eGauge EG3000

Installation and Usage Guide

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Contents

Overview

eGauge is an affordable, flexible, secure, web-based electric energy and power meter that can measure up to 12 circuits on up to 3-phases (120V–480V, 50–60Hz). It is used to measure and record total building electrical consumption, solar, wind, consumption of individual circuits, such as appliances or geothermal system pumps, and motors.

The Chowmain eGauge driver provides live data feedback from the eGauge unit. This live data can be viewed on the Control4 5 inch, 7 inch, MyHome PC and Onscreen user interfaces. The data can be used in Control4's programming as variables or have a minimum and maximum event trigger set in the driver itself. This provides live automated responses to changes in energy usage.

Features

- Live Energy Feedback for:
    - Voltage Level across 3 inputs (Can be used for 3 phase or solar)
    - Current & Power usage for upto 12 circuits
- Voltage, Current, Power, Total Usage and Total Generation are Control4 Variables
- Minimum and Maximum event triggers for all 12 circuits
- Control4 4store application to show current energy usage (for systems with only one eGauge in it)

Usage Scenarios

- Automate white goods start up upon high PV solar/wind energy production.

- Automate energy savings when energy usage is too high by dimming lights and setting back HVAC set points.

- Shut down delicate electronics upon over or under voltage detection.

- Detect faulty equipment early and warn the customer should excessively high or low energy usage readings occur.

Change Log

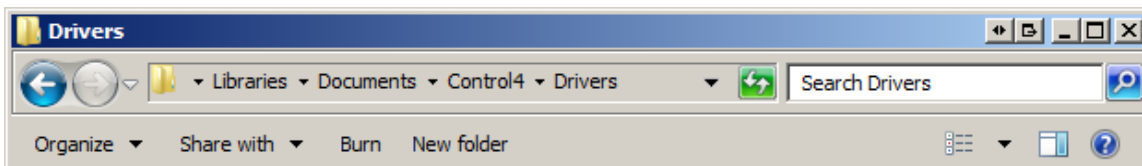**APR 09 2014 –** Initial Release

Important Notice

This driver has been developed for Control4 OS version 2.6.0. It will not work on earlier version of Control4 OS.

Driver Installation

1. The driver you have downloaded will be in a zip file. Double click on this file to open it in your preferred zip program (WinZip, WinRar, etc.).

2. Extract the c4i file to the My Documents\Control4\Drivers directory. If you are using Windows 7 or 8 this will be extracted to the Libraries\Documents\Control4\Drivers directory.

3. You are now ready to add and configure the driver via the Composer Pro software.

Adding the driver to your project

IMPORTANT – Before undertaking the installation of the driver please follow the licencing steps outlined at the end of this document.

1. Launch the Composer Pro application and connect to your project

2. In the '**System Design**' page select the '**Search**' tab on the right hand side.

3. Select '**Egauge**' as the manufacturer.

4. Double click on the '**Egauge EG3000**' driver to add it to your project

5. Highlight the '**Egauge EG3000**' driver on the left hand side.

6. In the driver properties enter in the Houselogix licence details.

7. Enter in the Egauge Sensor IP Address.

   Note: Please follow the Egauge installation guide to set up a static IP address or the unit or assign a IP reservation in the DHCP server for your network. This will ensure that you will not have a loss in communication should the address change.

App Installation

Note the Advanced Custom Buttons Application will only install if you have setup the driver first. Please follow the section above before proceeding.

1. On your Control4 Navigator click on the Apps icon

2. Click on the 4Store Icon

3. Click on Browse

4. Click on Energy

5. Select the '**eGauge Now**' App

6. Click on Buy (note that it is a free app however the driver is charged).

7. If you get the Purchases locked screen please enter your password.

8. Congratulations you have installed the eGauge Now App.
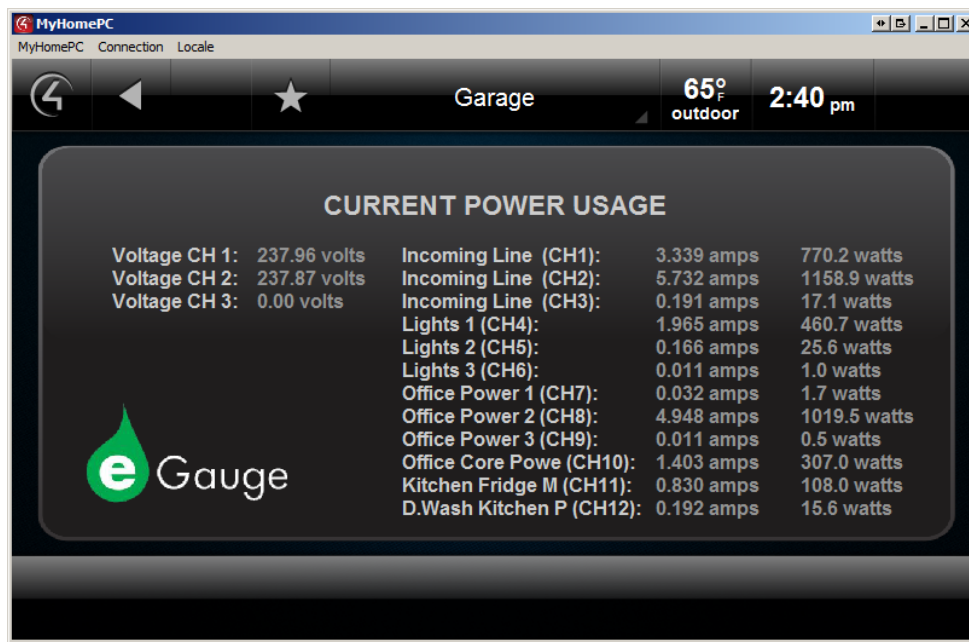
How to monitor current values

1. In the '**System Design**' page highlight the '**Egauge EG3000**' driver on the left hand side.

2. In the driver properties click on the drop down box next to '**Show Current Values**' and change it from False to '**True**'.

Show Current Values	TRUE

3. The properties should now pop up with power usage updates every 5 seconds.

Last Time Stamp	Thu 10 Apr 2014 08:57:35AI
Frequency	49.97 hz
Voltage Channel 1	245.23volts
Voltage Channel 2	
Voltage Channel 3	
Channel 1 Label	Grid
Current Channel 1	0.322 amps
Power Channel 1	58.1 watts

4. Alternatively you can also launch the 4store application.

MyHomePC MyHomePC Connection Locale

Garage   65°F outdoor   2:40 pm

CURRENT POWER USAGE

Voltage CH 1:	237.96 volts		
Voltage CH 2:	237.87 volts		
Voltage CH 3:	0.00 volts		
Incoming Line (CH1):		3.339 amps	770.2 watts
Incoming Line (CH2):		5.732 amps	1158.9 watts
Incoming Line (CH3):		0.191 amps	17.1 watts
Lights 1 (CH4):		1.965 amps	460.7 watts
Lights 2 (CH5):		0.166 amps	25.6 watts
Lights 3 (CH6):		0.011 amps	1.0 watts
Office Power 1 (CH7):		0.032 amps	1.7 watts
Office Power 2 (CH8):		4.948 amps	1019.5 watts
Office Power 3 (CH9):		0.011 amps	0.5 watts
Office Core Powe (CH10):		1.403 amps	307.0 watts
Kitchen Fridge M (CH11):		0.830 amps	108.0 watts
D.Wash Kitchen P (CH12):		0.192 amps	15.6 watts

e Gauge

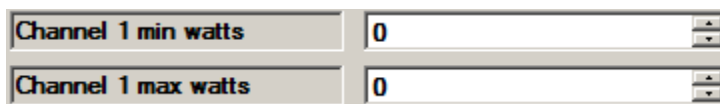## How to set up minimum and maximum triggers

With this driver you can set up minimum and maximum event triggers to automated the power consumption in your home or provide warnings should abnormal power usage is detected. This is useful for detecting faulty equipment or potential fire risks.

1. In the '**System Design**' page highlight the '**Egauge EG3000**' driver on the left hand side.

2. In the driver properties click on the drop down box next to '**Show Min Max Properties**' and change it from False to '**True**'.

3. The min and max properties for each channel should now pop up.

4. Monitor the circuit to obtain the idle wattage and turn on/off devices to get an understanding of the potential energy usage for that circuit.

5. Enter in the minimum (if required) and maximum (if required) wattage.

   Note: A value of 0 (zero) is ignored by the driver and will never fire an event. If you require a low wattage utilise the nearest value 1 (one).
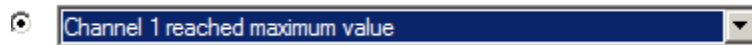

6. Click on the '**Programming**' Tab

7. Click on the Egauge EG3000 driver under the Device Events side of the screen.

8. Under the Egauge EG3000 events click on the event you wish to program for.

9. Add the action you want to perform into the script section

Channel 1 reached maximum value

If the Living / Dining->Living level is > 80%
   Ramp to Level 80 on the Living / Dining->Living over 2000 Millisec

10. Congratulations you have successfully setup an automated energy response.
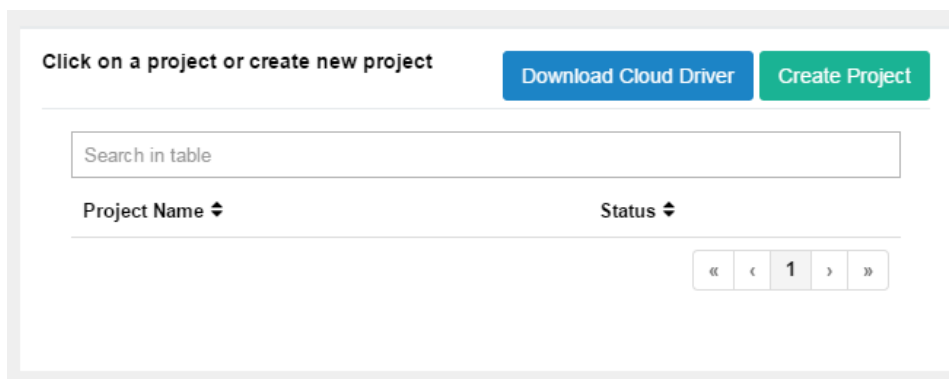
Licencing

Chowmain drivers require a valid licence to use the driver. Drivers can be purchased from our distributor driverCentral however all Chowmain drivers come with a 7 day trial. We recommend that prior to purchasing a driver that you test the driver out to ensure that it will work with your hardware and will meet your requirements. The licencing procedure is broken down into 4 steps. A summary of the steps are below along however we have also provided detailed steps if the summary is not sufficient.
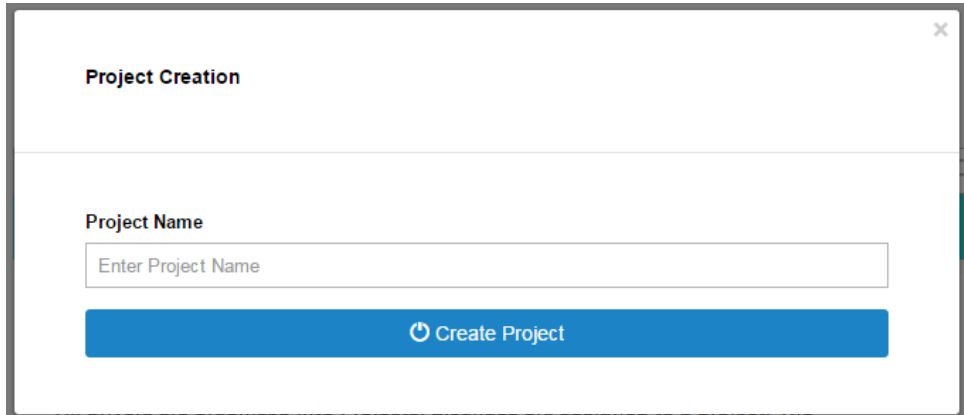
Summary

1. Create your project on the driverCentral.io website (This will generate a specific token which you will use in the next step)

2. Download, install and activate the driverCentral cloud driver in your project (Only once per project. Use the token generated in step 1)

3. (Optional) To try a driver, simply download it and install it in your project

4. To purchase a driver:

   a. On driverCentral, purchase a license and register it to your project

   b. If the driver is not already installed in your project, download it and install it

   c. If necessary, use the cloud driver's Action: "Check Drivers" to force licence download to the project.

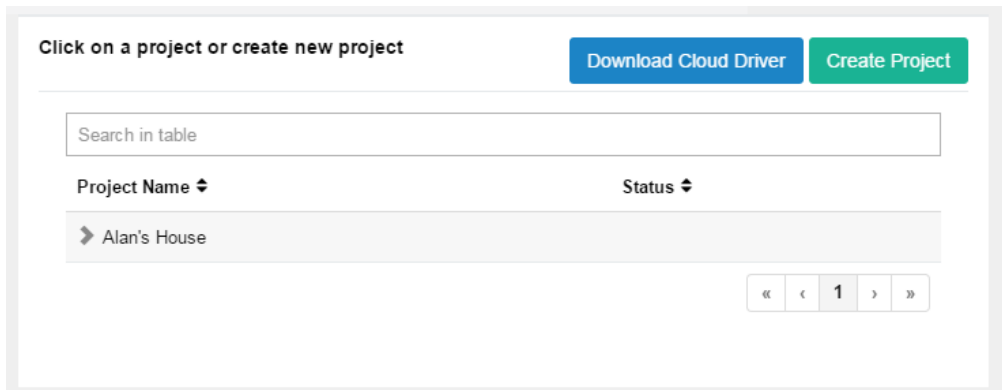## STEP 1 - Creating your project on driverCentral

1. Visit http://www.drivercentral.io

2. Log into your driver Central dealer account.

3. Visit the Project Portal

4. Click on Create Project

Click on a project or create new project   [Download Cloud Driver] [Create Project]

Search in table

Project Name ⬍   Status ⬍

《 ‹ 1 › 》

5. It will prompt you for a project name. Type in a meaningful name for your customer's project

6. Click on Create Project

7. Click on the project we just created to expand the project

8. Take note of the Project Token as this will be used in STEP 3 when we install the driverCentral cloud driver.
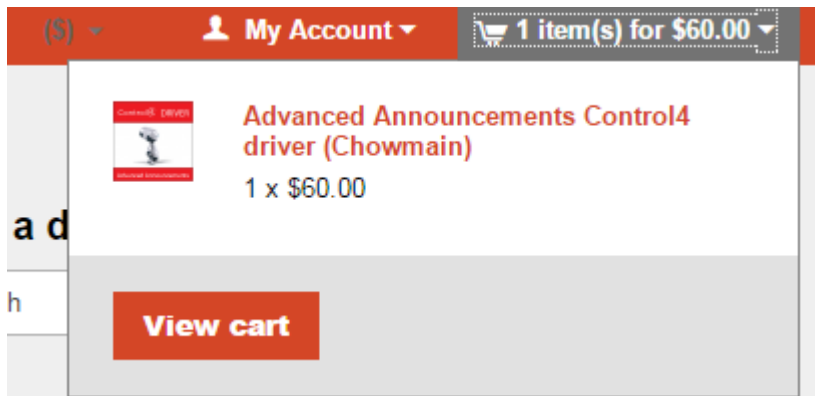
STEP 2 –Purchase driver licence

1. Visit https://www.drivercentral.io/chowmain-ltd/ and find the product/driver you want to purchase a licence for.

2. Click on the Add to Cart button

ADD TO CART

3. Click on the Shopping Cart icon in the top right corner and click on View cart

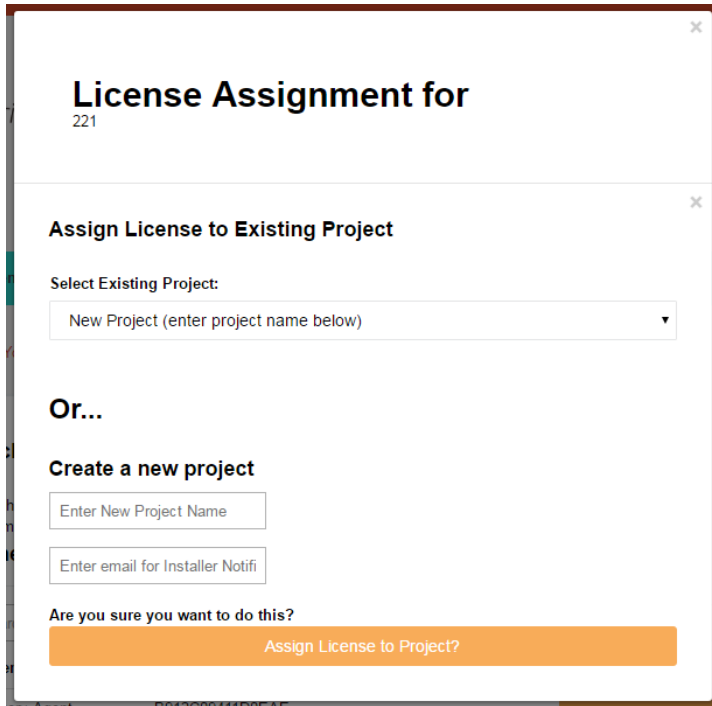4. Confirm that your order is correct and click on Proceed to checkout

Proceed to checkout

5. Follow the prompts and click on Sib,ot ,u Prder

SUBMIT MY ORDER

6. This will take you to PayPal for payment.

7. Pay via PayPal. It will automatically return to the marketplace when confirmed.

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

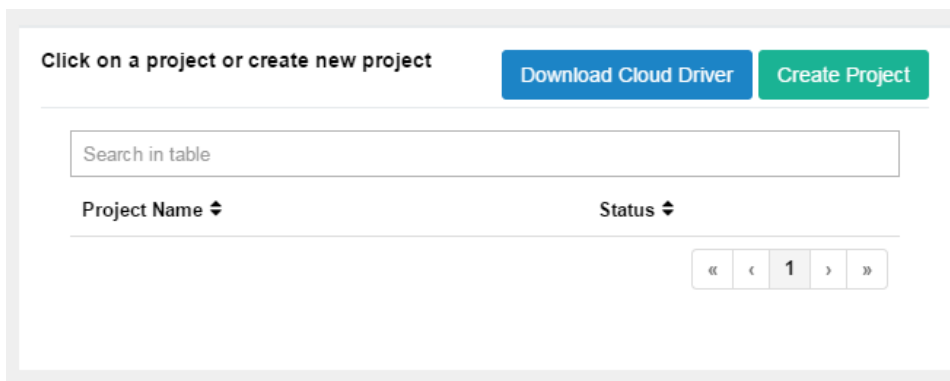| License Name ⬍	License Key ⬍	Project Assigned ⬍	Action ⬍
▬▬▬▬▬▬▬▬			Assign to Project

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

STEP 3 – Install and activate the driverCentral cloud driver

NOTE: Only one instance of the driverCentral cloud driver installed per project. Do not install additional cloud drivers.

1. Visit http://www.drivercentral.io

2. Log into your driver Central dealer account.

3. Visit the Project Portal

4. Click on Download Cloud Driver

5. Copy the C4Z driver to My Documents\Control4\Drivers directory.

6. Add the driver to your project.

7. Click on the driver to view it's properties

Cloud Status	Please enter cloud project token below....
Project Information	(1) Total, (0) Licensed, (0) Trials, (1) Expired, (0) Updates.
Driver Version	1001
Project Token	
	Project token from driverCentral.io project portal
Driver Actions	
Debug Mode	Off

8. Type in the project token we took note of in STEP 1.

9. Click on the Actions tab

10. Click on Check Drivers

STEP 4 – Install Chowmain driver

1. Install the Chowmain driver

2. You will notice that the Activation Status reflects a Licence Activated state.

3. Any driver that does not have a purchased licence will have a trial licence activated via the marketplace. Note that there is no way to reactivate the trial so please use wisely.

4. If you do not then press the Check Drivers action in the driverCentral Cloud driver again.

Activation Status	Update Available!!! License Activated
Driver Version	1002
Driver Information	Navigate to connections tab and make serial binding
Automatic Updates	Off