

IntesisBox Installation and Usage Guide



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Overview

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 thermostat such as the Nest thermostat.

Unfortunately a lot 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 Nice Home Management dealers to source a reliable HVAC product and in many countries 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 Nice Home Management/ELAN will work with all models of IntesisBox and will provide full two way control/feedback.

Features

- Automatic discovery of Intesisbox based on unit MAC address
- Self healing - if IP address changes the driver will automatically rediscover the unit
- Temperature Feedback
- Mode Control / Feedback
- Fan Speed Control / Feedback
- Setpoint Control / Feedback
- Up/Down/Left/Right Vane position control *If fitted to the HVAC system*
- Built in Scheduling
- Built in Presets
- 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

Why is this product exciting?

In Australia and New Zealand (and other countries) HVAC integration has been hard because HVAC companies do not utilise the honeywell based wiring that most smart thermostats like Nest, and Honeywell use. Split Systems have been extremely hard as traditionally they only offer IR or RF based remote controls. In the past we have integrated these systems by learning every combination of IR code however this is extremely time consuming. Also integration for ducted systems and VRF systems were hard because manufacturers have their own proprietary bus.

Now with the IntesisBox installers can now easily integrate HVAC systems into Nice Home Management. The IntesisBox is affordable unlike other solutions so the cost of integration per zone is extremely low. On top of that it communicates via wifi so dealers can now revisit old customers with compatible HVAC systems to upgrade their home automation system and integrate their HVAC systems without additional wiring.

This really changes the HVAC game.

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

- Sanyo ecoi and paci lines
- Toshiba Commercial and VRF lines

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

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

Can I control fan direction with this?

Yes our driver allows for up/down and left/right vane control. This is accessible under the Extras Tab.

Can I do schedule the HVAC system using this?

Yes ELAN has built in scheduling which works with our driver.

Where can i purchase this module?

Intesis sells the IntesisBox in over 90 countries. They mainly sell direct. The product has regulatory compliance for Europe, US, Canada and Australia. If you have any sales enquiries please contact Intesis Sales directly via their [website](#) or via email (sales@intesis.com)

Distributors

- Australia - [Ivory Egg](#)
- Canada - [Product Solutions Group](#)
- New Zealand - [Ivory Egg](#)
- United Arab Emirates [Leaf Connect](#)
- United Kingdom - [Ivory Egg](#)
- Other - [Find Distributors](#)

[Find out more about IntesisBox](#)

[Local Australian Distributor](#)

[Local US Distributor](#)

[Local Canadian Distributor](#)

[Local Canadian Distributor](#)

[Local UK distributor](#)

I want to try this driver out before buying it?

All Chowmain drivers for Nice Home Management / ELAN come with a 90 day trial. This is activated once you add the driver to the project. No additional steps are necessary.

Setup

Requirements

- Nice Home Management Core 8.8.600 or later is required
- This driver requires a valid licence for use. More information is available on the [Chowmain Website](#). Customers can also trial the driver 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 a showroom licence via the Chowmain website.
- IntesisBox hardware (must be correctly configured)

Installation Process

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

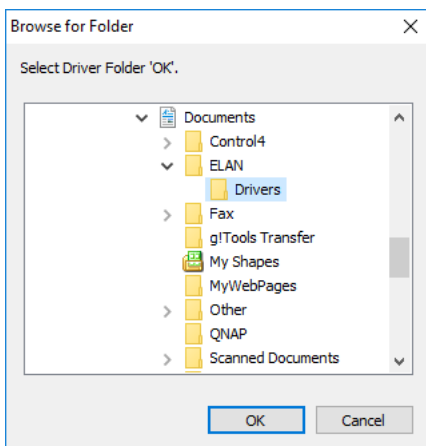
1. Download the latest version of the driver
2. Extract the file to your preferred driver storage location.
3. In configurator click on the Climate tab



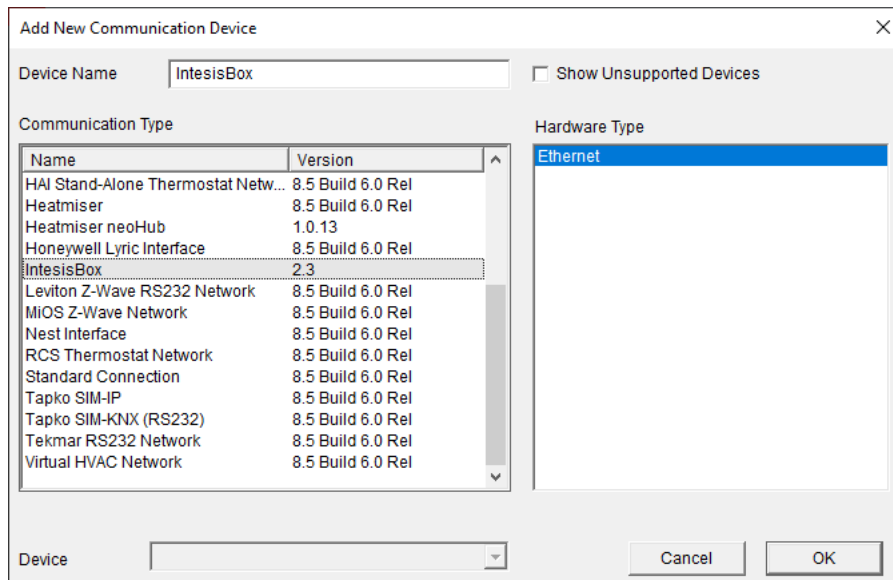
4. Under Global Options select the unit type to be either Celsius, no decimal places or Fahrenheit, no decimal places.
5. Click on the arrow next to Communication Devices
6. Click on Add New Communication Device



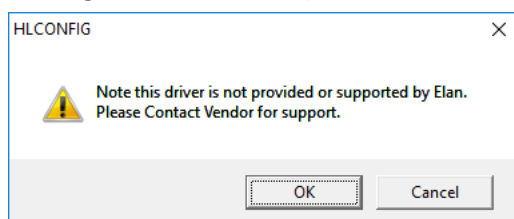
7. Click on the Search Folder button
8. Select your driver folder and press ok



9. Select the IntesisBox driver and press ok



10. Configurator will warn you that the driver is not provided or supported by Nice / 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.

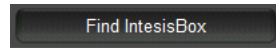
23. The driver will automatically find the first IntesisBox on the network. If this is successful the MAC address will be filled out.

MAC	001DC9A18B0C
-----	--------------

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.

24. 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.

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



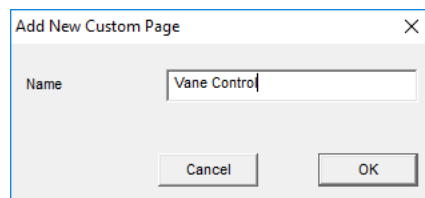
26. You should now be able to control the IntesisBox from any ELAN user interface. If your HVAC system has vane control please continue following the setup instructions.

27. Click on the arrow next to Custom Pages

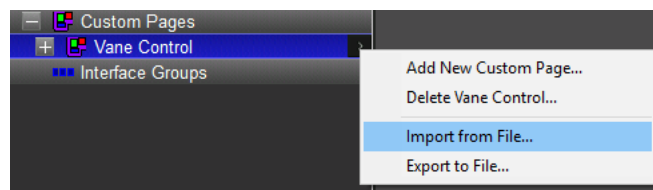
28. Click on Add New Custom Page



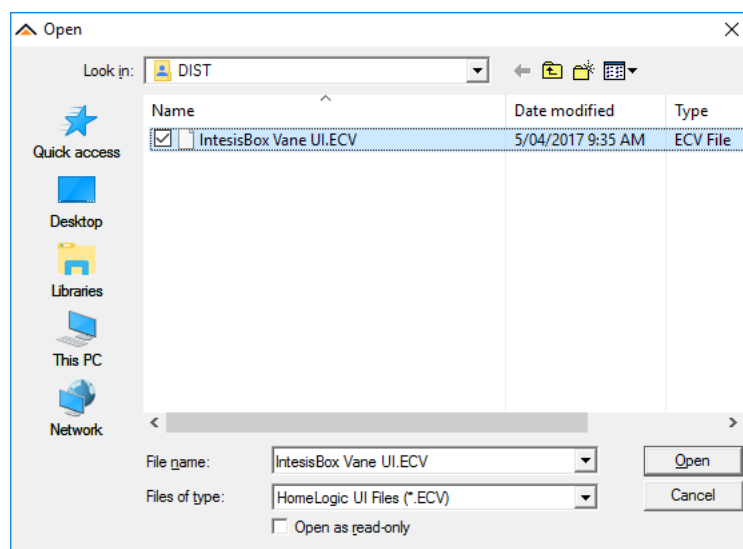
29. Type a name for the page (eg Vane Control)



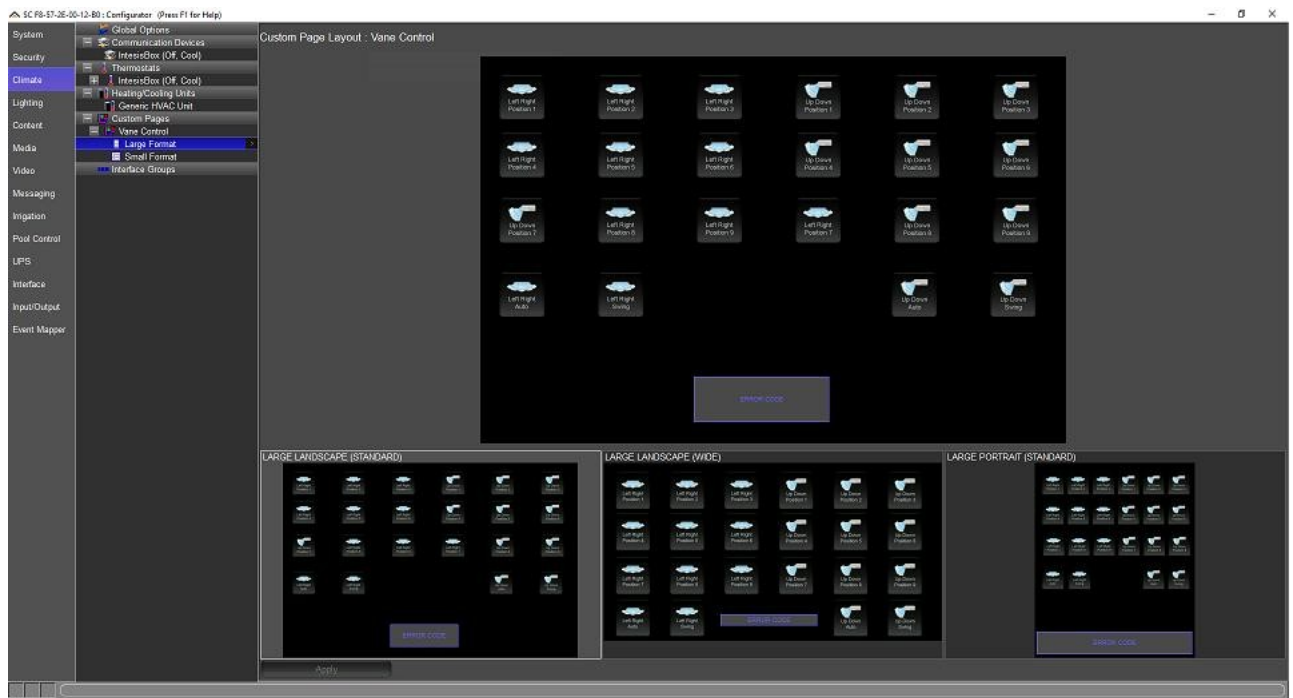
30. Click on the arrow next to the custom page we created and click on Import from File.



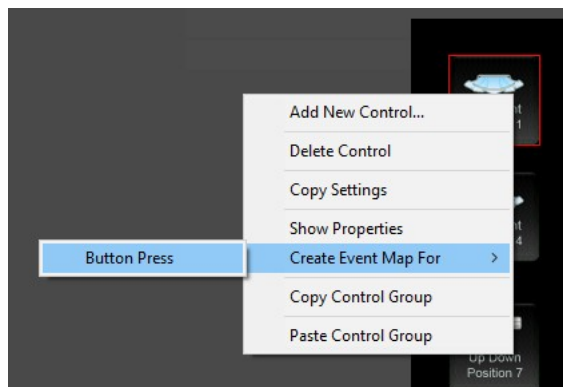
31. Select the IntesisBox Vane UI.ECV file included with the driver.



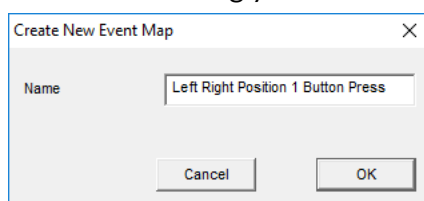
32. Expand the Vane Control custom page and select Large Format.



33. Right click each button and create an event map



34. Name it accordingly.



35. Add a Command into the Event Map.

Edit Event Map

Name: Left Right Position 1 Button Press System #: 2609

Events (ANY Event Specified can execute commands, if conditions are met)

Sub-System	Type	Family	Sys #
Button: (Vane Control Large Format)->Butt...	Button Press	General System	2540

Conditions (ALL Conditions specified must be met for Commands to Execute)

Sub-System	Type	Family	Sys #	State
------------	------	--------	-------	-------

Commands (ALL Commands will execute if Event occurs and Conditions are met)

Sub-System	Type	Family	Sys #
------------	------	--------	-------

Test All Commands Copy Commands Paste Commands

36. Click on Climate System

37. Select IntesisBox as your Command Group

38. Select Execute Function as the Available Command

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

Add Command

System Family: Audio Zone Controller, Climate System, Display, Door Lock, Energy Monitoring, General System, Generic Device, Generic HTTP Device, Generic Serial Device, Input/Output, Inputs, Intercom, Interface Device, IR Sender, Irrigation System, Keypad Controller, Lighting System, Media Source, Media System, Messaging, Outputs, Pool Control, Security System, Timers, Tuner, UPS (Uninterruptible P), Variables

Command Groups: Custom Interface: Vane Control, ERROR, ERROR, IntesisBox (Off, Cool), IntesisBox (Off, Cool) Execute Function

Available Commands: Execute Function, Send Command...

Options: UP_DOWN_VANE_POSITION_1

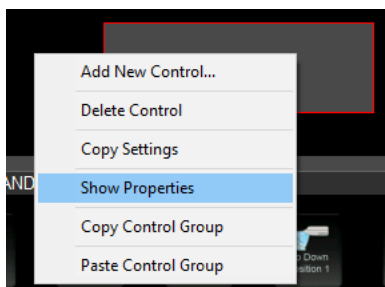
Cancel OK

40. Press Test All Commands to verify that it goes to the vane position

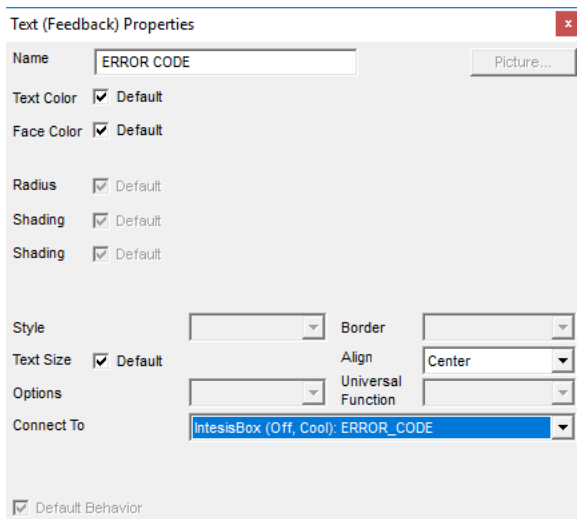
41. Repeat steps 22 to 40 for all available Vane positions (note not all vane positions are available for your HVAC system. If they are not available please delete the button).

42. Right click on ERROR CODE

43.Click on Show Properties



44.In the Connect To drop down box select IntesisBox



45.Congratulations you have successfully setup the IntesisBox driver for Nice Home Management.
Please note, a licence purchase will be required to use this driver outside of the initial trial period

Nice Home Management Configuration

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	See Note 1

Devices	Variable Name	Setting	Comments
		status feedback	
	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"	
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	
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	

Devices	Variable Name	Setting	Comments
	Controls Cooling	"User Defined" Yes/No	
	Control Fan	"User Defined" Yes/No	

Notes:

1. The driver requires a valid licence for use. 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 90 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.
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 one 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.

Licensing

- How does the trial period work?

All Chowmain drivers are free to use for a set trial period. When the trial expires the driver will cease to function until you purchase a licence and apply it to the driverCentral project.

- Where do I buy a Licence from?

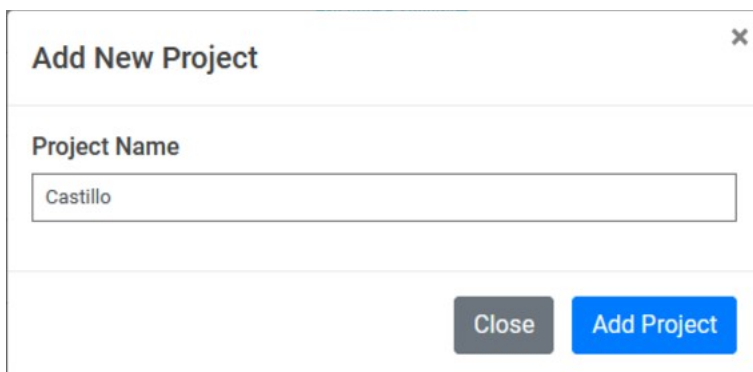
This driver is developed by Chowmain software & Apps and is distributed by driverCentral, Inc
<https://www.drivercentral.io/chowmain-ltd>

To purchase a driver:

1. On driverCentral, purchase a license and register it to your project
2. If the driver is not already installed in your project, download it and install it
3. If necessary, use the cloud driver's Action: "Check Drivers" to force the licence to download into the project


Creating a Project on Driver Central

1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account
3. Click **Portal**
4. Click **New Project**
5. Enter the project name

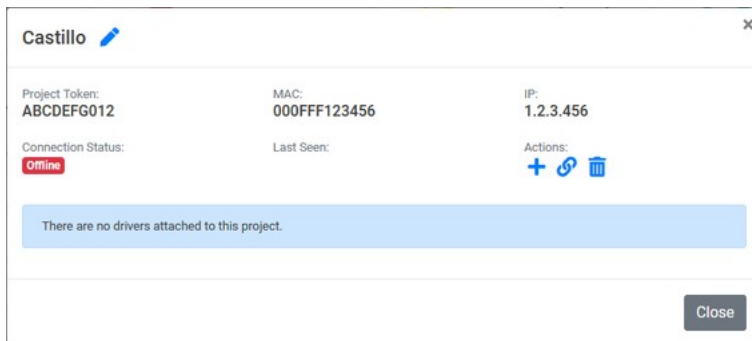


The screenshot shows a modal dialog box titled "Add New Project". Inside the dialog, there is a label "Project Name" followed by a text input field. The input field contains the text "Castillo". At the bottom right of the dialog, there are two buttons: a grey "Close" button and a blue "Add Project" button.

6. Click **Add Project**
7. Click on the project we just created

Project	Status	Created
 Castillo	Unassigned Project	1999-12-31 23:59:56

- Take note of the **Project Token** as this will be used later when we install the Cloud Driver



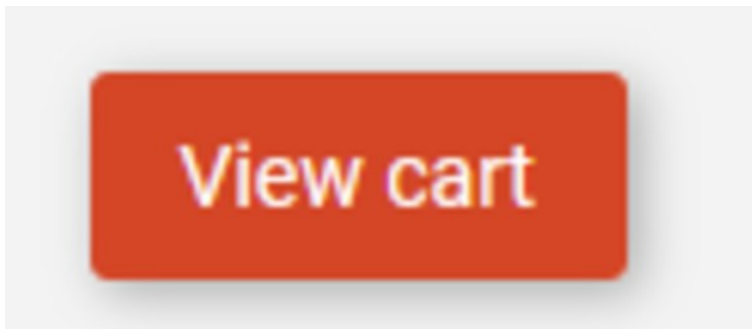
- Click **Close**

Purchasing a Driver Licence

- Visit <https://www.drivercentral.io/chowmain-ltd/> and find the product/driver you want to purchase a licence for
- Click on **Add to Cart**

ADD TO CART

- Now click the shopping cart icon (top right) and click **View cart**




- Confirm that your order is correct and click on **Proceed to checkout**


Proceed to checkout

- Choose your payment option, provide the relevant details and click **Place order**

Checkout



Paypal
Paypal, or Credit Card...



Credit Card
Visa, Mastercard, etc...

☐ Select this check box to accept the [Terms and Conditions](#)

☐ [Subscribe to our newsletter](#)

Place order (\$190.00)

6. You will now be at a page where you can see your purchased licence

License Name	License Key	Project Assigned	Action
[REDACTED]	[REDACTED]	[REDACTED]	Assign to Project

7. From here assign the licence to the project we created or if you did not follow that step create a new project

License Assignment for

221

Assign License to Existing Project

Select Existing Project:

New Project (enter project name below)

Or...

Create a new project

Enter New Project Name

Enter email for Installer Notifi

Are you sure you want to do this?

Assign License to Project?

Developer Information



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Support

Ticket / Live Chat Support

We provide ticket based support and live chat support for those who can't contact us via phone. Click the button below to visit our online helpdesk.

Support Centre	Hours of Operation	URL
American Support Desk	8:30AM – 4:30PM Mountain Time	https://help.drivercentral.io/

Phone Support

Support Center	Hours of Operation	Phone Number
Australian Support Desk	6:30AM – 5:30PM Australian Eastern Time	+61 3 9028 6999

Driver Documentation

All of our drivers come with detailed instructions on how to install and configure the driver for use in different projects. Please refer to the documentation included with the driver you downloaded, or [contact us](#) if you are unable to locate the documentation for your driver.

CHANGELOG

2024.7.30 - JUL 30 2024

- Modernise Backend
- Add Improved Troubleshooting and Submit Diagnostics support
- Upgrade Communication Stack
- Fix Potential Crash which theoretically could happen if setpoints are unable to be set. This issue may not exist in the real world and was never reported
- Improve first time connection

2.4.0 - JUL 07 2023

- Resolved issue introduced by Core 8.7 and above where if the driver has an invalid IP address it would crash the Core. This could potentially cause it to crash on init as well.

2.3.2 - APR 27 2021

- Resolved issues with trial licencing no activating.

2.3.1 - Feb 25 2021

- Fixed issue effecting hiding of non available Fan modes and HVAC modes.

2.3.0 - Nov 11 2020

- Updated to support new IntesisBox hardware that allows you to control multiple indoor units.

2.2.4 - Mar 06 2019

- Driver will now reconnect to IntesisBox if the IntesisBox does not respond to commands being sent from the driver (IntesisBox bug). This seems to reset the box and make it respond again.

2.2.3 - Nov 29 2019

- Added Get command after Set command. For some reason some IntesisBox models don't provide feedback unless we do a Get?
- Made reconnection more aggressive

2.2.2 - Jul 22 2019

- Fixed issue with Fahrenheit setpoints not moving up and down by more than a few degrees at a time.

2.2.1 - May 31 2019

- Fixed issue with licencing introduced in the last version

2.2.0 - MAY 07 2019

- Updated to support Stratus error messages. This includes HVAC system error messages on HVAC system faults & communications faults.

2.1.5 - Feb 25 2019

- New revisions of IntesisBox hardware require a ping to be sent to it to keep it alive.

2.1.4 - Nov 20 2018

- Updated to latest Chowmain library

2.1.3 - Aug 3 2018

- Fixed Fan feedback.
- Changed from rounding down to rounding up for values.

2.1.2 - Aug 2 2018

- Added ability to manually add IP address in for networks that do not allow multicast / broadcast traffic. Once you have added the IP address in press Apply and press the Connect to IntesisBox button

2.1.0 - Jul 25 2018

- Updated to latest Chowmain library. Improvements over socket connections, timers, callbacks and more.

2.0.4 - 17-JAN-2017

- Updated to support ELAN version 8.2. Note this is a manditory update.

2.0.3 - 2017-NOV-17

- Critical Update - If you are on an older version please update

2.0.2 - 2017-OCT-09

- Resolved issue where UI would incorrectly feedback offline state

2.0.1 - 2017-OCT-03

- Updated to resolve issues with Fahrenheit based feedback and setpoints
- Updated to resolve issues with fan state feedback being sent too quickly to core.