



g!TOOLS USER GUIDE

Version 5.5

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g! Tools Overview

The g!Tools program is a valuable resource for the dealer setting up a g! system. The **My Systems** list provides a dashboard for all the systems you have installed. This screen displays information that will assist you with troubleshooting, as well as an entry point into each selected system so that you can access its Viewer or Configurator remotely. Use the **Key Manager** to configure software licenses for the g! apps that are installed on each system's HC Controller.

g!Tools is also a repository of technical information and files that are needed to set up g!Connect for your customer, such as:

- Manuals, Integration Notes, other documentation,
- IR codes and Serial codes
- Language files for localizing the user interface
- TV Channel icons
- Firmware for ELAN equipment

g!Tools is not only a resource tool, but is also the storage area for icons and codes used in the g! Configurator. When g!Tools is installed on your PC, Configurator takes you to the correct directory where the necessary files are stored.

This software automatically updates with the latest files from ELAN and the files are stored locally, so they are available to you without an internet connection.

g! Tools Revision History

The following lists the g!Tools application change history.

- G!Tools version 5.5.139 – Resolves stability issues reported in initial release.
- G!Tools version 5.5.128 – Initial release.

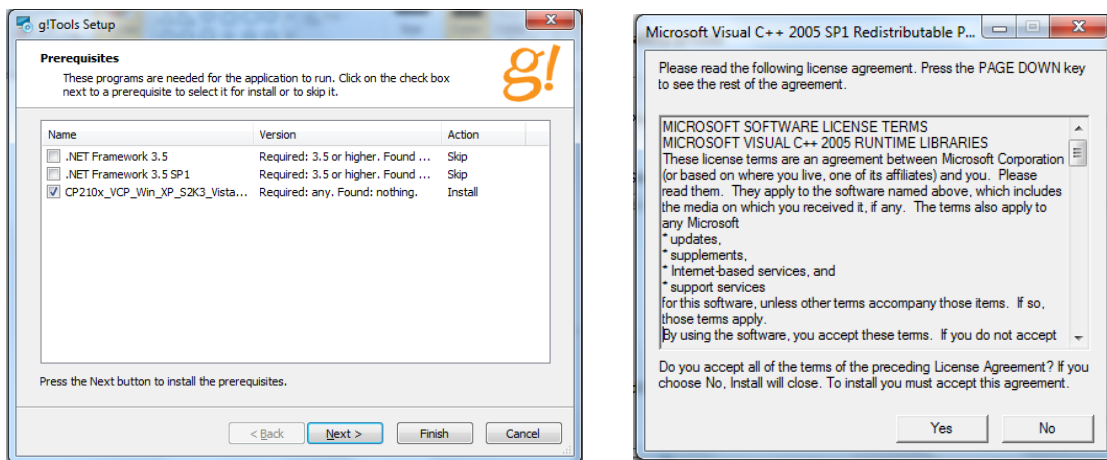
Installing and Launching g!Tools

To install g!Tools:

1. Navigate to the **g!Tools** installer (on your training CD). Double-click the installer to begin the installation.

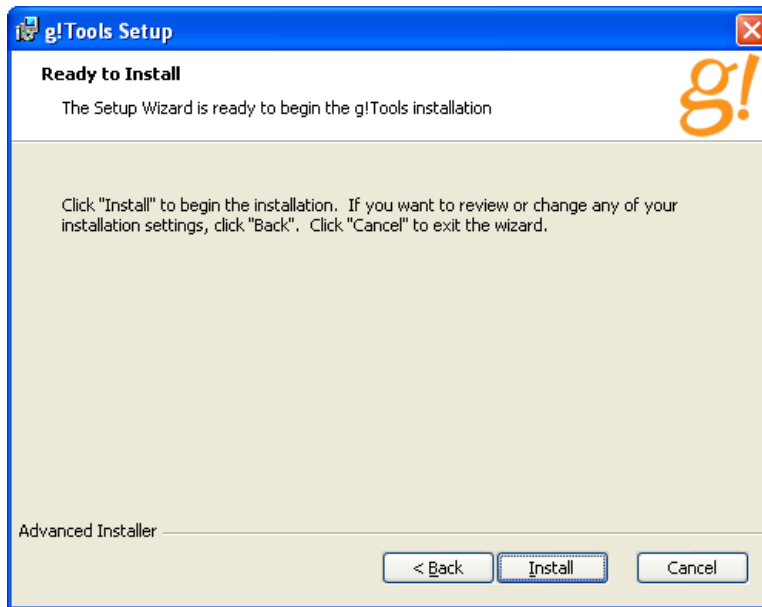
Note: If you are using Windows Vista, right-click the installer and select Run as Administrator.

2. Depending on what has been previously installed on your computer, you may need to install various prerequisite programs and/or accept a Windows Runtime Libraries license agreement. Typically, users upgrading from g!Connect Pro will not see these screens. Install or accept the components as needed to continue the g!Tools installation.



3. Follow the on-screen instructions to accept the license agreement and install the library files and program.





3. Once the installation is complete, launch the application from the desktop icon to access g!Tools. *The welcome screen displays for a moment, and then g!Tools opens with the My Systems page displayed.*

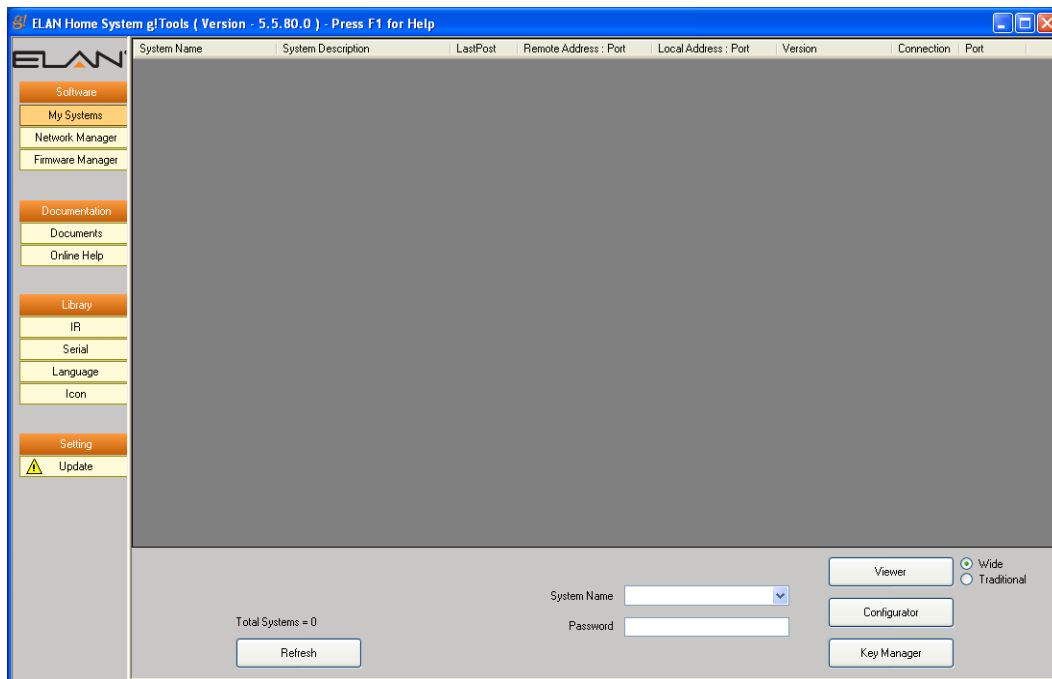
Note: If your computer displays a pop-up blocker security warning, be sure to **allow access** to g! Tools.



4. The first time you open g! Tools a registration form will display. Take a moment to complete the registration form. It provides access to database tracking for Key Manager and installed keys and licenses.

A "g! Registration" dialog box with the instruction "Please fill the form and click Submit". The form contains the following fields: Name (text box), Company (text box), Region (dropdown menu), Country (dropdown menu), State/Province (text box), Postal Code (text box), City (text box), Street Address 1 (text box), Street Address 2 (optional) (text box), Phone (text box), and E-mail (text box). At the bottom are "Submit" and "Cancel" buttons.

5. From within g!Tools, you can manage client systems, and also browse or update documentation and databases stored on your PC.

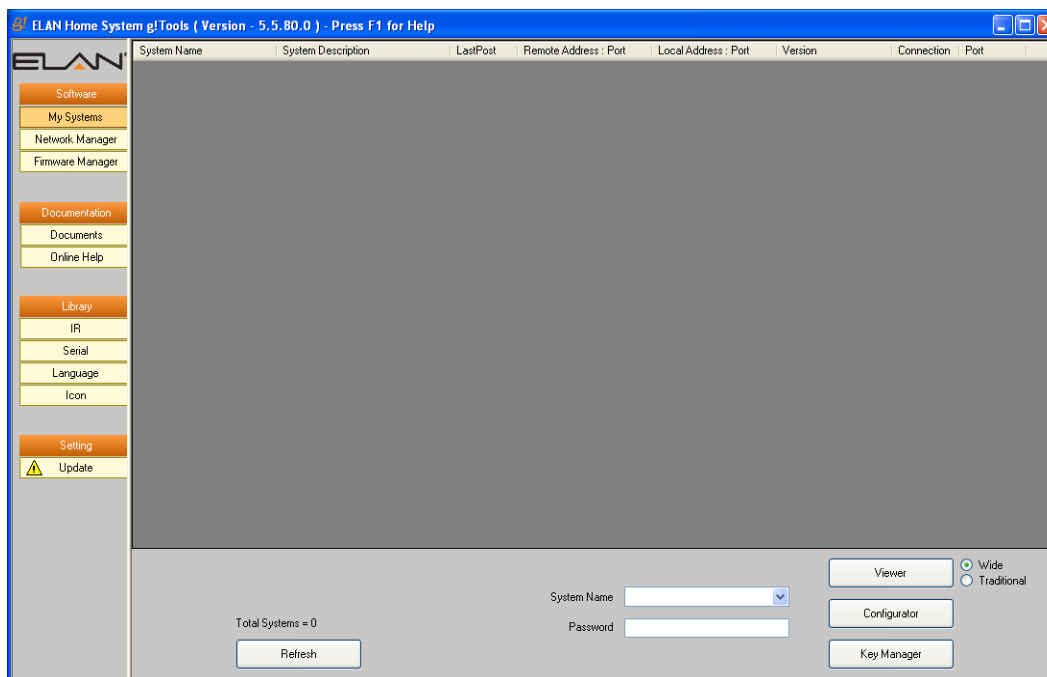


Software

My Systems


The **My Systems** screen is the dashboard that allows dealers to manage their accounts and easily log in to any of their clients' systems. This screen provides a list of all the client systems that a dealer can access remotely as well as information about the systems such as IP address, Connection type, and the last time the system posted or "checked in" with the Elan server.

To access the My Systems list, navigate to **Software> My Systems**.



The following describes the fields and buttons on the My Systems screen:

Item	Description
System Name	Lists the system name provided in the "System Name" field on the System tab in Configurator.
System Description	Lists the description provided in the "System Description" field on the System tab in Configurator.
Last Post	Works in conjunction with "Refresh." When this page is refreshed, the last post column provides the time when the controller last checked in with the Elan server. Controllers generally check in about every 15 minutes. A time that is much longer than 15 minutes may be indicative of a problem. <ul style="list-style-type: none">• A system that has been offline between 15 and 30 minutes will highlight in pink.• A system that has been offline 30+ minutes will highlight in red.
Remote Address	Provides the WAN IP address and port number of the location where the controller is installed.
Local Address	This field is populated with the controller's local IP address

Item	Description
	when the system is connected within the same network as the PC running g!Tools.
Version	Lists the g! software version currently running on the controller.
Connection	<p>Works in conjunction with “Refresh.” Indicates the type of connection to the controller:</p> <p>Direct- The home’s internet firewall port is open, and dealer can connect to the system directly through the Elan server.</p> <p>Relay- The controller is using the Elan relay server for remote access. This is typically due to the home’s internet access port being closed.</p> <p>Blocked- The firewall port is closed and a relay connection is not available. Dealer cannot access the system remotely.</p>
Port	Works in conjunction with “Refresh.” Indicates the status of the home’s internet firewall port, Open or Closed .
	Click to remove the selected system from the list.
Total Systems	The total number of systems on the My Systems list.
[Refresh]	<p>Click to refresh the status for the selected system. When a system is first added to the list, click Refresh to load information about the system into the columns and update the following fields:</p> <ul style="list-style-type: none"> • Last Post • Connection • Port
System Name	<p>Displays the local g! systems. Select a system from this dropdown list to select it, and then click the Configurator or Viewer button to access the system.</p> <p>-OR-</p> <p>Type a new system name and password and click the key Manager button to add a new system to the list.</p>
Password	<p>Enter the password to access the selected system’s Configurator and/or Viewer.</p> <p>Note: Passwords are not saved to your PC.</p>
[Configurator]	Click to access the selected system’s Configurator.
[Viewer]	Click to access the selected system’s Viewer.
[Key Manager]	Click to access the Key Manager program to manage licenses for the selected system.
Wide/Traditional	<p>Select the aspect for the simulated viewer you want to work with.</p> <ul style="list-style-type: none"> • Choose Wide to simulate a TS7, TS10 or Valet 10 viewer. • Choose Traditional to simulate a legacy 8.4” in-wall touchscreen, XP84 tablet or an iPad in landscape mode.

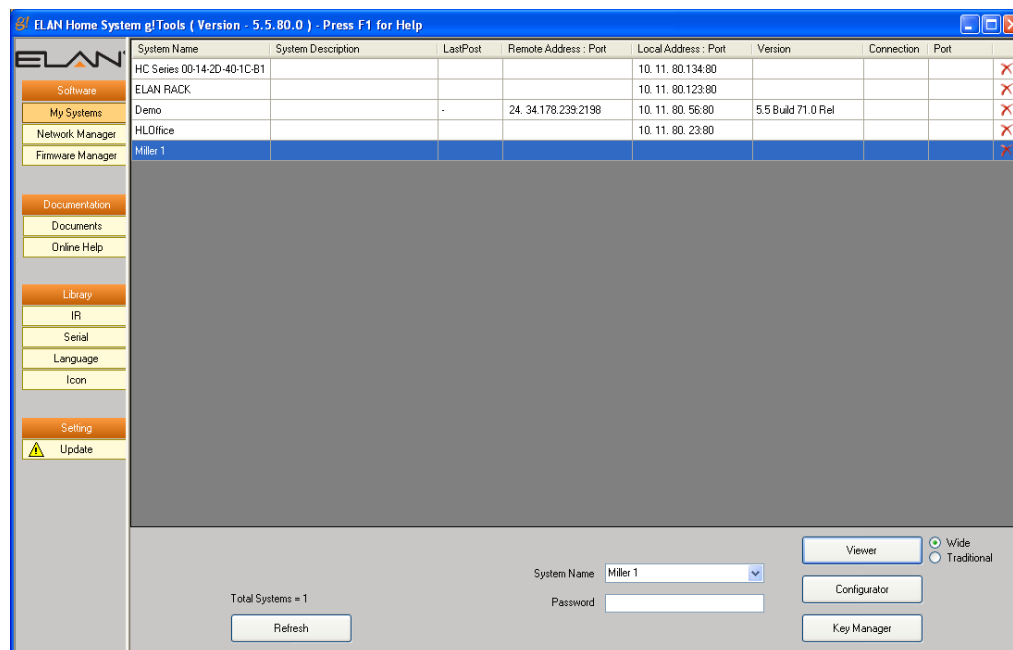
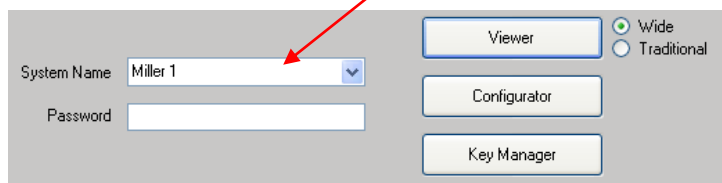
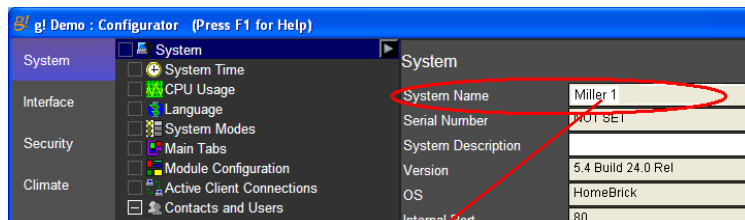
Adding a New System to the list

Customer systems can be added to the My Systems list at anytime; either while you're onsite at the customer location, or offsite at your own office.

To add a system to the list:

If the system you want to add is local and displayed in the **System Name** dropdown list, select it and click the Viewer, Configurator or Key Manager button.

If the system is not on the list, type the **System Name** in the field. You must enter the name exactly as it appears in the System Name field on the System tab in the Configurator. Once a connection is started, the new system will be added to the list.




Refresh the System Information

When you first add a new system to the My Systems list, you should **Refresh** to populate the list with the system description, IP address and other information.

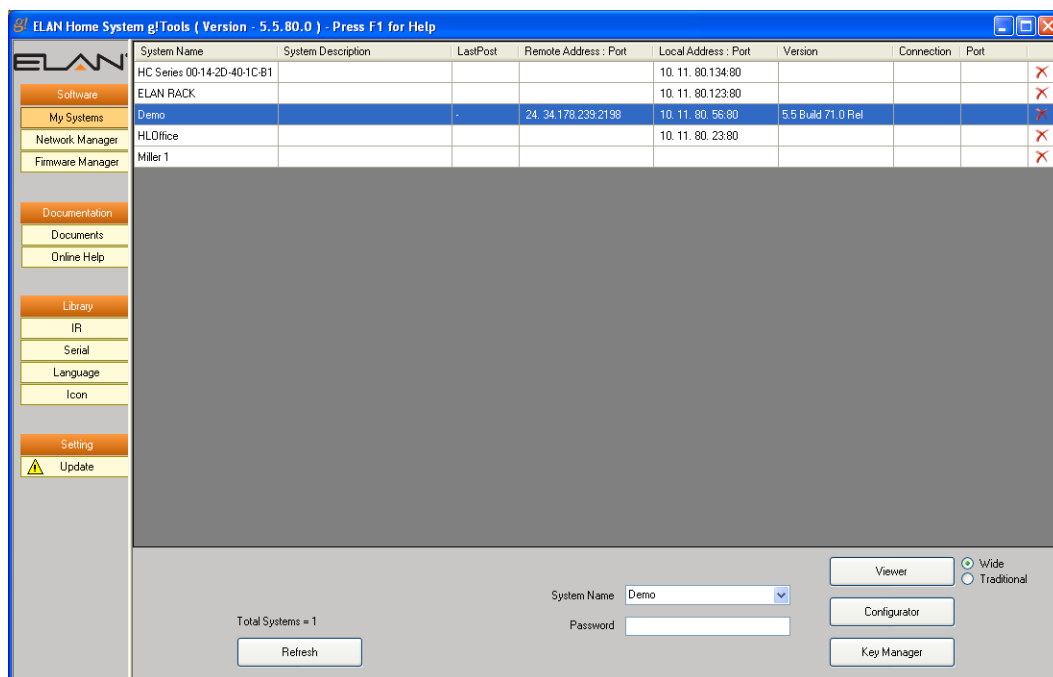
Refreshing will also update the LastPost time and check the Port status on all systems running g! software version 5.0.637 or newer.

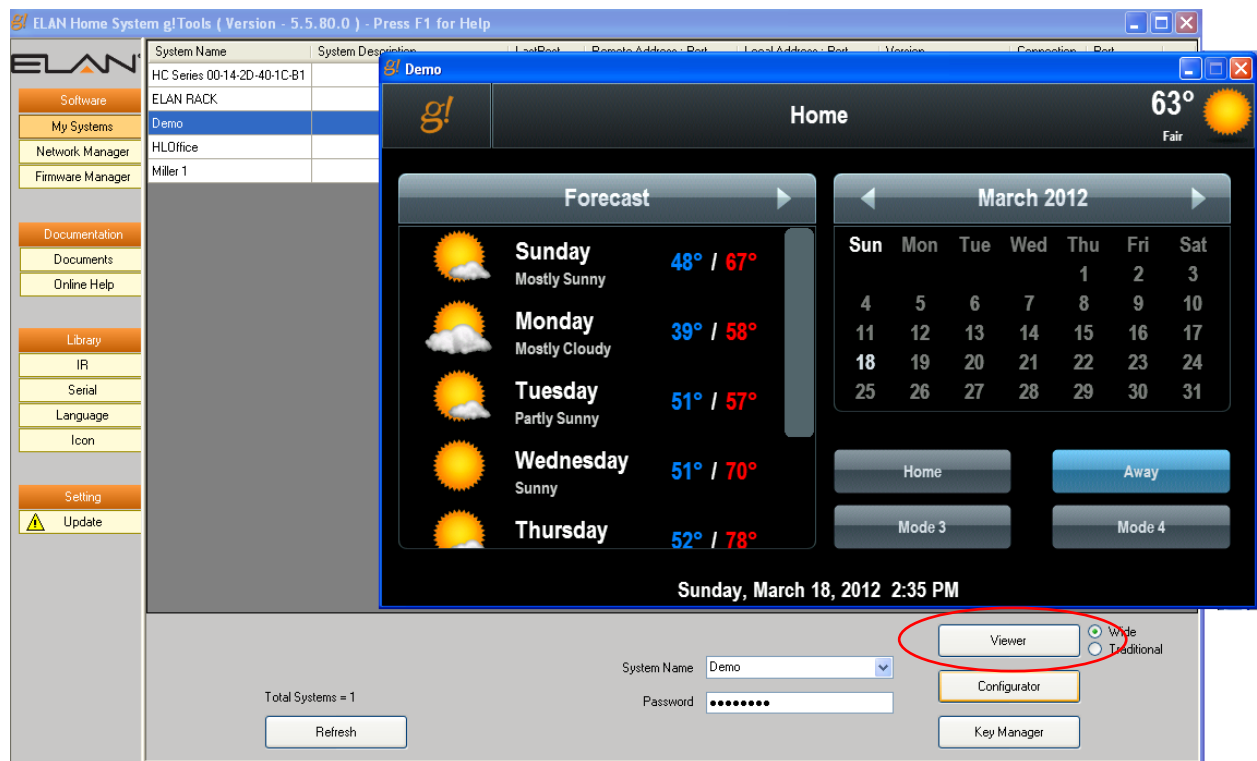
Delete a System from the List

To remove a system from the My Systems list, simply select the system and then click the delete  icon. Removing the system from the list only affects the dealer's ability to check information or log into the system remotely; it does not affect the actual system at the customer site.

Accessing a Viewer or Configurator from the My Systems list

The My Systems list is a gateway that provides the dealer access into their customers' systems, both the Viewer and the Configurator. Select the desired system from the list, enter the system password in the field at the bottom of the screen, and then click the **Viewer** or **Configurator** button as needed.





Key Manager

Overview

All HC controllers ship with built-in basic functionality for all sub-systems, and include one Viewer license to support one, third-party user interface such as a PC or iPhone. Included functionality allows control of most supported subsystems in small configurations, with no additional cost beyond the controller. HC controllers are then upgraded with Pro Apps for installations requiring the added features that Pro Apps deliver. Controllers may also be upgraded with additional viewer seats if customers wish to add additional non-Elan devices as Viewers (such as a PC, iPod Touch or iPhone). Viewer licenses are not required for Elan-supplied devices.

Additional licenses, when ordered, arrive in the mail as a 4"x4" card with a unique license code printed on it. These license codes are used with the Key Manager application installed with g!Connect to activate the codes and unlock functionality on the Controller. When you order additional Pro Apps or Viewers, there are two simple part numbers to use.

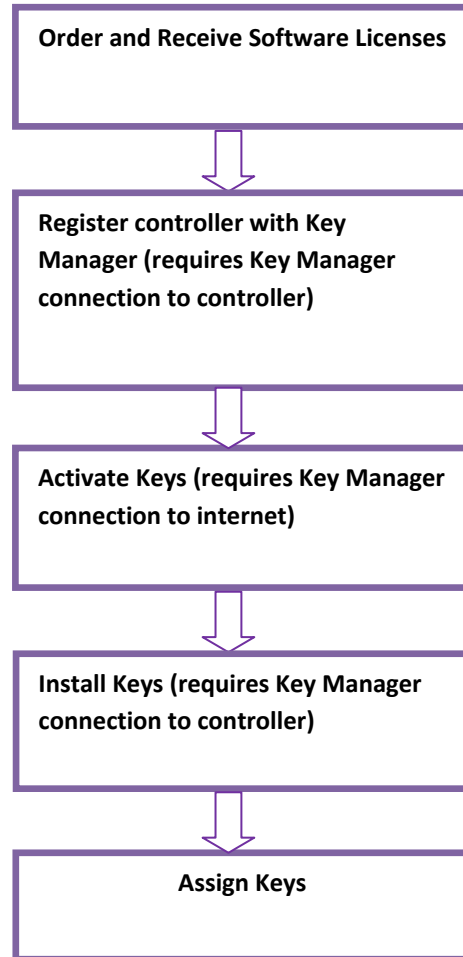
- **GPASL:** The GPASL license is a generic **Pro App** key. Activating and Installing a GPASL on a HC controller allows you to activate *any* one Pro App on the HC controller, and once installed it is easy to change which Pro App you have activated. The GPASL allows you to activate one Pro App per code. Key codes can only be used once on one system.
- **GVSL:** The GVSL license is a **Viewer** seat, which increases the number of simultaneous connections from Third-Party Viewers that the HC controller will accept. Each GVSL adds one Viewer to the HC. Third-party Viewers include any local or remote Viewer connection to the HC that is not from an ELAN touch screen, including PC's, iPhones or tablets. Note that Viewers are not locked to any one device, and only limit the number of simultaneous Viewer connections. Key codes can only be used once on one system.

If you need to activate a Pro App, but have not received your card in the mail, Configurator allows you to turn on a one-time 30-day trial of the license and start programming right away. The 30-day trial feature is also useful for gaining immediate functionality on sites (at locations?) without internet access, or even for doing a demo of control features beyond what you've sold to your client.

For further information on details of expanded functionality for each Pro App, see the table in the *g!ConnectPro User Guide*.

Note: Once a key is installed on a system, it cannot be removed and used again on another system.

KeyManager is designed to support installations where internet access is not available to activate the license. As you will note in the following diagram, you can easily register a system with your computer onsite, activate licenses offsite (at the office or a local Wi-Fi hotspot), and then return to the controller to install your Pro Apps or Viewers. The process for implementing the keys is explained in the following diagram.



Once you receive your keys, you can proceed with key activation.

g! Licensing Summary

The following sections briefly summarize the main issues to keep in mind that relate to the software licenses on the HC Series of controllers.

- **Controllers Affected:** The new licensing system described in this document is only used on the HC series of controllers. This licensing system is not used with HomeBricks or MultiBricks.
- **Versions Affected:** All HC controllers run g! version 5.1 or higher. Version 5.1.305 is required for the new licensing process.
- **Base Functionality vs. Pro Apps:** All HC controllers ship with Base functionality enabled. Pro Apps are only needed to enable advanced functions. Refer to the table below for a list of Base functionality compared to Pro App functionality.
- **Viewer Licenses:** All HC controllers ship with one Viewer license enabled, to support one third party user interface such as a local computer. Additional Viewer licenses are needed for any additional 3rd party user interfaces, such as iPhones. Keep in mind that Viewer licenses are not required for Elan user interfaces, such as TS7 or TS2.
- **Part Numbers:** There are two part numbers in the new licensing system:
GPASL – g! Pro App Software License. One GPASL license turns on one Pro App on one controller.

GVASL – g! Viewer License. One GVASL license enables one third party interface, such as an iPhone. GVASL is not required for ELAN user interfaces.

Each of these parts consists of a 4" by 4" piece of card stock containing a special code (called the Product Key). These codes are entered during the licensing process described below.

- **Ordering Licenses and Controllers:** All HC controllers ship with Base functionality enabled. Pro Apps are added later, so you can order the controllers and the Pro Apps separately, as you need them.
- **30 Day Timer:** The new HC controllers offer a 30 day timer for Pro Apps, so that you can configure and start using Pro App features, and then install the full Pro App licenses later. Each Pro App has its own 30 day timer, so you can turn them on at different times, and each will run for their own 30 days. (Note: failure to install the ProApp key prior to the timer expiration will result in loss of programming. The timer option is not applicable to Viewer licenses.)
- **Adding Licenses:** Because there is a 30 day timer on all Pro Apps, Elan will no longer enable features remotely. You must purchase additional GPASL or GVASL as necessary, and install them according to the standard process described below.

Pro Apps and Viewer Licenses

All HC controllers ship with built-in Base functionality for sub-systems, and include one Viewer license to support one third party user interface such as a PC or iPhone.

HC controllers are then upgraded with Pro Apps for installations requiring the added features that Pro Apps deliver.

This is different than the licensing process used with HomeBricks and MultiBricks, where “basic” functionality was added as LT or “light” tabs, and “advanced” functionality was added with “pro” tabs. In other words, you can think of the HC controllers as shipping with all of the LT tabs already turned on.

HC controllers are also updated with additional Viewer licenses, if more than one third party user interface is needed. Keep in mind that Elan user interfaces, such as TS7, HR2, and TS2, do not require a Viewer license.

The table below lists the Pro Apps, and compares the built-in capability of the controller with the capability delivered by the Pro App.

APPLICATION/FEATURE	Controller Functionality	
	Base	Pro (GPASL)
<u>Media</u>		
ELAN AV Controller Zones *	64	64
3rd party AV Controller Zones *	None	32
Sunfire AV Receiver	8	8
AV Receivers - Any Brand@	1	8
Generic Zone Control@	1	32
Displays	32	32
In-home sources	30	30
Virtual system for demo	Yes	Yes
<u>Climate</u>		
Thermostats	2	32
Virtual system for demo	Yes	Yes
<u>Lighting</u>		
Loads or system scenes	16	255
g! Viewer keypads	32	64
g! Viewer Scenes	32	32
Virtual system for demo	Yes	Yes
<u>Security</u>		
Partition	1	8
Zones	8	256
Virtual system for demo	Yes	Yes
<u>IP Camera</u>		
Video Streams	2	16
Virtual system for demo	No	No
<u>DVR</u>		
Recording of cameras	None	16
Virtual system for demo	No	No
<u>Messaging</u>		
User Voice Mail Box -internal messages	1	8
Internal voice mail	Yes	Yes
Telephone Voice Mail	No	Yes

APPLICATION/FEATURE	Controller Functionality	
	Base	Pro (GPASL)
Remote telephone house control	No	Yes
Text to Speech message generation	No	Yes
Virtual system for demo	Yes	Yes
Irrigation		
Groups	None	Yes
Zones	None	Yes
Virtual system for demo	Yes	Yes
Pool/Spa		
1 Pool Control System	No	Yes
Virtual system for demo	Yes	Yes

Notes:

Please refer to *the Integration Note* for all sub-systems to understand any limitations for a specific make/model

* Please note that each video and audio zone counts as 1 zone. So 2 zones of distributed audio & video = 4 zones

@ You get either 1 Generic Zone or 1 3rd party AVR - these cannot be combined

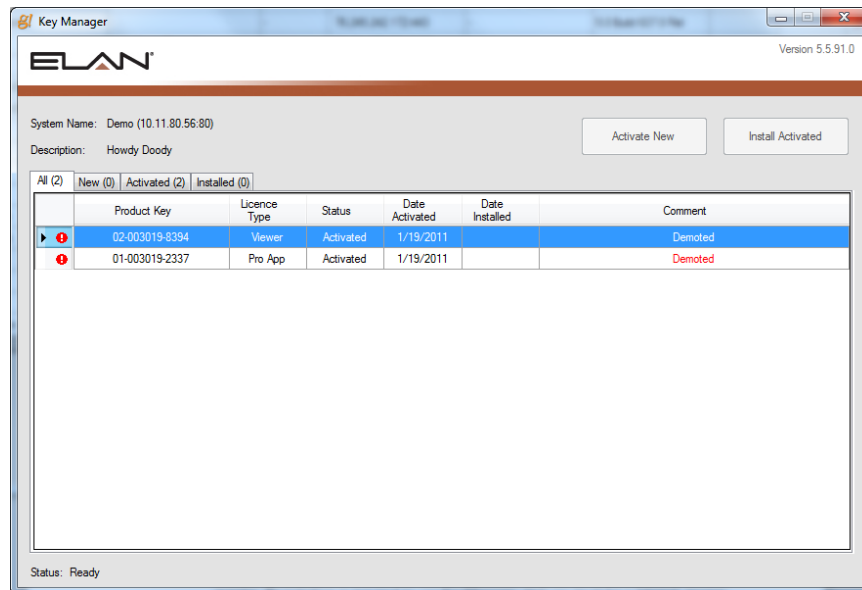
Using the Key Manager

To use the Key Manager to install and activate software keys:

1. Select the appropriate system from the **My Systems** list.
2. Click the **Key Manager** button.

If you did not register at the time of g! Tools installation, you are prompted to register.

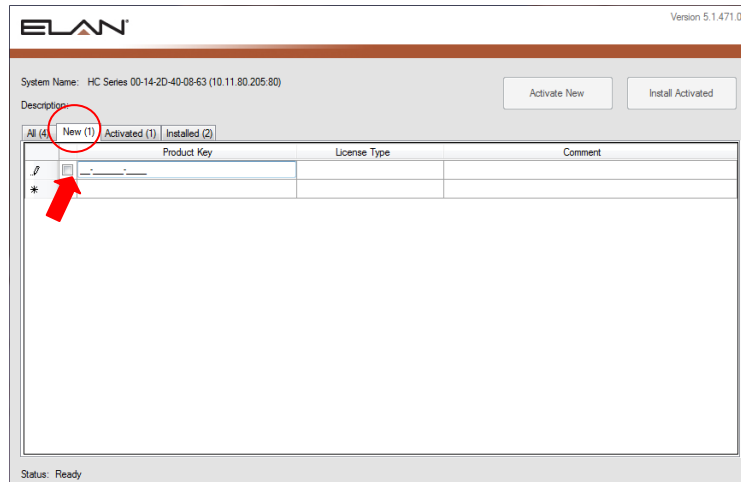
Registration is required to use Key Manager, and you must have Internet access to perform this step.



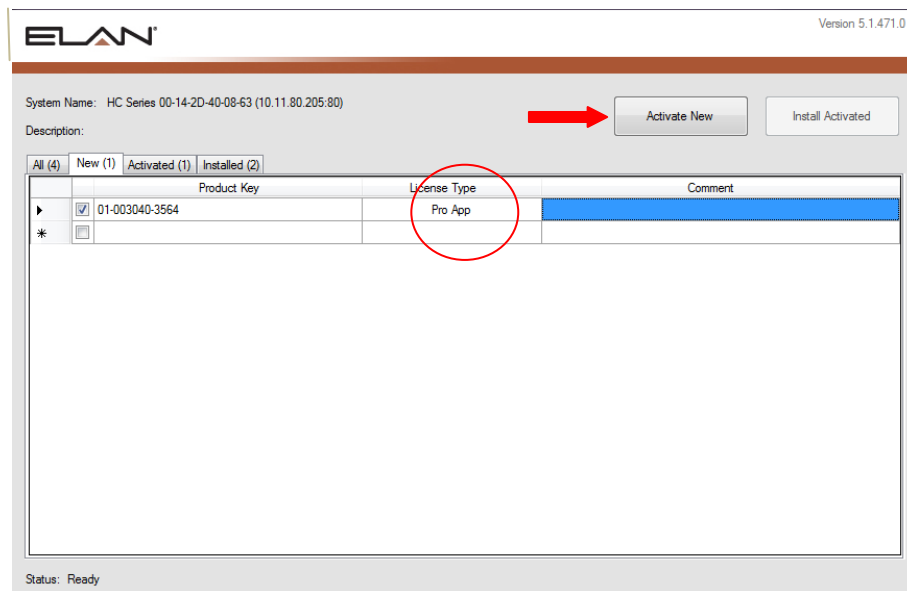
The Key Manager connects to the HC controller and presents the Key Activation and Installation screen. If you do not have Internet access, a message will display indicating that key activation is disabled.

Note: You must connect to the HC controller when on-site and register the system with your computer in order to activate keys. If you have no internet access on site, make sure that you perform Step 1c prior to leaving the site to activate keys!

3. The information displayed on the lower left of the Key Manager window indicates the current state of Key Manager such as “Ready” or “Activation Disabled.” *Activation verifies that the keys have authentic and unused licenses. Always double-check that you are activating keys on the correct system.*
 - a. Click the **New** tab to access the entry fields.
 - b. Type the Product Key number, for each license that you want to activate, in the entry fields. *Be sure to enter the number exactly as shown on the Key Card.*



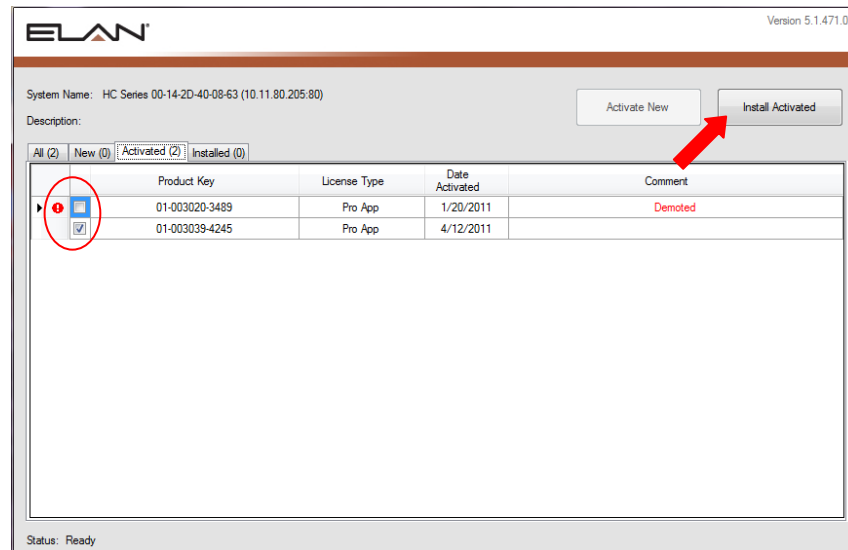
- c. Press **Enter** and the key(s) are verified. *Pro App or Viewer* is displayed in the **License Type** column and the **Comment** column is highlighted. This column may contain messages to the user such as "Verification failed: Unknown License Type."



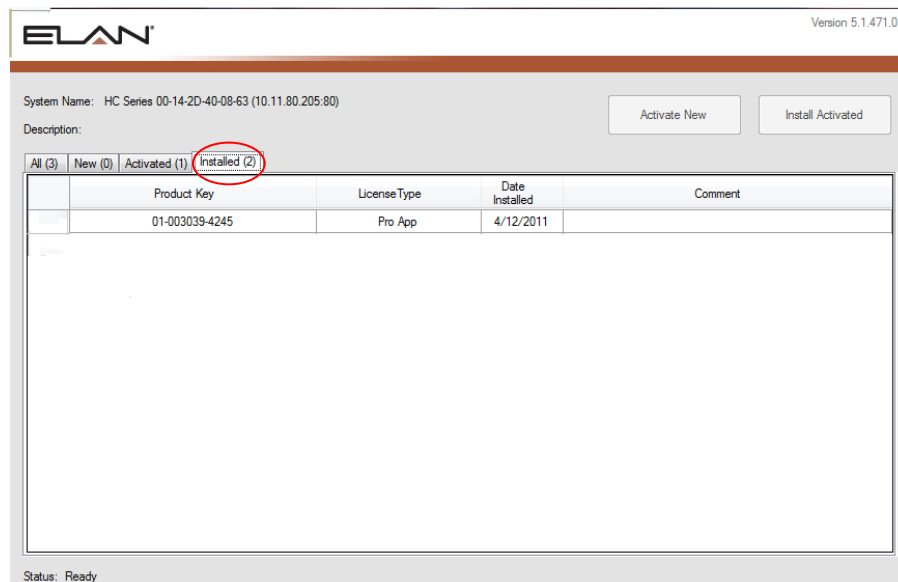
- d. When you are finished entering key codes, verify that the boxes are checked for all Pro App and Viewer keys.
- e. Click the **Activate Now** button.

Key Manager connects to ELAN's licensing server and verifies that the keys have not been used. The keys are then registered in the Elan server database. The keys are activated and advanced to the **Activated** tab.

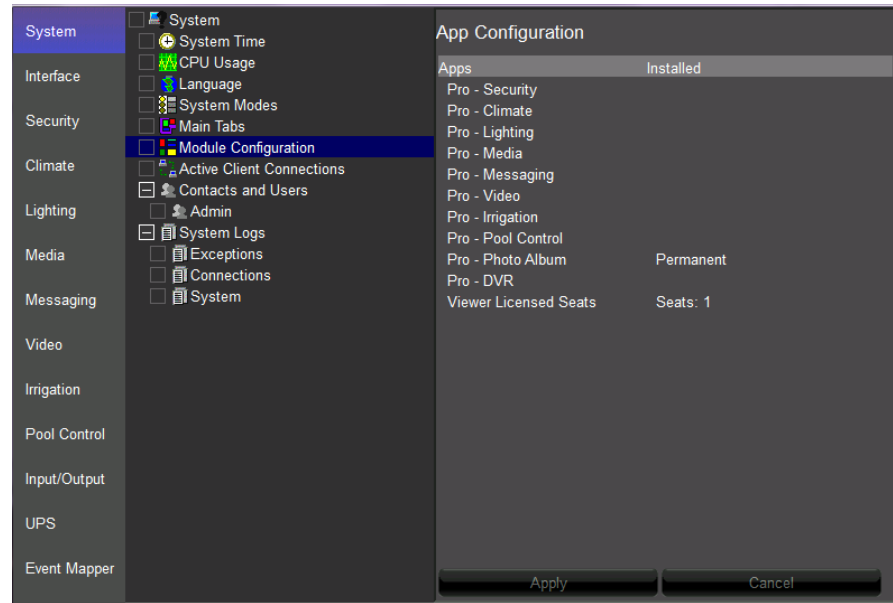
4. Install the keys from the Manage Keys window for the current system. The status on the lower left of the Key Manager window indicates the current state of Key Manager, such as “Ready” or “Installation Disabled.” *All the activated product keys are installed on the system controller in this step and require connection from the Key Manager to the Controller.*
 - a. Click the **Activated** tab to see the active product keys listed.
 - b. Select all your keys, if they are not already selected, and click **Install Activated**.



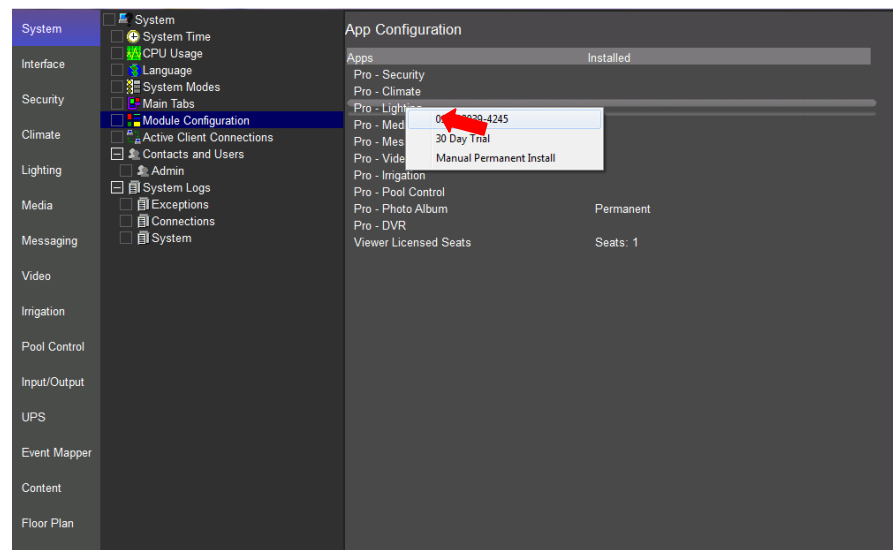
*The Product Key(s) are advanced to the **Installed** tab.*



5. Once all the keys are activated and installed onto the controller, you can assign the keys in the Configurator.
 - a. From the My Systems screen, be sure the system you want to work with is selected, and then click the **Configurator** button.
 - b. Click the **System** tab.
 - c. Click **Module Configuration** from the System Tree and the App Configuration properties display on the right-hand side of the Configurator.



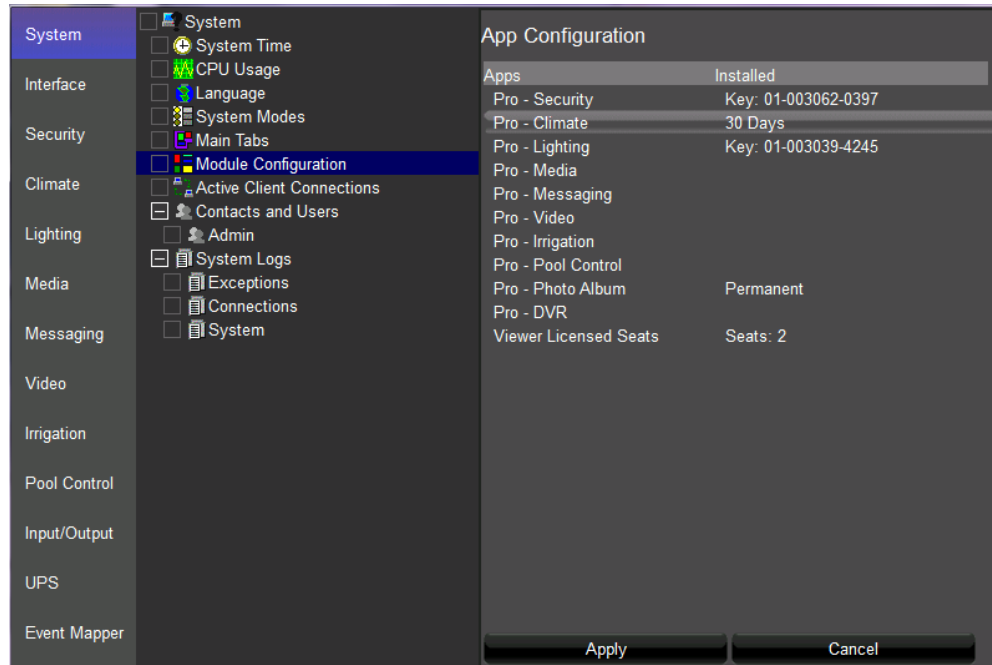
- d. Right-click under the **Installed** column and select a key.



- e. Click **Apply** to add the key to that App. *The Configurator will configure the Pro App functionality.*

Note: If you do not yet have your product keys and your customer wants enhanced functionality installed, you can select a 30 day trial period.

6. To select a 30 day trial:
 - a. Right-click an App under the **Installed** column.
 - b. Select **30 day Trial** from the list.



7. Click **Apply**.

Note: If you require functionality beyond the 30 days a valid key must be purchased and the key serial number added to the App Configuration before the 30 days have expired. If the trial period ends and a key serial number has not been added, the Pro functionality will expire and all of your configuration will be lost.

Network Manager

The Network Manager screen provides the dealer with an overall view of the devices that are connected to the local network.

Networking Overview

The following section provides some basic networking terms that you'll need to be familiar with to use the Network Manager screen, as well as a simplified example of a network and default IP Addresses used by g! Systems.

Basic Definitions

IP Address: IP addresses are used to identify devices and computers on a network, similar to the way that telephone numbers identify specific telephones. The format for IP addresses is four numbers separated by periods, where each number can be between 0 and 255. For example, 192.168.0.2 is the default IP address for the g! System controller, and 69.94.81.143 is currently the IP address for Elan's web server (www.elanhomesystems.com).

IP addresses are separated into 5 classes (A-E) depending on their purpose. **Class A** networks include web servers on the Internet (such as elanhomesystems.com), and the IP addresses are intended to be unique.

Class C networks are intended for use inside small companies and homes, and their IP addresses are not intended to be unique. For example, we ship all g! System controllers with DHCP and recommend setting their IP address set to 192.168.0.2. Class C networks (home networks) are isolated from the Internet with a router (described below), so that devices in one home do not conflict with and cannot communicate with devices in a different home.

Static IP: Computers and other devices can be configured with a fixed address that does not change with time. As mentioned above, the g! System controller is set with a static IP address of 192.168.0.2, so if you turn it off and then back on again, it will keep that same address.

DHCP: DHCP (Dynamic Host Configuration Protocol) can be used to automatically set IP addresses when devices start up. If a computer is set to use DHCP, then when the computer turns on, it finds a **DHCP Server** to get its address. Note that if the computer is turned off and then on again, it is possible that it will be assigned a different IP address.

Subnet Mask: The subnet mask (or sometimes just netmask) is a setting that controls the range of IP addresses that a device or computer can talk to. In most installations, the subnet mask is set to 255.255.255.0, which limits the communications to other devices that share the same first three numbers in the IP address. For example, the g! System controller set to 192.168.0.2 can communicate directly to a computer in the house with an IP address of 192.168.0.5, but the controller cannot communicate directly to Elan's web server at 69.94.81.143.

Router: A router is used to "route" information between different subnets. The router has a WAN connection (normally connected to the Internet) and one or more LAN connections (connected to the home network). The router has two IP addresses: one for the WAN connection on the Internet and one for the LAN connection to the home network.

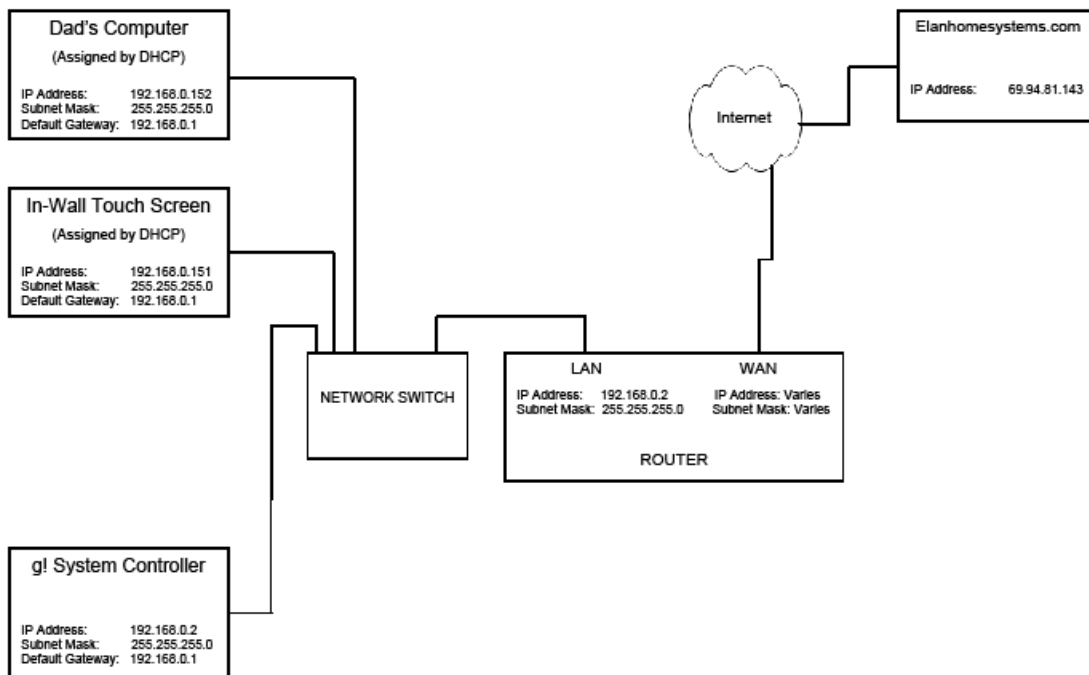
The WAN IP address is the address that Internet traffic uses to find the house. The LAN IP address is the address that computers in the house use to communicate with the router, and thereby access the Internet. The LAN IP address of the router in the Network Assembly is normally 192.168.0.1.

Firewall: A firewall is often included in a router to protect the home network. The firewall is essentially a one-way valve: it protects the house by preventing traffic from coming **IN** to the house from the Internet, while still allowing traffic to go **OUT** to the Internet from computers in the house.

Default Gateway: The default gateway is the name of the setting on a computer to identify where that computer should send data that is not on the local network. The default gateway is normally the router.

DNS Server: A DNS (Domain Name System) server is used to convert between readable addresses on the Internet (such as www.elanhomesystems.com) and their corresponding IP address (in this case 69.94.81.143). DNS servers are spread around the Internet and work as a group to keep track of all the different addresses available on the Web. When you setup a computer to automatically get an IP address with DHCP, the DHCP server will also provide the DNS server location. When you manually set a static IP address you will need to enter the IP address for the DNS server by hand: this is typically the address of the router (192.168.0.1).

Network Switch or Hub: A switch and a hub perform the same function, which is to repeat network traffic that comes in on one connection to all its other connections. In the home network, the switch or hub ties together the network wiring in the house, so computers and other devices in the house can talk to each other. The switch / hub will repeat any data that comes in on one port to all the other ports, without paying attention to whether the traffic is intended to stay within the house or go to the Internet. The diagram below shows a typical installation with the g! System Controller, an In-Wall Touch Screen and a personal computer in the home (Dad's Computer):



When the network is powered up, some devices automatically know their IP addresses: the router is at 192.168.0.1 and the g! System Controller is at 192.168.0.2.

When the In-Wall Touch Screen powers up, it goes out to find a DHCP server. The router provides this service, and after a brief exchange, the In-Wall Touch Screen is assigned 192.168.0.151. Similarly, Dad's Computer powers up and is assigned 192.168.0.152.

Once the In-Wall Touch Screen is up and running, the following takes place:

The In-Wall Touch Screen sends out a message to everyone on the local network, looking for the g! System controller.

The controller hears the message and responds to the touch screen, telling the touch screen that the controller is at 192.168.0.2.

With the correct address in hand, the touch screen connects to the g! System controller and brings up the Viewer.

Shortly after it has started up, the g! System controller wants to connect to elanhomesystems.com to access the latest weather information. The following takes place:

The controller accesses the DNS server to determine the IP address of elanhomesystems.com: the DNS server provides the address (69.94.81.143).

The controller realizes that 69.94.81.143 (elanhomesystems.com) is not on the local network and then checks its settings to see that the default gateway (the router) is at 192.168.0.1.

The controller goes out to the network, and sends a message that it wants to connect to the router on the router's LAN connection at 192.168.0.1.

The switch receives the information from the g! System controller and passes it on to the router. The connection is made from the controller to the router, and the controller then tells the router that it wants to talk to elanhomesystems.com at 69.94.81.143.

The router goes out to elanhomesystems.com on its WAN connection, and completes the connection from the g! System controller to elanhomesystems.com.

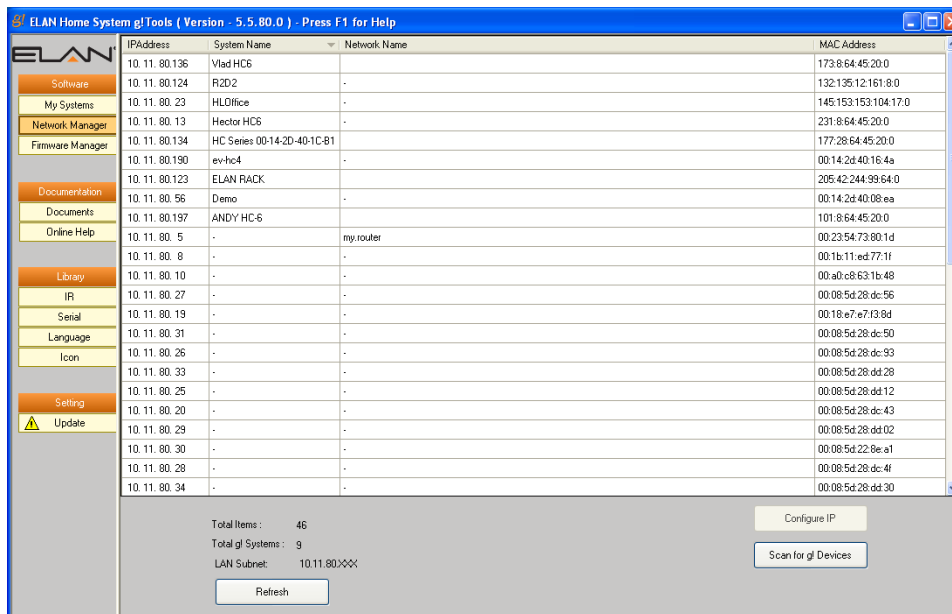
Default IP Addresses in a g! System

The following table lists components that may be present in a g! System installation, and the default IP address for each.

Router	192.168.0.1
Static IPs	192.168.0.100 – 192.168.0.149
DHCP	192.168.0.150 – 192.168.0.250
Access Points	Start at 192.168.0.10
SerialBrick - Irrigation	192.168.0.35
SerialBrick	192.168.0.40
SerialBrick – Pool / Spa	192.168.0.45
Audio Zone Controllers	Start at 192.168.0.50
MP3 Players	Start at 192.168.0.60
Static IP Tablet / Touch Screen	Start at 192.168.0.70
Video Cameras	Start at 192.168.0.80

Network Manager

The Network Manager screen is used when you are at the customer site. When you connect to the local network, g!Tools will use ping to locate all the devices that are on the network; not only Elan equipment, but also other devices such as printers and computers. The Network Manager screen then displays a list of each device and its IP address. This information will help you find an available address to assign to the g! System controller(s) using the Configure IP dialog box.



The following table describes the fields in the Network Manager screen:

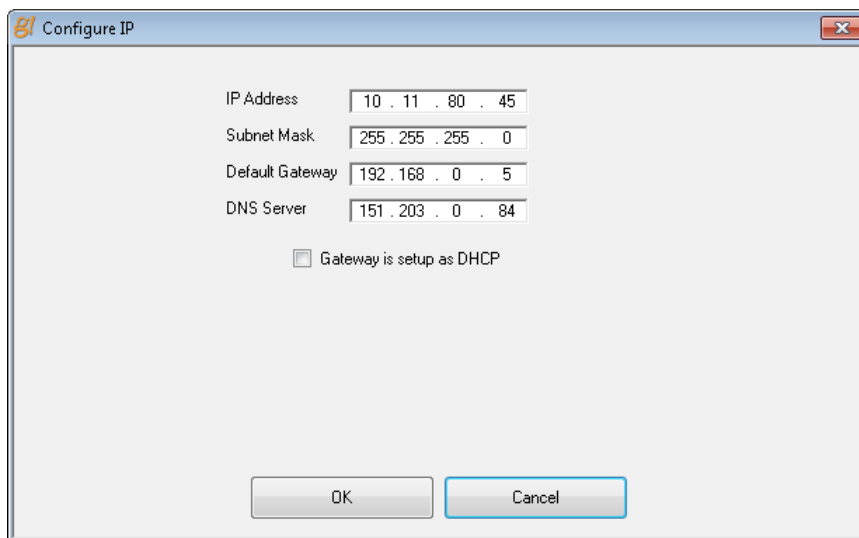
Item	Description
IPAddress	The IP address the device is currently using
System Name	Only populated for g! controllers, this is the system name as it appears in the System Name field on the System tab in the Configurator for the controller.
Network Name	The name that was assigned to the device during setup (such as a printer name or computer name). Note that this field may be blank, as many devices do not have names assigned.
MAC Address	The Media Access Control address for the device, this is a hardware address for a device that is connected to a shared network.
[Configure IP] button	Click to open the Configure IP dialog box which is used to assign a static IP address to the g! controller. Note: you cannot use this dialog box to assign the IP address for any other device.
[Scan for g! Devices]	Click to dynamically listen for g! devices that are on the network. Opens a window that displays only active g! devices that are on the network; HC controllers, Serial Bricks or legacy controllers.
Total Items	The total number of devices on the network.
Total g! Systems	The total number of g! systems that are on the network.
LAN Subnet	Displays the network you are currently connected to.
[Refresh]	Click to rescan the local network for IP devices.

Configure a Static IP address for a g! System

When the g! System is shipped, it is configured to connect to the network using a dynamic IP address. Elan recommends assigning a permanent, or static, IP address to the system. This is accomplished using the **Configure IP** button on the Network Manager screen.

To assign a static IP address:

1. Select the controller from the Network Manager list, and then click the Configure IP button at the bottom of the screen. *The Configure IP dialog box opens.*



2. Enter information in this window as follows:
 - **IP Address.** The IP address that you want to permanently assign to the controller.
 - **Subnet Mask.** Controls the range of IP addresses the device can communicate with. Typically you will not change this setting.
 - **Default Gateway.** The name of the setting on a computer to identify where that computer should send data that is not on the local network. The default gateway is normally the router. Typically, you will not change this setting.
 - **DNS Server.** The identifier for the Domain Name server. When you setup a computer to automatically get an IP address with DHCP, the DHCP server will also provide the DNS server location. If this is the case, select the **Gateway is setup as DHCP** box.

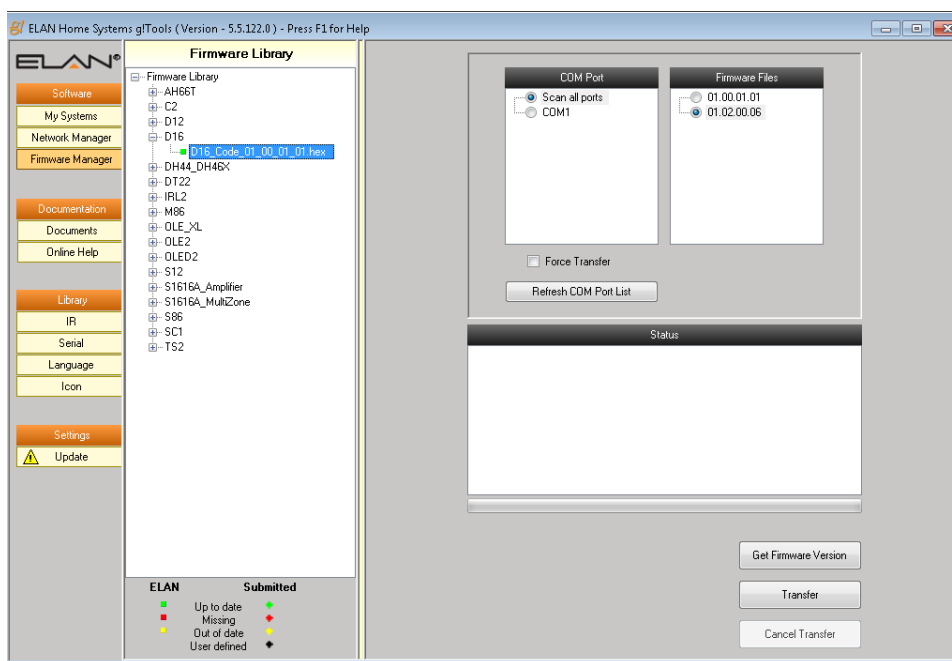
When you manually set a static IP address you will need to enter the IP address for the DNS server by hand: this is typically the address of the router (192.168.0.1). If this is the case, be sure the **Gateway is setup as DHCP** box is *not* selected.

3. Click **OK** to save the information, close the dialog box, and restart the g! system. Or, click **Cancel** to close without saving changes.

Firmware Manager

Firmware is software that is stored in read-only memory (ROM) or programmable ROM (PROM) directly on a device such as an amplifier or tuner. Firmware is often responsible for the behavior of a system when it is first switched on. A typical example would be a "monitor" program in a computer which loads the full operating system from disk or from a network and then passes control to it.

The g!Tools program provides you with a library to ensure you have access to the most recent firmware versions for the Elan devices. In order to update a firmware version for an ELAN device, you will need to be onsite, connect directly to the device, and then download the latest firmware version to the device using the Firmware Manager.



Item	Description
Firmware Library	<p>The Firmware Library panel presents a tree structure, with the root node "Firmware Library." Expand this node to display a node for each device.</p> <p>Expand the device node to view the firmware versions available for that device. Next to each version you will see an indicator as follows:</p> <ul style="list-style-type: none"> Green = Up to date Red = Missing Yellow = Out of date
COM Port	The list of COM ports on the device.
Firmware Files	This list provides the firmware version for the selected device that is currently stored in your g!Tools library.
Force Transfer	Forces firmware update without checking for connection. This option is very rarely used on unresponsive or corrupt devices.
Refresh COM Port List	Click to refresh the list if new COM ports are added.
Status	The box displays messages during processes when g!Tools is communicating with the connected device, such as during

Item	Description
	a firmware transfer.
[Get Firmware Version]	With laptop running g!Tools connected to an Elan device, click this button to read the firmware version currently running on the device.
[Transfer]	With laptop running g!Tools connected to an Elan device, click this button to download the most recent firmware version to the device.
[Cancel Transfer]	Click this button to cancel the transfer.

To update Firmware for an ELAN device:

1. Indicate the COM Port to use for the update. The default selection is to **Scan All Ports** which will scan all COM ports to determine where the device is connected.
2. Select the Firmware version. Use the latest version unless instructed otherwise.
3. Click the Transfer button to transfer the firmware to the device.

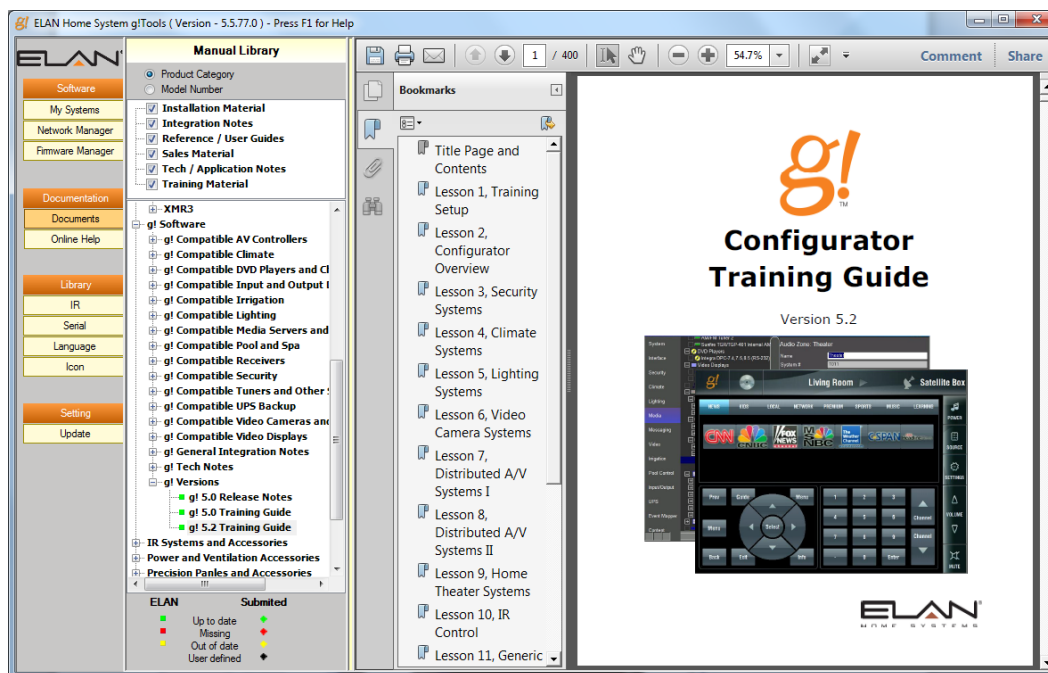
Documentation

The Documentation group is a repository of all documentation pertaining to Elan equipment. Including, but not limited to, installation manuals, integration notes and online help files. g!Tools provides a color-coded status indicator for each file so you can determine at a glance which files need to be updated.

Color	Status
Green	File is present and up to date.
Yellow	File is present on local PC, but needs to be updated.
Red	File is missing from local PC; it needs to be downloaded.
Black	File is present on local PC, but is a dealer file, not supplied by Elan.

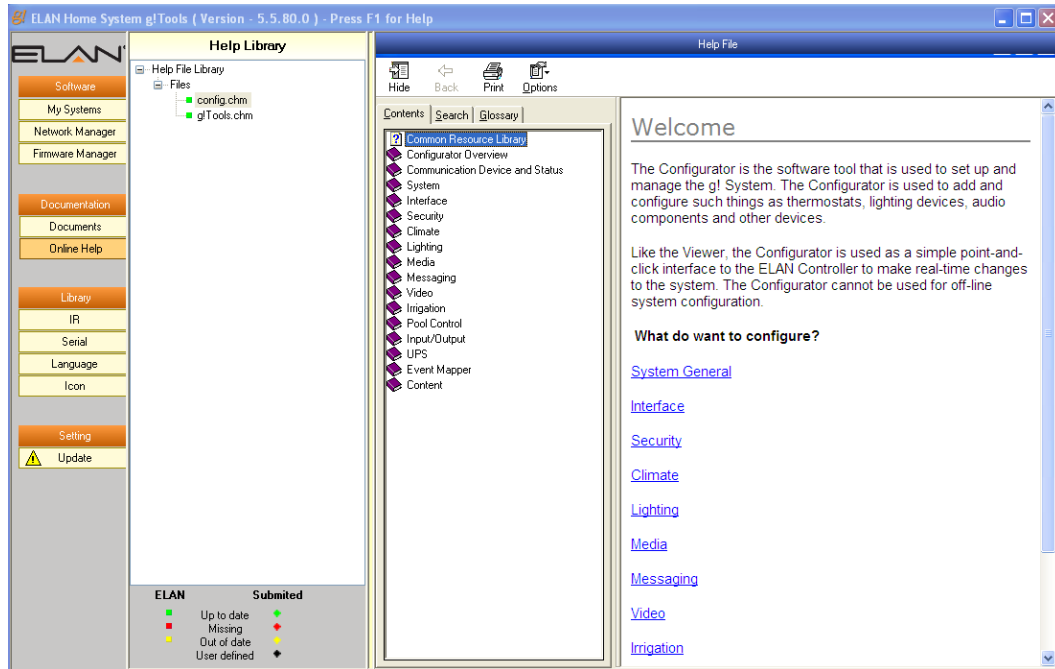
Documents

The Documents library stores .pdf files of all the documentation available on the Elan dealer website. Keeping these up to date on your system will ensure you have access to all the latest documentation, even when you don't have access to the internet.



Online Help

The Online Help library contains the compiled help (.chm) files that are included with the g! software. The help files ensure that topic-specific information is available to you when you press the keyboard F1 key while you are working in the Configurator or g!Tools.



Library

The selections in the Library section provide access to files that will help you configure a customer's home entertainment system including IR (.HIR) and Serial (.HSR) files, graphic files for icons (.PNG), and foreign language .xml files that you will use if you need to localize (translate) the Viewer interface into another language for your customer.

The library section includes files provided by Elan, and also any customized files that you create and export out of Configurator. When working in Configurator, g!Tools automatically takes you to the correct directory where the necessary files are stored.

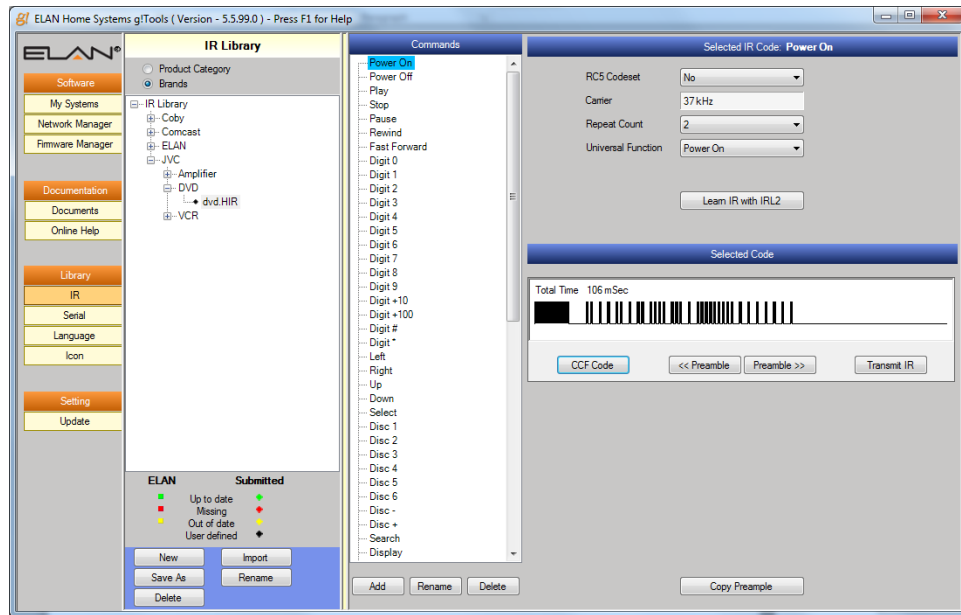
g!Tools provides a color-coded status indicator for each file so you can determine at a glance which files need to be updated.

Color	Status
Green	File is present and up to date.
Yellow	File is present on local PC, but needs to be updated.
Red	File is missing from local PC; it needs to be downloaded.
Black	File is present on local PC, but is a dealer file, not supplied by Elan.
Shape	
Square	File is supplied by Elan.
Diamond	File was submitted by dealer. Note: Elan provides this area as a forum for dealers to share files. The dealer-submitted files are neither tested nor supported by Elan.

IR

The IR database contains IR files that can be used to integrate IR devices with the g! software. Any custom files that you create can be exported and saved into g!Tools. Configurator will automatically navigate to the g!Tools IR directory to import or export an .HIR file. If you import an Elan .IRF file, it will be converted to .HIR.

For the selected HIR file, this screen shows the following information:



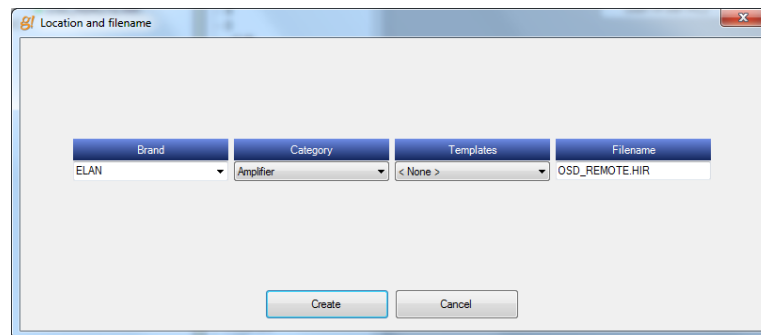
Item	Description
RC5 Codeset	Field used to turn IR Toggle bits on or off. Default value is No.
Carrier	Read-Only field which displays the frequency of the IR Code
Repeat Count	Drop down selecting the number of times the code is repeated for a single button press. In many cases, this should be changed to 1. Default value is 1.
Universal Function	Used for mapping the code to buttons in an interface.
[Learn IR with IRL2]	With IRL2 connected to your PC, click this button to initiate learning the IR codes. See Learning IR below for more information.
[CCF Code]	Click to view the CCF code that corresponds to the waveform above it.
[<<Preamble]	Click to highlight less of the waveform above as the preamble for command repeating.
[Preamble>>]	Click to highlight more of the waveform above as the preamble for command repeating.
Transmit IR	With IRL2 connected to your PC, click this button to transmit the IR.
Copy Preamble	Click to apply the highlighted preamble in the waveform above to all the other commands in the IR file.
IR Library	
[New]	Click this button to create a new, empty IR file
[Save As]	Click this button to create a new IR file based on the contents of the selected file.
[Import]	Click this button to import an IR file from another location- either on your PC, or in the old Common Resources Library.
[Delete]	Click this button to delete the selected IR device or file.
[Rename]	Click this button to rename the IR device file.
IR Commands	
Add	Click this button to add a new command to the selected IR file.
Rename	Click this button to rename the selected command in the selected IR file.
Delete	Click this button to delete the selected command from the selected IR file.

Learning IR

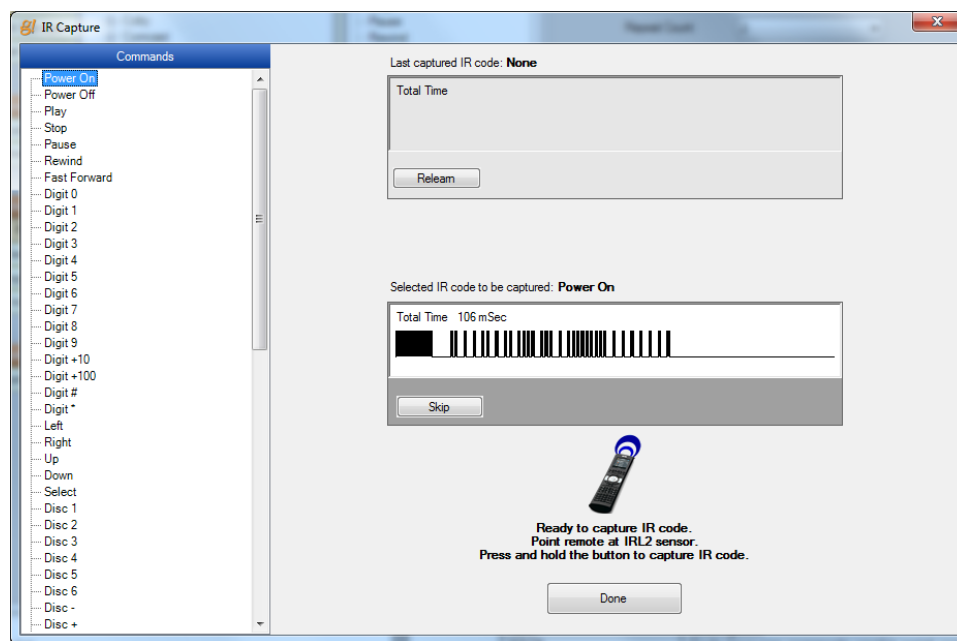
Use g!Tools to learn IR directly into an .HIR file.

To learn IR in g!Tools:

1. Connect the IRL2 Learner to the desired COM port on your computer.
2. Select the IR Device and .HIR file that you want to work with in the IR Library list. –OR– If you need to create an entirely new file, you can either click the **New** button to start a new file with no commands, or find a file that has similar commands to the device you are learning, and click **Save As** to make a copy of that file. *The Location and Filename window opens.*

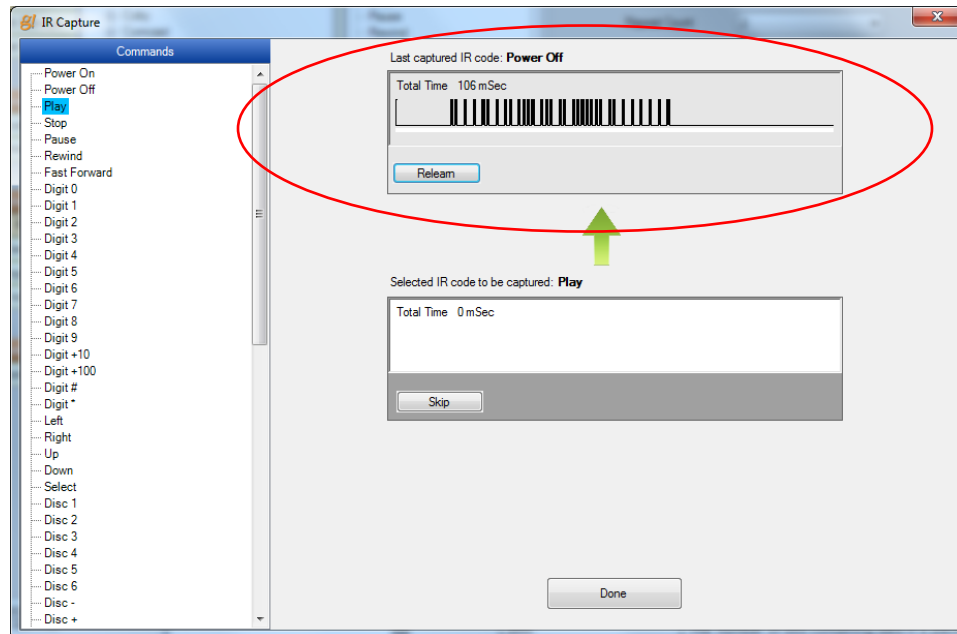


- a. Use the dropdown lists to select the Brand, Category, and Template for the new/copied IR file.
 - b. Enter a filename for the new/copied IR file.
 - c. Click **Create** to add the file to the IR Library list.
3. Select the **IR Command** to learn. *The waveform and other details for the command display on the right.*
 4. Click the **Learn IR with IRL2** button. The IR Capture window opens.



5. Aim the remote control for the device at the IRL2 Learner, and then press and hold the remote control button that corresponds to the selected command. *You will see the IR IN DETECT light on the IRL2 Learner flash as it reads in the IR code from the remote control.*

When the code has been learned, its waveform displays at the top of the window. The IR Capture process automatically selects the next command on the list.



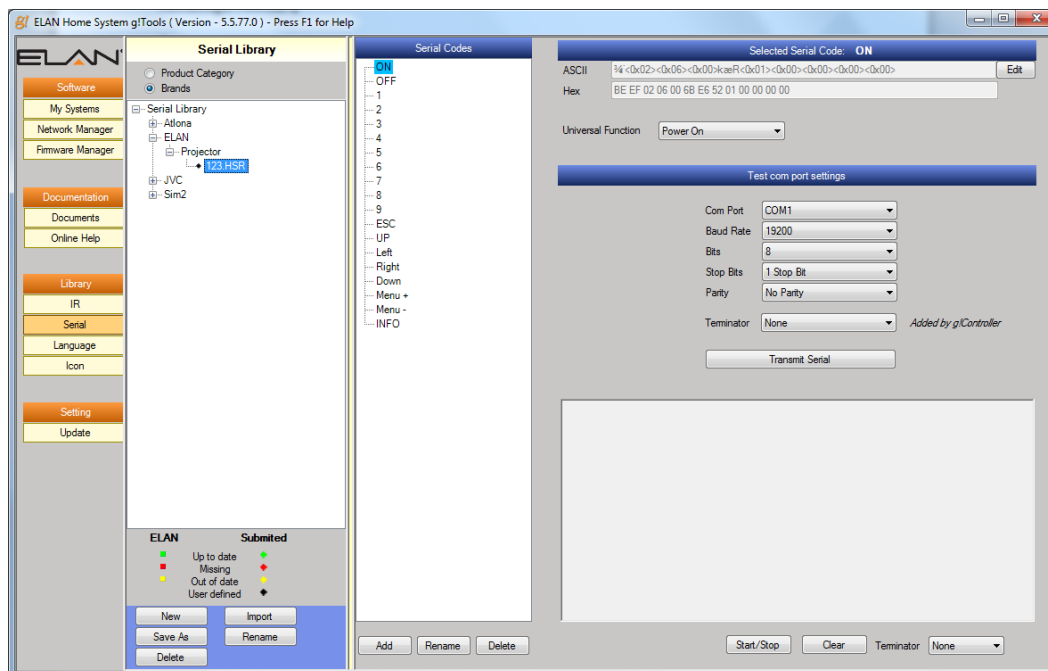
6. At this point, you can either repeat step 5 for any remaining commands you wish to learn into the IR file, or you can click the **Done** button to close the IR Capture window and return to the main IR Library screen.

Note: Click the **Relearn** button to repeat the learning process for the selected command.
Click the **Skip** button to skip this command and go to the next command on the list.

Serial

The Serial database contains files that can be used to integrate generic serial devices with the g! software. Any custom files that you create can be exported and saved into g!Tools. Configurator will automatically navigate to the g!Tools Serial directory to import or export a HomeLogic .HSR file.

Note: If you import a legacy Elan SC4_SER file, g!Tools will convert it to .HSR.



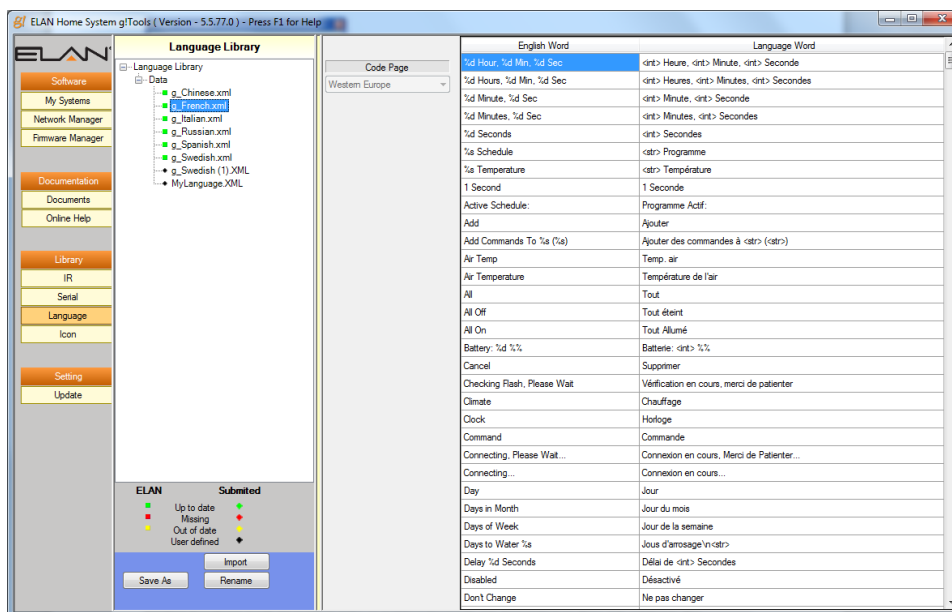
Item	Description
ASCII	Code language commonly used in serial commands. ASCII strings are typically human readable text, such as <POWER ON>.
Hex	Code language commonly used in serial commands. Hex code strings use numbers and certain letters to represent the numbers 0-15. 0-9 equates 0-9, with A-F equating 10-15. Hex codes are often denoted by the presence of a small "h" at the end of a letter sequence or 0x at the beginning.
[Edit]	Click this button to make the ASCII and Hex fields editable.
Universal Function	Used for mapping the code to buttons in an interface.
Test COM port settings (this PC) Enter the required settings defined by the device's serial protocol.	
Com Port	Select the COM Port to which the serial device is connected for testing.
Baud Rate	The speed at which the device communicates.
Bits	The number of bits containing data in a packet.
Stop Bits	The number of Stop Bits used.
Parity	An error detection setting.
Terminator (Tx)	The terminator required by the device's serial protocol - Carriage Return, Linefeed, both, or none"

Item	Description
Transmit Serial	Click to send the selected serial code out to the Test COM port.
Commands between PC and target device	This window shows the command sent to the serial device when the Transmit Serial button is pressed, and it shows the response from the device.
Start/Stop	Starts and Stops the display of commands between the PC and serial device.
Clear	Will clear the display of commands sent and responses received.
Terminator (Rx)	The termination character(s) on the response as defined in the serial device's protocol - typically the same as the transmit terminator.
Serial Library	
[New]	Use this button to create a new, empty serial file
[Save As]	Use this button to create a new serial file based on the contents of the selected file.
[Delete]	Use this button to delete the selected file.
[Import]	Use this button to import a serial file from another location- either on your PC, or in the old Common Resources Library.
[Rename]	Click this button to rename the Serial device file.
Serial Codes	
[Add]	Click to add a new code to the selected serial file.
[Rename]	Click to rename the selected code for the selected serial file.
[Delete]	Click to delete the selected code from the selected serial file.

Language

The **Language** list stores XML-based language files that can be imported into Configurator to change the language version of the Viewer from English to the language appropriate for your customer. Custom editing can be performed in Configurator and exported back to g!Tools. The language of the Configurator does not change from English and the dealer should be comfortable using an English language-based Configurator.

Note: Language edits or importing a language file are intended to be done early in the configuration process. Certain functions such as custom tabs or lighting keypads are translated as they are added to the Configurator and will not be translated if added prior to importing a language file. Be sure to export any changes to a directory to save the changes.



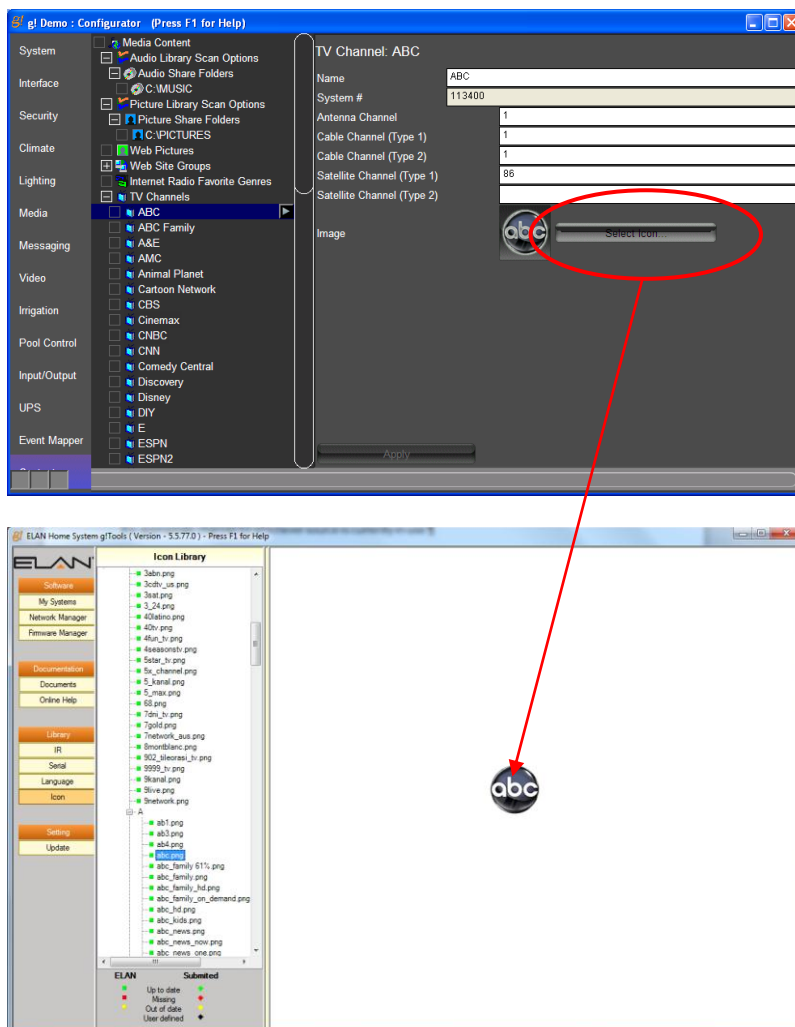
Item	Description
Language Library	This panel displays a tree whose root node is Language Library. Expand that node to see the Data node. Expand the Data node to view the individual language xml files. For each file you will see an indicator as follows: Green = Up to date Red = Missing Yellow = Out of date Black = User defined
Save As	Click this button to save the selected file with a new name. This new file will be a "user-defined" file and can be edited.
Delete	Click to delete the selected file. Only available for user-defined files.
Import	Click this button to open a browse window from which you can select an xml file to save into the library.
Rename	Click to change the name of the selected user-defined file.
Code Page	Only available for user-defined files. Select the font set that your language file will need to use. This will affect symbols, accents and special letters that may be needed for the language you are working with.
English Word	This column displays the English word and an indication of where that word is presented in the interface.
Language Word	This column displays the translation of the word into the selected language. Note that only user-defined files can be edited. To edit a word in the Language Word column, click in the desired field and type or delete characters as needed.

Icon

The files in the Icon library are used set up your customer's favorite TV channels in the Viewer to provide them with an easy-to-navigate interface to their home media system.

The g! software provides a pre-made interface for one-touch selection of favorite TV channels. The interface will display icons for favorite channels separated into groups like News or Sports. By clicking the TV icon in the Viewer, the g! software will automatically translate this button press to the correct channel number and send the digits to the cable/satellite box.


The icon that each channel will use is configured on the Content tab, TV Channels group. Refer to the *Configurator Reference Guide* or online help for more information.



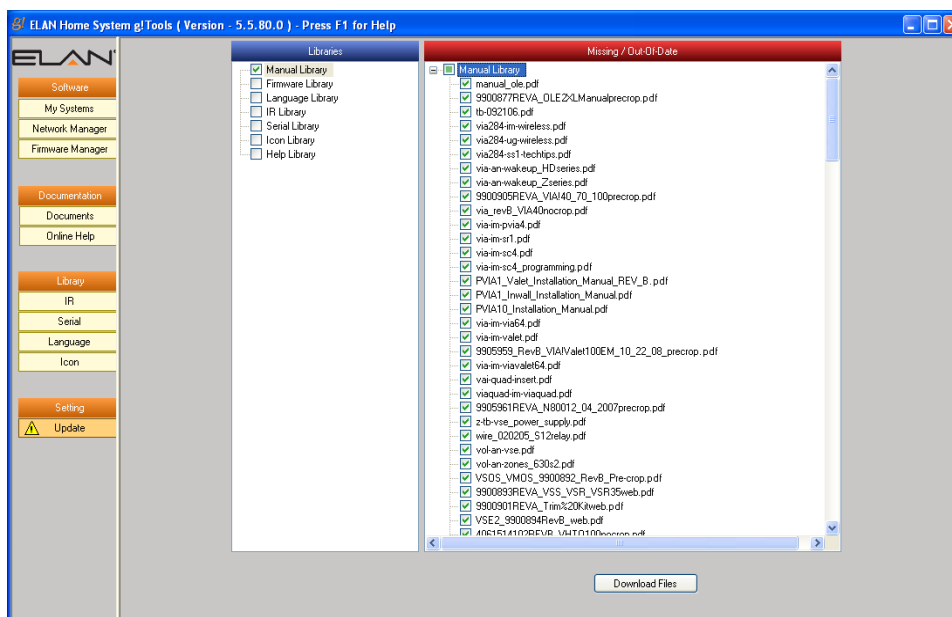
Item	Description
Icon Library	<p>This panel displays a tree whose root node is Icon Library. Expand that node to see nodes for various countries. Expand the nodes further to the individual icon files. For each file you will see an indicator as follows:</p> <p>Green= Up to date Red= Missing Yellow= Out of date Black= User defined</p>
Image	Displays the selected icon file.

Setting

Update

You will see an indicator  on the Update bar when new files are available for g!Tools. Use the Update screen to download the most recent versions of files, and new files, to your g!Tools library. The Update page will also recognize when a new version of g!Tools is available and allow you to download and update the application itself.

Note: You must be connected to the internet in order to update your files.



This screen contains two sections—the **Libraries** list and the **Missing/Out of Date** list.

The Libraries list corresponds to the sections available in the Navigation bar. Click the check boxes to select the libraries that you wish to update. The files presented in the Missing/Out of Date list will change accordingly.

Use the Missing/Out of Date list to select the files that you want to update in your g!Tools library. By default, all files in the list are selected. Click the **Download Files** button to begin downloading the files from elanhomesystems.com.

