

SurgeX-Axess-PDU Installation and Usage Guide



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Overview

When it comes to optimizing rack space, the Axess Series+ smart PDU is the ultimate solution for space efficient power distribution. Its feature-rich design and IP-controlled power management and analytics, make Axess Series+ the perfect choice for those seeking space efficiency and intelligent power management.

Fully IP-controlled, Axess Series+ boasts robust remote power management and analytical software. Features include remote turn on/off, power cycling, advanced sequencing and scheduling, triggered alerts, and seamless integration with most third-party control systems. This enables power management from any location, eliminating the need for costly and time-consuming onsite service calls.

Flexible sizing options ensure the perfect fit for any rack configuration. Outlets are individually controlled through the convenience of remote power management.

With its comprehensive features, IP-controlled power management, and flexible sizing options, Axess Series+ truly is the smart way to save rack space and manage your power.

Features

- Dynamically created bindings for all available outlets on the device
- Automatically adds and renames a **Control4 Single Relay** driver for each outlet and makes the binding to the driver
- Provides Variables for the following
 - Current (Float)
 - Temperature (Float)
 - Energy Usage (Float)
 - Device Running (Boolean)
 - Voltage Rating (Float)
 - Voltage NG (Float)
 - Voltage LN (Float)
 - Device Shutdown (Boolean)
 - Frequency (Float)
- Programming for the following Events
 - Device Running
 - Device Shutdown

Setup

Requirements

- Control4 OS 3.3.3 is the minimum required. Earlier Control4 OS Versions are not officially supported.

Steps

1. Search for **SurgeX Axess Series Smart PDU**
 1. **Composer**
 2. **System Design**
 3. **Search** tab
2. Double click the driver from the results to add it to the project
3. Enter the **IP Address** of the SurgeX device
4. Set the **HTTPs Enabled** to **true** if you have enabled HTTPS on the device
5. Confirm the **Port** is set to the correct port. Default is **80** for HTTP and **443** for HTTPS
6. Enter the **Username** and **Password** for the device
7. Select the **Actions** tab and press **Auto Setup**

At this point the driver will automatically create the bindings for the all the available outlets on the device and add a relay driver for each binding.

Driver Properties

Property	Description
	This is the IP address of the SurgeX device.
IP Address	• This only needs to be the IP address. • If you have a domain name, don't add the http:// or https:// to the start. • Also, don't add any port numbers to this property
Port	This will be updated to the defaults every time you change the HTTPs Enabled property. This is the webui port for the SurgeX device
HTTPs Enabled	Changes the default port set in property Port
Username	Credentials used to access the SurgeX device. <i>Note that the user must have the correct access to the unit eg: Admin and Device Control privileges</i>
Password	This is the password of the username above
Last Communication from Device	Every response to a request for data from the device will update this field

Property	Description
Model	This is the reported model number of the device
Serial Number	This is the reported serial number of the device
Firmware	This is the reported firmware version of the device
Temperature Units	This is the reported temperature scale used by the device Fahrenheit or Celcius
Poll Interval (seconds)	This is the reported poll interval reported by the device

Driver Actions

Action	Description
Display Diagnostics	This will display any issues that the driver has had running since the last reboot
Auto Setup	This will automatically create the bindings for the all the available outlets on the device and add a relay driver for each binding.
Clear Bindings	This will remove all the bindings on the driver. It will not remove the relay drivers
Print Available Sequences	Use the print out in the Lua Output window to determine the sequence number for the Programming > Device Specific Command - Run Sequence.

Troubleshooting

I'm having issues with the driver, what should I do?

First, enable debugging ("Debug Mode" = "**Print**" and then "Debug Level" = "**7 - Debug**").

Then look at the table below to rectify any error messages.

Support for the hardware and the driver is provided by SurgeX.

Some parts of the driver work and others don't, what could be wrong?

This is likely due to the privileges assigned to the account the driver is using.

Make sure that the following privileges are assigned to the account:

- Admin (ideal - you won't be able to set the **Shutdown State** without this privilege)
- Device Control (at minimum)

I receive the following error in the Lua output, what should I do?

COMMANDSet Outlet called with invalid state:	Check the Programming Command
--	-------------------------------

COMMANDShutdown State called with invalid state:	Check the Programming Command
--	-------------------------------

ERROR: The Variable xyz does not exist	The driver is possibly corrupt as you shouldn't see this error
--	--

Attempt to switch Outlet OFF failed	We successfully sent the command to the device but it <i>failed</i> to action it. Check the device for issues
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Attempt to switch Outlet ON failed	We successfully sent the command to the device but it <i>failed</i> to action it. Check the device for issues
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Attempt to run sequence failed #	The driver couldn't send the request to the device, is it offline or have the credentials changed?
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Unable to reboot outlet # on id #	confirm that the outlet and the id are correct
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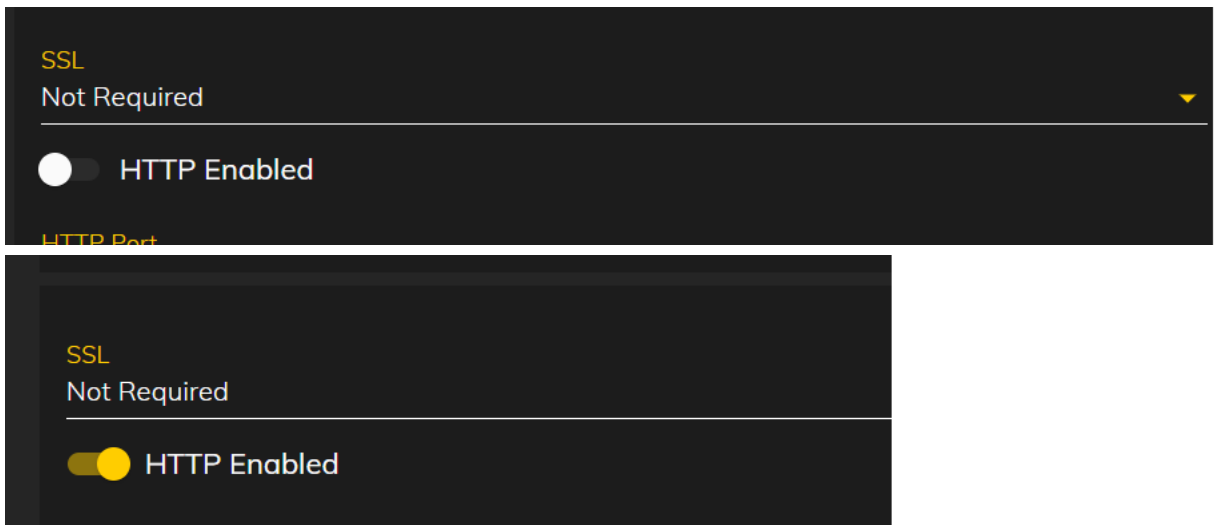
Attempt to reboot outlet # on id # failed	confirm that the outlet and the id are correct
---	--

Attempt to enter shutdown state failed	We successfully sent the command to the device but it <i>failed</i> to action it. Check the device for issues
--	---

Attempt to clear shutdown state failed	We successfully sent the command to the device but it <i>failed</i> to action it. Check the device for issues
Last Response", "ERROR: transfer failed.	This due to the driver/controller being unable to communicate with the device on the network. the error message and error code should provide some more insight to the cause

I can no longer access the web interface of the device, what should I do?

If you have confirmed that the IP address is still valid and can still ping the device, it is likely that the HTTP server has been disabled.



Below are two methods to re-enable the HTTP server:

1. Using USB
 1. Connect a USB cable to the device
 2. Open the device on IP "https://169.254.10.100"
 3. Navigate to **Network Settings** page
 4. Turn on **HTTP Enabled**
2. Software Hard Reset
 1. Press the Software Reset button on the device for 11 seconds
 2. The device will go through a complete reset, removing all settings (log reports, triggers, Sequences, User info etc) and returning it to factory defaults

FAQ

Why is this product so exciting?

The Axess Series+ is the latest innovation to join the SurgeX CONNECT product line. The smart PDU allows integrators to efficiently save valuable rack space and to have the flexibility to remotely monitor and manage power from any location, saving time and money.

How is the PDU controlled?

The PDU is controlled via IP

Where can i find out more information about the hardware?

You can find out more about SurgeX's Axess Series+ Smart PDUs via the [SurgeX Website](#)

I want to try this driver out before buying it?

This is a manufacturer sponsored driver and as such is free of charge.

Change Log

Version 20240731 - 31-JUL-2024

- Initial release