



APC Switched PDU Driver

Installation and Usage Guide

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Overview

APC's Switched PDU's allow you to control the power of devices in your customer's rack. This is extremely useful for energy saving and remote troubleshooting.

Integration into Control4 enables Control4 to do emergency shutdowns on low or high voltage levels or if the total power consumption is exceeding or lower than expected. This ensures that the health of your customer's expensive rack based equipment is maintained.

You may need to reboot a device that has locked up. Sending a technician onsite can be expensive. This driver will enable you to reboot a device remotely via 4sight. An even better solution would be to integrate it with the Chowmain free 'Ping' driver you can have Control4 automatically monitor devices and have the APC driver automatically reboot the device.

Features

- Dynamically import outlets
 - Detects how many outlets are present on the unit
 - Imports the names of each outlet into the driver's connections
- Auto import device details into properties page
 - Unit Name
 - Contact Details
 - Location
 - Up Time
 - Model Number
 - Present Outlets
 - Switched Outlets
 - Metered Outlets
 - Max Current
- Auto poll for device power consumption (once every 30 seconds). Available in properties page and in Control4 variables.
 - Total Current Power Consumption (in watts)
 - Total Energy Consumption since birth (in kWh)
 - Phase 1, 2 & 3 Voltage (in volts)
 - Phase 1, 2 & 3 Current (in amps)
 - Phase 1, 2 & 3 Power (in watts)
- Auto poll for outlet states
 - * On / Off / Toggle for all outlets (once every 30 seconds or when triggered by Control4)

Change Log

JUL 24 2014 – Initial Release

Important Notice

This driver has been developed for Control4 OS version 2.6.0. It is recommended that you test out this driver using the free 48 hour trial prior to purchase.

This driver has been built for APC OS (AOS) version 5.1.4 for the 8XXX range of devices. It may work for older versions of OS but it is recommended that you test out this driver using the free 48 hour trial prior to purchase. This driver will not work on the 7XXX series of devices.

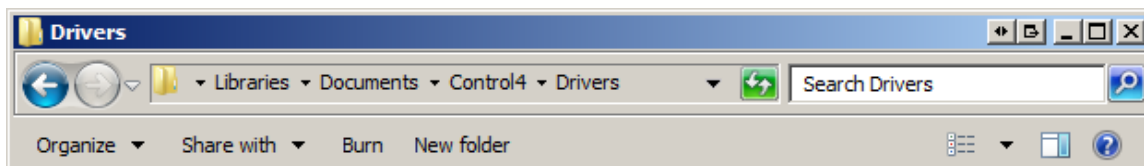
Note when this driver is connected no other connections can be made via telnet or the web server to the device. You can change the IP address in the driver to disconnect the driver from the device. Re-enter the IP address to reconnect

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.

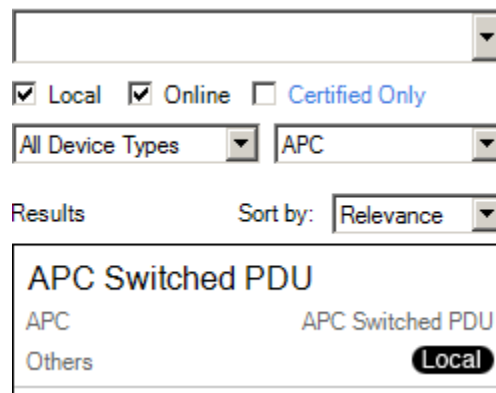


3. You are now ready to add and configure the driver via the Composer Pro software.

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 '**APC**' as the manufacturer.



Search results for APC:

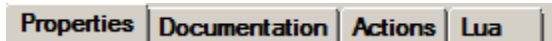
- APC Switched PDU
 - APC
 - Others
 - APC Switched PDU
 - Local

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

Note: When this driver is connected no other connections can be made via telnet or the web server to the device. You can change the IP address in the driver to disconnect the driver from the device. Re-enter the IP address to reconnect.

IP Address	192.168.3.221
Username	admin
Password	admin

- Click on the Actions tab.



- Make sure that you have disconnected from the IP PDU's web and telnet interfaces. If you are still logged in it will not allow any further connections.
- Click on the button labelled '**Auto Setup**'.

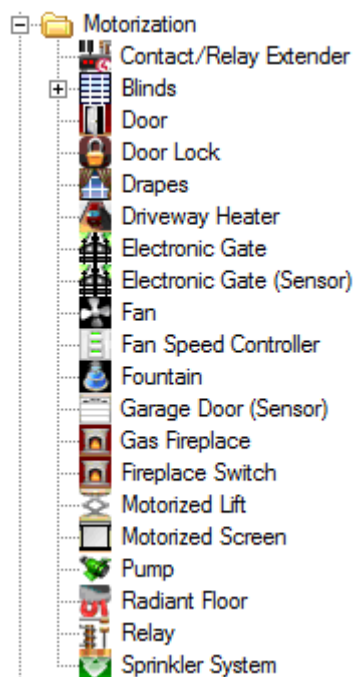


- Click on the Properties page. The driver will attempt to connect and auto import the details. Once the details populate the screen then you are ready to add motortised devices and make the connections.

Name	Rack 3 - AV
Contact	Unknown
Location	Lot 22
Up Time	253 Days 20 Hours 54 Minutes
Model	AP8959
Present Outlets	24
Switched Outlets	24
Metered Outlets	0
Max Current	16 A
Phases	1

- Click on My Drivers on the right hand side.

12. Under Motorisation double click on the device type you want to use (note this will be the icon for your device).



13. In the motorised device properties make sure that it is set to hold type and not pulse type.






14. Click on the Connections tab.



15. Highlight driver on the left hand side.

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

Control Outputs

 Outlet 1 - AppleTV-Bed2	Control	RELAY	Output
 Outlet 2 - AppleTV-Beverlies	Control	RELAY	Output
 Outlet 3 - AppleTV-Bed3	Control	RELAY	Output
 Outlet 4 - AppleTV-Toms	Control	RELAY	Output
 Outlet 5 - AppleTV-Cinema	Control	RELAY	Output
 Outlet 6 - AppleTV-Guest	Control	RELAY	Output
 Outlet 7 - Camera Server	Control	RELAY	Output
 Outlet 8 - Outlet 8	Control	RELAY	Output
 Outlet 9 - Lutron Processor	Control	RELAY	Output
 Outlet 10 - SW16-16PB-Camera switch	Control	RELAY	Output
 Outlet 11 - NAS Drive	Control	RELAY	Output
 Outlet 12 - Door Intercom	Control	RELAY	Output
 Outlet 13 - Fuman - Cinema Audio	Control	RELAY	Output
 Outlet 14 - Fortigate Router	Control	RELAY	Output
 Outlet 15 - ADSL Modem	Control	RELAY	Output
 Outlet 16 - Outlet 16	Control	RELAY	Output
 Outlet 17 - HC800-Director	Control	RELAY	Output
 Outlet 18 - Outlet 18	Control	RELAY	Output
 Outlet 19 - Outlet 19	Control	RELAY	Output
 Outlet 20 - S24P (T/S,WAPs)	Control	RELAY	Output
 Outlet 21 - S24P8-VLAN2-ATVs,TVs	Control	RELAY	Output
 Outlet 22 - HC800-Network Rack	Control	RELAY	Output
 Outlet 23 - Rack Fans	Control	RELAY	Output
 Outlet 24 - Outlet 24	Control	RELAY	Output

17. Click on the File and Refresh Navigators. Congratulations you have set up the APC Switched PDU.

Licencing

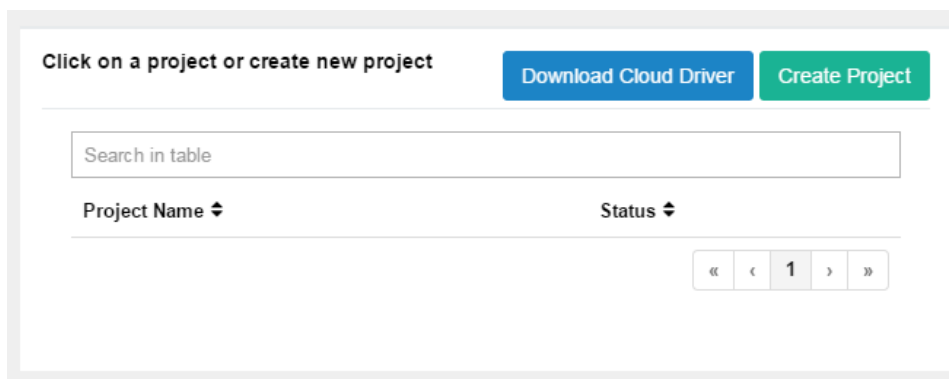
Chowmain drivers require a valid licence to use the driver. Drivers can be purchased from our distributor [driverCentral](#) however all Chowmain drivers come with a 7 day trial. We recommend that prior to purchasing a driver that you test the driver out to ensure that it will work with your hardware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

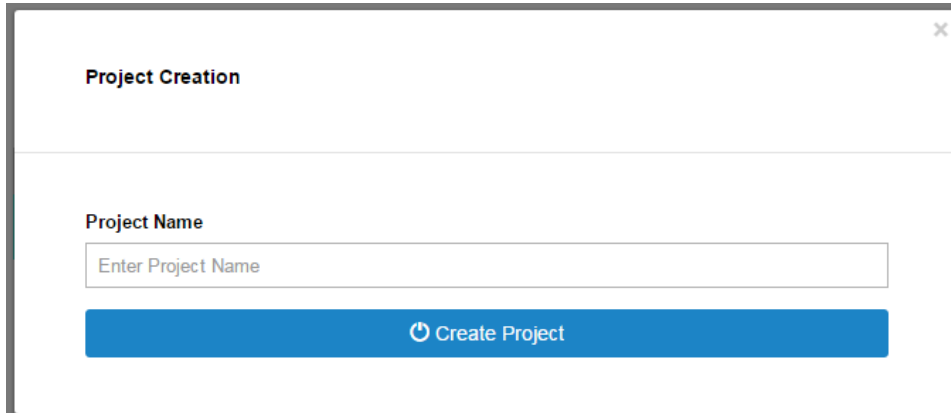
STEP 1 - Creating your project on driverCentral

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'. Under the search bar, there are two columns: 'Project Name' and 'Status', both with a dropdown arrow. At the bottom right, there is a pagination control showing '« ‹ 1 › »', indicating the current page is 1.

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



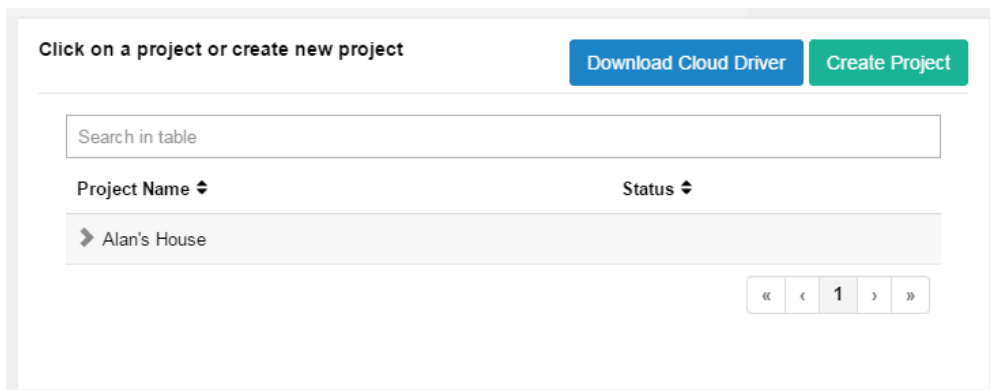
Project Creation

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

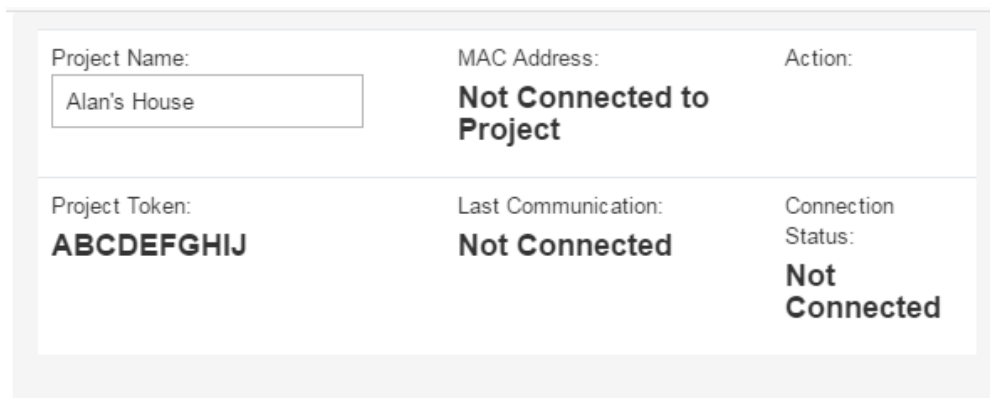
Search in table

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.



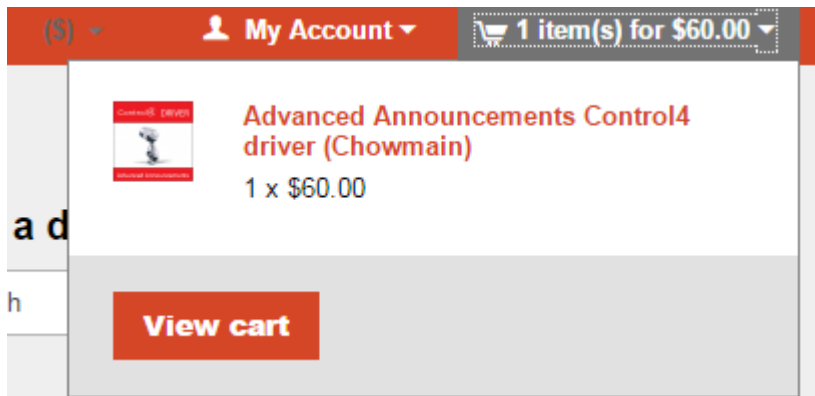
Project Name: Alan's House	MAC Address: Not Connected to Project	Action:
Project Token: ABCDEFGHIJ	Last Communication: Not Connected	Connection Status: Not Connected

STEP 2 –Purchase driver licence

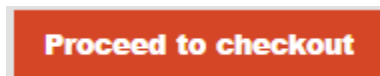
1. Visit <https://www.drivercentral.io/chowmain-ltd/> and find the product/driver you want to purchase a licence for.
2. Click on the Add to Cart button



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



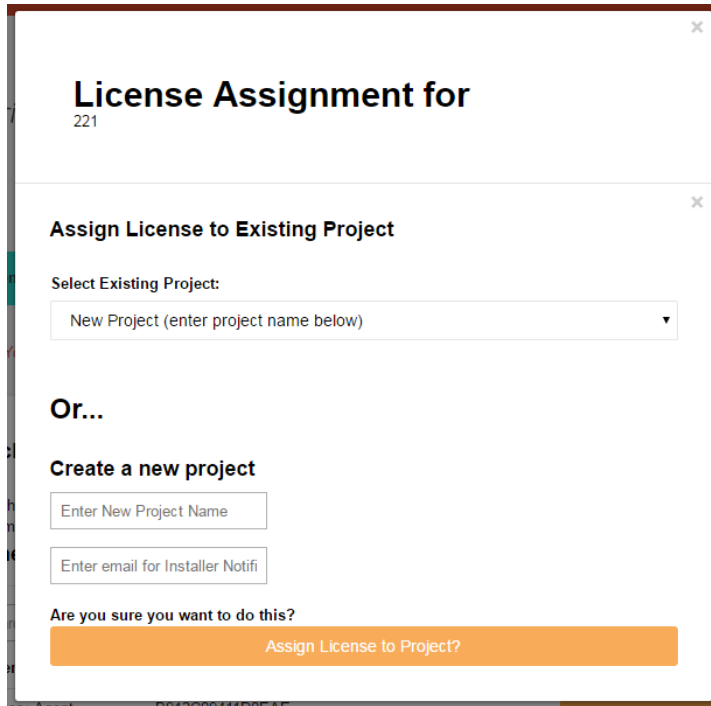
5. Follow the prompts and click on Submit my order



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

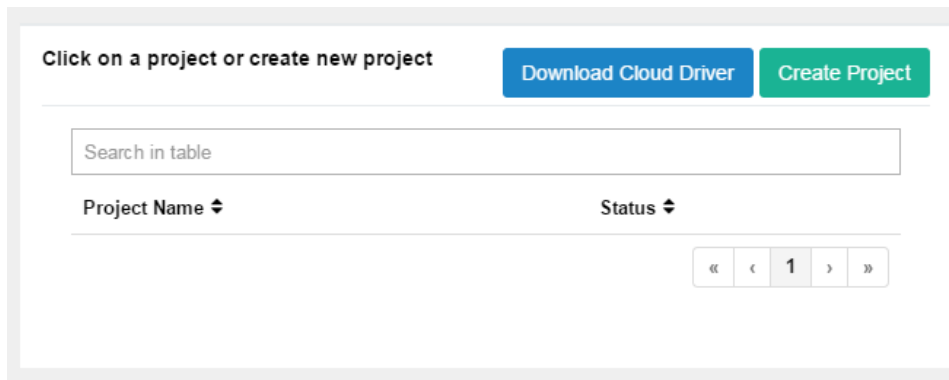
Enter New Project Name
Enter email for Installer Notifi

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"/>