



WL3 for Windows® Home Server User's Guide

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Introduction

Thank you for purchasing HAI WL3 for Windows® Home Server. WL3 for Windows® Home Server; is an Add-in for a Windows® Home Server that allows you to monitor and control your HAI home control system from any device with a web browser, including the iPhone™ 2.0, iPod Touch™, BlackBerry™, Smartphone, computer, PDA, etc. This software extends the powerful features of HAI controllers to the Internet by providing a web-based interface to your controller, allowing you to view and control devices attached to it.

With WL3, HAI has taken this technology one step further by adding features that allow you to view IP cameras in your home. WL3 automatically configures supported UPnP IP cameras on your home network and allows you to manually configure other IP cameras on your network or cameras that reside anywhere on the Internet. It also allows you to view and record video from cameras in your home or from public IP cameras around town, such as traffic and weather cameras. Regardless of the brand of camera, the video is displayed in the WL3 format so that all camera feeds have a consistent look and feel. Easily select any camera, choose the frame rate and screen size, manually start and stop video recording, take a snapshot of the video image, and play, pause, or stop the video stream. There is even an option to step through each frame of the recorded video.

WL3 has the ability to send you an email or SMS message based rules that you create within the program. These rules can consist of events such as, "the kids have arrived home from school", or "the security alarm has been activated" and be sent in SMS plain text or HTML format. WL3 is customizable and allows you to change the user interface by applying different graphic and color schemes. WL3 allows you to add RSS feeds for custom data, such as weather forecasts, sports scores, news, personal blogs, and much more, to your WL3 Home Page. WL3 also allows you to monitor and control a supported audio distribution system with streaming metadata feedback.

WL3 runs on a Windows® Home Server which communicates with an HAI controller through its built-in Ethernet port. The WL3 web pages can be viewed and accessed by any device on a local network with a web browser. If you have access to a full-time Internet connection, WL3 provides the gateway between your home and the Information Superhighway.

There are four main components that make up WL3:

1. The server component:

The server add-in is responsible for the interaction between the HAI controller and the Windows® Home Server. It also makes the data available for web pages.

2. The web client component:

The web client are web pages that are created by querying the server for needed information. The web pages are then formatted and displayed on the appropriate device.

3. The video component (HAI Video-Link 2):

The HAI Video-Link 2 broadcasts and/or records the video from IP cameras in your home or from public IP cameras around town, such as traffic and weather cameras.

4. The event manager component (HAI Event Manager):

The Event Manger keeps track of system events. When a predefined event (rule) occurs at your home, the status of the rule is updated on the "Rules" page and an email or SMS message can be sent to alert you that the event occurred.

Please review this file which contains necessary and helpful information on the installation, configuration, and operation of this software.

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System Requirements

1. [HAI Controller Requirements](#)
2. [Computer Requirements](#)
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HAI Controller Requirements:

1. HAI Omni IIe, OmniPro II, Lumina, and Lumina Pro controller.
2. The PC running WL3 connects to the HAI controller through the built-in Ethernet interface on an Omni IIe, OmniPro II, Lumina, or Lumina Pro controller. Use a standard network cable to connect the controller to a hub, switch, or router.

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Computer Requirements:

Requirement	Minimum	Recommended
CPU	1 GHz Pentium 3 (or equivalent)	Pentium 4, AMD x64, or newer processor. Windows Home Server includes a 32-bit operating system, which runs on 32-bit and 64-bit (Intel EM64T and AMD x64) architectures. Future versions of Windows Home Server may support 64-bit processors only, so it is recommended that you use a 64-bit compatible processor in order to make sure that you can upgrade to future versions.
RAM	512 MB	Same as the minimum
Hard drives	70 GB internal (ATA, SATA, or SCSI) hard drive as the primary drive, and any number of additional hard drives of any capacity. The primary (system) hard drive should be as large as possible to ensure that you can copy a large number of files or multiple large files to your home server at the same time.	At least two internal hard drives with 300 GB as the primary (system) hard drive
Network interface card	100 Mbps Ethernet network interface card.	100 Mbps (or faster) Ethernet network interface card.

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Requirements for IP Cameras

Support for over 50 IP camera models, Internet cameras (like traffic cameras), and USB video cams (JPEG, MJPEG, and MPEG4).

See [Configuring Cameras](#) for additional details.

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Internet Requirements

If you have access to a full-time Internet connection (i.e. DSL or Cable service), WL3 provides the gateway between your home and the Information Superhighway. To accomplish an Internet connection from a WL3 Client Computer, the following configuration is required:

1. A full-time connection to the Internet (i.e. DSL or Cable service) and one of the following:
 - a. Static IP Address

A Static IP address is a dedicated IP address assigned to your Internet account by your ISP (Internet Service Provider). This address should not (or very rarely) change. You will use this IP address to access WL3 (via the web server) over the Internet.

b. Dynamic DNS Service

Dynamic DNS (Domain Name Service) is a service that allows you to alias your Dynamic IP address to a static (permanent) hostname, allowing your computer to be more easily accessed from various locations on the Internet. Your Windows® Home Server can automatically update your Dynamic DNS hostname with your current IP address, without the need to open a browser. This allows you to access WL3 over the Internet by entering in your static hostname instead of your current IP address.

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Installation

To set up WL3, follow each of the steps below:

1. [Install the WL3 Add-in](#)
2. [Configuring the WL3 Service](#)
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Install the WL3 Add-in

1. Connect to the Windows Home Server by accessing the “Shared Folders on Server” link on any desktop on the network that has the Windows Home Server Console software installed.
2. Copy Setup_WHS.msi from the WL3 Installation CD to the \Software\Add-Ins folder in the “Shared Folders on Server”.
3. Access the Windows Home Server via the Windows Home Server Console.
4. In the Console, Click the “Settings” button.
5. Choose “Add-ins” on the left side of the Windows Home Server Settings dialog.
6. Click on the “Available” tab. (You should see “HAI WL3 for Windows Home Server” listed).
7. Click “Install”.

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Configuring the WL3 Service

The WL3 Service is the interface between the Windows® Home Server and the HAI Controller. Before running WL3, a few alterations need to be made to the WL3 Service:

1. **Access the Windows® Home Server via the Windows Home Server Console.**
2. **In the Console, Click the “Settings” button.**
3. **Choose “HAI WL3” on the left side of the Windows Home Server Settings dialog.**
4. **The Settings dialog displays the current Version of WL3 and the WL3 Copyright information.**
 - a. Enter the WL3 Serial Number under "Serial #" and press the "Set" button. Afterwards, the serial number is displayed.
 - b. Once connected, the controller Model and Status of the connections is displayed.
5. **Configure Communications Method on the System tab:** (From the drop-down, select the method of communications with the HAI controller).

Serial: Serial Port, Baud Rate, and Access Code -- The WL3 Service needs to know the Serial Port (COM1 - COM9), Baud Rate, and Access Code (Code 1 in HAI controller) to establish a serial connection to the controller.

- a. Choose the "System" tab.
- b. Select "Serial" from the "Method" drop-down under "Communications".
- c. Set the "Serial Port" under the "Settings" section, to the proper port on the WL3 Server Computer.
- d. Select the "Baud Rate" under the "Settings" section, as per the settings on the HAI controller.
- e. In the "Login" section, specify the proper "Access Code" (this code must be the same as "Code 1" in the controller).
- f. Choose "Apply" and a connection should be established with the controller.
- g. If a connection cannot be established, consult the Troubleshooting section in this document for additional information.

Network: IP Address, Port, and Encryption Key -- The WL3 Service needs to know the controller's local network IP address, the controller's local network port number, and the controller's 128-bit encryption key (all of this information can be obtained from the controller using the console or PC Access) to establish a serial connection to the controller.

- h. Choose the "System" tab.
- i. Select "Network" from the "Method" drop-down under "Communications".
- j. Set the "IP Address" under the "Settings" section, the controller's local network IP address.
- k. Set the "Port" under the "Settings" section, to the controller's local network port number.
- l. Specify Part 1 of the "Encryption Key" (this is 8 2-digit values from 0-9 and/or the letters A-F, each separated by a hyphen "-") that matches PT 1 (part 1) of the Encryption Key in the controller.
- m. Specify Part 2 of the "Encryption Key" (this is 8 2-digit values from 0-9 and/or the letters A-F, each separated by a hyphen "-") that matches PT 2 (part 2) of the Encryption Key in the controller.
- n. Choose "Apply" and a connection should be established with the controller.
- o. If a connection cannot be established, consult the Troubleshooting section in this document for additional information.

6. Synchronize Data and Configure Interface Preferences on the Data Synchronization tab:

- a. When you first connect the WL3 Service to the HAI controller, WL3 will retrieve all of the controller information. The dialog will display the last time the "Setup" and "Names" information was retrieved from the controller. Retrieving this information can take several seconds/minutes depending on the amount of data to be transferred. Choosing either of the buttons will retrieve the associated information.
- b. You can also have the controller's time updated daily with the computer's time by checking the "Set controller time from PC" check box. This is particularly advantageous when your computer's time is updated by a National Time Server.
- c. The Interface Preferences tool can be used to customize what the WL3 interface displays. Naming within the HAI controller limits the user to 15 character names. Using the Interface Preferences tool, WL3 can display up to 64 characters. In addition, the Interface Preferences tool can be used to prevent selected items from being displayed within WL3. To configure the Interface Preferences, click the "Customize Names" link.

7. Configure the Video Library Storage Location where your stored videos and snapshots will be stored on the Video tab:

- a. Enter or browse to the new location for the video library and then press the "Set New Location" button.
- b. To restore the video library to the default location, press the "Restore Default Location" button.

8. Starting and Stopping the WL3 Service and Resetting the Configuration:

- a. To stop the WL3 Service, press the "Stop Service" button. It is necessary to stop the service to reset the WL3 configuration settings.
- b. To reset the configuration settings:
 - Stop the service by clicking the "Stop Service" button
 - Click the "Reset Configuration" button
 - Select the "OK" button at the bottom of the dialog and then close the console

Note: When the console is reopened, the service will be started but all configuration settings, such as connections settings (IP address, port, and encryption key), video library storage location, etc.) will be reset to factory default configuration. All information must be reentered.

- c. To start the service after it has been stopped, press the "Start Service" button.

9. When complete, press the "OK" button, and then close the console.

Security

We recommend the use of a firewall and the use of Secure Sockets Layer (SSL) on an Internet Information Services (IIS) to ensure that information is encrypted. To learn more about using and configuring SSL, visit the Microsoft Knowledge Base.

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Running WL3

The following steps will guide you through running and configuring WL3.

1. [Starting WL3](#)
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3. [WL3 Login](#)
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Starting WL3

1. The web server is automatically started when the Windows[®] Home Server is turned on.
2. Open a web browser and specify the address of the Windows[®] Home Server followed by "/web-link".

For example:

http:// [followed by the "computer name" or "IP address" of your network interface card]/web-link (when accessing WL3 over a Local Area Network)

http:// [followed by your "Internet IP address" or "hostname"]/web-link (when accessing WL3 over the Internet)

Register Online

When you get to the WL3 login screen for the first time or you haven't yet registered the product, you will be prompted to register the software. Click the "Register" link and fill out the registration form.

Note: You can register at any time, by clicking the following link: [Register Now](#)

Tip: It is strongly recommended that you take advantage of this automated process. You must register this software to have access to the WL3 Update page which allows you to download patches and feature enhancing updates and allows us to alert you of product updates and enhancements to this software are available.

Fill out the form. "Name", "Address", and Registration user information" are the only required fields (all others are optional but will assist us in developing better products and services to meet your needs and interests)."

When complete, scroll down and choose the "**Submit**" button at the bottom of the page. A confirmation page will be displayed.

If the registration is unsuccessful, call HAI for support.

Starting the WL3 Touchscreen Pages

WL3 has special pages that are used to run on a PC Touchscreen. Each control on these pages simply requires you to touch the designated icons. To access the Touchscreen Pages from the PC Touchscreen or web tablet, open the Internet Explorer browser on the touchscreen, and specify the address of the Web Server followed by "/web-link/mce/main.htm".

For example:

http:// [followed by the "computer name" or "IP address" of your network interface card]/web-link/mce/main.htm (when accessing WL3 over a Local Area Network)

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WL3 Login

To access WL3, you must login using a "Username" and "Password". The first screen that is displayed contains the Login Dialog box. Complete the following in the Login Dialog:

1. In the Login Dialog box, specify the NAME and the corresponding CODE of a user of the HAI system. The NAME is the name of a "Code" in the HAI controller. At least one code must be named (i.e. Code 1 "Ken"). The CODE is the code associated with the name (i.e. Ken 1111). If you are unsure of the user name and code, check the controller for the codes that are defined there along with their corresponding name.
2. Next, specify the desired "Start Page" for WL3. The drop-down list allows you to select from the available WL3 web pages. Select the page that is first displayed after logging into WL3. The "Home" page is the default Start Page.
3. To bypass the login screen from the current computer, click in the "Remember Password" checkbox. When you click this checkbox, the following message is displayed:

"Warning: Checking this option will store the user name and code in a cookie. Cookies are transmitted in plain text and are not secure. Only check this option if you are connected to a secure web server using SSL or you are located on a secure Intranet. This option can be disabled by choosing Advanced from the Options menu within the main page."

If you access WL3 from any other computer, you will still have to login with the user name and code unless you select "Remember Password" for that computer. Then, you will bypass the login screen on that computer as well.

To require that a computer access WL3 via the login screen on a computer where the login screen has been bypassed, click the "Disable the caching of the user name and code for user" checkbox under "General" on the "Options" page. Then select "Save Changes" to restore the login page from that computer.

4. Click the "Login" button to start WL3.
5. When finished, click the "Logout" button on the top of the page. If you don't "Logout" before you close your browser or if you leave WL3 to surf to a different site, you cannot "Login" to WL3 using the same user name for at least 3 minutes.

WL3 prohibits the same user from being logged-in more than once at the same time. Any subsequent attempts to login while the same user is already logged-in will result in a login failure message.

Note: Three invalid login attempts (using the wrong user name and/or code) will result in a one-hour lockout. All users will be blocked from accessing WL3 for a period of one-hour from the last attempt.

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Browser Configuration

After accessing WL3 from a desktop computer or handheld device (Smartphone, Windows CE device, PDA, iPhone, BlackBerry, etc) returns less than desired results. These poor results can include screen resolution, unusual page orientation, commands not executing properly, missing icons, and other related issues. The cause is likely that WL3 didn't properly detect the browser being used.

There is a Browser Configuration Utility embedded within the WL3 installation that can be used to resolve these issues. To use this utility:

1. Open the browser on your hand held device.
2. Type the URL to tWL3 on your Windows[®] Home Server, followed by: /browserconfig.asp
http:// [followed by the "computer name" or "IP address" of your network interface card]/web-link/browserconfig.asp (when accessing WL3 over a Local Area Network)
http:// [followed by your "Internet IP address" or "hostname"]/web-link/browserconfig.asp (when accessing WL3 over the Internet)
3. You should get a page similar to:

Browser Configuration

This browser is configured to use the HAI WL3 for Windows Home Server "ie" web pages.

To force the browser to use different pages, select an item from the list below.

More Details:

Item	Value
Browser: Browser Fob	ie
User Preferred Browser:	
BrowserType: Browser	IE
BrowserType: Major Version	6
User Agent:	Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET CLR 1.1.4322; .NET CLR 2.0.50727; .NET CLR 3.0.04506.30; .NET CLR 3.0.04506.648; .NET CLR 3.5.21022)

4. Select the appropriate browser from the list and press "Submit". From this point forward, whenever this device is used, it will use the respective pages.

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Configuring Options

Options

The Options page is used to change configurable options and view useful information about WL3. After logging into WL3, click the "Options" icon to display the options page:

General

1. The Serial Number of your WL3 Software is displayed.
2. The WL3 Update Version is the currently installed version of WL3.
3. When logging into WL3, if you selected the "Remember Password" checkbox, you have the option to restore the login page by checking the "Disable the caching of the user name and code for user" checkbox. You must select "Save Changes" to execute the change.
4. You can configure which page is initially displayed when you first log into WL3. To configure the start page, select the page from the "Startup Page" list box, and then click the "Save Changes" button at the bottom of the Options Page.
5. By default, after three invalid login attempts (using the wrong user name and/or code) will result in a one-hour lockout. This lockout time may be changed or disabled by selecting a new time from the "Invalid Login Timeout Period" list box. Once selected, click the "Save Changes" button at the bottom of the Options Page to save your selection.
6. Install the [Windows Vista Gadget](#) : The gadget is a great way to monitor your home from a Windows Vista desktop. To install the gadget on the Vista Sidebar, from a Windows Vista computer, click on the installation link then "Open" button in the security prompt, and then click "Install".
7. The "View the server log" link is used to display the WL3 Server history which includes errors and other useful information. If the log is too large to be displayed, you have the option to delete the current log by pressing the "delete" link.
8. If you were unable to register this software during the normal registration process, you can register at any time by clicking on the [register your product](#) link.
9. The "Product Updates and Special Offers" link is used to check the WL3 Update Page for product updates and special offers that may be available. To have access to this site, you must be a registered user. To find out more about registration click [Register Online](#). If you are registered, click the "Check for Product Updates" buttons to login to the WL3 update site to check for updates.

Skins

1. Skins allow you to customize the look and feel of the web pages by applying different graphic and color schemes. Select from one of the skins in the drop-down list, then select "Save Changes" to execute the change.
2. You can have a different skin for each client computer or Windows account that is used to log into WL3.
3. New skins may be available from the WL3 web site. Note that this information will be obtained from the HAI web site and therefore a security warning dialog may appear. It is safe to ignore this warning.

Video-Link Settings

1. To configure the IP cameras that will be viewed and recorded via WL3, click the "[Configure](#)" cameras link.
See [Configuring Cameras](#) for additional details.

RSS Data Feeds

RSS is a format for syndicating news and the content of news-like web sites, including major news sites like MSNBC.COM, news-oriented community sites like Slashdot, weather reports and personal weblogs. But it's not just for news. Pretty much anything that can be broken down into discrete items can be syndicated via RSS. Once information about each item is in RSS format, an RSS-aware program such as this one can display it's information.

Once an RSS feed (URL) is specified, it's information will be displayed on the Home page. To add an RSS feed do the following:

1. Identify an RSS feed URL (see the section 'Finding RSS data feeds' below) and copy it into the clipboard.
2. Login to WL3 and navigate to the 'Options' page.
3. In the "RSS Data Feeds" section, paste the URL into the 'New RSS Address' field by right-clicking in the field and choosing 'Paste'.
4. Specify a personal description for this information in the 'Description' field.
5. Choose the "Add" button.

To delete an RSS feed do the following:

1. Login to WL3 and navigate to the 'Options' page.
2. In the "RSS Data Feeds" section, identify the feed to remove and choose the corresponding "Delete" link.

See [RSS \(Really Simple Syndication\) Data Feeds](#) for additional information.

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Configuring Cameras

WL3 will automatically discover supported UPnP IP cameras and display them in the list of "Cameras". Other IP cameras can be added manually as described in this section.

The current state of each camera is displayed in the first column of the list. The possible states for a camera are as follows:



Camera is stopped



Camera is playing



Camera is paused



Camera is recording

The next four columns display the camera Name, Description, Manufacturer, and Source Location (URL or IP address). The Source Location is presented as a hyperlink; you can test access to the device by clicking on the link.

To add a new camera, click the "Add New Camera" button.

Manually Add a Camera

Camera Type:

Name:

Description:

Source (URL):

Username: (optional)

Password: (optional)

1. Select the camera type. If the camera isn't in the drop-down list, select "Generic Image Video Surveillance Device" for cameras that produce single images at a very slow frame rate, such as public cameras, traffic cameras, and weather cameras or select "Generic MJPEG Video Surveillance Device" for Motion JPEG cameras.
2. Give the camera a specific name.
3. Give the camera an extended description.
4. Enter the URL or IP address of the IP camera.
5. If applicable, enter the username and password required to access the camera.
6. Click the "OK" button to save the camera.

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Using WL3

Now the fun begins! The following steps will guide you through using WL3.

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6. [Temperature Page](#)
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General Operation

In general, there are two ways to command and control an item or device in a list on one of the pages. First, place the mouse pointer over the item in the list, then:

- **Left-Click** - expands the item. When an item is expanded, you can select from a series of commands in the drop-down lists. Depending on which command is selected, additional lists may appear, requiring additional information. After all information has been entered, press the "Update" button to execute the command.
- **Right-Click** - displays a context menu. You may select from any of the commands in the context menu. Highlight the desired command from the list and left-click to execute the command.

The items in each column can be sorted alphabetically, either ascending or descending, by clicking on the column heading (i.e. Name, Zone, Status. etc). If you click in the empty box to the left of the first column heading, the first column is sorted numerically (as the items are listed in the controller) either ascending or descending.

When the ↓ appears next to the column heading, the column is sorted from A-Z or from first named item to the last named item. When the ↑ appears next to the column heading, the column is sorted from Z-A or from the last named item to the first named item.

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Status Area

The Status Area displays the current time and date of the controller. It also displays any current system trouble (i.e. phone line dead, battery low, etc.). If no troubles are present, the Status Area will display "System OK". Clicking in the Status Area will cause the information in this box to be updated.

Updating Status...










When the "Updating Status..." icon is displayed, WL3 is contacting the controller and updating the information displayed on the page. Whenever you change pages or control an item on a page, this icon is displayed and the information on the page is updated.

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Home

The Home page displays an overall summary of the system. This page displays information and allows you change security mode, control any temperature devices connected to your system, and command any currently displayed messages. To control other devices (such as turn a light on) you must navigate to the page of that device.







Item	Description
Security Status	Current security mode of each Security Area as well as any bypassed zones, alarms, or troubles are displayed.
Sunrise	Calculated time of sunrise for the current day is displayed.
Sunset	Calculated time of sunset for the current day is displayed.
Temperatures	Current temperature of each Thermostat and Temperature Sensor is displayed.
Messages	Any message that is currently displayed on a console is listed (this feature is available on OmniLT, Omni II, Omni IIe, OmniPro, OmniPro II, Lumina, and Lumina Pro controllers with firmware version 1.8 or later).
Latest Events	A list of the 5 most recent System Events are listed.
Latest Recorded Videos	A list of the most recently recorded Videos are listed.
	System is operating normally
	System is NOT operating normally
	Sunrise
	Sunset
	Thermostat
	Temperature Sensor or PESM
	Message
	General Trouble
	Recorded Video

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Control

The Control page displays the current status of all named Units in the system and allows for their control. The status of each unit (on/off with any remaining time, dimmed/brightened with any remaining time, level, ramp rate and time, and state of each flag/counter) is displayed under the "Status" column header.

Item	Description
Units	Name and current status of each X-10 or ALC unit is displayed.
Outputs	Name and current status of each Voltage Output is displayed.
Flags/Counters	Name and current status of each Flag/Counter is displayed.
	Unit is On
	Unit is Off
	Output is On
	Output is Off
	Flag/Counter is On
	Flag/Counter is Off

To control a unit, output, or flag:

1. Select the item to control from the list by pointing to it using your mouse pointer.
2. Left-Click on the desired unit or right-click to display its context menu.
3. Select the desired command from the list.
4. Some commands require additional input such as dimming or brightening a certain number of steps. In this case, an edit box will appear for additional input.
5. Choose a duration period from the "Duration" list. Note that the duration period does not apply to some commands so this option may not always be available.
6. Click on the "Update" button to send the command to the controller.

To issue an All Units On/Off command:





1. Right-Click on any item under the "Units" column header (any item with a light bulb).
2. In the context menu, choose a command from the list.
3. The command will automatically execute when it is selected.

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Security

The Security page displays the current security status of each Security Area in the system and allows you to arm the security system to various security modes, disarm the security system, restore all zones in the area, and restore all areas . It also displays the status of each Zone in the system and allows you to bypass and restore each zone.

Item	Description
Areas	Name and current status of each Security Area is displayed.
Zones	Name and current status of each Zone is displayed.
	Area/Zone is Armed
	Area/Zone is Disarmed
	Zone is Bypassed
	Zone has Trouble

To control an Area or Zone:



1. Select the item to control from the list by pointing to it using your mouse pointer.
2. Left-Click on the desired Security Area or Zone or right-click to display its context menu.
3. Select the desired command from the list.
4. Some commands require additional input. In this case, an edit box will appear for additional input.
5. Click on the "Update" button to send the command to the controller.

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Temperature

The Temperature page displays the current status of all Thermostats and Temperature Sensors in the system and allows for their control.

Item	Description
Thermostats	Name and current temperature, heat and cool settings, system mode, fan mode, and hold status of each HAI Thermostat is displayed.
Temp Sensors and PESMs	Name and current temperature, high and low settings, and status of each Temperature Sensor is displayed
	Thermostat
	Temperature Sensor or PESM

To control a Thermostat or Temperature Sensor

1. Select the item to control from the list by pointing to it using your mouse pointer.
2. Left-Click on the desired unit or right-click to display its context menu.
3. Select the desired command from the list.
4. Some commands require additional input (for example: choosing "Heat Setpoint" from the command list will display an edit field for specifying the temperature). In this case, an edit box will appear for additional input.
5. Click on the "Update" button to send the command to the controller.


Tip: For Temperatures, the context menu is used to raise or lower the desired heat or cool settings in 2 degree increments.

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Button

The Button page displays a list of all available Buttons. Selecting a Button from the list allows that button to be executed.

Item	Description
Button	Name of each button is displayed.
	Button

To control a Button:

1. Select the Button from the list by pointing to it using your mouse pointer.
2. Left-Click on the desired Button or right-click to display its context menu.
3. Select the desired command from the list.
4. Click on the "Execute" button to send the command to the controller.

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Events

The Events page displays a list of the 50 most recent System Events.


Item	Description
Event Name	Name of each Event along with its description, date, and time is displayed.
<Varies>	Event

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Messages

The Messages page displays a list of messages currently displayed on the system consoles (OmniLT, Omni II, Omni IIe, OmniPro, OmniPro II, Lumina, and Lumina Pro only), as well as a list of all available messages. Selecting a Message from the list allows that message to be controlled.

Item	Description
Displayed Message Name	Name of each message currently displayed on a console is listed.
Available Message Name	Name of each message available in the controller is listed.
	Message

To control a Message:

1. Select a Message to control from the list by pointing to it using your mouse pointer.
2. Left-Click on the desired unit or right-click to display its context menu.
3. Select the desired command from the list.
4. Click on the "Update" button to send the command to the controller.

With WL3, you can also send a Custom Message to the controller to be displayed on the console (this feature is available on OmniLT, Omni II, Omni IIe, OmniPro, OmniPro II, Lumina, and Lumina Pro controllers with firmware version 1.8 or later).

To show a Custom Message:

1. Left-Click on any Message in the list. Choose the "Show Custom Message" command from the "Command" drop-down list.
2. In the "Custom Message" field, enter the text to be displayed (up to 15 characters).
3. Click on the "Update" button to send the command to the controller.

Note: When you send a Custom Message to the controller, it is stored in the controller as "Message 16" in OmniLT systems, "Message 64" in Omni II, Omni IIe, and Lumina systems, and "Message 128" in OmniPro, OmniPro II, and Lumina Pro systems. If this message has been previously named, in its respective controller, when you send the "Custom Message" from WL3, it will be overwritten.

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Camera

Click the "Camera" icon to start the HAI Video-Link Player. When the player first starts, you will see the "Video Loading..." animation in the viewer.

Use the drop-downs to the right of the Video Player to select the Camera to be displayed, the Server Connection Bandwidth (images per second), and Video Size. There is also a link to configure cameras.

1. From the Camera drop-down, select the camera to be displayed. When the camera is selected, the video from that camera is displayed.
2. From the Server Connection Bandwidth, select the images per second: Fast (10 images/second), Medium-High (5 images/second), Medium (1 image every second), Medium-Low (1 image every 2 seconds), or Low (1 image every 5 seconds).
3. From the Video Size drop-down, select the size of the video display: Small, Medium, or Large.

At the bottom of the Video-Link Player are controls to stop and to pause/play the video. There are also controls to manually record the video and to take a snapshot of the current image.

To close the HAI Video-Link Player, press the  button to the right of the video frame.

TIP: To add a camera and description to the drop-down list, click the "[Camera Configuration](#)" link.

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Videos

Click the "Videos" icon to view a list of Video Recording and Video Snapshots along with the date and time of the recording/snapshot. Recorded videos and snapshots are listed separately.

To display details about the video and to play or delete a video:

1. Select the video from the list by pointing to it using your mouse pointer.
2. Left-Click on the desired video.
3. Select the desired video size and server bandwidth.
4. Select the desired remote control (Play/Pause, Move to Beginning, Move to End, Skip Backward, Skip Forward, Step Backward, Step Forward) button.
5. To delete the video, press the Delete button. You will be prompted to confirm your selection to delete the video.

To view a snapshot:

1. Left-Click on the desired snapshot.
2. To delete the snapshot, press the Delete button. You will be prompted to confirm your selection to delete the snapshot.

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Rules

Click the "Rules" icon to view a list of rules or to add a new rule. A rule is a conditional statement that tells WL3 what to do when the specified event occurs. Currently, WL3 will send an email (SMS text message or HTML format) to the specified email address and/or record video from the desired camera for a specified duration when the event occurs.

The "Rules" list contains:

- Rule Name: The name given to the rule.
- Notification: The statement that tells WL3 what to do when the specified event occurs.
- Last Event: When the specified event last occurred. If the event hasn't taken place since the rule was created, "None" is displayed.
- Status: The status is the current state of the rule. If the rule is enabled, "OK" is displayed. If the rule is disabled, "Disabled" is displayed.

The "Rules" are listed and grouped by category. The category name is displayed in the solid bar above the list of rules for that category. There are 6 possible rule categories. These categories include: Alarm Events, Security Arm/Disarm Events, Unit Events, Zone Events, System Events, and Miscellaneous Events.



Rule is Enabled



Rule is Disabled

Left-click a rule to display a detailed description of the rule.

Create a Rule

To create a new rule, select the "Add Rule" button or right-click an existing rule and select "Create New Rule" from the context menu.

1. Select the condition for your rule:

This is where you specify the event condition. Select a condition from the drop-down list.

Event conditions consist of:

- Alarm is activate [specify area and alarm type]
- All On/Off commands issued [specify area and state]
- Battery power changes state [specify the state]
- Button execution occurs [specify button]
- DCM changes state [specify state]
- Phone line changes state [specify state]
- AC Power changes state [specify state]
- Security is armed or disarmed [specify area, user, and mode]
- Unit changes state [specify unit and state]
- X-10 command issued (X-10 command received over the powerline - not generated by HAI controller) [specify state, X-10 house code and unit]
- Zone changes state [specify zone and state]

2. Select the method of notification:

In this release of WL3, the two methods of notification are 1) "Send Email" in either SMS text or HTML format, and 2) "Record Video" from the desired camera for a specified duration. Select "Send Email" or "Record Video" from the drop-down list.

Email Notification

Email Name: enter the email address to where the message will be sent. In most cases, this is the only information WL3 needs to communicate with the recipient's email server. In the event that the email does not reach the recipient, click on the [Advanced Settings](#) link to specify an SMTP server.

Advanced Settings

Override the default settings with the specified SMTP server:

Check this box to specify an SMTP server. This option should only be used if email is failing when specifying only the email address.

SMTP Server:

SMTP Server: enter the SMTP server from which the email is to be transmitted. **Note:** The SMTP Server is generally going to be the same as the domain name (i.e. mail.my_domain.com). Check with your Internet Service Provider if you are unsure about this information.

If the SMTP server that you are using requires authentication, enter the User ID and Password (this is the same information that you would have entered into your email client program):

User ID: (optional)

Password: (optional)

Confirm Password: (optional)

Finally, if your Internet Service Provider is blocking SMTP Port 25, which is the port used to send e-mail, you may specify a different port:

SMTP Port:

Send the email message in HTML format:

Check this box to receive the email notification in HTML format. When sent in HTML format, the email contains the event details, as well as, system information (security arming status and time of sunrise and sunset), temperatures (of all thermostats and temperature sensors), and latest events (a listing of the most recent events in the system event log).

Record Video

Record Duration: enter the duration (in minutes) for the record operation. Video can be recorded up to 720 Minutes (12 hours).

Camera to Record: select the camera to be recorded from the drop-down list.

If no cameras are listed in the drop-down, add cameras to your list by clicking "Configure Cameras".

3. **Specify a name for this rule:**

Enter a name for the rule. The rule name is displayed in the list of rules and is sent with email notifications.

The "Rule Description" is listed as you create the rule. After the rule has been created, click the "Create Rule" button to save the rule.

Enable/Disable/Delete a Rule

To enable a rule, left click the rule then select "Enable" from the drop-down list. Press the "Execute" button. The rule is now enabled.

To disable a rule, left click the rule then select "Disable" from the drop-down list. Press the "Execute" button. The rule is now disabled.

To delete a rule, left click the rule then select "Delete" from the drop-down list. Press the "Execute" button. The rule is now deleted.

Tip: You can also right-click the rule and select "Enable", "Disable", or "Delete" from the context menu.

Edit SMTP Details

To edit the SMTP settings, left click the rule then select the "(Email Settings)" link next to the rule. You may select if an SMTP server is used and edit the SMTP server address, User ID, Password, and SMTP port.

When a Rule Fires

When the event condition in the rule occurs (and if the rule is enabled), the "Last Event" column will contain the date and time when the event took place.

1. When an email rule is specified, an email is also sent to the specified email address in one of the following formats.

SMS Format:

From: Web-Link Notification Server
To: Specified email recipient
Subject: Web-Link Notification: name of rule (i.e. Armed Away)

Event Details:

Date: 3/21/02
Time: 4:44 PM
Event: Armed Away by MAID CODE
Description: Armed Away

This message was automatically generated by the Web-Link Notification Server.

HTML Format:

From: Web-Link Notification Server
To: Specified email recipient
Subject: Web-Link Notification: name of rule (i.e. Armed Away)

Web-Link Event Notification

Event Details:

Date: 3/21/02
Time: 4:44 PM
Event: Armed Away by MAID CODE
Description: Armed Away

System Information:

Armed Away
Sunrise: 6:03:00 AM
Sunset: 6:11:00 PM

Temperature:

Downstairs: 75° F
Upstairs: 74° F
Outdoor Temp: 68° F

Latest Events:

3/21/02 4:44:00 PM Armed Away by MAID CODE
3/21/02 3:32:00 PM Disarmed by MAID CODE
3/21/02 11:16:00 AM Armed Away by MOM
3/21/02 7:00:00 AM Program Disarm
3/20/02 10:12:00 PM Armed Night by DAD

This message was automatically generated by the Web-Link Notification Server.

2. When a "Record Video" rule is specified, the video from the selected camera is recorded. The video is stored on the "Videos" page for playback.

RSS RSS (Really Simple Syndication) Data Feeds

RSS is a format for syndicating news and the content of news-like web sites, including major news sites like MSNBC.COM, news-oriented community sites like Slashdot, weather reports and personal weblogs. But it's not just for news. Pretty much anything that can be broken down into discrete items can be syndicated via RSS. Once information about each item is in RSS format, an RSS-aware program such as this one can display it's information.

Once an RSS feed (URL) is specified, it's information will be displayed on the Home page. To add an RSS feed do the following:

1. Identify an RSS feed URL (see the section 'Finding RSS data feeds' below) and copy it into the clipboard.
2. Login to WL3 and navigate to the 'Options' page.
3. In the "RSS Data Feeds" section, paste the URL into the 'New RSS Address' field by right-clicking in the field and choosing 'Paste'.
4. Specify a personal description for this information in the 'Description' field.
5. Choose the "Add" button.

To delete an RSS feed do the following:

1. Login to WL3 and navigate to the 'Options' page.
2. In the "RSS Data Feeds" section, identify the feed to remove and choose the corresponding "Delete" link.

Additional Notes:

- Internet Explorer by default restricts data acquisition to only the domain of the web server running WL3. You may therefore get an error message that says **"This page is accessing information that is not under its control. This poses a security risk. Do you want to continue."**


To stop Internet Explorer from displaying this message do the following:

1. In Internet Explorer, choose 'Internet Options' from the "Tools" menu.
2. Click on the 'Security' tab.
3. Select the "Internet" or "Local Intranet" zone.
4. Click on the "Custom Level" button.
5. Locate the option in the "Miscellaneous" section that says 'Access data sources across domains'.
6. Choose the option for "Enable".

Note that enabling this option increases your exposure to rogue pop-up messages and possible malicious attacks.

- To look at the actual RSS XML data, go to the "Options" page and click on the link for the RSS feed. If your RSS feed is not being displayed on the Home page then the feed may be invalid. Clicking on the link is a good way to test it.
- Not all RSS feeds are created equal and therefore may not adhere to standard formatting conventions. If you receive an error or an RSS feed does not display properly then it may not be valid.

Finding RSS Data Feeds

Many major web sites today offer free RSS feeds to their data. To see if your favorite web sites offer RSS feeds you can usually go to the web site and look for graphics that say "RSS" or "XML". These are usually red or blue images such as this: . Once you find one of these graphics (or similar links) you can right-click on it and choose "Copy Shortcut". This will place the URL in the clipboard for easy pasting into the 'New RSS Address' field on the options page.

If you are looking for specific RSS data and aren't aware of a specific web site that may offer it, your best bet is your favorite search engine. Specify "RSS" along with the subject matter you are interested in for your search. There are also an increasing number of web sites dedicated to locating interesting RSS feeds.

If the RSS data is being blocked by Internet Explorer, see the following troubleshooting link: [RSS Data is Blocked by IE" warning is displayed on the Home Page](#)

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Windows Vista Gadget

The Windows Vista Gadget is a great way to monitor your home from a Windows Vista desktop. The gadget displays the current arming status for each security area, displays the most recent events from the controller's event log, and displays the temperatures from each temperature device.

When the Windows Vista Gadget has been installed on a Vista computer, you can add it to the Vista Sidebar. Once the gadget is added to the Vista Desktop or Sidebar, to configure the gadget to communicate with the WL3 server, right-click on the gadget and select "Options".

On the Options dialog:

1. Enter the Web-Link Server URL: This is the URL to WL3 on your Windows® Home Server. **Note:** this is the same URL that you use to access WL3. For example:

http:// [followed by the "computer name" or "IP address" of your network interface card]/web-link (when accessing WL3 over a Local Area Network)

http:// [followed by your "Internet IP address" or "hostname"]/web-link (when accessing WL3 over the Internet)
2. Enter the Web-Link Login ID: This is the one of the usernames that you use to log into WL3. **Note:** this is the name of one of your codes.
3. Enter the Web-Link Password: This is the password that you use to log into WL3. **Note:** this is the code that matches the code name.
4. Temperature Format: Select between Fahrenheit or Celsius
5. Data Update interval (minutes): Enter the number of minutes between each time the gadget refreshes the data with the WL3 server.

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Frequently Asked Questions

Does WL3 require a connection to the Internet?

A connection to the Internet is only required if you wish to control your home remotely and to register online. WL3 runs on a standalone Windows® Home Server and can be accessed via a web browser on the local network.

Which browser works best with WL3?

Although WL3 runs on most browsers, WL3 takes advantage of some advanced features in Internet Explorer that provides a more robust user interface. However, WL3 will work with most http web browsers such as Netscape, Opera, Safari, Firefox, and others.

After arming an area, the zones in that area do not immediately show the correct armed status

Most areas have a delay (i.e. Exit Delay) when they are armed. Although the Area displays its status as 'Armed', the zones within the area are not actually armed until after the delay expires. To view the updated status of the zones, units, temperatures, messages, and rules, simply click the corresponding menu button on the left or top menu pane. All information on the page is instantly updated.

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Troubleshooting

Why does it take so long to load WL3 the first time I access the server?

When the WL3 Service loads it polls the controller for the names of all devices as well as all controller setup information, then loads WL3 extensions. This process can be fairly lengthy depending on the complexity of the controller configuration. This only happens the first time WL3 is loaded. Afterwards, if the setup information and names in your HAI controller changes, you will need to manually retrieve the information from the WL3 configuration screen on the Windows® Home Server console.

Login fails

To login to WL3 requires a valid user name and code. User names and codes are assigned by the controller and can be easily added or changed using the PC Access software.

WL3 prohibits the same user from being logged-in more than once at the same time. Any subsequent attempts to login while the same user is already logged-in will result in a login failure message.

This message will also be displayed if you do not properly logout out of WL3 and then attempt to login again within a five-minute period of time.

Server Properties Dialog Doesn't Display When Clicked

If the WL3 Server is retrieving Setup or Names or if all of the WL3 extensions are loading (extensions load after retrieving Setup and Names), no other actions can be performed until those processes are completed. This will occur ONLY after the WL3 is initially started and should take 1-2 minutes depending on the amount of information that must be retrieved (more complex configurations will take longer). Below is a summary of the various options that will be displayed:

- "Starting" -- WL3 is establishing communication with the controller
- "Loading Setup" -- Setup information is being retrieved from the controller
- "Loading Names" -- Names are being retrieved from the controller
- "OK - Interactive" -- Server is operational and can be accessed
- "Stopped" -- The server is currently stopped
- "Failed" -- The server failed to connect to the HAI controller (check connection settings and try again)
- "Closing" -- The server is shutting down

The interface on your desktop computer or handheld device (Smartphone, PDA, iPhone, BlackBerry, etc) doesn't look correct

After accessing WL3 from a desktop computer or handheld device (Smartphone, PDA, iPhone, BlackBerry, etc) returns less than desired results. These poor results can include screen resolution, unusual page orientation, commands not executing properly, missing icons, and other related issues. The cause is likely that WL3 didn't properly detect the browser being used.

There is a Browser Configuration Utility embedded within the WL3 installation that can be used to resolve these issues. Click on the [Browser Configuration Utility](#) link for more information.

Cannot see entire display at 640x480 resolution

WL3 is designed for an 800x600 resolution or higher, however, 640x480 will work just fine if you massage your browser a bit.

To place your browser in FULL SCREEN mode in Internet Explorer, press the F11 key. Pressing the F11 key again will restore Internet Explorer to it's previous state.

Navigator users must turn off the Navigation, Location, and Personal toolbars. These options should be located under the View | Show menu.

"RSS Data is Blocked by IE" warning is displayed on the Home Page

This warning message appears when Internet Explorer has the "Access data sources across domains" security setting configured to 'disabled'. To prevent this warning from appearing you will need to change this setting as follows:

1. From Internet Explorer's "Tool" menu choose "Internet Options".
2. Choose on the "Security" Tab.
3. Click the "Custom Level" button to display the Security Settings dialog.
4. In the "Miscellaneous" section of the list, locate the setting for "Access data sources across domains".
5. Change the setting from "Disabled" to either "Enabled" or "Prompt". Note that setting it to "Prompt" will display a message each asking you if you want to allow the RSS data to load each time you start WL3.

More Information:

WL3 retrieves RSS data from a number of different Internet sites (domains). Internet Explorer can block this type of data access since it is theoretically possible for malicious web sites to impersonate valid web sites by pulling data from different places.

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Product Support

In the event that there are any questions, please call your installer first. If you need assistance directly from HAI, please call us at (504) 736-9810, between the hours of 9:00 AM and 5:00 PM, Central Time or email support@homeauto.com. We will be happy to assist you.

When calling, please have the version and serial number of WL3 ready, which can be found on the WL3 properties dialog or under "Options" within the WL3 web pages.

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