

**TO:** Niles IntelliControl ICS Dealers and Sales Reps  
**FROM:** Colin Clark, Product Manager  
**DATE:** November 18, 2011  
**RE:** ICS and ELAN g! integration for iPhone/iPad Control – Release Notes

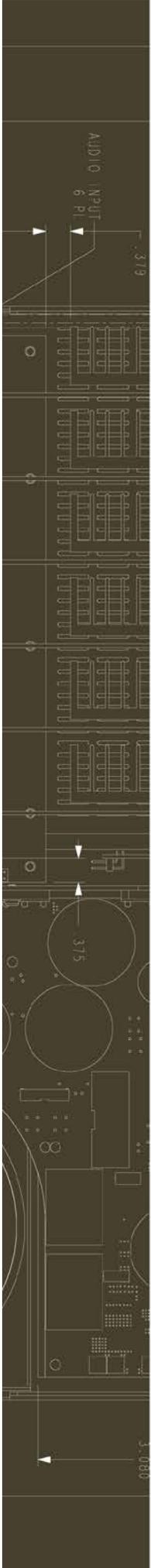
We are pleased to announce that Elan has released Version 5.3.175 of its g! Controller software. This new version allows the integration and control of an ICS system through an ELAN HC Controller.

This software is available to all ELAN dealers through the ELAN dealer website. Any Niles dealers who wish to add iPad/iPhone control to an ICS system need to get in touch with their AVC Group Sales Representative in order to review the requirements needed to be set up to sell and install the ELAN controller required to integrate with the ICS system.

While there is an ELAN Audio Integration Note regarding this implementation, Niles has prepared the following additional documentation to guide Niles dealers through the installation:

### **Hardware Requirements**

- 1) Fully configured ICS system – The ICS system must be fully configured BEFORE integrating it with the ELAN system. The ELAN system will issue control commands to the ICS system but it is the ICS system which actually handles all of the sources and audio routing. Therefore the ICS system must be set up before connecting it to the ELAN controller.
- 2) A Netgear GS108T Smart Switch. This switch is available for approximately \$100 through Amazon and many other computer retailers. *This switch is used because it has a “DHCP Filtering” function and is needed to block the GXR2’s built-in DHCP server from conflicting with the home network’s DHCP server. Any switch with DHCP filtering capability can be used, but ELAN’s Tech Support team will not be able to assist with configuring any switch other than the Netgear GS108T.*
- 3) Any ELAN HC Controller. ELAN makes the HC4, HC6, HC8 and HC12. The HC4 is the entry-level controller with 4 RS232 control ports. It has an MSRP of approximately \$1,100.00



## **Software Requirements**

- 1) No update is needed to the ICS firmware. Niles always recommends that the latest version of the ICS firmware be installed in any system. This is easily done via the IntelliFile®3 Firmware Update. The current release of this is Build 143, available for download at <http://www.intellicontrol.com/ICS/downloads.php>.
- 2) The ELAN software required for this is Version 5.3.175 or higher. The ELAN HC controller must be updated with this software BEFORE integrating with the ICS system.
- 3) For iPad/iPhone/iPod Touch control of an ICS system, end-users must download the g!Mobile 5.3 app from the iTunes store. The app is available at no charge. Be sure to download version 5.3 or higher.

## **ELAN Pro App**

- 1) ELAN uses a software licensing scheme called a Pro App for integrating 3<sup>rd</sup> party devices with its HC controllers. Because ELAN and Niles are sister companies, a Pro App is NOT required for integrating an ICS system with an HC controller.

## **ELAN Viewer Licenses**

- 1) Elan permits a single iPhone/iPad device to be used as a control interface. For each additional user who wishes to use the system concurrently, a separate Viewer License must be purchased from ELAN. We recommend that a Viewer License be purchased for each additional user in the home who has an iPad/iPhone/iPod Touch to allow any of them to control the system from any of their devices.

## **Network Requirements**

There are specific network settings required in order for the ELAN HC controller to properly communicate with the ICS system.

*For a new installation, network settings can be easily pre-configured for the system.*

*For an existing system that is being upgraded for iPad/iPhone control using g!, care must be taken when changing the home network addressing system to make certain that each static IP device connected to the end-user's network is changed to the new addressing scheme. All dynamic DHCP devices will adjust their addresses to the new addressing scheme automatically.*

## LIMITATIONS – ICS Compatibility with ELAN g!

ICS Component	Compatible with the g! integration?	Comments
IM-NET	Fully Compatible	
IM-iCARD2	Fully Compatible	
TM-Sirius	Fully Compatible	
TM-XM	Fully Compatible	
TM-AM/FM	Fully Compatible	
TM-HD/R	Fully Compatible	
IM-Audio	Fully Compatible	
IM-SERVER	Not Supported	Because of the IM-Net card's support of local networked music files, we are NOT supporting the legacy IM-Server cards
RS232G	Not supported	Because the ELAN Controller can integrate with and control RS232 components, we are not supporting control of RS232 devices connected to the ICS system using the Niles RS232g.
iRemote®TS	Not Supported	Because the ELAN controller can fully integrate with and control Home Theater components, we are not supporting control of a Home Theater system using the Niles HT-MSU
HT-MSU		
iRemote	Fully Compatible	These Niles interfaces will fully control an ICS system. They WILL NOT control components/devices connected to the ELAN controller.
Single		
Contact		
Display		

The following ICS features are currently not supported using the ELAN control interfaces (including the iPhone/iPad/iPod Touch):

- 1) Party Mode – There is no Press And Hold command to activate the ICS Party Mode using an ELAN interface. Any Niles interface (Contact, Display, Single, iRemote) can activate the Party Mode at any time. Any ELAN interface can turn

on the zones of Party Mode by activating them individually. The ELAN interface can select and control ANY ICS zone quickly and easily

- 2) Zone Audio Settings – There is no Press and Hold command on the ELAN interface to access the Zone Audio settings or any of the Niles interface settings pages. Niles recommends installing a Contact touchscreen to provide access to these settings during installation.
- 3) Tuner Favorite Editing – There is no Press and Hold command on the ELAN interface to access the advanced Favorite editing screens of the ICS system's tuner modules. Favorites can be stored and accessed through the ELAN interfaces, but cannot be renamed or reorganized. Niles recommends installing a Contact touchscreen to provide access to the advanced ICS Favorite features.

### **ELAN interfaces**

The following interfaces are fully supported:

- 1) TS7 and TS10 Touchscreens -



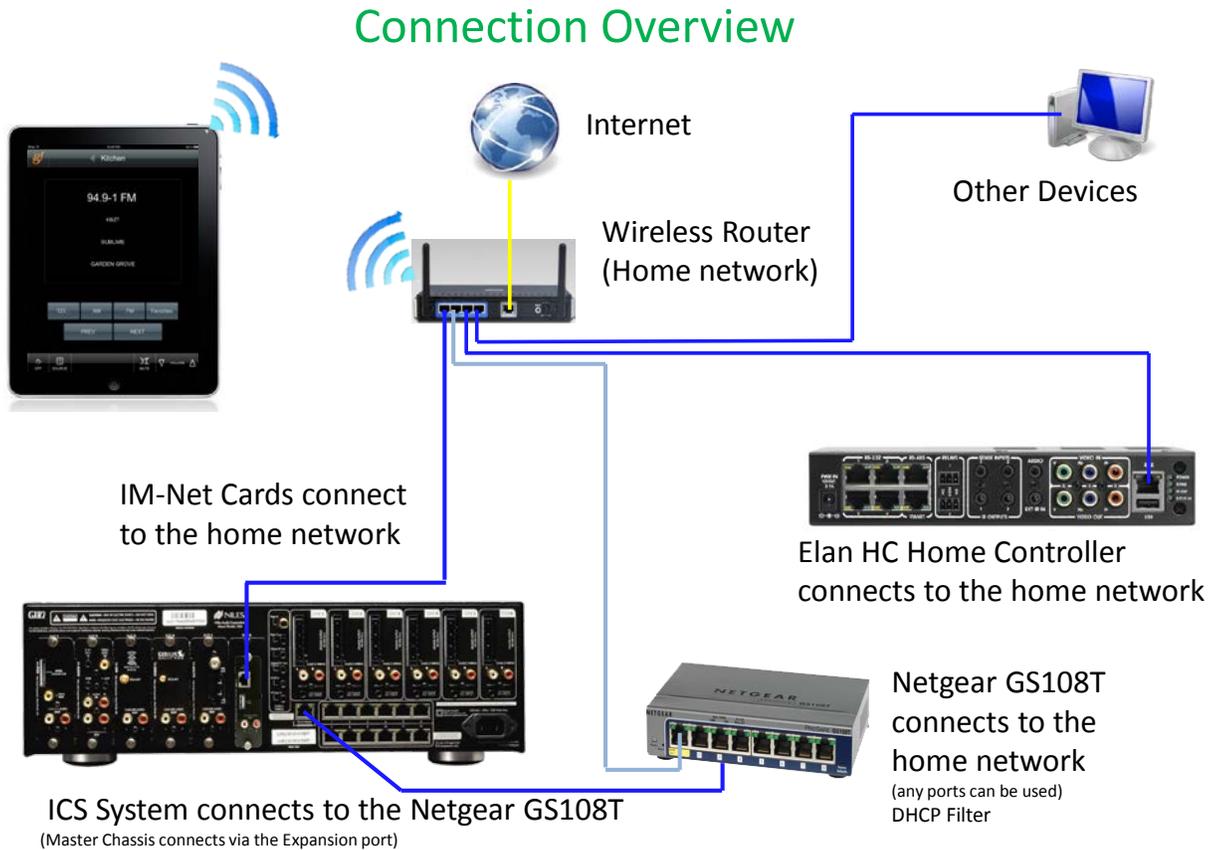
The TS7 and TS10 are 7" and 10" widescreen 16:9 wall-mounted touchscreen panels. They connect to the home network via an RJ45 Ethernet connection and require 16vDC power.

- 2) iPad (iPad and iPad2) / iPhone (3G/3GS/4/4S) / iPod Touch (3<sup>rd</sup> and 4<sup>th</sup> generation)

The g!Mobile 5.3 app is designed for the devices listed above. Compatibility with earlier versions is not supported.

- 3) Other ELAN interfaces are NOT currently supported for controlling the ICS system.

## Basic Connection Diagram



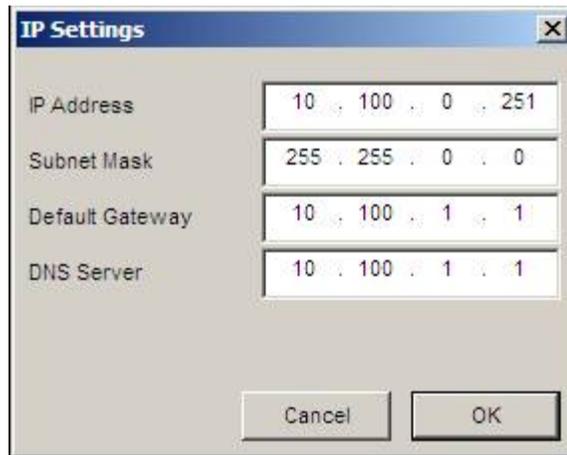
## Installation Steps Overview

- 1) Set up and configure the ICS system – Do not connect it to the home network yet.
- 2) Update the HC controller to Version 5.3.175 or higher.

### **New Network settings**

*The following steps involve adjusting the home network to a new IP addressing scheme of 10.100.0.x with a subnet mask of 255.255.0.0. Follow the steps in the order provided in order to simplify the installation. The instructions will assume that a standard ELAN recommended D-Link DIR-628 will be used. Any router that allows an addressing scheme of 10.100.X.X with a subnet mask of 255.255.0.0 and that has configurable port forwarding can be used, but only the DIR-628 will be supported by ELAN Tech Support*

- 3) Change the IP address of the HC controller to the following settings:



The image shows a Windows-style dialog box titled "IP Settings". It contains four rows of input fields for IP configuration:

IP Address	10 . 100 . 0 . 251
Subnet Mask	255 . 255 . 0 . 0
Default Gateway	10 . 100 . 1 . 1
DNS Server	10 . 100 . 1 . 1

At the bottom of the dialog are two buttons: "Cancel" and "OK".

- 4) Click OK and reboot the controller. *The g! controller won't be accessible on the network again until the router is configured later in the process.*
- 5) Connect the Netgear GS108T to the home network. The GS108T has a default address of 192.168.0.239 and default password of "password". Access the GS108T at <http://192.168.0.239>.
- 6) Enable DHCP filtering on All Ports in the System>Services>DHCP Filtering>Configuration section by enabling "Admin Mode"
- 7) Make sure that all interfaces (ports) have Trust Mode "Disabled" by clicking on the "Interface Configuration" tab on the left sidebar and adjusting as necessary.
- 8) Change the IP settings of the GS108T to the following by going to System>Management>IP Configuration:



The image shows a screenshot of the Netgear web management interface. The top navigation bar includes "System", "Switching", "QoS", "Security", "Monitoring", "Maintenance", and "Help". Below this is a secondary bar with "Management", "Device View", "SNMP", "LLDP", and "Services". The left sidebar shows a tree view with "System Information" expanded, containing "IP Configuration", "Time", "Denial of Service", "DNS", and "Green Ethernet Configuration". The main content area is titled "IP Configuration" and contains two sections:

**IP Configuration**

- Dynamic IP Address (DHCP)
- Dynamic IP Address (BOOTP)
- Static IP Address

Below these are three input fields:

IP Address	10.100.1.10
Subnet Mask	255.255.0.0
Default Gateway	10.100.1.1

**Management VLAN**

Management VLAN ID	1	(1-4093)
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- 9) Click “Apply” to apply the settings. The GS108T will reboot. *The GS108T won’t be accessible on the network again until the router is configured later in the process.*
- 10) Identify ALL network devices with static IP addresses on the home network. Making a list of all static IP devices is critical to make sure that each is updated before you change the router settings later in this process. If you miss a device, the only way to access it will be by changing the router settings again or by connecting the device to your computer by adjusting your computer’s IP settings to match the device and then configuring the device to the new addressing scheme.
- 11) Log on to each static IP device’s configuration page and change its setting to a unique IP address in the range of 10.100.1.100 – 10.100.1.149. The subnet mask should be 255.255.0.0. A default gateway of 10.100.1.1 should be entered. *Each device will be unavailable on the network until you change the router address later in this process.*
- 12) Once you have confirmed that all network devices with static IP addresses have been changed to the new addressing scheme, you are ready to configure the router.
- 13) Logon to the router’s configuration page (ELAN routers ship at 192.168.0.1 and can be accessed with a username of “Admin” with no password by default.
- 14) Change the router IP address, Subnet Mask and DHCP Server settings to match the screen shown here:

The screenshot displays the configuration interface for a DIR-628 router. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS, and STATUS. The left sidebar lists menu items: INTERNET, WIRELESS SETTINGS, NETWORK SETTINGS (which is highlighted), and USB SETTINGS. The main content area is divided into three sections:

- NETWORK SETTINGS:** Contains a descriptive paragraph and two buttons: "Save Settings" and "Don't Save Settings".
- ROUTER SETTINGS:** Contains a descriptive paragraph and several input fields:
  - Router IP Address: 10.100.1.1
  - Subnet Mask: 255.255.0.0
  - Device Name: DIR-628
  - Local Domain Name: ELAN (optional)
  - Enable DNS Relay:
- DHCP SERVER SETTINGS:** Contains a descriptive paragraph and two input fields:
  - Enable DHCP Server:
  - DHCP IP Address Range: 10.100.1.150 to 10.100.1.250

The settings are:

Router IP Address	10.100.1.1
Subnet Mask	255.255.0.0
Enable DHCP Server	Yes (default)
DHCP IP Address Range	10.100.1.150 to 10.100.1.250

- 15) Click “Save Settings” at the top of the page. The router will reboot.
- 16) Once the router has rebooted, access it at its new address of <http://10.100.1.1> and logon.
- 17) Set the Port Forwarding for Ports 443, 5001, 2198 and 2199 for both TCP and UDP to the address of the HC controller, 10.100.0.251. Port Forwarding is accessed under the “Advanced” section of the DIR-628 configuration page.
- 18) Click on the “Save Settings” button at the top of the page and the router will reboot.
- 19) The network settings have all been completed. Some DHCP network devices may need to be manually restarted in order to obtain their new addresses and communicate on the network. Verify that each network device is now accessing the home network properly

### **Integration and Configuration of the ICS system in g!**

The following steps take you through the actual integration and configuration process:

- 1) Connect a CAT5 Ethernet patch cable between the Expansion Port of the GXR2 Master Chassis and the Netgear GS108T.
- 2) Using the g! configurator software, add a new Audio Zone Controller on the Media tab. From the drop-down list, choose the Niles GXR2 Ethernet.
- 3) The HC controller will automatically discover the ICS system, its source cards and zone names.
- 4) Confirm that the Interfaces>Media tab has all of the ICS audio zones set to “Visible”.
- 5) Add any Viewer Licenses needed for the system.
- 6) Download the g!Mobile 5.3 app from the iTunes store on all iPad/iPhone/iPod Touch interfaces.

**The ELAN Audio Integration Note has more details if needed and Niles has prepared a Frequently Asked Questions (FAQ) Document to further address any questions you may have regarding this integration.**