

Quick installation guide for UPScom

UPSI-2406DP1 in connection with UPScom V1.0.0.1 under Ubuntu 22.04.3 LTS

Linux knowledge is required. Please pay attention to upper- and lower-case letters.

Download UPScom software here.

Extract the file and select the required processor architecture.





Right-click on the folder and select 'Open in Terminal' from the context menu.



Installation: Bash script

Execute installation.

YourUsername@yourMachine:~your-directory/linux\$ sudo bash ./InstallAsSytemd.sh [sudo] password for YourUsername: enter password

The script copies files to the '/usr/local/bin/upscom' folder and creates systemd entries to automatically start UPScom on every system boot.

The green dot indicates that the UPSCom service is active.

| mcdonald@mcdonald-desktop: ~/Downloads/UPScom_Linux_All_CPU/Linux_x64 Q = - □ | × |
|---|------|
| <pre>mcdonald@mcdonald-desktop:~/Downloads/UPScom_Linux_All_CPU/Linux_x64\$ sudo bash ./InstallAsSystemd [sudo] password for mcdonald:</pre> | l.sh |
| ++ Installing UPScom Service Worker on System ++ | |
| Changes the access permissions of the directory (chmod) | |
| Copy files to /usr/local/bin/upscom/ | |
| Copy Systemd 'UPScom.App.Server.service' configuration file to /etc/systemd/system/ | |
| Reload System Daemon | |
| Enable Start on boot Created symlink /etc/systemd/system/multi-user.target.wants/UPScom.service →/etc/systemd/system/U om.service. | JPSc |
| Start Service | |
| ++ \033[32mUPScom was installed successfully\033[0m reboot the system and open \033[5m\033[43mhttp://localhost:8888\033[0m in a browser and start configuration! ++ | |
| <pre>View Service Status OUPScom.service - UPScom Service Worker Loaded: loaded (/etc/systemd/system/UPScom.service; enabled; vendor preset: enabled) Active: active (running) since Thu 2024-01-04 10:00:18 CET; 37ms ago Main PID: 6586 (UPScom.App.Serv) Tasks: 1 (limit: 4244) Memory: 2.6M CPU: 13ms CGroup: /system.slice/UPScom.service 6586 /usr/local/bin/upscom/UPScom.App.Server</pre> | |
| Jan 04 10:00:18 mcdonald-desktop systemd[1]: Started UPScom Service Worker. mcdonald@mcdonald-desktop:~/Downloads/UPScom_Linux_All_CPU/Linux_x64\$ | |

The software can be started without 'root' rights. It must be ensured that the logged-in user has the necessary privileges to access the serial ports or is a member of the Linux 'dialout' group.

To add a user to the 'dialout' group, type the following in a Linux terminal \rightarrow sudo adduser 'user_that_want_port_access' dialout

To start the program without installation, open a terminal and navigate to the folder where UPScom is copied. Launch the app with 'sudo ./UPScom.App.Server'. The terminal screen will display some log information.



UPSCom service

Navigate to the UPScom folder by going via File explorer "Files" \rightarrow Other Locations \rightarrow Computer \rightarrow (folder) usr/local/bin/**upscom** and open a terminal (Strg+Alt+T).

Check the status UPScom.service → sudo systemctl status UPScom

Stop the UPScom.service \rightarrow sudo systemctl stop UPScom

Start the UPScom.service \rightarrow sudo systemctl start UPScom

View journal log entries: → sudo journalctl -u UPScom

COM port

To set a specific COM port in UPScom.Config.json, go to the **UPScom** folder via File explorer "Files" \rightarrow Other Locations \rightarrow Computer \rightarrow (folder) usr/local/bin/**upscom** and open a terminal (Strg+Alt+T). Open file via nano editor \rightarrow sudo nano UPSCom.Service.Configuration.json

"DevicePort": "/dev/ttyS0" → S0 means COM Port 1 "DevicePort": "/Auto" → for USB connection

Save the file.

Communication problems

PC systems with ASRock mainboards may have problems with UPS communication via USB or COM port. If you would like to use COM port under Linux OS, please boot into BIOS to set COM port IRQ Moder to [Linux]. If you would like to use COM port under Win OS, please boot into BIOS to set COM port IRQ Moder to [Windows]. Path: BIOS >Advanced >Super IO configuration >COM Port IRQ Mode \rightarrow [Linux] or [Windows].



User interface

To access the user interface, open your web browser and enter \rightarrow 127.0.0.1:8888 or localhost:8888



Device Information

Manufacturer: Bicker Elektronik GmbH

Device Name: The connected UPS → UPSI-2406DP1 or another model from Bicker Elektronik GmbH will be displayed. For DC2412-12UPSx or UPSIC-xxxx series → UPSIC Series will be shown. Serial number/ Hardware Version/ Firmware Version/ μC Temperature from Device will be shown.

Device Status Flags

| Show information via " | False" and "True" | |
|------------------------|---|--|
| Is Charging | False: Energy storage will not be charged. | True: Energy storage will be charged. |
| Is Discharging | False: Energy storage will not be discharged. | True: Energy storage will be discharged. |
| Is Power present | True: UPS will be powered from source. | False: DC in or source fail. |
| Is Battery Present | True: Battery is connected. | False: Battery is disconnected. |
| Is Shutdown Signal set | True: Shutdown signal set. | False: Shutdown Signal not set. |
| Is Over Current | False: no over current at output. | True: Overcurrent at output. |
| | | |



Electrical information

Display voltage and current for input and output.

| Electrical Information | | | | | |
|----------------------------|----------------------------|-----------------------------|-----------------------------|--|--|
| | | | | | |
| | | | | | |
| Input Voltage ^⑦ | Input Current ^⑦ | Output Voltage ^⑦ | Output Current ^⑦ | | |
| | | | | | |
| 24.21 V | 0.62 A | 23.87 V | 0.60 A | | |
| | | | | | |

Input Voltage: Shows the actual input voltage of the UPS. Input current: Shows the actual input current of the UPS. Output voltage: Shows the actual output voltage of the UPS. Output current: Shows the actual output current of the UPS.

Battery information

| Battery Information BP-LIO-1525 | | | | | |
|---------------------------------|------------------------------|--------------------------|----------------------------------|--|--|
| | | | | | |
| | | | | | |
| Battery Voltage ^⑦ | Battery Current ^⑦ | Battery SOC ^⑦ | Battery Temperature ^⑦ | | |
| | | -0 | | | |
| 15.86 V | 0.01 A | 100 % | 28 °C | | |
| | | | | | |
| | | | | | |
| 0 15.86 V | 0.01 A | 100 % | 28 °C | | |

| Battery Voltage: | Shows the actual battery voltage of the battery or energy storage. |
|----------------------|---|
| Battery Current: | Shows the actual battery current of the battery or energy storage. A negative value |
| | indicates discharge. |
| Battery SOC: | Shows the actual State of Charge of the battery or energy storage. |
| Battery Temperature: | Shows the actual battery temperature. |
| | |



UPS Settings

| C UPScom - UPS Settings X + | | |
|-----------------------------|--|-----------------------|
| | | |
| | | |
| Oashboard | UPS Settings | |
| UPS Settings | Configuration of the UPS parameters. | ELEKTRONIK |
| (h) Shukdown Sattinas | Load Sensor [®] | |
| | | 200 mA |
| Email Settings | | 200 1101 |
| i≣ Logs | | |
| i About | Maximum Backup Time ® | |
| | | 00 1 00 1 00 hhummen |
| | | 00 . 00 . 03 mm.mm.ss |
| | | |
| | Minimum Capacity to Start ^⑦ | |
| | | |
| | | 20 % |
| | | |
| | Restart Delay Timer ® | |
| | | |
| | • | 10 sec. |
| | Reset Settings | |

Load Sensor

When enabled, the load sensor will switch off the UPS when DC input fails, and the load falls below the set value from the load sensor.

Example:

If a PC is connected to the output of the UPS, the load sensor must be adjusted below the **IDLE power** and above the **Off-mode** power of the PC.

If your PC consumes 3A in **IDLE Mode** and 0.1A in **Off mode** the load sensor must be set higher than 0.1A. If a USB or RS232 Interface is connected, additional settings under "Shutdown Settings" are required.

Maximum Backup Time

When enabled, it will switch of connected load after the set time. This is used for systems without an RS232 or USB interface.

Minimum Capacity to Start

When enabled, it will enable the output of the UPS at x% SOC. It is recommended for use with UPS systems with ultra caps as energy storage. During the initial switch-on of the UPS, super caps must be charged first to supply energy in UPS mode.

Restart Delay Timer

When enabled, it will reboot a PC system if power comes back during the shutdown of the OS, such as Windows. The "Restart Delay Timer" switches off the output of the UPS for the set time. After this time, the output of the UPS will be switched on again, and the PC will restart (maybe BIOS settings needed).



Shutdown Settings

| UPScom - Shutdown Settings × + | | |
|---|---|-----------------------|
| ← → C (i) 127.0.0.1:8888/shutdownsettings | | |
| UPScom Bother Elektronik Editori | | |
| | Shutdown Settings | BICKER.de |
| UPS Settings | Configuration of the Operating System shutdown function when in battery mode. | |
| C Shutdown Settings | Shutdown By Time ® | |
| Email Settings | • | 00 : 10 : 00 hh:mm:ss |
| i≣ Logs | | |
| i About | Shutdown By SOC ® | |
| | · · · · | 35 % |
| | | |
| | Force Shutdown [®] | |
| | | |
| | Run Program ® | |
| | Program Name | |
| | Program Arguments | |
| | Working Directory | |
| | | |

Shutdown By Time

| Shutdown By Time ^⑦ | | | | | |
|-------------------------------|---|--------|------|----------|--|
| • | 0 | 0 : 01 | : 10 | hh:mm:ss | |

When enabled and the UPS is in battery mode, the operating system shuts down when the set time has elapsed. An interface connection via USB or RS232 is needed.

Shutdown By SOC

| Shutdown By SOC ⑦ | | | |
|-------------------|----|---|--|
| • | 20 | % | |
| | | | |

When enabled and the UPS is in battery mode, the operating system shuts down when the set SOC (State of Charge) of energy storage has elapsed. An interface connection via USB or RS232 is needed.

Force Shutdown ⁽²⁾

When enabled, open programs that do not close themselves during shutdown will be hard terminated.

E Mail Settings

| UPScom - Email Settings × + | | |
|------------------------------------|--|--------------------|
| ← C ① 127.0.0.1:8888/emailsettings | | œ A ^N Q |
| UPScom uPS-Management Software | | |
| | E-Mail Settings | BICKER.de |
| UPS Settings | Configuration of e-mail notification for various events. | |
| ひ Shutdown Settings | | |
| Email Settings | Sender Name UPSCom | |
| i≣ Logs | Sender Email Address ups@bicker.de | |
| î Albout | Receiver Email Address 888@bicker.de | |
| | Use SSL-Email | |
| | SMTP Server mailrelay | SMTP Port 25 |
| | SMTP Login Name | |
| | SMTP Login Password | |
| | Email When Power Fail | |
| | Email When OS Shutdown | |
| | Email When Battery Fail | |
| | Email When Connection Lost | |
| | Email When Battery Low 40 % | |
| | | |

Please contact your admin for the Email settings.

The settings can differ based on whether you have your own PC with an Email server program or an email server in the cloud.

If you have an Email server in the cloud, the "Sender Email Address", "Recipient Email Address" and "SMTP Login Name" could be the same.

Email message

A warning message will be sent when enabled in UPSCom Email settings.



If DC input fails, you will receive a warning message via email: "Warning: Power failure detected."

| | , ≂ Warnin ,Ѻ | ፹ - □ × |
|--|---|---|
| Datei Nachricht | Hilfe QuickSteps tuickSteps 5 | kierungen Bearbeiten F > |
| Warning: Power UPSCom < An © Joach Wenn Probleme mit um sie im Webbrows | r Fail detected! :ups@bicker.de> im Steinbach der Darstellungsweise dieser Nachri er anzuzeigen. | ③ ← ≪ → ···· 09:25 icht bestehen, klicken Sie hier, |
| UPScom S | tatus Information | |
| Host | Information | |
| Host Name: | DESKTOP-TSLAMHV | |
| | | |
| Operating System: | Microsoft Windows 10.0.19045 | |
| Operating System: System Time: | Microsoft Windows 10.0.19045 07/26/2023 08:24:34 | |
| Operating System: System Time: Devic | Microsoft Windows 10.0.19045 07/26/2023 08:24:34 e Information | |
| Operating System: System Time: Devic Manufacturer: | Microsoft Windows 10.0.19045 07/26/2023 08:24:34 e Information Bicker Elektronik GmbH | |
| Operating System: System Time: Devic Manufacturer: Device Name: | Microsoft Windows 10.0.19045 07/26/2023 08:24:34 e Information Bicker Elektronik GmbH UPSI-2406DP1 | |
| Operating System: System Time: Devic Manufacturer: Device Name: Serial Number: | Microsoft Windows 10.0.19045 07/26/2023 08:24:34 Information Bicker Elektronik GmbH UPSI-2406DP1 2036B0560008 | |
| Operating System: System Time: Device Manufacturer: Device Name: Serial Number: FW-Version: | Microsoft Windows 10.0.19049 07/26/2023 08:24:34 Information Bicker Elektronik GmbH UPSI-2406DP1 2036B0560008 v2.2.1R (Oct 18 2022 16:34:25) | |
| Operating System: System Time: Device Manufacturer: Device Name: Serial Number: FW-Version: HW-Version: | Microsoft Windows 10.0.19049 07/26/2023 08:24:34 Information Bicker Elektronik GmbH UPSI-2406DP1 2036B0560008 v2.1R (Oct 18 2022 16:34:25) 10 | |
| Operating System: System Time: Device Manufacturer: Device Name: Serial Number: FW-Version: HW-Version: CPU Temperature: | Microsoft Windows 10.0.19049 07/26/2023 08:24:34 Information Bicker Elektronik GmbH UPSI-2406DP1 20360560008 v2.2.1R (0ct 18 2022 16:34:25) 10 35 *C | |

Emails regarding battery failure will be sent only for UPS units with external batteries!



Logs

| Ø UPScom - Logging | × + | | | | |
|-----------------------------|------------|---------------------------------------|---------------------|------------------------|---|
| ← → C ③ 127.0.0.1:88 | 88/logging | | | | |
| UPScom adverBaterink Editor | l | Log Center Displays the event log. | | | |
| (h) Shutdown Settings | | | | Event Logs | |
| Email Settings | | Туре | Time | Message | • |
| i≣ Logs | | ок | 12/07/2023 14:44:34 | Input power is OK. | |
| | | WARNING | 12/07/2023 14:44:32 | Input power fail! | |
| 2 About | | INFO | 12/07/2023 14:22:33 | UPScom Server started. | |
| | | | | | |
| | l | Delete Logs | | | |

Events will be displayed in the Log Center.

About

| UPScom - About × + | | | | | | | - 0 | × |
|----------------------------------|--|--|-------|-----|-----|----------|------------------|------------|
| ← C ③ 127.0.0.1:8888/about | | EB A | • Q • | φ h | ¢ @ | S | ; [| D |
| UPScom und - Management Software | | | | | | | î I | |
| | out | | S de | | | | | Q |
| © Dashboard AD | | ELEKTRO | DNIK | | | | | |
| UPS Settings | s information about this software and host system. | | _ | | | | | |
| 😃 Shuldown Settings | 50 | | | | | | | |
| St. Empil Selfiner | PScom | | | | | | 1 | ξ ι |
| | erruptible Power Supply Management Software | | | | | | • | 0 |
| i≣ Logs | | | | | | | 6 | 2 |
| i About | What is UPScom URScom is a URS management adjuare for URS devices from Bicker Elektronic Orbit that enables controlled surtem shutdown. D | uring a nower failure | | | | | | 9 / |
| | UPScom allows you to shut down and power off your connected devices, preventing data from being lost or corrupted and sends e-m underse matterset. | nail status messages on | | | | | | - |
| | Vanous events. | | | | | | | |
| | UPScom monitoring and management capabilities provide insight into the battery backups power performance and connected device | es energy consumption. | | | | | | T |
| | Supported Devices and Operating Systems | | | | | | - 11 | |
| | UPScom supports Microsoft Windows® and Linux operating systems and may only be used with the following UPS devices from Bick | ker Elektronik GmbH: | | | | | - 11 | |
| | UPSI-1208(D), UPSI-1208DP2, UPSI-1208DP3, UPSI-1208IP* UPSI-2406(D), UPSI-2406DP1, UPSI-2406DP2, UPSI-2406DP3, UPSI-2406IP* | | | | | | - 11 | |
| | UPSI-2412(D), UPSI-2412DP2, UPSI-2412DP3 DC2412 UPSI-1412DP3, UPSI-2412DP3 DC2412 UPSI-1402D, UPSI-2412DP3 | | | | | | - 11 | |
| | DC2412-0P3D, 0P3IC-1205D, 0P3IC-2405D With PV-version greater v2.0.3 PSZ-1063 with FW-Version greater 2.0.3 | | | | | | - 11 | |
| | | | | | | | - 11 | |
| | Term of Lise | â | | | | | - | |
| | 1. Subject matter of the contract | | | | | | | |
| | Bicker Elektronik GmbH in Donauwoerth (creator), grants the user the non-exclusive, non-transferable right to use the licensed softw | are and documentation | | | | | | |
| | in accordance with the following license terms; otherwise, all rights to the software and documentation remain with its licensors. | | | | | | | |
| | The object of the contract is the software in the version generally published by the creator at the time of the conclusion of the contract description of the purchased software is available on request from the creator with regard to the specific product as part of the produc | t. A detailed functional ct data sheet or similar | | | | | | |
| | documents. | | | | | | | |
| | The achievement of the creator does not contain a requirement of the user on carrying out program extensions or program changes a software, also not, if these become necessary due to legal changes. The user is responsible for the procurement of such program and | after supply of the tensions or changes. | | | | | | |
| | including adaptations of the software to changed legal regulations. The creator offers corresponding services within the framework of | f separate software | | | | | | _ |
| | The technical standards used by the creator within the scope of service provision are available on request. The creator reserves the r | right to change the | | | | | | ~ |
| | support of technical standards and security measures, provided that either | g | | | | | Ψ ⁻ ε | 3 |

Information about term of use, etc...



Tips and tricks, knows problems.

Communication problems

PC systems with ASRock mainboards may have problems with UPS communication via USB or COM port. If you would like to use COM port under Linux OS, please boot into BIOS to set COM port IRQ Moder to [Linux]. If you would like to use COM port under Win OS, please boot into BIOS to set COM port IRQ Moder to [Windows]. Path: BIOS >Advanced >Super IO configuration >COM Port IRQ Mode \rightarrow [Linux] or [Windows].

RS232 connection

A DSUB9 1:1 cable <u>without</u> twist between UPS and PC is required.

Change IP address and port for Remote Access via WEB browser

Open UPScom.Config.json at UPScom folder with an editor. Write down "IP address and port" behind "TCPPort": and click save.

```
{
  ···"ServerSettings": {
  ···"TCPPort": "AllowAllIncomingIp:8888"
```