



## **ControlByWeb X-332 Driver**

### Installation and Usage Guide

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## Contents

Overview .....	2
Features .....	3
Change Log.....	5
Important Notice.....	5
Driver Installation.....	5
Adding the driver to your project .....	6
Licencing.....	<b>Error! Bookmark not defined.</b>

## Overview

The X-332™ is a robust, full-featured, web-enabled Ethernet I/O module. It has 16 independent relays, 16 optically-isolated digital inputs, 2 counter inputs, 4 analog inputs, support for up to four temperature and/or humidity sensors, and the ability to control relays remotely on other ControlByWeb devices. It also has many additional features such as a full calendar scheduler, a BASIC script interpreter, logging, and a real-time clock with NTP synchronization.

The X-332 has a built-in web server so its relays and inputs can be controlled and monitored using a standard web browser (or by using our CBW Mobile smartphone app).

Additionally, temperature and humidity data can be graphed directly from any HTML5 compatible web browser. Email alerts can be configured based on relay and/or input states, and temperature/humidity thresholds.

Some of its many advanced features include the ability to initiate a connection to remote servers, BASIC programming, SNMP, peer-to-peer communications, internal monitoring, etc.

Simply access and configure the X-332 by using its web-based user interface. There is no software required, no subscription to buy, and no programming necessary for setup or use.

The X-332™ is designed for accuracy and reliability, and is an innovative solution for a number of applications. The Chowmain ControlByWeb X-332 driver for Control4 integrates 16 Relays, 16 Digital Inputs, 4 Analog Inputs (as variables), exposes 4 temperature sensor values and more to Control4.

## Features

- 16 x relay outputs
- 16 x sensor inputs (digital inputs)
  - NOTE – Control4 polls the sensors. As such it may take upto 5 seconds for the input to respond. Do not use the inputs if timing is crucial.
- 4 x analog inputs (as variables)
- Exposes values to variables for programming
  - Last Poll Time
  - Serial Number
  - Onboard Timestamp
  - Internal Temperature
  - Memory Power Up Flag
  - Device Power Up Flag
  - Poss Loss Counter
  - Analog 1 State
  - Analog 2 State
  - Analog 3 State
  - Analog 4 State
  - Analog 1 Alarm
  - Analog 2 Alarm
  - Analog 3 Alarm
  - Analog 4 Alarm
  - Input 1 State
  - Input 2 State
  - Input 3 State
  - Input 4 State
  - Input 5 State
  - Input 6 State
  - Input 7 State
  - Input 8 State
  - Input 9 State
  - Input 10 State
  - Input 11 State
  - Input 12 State
  - Input 13 State
  - Input 14 State
  - Input 15 State
  - Input 16 State
  - Relay 1 State
  - Relay 2 State

- Relay 3 State
- Relay 4 State
- Relay 5 State
- Relay 6 State
- Relay 7 State
- Relay 8 State
- Relay 9 State
- Relay 10 State
- Relay 11 State
- Relay 12 State
- Relay 13 State
- Relay 14 State
- Relay 15 State
- Relay 16 State
- High Time 1
- High Time 2
- Raw Count 1
- Raw Count 2
- Voltage Input
- Voltage Input Alarm
- Units
- Sensor 1 Temp
- Sensor 2 Temp
- Sensor 3 Temp
- Sensor 4 Temp
- Sensor 1 Alarm
- Sensor 2 Alarm
- Sensor 3 Alarm
- Sensor 4 Alarm
- Count 1
- Count 2
- Extra Variable 0
- Extra Variable 1
- Extra Variable 2
- Extra Variable 3
- Programming Actions
  - Ability to clear memory flag
  - Ability to clear device flag
  - Ability to clear power loss counter

## Change Log

Version #20160810 - 10-AUG-2016

- Initial Release

## Important Notice

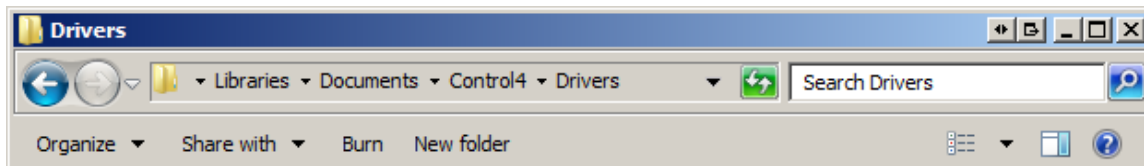
This driver polls the unit once every 5 seconds. As such it may take upto 5 seconds for a response. It is not recommended for time critical applications such as motion sensing.

## 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 c4z 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. Type in '**X-332**' into the search bar



4. Double click on the '**ControlByWeb X-332**' driver to add it to your project
5. Highlight the '**ControlByWeb X-332**' driver on the left hand side.
6. Enter in the IP address, username and password for the device.

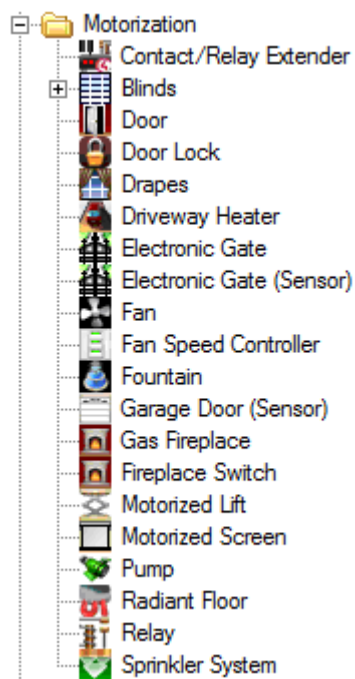
**Note:** The driver will automatically come with the default username and password filled out.

IP Address	192.168.3.221
Username	admin
Password	webrelay

- The driver will auto import the details. Once the details populate the screen then you are ready to add motorised/sensor devices and make the connections.

<b>Last Poll Time</b>	
<b>Serial Number</b>	n/a
<b>Onboard Timestamp</b>	n/a
<b>Internal Temperature</b>	n/a
<b>Memory Power Up Flag</b>	n/a
<b>Device Power Up Flag</b>	n/a
<b>Power Loss Counter</b>	n/a

- Click on My Drivers on the right hand side.
- Under Motorisation double click on the device type you want to use (note this will be the icon for your device).



































- Do the same for Sensor based devices.

11. Click on the Connections tab.



12. Highlight driver on the left hand side.

13. Bind the Relay to the device outlet is it connected to.

Control Outputs			
 Input 1	Control	CONTACT_SENSOR	Output
 Input 2	Control	CONTACT_SENSOR	Output
 Input 3	Control	CONTACT_SENSOR	Output
 Input 4	Control	CONTACT_SENSOR	Output
 Input 5	Control	CONTACT_SENSOR	Output
 Input 6	Control	CONTACT_SENSOR	Output
 Input 7	Control	CONTACT_SENSOR	Output
 Input 8	Control	CONTACT_SENSOR	Output
 Input 9	Control	CONTACT_SENSOR	Output
 Input 10	Control	CONTACT_SENSOR	Output
 Input 11	Control	CONTACT_SENSOR	Output
 Input 12	Control	CONTACT_SENSOR	Output
 Input 13	Control	CONTACT_SENSOR	Output
 Input 14	Control	CONTACT_SENSOR	Output
 Input 15	Control	CONTACT_SENSOR	Output
 Input 16	Control	CONTACT_SENSOR	Output
 Relay 1	Control	RELAY	Output
 Relay 2	Control	RELAY	Output
 Relay 3	Control	RELAY	Output
 Relay 4	Control	RELAY	Output
 Relay 5	Control	RELAY	Output
 Relay 6	Control	RELAY	Output
 Relay 7	Control	RELAY	Output
 Relay 8	Control	RELAY	Output
 Relay 9	Control	RELAY	Output
 Relay 10	Control	RELAY	Output
 Relay 11	Control	RELAY	Output
 Relay 12	Control	RELAY	Output
 Relay 13	Control	RELAY	Output
 Relay 14	Control	RELAY	Output
 Relay 15	Control	RELAY	Output
 Relay 16	Control	RELAY	Output

14. Click on the File and Refresh Navigators. Congratulations you have set up the Control by Web driver.



## Licencing

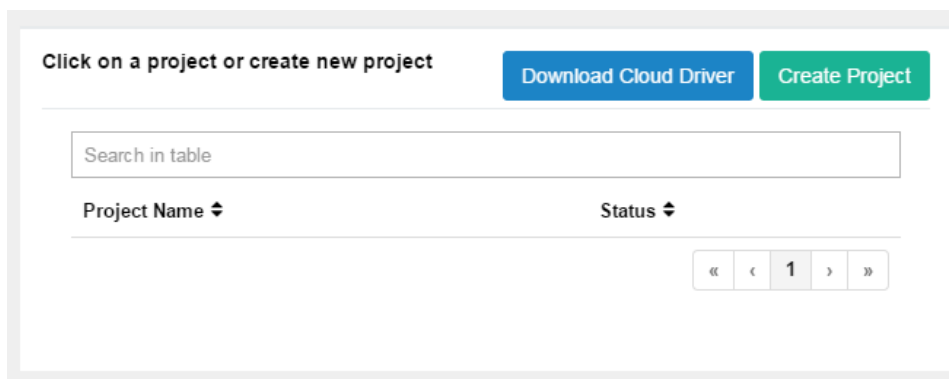
Chowmain drivers require a valid licence to use the driver. Drivers can be purchased from our distributor [driverCentral](#) however all Chowmain drivers come with a 7 day trial. We recommend that prior to purchasing a driver that you test the driver out to ensure that it will work with your hardware 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.

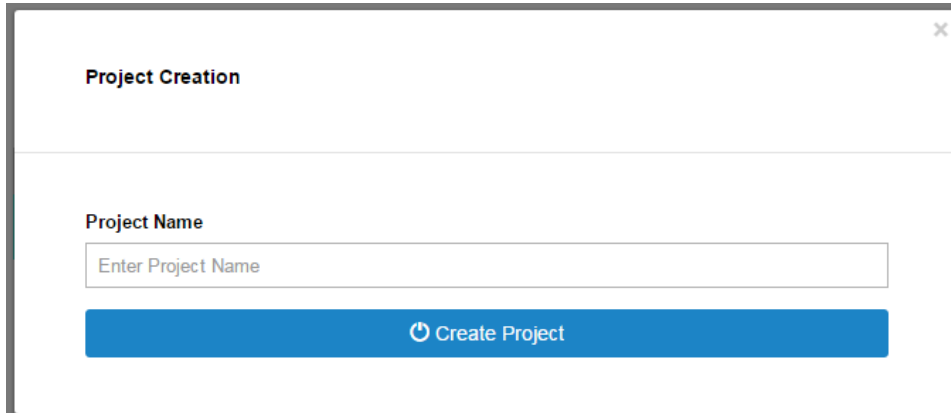
## STEP 1 - Creating your project on driverCentral

1. Visit <http://www.drivercentral.io>
2. Log into your driver Central dealer account.
3. Visit the Project Portal
4. Click on Create Project



The screenshot shows the 'Project Portal' interface. At the top, there is a header with the text 'Click on a project or create new project' and two buttons: 'Download Cloud Driver' (blue) and 'Create Project' (green). Below the header is a search bar with the placeholder text 'Search in table'. Underneath the search bar are two columns: 'Project Name' and 'Status', each with a dropdown arrow. At the bottom right, there is a pagination control showing '«', '<', '1', '>', and '»'.

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



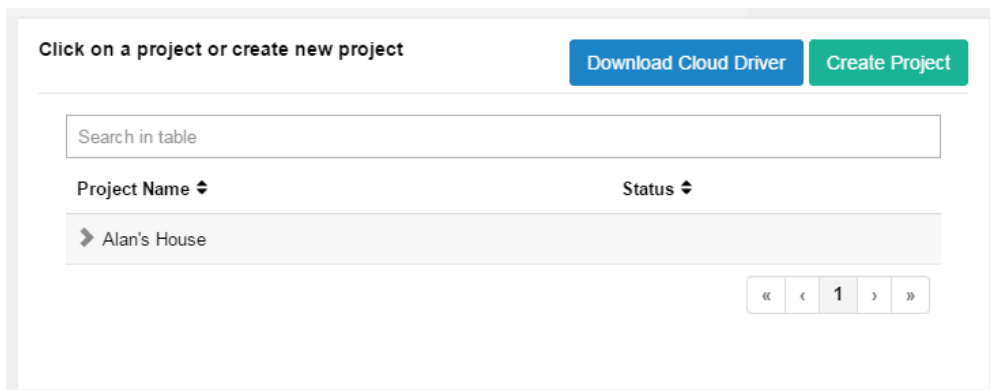
**Project Creation**

**Project Name**

Enter Project Name

Create Project

- Click on Create Project
- Click on the project we just created to expand the project



Click on a project or create new project

Download Cloud Driver Create Project

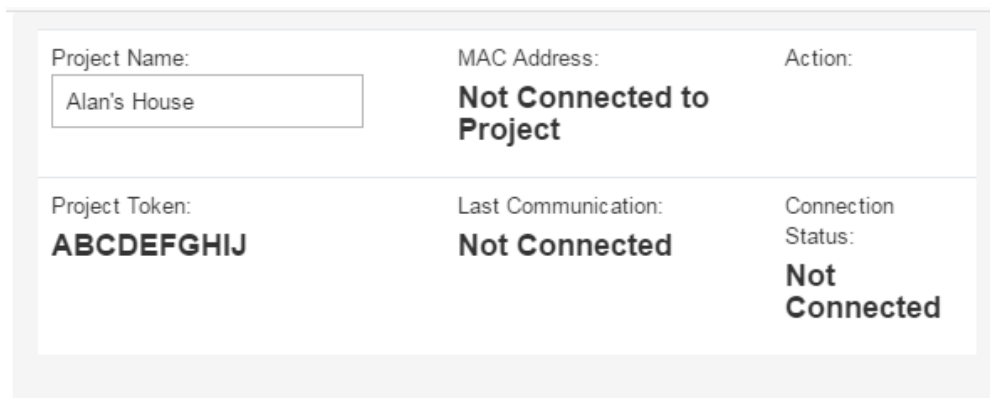
Search in table

Project Name Status

Alan's House

« < 1 > »

- Take note of the Project Token as this will be used in STEP 3 when we install the driverCentral cloud driver.



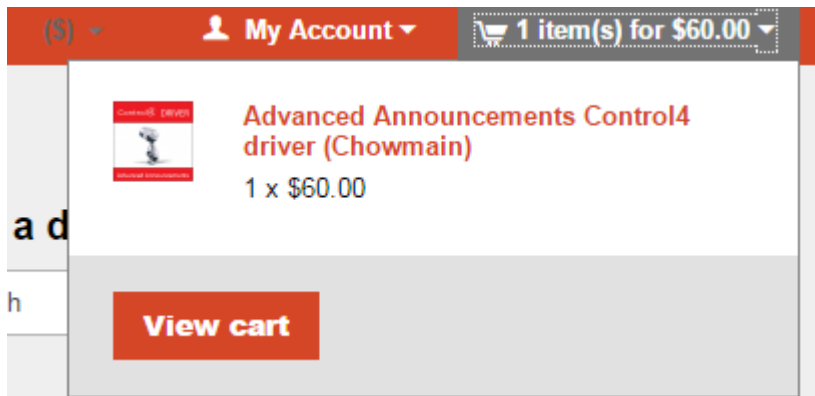
Project Name: Alan's House	MAC Address: <b>Not Connected to Project</b>	Action:
Project Token: <b>ABCDEFGHIJ</b>	Last Communication: <b>Not Connected</b>	Connection Status: <b>Not Connected</b>

## STEP 2 –Purchase driver licence

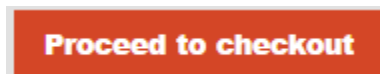
1. Visit <https://www.drivercentral.io/chowmain-ltd/> and find the product/driver you want to purchase a licence for.
2. Click on the Add to Cart button



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



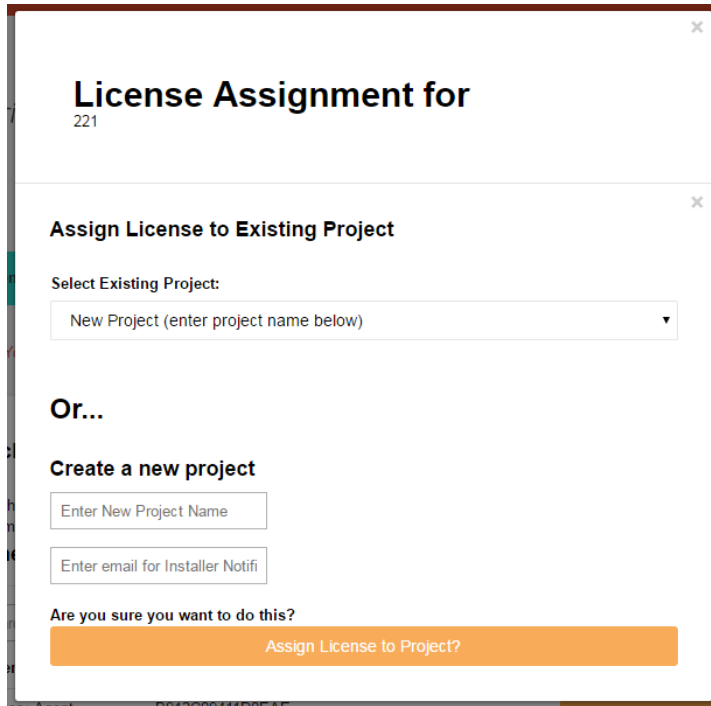
5. Follow the prompts and click on Submit my order



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 ↕
			<button>Assign to Project</button>

- 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**

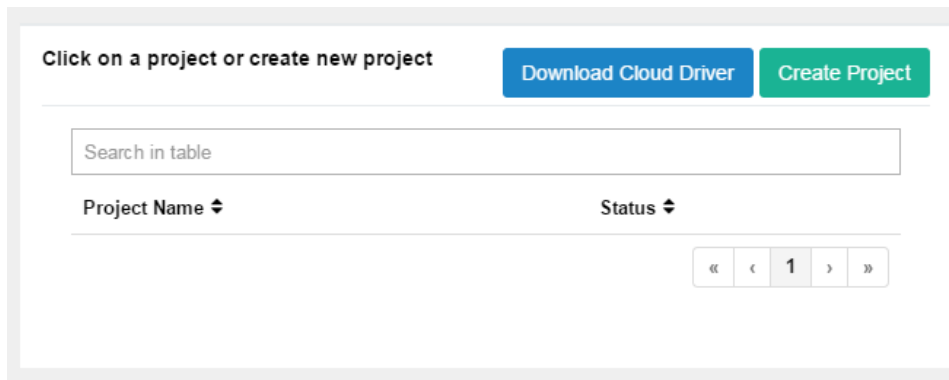
Enter New Project Name  
Enter email for Installer Notifi

Are you sure you want to do this?  
Assign License to Project?

### 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.

- Visit <http://www.drivercentral.io>
- Log into your driver Central dealer account.
- Visit the Project Portal
- Click on Download Cloud Driver



Click on a project or create new project

Download Cloud Driver Create Project

Search in table

Project Name ↕	Status ↕
« < 1 > »	

- Copy the C4Z driver to My Documents\Control4\Drivers directory.
- Add the driver to your project.

- 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	<input type="text"/>
	Project token from driverCentral.io project portal
Driver Actions	<input type="button" value="v"/>
Debug Mode	Off <input type="button" value="v"/>

- Type in the project token we took note of in STEP 1.
- Click on the Actions tab
- Click on Check Drivers

#### STEP 4 – Install Chowmain driver

- Install the Chowmain driver
- You will notice that the Activation Status reflects a Licence Activated state.
- 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.
- 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 <input type="button" value="v"/>