

CyberPower UPS Driver

This driver allows a CyberPower UPS equipped with Remote Management Card 400 (RMCARD 400) to integrate with Control4. The integration utilizes the REST API running on the RMCARD.

Configuration

Prerequisites

1. CyberPower UPS equipped with [RMCARD400](#)
2. RMCARD400 must be running Firmware 1.0.4 or newer. Some cards still ship with Firmware 1.0.2 and firmware must be upgraded in steps to 1.0.3 to 1.0.4. Follow CyberPower instructions carefully.
3. Requires `cyber` or another admin account credentials.

Initial Driver Configuration

1. Add the driver to the Control4 project. The driver can be added to the project more than once to integrate with multiple UPS.
2. In the **Properties** tab, enter the `Base URL` that can be used to access the UPS. Something like `http://192.168.123.123` or using a valid DNS name.
3. Enter the `cyber` or admin username and password.
4. Set `Poll Time Minutes` to the desired value.
5. Optionally, configure `Status Event Minutes`. 0 means disabled. If set greater than 0, the driver will periodically check to see if the UPS status has been updated recently. If the last status update was greater than `Status Event Minutes` ago, an event will be fired/triggered. See Events below for information about the event called `When UPS Status has not been updated recently`.
6. If `Status Event Minutes` is configured, also set `Repeat Status Event Minutes`. This value ensures that the status event if not triggered too often. For example, if you're sending a push notification when the event fires, this ensures notifications are triggered not more often than this interval.
7. Once all configuration values are set, test the configuration by selecting **Authenticate** in the **Actions** tab. If successful, the `API Status` in the **Properties** tab will say, `Login succeeded`.

UPS status will update within the configured `Poll Time Minutes`. To trigger an immediate update, select **Update Device Status** in the **Actions** tab. Once status is updated, information in the **Properties** tab under `Current UPS State` will be populated.

Properties

- `Cloud Status`: Indicates if the license is activated, expired, or if updates are available.
- `Automatic Updates`: If 'On', automatically installed updates when they become available.
- `Driver Version` - Numeric version of the driver.
- `Base URL` - The URL where the UPS web server can be found. This should be a full URL including `http://` and an IP address or DNS name.
- `Username` - An admin username such as `cyber`.
- `Password` - The admin user's password.
- `Poll Time Minutes` - The interval in minutes that the driver should check the UPS status.
- `Status Event Minutes` - Trigger an event if the UPS status does not update for this many minutes. 0 means do not trigger an event.
- `Repeat Status Event Minutes` - If the UPS Status continues to fail to update, only trigger the event after a delay of this many minutes. Prevents sending too many notifications.
- `API Status` - The status of the last API request. Possible values include **Last API request was successful** or **Last API request had an error**.
Response code: .
- `Status Last Updated` - The date and time that the UPS status was last successfully updated.
- `Input Status` - The input power status of the UPS. Possible values include `Normal`, `Under Voltage`, `Over Voltage`, `Frequency Failures` or `Blackout`. `Normal` is the only status considered normal.
- `Output Status` - The output power status of the UPS. Possible values include `Normal`, `Boost`, `Buck`, `Over Load`, `Bypass`, `Manual Bypass`, `Bypass Overload`, `ECO Mode` and `No output`. `Normal` and `ECO Mode` are considered normal values.
- `Battery Status` - The status of the battery. Possible values include `Normal`, `Discharging`, `Charging`, `Fully Charged`, `Not Present`, `Battery Testing` and `Battery Critically Low`. `Normal` and `Fully Charged` are considered normal values.
- `System Status` - The status of the overall UPS system. Possible values include `Normal`, `hwfailure`, and `overheat`.

Programming

The primary power of this driver comes from the programmability. It is vital to know when certain events occur with the UPS to ensure critical systems continue to receive power. The driver provides a number of events and variables to facilitate this.

Events

The following events will be triggered anytime the status of the respective type changes. For example, if `Input Status` changes from `Normal` to `Blackout` or vice versa, the event "When Input Status Changes" will trigger. It does not matter if status changes from normal to abnormal, or normal to normal - every change triggers an event.

- "When Input Status Changes"
- "When Output Status Changes"
- "When Battery Status Changes"
- "When System Status Changes"

The following events trigger only when the status of the respective type changes from a normal or abnormal state, or the inverse, as appropriate given the name of the event. See Properties section for details on normal states.

- "When Input Status is not Normal"
- "When Input Status is Normal"
- "When Output Status is not Normal"
- "When Output Status is Normal"
- "When Battery Status is not Normal"
- "When Battery Status is Normal"
- "When System Status is not Normal"
- "When System Status is Normal"

This last event is triggered only if `Status Event Minutes` is greater than 0. When configured, the driver will track how long since the last successful status update. If the last update is longer than `Status Event Minutes` ago, this event will be triggered. After triggering once, if the failure to update continues, the next event trigger will occur after `Repeat Status Event Minutes`.

- "When UPS Status has not been updated recently"

Variables

These variables provided another way to facilitate programming. They are also useful for adding information and context to Push Notifications.

- `INPUT_STATUS`
- `OUTPUT_STATUS`
- `BATTERY_STATUS`
- `SYSTEM_STATUS`
- `STATUS_LAST_UPDATED`
- `MINUTES_SINCE_LAST_UPDATE`

Support

We hope you have a trouble-free experience with this driver. If you encounter problems, please contact Driver Central support as a first step. If they're unable to resolve your problem they will escalate the problem to Blessing Innovations LLC.

If there are additional features you would like to see in this driver, please submit them by creating an issue at <https://gitlab.com/dblessing/c4-cyberpower-ups/-/issues>.