Simply Better Connections

ATEN DebugAssist
User Manual

User Information

Online Registration

Be sure to register your product at our online support center:

International	http://eservice.aten.com

Telephone Support

For telephone support, call this number:

International	886-2-8692-6959
China	86-400-810-0-810
Japan	81-3-5615-5811
Korea	82-2-467-6789
North America	1-888-999-ATEN ext 4988 1-949-428-1111

User Notice

All information, documentation, and specifications contained in this manual are subject to change without prior notification by the manufacturer. The manufacturer makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties as to merchantability or fitness for any particular purpose. Any of the manufacturer's software described in this manual is sold or licensed *as is*. Should the programs prove defective following their purchase, the buyer (and not the manufacturer, its distributor, or its dealer), assumes the entire cost of all necessary servicing, repair and any incidental or consequential damages resulting from any defect in the software.

The manufacturer of this system is not responsible for any radio and/or TV interference caused by unauthorized modifications to this device. It is the responsibility of the user to correct such interference.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.

Product Information

For information about all ATEN products and how they can help you connect without limits, visit ATEN on the Web or contact an ATEN Authorized Reseller. Visit ATEN on the Web for a list of locations and telephone numbers:

International	http://www.aten.com
North America	http://www.aten-usa.com

About this Manual

This user manual explains how to install and use ATEN DebugAssist, an application used to identify and diagnose issues with ATEN Control Systems.

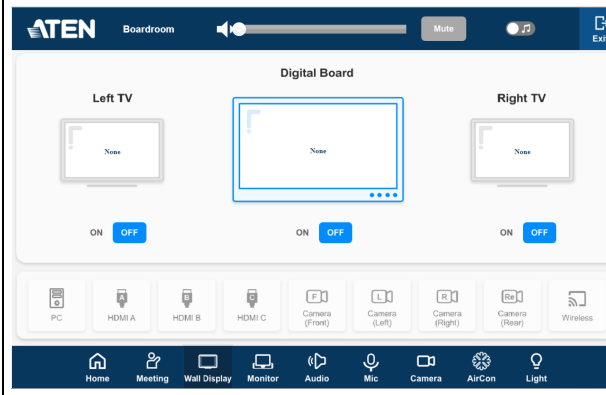
Note: The product may be updated, with features and functions added, improved, or removed since the release of this manual. For an up-to-date user manual, visit http://www.aten.com/global/en/

Conventions

This manual uses the following conventions:

`Monospaced`	Indicates text that you should key in.
[ ]	Indicates keys you should press. For example, [Enter] means to press the **Enter** key. If keys need to be chorded, they appear together in the same bracket with a plus sign between them: [Ctrl+Alt].
1.	Numbered lists represent procedures with sequential steps.
♦	Bullet lists provide information, but do not involve sequential steps.
>	Indicates consecutive selecting options (such as on a menu or dialog box). For example, Start > Run means to open the *Start* menu, and then select *Run*.
⚠	Indicates critical information.

Terminology

Terminology	Description
ATEN Controller, controller	ATEN Controller or controller refers to all models of ATEN Control Box and ATEN Control Pad.
Control Box Gen. 2, Control Box	*Control Box Gen. 2* or *Control Box* refers to all models of ATEN Control Box Gen.2.
controller	A controller refers to any model of ATEN Control Box Gen. 2 or Control Pad.
Viewer	A Viewer is a software control interface that system operators use to control and operate devices managed by ATEN control system. The Viewer is fully configurable and customizable using ATEN Configurator. For example: 
Project	A project is a configuration file, generated using ATEN Configurator to specify settings of an ATEN Control System, including one or multiple controllers, managed devices, and control interfaces.

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Chapter 1
Introduction

ATEN DebugAssist is an application used for identifying and diagnosing issues in ATEN Control Systems. It captures and logs communications between ATEN controllers and managed equipment, and provides tools for testing commands and locating key information to efficiently pinpoint issues. This chapter covers the following topics:

- *Features*
- *Installing DebugAssist*

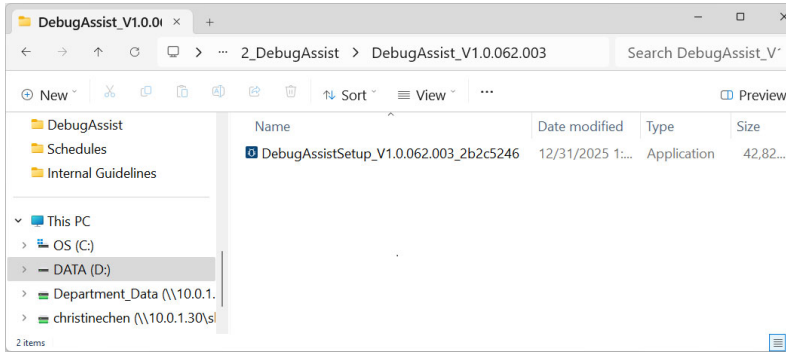
Features

- Filters log messages by showing or hiding specific events
- Sends commands directly to defined interfaces to verify connections between devices
- Simulates controlled devices by sending messages or commands to controllers
- Allows users to modify variable values in real time
- Integration with the Windows viewer to enable UI interaction
- Supports keyword detection and tracking
- Supports Windows and macOS
- Monitors controller health, including CPU and RAM usage
- Supports log imports and exports

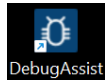
Installing DebugAssist

Windows-based Systems

1. Visit the ATEN DebugAssist product page.
2. From the **Support and Downloads** tab, scroll down to the **Software & Drivers** section, and download the DebugAssist installer for Windows.
3. Double-click the downloaded file. This screen appears.

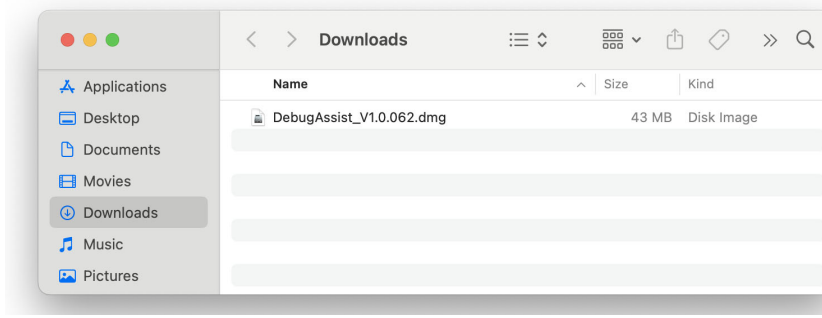


4. Run the **DebugAssist Setup** (.exe) file and follow the on-screen instructions to install.
5. When the install is complete, the DebugAssist shortcut appears on your desktop.

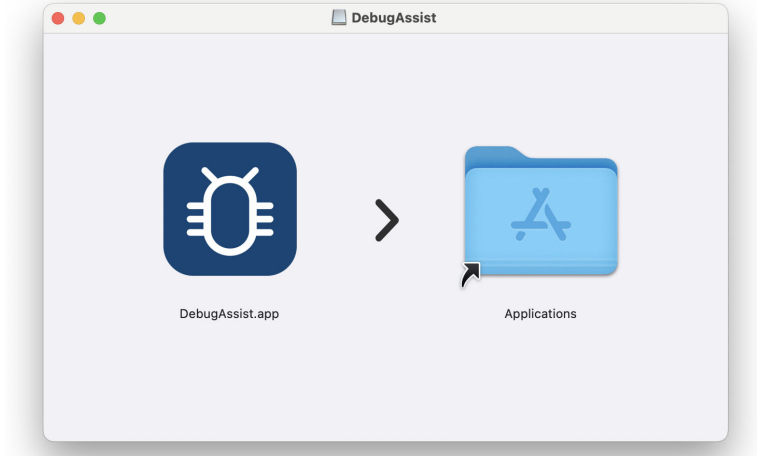


macOS-based Systems

1. Visit the ATEN DebugAssist product page.
2. From the **Support and Downloads** tab, scroll down to the **Software & Drivers** section, and download the DebugAssist installer for macOS.
3. Double-click the downloaded file. This screen appears.



4. Double-click the DebugAssist.dmg file. This mounts a virtual disk, which often appears on your desktop or in the Finder sidebar.
5. In the pop-up window, drag-and-drop the **DebugAssist.app** file to the **Applications** folder to install. Wait for the copy to finish.



6. When the copy is complete, right-click the mounted disk image on your desktop or Finder and select **Eject**.
7. You can now safely delete the original DebugAssis.dmg file from your Downloads folder.

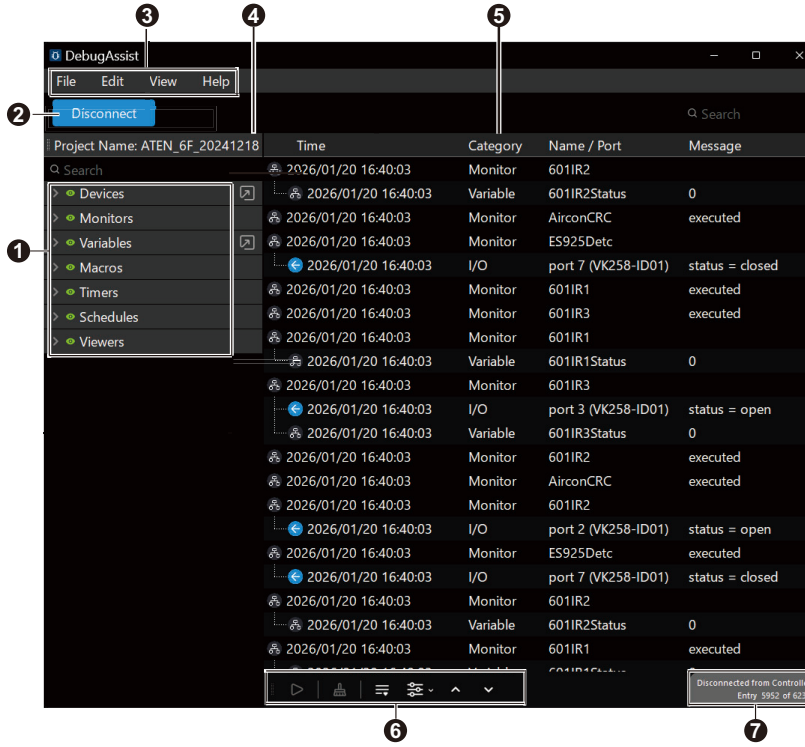
Chapter 2
Interface Overview

This chapter introduces the DebugAssist interface and explains the purpose and organization of its main components, helping you become familiar with its layout before using its features. The following topics are included:

- *Main Screen*
- *Resource Lists*
- *Function Menus*
- *Log Controls*
- *Adjusting the DebugAssist Window*

Main Screen

After connecting to a controller, the main screen appears. Refer to the table below for an overview of this screen.



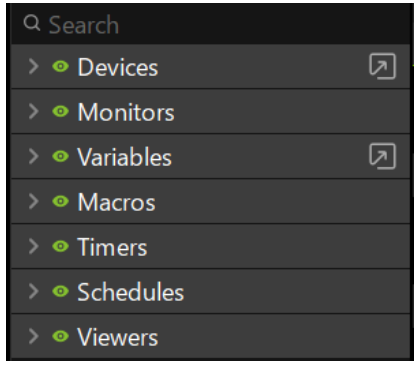
No.	Control	Description
1	resource lists	Lists the controller's managed equipment, created functions including Monitors, Variables, Macros, Timers, and Schedules, and the Viewer pages uploaded to the controller. For more information about resource lists, see *Log Controls*, page 10.
2	disconnect / resume connection	Disconnect from or resume the connection with the controller.
3	function menu	Contains basic functions such as file management (Save or New), preference settings, and the application version. For full information, see *Resource Lists*, page 7.
4	project name	Indicates the project file used by the controller.

No.	Control	Description
5	logs	Shows the communication between the controller and the managed devices.
6	log controls	Use these buttons to control log loading, such as starting or pausing log loading, clearing logs, auto-scrolling to the newest entry. For full information, see *Log Controls*, page 10.
7	system information	Shows the controller's system information, including CPU usage, RAM usage, IP address, and the current and total entries loaded to DebugAssist.

Resource Lists

When DebugAssist connects to a controller, it reflects the following information in condensed lists (as illustrated below):

- managed devices
- functions including Monitors, Variables, Marcos, Timers, and Schedules
- uploaded Viewer pages

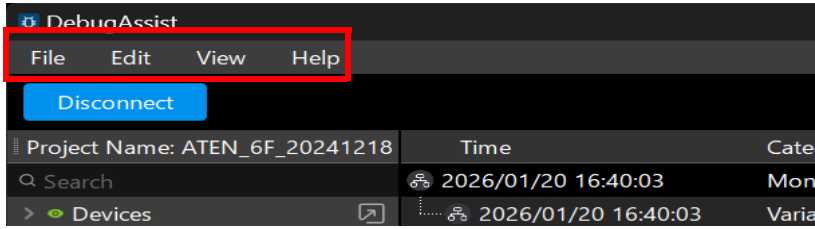


In the resource lists, the following controls are available. Refer to the table below for an overview of their functions.

Controls	Function Highlights
	Click to open the list in a separate window.
	Click to display the information.
	Indicates device connection status. ◆ Green: the device is online. ◆ Black: the device is offline.
	Indicates that the logs of the corresponding item is shown. To hide the logs, click on the icon.
	Indicates that the logs of the corresponding item are hidden. To show logs, click on the icon.
	Click to execute a Marco, Timer, or schedule, or to open a Viewer pages. This button only appears when the resource is moused over.
	Click to enable or disable the function. The toggle button disappears when the device is offline.

Function Menus

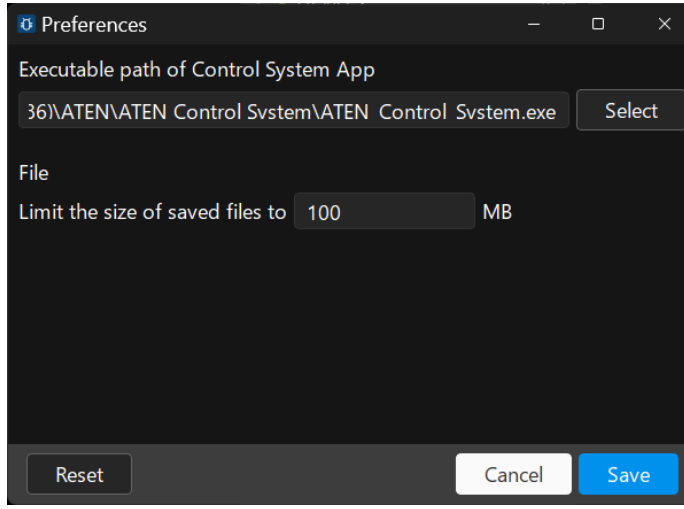
The function menu on the main screen provides access to opening a new connection, saving the currently displayed logs, and configuring display preferences. Refer to the sections below for more information.



- **File**
  - **New:** Starts a connection to another controller. For full information, see *Connecting to Another Controller*, **page 18**.
  - **Save as:** Saves the currently loaded logs.

  Note: DebugAssist needs to be disconnected from the controller before the logs can be saved.

- **Edit**
  - **Preferences:** Contains the following settings.



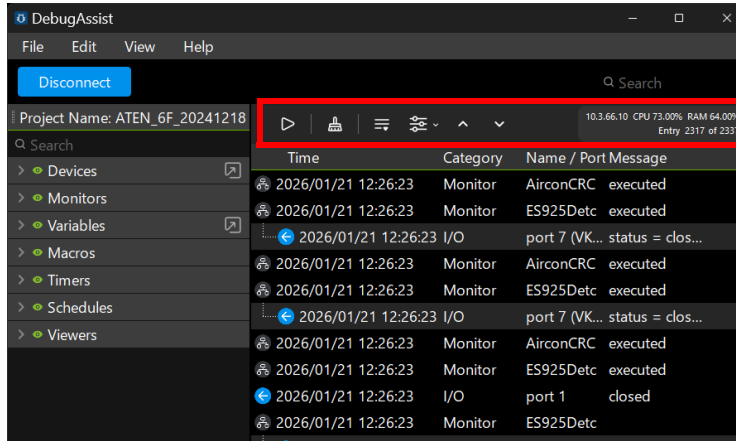
- **Executable path of Control System App:** Specifies the executable path of the Control System App. To change the path, click **Select** and browse for the app.
- **Limit the size of saved files to (MB):** Specifies the size limit of loaded logs. The default is set to **1000 MB**.

  Note: When loaded logs exceed the size limit, DebugAssist immediately disconnects from the controller and stops loading. In this case, click **Resume Connection** and follow the on-screen instructions to reconnect with or without saving loaded logs.

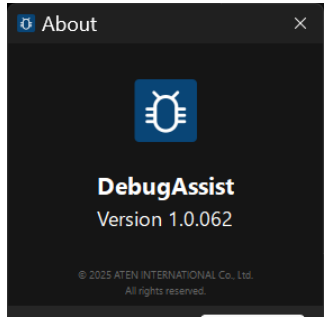
  To revert these settings to default, click **Reset**.

- **View**
  - **Set toolbar to top**

    By default, the toolbar is set to the bottom. Enable this option to put it to the top, as illustrated.



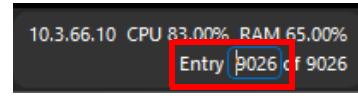
- **Help**
  - About DebugAssist: Indicates the DebugAssist version.



Log Controls

The log controls on the main screen allow you to load logs and control how loaded logs are displayed. Refer to the table below for descriptions of each function.

No.	Control	Description
1	Play / Pause	Click to start or pause loading of logs.
2	Clear	Click to clear loaded logs.
3	Keep to the last line	When enabled, the view is always kept to the last loaded entry.
4	Stop auto-scroll at matching entry	This feature allows you to add and save multiple searches each with specified resource type (category), name/port, and/or message. When enabled, DebugAssist automatically searches logs based on the added criteria and stops at any matching entry. For more information on setting up the function, see *Searching Logs with Predefined Conditions*, page 21.
5	Go to previous matching entry	With **Stop auto-scroll at matching entry** enabled, click this button to go to a previous matching entry.
6	Go to next matching entry	With **Stop auto-scroll at matching entry** enabled, click to go to the next matching entry.

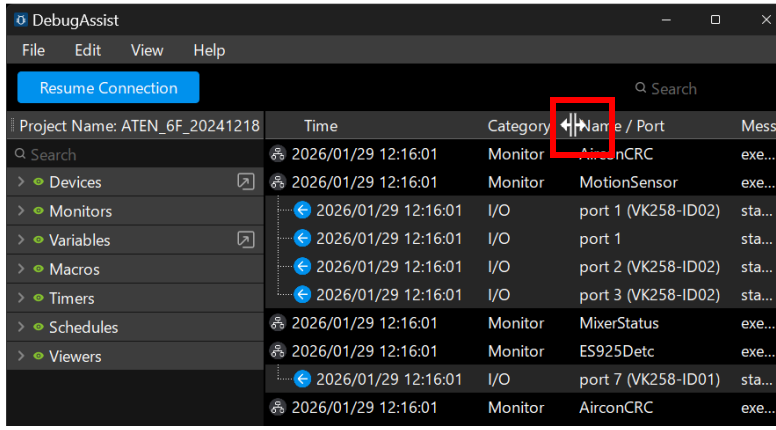
No.	Control	Description
7	System Information	Indicates the following information: ◆ Controller's IP address ◆ CPU usage ◆ RAM usage ◆ Total number of entries and currently focused entry **Hint:** You can search for a specific entry by its number. Click on the first entry number, type in the blue block, and press **Enter**. 

Adjusting the DebugAssist Window

You can adjust the DebugAssist window with the following methods:

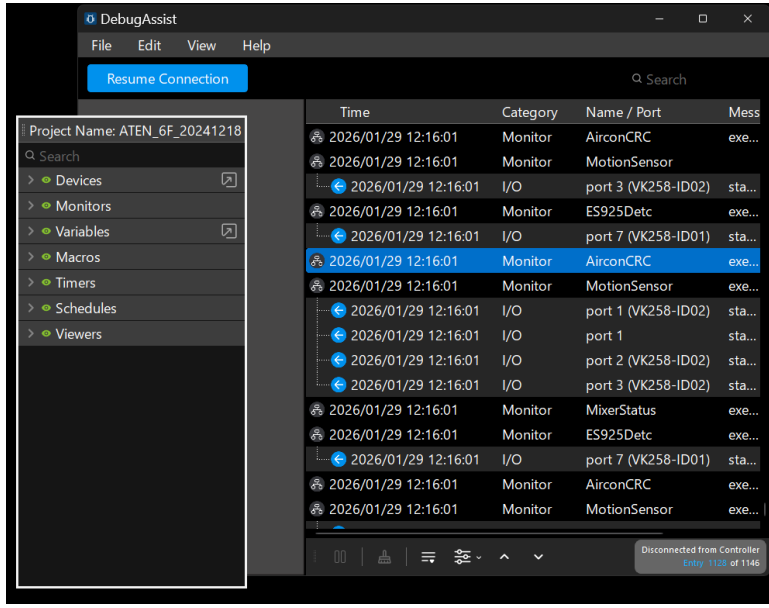
- Adjust the column width

  Position the pointer between the columns until the resize icon appears, and then click and drag to adjust the column width.

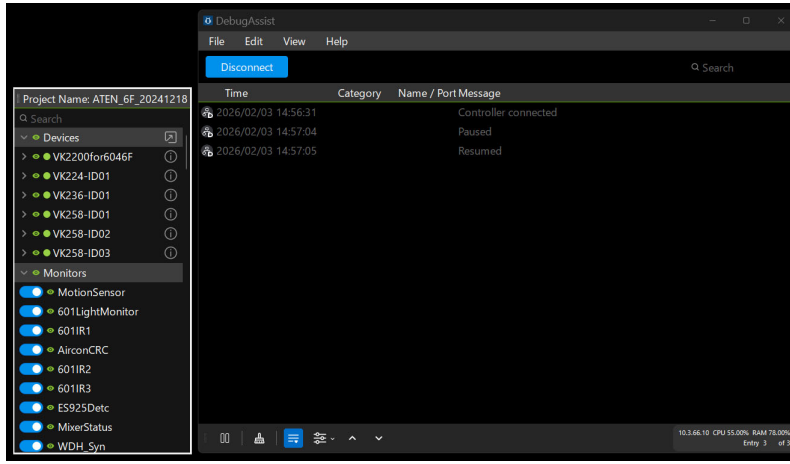


- Re-assign the resource lists panel

  Click and drag the Project Name row to reposition the resource lists panel.



You can position it to the left, right, or bottom of the DebugAssist window, or detach it to get an expanded view of the logs, as illustrated.



Chapter 3
Using the App

This chapter provides step-by-step instructions for performing common tasks in the app, including searching for relevant logs, testing commands, and verify configured functions. The following topics are included:

- *Controller Connection*
- *Filtering Logs*
- *Searching Logs with Predefined Conditions*
- *Issuing Commands to Devices*
- *Simulating Device Feedback*
- *Changing Variable Values*
- *Triggering a Timer*
- *Rebooting Controllers or Expansion Boxes*
- *Testing Controls on Viewer Pages*
- *Reading Log Details*
- *Log Backups*

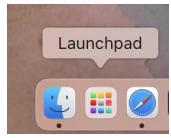
Controller Connection

Connecting to a Controller

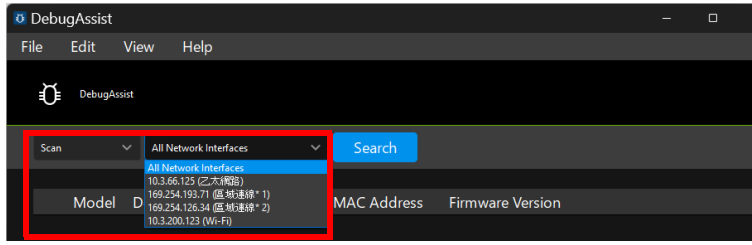
1. Launch ATEN DebugAssist. The DebugAssist window appears.
   - Windows

     From the desktop, locate the DebugAssist icon from the desktop and double-click it. The main screen appear
   - macOS

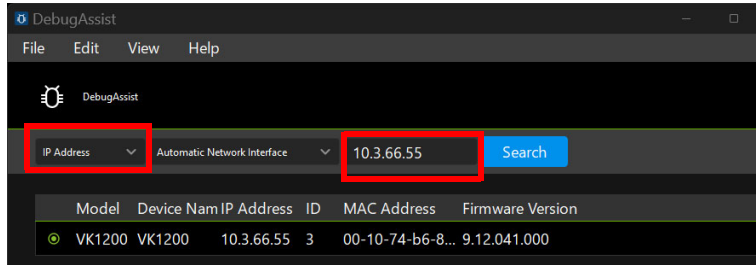
     Locate the app in your Applications folder or via Launchpad to launch it.

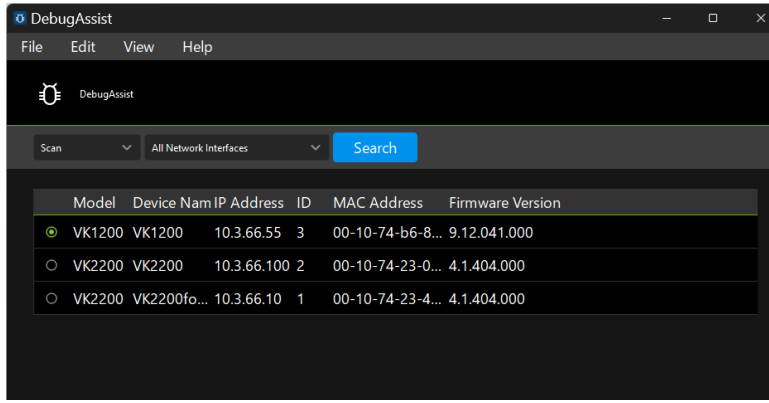
2. Search for the target ATEN controller using one of the following methods.
   - **By scanning a specified network interface:** From the indicated drop-down lists, select **Scan** and the network interface.

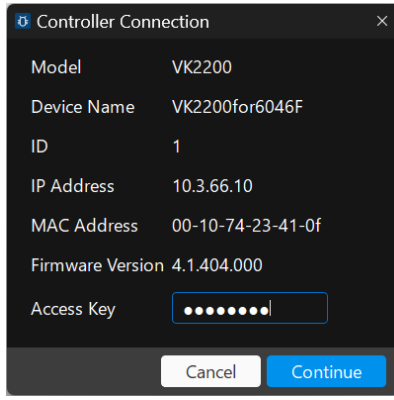
   - **By specifying the IP address:** From the drop-down list, select **IP Address** and type in the IP address in the indicate box.

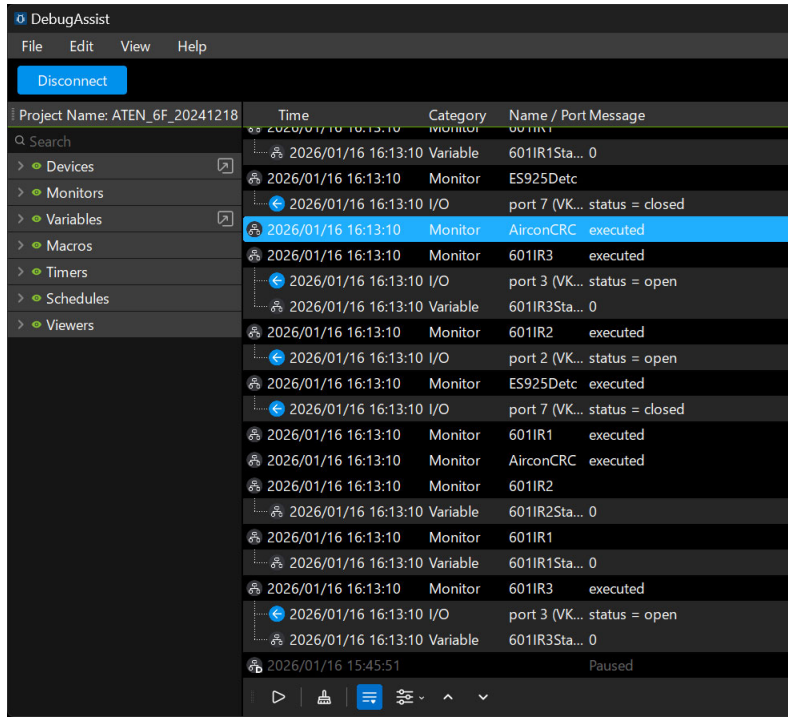
3. Click **Search**. All found controllers are shown.



4. Click to select a controller and click **Connect**. This dialog box appears.



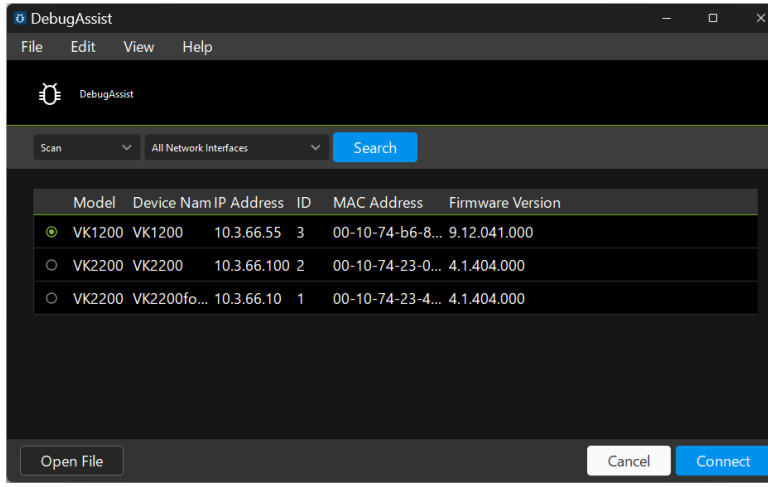
5. Type in the controller's access key and click **Continue**. The main screen appears and DebugAssist connects to the controller and auto-scrolls to the newest log.



Connecting to Another Controller

Depending on your computer's capability and network bandwidth, you can connect DebugAssist to more than one controllers at the same time, each on a separate window. To connect to another controller:

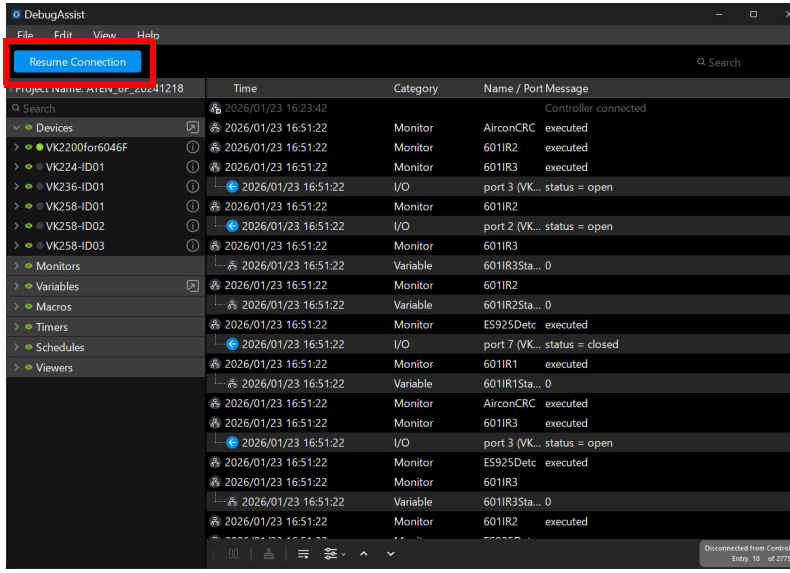
1. Go to **File** > **New**. This screen appears.



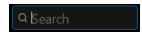
2. Search and connect to a controller. For full details, see *Connecting to a Controller*, page 15.

Disconnecting / Resuming Connection

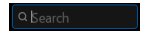
You can disconnect DebugAssist from the controller by clicking the **Disconnect** button on the main screen. Note that when you resume connection, all loaded logs will be cleared.



Filtering Logs

Use the search box 

and/or the show / hide buttons to filter logs and narrow the search scope, helping you quickly locate key entries.

- **Search Box** 

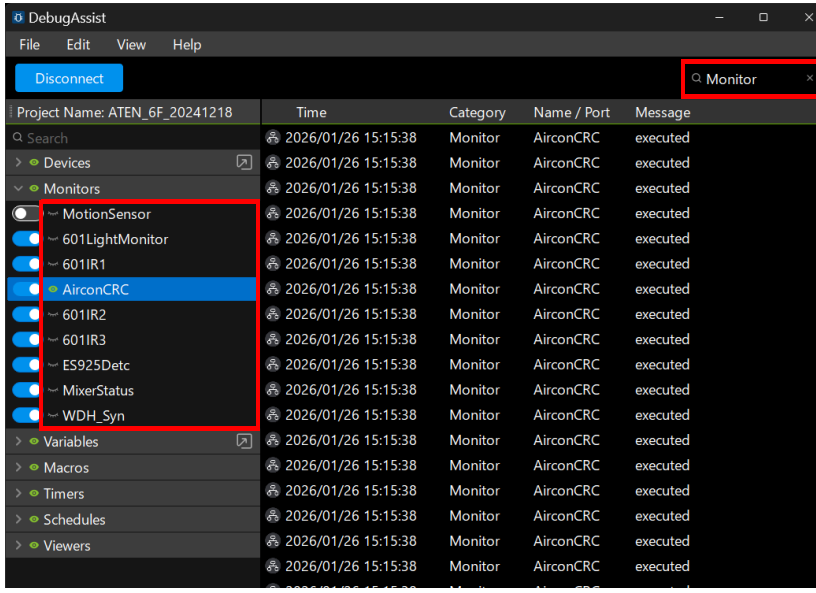
: Type in the search box and press **Enter**. DebugAssist immediately checks the content of all four columns and only keeps entries that contain matching content. To clear the typed string, click the cross in the search box 

.

  Note: The search is case-sensitive.

- **Show / Hide :** From the resource lists, click on the show / hide buttons to further filter the logs.

To filter logs, for example, to search for *AirconCRC* monitor event:



1. In the search box, type “Monitor”. The logs are immediately filtered to only display entries that contain the “Monitor” string.

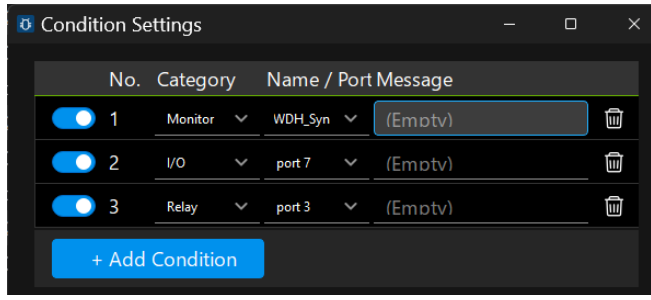
2. In the Monitors list, click on the show / hide buttons to only keep AirconCRC. The loaded logs are further filtered to only display communications of the *AirconCRC* monitor.

Searching Logs with Predefined Conditions

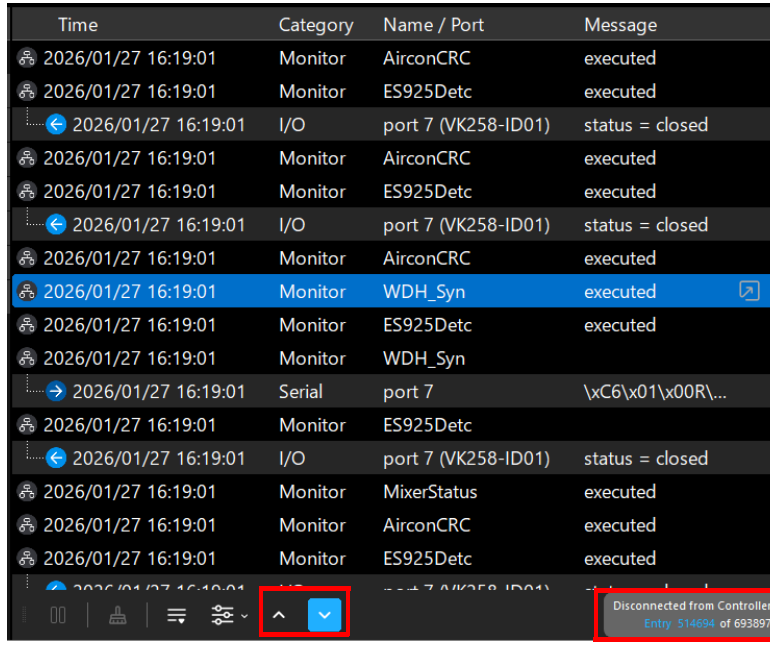
You can have DebugAssist perform multiple searches, each with different category, name/port, and message, concurrently and automatically by predefining search criteria.

Understanding Predefined Search

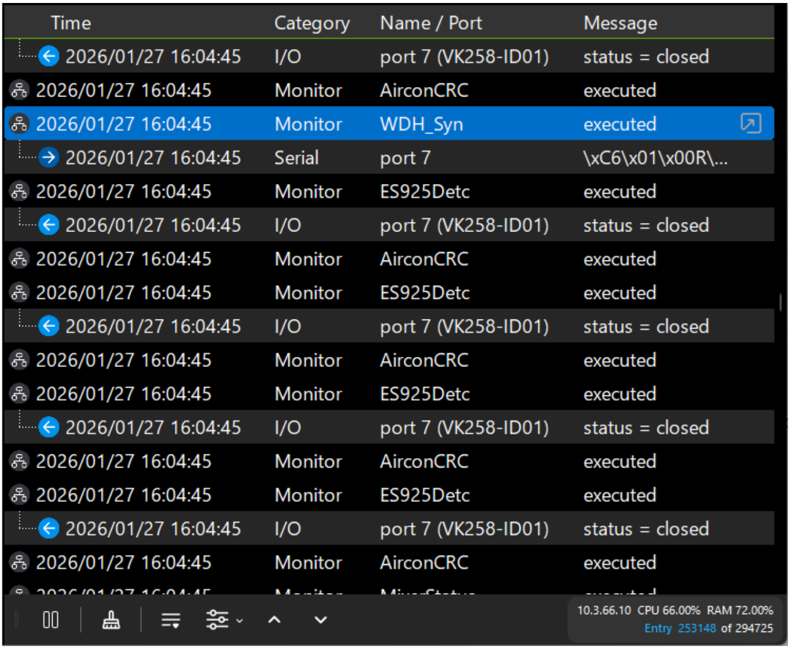
DebugAssist **automatically executes search** when one or more searches are added to its search condition settings. For example:



To view matching entries, use the ⌃ ⌄ buttons from the toolbar to navigate between them.



You can have DebugAssist **automatically stops at a matching entry** by enabling the **Stop auto-scroll at matching entry** icon , as illustrated.

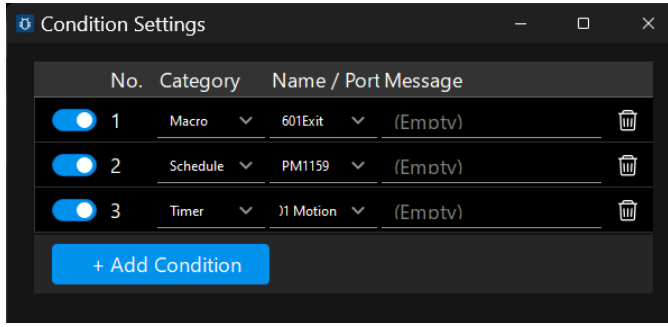


Note: When a matching entry is found, the button will be automatically disabled.

Enabling/Configuring Predefined Search

To enable or configure predefined search, follow the steps below to set up one or more search conditions.

1. In the pop-up menu, click  . The Condition Settings screen appears.
2. In the Condition Settings screen, add one or more searches.



a) Click 

.

b) In the pop-up entry, configure the category, name/port, and/or message. Optionally enable or disable the conditions using the toggle.

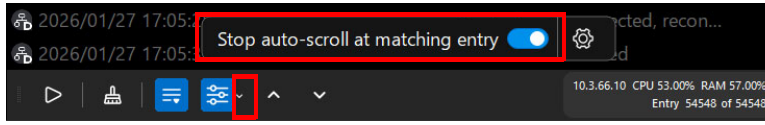
c) Repeat steps (a) and (b) to add more searches.

DebugAssist automatically saves the search conditions and execute the search.

Auto-stops at Matching Entries

With search conditions configured, you can have DebugAssist automatically stops at a matching entry by enabling the *stop auto-scroll* function. Use any of the following methods to do so:

- Click  from the main screen toolbar.
- Click the arrow next to  , and then toggle open the **Stop auto-scroll at matching entry** function.



Issuing Commands to Devices

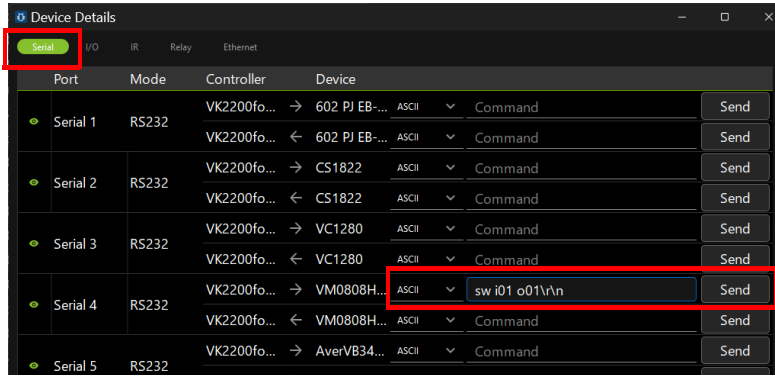
You can have a controller send commands to managed equipment via DebugAssist to check whether the receiving device is responsive and whether the communication is function properly.

To issue a command to a controller:

1. From the Resource List, click  from the Devices list. The Device Details window appears.
2. Select a category from the top row, find your target port, and then enter and send the command.

   For example:

   To issue a port switching command through VK2200's serial port 4 to a VM0808H, locate this entry, select an appropriate data type (**ASCII** or **HEX**), and then type the command in the command field and click **Send**. The action takes effect shortly.



Note: The arrow indicates the direction of command transmission.

Simulating Device Feedback

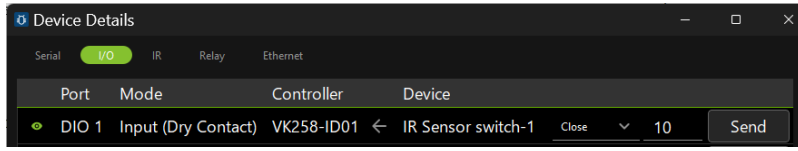
You can simulate and send device feedback to its controller to test the function.

To simulate device feedback:

1. From the Resource List, click  from the Devices list. The Device Details window appears.
2. Select a category from the top row, find your target port, and then enter and send the command.

   For example:

   To test communication between a sensor and an expansion box, simulate 10 seconds of detected motion by applying the value **10** to an I/O sensor in **closed** state (as illustrated) to see if the defined output takes action as defined.



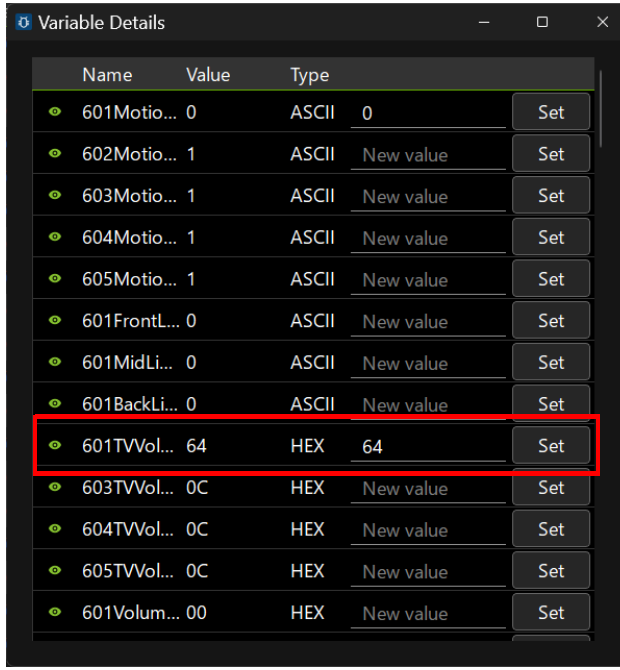
Changing Variable Values

You can change variable values from DebugAssist to check if the device is responsive and whether the communication is alive. For more information on Variable and its applications, see the *Configurator User Manual*.

To apply a new value to a variable:

1. From the main screen Variable list, click  . The Variable Details window appears.
2. In the Variable Details window, find the target variable and enter a new value and click **Set**. The value should be applied immediately.

   For example:

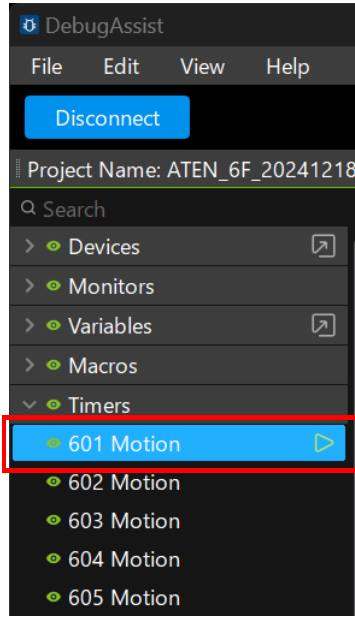


Triggering a Timer

You can trigger a Timer event to test whether a Timer event functions as expected, and make adjustments when needed. For more information on Timer and its applications, see the *Configurator User Manual*.

To trigger a Timer:

1. From the main screen, open the Timers list.
2. Mouse over the Timer you wish to trigger. A green arrow appears.

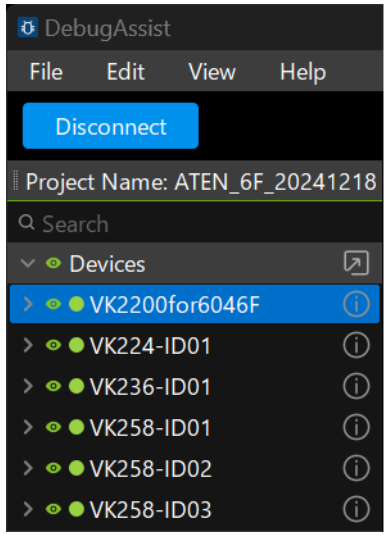


3. Click ▷ to initiate the Timer.

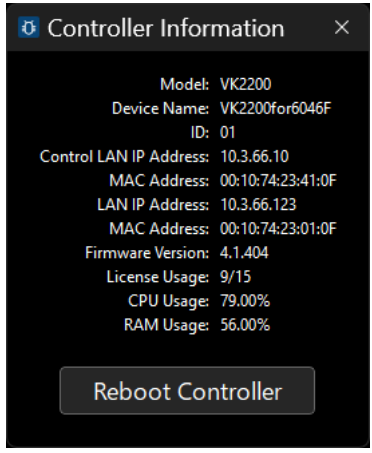
Rebooting Controllers or Expansion Boxes

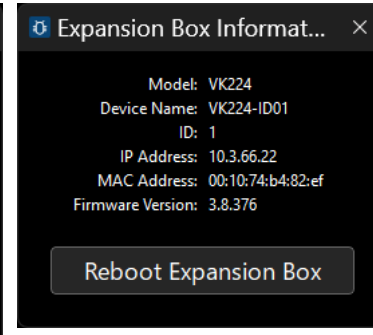
To reboot a controller or expansion box from DebugAssist:

1. From the main screen, open the Devices list.



2. Click ⓘ of the target controller or expansion box. This dialog box appears.



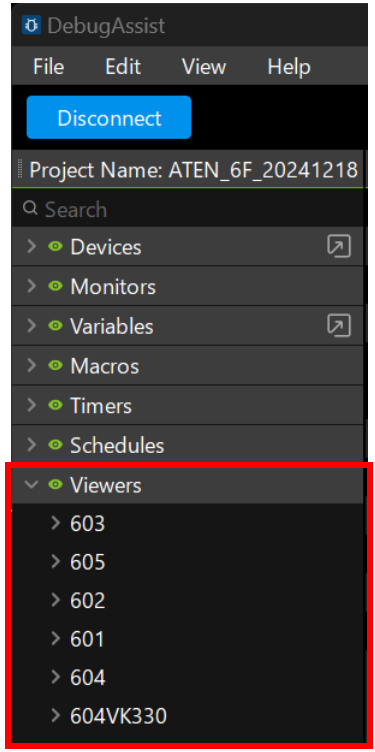


3. Click **Reboot Controller** or **Reboot Expansion Box**, and then follow the on-screen instructions to start the reboot.

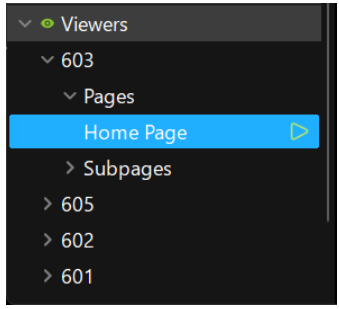
Testing Controls on Viewer Pages

To test controls on a Viewer page from DebugAssist:

1. From the main screen, expand the Viewers list.

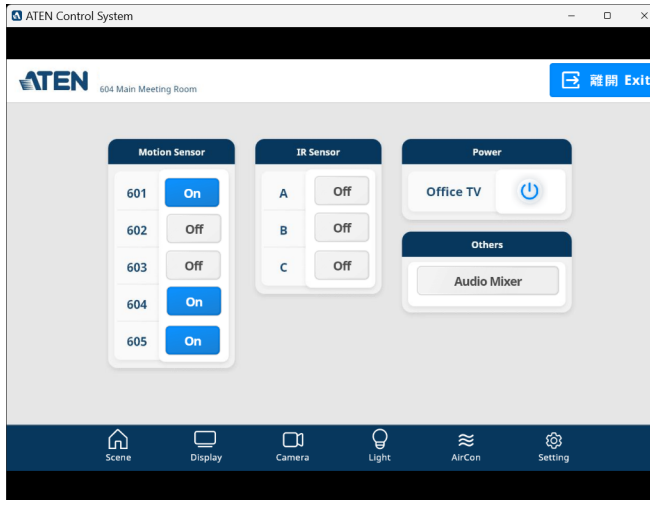


2. Locate the target Viewer page.

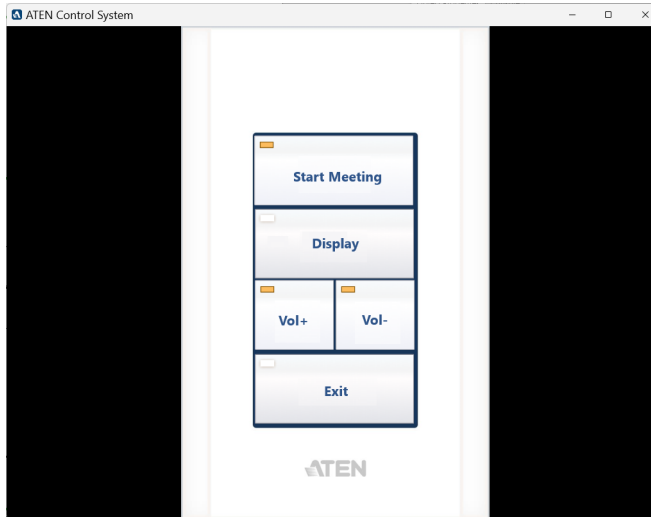


3. Click and enter the access key in the pop-up window. The control page opens.

Example 1:



Example 2:

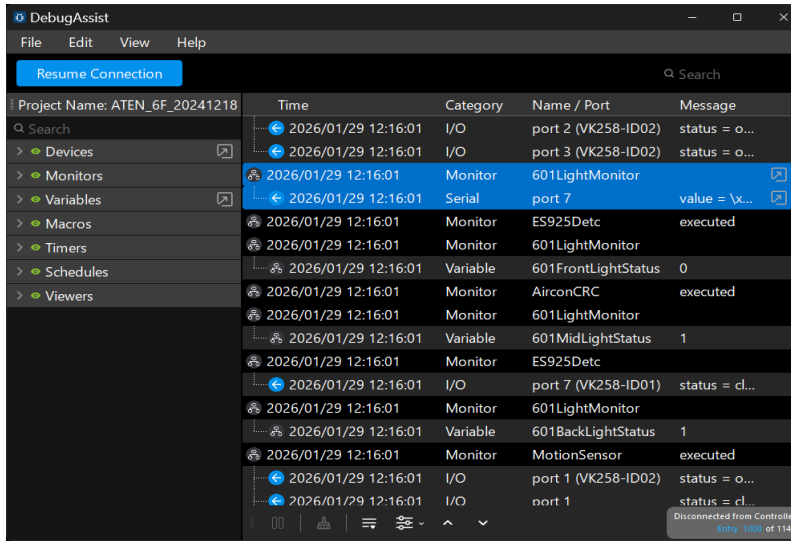


4. Click on the buttons to test the functions. The applied action takes effect immediately.

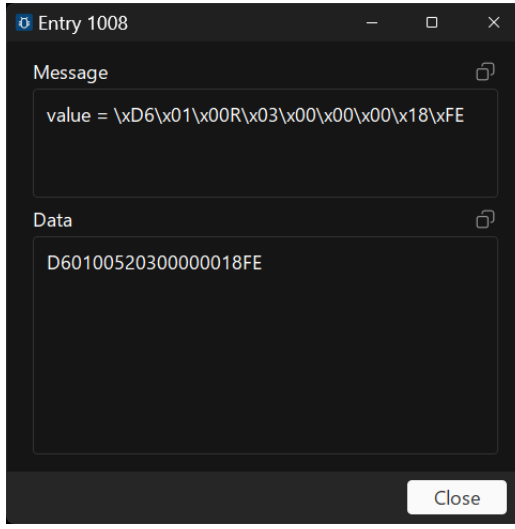
Reading Log Details

Some log messages may be too long and condensed. Click  to view the full message.

For example: Click the entry of log and click  .

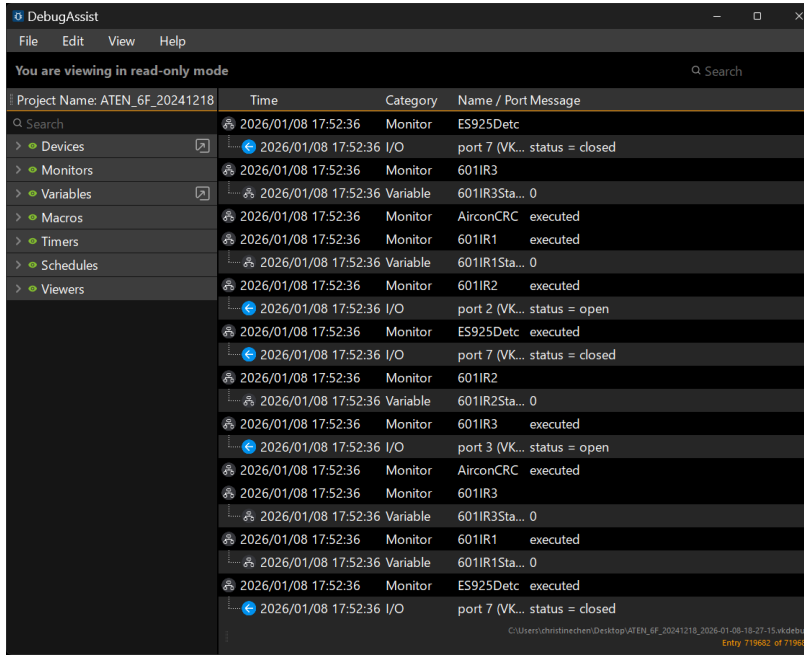


The message appears in a separate window.



Log Backups

Loaded logs can be saved for future reference or shared with others for further diagnosis. A backed up DebugAssist file (read-only mode) is indicated with an orange line just above the log entries, as shown below.



A backed-up DebugAssist file supports the following functions:

- Search functions (for resource lists and logs)
- Show/ hide functions (for resource lists)

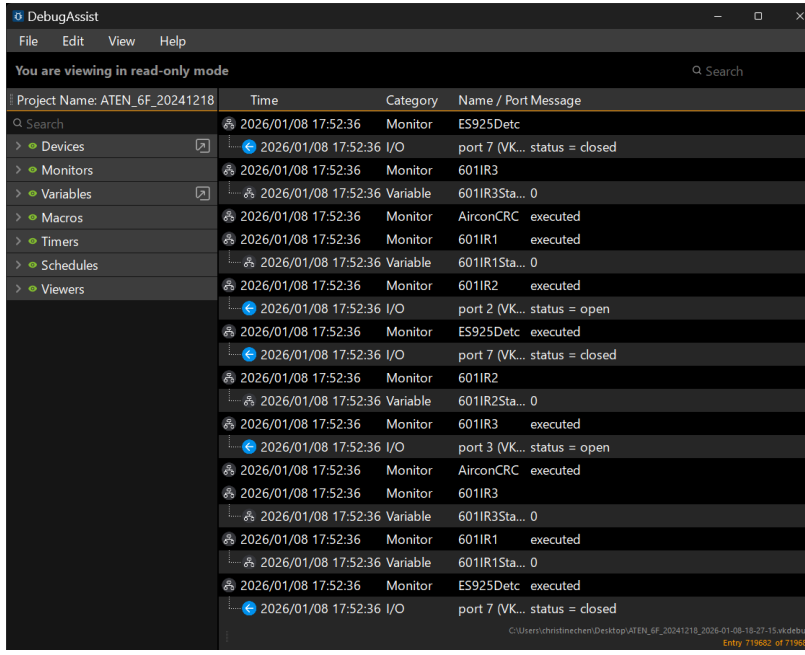
Note: A backed up file is read-only and does not support real-time log loading or features involving real-time communications with controllers or managed equipment.

To back up loaded logs:

1. From the main screen, click Disconnect.
2. Go to **File** > **Save as**. The Save As window appears.
3. Select a location and click **Save**.

To open a saved log file:

Double-click a previously saved file. The file opens in DebugAssist. For example:



Appendix

Technical Support

International

- For online technical support – including troubleshooting, documentation, and software updates: **http://eservice.aten.com**
- For telephone support, see *Telephone Support*, page ii

North America

Email Support		support@aten-usa.com
Online Technical Support	Troubleshooting Documentation Software Updates	https://eservice.aten.com
Telephone Support		1-888-999-ATEN ext 4988

When you contact us, please have the following information ready beforehand:

- Product model number, serial number, and date of purchase.
- Your computer configuration, including operating system, revision level, expansion cards, and software.
- Any error messages displayed at the time the error occurred.
- The sequence of operations that led up to the error.
- Any other information you feel may be of help.