

Integration Note

Manufacturer:	Intesis
Model Number(s):	IntesisBox
g! Core Module Version:	g!8.2
Driver Developer:	Chowmain Software & Apps
Document Revision Date:	November 9, 2020

Overview & Supported Features

Most HVAC installations in the United States are easy as most thermostats utilise a universal standard and as such can be replaced easily by a 3rd party smart thermostat.

Unfortunately alot of HVAC manufacturers do not utilise this standard and have proprietary closed communications that are specific to that HVAC manufacturer. This makes it extremely cumbersome for ELAN dealers to source a reliable HVAC product and in many countries ELAN dealers do not even bother with HVAC integration because it is just too hard.

Luckily Intesis have released their range of IntesisBox gateways. Intesis manufacturer 3 different types of gateways.

Bi-directional Infrared Emitter / Receiver

Universal IntesisBoxes are developed to offer compatibility with thousands of HVAC models through infra red and offer room temperature feedback via a sensor in the IntesisBox.

The home owner can utilise the existing infra-red remote control as well as the infra red receiver will translate the IR signal and report back to the home automation system what the HVAC mode, Setpoint and fan speed is.

Indoor Unit Gateways

These gateways can be retrofit easily as they tap into the HVAC' system's indoor unit communications wiring which provides the IntesisBox with both power and communications. This means that you don't need to run new cabling to get this solution to work. These models are developed to communicate with the HVAC manufacturer's proprietary communications protocol allowing for true real time bidirectional communication with the system.

Outdoor Unit Gateways

These gateways tap into the outdoor unit's communication wiring and can control multiple indoor units for multi-zone control. These solutions are din rail mounted and require 9-36vdc / 24vac power. Chowmain's IntesisBox driver for ELAN will work with all models of IntesisBox and will provide full two way control/feedback.

THE FOLLOWING OPTIONS ARE SUPPORTED BY THE INTESISBOX DRIVER:

- Automatic discovery of Intesisbox based on unit MAC address.
- Self healing - if IP address changes the driver will automatically rediscover the unit.
- Room Temperature Feedback.
- Setpoint Control / Feedback
- HVAC Mode Control / Feedback
- Fan Mode Control / Feedback
- Up/Down/Left/Right Vane position control*
- HVAC System Error detection and feedback (only on non universal IntesisBox's).
- Support for multiple AC units
- Universal Model will detect if the customer uses the original IR remote control to control HVAC system and set the feedback accordingly.

* If fitted to the HVAC system.

What HVAC systems can i use this driver with?

IntesisBox is compatible with a range of HVAC systems. Please see the Intesis website to check if the HVAC system you want to integrate has a specific IntesisBox or is compatible with the universal IntesisBox. Their website will have the most upto date information about supported models.

If you are unsure if you HVAC system is supported please contact Intesis support (support@intesis.com) and they will advise if you HVAC system is supported and what model IntesisBox you need to purchase

At the time of writing this Intesis have specific bus based IntesisBox make/models for

- | | |
|----------------------------------|--|
| • Daikin Domestic line | • Mitsubishi Electric Domestic, MR Slim and City lines |
| • Daikin Sky and VRV lines | |
| • Fuji Electric Domestic Lines | • Mitsubishi Electric City Multi systems |
| • Fujitsu Domestic and VRF lines | • Mitsubishi Heavy Industries FD and Hypermulti lines |
| • General Domestic and VRF lines | • Panasonic ecoi, ecog and paci lines |
| • Hisense VRF systems | • Panasonic etherea domestic lines |
| • Hitachi VRF systems | • Samsung NASA VRF lines |
| • LG Domestic | • Sanyo ecoi and paci lines |
| • LG VRF Lines | • Toshiba Commercial and VRF lines |

At the time of writing this Intesis's universal infra red IntesisBox supports the following make/models

- | | | |
|-------------|-----------------|-------------------------------|
| • Acson | • Dolphin | • Mitsubishi Electric |
| • Aermec | • Emmeti | • Mitsubishi Heavy Industries |
| • Aircool | • Electra | • Mundoclima |
| • Airlin | • Friedrich | • New Pol |
| • Airwell | • Fujitsu | • Panasonic |
| • Alpicair | • Fuji Electric | • Samsung |
| • Argoclima | • General | • Samui |
| • Balupunkt | • Gree | • Tadiran |
| • Carrier | • Hiyasu | • TCL |
| • Daikin | • Kaysun | • Toshiba |
| • Daitsu | • LG | • Vaillant |
| • DeLonghi | • Midea | |

THE FOLLOWING OPTIONS ARE NOT SUPPORTED BY THE INTESISBOX DRIVER:

- Automatic configuration of available HVAC modes, FAN modes and Setpoint limits (this is due to limitations in ELAN 8.0).

Any feature not specifically noted as supported should be assumed to be unsupported.
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IntesisBox Configuration

Each IntesisBox device will need to be installed, connected to the wifi network first and configured using the Intesis IBOX-WMP-CONFIG PC software prior to driver setup. Take note of the serial number of each IntesisBox prior to installation (this can be found on the bottom of the IntesisBox or on provided sticker).

g! Configuration

The driver requires a valid licence for use. Licences can be purchased from Chowmain's distributor [driverCentral](#). Customers can also trial the driver out for 90 days prior to licence purchase. Dealers who have showrooms can demonstrate the driver for free via the Chowmain Dealer Showroom Licence. You can apply for this licence via the [Chowmain website](#). Please follow the steps below. If you encounter any issues please submit a ticket via the [driverCentral](#) website.

Installation Process

Please follow the IntesisBox Configuration steps above before proceeding with the g! Configuration steps below.

1. Download the latest version of the driver from our distributor [driverCentral](#).
2. Extract the file to your preferred ELAN driver storage location.
3. In configurator click on the Climate tab

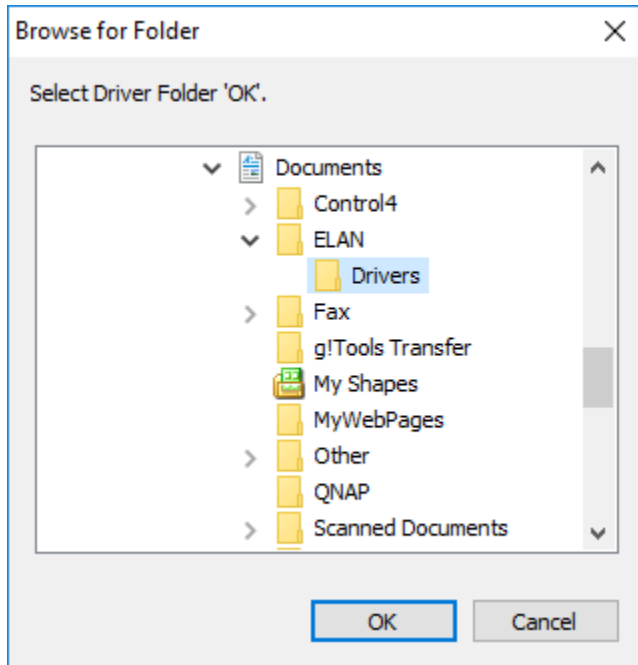


4. Under Global Options select the unit type to be either Celsius, no decimal places or Fahrenheit, no decimal places.
5. Click on the arrow next to Communication Devices
6. Click on Add New Communication Device

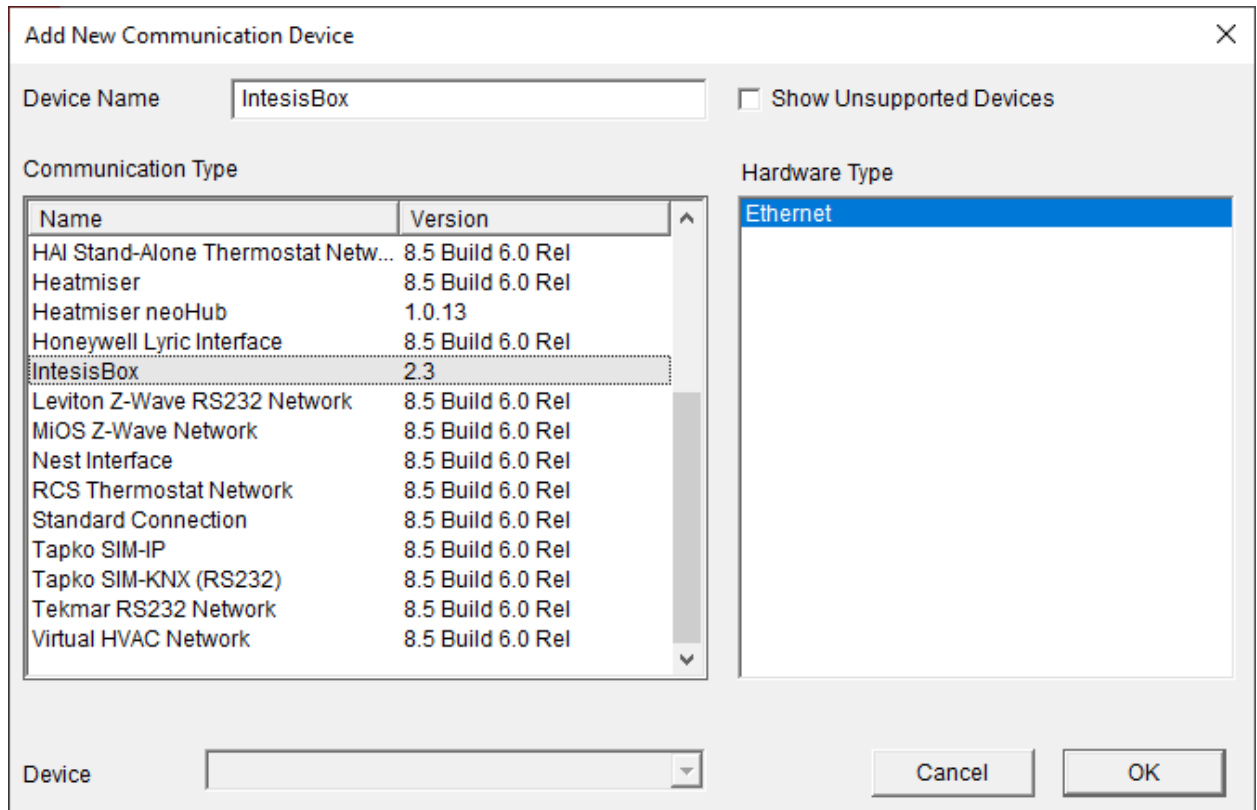


7. Click on the Search Folder button

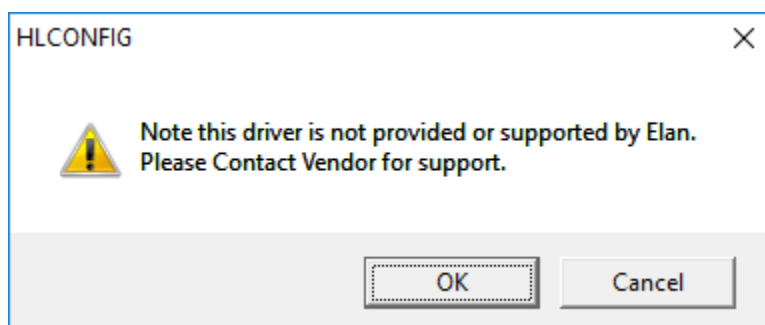
8. Select your driver folder and press ok



9. Select the IntesisBox driver and press ok



10. Configurator will warn you that the driver is not provided or supported by Elan. Click on OK.



11. Click on the arrow next to Heating/Cooling Units

12. Click on Add New Device



13. Select Generic HVAC Unit and click on OK.

14. Click on the arrow next to Thermostats

15. Click on Add New Thermostat



16. Select the IntesisBox device and click on Ok.

17. Make sure that the Communication Device is set to IntesisBox

18. Make sure that the Heating Unit is set to Generic HVAC Unit

19. Make sure that the Cooling Unit is set to Generic HVAC Unit

20. Type in the Thermostat Address. Currently IntesisBox only supports a single indoor unit so type in 1

Communication Device	IntesisBox (Off, Cool)
Address	1
Heating Unit	Generic HVAC Unit
Cooling Unit	Generic HVAC Unit

21. Click on Apply.

22. Click on the IntesisBox Communications Device.

23. The driver will advise you that you have 90 days to test the driver out. If you have purchased an activation key please type it in here then click on Apply and lastly Activate Licence.

Activation Key	
Activation Status	TRIAL - 48 HOURS REMAINING

24. Note that if you have typed in a valid activation key your status will change to ACTIVATED (you need to click off of the driver onto something else and back again to see the changes to the status).

Activation Status	ACTIVATED
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25. The driver will automatically find the first IntesisBox on the network. If this is successful the MAC address will be filled out.

MAC	001DC9A18B0C
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If you have multiple IntesisBox devices fill in the MAC address with the MAC of the IntesisBox you want to control and press the Apply Button.

26. Select the number of indoor units you are controlling with the driver (most IntesisBox gateways only support 1 however if you have one that is connected to an outdoor unit and configured using IntesisMAPS then it will support multiple indoor units). This will install 1 thermostat per indoor unit.

27. Click on the Find IntesisBox button to find the IntesisBox on the local network.

Find IntesisBox

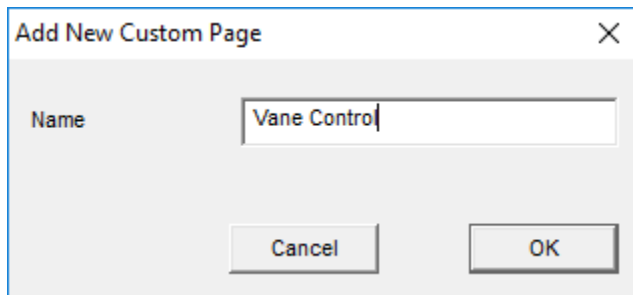
28. You should now be able to control the IntesisBox from any ELAN user interface. If your HVAC system has vane control please continue following the setup instructions.

29. Click on the arrow next to Custom Pages

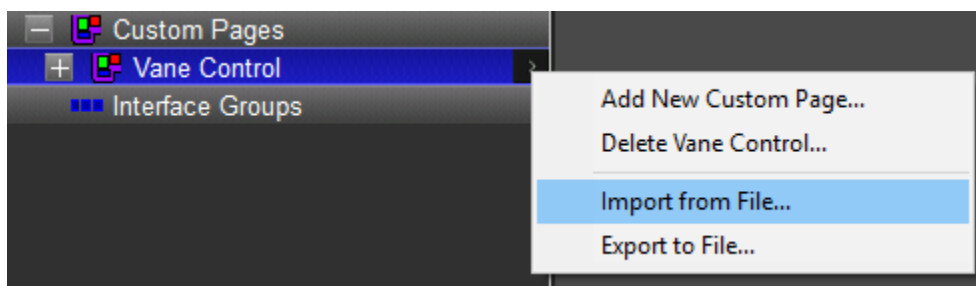
30. Click on Add New Custom Page



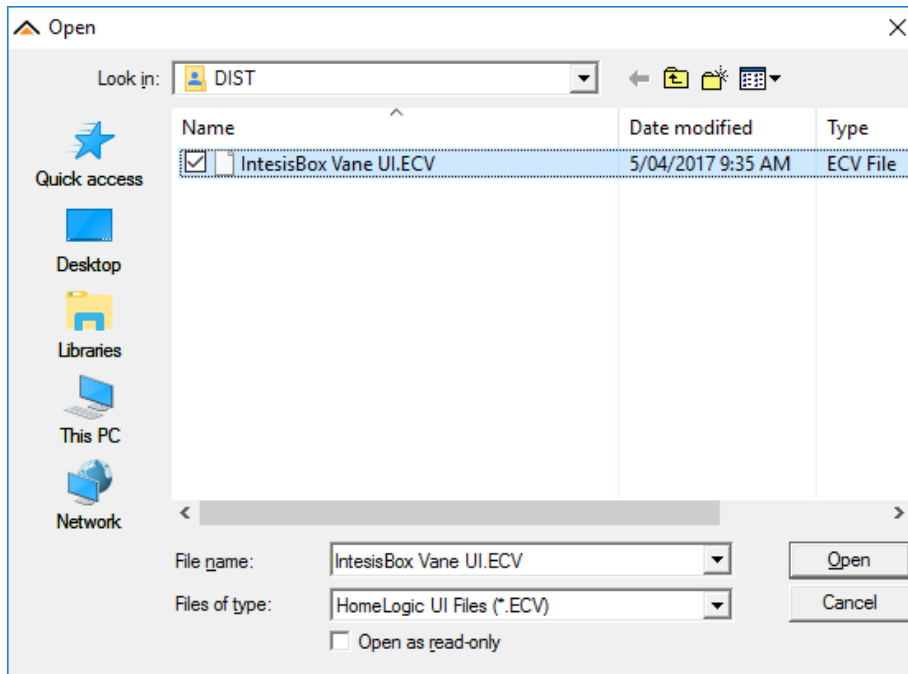
31. Type a name for the page (eg Vane Control)



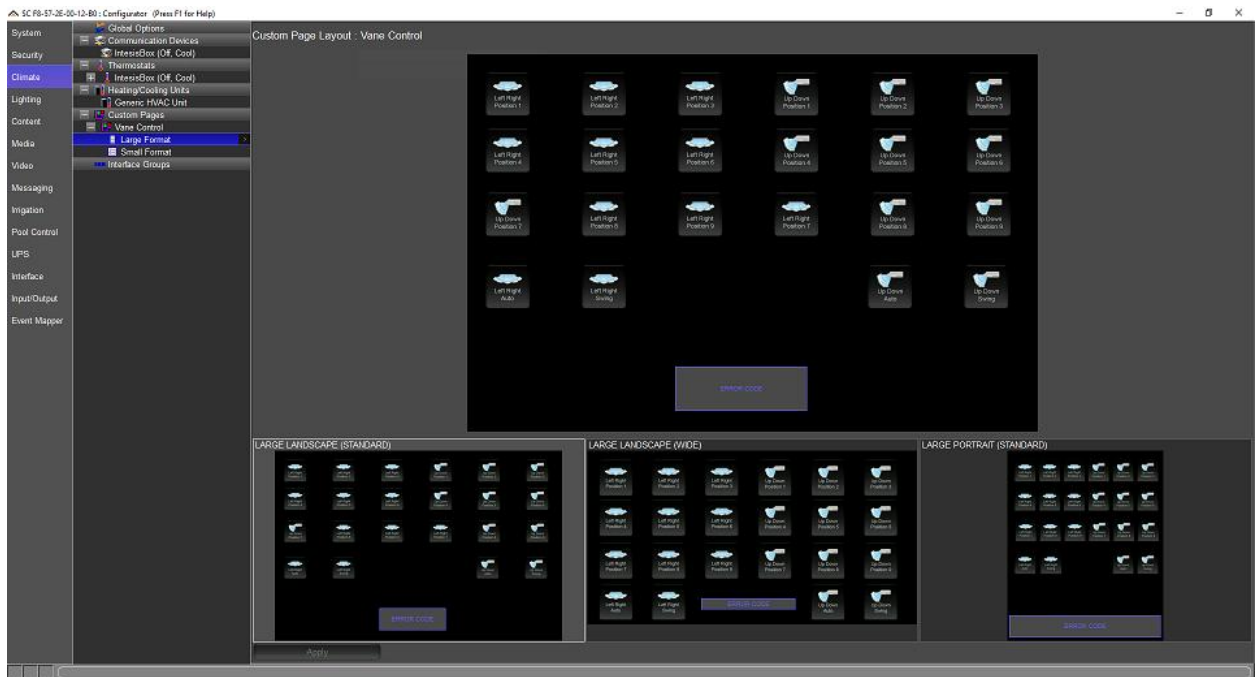
32. Click on the arrow next to the custom page we created and click on Import from File.



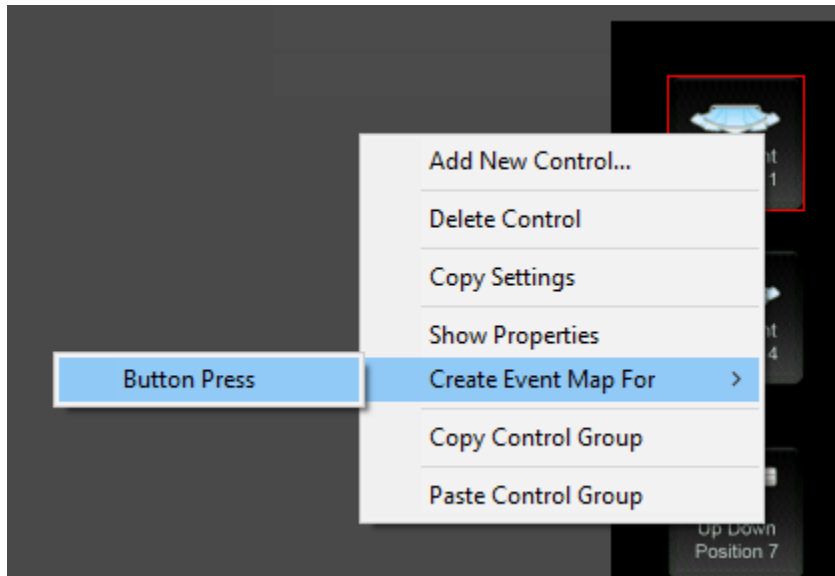
33. Select the IntesisBox Vane UI.ECV file included with the driver.



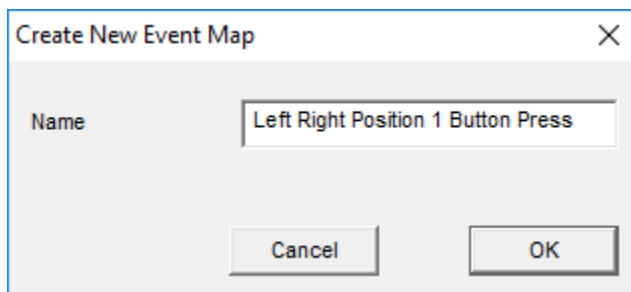
34. Expand the Vane Control custom page and select Large Format.



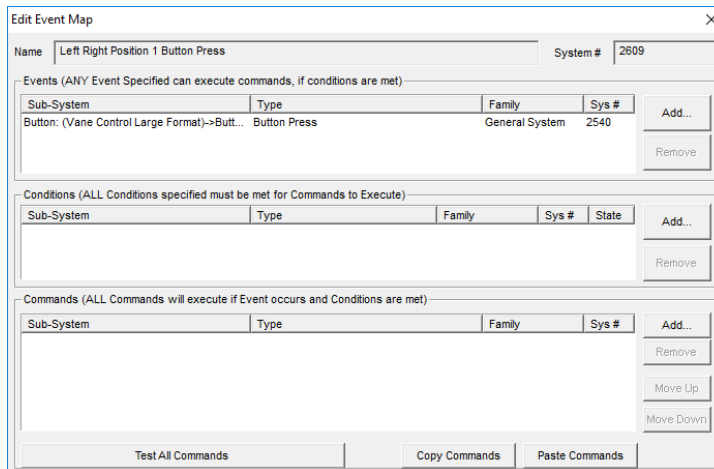
35. Right click each button and create an event map



36. Name it accordingly.



37. Add a Command into the Event Map.

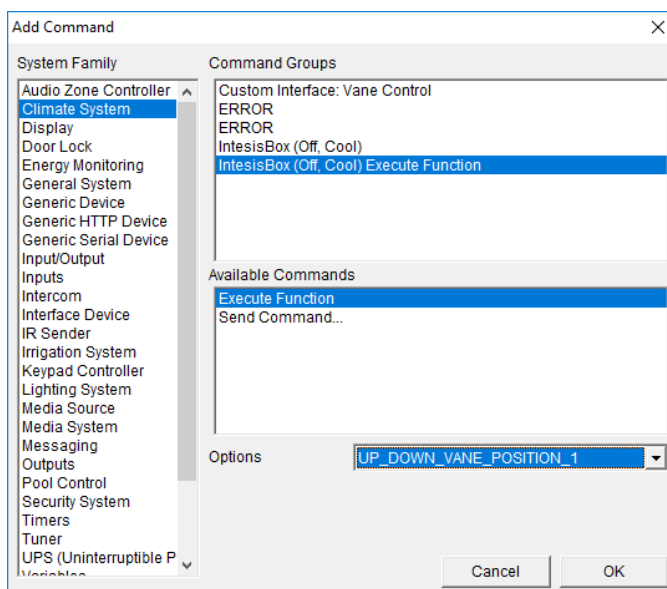


38. Click on Climate System

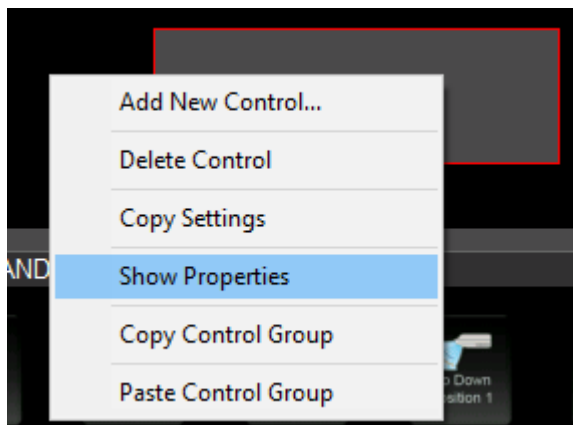
39. Select IntesisBox as your Command Group

40. Select Execute Function as the Available Command

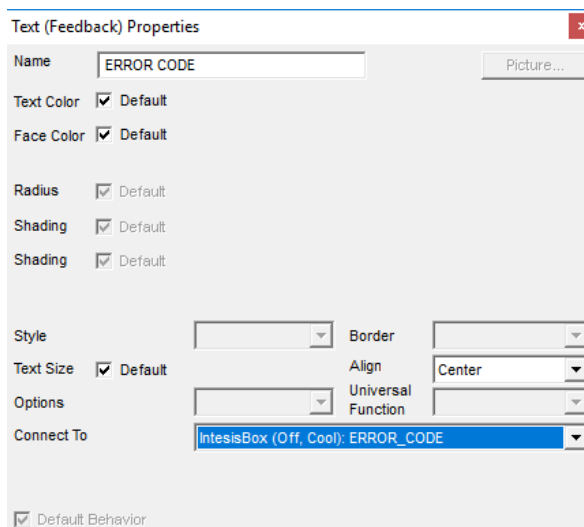
41. Select the Vane position that corresponds with the button and press ok



42. Press Test All Commands to verify that it goes to the vane position
43. Repeat steps 24 to 42 for all available Vane positions (note not all vane positions are available for your HVAC system. If they are not available please delete the button).
44. Right click on ERROR CODE
45. Click on Show Properties



46. In the Connect To drop down box select IntesisBox



47. Congratulations you have successfully setup the IntesisBox driver for ELAN

g! CONFIGURATION DETAILS

The following table provides settings used in Configurator when connecting to IntesisBox devices. Please refer to the Configurator Reference Guide for more details.

Devices	Variable Name	Setting	Comments
Communications Devices (IntesisBox)	Name	<User Defined>	
	System #	<Auto Detect>	
	Driver Version	<Auto Detect>	
	Driver Vendor	Chowmain Software & Apps	
	Device Type	IntesisBox	
	Activation Key	<User Defined> This is the driverCentral activation Key	See Note 1
	Activation Status	<Auto Detect> This provides the licence status feedback	See Note 1
	Debug Mode	<User Defined> This sets the logging for the driver.	See Note 2
	MAC	<User Defined> This is the MAC address of the IntesisBox	See Note 3
	Number of Indoor Units	<User Defined> The number of indoor units controlled by this IntesisBox.	See Note 4
	IP Address	<Auto Detect>	
	Port	<Auto Detect>	

Devices	Variable Name	Setting	Comments
IntesisBox (Thermostat)	Name	<User Defined>	
	System #	<Auto Detect>	
	Driver Version	<Auto Detect>	
	Driver Vendor	Chowmain Software & Apps	
	Device Type	IntesisBox	
	Communications Device	IntesisBox	
	Address	This should be a number value	See Note 4
	Heating Unit	Generic HVAC Unit	
	Cooling Unit	Generic HVAC Unit	
	Show Usage in History	<User Defined> Yes/No	

Devices	Variable Name	Setting	Comments
Generic HVAC Unit (Heating/Cooling Unit)	Name	<User Defined>	
	System #	<Auto Detect>	
	Driver Version	<Auto Detect>	
	Driver Vendor	Elan	
	Device Type	Generic HVAC Unit	
	Controls Heating	<User Defined> Yes/No	
	Controls Cooling	<User Defined> Yes/No	
	Control Fan	<User Defined> Yes/No	

Notes:

1. The driver requires a valid licence for use. Licences can be purchased from the [driverCentral](#) website. All of the licences are site licences. This means that you can use as many instances of the driver as you want in a single system with the one licence. The driver also comes with a built in 7 day trial. The driver will provide feedback as to the state of the licence in the Activation Status field.
2. Debug Mode – This is used for troubleshooting. By default it is set to off. print is used by technical support for live troubleshooting. log is used to output to the driver log. Print and log is used to provide technical support with live troubleshooting and log to driver log at the same time.
3. The driver will automatically find the first unit on the network. If you have multiple units please put in the MAC address of the unit you want to find before clicking on the Find IntesisBox button.
4. The IntesisBox can control upto 128 zones of HVAC if connected to an outdoor unit. These models are din mounted and is programmed by the IntesisMAPS software. If you have a wifi model then you will only have 1 indoor unit.

COMMON MISTAKES

1. You have not setup the IntesisBox to join your local wifi or Ethernet network.
2. You have not setup the IntesisBox using the included Windows PC software (WMP-CONFIG or Intesis MAPS)
3. Your network does not support UDP broadcasts and cannot find the IntesisBox units on the network. If it does not then please set a static ip address and set Enable Auto Discovery to Disabled.

ELAN DEVELOPER PARTNER INFORMATION

This ELAN driver was written and supported by:



<http://www.chowmainsoft.com>