less to expose/hide additional settings related to a property (such as "Size" and "Location").

A brief description of each property is available at the bottom of the property grid.

Note: For objects that have a customizable image property, the image size must be smaller than 3MB.

Map to Key Property

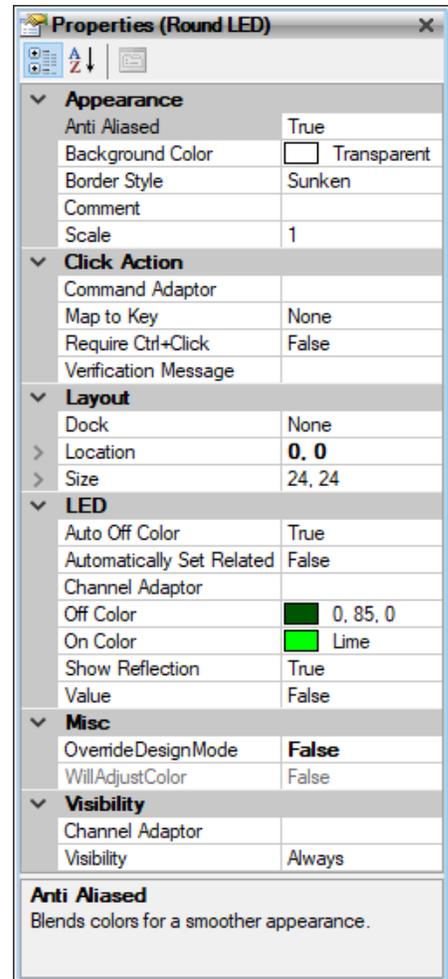
The Click Action group for each Custom View control includes a property called "Map to Key". This property makes it possible to activate the control's click action by pressing the configured keyboard key.

Adjusting the Property Grid Display

- The pane at the bottom of the property grid used for the description can be resized to show more or less of the text.
- The columns of the property grid can be resized by clicking on the vertical dividing line between them.
- The properties listed in the grid can be sorted alphabetically, or organized by group. Use the buttons in the property grid tool bar to change the order.

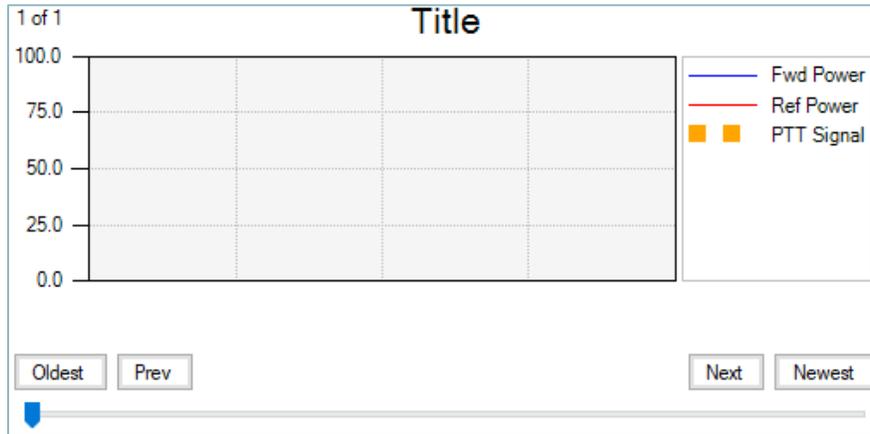
Using PTT Flipbooks

A PTT Flipbook displays the current status and the history of forward power, reflected power and VSWR (voltage standing wave ratio) for an Archer basestation during times when the associated basestation PTT signal or synthesized PTT signal is true. Measurements taken during previous PTT intervals can be displayed by browsing through the earlier pages in the Flipbook.



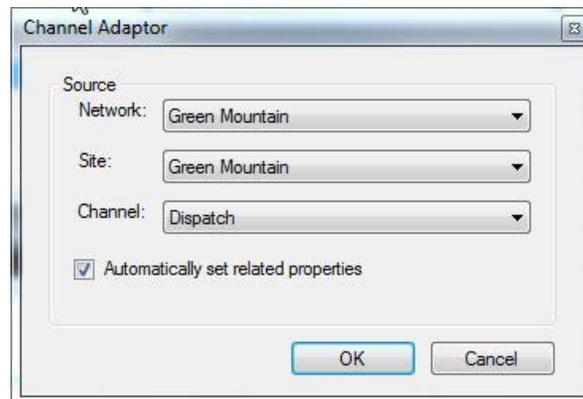
Creating a New Flipbook

When a Flipbook is first dragged onto the Custom View canvas from the Meters group, it appears as shown below.

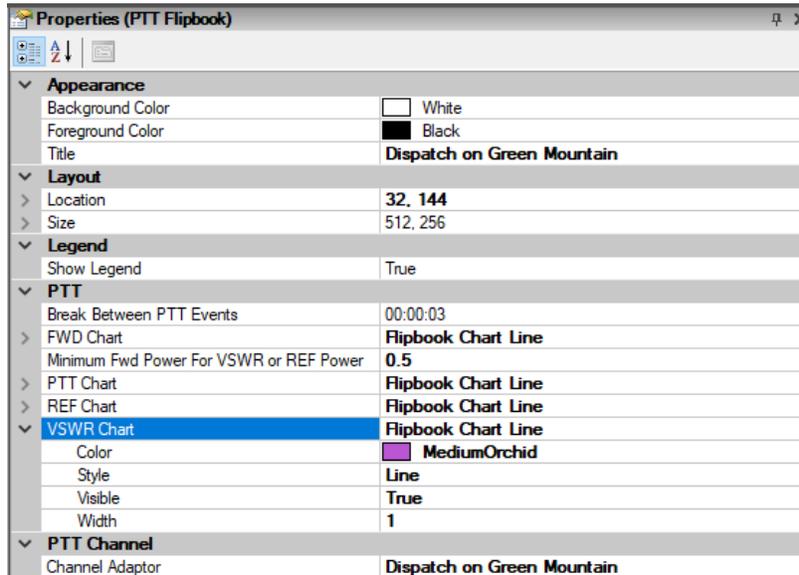


PTT Flipbook Before Channel Assignment

Select the "Channel Adapter" setting in the Properties Dialog box, and click the button with three dots. The Channel Adapter screen appears. Select a "Network", "Site" and "Channel" from the drop down. In the example below the network "Green Mountain", the site "Green Mountain" and the channel "Dispatch" have been selected.



In the Properties Dialog Box double click on "VSWR Chart". The properties for the VSWR Chart appear. Click on "Visible" and select "True" from the drop down.

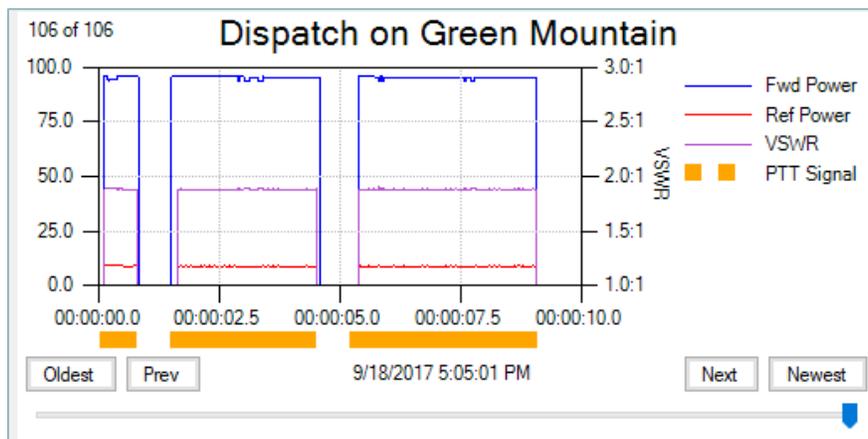


PTT Flipbook Properties Dialog

Close the Custom View Editor. You will be asked to name and save the Custom View.

To open this new Custom View containing the PTT Flipbook, double-click "Custom Views" in the Resources Window and click on the PTT Flipbook using the name under which the Custom View was saved.

Because the selected basestation has active history in the AutoPilot log, the historical PTT events are immediately available for viewing in the PTT Flipbook:



Active PTT Flipbook

The Flipbook shown above is currently displaying the most recent of 106 previously captured PTT events. The Oldest, Prev, Next and Newest buttons can be used to navigate among the captured PTT events. The slider can also be used to move quickly through the database of stored events.

Each captured event can include one or more PTT activations. In this example, the default value of three seconds is used for the parameter "Break between PTT events". This means that if the interval between subsequent PTT activations is less than three seconds, they will be combined into a single recorded event. The display above shows three PTT activations captured as a single event based on this setting.

Other settings in the Properties Dialog make it possible to adjust the color, style and weight of each displayed line of data, and to change the background and foreground display colors. The setting "Minimum Fwd Power for VSWR or Ref Power" can be used to prevent display of VSWR or reflected power unless a specified forward power level has been exceeded.

Further visual customization is available by creating a PTT Flipbook (Advanced) control. This control allows finer adjustments of colors, borders, meter scales and more.

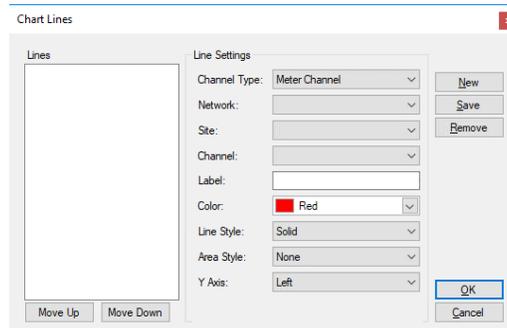
Using Charts

The Custom View Chart control allows you to plot one or more meter channels on a strip chart. Because the chart control can support multiple lines, using it is different from other metering controls.

Creating a New Chart

Begin by dragging and dropping a chart onto the Custom View canvas, as you would any other control. To add a meter channel to the chart, click the "Chart Lines" property, found in the "Data" category in the property grid. Click the [...] button to open the editor dialog.

Select the network, site, and channel for the line you want to add. Click "Save" to add the line to the chart. You may add as many lines as you like, and can specify the color and style (solid, dotted, etc) for each line.



The Chart Lines dialog

The following fields are available for each chart line:

| | |
|---------------------|---|
| Channel Type | The type of channel to be plotted. |
| Network | The network containing this meter channel. |
| Site | The site containing this meter channel. |
| Channel | The meter channel you want to plot. |
| Label | A label to identify the chart line. |
| Color | The color the chart will use to draw this line. |
| Line Style | The style of the line (solid, dotted, etc). |
| Area Style | The area fill style to use (solid or none). |
| Y Axis | The axis (left or right) that this line will use as its Y-axis. |

Using the Secondary Y-Axis

If you want to use a single chart to plot channels that use two different units – such as forward power as a percentage and reflected power in Watts – you can use both the left and right Y-axes. To do so, simply pick "Left" or "Right" as desired for each line in the Chart Lines dialog.

Adjusting the Y-Axis Range

By default, AutoPilot for Archer will automatically scale the y-axis range to suit the data plotted on the chart. This range will continue to change over time as new values arrive. If you would prefer to configure a static range, you may do so using the "Left Y Axis" and "Right Y Axis" properties for the chart.

First, set the "Auto Scale" property of the axis to "False". Then set the "Minimum Value" and "Maximum Value" properties to suit your needs.

Adjusting the Time Span

The duration of the chart is configured using the "Duration (sec)" property of the chart. This specifies the time span represented by the x-axis. Although this property uses seconds, the chart supports months or even years of data.

Pre-Loading Data and Background Caching

When AutoPilot for Archer first loads a chart, it will use your logged data to pre-load values into the chart. The amount of data available for this feature depends on your logging settings and the range of the chart.

When AutoPilot for Archer starts, it will immediately begin "caching" data for your charts, even if they are not on screen.

Editing and Deleting Custom Views

Editing Existing Custom Views

To edit an existing Custom View, right-click on the Custom View in the AutoPilot for Archer Resources window or Navigator and select "Edit Custom View...". AutoPilot for Archer will open the Custom View in the Custom View Editor.

You can also use the File -> Open dialog in the Custom View Editor to open a Custom View file directly.

Deleting Custom Views

To delete a Custom View, right-click on the Custom View in the AutoPilot for Archer Resources window and select "Delete". If you delete a Custom View from the Navigator, only that instance of the view is deleted. To completely remove the Custom View, it must be deleted in the Resources window.

Note: If you delete a Custom View file directly in Windows, AutoPilot for Archer will automatically remove that Custom View from the Resources window and Navigator.

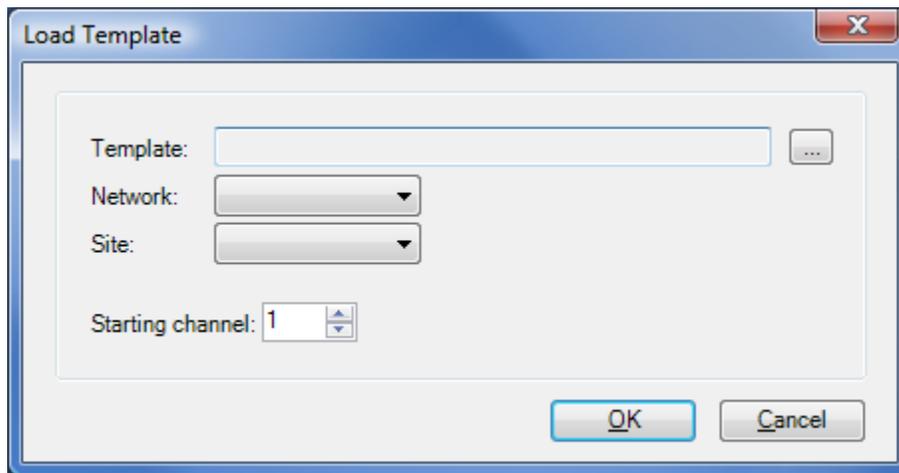
Using Custom View Templates

Custom View Templates allow you to quickly configure a pre-defined Custom View to work with one of your sites. A template that resembles the Default View is available.

To create a new Custom View from a template, open the Custom View Editor (File → New → Custom View) and select "New From Template" from the File menu in the editor.

The "Load Template" dialog will prompt you for the following information:

| | |
|-------------------------|--|
| Template | Click the browse button ("...") to locate the template you want to use. |
| Network | Choose the network containing the site that you want to use for this Custom View. |
| Site | Choose the site that you want to use in this Custom View. |
| Starting channel | Templates are designed to work with a sequential set of channels. For example, to use channels 17-32 on the selected site, enter "17" as the starting channel. |



The Load Template dialog prompts you for the template and site information necessary to configure your new Custom View.

Creating Reports

AutoPilot for Archer reports allow you to view and archive site data in a readable, professional format. Reports can contain data from any number of sites.

When you create a report in AutoPilot for Archer, you are creating a "template" to describe what data a report should include, and how it should be presented. When you run a report, AutoPilot for Archer reads the data directly from the onboard database. Once you create a report, you can run it any time you need to in the future without having to make any edits to update data.

Note: AutoPilot for Archer reports read data from the computer's local database.



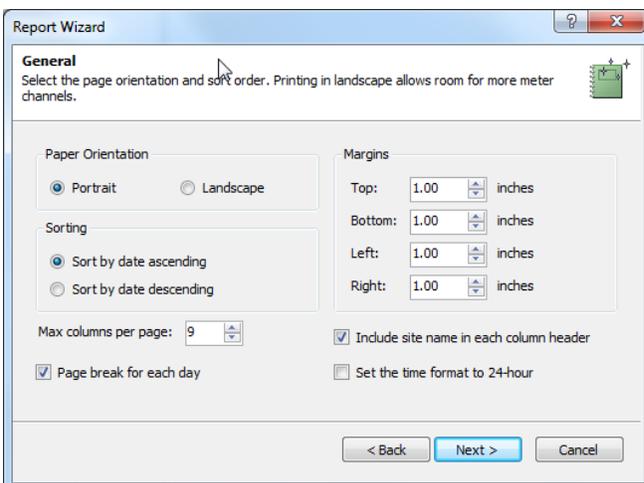
Using the Report Wizard

To create a new report using the Report Wizard, select File → New → Report... in AutoPilot for Archer.



Welcome

Click "Next" to start the Wizard.

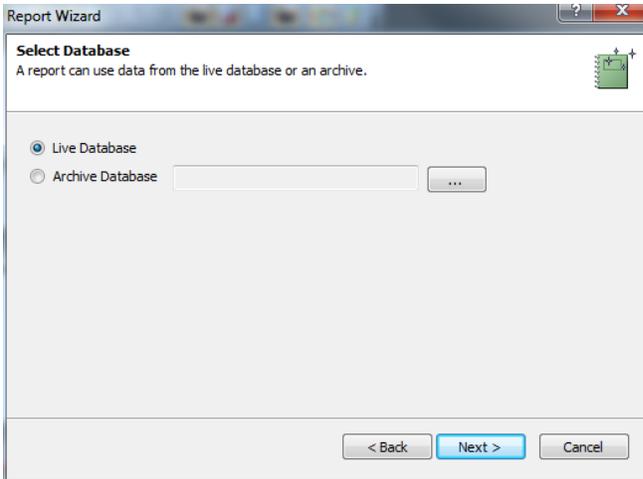


General

Select the desired page orientation. Reports can use portrait or landscape orientation.

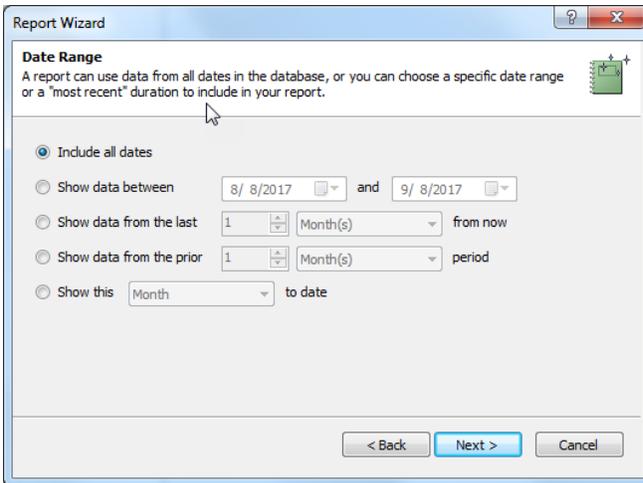
Select the desired sort order for your site data. Data can be sorted in ascending or descending order.

Check the "Page break for each day" checkbox if you want each day's data to begin on a new page.



Select Database

Select live or archive database, then press the button with three dots to find the database in the computer's file system



Date Range

This page allows you to select the dates that will be included in the report. Because AutoPilot for Archer reads from the database each time you run a report, it will always use the most current data.

There are several ways AutoPilot for Archer can filter data by date:

Include all dates

AutoPilot for Archer will use all of your logged data. This is not recommended if you have been logging for a long time.

Show data between...

This option allows you to select specific start and end dates (inclusive) to include in the report. Because AutoPilot for Archer will use these exact dates, this is useful for "one-off" reports, and not reports that you intend to reuse.

Show data from the last...

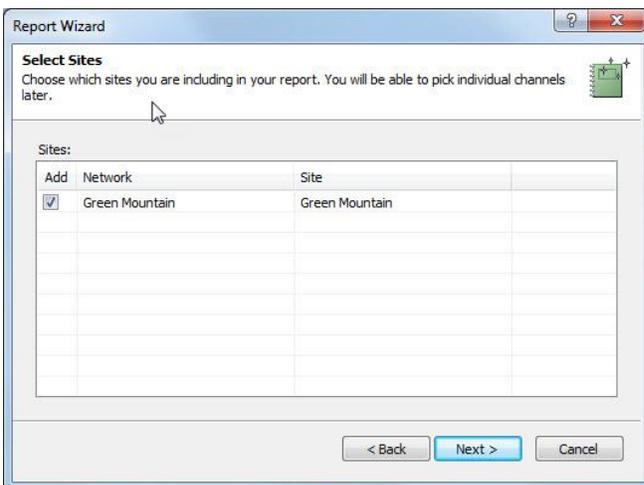
This option will use range of dates that ends today (the day the report is run, not the day it is created) and begins a certain amount of time before today. For example, if you enter "10 Days", the report will include data starting 10 days ago and ending today.

Show data from the prior...

This option uses an even block of time, ending no later than the day the report is run. For example, if you enter "1 Week" the report will include data from last week. This option is useful for reports that you intend to run on a regular basis, where you want the date range to fall on even boundaries.

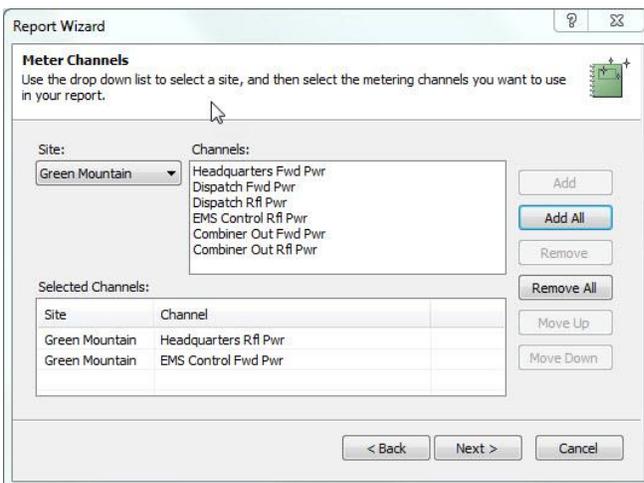
Show this ... to date

This option shows the current block of time (month, week, etc) up through the current date (the date the report is being run). For example, if you select "Month" and run the report on April 20, the report will show April 1 through April 20.



Select Sites

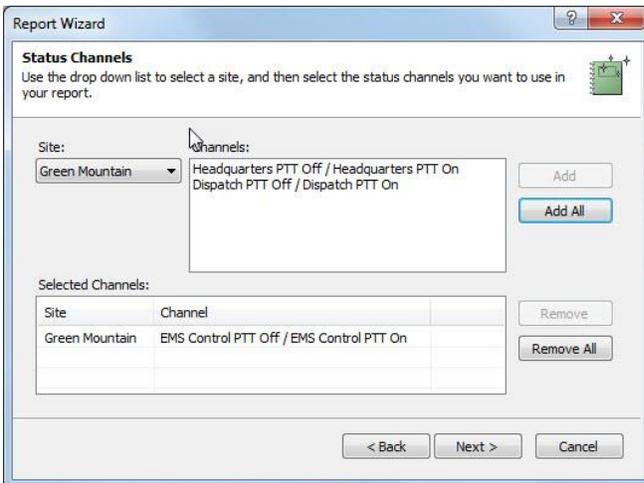
Place a checkmark in the list next to each site that you want to include in the report. You must include at least one site.



Meter Channels

This page allows you to select the meter channels that you want to include in the report. Meter channel values are displayed in columns on the report. For best results, limit the number of meter channels you include in your report to what will fit cleanly on the page. If there is not enough room for all of your channels, the report will span multiple pages with different sets of channels on each page.

To add channels, select the site from the "Site" drop-down and then select the



desired channel(s) in the "Channels" list. Click "Add" to add the selected channel(s), or click "Add All" to add all channels.

The channels you have selected appear in the "Selected Channels" list. You can select channels in this list and click "Remove" to remove them from the report, or click "Remove All" to start over.

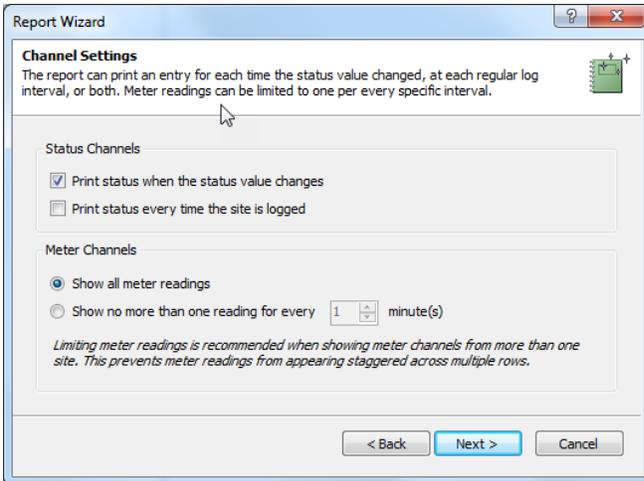
Use the "Move Up" and "Move Down" buttons to control the order in which the channels appear. Your report will use this order to arrange the meter value columns across the page.

Status Channels

This page allows you to select the status channels that you want to include in the report. There are a couple of different ways that status channel values may appear in the report – this is configured on the next page.

To add channels, select the site from the "Site" drop-down and then select the desired channel(s) in the "Channels" list. Click "Add" to add the selected channel(s), or click "Add All" to add all channels.

The channels you have selected appear in the "Selected Channels" list. You can select channels in this list and click "Remove" to remove them from the report, or click "Remove All" to start over.



Channel Settings

Status

Your report can print status values using one or both of two methods:

Print status when the status value changes

Status messages will appear in the report as events. A message will print in the report showing the new status value and the time when it changed. Status channels that remain unchanged will not print at all.

Print status every time the site is logged

The report will show a line for each status value for every time when the site was logged. This works best only when a small number of status channels are included in the report.

Meters

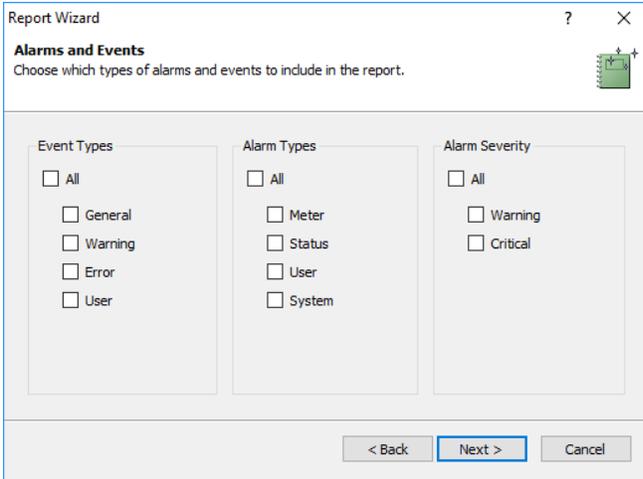
Meter readings will appear all on one line (space permitting) with the exact time (to the second) of each reading. When a report comprises multiple sites, this can cause readings to "stagger" across multiple lines if the timestamps differ at all. Use one of the following options to optimize your report:

Show all meter readings

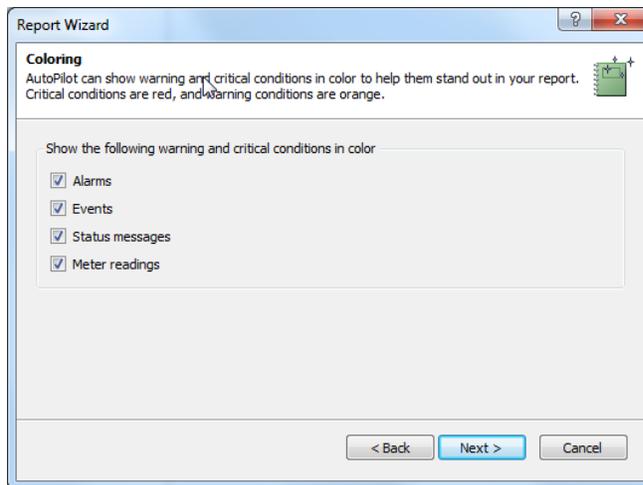
This is the default choice, and is recommended for single-site reports.

Show no more than one reading for every ... minute(s)

This option is recommended when including more than one site in a report. Meter readings that happen within the specified period of time are merged onto one line. If two sites log at slightly different times (for example, 1:00:05 and 1:00:42), this will prevent the meter readings from breaking up into more than one line on the report.

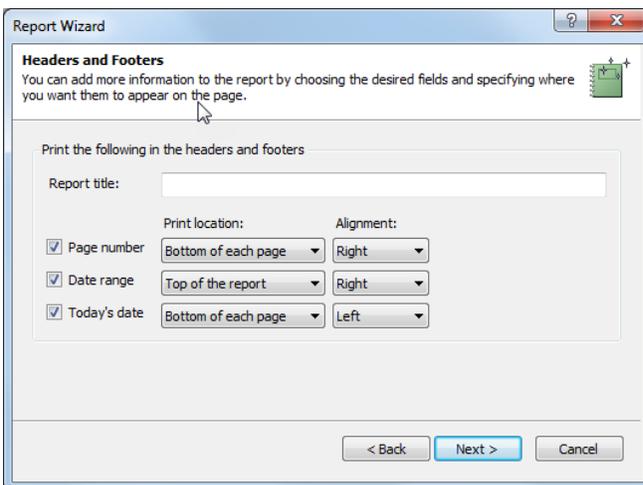


Alarms and Events
 Select the types of events, alarms, and alarm severities that you want to include in the report.



Coloring
 Certain kinds of data can be highlighted in color to help call attention to serious conditions. "Warning" conditions will appear in orange, and "critical" conditions will appear in red.

Use the checkboxes on this page to specify what kinds of data should use this coloring feature.



Headers and Footers
 If desired, enter a title for your report. This will appear at the top of the report in large print.

You may also include page numbers, the date range of the report, and today's date (the date you are running the report, not the date you created it). For each of the options, you can specify where on the report/page it will appear.

Report Wizard

Additional Header/Footer Text
You can customize the report by entering any desired additional text for the page header/footer or report header/footer. This text will appear left-justified.

Print at the top of the report:

Print at the top of each page:

Print at the bottom of the report:
 Signature:

Print at the bottom of each page:

< Back Next > Cancel

Additional Header/Footer Text

To further customize the report to suit your needs, you can add additional text to the top and bottom of each page, the top of the first page, and the bottom of the last page. For example, you can a signature line, contact information, station details, etc.

Report Wizard

Fonts
Set the font the report should use for each part of the page.

Report Title: Arial, 24, Bold

Header: Arial, 10, Regular

Footer: Arial, 10, Regular

Column Header: Arial, 10, Regular

Date/Time Header: Arial, 10, Bold

Continued Page Header: Arial, 10, Italic

Row: Arial, 10, Regular

< Back Next > Cancel

Fonts

This page allows the user to select fonts for specified aspects of the report. Click the button with three dots to select the desired font.

Report Wizard

Scheduled Printing
Optionally, you can schedule this report to print automatically.

Print this report automatically
 Printer: HP Officejet Pro 8000 A809 Series

Email a PDF copy of this report
 Addresses:

Schedule
 Next print: 9/ 8/2017 8:00:00 AM
 Print every: 8 Hour(s)

< Back Next > Cancel

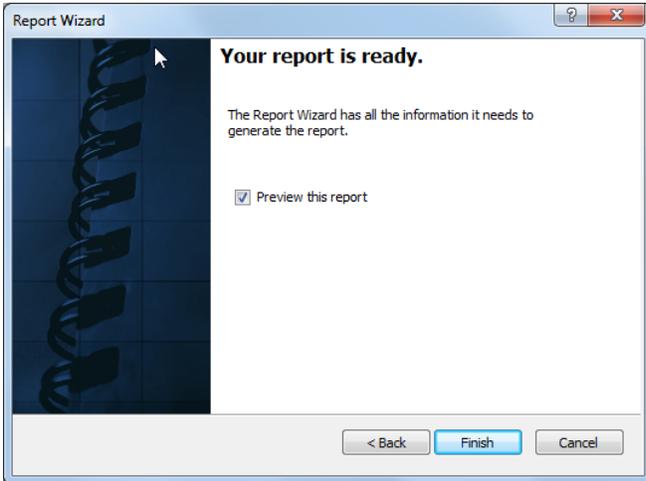
Scheduled Printing

You can schedule your report to be printed or emailed automatically.

For automatic printing, select the printer you want to use.

For email, enter your email address, or a list of addresses separated by commas (engineer@example.com, gm@example.com).

Select the date and time you want AutoPilot for Archer to print, and the frequency with which you want it to repeat the print job. Each time AutoPilot for Archer prints this report; it will read current values from the database.



Note: When using automatic printing, it is strongly recommended that you not use a specific date range, as this would cause an identical report to print each time.

Finish

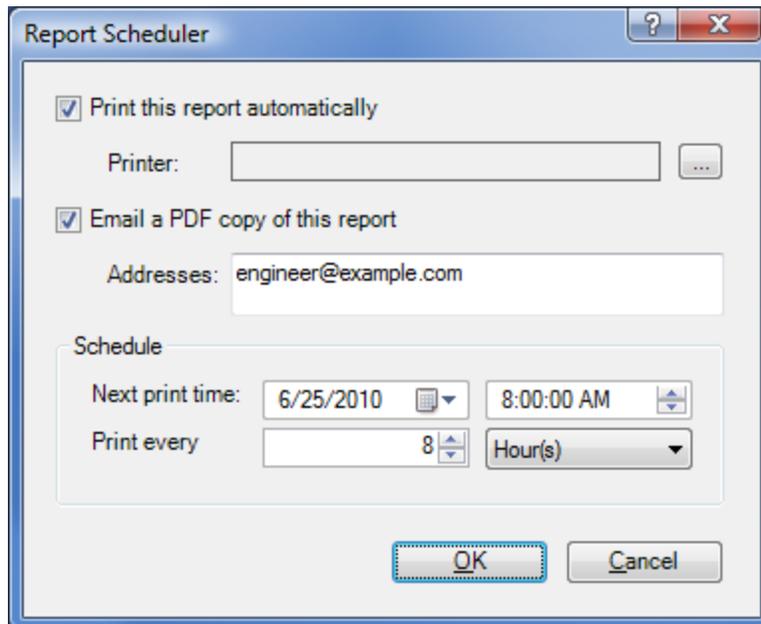
Check "Preview this report" if you want to open a print preview now.

Click Finish to save your report and close the wizard.

Scheduling Reports

You can schedule reports to automatically print on a regular basis, or have AutoPilot for Archer automatically send a PDF copy of the report to one or more email addresses.

You can configure the report scheduling options using the Report Wizard, or by right-clicking on a report in the Resources window and choosing "Schedule Report...".



Report Scheduler dialog

Viewing, Printing and Emailing Reports



AutoPilot for Archer requires that you have a default printer configured in Windows, even if you are only using print preview or PDF reports.

Print Preview

You can open a print preview in a separate window or directly in AutoPilot for Archer.

To open a print preview window, select a report from the Resources window or Navigator and click "Print Preview" from the File menu.

To open a print preview directly in AutoPilot for Archer, double-click the report's icon in the Navigator.

Note: You can configure AutoPilot for Archer to run a print preview from the Resources window using a single click by changing the options in the Options dialog.

Saving to PDF

You can save a report to a PDF file by first opening a print preview and then clicking the "Save to PDF..." button in the tool bar.



"Save to PDF..." in the print preview tool bar.

| Print Preview Tool Bar | |
|------------------------|--|
| Print... | Prints the report after prompting for a printer. |
| Save to PDF... | Saves the report to a PDF file. |
| Page # | Displays the current page number. Typing a number in this field will jump to that page. |
| First Page | Moves to the first page of the report. |
| Previous Page | Moves to the previous page. |
| Next Page | Moves to the next page. |
| Last Page | Moves to the last page of the report. |
| Size | Displays the relative size of the report (% of full size). Only enabled when not using the "Auto" feature (see below). |
| Zoom In | Increases the size of the report. |
| Zoom Out | Decreases the size of the report. |
| Auto | When enabled, the report is automatically sized to fit the current window. Turning this feature off allows you to scale the report manually. |

Note: The report size settings available in the tool bar have no effect on the printed appearance of the report.

Printing

To print a report, select the report's icon in the Navigator and click "Print..." from the File menu.

To print from a print preview window, use the "Print..." icon from the print preview tool bar (see above).

To print automatically, see  [Scheduling Reports](#).

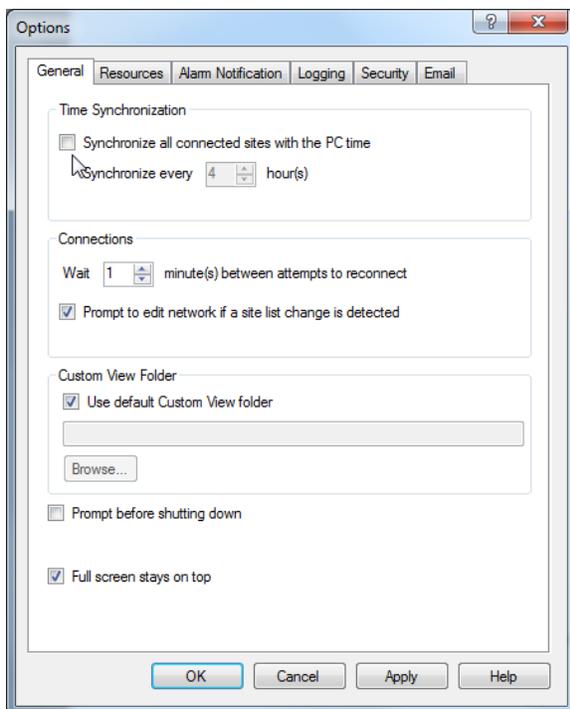
Emailing Reports

AutoPilot for Archer can automatically email reports to one or more addresses. See  [Scheduling Reports](#) for more information.

In Depth

Program Options

The Options dialog allows you to customize and enable many of the features in AutoPilot for Archer. Open the Options dialog by clicking "Options" from the Tools menu.



General

Time Synchronization

To have AutoPilot for Archer synchronize the time on each remote control with the PC's clock, enable Time Synchronization. Specify the how often you want AutoPilot for Archer to perform this action.

Note: AutoPilot for Archer will automatically compensate for any differences in time zone between the PC and the remote control.

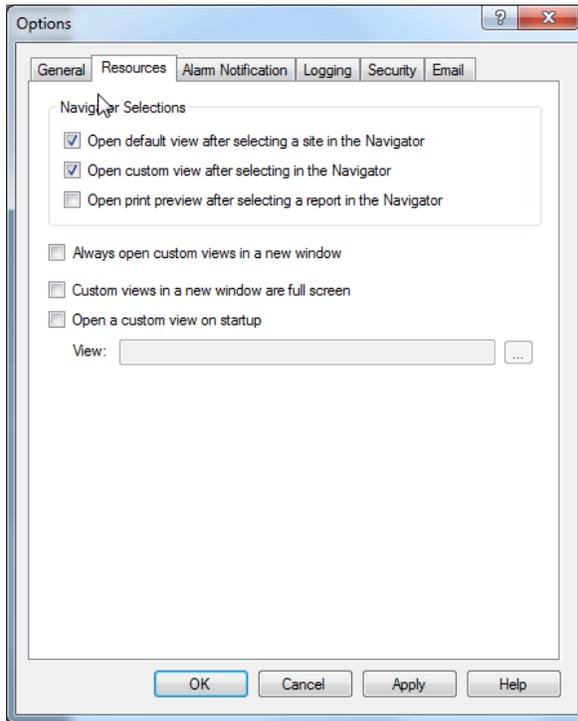
Connections

Wait ... minute(s) between attempts to reconnect

This setting adjusts how long AutoPilot for Archer waits before attempting to reconnect to a site after a connection was lost.

Custom View Folder

Allows user to select the default Custom View folder or browse for a different folder



Prompt Before Shutting Down

If you enable this feature, AutoPilot for Archer will display a confirmation dialog when you close the program, giving you a chance to cancel if you were closing by mistake.

Resources

Navigator Selections

Open default view after selecting a site in the Navigator

When checked, AutoPilot for Archer will open the Default View for a site when you single-click on its icon in the Navigator.

Open custom view after selecting in the Navigator

When checked, AutoPilot for Archer will open a Custom View when you single-click on its icon in the Navigator.

Open print preview after selecting a report in the Navigator

When checked, AutoPilot for Archer will automatically generate and display a print preview for a report when you single-click on its icon in the Navigator.

Always Open Custom Views in a New Window

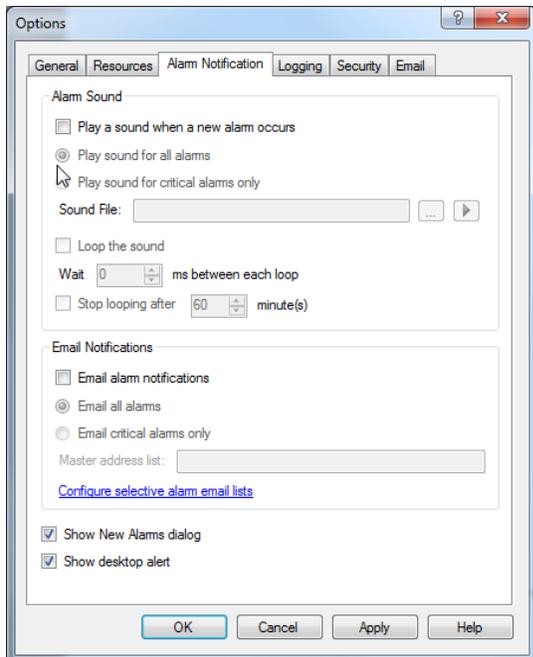
When checked, all custom views will open in their own window, rather than in the main AutoPilot for Archer window.

Custom Views in a New Window are Full Screen

When enabled, AutoPilot for Archer opens Custom Views in a New Window in full-screen mode.

Open a Custom View on Startup

When enabled, AutoPilot for Archer will open the selected Custom View when the program starts. This is most commonly used for map or overview displays employed by network operation centers.



Alarm Notification

For more information on alarm notifications, see [Alarm Notifications](#).

Alarm Sound

Enable this feature if you want AutoPilot for Archer to play a sound file when it receives a new alarm from any site.

Optionally, AutoPilot for Archer can loop the sound file. You can specify how long to wait (in milliseconds) between each iteration of the loop, and can have AutoPilot for Archer stop looping the sound after a certain number of minutes.

Email Notifications

Enable this feature if you want AutoPilot for Archer to send an email to the specified address or addresses when a new alarm is received.

To enter a list of addresses, separate each address with a comma (,) or semicolon (;).

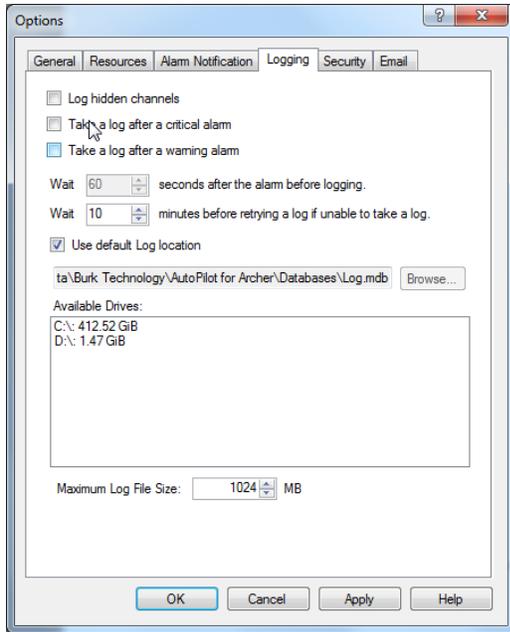
Note: This feature requires correct setup of email settings.

Show New Alarms Dialog

When enabled, AutoPilot for Archer will open the New Alarms dialog when a new alarm is received.

Show Desktop Alert

When enabled, AutoPilot for Archer will show a "desktop alert" when a new alarm is received. The desktop alert displays in the lower right corner of the screen, and fades away after a few seconds. This is a useful way to display alarm notifications without interrupting the operator.



Logging

Log hidden channels

When enabled, AutoPilot for Archer will log channels even if they are hidden. Otherwise, AutoPilot for Archer will not log data for hidden channels.

Take a log after a critical alarm

When enabled, AutoPilot for Archer will take a telemetry snapshot after it receives a critical alarm.

Take a log after a warning alarm

When enabled, AutoPilot for Archer will take a telemetry snapshot after it receives a warning alarm.

Wait ... seconds after the alarm before logging

Specifies the number of seconds AutoPilot for Archer will wait before taking a telemetry snapshot after receiving an alarm.

Wait ... minutes before retrying a log if unable to take a log

Specifies the number of minutes AutoPilot for Archer will wait before retrying to take a log on a site when the previous attempt was unsuccessful.

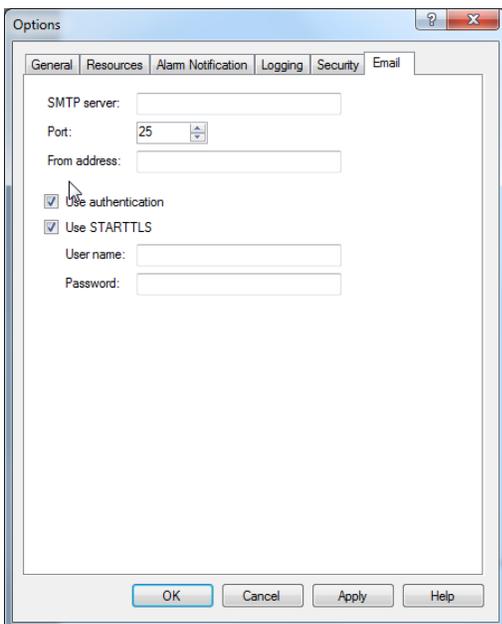
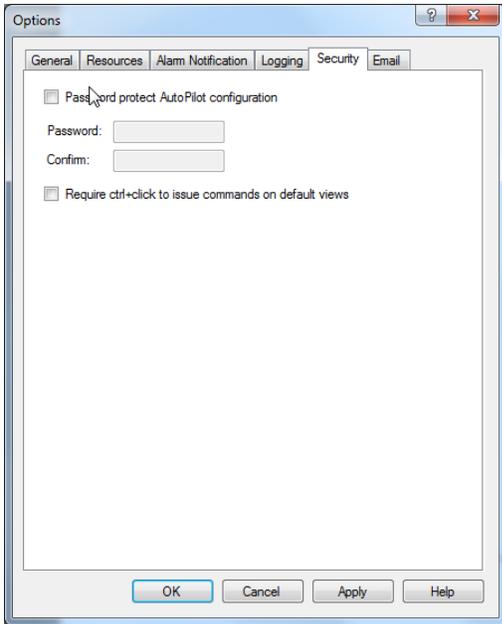
Use default Log location

Allows user to select default location for log or browse for a different location

Available Drives

Advises the user on the amount of space available on accessible drives

Note: AutoPilot for Archer will always log the alarm. The settings in this section only affect telemetry logging when alarms occur.



Security

Password protect AutoPilot for Archer configuration

When checked, AutoPilot for Archer will require a password to unlock configuration settings. For more information, see Security.

Require ctrl+click to issue commands on default views

When checked, AutoPilot for Archer will not issue a command from a Default View unless you hold down the Control key on the keyboard while clicking. AutoPilot for Archer will display a prompt if you click on a command without holding the Control key.

Note: Requiring ctrl+click on Default Views does not affect Custom Views. However, each Custom View command can be configured to require ctrl+click in the Custom View Editor.

Email

Email settings are required if you plan to use any of the email features in AutoPilot for Archer, such as emailing PDF reports.

If you are unsure of your email settings, consult your network administrator or Internet Service Provider.

SMTP server

Enter the IP address or host name of your email server.

Port

The port number used by your SMTP server. This is typically 25.

From address

AutoPilot for Archer will use this for the "from address" field in email messages. This setting is not critical, but may affect how a spam filter treats messages sent by the software.

Use authentication

Check this box if your SMTP server requires a user name and password, and enter those values in the fields beneath the checkbox.

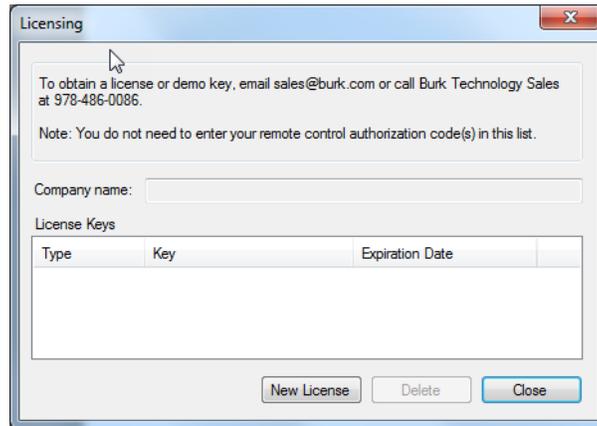
Use STARTTLS

Check this box to use STARTTLS. A user name and password will be required.

Licensing

To add license keys for AutoPilot for Archer add-ons, or to use a demo key, access the Licensing dialog from the Help menu.

Note: The Licensing dialog is only used for add-ons and demos. You do not need to enter your remote control's authorization code in this dialog.



Licensing Dialog

To add a new license, click New License. AutoPilot for Archer will prompt you for your company name and license key.

After you enter a license key it will take effect immediately (you do not need to restart the software).

Note: Each license key you add to AutoPilot for Archer must be for the same company name.

Although it is not normally necessary to remove a license key, you can do so by selecting the license from the list and clicking the Delete button.

Connectivity

Connecting and Disconnecting

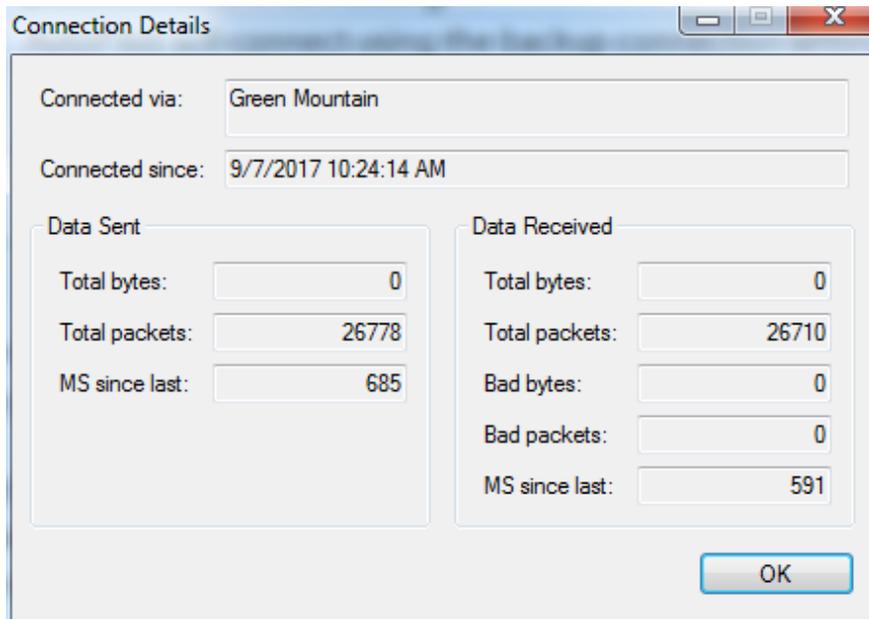
To connect to, or disconnect from, any site, select its icon in the Resources window or Navigator and use the appropriate option from the File menu, tool bar, or context menu (accessed by right-clicking on the site icon). These options are explained below:

| | |
|--|--|
|  Connect | AutoPilot for Archer will connect using the primary connection settings. |
|  Connect As... | AutoPilot for Archer will prompt you for connection settings and a user name and password before connecting. |
|  Disconnect | AutoPilot for Archer will disconnect from the site. AutoPilot for Archer will not restore this connection after you manually disconnect. |

Note: If you have configured a site to not save the password, AutoPilot for Archer will always prompt for a password when connecting to that site.

Connection Details Dialog

The Connection Details dialog shows connection statistics and other data about your sites. To access this dialog, select a site in the Resources window or Navigator and click "Connection Details" from the File menu.



Connection Details

The Connection Details dialog shows the following parameters.

| Connection Details | |
|------------------------|---|
| Connected via | The IP address or host name plus TCP port, COM port, or modem name and phone number used to connect to this site. |
| Connected since | The date and time the connection was established. |

Connection Statistics

| Data Sent | |
|----------------------|---|
| Total bytes | The total number of bytes sent from AutoPilot for Archer to the site. |
| Total packets | The total number of packets sent from AutoPilot for Archer to the site. |
| MS since last | The number of milliseconds since AutoPilot for Archer last sent a packet to the site. |

| Data Received | |
|----------------------|---|
| Total bytes | The total number of bytes sent from the site to AutoPilot for Archer. |
| Total packets | The total number of packets sent from the site to AutoPilot for Archer. |
| Bad bytes | The number of bytes received from the site that AutoPilot for Archer could not parse into a valid packet. |
| Bad packets | The number of packets received from the site that AutoPilot for Archer could not interpret as valid. |
| MS since last | The number of milliseconds since AutoPilot for Archer last received a valid packet from the site |

Site Configuration Cache

AutoPilot for Archer saves a copy of your Archer site configuration files in its onboard cache. This allows AutoPilot for Archer to avoid downloading site configuration when it already has the current files.

Although it is never necessary to do so, you can clear these cache files by selecting "Clear Saved Site Configuration" from the File menu.

Note: After clearing the site configuration cache, you must restart AutoPilot for Archer before your Archer site will respond to this change.

Sync Configuration

You can update AutoPilot for Archer's cached configuration by right-clicking on a site in the Resources window or Navigator and selecting "Sync Configuration"

Backup Connections and Automatic Reconnection

AutoPilot for Archer has several built-in options to help you stay connected to your sites 24x7.

| Terminology | |
|------------------------------|--|
| Primary Connection | Your primary connection to a site is the connection that you consider "normal", and will use in most cases. |
| Automatic Connection | A connection is automatic when AutoPilot for Archer connected without requiring a user interaction. When a site is configured to connect at startup, AutoPilot for Archer will automatically connect to it when the program starts. |
| Connection Recovery | When a connection is lost, AutoPilot for Archer will first attempt to recover it. AutoPilot for Archer does this immediately after a connection loss. If the connection is recovered successfully, AutoPilot for Archer will not note a warning in the Application Event List. |
| Retrying a Connection | Except under certain circumstances (explained below), AutoPilot for Archer will retry a connection periodically after a connection loss. This happens only after connection recovery is unsuccessful (see above). |
| Manual Connection | Whenever you connect to a site by clicking one of the connect icons, you are connecting manually. |
| Manual Disconnection | Whenever you disconnect from a site by clicking the disconnect icon, you are disconnecting manually. |

Automatically Reconnecting after a Connection is Dropped

AutoPilot for Archer will automatically reconnect to a site after a connection is lost. There are two phases to this process:

1. AutoPilot for Archer will attempt to recover the connection immediately. If this is successful, AutoPilot for Archer will not log a warning in the Application Event List.
2. AutoPilot for Archer will periodically retry the connection. The timing of this process is adjustable using the Options dialog.

Note: If a connection recovery is unsuccessful, AutoPilot for Archer will log a warning in the Application Event List. AutoPilot for Archer will not log additional warnings if reconnection attempts are unsuccessful, as this would "flood" the log over a period of time.

If a connection is restored but then lost again, AutoPilot for Archer will log a warning again.

AutoPilot for Archer will not reconnect to a site under the following circumstances:

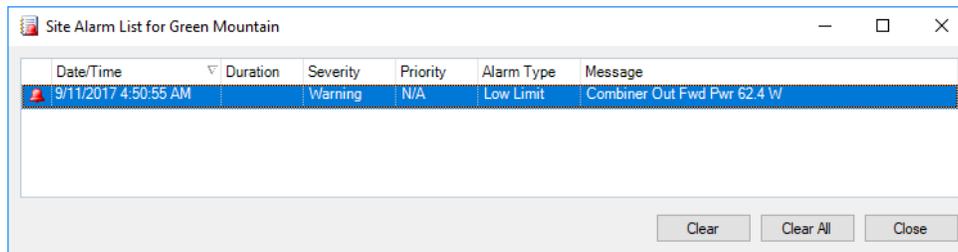
- You manually disconnected from a site.
- You connected to a site using "Connect As...".
- Your site is configured to prompt for a password.

Alarm Management

Site Alarm List

To view alarms from a single site only, right-click on the site's icon in the Resources window or Navigator and select "Site Alarms".

The site alarm list displays all the uncleared alarms for the selected site.



Site Alarm List

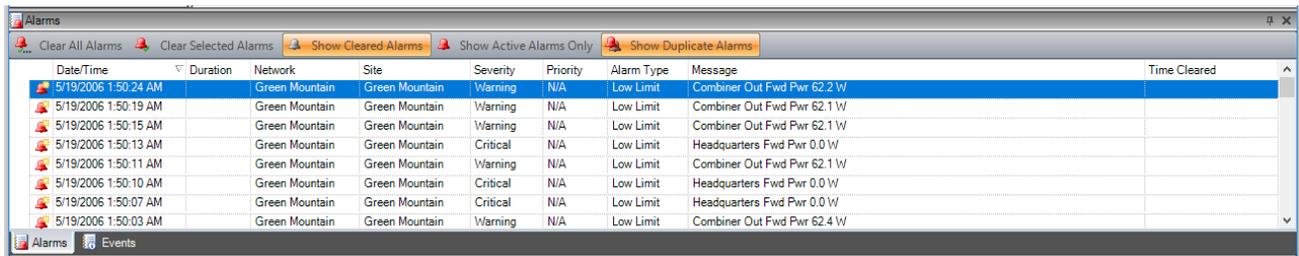
Notifications and Sounds

AutoPilot for Archer can notify you of new alarms in several ways, described below:

Alarm List

The Alarm List is the main place where AutoPilot for Archer displays information about alarms. New alarms are differentiated by their icon.

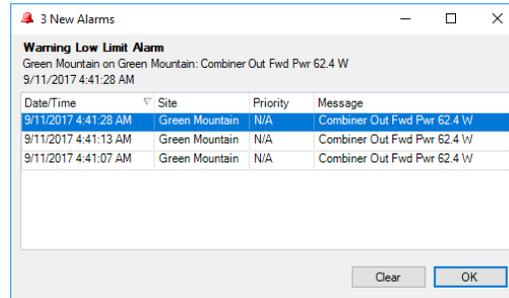
For more information on the Alarm List, see [Alarms Overview](#).



Alarm List

New Alarms Dialog

The New Alarms dialog, enabled using the Options dialog, will pop up whenever a new alarm occurs.



New Alarm Dialog

If there is more than one new alarm, the New Alarms dialog will show all of the new alarms.

Clicking on an alarm in the list will display more information about the alarm at the top of the dialog. Clicking "Clear" will clear the selected alarm.

New Alarm Desktop Alert

A "desktop alert" is a small notification that appears in the lower right corner of the screen. The notification will automatically disappear after a few seconds. This kind of notification is a useful way to make an operator aware of new alarm condition with causing an interruption.



New Alarm Desktop Alert

Hovering over the desktop alert will prevent it from closing.

Clicking the "Clear Alarm" icon (🔔) in the lower left corner of the alert will clear the alarm.

Sounds

If desired, AutoPilot for Archer can play a sound when a new alarm is received. This option is configured in the Options dialog.

Logging

AutoPilot for Archer logs the following types of data:

- Telemetry (meter and status readings)
- Status changes
- Alarms
- Events

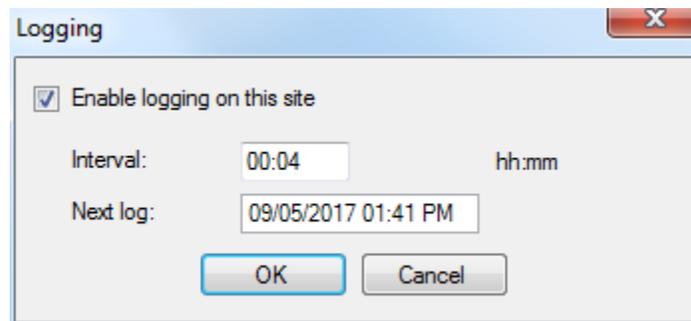
Enabling Logging

AutoPilot for Archer will always log alarms and events for all sites. Telemetry logging is enabled individually for each site, and can be enabled/disabled for the entire application.

When logging for the application is disabled, AutoPilot for Archer will not log telemetry on any sites. When enabled, AutoPilot for Archer will log telemetry on all sites for which logging is enabled at the site level.

To enable logging for AutoPilot for Archer, click "Enable Logging" from the Tools menu.

To adjust logging settings for a site, right-click on the site's icon in the Resources window or Navigator and select "Configure Logging...".



Logging Configuration Dialog

Logging and Connections

If you are not connected to a site that is due to be logged, AutoPilot for Archer will automatically connect to the site for you. When AutoPilot for Archer is finished logging the site, it will automatically disconnect.

Note: Logging will never cause AutoPilot for Archer to disconnect from a site that was already connected.

Logging on Demand

To force AutoPilot for Archer to immediately take a log, click "Log Now" from the tools menu.

Note: You must already be connected to a site to use the "Log Now" feature.

Onboard Database

AutoPilot for Archer stores its logs and captures in the onboard database. For more information on exporting and archiving your logged data, see [Data Management](#).

The onboard log uses an SQLite Database. When AutoPilot for Archer starts up, it will create this file automatically if it does not already exist.

The onboard database file is located here:

Windows Windows 7 through 10 search for:

```
%AllUsersProfile%\Burk Technology\AutoPilot for Archer\Databases\Log.db
```

```
Or navigate to: C:\ProgramData\Burk Technology\AutoPilot for Archer\Databases\Log.db
```



While it is possible to open this file using a third party SQLite browser, it is strongly recommended that you instead export your data or use Text File Logging.

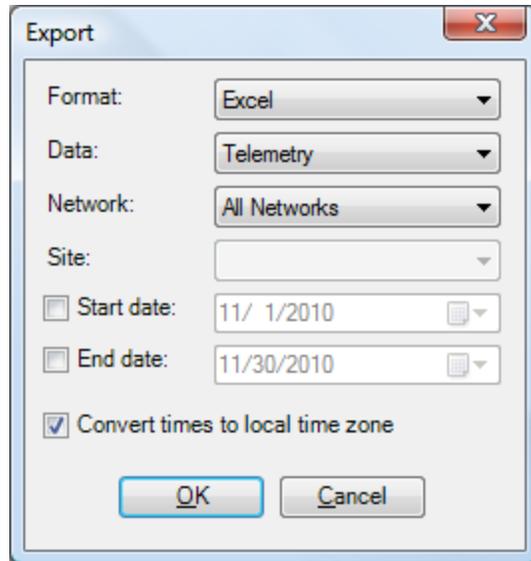
Never open this file while AutoPilot for Archer is running.

Data Management

Exporting Data

AutoPilot for Archer has a built-in export feature that allows you to export your logged data in a variety of different formats, each suitable for analysis in 3rd party applications.

To export your data, click "Export Logged Data..." in the Tools menu.



Export dialog

The following options are available on the Export dialog:

| | |
|---|---|
| Format | AutoPilot for Archer supports the following formats: Excel, CSV (comma separated values), Tab (tab delimited values), and XML (extensible markup language). |
| Data | Select the database table that you want to export: Telemetry, Alarms, Events, or Status Changes. |
| Network | Choose the network whose data you want to export, or choose "All Networks". |
| Site | Choose the site whose data you want to export, or choose "All Sites" |
| Start date | Check the "Start date" checkbox and select a date if you want to export data only from dates on or after the selected date. |
| End date | Check the "End date" checkbox and select a date if you want to export data only from dates on or before the selected date. |
| Convert times to local time zone | When this option is checked, AutoPilot for Archer will convert all timestamps to use the local time zone instead of UTC. |

Note: Exporting data does not remove it from the database.

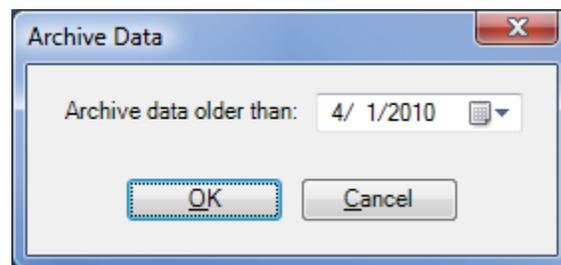
Archiving Data

Over time and depending on the number of sites you have added to AutoPilot for Archer, your onboard database may grow very large. Archiving data will remove it from the database and store in an archive file that you can access later.



While the technical limit to the size of the database is 2GB, it is highly recommended that you periodically archive your data to optimize performance.

To archive your data, click "Archive Logged Data..." in the Tools menu.



Archive Data dialog

Enter the date that you want to use to archive your data. Any data older than this date will be removed from the database and stored in the archive.

Archived data is stored in XML format. AutoPilot for Archer will prompt you for the location where you want to store this file.

Security

Security Overview

Password Encryption

There are several places throughout AutoPilot for Archer where the software will prompt you for a password. AutoPilot for Archer never stores your passwords in "plain text". Passwords are encrypted using standard encryption methods whenever it is necessary to save to a file.

Remote Control Permissions

Your remote control has built-in security mechanisms, varying by model. Remote control security prevents unauthorized users from reading your data or issuing commands.

Maintenance Mode

Your remote control also has a "maintenance mode" or "remote/local" mode feature. This feature locks out remote commands for safety reasons during maintenance operations. The remote control will not permit AutoPilot for Archer to issue commands when in maintenance mode.

Note: AutoPilot for Archer will gray out commands that are unavailable due to insufficient permissions or maintenance mode.

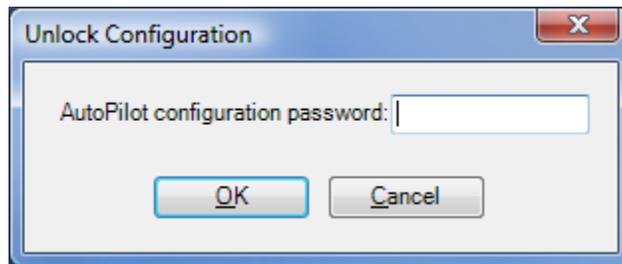
Even if a command were to appear available, the remote control itself would not allow AutoPilot for Archer to issue the command.

Locking AutoPilot for Archer Configuration

If desired, you can password protect AutoPilot for Archer's configuration options. This is useful to prevent operators from making undesired changes.

To enable this feature, use the "Security" tab in the Options dialog.

Once you have enabled password protection and set a password, click "Lock AutoPilot for Archer Configuration" in the File menu to lock or unlock the configuration.

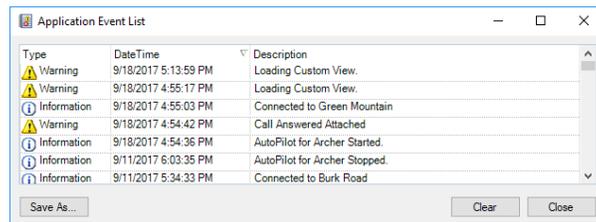


Unlock Configuration password prompt

Application Event List

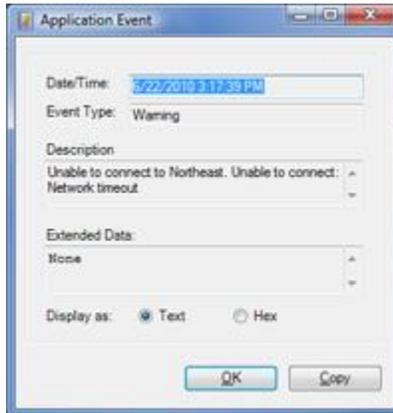
AutoPilot for Archer logs various activities using the Windows Application Event Log. While you can access this log directly in Windows, AutoPilot for Archer makes it available in the program as well.

To access the Application Event List, click "Application Event List" from the View menu.



Application Event List

To see more information about an event, double-click on its entry in the event list.



Application Event details

Note: The Application Event dialog includes a "Copy" button that will copy the event details to the clipboard. You can then paste this information into a file or email.

There are three types of events logged in the list:

| | |
|--|---|
|  Information | Information events are a record of some of the regular operations that AutoPilot for Archer performs. These events are normal, and do not indicate any kind of a problem. |
|  Warning | Warning events indicate that an operation was unsuccessful, due to foreseeable circumstances (such as a connection loss). |
|  Error | An error condition is an abnormal failure. Under normal circumstances, error conditions should never occur. |

Note: AutoPilot for Archer will notify you of new Error conditions by showing an icon in the Status Bar.

Migration

Migrating your AutoPilot for Archer installation from one computer to another – or cloning your configuration for use on second PC – is relatively easy. All of your files are stored in one folder on the computer:

Windows Vista and Windows 7 through 10, search for:

%AllUsersProfile%\Burk Technology\AutoPilot for Archer

Or navigate to: C:\ProgramData\Burk Technology\AutoPilot for Archer

To completely clone your installation onto another computer, simply copy the files from this folder onto the new computer. If desired, you may copy only certain files. See below for more information.



You must still install AutoPilot for Archer on your new computer. Copying this folder does not install the software for you.

AutoPilot for Archer Files and Folders

| Folders | |
|---------------------|---|
| Cache | The cache folder stores local copies of your site configuration. These files can be safely deleted or omitted during data migration. |
| Custom Views | This folder contains all of your Custom View files |
| Databases | This folder contains your onboard logging and captures database (Log.db). If you delete or omit this file, AutoPilot for Archer will create a new one on startup. |
| Licensing | This folder contains your licensing information for add-ons and demos. |
| Reports | This folder contains your report files. |
| Settings | This folder contains various files that store settings, sites, etc. See below for more details. |

Network Names

If you plan to share Custom Views or other site-related data between multiple computers, **it is important that you use the same network name on each computer for your sites. AutoPilot for Archer uses the network name to identify your sites.**

Note: You can rename a network within AutoPilot for Archer. AutoPilot for Archer will display a prompt asking if you want to update your Custom Views, etc.

Reference

Custom Views

Controls

Command Buttons

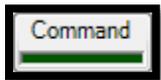
Command Button

A standard command button.



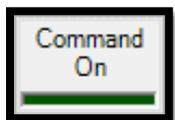
LED Button

A command button with an embedded LED.



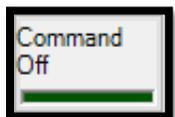
LED Button (2 Lines Centered)

A commands button with an embedded LED and a 2 line centered caption label.



LED Button (2 Lines)

A commands button with an embedded LED and a 2 line caption label.



Sticky Button

The *Sticky Button* remains "stuck" down when its status condition is "ON". This control works best when used in mutually exclusive pairs.



General

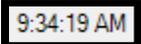
Camera Picture

Embeds a web cam picture in your Custom View. Works with Panasonic web cams.



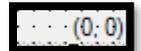
Clock

A simple clock with adjustable time zone offset.



Custom View Extents

Set the aspect ratio for auto scaling of custom views.



Label

A basic, general purpose label control.



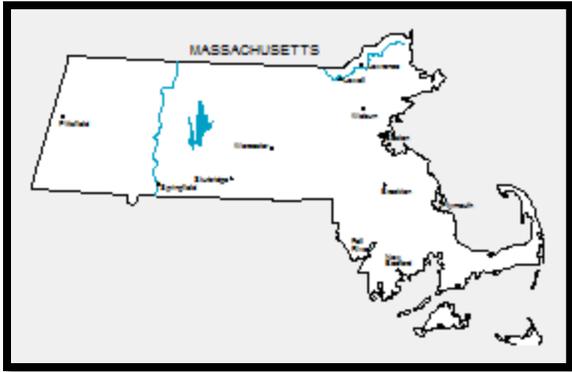
Line

Draws a straight line.





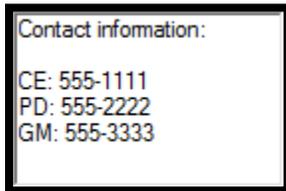
A resizable map. State maps are available, as well as a map of the US.



Embeds an image in your custom view. The image is saved with your Custom View, and will work even if the view is loaded on another computer.



Shows the contents of any text file on your computer.



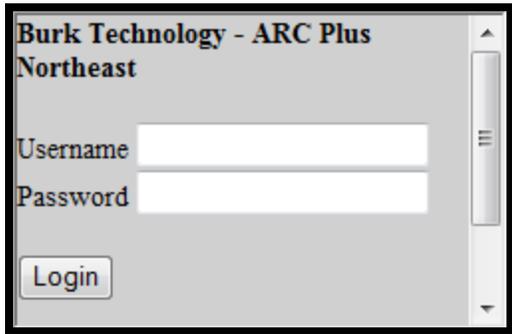
Weather Map

A weather map from the National Weather Service. Can be displayed as a static image or animation.



 Web Page

The *Web Page* control allows you to embed a web page directly in your Custom View.



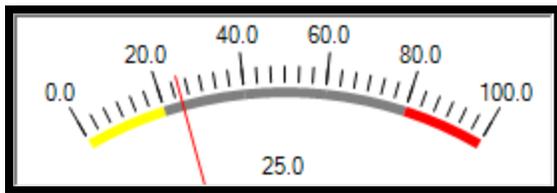
 Web Picture

Embeds any image from a web site. Can be set to periodically refresh.

Meters

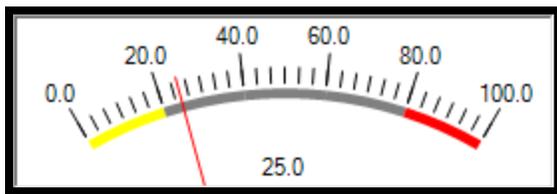
 Angular Meter

A classic gauge.



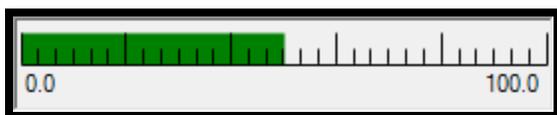
 Angular Meter (Advanced)

A classic gauge with additional Labels and Meter properties.



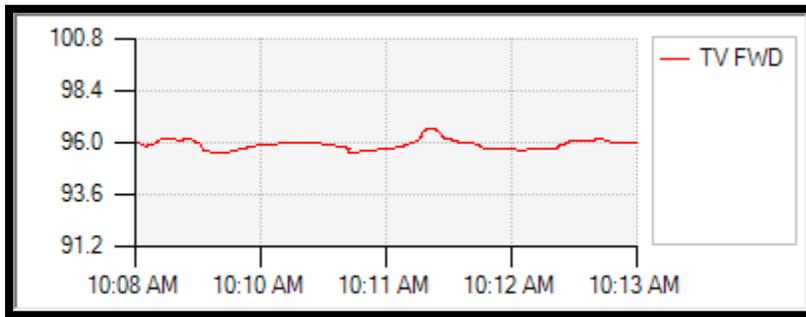
 Bar Meter

Displays a meter on a linear meter that fills in with color to indicate value.



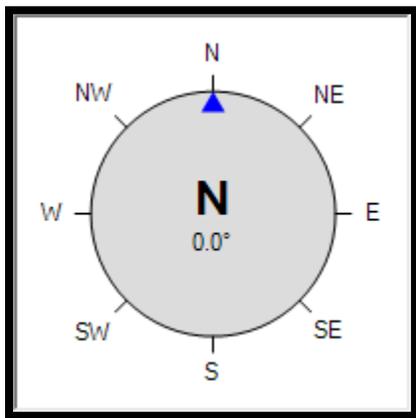
 Chart

A strip chart control that supports multiple lines. See [Using Charts](#) for more information.



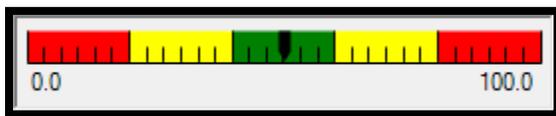
 Compass

Use the *compass* control to display direction.



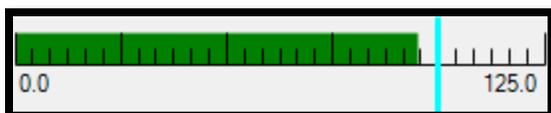
 Linear Meter

Displays a meter value on a linear indicator. Can be oriented horizontally or vertically.



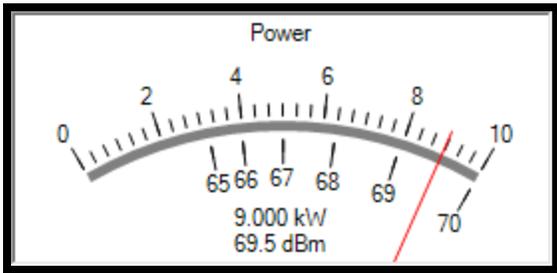
 Nominal Bar

The *nominal bar* displays a meter value relative to a specified nominal value. This allows an operator to quickly determine what parameters are out of tolerance.



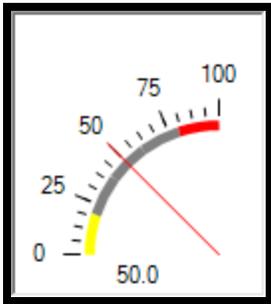
 Power Meter

Displays power using W (or kW) and dBm.



 Right Angle Meter

A gauge-style meter starting on the left and spanning 90°.



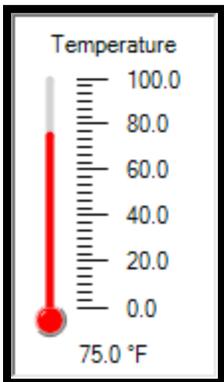
 Text Meter

A simple non-graphical meter display.



 Thermometer

Displays temperature values.



Trend Arrow

Indicates whether a meter channel is trending up or down, or is steady.



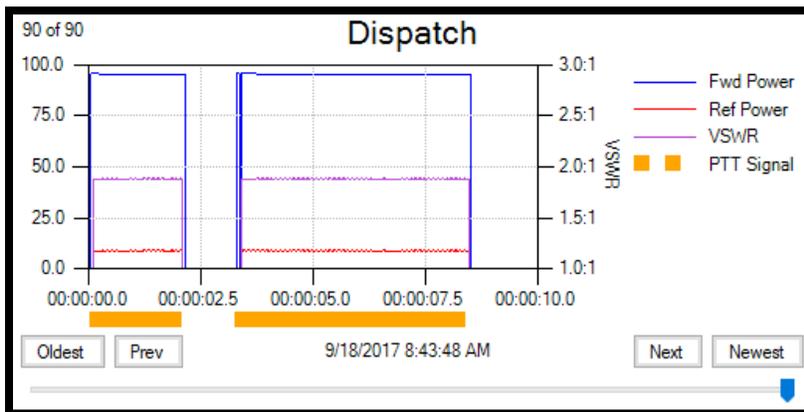
VSWR Meter

The *VSWR meter* automatically calculates VSWR using forward and reflected power.



PTT Flipbook

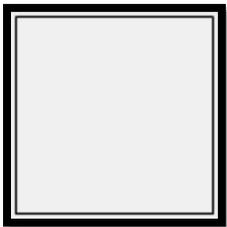
A PTT Flipbook displays forward power, reflected power and VSWR for an Archer basestation. See [Using PTT Flipbooks](#) for more information.



Shapes

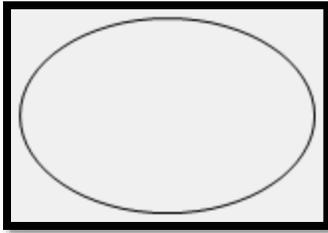
Rectangle

A rectangle or square.



 Oval

An oval or circle.



Specialized

Summary Site Status and Summary Group Status Controls

The Summary Site Status and Summary Group Status controls make it possible to display a summary of alarm conditions for a single site, in a single graphical element. These graphical elements use a color grid of consisting of one to four colors, depending on the type of alarms associated with the group. The four color categories are as follows:

- **Green** – No critical or warning alarms
- **Yellow** – Warning alarms
- **Red** – Critical alarms
- **Grey** – Site is not communicating with AutoPilot for Archer

Sites

The Summary Site Status control shows the name of the site and a color bar that represents one of five states, as described in the following table. If the site has critical or warning alarms, the total number of alarms is shown in the red or yellow box.

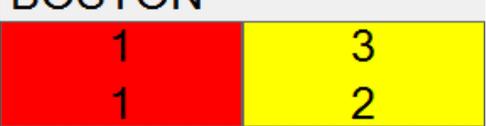
| | |
|--|--|
| Green – Site is connected with no critical alarms or warnings. | BURK ROAD  |
| Grey— Site is not communicating with AutoPilot for Archer. | BURK ROAD  |
| Yellow – Site has warning alarms. | BURK ROAD  |

| | |
|--|--|
| Red – Site has critical alarms. | <p>BURK ROAD</p>  |
| Split red/yellow – Site has critical alarms and warnings. In this example, the site has 7 critical alarm and 2 warnings. | <p>BURK ROAD</p>  |

Groups

The Summary Group Status control shows the group name on the top line. Below the text, a color bar represents the group states along with the number of sites in a group (in cases where a single number appears). For alarms, (yellow and red), the number of alarms appears, followed by the number of sites that are reporting the alarms.

To get detailed information on a group, click its control.

| | |
|--|---|
| Green – All sites are communicating, with no alarms or warnings. | <p>BOSTON</p>  |
| Grey— None of the sites in the group are communicating with AutoPilot for Archer. | <p>BOSTON</p>  |
| Yellow – At least one site in the group has one or more warning alarms. In this example, three alarms are occurring at one site. | <p>BOSTON</p>  |
| Red – At least one site in the group has one or more critical alarms. In this example, a total of four critical alarms are occurring at two sites. | <p>BOSTON</p>  |
| Red/Yellow – At least one site in the group has one or more critical alarms <i>and</i> at least one site has one or more warning alarms. In this example, one site is reporting a critical alarm and three warning alarms are occurring among two sites. | <p>BOSTON</p>  |

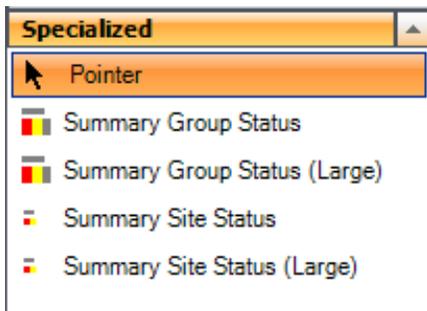
When some of the sites in the group are not communicating with AutoPilot for Archer, the right-most (grey) column displays the number of sites that are not communicating. The two-left columns display green, red and yellow columns, as described in the previous table.

| BOSTON | | |
|--------|---|---|
| 1 | 3 | 3 |
| 1 | 2 | 3 |

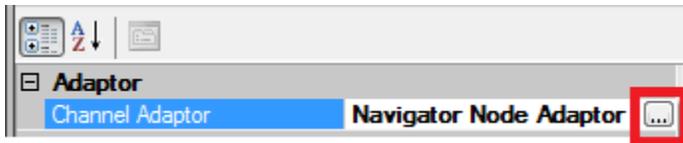
In this example, the following conditions exist:

- Three sites (grey) are not communicating with AutoPilot for Archer
- One site (red) is reporting a critical error.
- Three warning errors are occurring between two sites (yellow).

To add a Summary Site Status or Summary Group Status control, drag one of the following items from the Specialized list in the Custom View Editor.

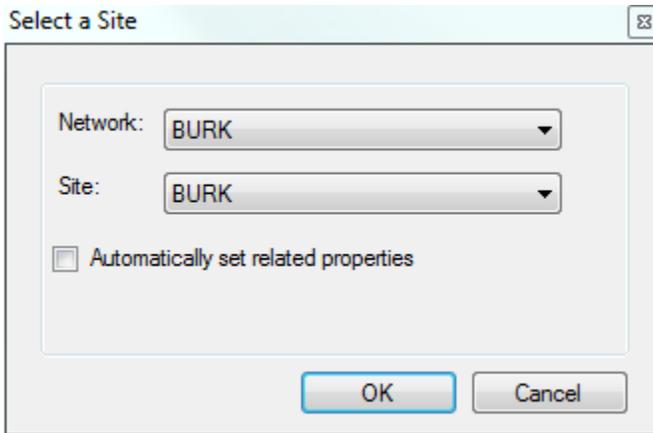


In the Properties panel, click on the three-dot icon next to Channel Adaptor .

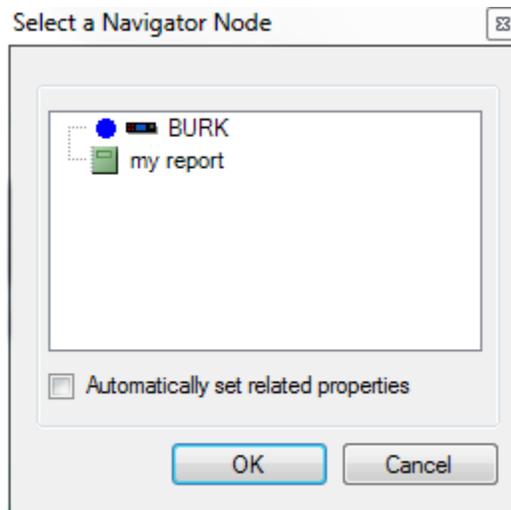


Select a Channel Adaptor to link the control to a Site or a Group.

To link to a Site, select the Network that contains the Site and the Site you want to link to this control.



To link to a Group, select a Node from the list.



If you check "Automatically set related properties", the site or group name will automatically populate based on the selected item. In the Properties panel, you can specify additional settings that define the appearance of the Summary Site Status or Summary Group Status control (such as color mapping for alarm levels, caption text, etc.) or you can accept the default settings.

Status

➔ Arrow LED

Displays an arrow pointing up, down, left, or right.



◆ Diamond LED

A diamond-shaped LED.



■ Label LED

A rectangular LED that includes a caption. The caption changes based on the status condition.



■ Label LED (2 Lines Centered)

A rectangular LED that includes a 2 line caption centered on the object. The caption changes based on the status condition.



■ Label LED (2 Lines)

A rectangular LED that includes a 2 line caption. The caption changes based on the status condition.



■ Rectangular LED

A rectangular LED.



● Round LED

A basic, round LED.



■ Status Label

The *status label* control displays different labels for "ON" and "OFF".



Status Line

A line that changes color based on the status condition.



Status Panel

The *status panel* is used to provide a background that changes color based on status for part or all of your Custom View

Status Picture

The *status picture* shows one picture when "ON" and another picture when "OFF".

Status Sound

The *status sound* plays a sound file based on a status condition, as long as the Custom View hosting the control is on screen.

The status sound control does not appear on your Custom View, except in the Custom View Editor.

.Status Conditions

Available status conditions for the Channel Adapter property of status custom view objects.

| | |
|----------------------------------|--|
| Status Channel | A status channel on a remote control unit. |
| Raise Relay Active | "ON" when the specified raise relay is engaged. |
| Lower Relay Active | "ON" when the specified lower relay is engaged. |
| Macro Running | "ON" when the specified macro is running. |
| Meter Below Low Critical | "ON" when the specified meter is below the second lower limit. |
| Meter Below Low Warning | "ON" when the specified meter is below the first lower limit. |
| Meter Above High Warning | "ON" when the specified meter is above the first upper limit. |
| Meter Above High Critical | "ON" when the specified meter is above the second upper limit. |
| Meter Out of Tolerance | "ON" when a meter is outside of its "normal" range (above either upper limit or below either lower limit). |
| Site in Alarm | "ON" when the specified site has at least one uncleared alarm. |
| Network in Alarm | "ON" when any site in the specified network has at least one uncleared alarm. |
| Site Connected | "ON" when the specified site is connected to AutoPilot. |
| Site in Maintenance Mode | "ON" when the specified site is in maintenance mode (or "Local" mode on a GSC3000 or VRC2500). |
| Active Flowchart Running | "ON" when the specified Jet Active Flowchart is running. |
| Virtual Channel | "ON" when the specified virtual channel evaluates to true. |
| Any Network in Alarm | "ON" when any connected site on any network has an alarm condition. |
| Site Connected On Primary | "ON" when the specified site is connected over the primary connection. |
| Site Connected On Backup | "ON" when the specified site is connected over the backup connection. |

Actions

Available actions for custom view objects with a command adapter property.

| | |
|---------------------------------------|--|
| Raise | Issues the specified <i>raise</i> command. |
| Lower | Issues the specified <i>lower</i> command. |
| Navigate | Opens the specified Custom View in the current window. |
| Run Macro | Starts the specified macro. |
| Stop Macro | Stops the specified macro. |
| Clear Alarms | Clears alarms on the specified site or network. |
| Connect | Connects to the specified site using the primary connection. |
| Disconnect | Disconnects from the specified site. |
| Run Application | Runs the specified command in Windows to launch an application. |
| Open URL | Opens a web browser with the specified URL. |
| Print Report | Prints the specified report using the default printer. |
| Ping | Pings the specified Network Device. |
| Navigate (New Window) | Opens the specified Custom View in a new window. |
| Show Default View | Opens the Default View for the specified site in the current window. |
| Show Default View (New Window) | Opens the Default View for the specified site in a new window. |
| Run Active Flowchart | Runs the specified Jet Active Flowchart. |
| Stop Active Flowchart | Stops the specified Jet Active Flowchart. |

Database Schema

Directly accessing the onboard database is not recommended.

Tables

The following tables are included in the database:

| Table Name | Description |
|----------------------|--|
| Alarms | Stores alarms. |
| Events | Stores events. |
| StatusChanges | Stores a record for each time a status channel changed. |
| Telemetry | Stores a snapshot of meter and status channels for each time AutoPilot for Archer takes a log. |

Alarms

| Field | Data Type | Description |
|------------------------|-----------|---|
| UTCDateTime | Date/Time | The date and time of the alarm using UTC time. |
| NetworkName | String | The name of the network on which the alarm occurred. |
| UnitName | String | The name of the site on which the alarm occurred. |
| UnitID | Integer | The unique ID identifying the remote control unit. |
| AlarmTypeID | Integer | Indicates what type of alarm this is: <ul style="list-style-type: none"> 0 High Limit 1 Low Limit 2 Status 3 System 4 User |
| AlarmSeverityID | Integer | Indicates the severity of the alarm: <ul style="list-style-type: none"> -1 Normal 0 Warning 1 Critical |
| ChannelNumber | Integer | The channel number on which this alarm occurred. This value is 0 for non-channelized alarms. |
| ChannelName | String | The label of the channel on which this alarm occurred. This value is blank for non-channelized alarms. |
| AlarmMessage | String | The message associated with the alarm. |
| TimeZoneOffset | Integer | The time zone offset (number of minutes from UTC) for this site. |
| AlarmClass | Integer | Describes the type of source for the alarm. Used internally by AutoPilot for Archer. |
| SourceIndex | Integer | Used along with the Alarm Class to uniquely identify the alarm. Used internally by AutoPilot for Archer. |
| UTCInactiveTime | Date/Time | The time (UTC) when the alarm became inactive. Not applicable for incidental alarms or active alarms. |
| Disposition | Integer | The current disposition of the alarm: <ul style="list-style-type: none"> 0 Incidental 1 Active 2 Inactive |
| Priority | Byte | The user-defined priority of this alarm. A value of 0 is used when no priority is set. <p><i>Note: A value of 1 may be either the highest or lowest priority. Within AutoPilot for Archer, this value is only used for sorting purposes and does not otherwise impact functionality.</i></p> |

Events

| Field | Data Type | Description |
|-----------------------|-----------|---|
| UTCDateTime | Date/Time | The date and time of the event using UTC time. |
| NetworkName | String | The name of the network on which the event occurred. |
| UnitName | String | The name of the site on which the event occurred. |
| UnitID | Integer | The unique ID identifying the remote control unit. |
| EventTypeID | Integer | Describes the type of event. Used internally by AutoPilot for Archer. <i>Note: The values available for this field are numerous and subject to change.</i> Using the field is not recommended. |
| EventMessage | String | Describes the event. |
| TimeZoneOffset | Integer | The time zone offset (number of minutes from UTC) for this site. |

Status Changes

| Field | Data Type | Description |
|-----------------------|-----------|--|
| UTCDateTime | Date/Time | The date and time of the status change using UTC time. |
| NetworkName | String | The name of the network on which the status change occurred. |
| UnitName | String | The name of the site on which the status change occurred. |
| UnitID | Integer | The unique ID identifying the remote control unit. |
| ChannelNumber | Integer | The channel number whose status changed. |
| StatusValue | Boolean | The value of the status channel after the change. |
| StatusMessage | String | The status label associated with the new value. |
| StatusStateID | Integer | The alarm state of the status channel: -1 Normal 0 Warning 1 Critical |
| TimeZoneOffset | Integer | The time zone offset (number of minutes from UTC) for this site. |

Telemetry

| Field | Data Type | Description |
|-----------------------|-----------|--|
| UTCDateTime | Date/Time | The date and time of the snapshot using UTC time. |
| NetworkName | String | The name of the network on which the snapshot occurred. |
| UnitName | String | The name of the site on which the snapshot occurred. |
| UnitID | Integer | The unique ID identifying the remote control unit. |
| ChannelNumber | Integer | The channel number included in this snapshot. |
| ChannelName | String | The meter label for this channel. |
| MeterValue | Single | The calibrated value of the meter channel. |
| Units | String | The units label for the meter channel. |
| AnalogStateID | Integer | The alarm state of this meter channel: -1 Normal 0 Warning 1 Critical |
| StatusValue | Boolean | The value of the status channel. |
| StatusMessage | String | The status label associated with the status value. |
| StatusStateID | Integer | The alarm state of the status channel: -1 Normal 0 Warning 1 Critical |
| TimeZoneOffset | Integer | The time zone offset (number of minutes from UTC) for this site. |