



User Guide

ePowerSwitch 4+



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Important safety instructions

Important safety instructions to be read before use

The **ePowerSwitch 4+** can only be installed by qualified people with the following installation and use instructions. The manufacturer disclaims all responsibility in case of a bad utilization of the ePowerSwitch devices and particularly any use with equipments that may cause personal injury or material damage.

- The **ePowerSwitch 4+** is designed to be installed on dedicated circuits that must have a circuit breaker or fuse protection.
- The electrical power sockets used to plug the power cords of the **ePowerSwitch 4+** must be close to the **ePowerSwitch 4+** and easily accessible.
- Check that the power cords, plugs and sockets are in good condition.
- The **ePowerSwitch 4+** can only be connected to three-wire 100-240VAC (50-60Hz) sockets.
- Always plug the **ePowerSwitch 4+** into properly grounded power sockets (two poles plus ground).
- Never exceed 10 Amp load for each power outlet of the **ePowerSwitch 4+**
- Never exceed 16 Amp total load for all 4 power outlets of the **ePowerSwitch 4+**.
- The **ePowerSwitch 4+** are intended for indoor use only. Do NOT install it in an area where excessive moisture or heat is present.
- Always disconnect the power cord of the **ePowerSwitch 4+** if you want to intervene on it or on the equipment powered from the **ePowerSwitch 4+**.
- The power outlets of the **ePowerSwitch 4+** are not circuit breakers! If you want to intervene on devices connected to the **ePowerSwitch 4+** you must disconnect these devices from the **ePowerSwitch 4+** device.
- Do NOT attempt to disassemble the **ePowerSwitch 4+**, it contains potentially hazardous voltages.
- The **ePowerSwitch 4+** contains no user serviceable parts and repairs are to be performed by factory trained service personnel only.
- Do not daisy chain Power Switches.
- Always use a shielded cable for the Ethernet connection.

Part I : Description

ePowerSwitch 4+ is an extension lead that enables remote power control over IP or locally through an USB Terminal connection.

The built-in mini Web server allows individual control of the four sockets, using a browser.

Its serial interface can be used to control the power outlets over a Terminal connection (KVM Switch, console server...).

An internal Real Time Clock enables to trigger scheduled actions and timestamp all events (logs, SNMP traps and Syslog events).

ePowerSwitch 4+ is more than a simple power strip. It offers IP device monitoring with automatic reboot function in case of lock-up.

ePowerSwitch 4+ supports the TCP/IP, HTTP, DHCP, SNMP, SMTP, SNTTP and Syslog.



Front Panel of ePowerSwitch 4+

- 1 USB connector for Terminal connection
- 1 RJ45 Network connector for Ethernet network
- 1 Pwr LED
- 4 Power Outlet Status LEDs

1 2 3 4 Pwr (LEDs) 1 to 4 Red. Status of power outlet 1 to 4 (On/Off) Pwr ePowerSwitch is powered On = ePowerSwitch 4+ software is loaded and functional Off = power default 1 time repeatedly = power on but not ready 2 times repeatedly = waiting on IP address from DHCP server 4 times repeatedly = System error (contact the manufacturer)	
Network (RJ45 Connector) Auto-Sensing 10/100 Mbits/sec Ethernet Port Link (LED) Off = Network connection not detected On = Network connection detected Flashing = the device is sending or receiving data over this port	100 (LED) Off = 10 Mbits/sec network connection On = 100 Mbits/sec network connection USB 2.0 USB port with Type-B connector.

Package list

The following items are included:

- ☐ 1 **ePowerSwitch 4+**
- ☐ 1 RJ45 M/M Network cable, 2 Meters
- ☐ 1 Quick installation guide
- ☐ 1 CD with User Guide, Quick Start Guide, Datasheet and Windows configuration program

Part II : Installation

Connection instructions

1. Use the provided or any shielded RJ45 network cable to connect your **ePowerSwitch 4+** to your network.
2. Use appropriated three-wire power cords (two poles plus ground) to connect your electrical devices to the Power outlets of the **ePowerSwitch 4+** unit.
3. Plug the power cable into a grounded socket. The Green LED "Pwr" lights up to confirm that power is on.
4. You can now configure the **ePowerSwitch 4+** by following the indications of the chapter "Configuration of the **ePowerSwitch 4+**".

Important safety instructions

Do not daisy chain Power Switches!

Daisy Chaining refers to Power Switches, power strips or extension cords being plugged into other Power Switches, power strips or extension cords. Daisy chaining usually occurs when there are not enough Power outlets to meet electrical needs. The main problem with daisy chaining is that it is against many safety codes and standards.

Do not overload the Power Switches!

The output current of each Power outlet must be limited to 10 A and the total load of all 4 power outlets do not exceed 16A.

Be careful when you plug the power cord of the **ePowerSwitch 4+** into a socket and do not overload wall sockets.

They could damage your **ePowerSwitch 4+** and could give you an electric shock or cause a fire.

Check your power cords from time to time and unplug your **ePowerSwitch 4+** if the power cord looks worn. Stop using your **ePowerSwitch 4+** until you have the power cord replaced by a qualified technician.

Do not twist, kink or pinch the power cords.

Part III : Configuration of the ePowerSwitch 4+

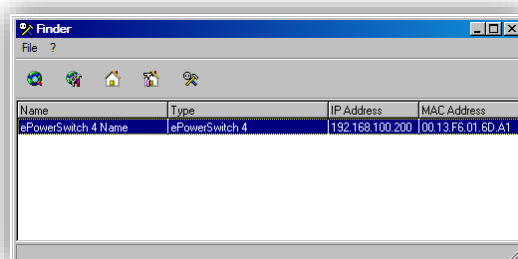
To use the **ePowerSwitch 4+** on your network, you must first configure its network parameters. Ask your network administrator for the parameters to use.

There are three methods to configure the network parameters of the **ePowerSwitch 4+**:

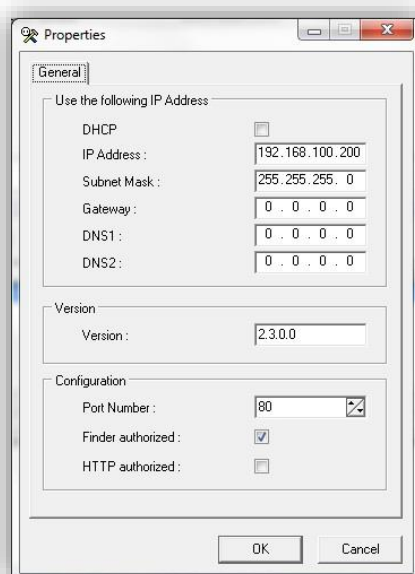
Chapter 1: Configuration through the LAN using the Finder program

It is the simplest and fastest configuration method if you use Windows as operating system. It allows to configure your **ePowerSwitch 4+** through your local network even if its network parameters are not compatible with those of your PC.

1. Start the Finder.exe program contained on the CD-ROM.
2. Open the File menu and choose **SCAN** (or click on the first left button in the tool bar) to discover the **ePowerSwitch 4+** connected on your LAN.



3. Open the File menu and choose **CONFIGURE** (or click on the second left button in the tool bar) to configure the network parameters.



This page enables to define all IP parameters of the **ePowerSwitch 4+** and displays the version of the Firmware. The HTTP protocol is enabled and the Finder program is authorized at factory settings.

Remark: To achieve the highest security level we suggest to disable the configuration using the Finder program after the first installation.

DHCP:

Check this box if you want to obtain the IP address, the subnet mask and the default gateway for your **ePowerSwitch 4+** via DHCP.



Use of DHCP (Dynamic Host Configuration Protocol) requires a DHCP host to be set up on the network.

IP Address:

IP address of the **ePowerSwitch 4+**, default is 192.168.100.200.

Subnet Mask:

Subnet Mask of the **ePowerSwitch 4+**, default is 255.255.255.0.

Gateway:

Generally the address of your router, default is blank.

DNS 1:

Primary DNS (Domain Name Server), default is blank.

DNS 2:

Secondary DNS, default is blank.

Version:

Firmware version of the **ePowerSwitch 4+**

Port Number:

Port number: default is 80 (HTTP).

Finder authorized:

The Network parameters of the **ePowerSwitch 4+** can be configured through a Local Area Network using the provided Finder Program. It is a simple and fast configuration method if you use Windows as operating system.

Remark: The Finder Program is enabled as default value. For security reasons we suggest to disable the Finder program after the first configuration.

Chapter 2: Configuration through an USB Terminal connection

1. Use an USB cable to connect the **ePowerSwitch 4+** to an USB port of your PC.
2. Run a Terminal program.
3. On your computer, press <ENTER> until the menu appears on your screen.
4. Press the “M” on your keyboard and follow the menu to configure the network parameters of your **ePowerSwitch 4+**.

Configuration menu

```
-----
NETWORK INTERFACE PARAMETERS:
  IP address on LAN is 192.168.100.200
  LAN interface's subnet mask is 255.255.255.0
  IP address of default gateway to other networks is 0.0.0.0
  IP address of primary DNS server is 0.0.0.0
  IP address of secondary DNS server is 0.0.0.0
MISCELLANEOUS:
  HTTP Port is 80
  Finder program is enabled
HARDWARE PARAMETERS:
  Address is 00.13.F6.01.3C.80
-----
```

Special commands (type /? or /Help)

```
/viewlog           Display the log file
/initlog           Clear the log file
/initadminaccount  Restore default administrator password
/restorefactconf   Restore to factory default settings
/help or /?       Display this help
```

Restore to default factory settings

Procedure:

1. Use an USB cable to connect the **ePowerSwitch 4+** to an USB port of your PC.
2. Run a Terminal program.
3. On your computer, press <ENTER> until the menu appears on your screen.
4. Type in following command: **/restorefactconf**

Remark: The command must be preceded by a slash.

Now you can log in as administrator using admin as Login name and password.

Remark: The login values are case sensitive.

Restore to default administrator password

Procedure:

1. Use an USB cable to connect the **ePowerSwitch 4+** to an USB port of your PC.
2. Run a Terminal program.
3. On your computer, press <ENTER> until the menu appears on your screen.
4. Type in following command: **/initadminaccount**

Remark: The command must be preceded by a slash.

Now you can log in as administrator using admin as Login name and password.

Remark: The login values are case sensitive.

Chapter 3: Configuration through the LAN using a Browser

During the first installation, change temporarily the network settings of your PC according to the default network settings of the **ePowerSwitch 4+**.

Factory network settings of the **ePowerSwitch 4+**:

IP Address: **192.168.100.200**

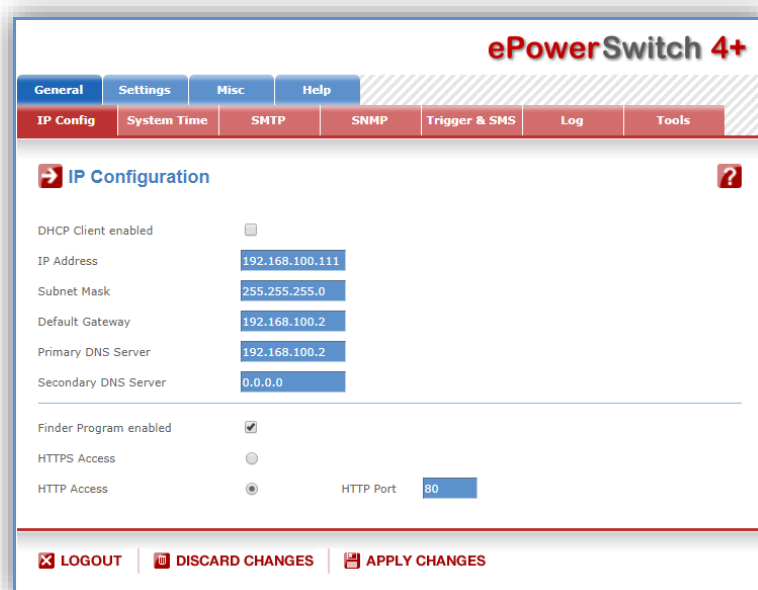
Port number: **80**

Gateway: **255.255.255.0**

1. Open your Web browser and type following IP address: <http://192.168.100.200/sysadmin.htm>
2. Enter the administrator name and password (default for both = **admin**)
3. The home page appears, allowing you to configure all settings of your **ePowerSwitch 4+**.

General / IP configuration

This page enables you to define all the IP parameters of the **ePowerSwitch 4+**.



ePowerSwitch 4+

General Settings Misc Help

IP Config System Time SMTP SNMP Trigger & SMS Log Tools

IP Configuration

DHCP Client enabled ☐

IP Address

Subnet Mask

Default Gateway

Primary DNS Server

Secondary DNS Server

Finder Program enabled ☒

HTTPS Access ☐

HTTP Access ☒ HTTP Port

DHCP Client enabled:

Check this box if you want to obtain the IP address, the subnet mask and the default gateway for your **ePowerSwitch 4+** via DHCP. Factory default setting for this option is disabled.

Remark: Use of DHCP (Dynamic Host Configuration Protocol) requires a DHCP host to be set up on the network.

IP Address:

IP address of the **ePowerSwitch 4+**, default is 192.168.100.200.

Subnet Mask:

Subnet Mask of the **ePowerSwitch 4+**, default is 255.255.255.0.

Default Gateway:

Generally the address of your router, default is blank.

Primary DNS Address:

Primary DNS (Domain Name Server), default is blank

Secondary DNS Address:

Secondary DNS, default is blank

Finder Program enabled:

The Network parameters of the **ePowerSwitch 4+** can also be configured through a Local Area Network using the provided Finder Program. It is a very simple and fast configuration method if you use Windows as operating system.

Remark: The Finder Program is enabled as default value.

Remark: For security reasons, we recommend deactivating the Finder program after the first configuration.

HTTP Port:

Port number: default is 80.

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

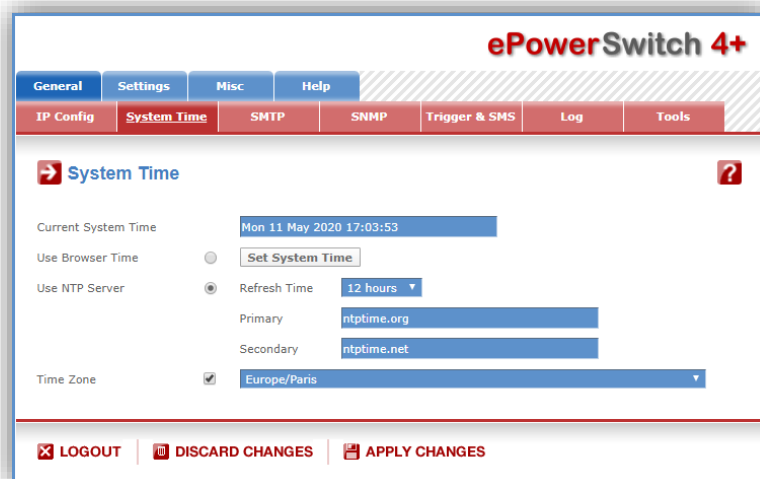
Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

General / System time

The system time of the **ePowerSwitch 4+** is used for synchronizing scheduling actions and to timestamp SNMP traps, Syslog information and internal logs. The system time can be set manually with the browser time of the connected computer or can be automatically synchronized with one or two NTP timeservers.



Current System Time:

This field shows the current system time of the **ePowerSwitch 4+**.

Remark: Since the system time is displayed via the browser, there may be a slight difference (1 to 2 seconds) compared to the exact hour. The system time is still correct.

Use Browser Time:

If you want to set the system time using the current Browser time of your PC, select this option and click on the "Set System Time" button.

Use NTP Server:

If you want to set the system time using an NTP timeserver, select this option, choose a refresh interval and enter the IP address of the timeserver you wish to use in the "Primary" field. The address of a second timeserver can be specified in the "Secondary" field. The secondary timeserver is optional and is used only if the primary timeserver is not available.

Remark: You can enter either the hostname (in that case you must have specified a DNS server on the IP configuration page) or the IP address of an NTP server.

NTP uses port 123/UDP.

Time Zone:

Set the time zone corresponding to your location. The system clock will subsequently show local time. Without setting this, the system clock will show UTC/GMT time. Setting a time zone is only relevant if you are synchronizing with an NTP server.

Daylight Saving Time:

If you want to set Daylight Saving dates, check this box and specify the date you want to use.

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

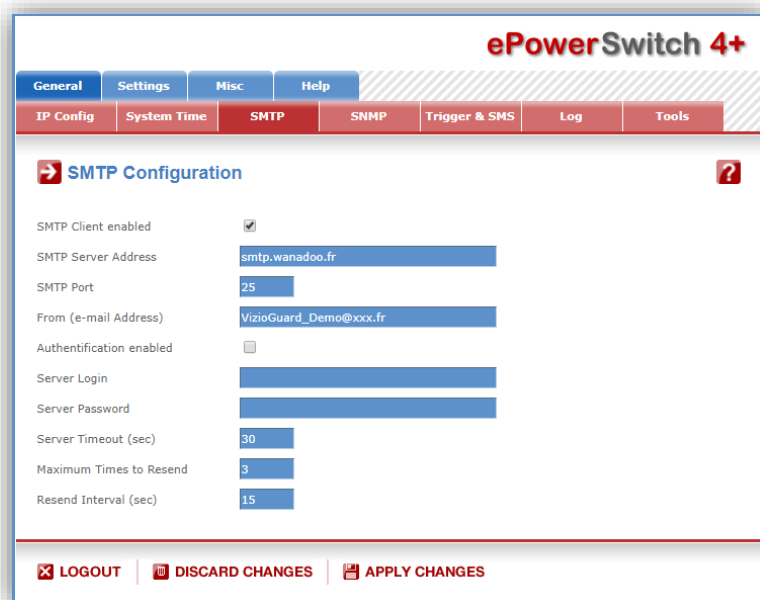
APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

General / SMTP

This page is used to configure the SMTP mail transmission protocol.

To send e-mails you need an SMTP server in the network and following parameters must be configured:



ePowerSwitch 4+

General Settings Misc Help

IP Config System Time **SMTP** SNMP Trigger & SMS Log Tools

SMTP Configuration

SMTP Client enabled ☒

SMTP Server Address

SMTP Port

From (e-mail Address)

Authentication enabled ☐

Server Login

Server Password

Server Timeout (sec)

Maximum Times to Resend

Resend Interval (sec)

SMTP Client enabled

Check this box if you want to enable the SMTP protocol and send emails.

SMTP Server Address

Enter either the hostname or the IP address of your mail server.

Remark: If you use a hostname, the system will have to resolve the hostname and you must configure a Default Gateway and at least one DNS Server on the Network Settings Page (General/IP Config page).

SMTP Port

SMTP Communication port to use, default is 25.

From (email Address)

In this field, enter the email address that messages will appear to come from. The name can be from 1 to 64 characters long and can contain alphanumeric characters. This should be a valid address (generally servers reject messages that don't have a valid address).

Authentication enabled

Check this box if you want to enable Authentication.

Server Login

SMTP Server Username.

Server Password

SMTP Server User Password.

Server Timeout (sec)

Timeout used to send the email, the value can be set between 1 and 60 sec.

Maximum Times to Resend

Maximum times the email can be resent, the value can be set between 1 and 9 times.

Resend Interval (sec)

Resend Interval, the value can be set between 0 and 65535 sec.

LOGOUT

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES

Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

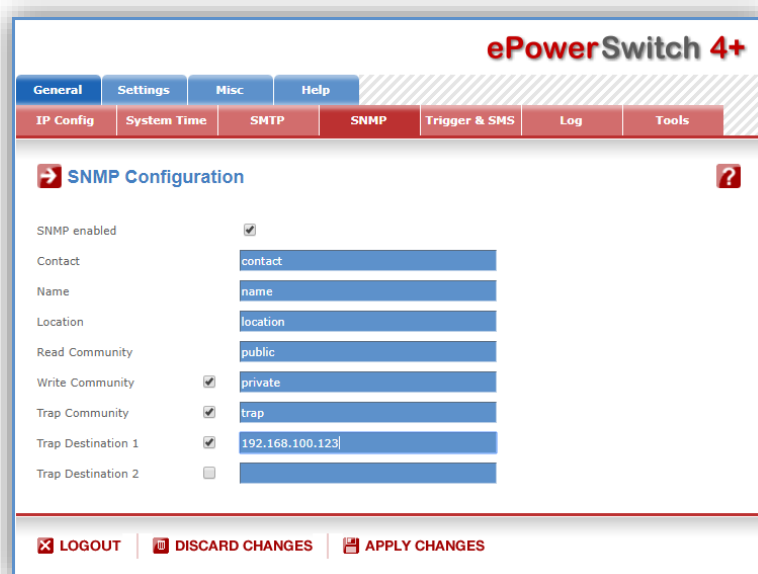
APPLY CHANGES

Click "Apply Changes" at the bottom of the page to save changes.

General / SNMP

The **ePowerSwitch 4+** provides a built-in SNMP (Simple Network Management Protocol) agent, which enables you to manage the **ePowerSwitch 4+** through SNMP-based network management systems. The **ePowerSwitch 4+** MIB file enables to remotely read out the status of all power outlets and the values of all sensors (temperature, humidity, ambient light). It also enables to control individually all power outlets and all groups of power outlets.

Remark: The MIB file is stored on the **ePowerSwitch 4+** and can be downloaded from the General / Tools Page.



The screenshot shows the 'ePowerSwitch 4+' web interface with the 'SNMP' tab selected. The 'SNMP Configuration' section includes the following fields and options:

- SNMP enabled:** A checkbox that is checked.
- Contact:** A text input field with the value 'contact'.
- Name:** A text input field with the value 'name'.
- Location:** A text input field with the value 'location'.
- Read Community:** A text input field with the value 'public'.
- Write Community:** A checkbox that is checked, followed by a text input field with the value 'private'.
- Trap Community:** A checkbox that is checked, followed by a text input field with the value 'trap'.
- Trap Destination 1:** A checkbox that is checked, followed by a text input field with the value '192.168.100.123'.
- Trap Destination 2:** A checkbox that is unchecked, followed by an empty text input field.

At the bottom of the interface, there are three buttons: 'LOGOUT', 'DISCARD CHANGES', and 'APPLY CHANGES'.

SNMP enabled:

Check this box if you want to enable the SNMP protocol.

Contact:

In this field, enter the name you want to give to the Contact field. The name can be from 1 to 64 characters long and can contain alphanumeric characters. Default name is "contact".

Name:

In this field, enter the name you want to give to the Name field. The name can be from 1 to 64 characters long and can contain alphanumeric characters. Default name is "name".

Location:

In this field, enter the name you want to give to the Location field. The name can be from 1 to 64 characters long and can contain alphanumeric characters. Default name is "location".

Read Community:

In this field, enter the name you want to give to the Read Community field. The name can be from 1 to 64 characters long and can contain alphanumeric characters. Default name is "public".

Write Community:

Check this box if you want to be able to control the power outlets or group of power outlets through a MIB browser. In the following field, enter the name you want to give to the Write Community. The name can be from 1 to 64 characters long and can contain alphanumeric characters. Default name is "private".

Trap Community:

Check this box if you want to configure the **ePowerSwitch 4+** SNMP agent to send traps to a community. In the following field, enter the name you want to give to the Trap Community. The name can be from 1 to 64 characters long and can contain alphanumeric characters. Default name is "trap".

Trap Destination 1:

Check this box and enter the primary SNMP Server address the traps will be sent to.

Trap Destination 2:

Check this box and enter the secondary SNMP Server address the traps will be sent to.

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

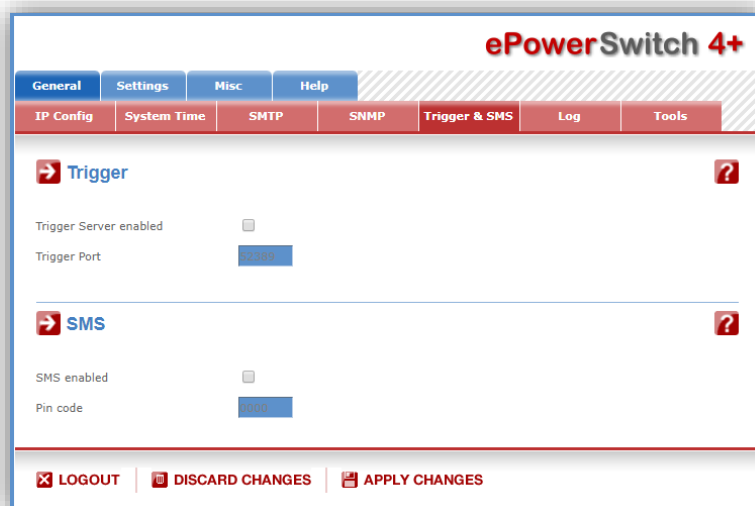
APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

General / Trigger

Your **ePowerSwitch 4+** can send requests over IP to remote **ePowerSwitch** devices. These requests can then be used to trigger an action on the remote device.

Remark: Depending on the model of the remote ePowerSwitch, you could for instance switch on a remote Power Outlet, close or open a remote Relay or send an SNMP Trap, an email or a Syslog message from the remote ePowerSwitch.



The screenshot shows the ePowerSwitch 4+ web interface. At the top, there are tabs for General, Settings, Misc, and Help. Below these are sub-tabs for IP Config, System Time, SMTP, SNMP, Trigger & SMS, Log, and Tools. The 'Trigger & SMS' tab is selected. The 'Trigger' section has a 'Trigger Server enabled' checkbox (unchecked) and a 'Trigger Port' text box with the value '52389'. The 'SMS' section has an 'SMS enabled' checkbox (unchecked) and a 'Pin code' text box with the value '1234'. At the bottom, there are three buttons: 'LOGOUT', 'DISCARD CHANGES', and 'APPLY CHANGES'.

Trigger Server enabled

Check this box if you want to enable the Trigger function.

Remark: The Trigger function must be activated on both the emitter device (your Device) and the target Device (the remote ePowerSwitch).

Trigger Port

Port number used by the Trigger function. Default port is 52389.

Remark: The Trigger function must be activated on both the emitter device (your Device) and the target Device (the remote ePowerSwitch).

LOGOUT

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES

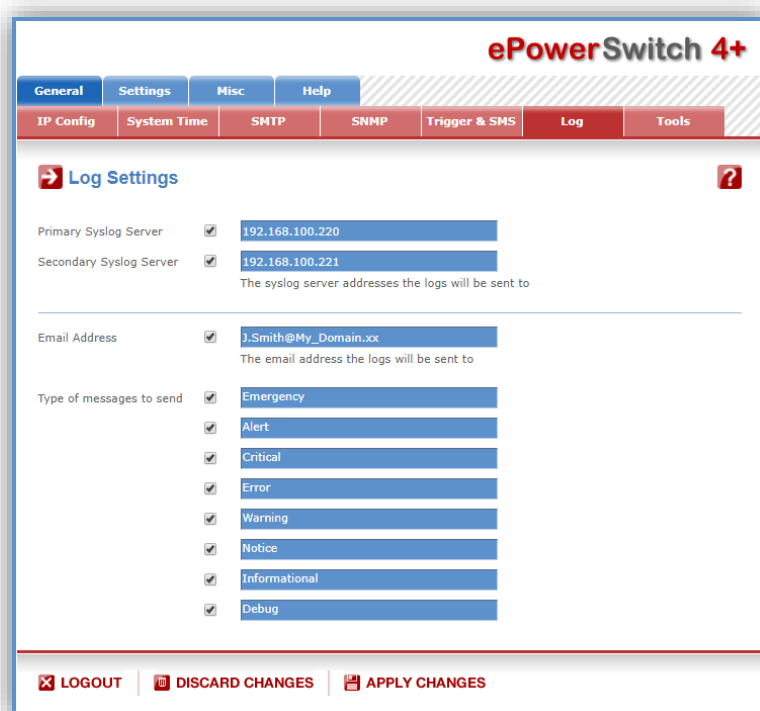
Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES

Click "Apply Changes" at the bottom of the page to save changes.

General / Syslog

This page is used to define the address of two Syslog Servers.



Primary Syslog Server

Select this Checkbox and specify the IP address or the Hostname of your Primary Syslog Server.

Remark: If you use a hostname, the system must be able to resolve queries for the hostname into IP address, so you must configure a Default Gateway and at least one DNS Server on the Network Settings Page (General/IP Configuration page).

Secondary Syslog Server

In this field you can define the IP Address of a secondary Syslog Server.

You can enter either the hostname or the IP address of a Syslog server.

LOGOUT

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES

Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

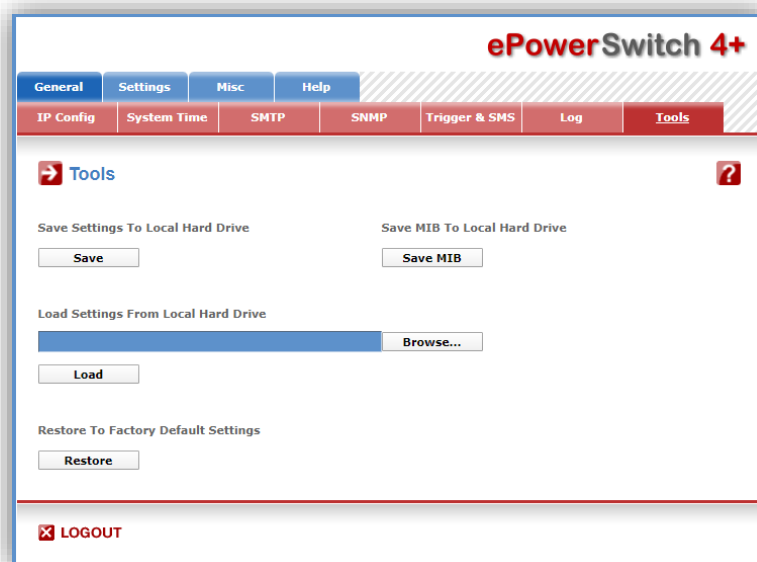
APPLY CHANGES

Click "Apply Changes" at the bottom of the page to save changes.

General / Tools

This page is used to:

- download and save the current settings of your **ePowerSwitch 4+** on your PC,
- upload an existing configuration file to your **ePowerSwitch 4+**,
- restore the factory settings,
- download the **ePowerSwitch 4+** MIB file on your PC.



Save:

Click this button to save the current system settings onto your local hard drive.

Load:

Click this button and select a settings file you want to download to the **ePowerSwitch 4+**.

Restore:

Click this button if you want to restore the factory default settings.

Save MIB:

Click this button if you want to download the **ePowerSwitch 4+** MIB file onto your local hard drive.

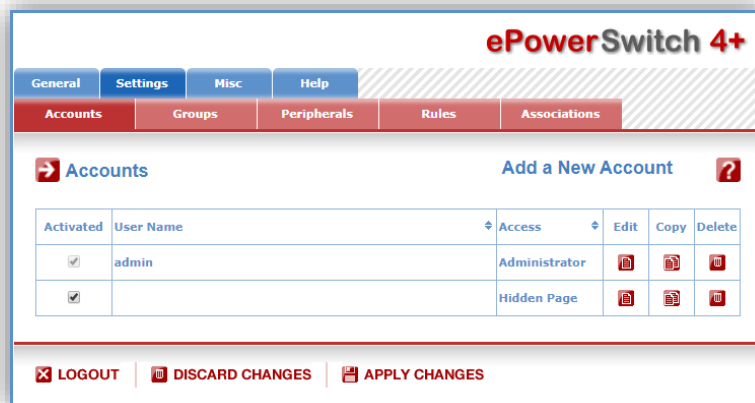
LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

Settings / Accounts

This page is used to create, activate, deactivate, modify and delete up to 40 accounts:

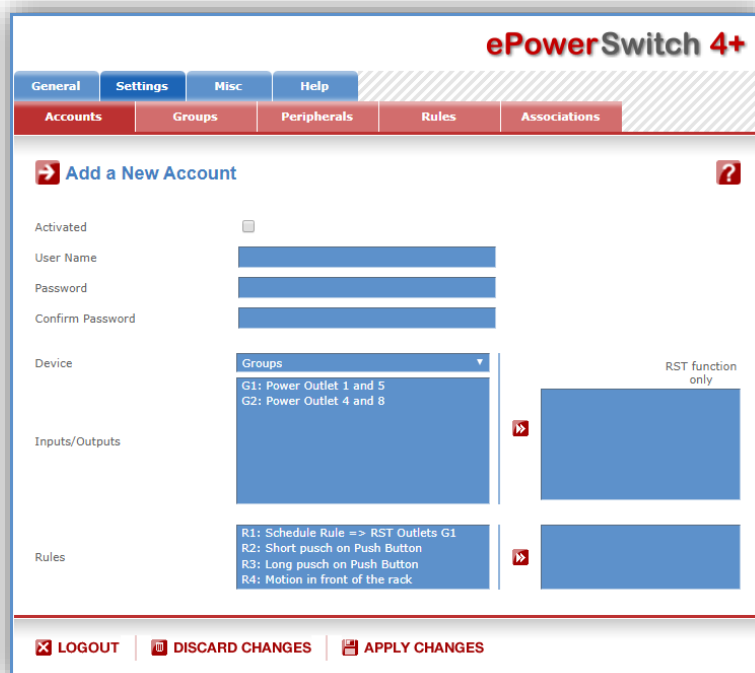
- To activate or deactivate an account, check or uncheck the corresponding checkbox.
 - To modify an existing account, click on "Edit" next to the corresponding account.
 - To delete an existing account, click on "Delete" next to the corresponding account.
 - To create a new account, click on "Add a New Account" on the right side of the page.
- A new page appears, allowing you to set all the parameters of the account.



The screenshot shows the 'Accounts' page in the ePowerSwitch 4+ interface. The top navigation bar includes 'General', 'Settings', 'Misc', and 'Help'. Below it, a sub-navigation bar shows 'Accounts', 'Groups', 'Peripherals', 'Rules', and 'Associations'. The main content area is titled 'Accounts' and features a table with the following data:

Activated	User Name	Access	Edit	Copy	Delete
<input checked="" type="checkbox"/>	admin	Administrator			
<input checked="" type="checkbox"/>		Hidden Page			

At the top right of the table area, there is a link 'Add a New Account' and a help icon. At the bottom of the page, there are three buttons: 'LOGOUT', 'DISCARD CHANGES', and 'APPLY CHANGES'.



The screenshot shows the 'Add a New Account' page in the ePowerSwitch 4+ interface. The top navigation bar is the same as the previous page. The main content area is titled 'Add a New Account' and contains the following form fields:

- Activated:** A checkbox.
- User Name:** A text input field.
- Password:** A text input field.
- Confirm Password:** A text input field.
- Device:** A dropdown menu showing 'Groups' with a list of options: 'G1: Power Outlet 1 and 5' and 'G2: Power Outlet 4 and 8'.
- Inputs/Outputs:** A text input field.
- Rules:** A text input field with a list of rules: 'R1: Schedule Rule => RST Outlets G1', 'R2: Short push on Push Button', 'R3: Long push on Push Button', and 'R4: Motion in front of the rack'.

At the bottom of the page, there are three buttons: 'LOGOUT', 'DISCARD CHANGES', and 'APPLY CHANGES'.

Activated

This check box must be checked to activate the Account. It enables to deactivate temporarily the current account while keeping all its settings for a later use.

User Name:

In this field, enter the name you want to give to the user account.

The name can be from 1 to 32 characters long and contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Password:

In this field, enter the password you want to give to the user.

The password can be from 4 to 32 characters long and contain alphanumeric characters.

Confirm Password:

In this field, enter the password again.

IP Address Control:

Check this checkbox and specify an IP address or a range of IP addresses if you want to restrict the access of this account.

Device:

In this drop-down list, choose the Power outlets or group of Power Outlets you want to add to the current account.

Remark: Groups are only visible if they have already been created (go to Settings/Groups Tab).

To add a Power outlet or a group of Power Outlets to the current account, click on the account or group(s) you want to add to the account and click on the red arrow. The IDs of the selected Power outlets or group of Power outlets are displayed at the right side of the Groups field.

Remark: This field appears only if you have already created at least one group (go to Settings/Groups Tab).

Inputs/Outputs:

This field is used to add/remove Inputs or Outputs to/from the current account.

To add Inputs or Outputs to the current account, press the Ctrl key and click on the Inputs/Outputs of the device selected in the previous field. The selected Inputs/Outputs are marked dark blue and their IDs are listed at the right side of the Inputs/Outputs field.

RST function only

With this function you can create an account which enables ONLY to restart specified power outlets (The ON and OFF buttons will no longer appear on the Misc/Control Panel outlet control pageButtons ON and OFF do no longer appear). This function is very helpful if you have to restart the router used to access to your Power Switch. It avoids switching the router OFF with no possibility to switch it On again. After having pressed on the Restart button, the router will always automatically be switched On by the Power Switch.

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

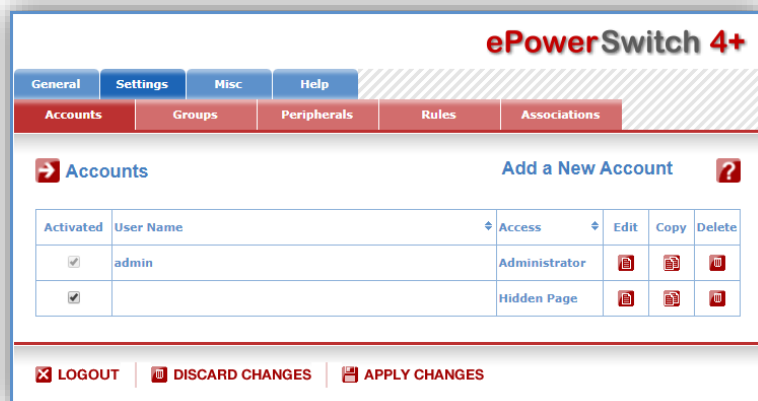
Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

Settings / Accounts / Hidden Page account

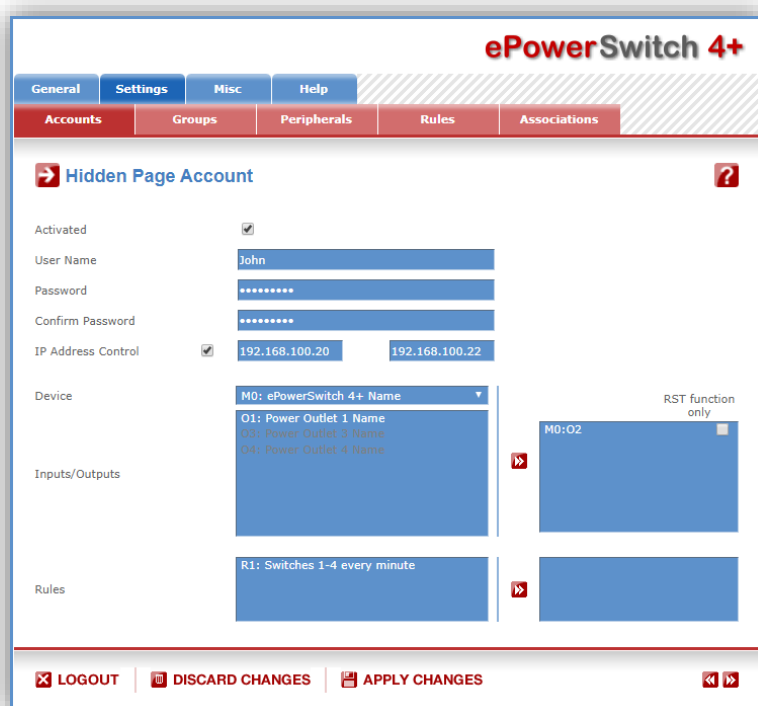
This account is intended for developers who want to implement the power outlet control in own programs. If activated, they can access to a special page named hidden.htm and control individually the power outlets using simple commands.



The screenshot shows the 'Accounts' page in the ePowerSwitch 4+ interface. It features a table with columns: Activated, User Name, Access, Edit, Copy, and Delete. There are two accounts listed: 'admin' with 'Administrator' access and 'Hidden Page' with 'Hidden Page' access. At the bottom, there are buttons for LOGOUT, DISCARD CHANGES, and APPLY CHANGES.

Activated	User Name	Access	Edit	Copy	Delete
<input checked="" type="checkbox"/>	admin	Administrator			
<input checked="" type="checkbox"/>		Hidden Page			

- To activate or deactivate this account, check or uncheck the corresponding checkbox.
- To modify the Hidden page account, click on "Edit" next to the corresponding account. A new page appears, allowing you to set all the parameters of the account.



The screenshot shows the 'Hidden Page Account' configuration page. It includes fields for Activated (checked), User Name (John), Password, Confirm Password, IP Address Control (checked), Device (M0: ePowerSwitch 4+ Name), Inputs/Outputs (M0:02), and Rules (R1: Switches 1-4 every minute). At the bottom, there are buttons for LOGOUT, DISCARD CHANGES, and APPLY CHANGES.

Activated

This check box must be checked to activate the Hidden Page Account. It enables to deactivate temporarily this account while keeping all its settings for a later use. The Hidden Page Account cannot be deleted.

User Name

In this field, enter the name you want to give to the Hidden Page Account.

The user name can be up to 32 characters long and contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Password

In this field, enter the password you want to give to the Hidden Page Account.

The password can be up to 32 characters long and contain alphanumeric characters.

Confirm Password

In this field, enter the password again for confirmation.

IP Address Control

Network security can be increased by IP address filtering. Check this checkbox and specify an IP address or a range of IP addresses which has the right to access to the Hidden Page Account.

Groups

Remark: This field appears only if at least one group has already been created. To create a group, go to the Settings/Groups Page.

- To add an existing group of Power Outlets to the current account, select the group you want to add in the left field and click on the Arrow button, the group will then appear in the right field.

- To remove a Group from the current account, select the group you want to remove in the right field and click on the Arrow button, the group will then appear in the left field.

Remark: Each group is clearly identified by its own ID (G1, G2, G3...) followed by the name given during the configuration. If the symbol "!" appears between brackets behind the ID Code that means that the Group is not activated. To activate it, go to the "Settings/Groups" page.

Device

In this drop-down list, choose the device from which one you want to add Inputs or Outputs to the current account.

Remarks:

- Only properly connected devices or devices which already have been connected to the Power Switch appears in this field.
- Each peripheral is clearly identified by its own ID followed by the name given during the configuration. Behind the ID can appear a character between brackets which has following meaning:
 - "!" means that the corresponding device is properly connected to the Power switch but not activated. To activate it, go to the "Settings/Peripherals" page.
 - "X" means that the corresponding device has already been connected to the Power switch but is currently no longer connected to the Power Switch.

Inputs/Outputs

- This field is used to add/remove Inputs or Outputs to/from the current account.

- To add an Input or Output to the current account, select the Input / Output you want to add in the left field and click on the Arrow button, the selected Input / Output will then appear in the right field.

- To remove an Input or Output from the current account, select the Input / Output you want to remove in the right field and click on the Arrow button, the selected Input / Output will then appear in the left field.

Accessing to the Hidden Page Account

To be able to access to the Hidden Page, you must have configured the Hidden Page Account and activated it. For the first tests, simply check the Activated check box, start your browser and type into your browser's address bar the IP address of your power switch followed by the name of the hidden page.

Example: if the IP address of your Power Switch is 192.168.100.200, type in:

<http://192.168.100.200/hidden.htm> followed by <ENTER>.

Your Web browser will now display:

Hidden Page
21 Jul 2011 01:50:03
Version: 2.3.0.0

Controlling Power Outlets

Only Power Outlets which have been selected can be controlled over the Hidden Page. To select Power Outlets, go to the "Settings/Accounts" page and edit the Hidden Page Account. In the Inputs/Outputs field, selected the Power Outlets you want to control and click on the Arrow button next to the Inputs/Outputs field. The selected Power outlets appear in the right field, click on Apply Change to validate the configuration.

Example: if you have selected all 4 power Outlets and the IP address of your Power Switch is 192.168.100.200, type in:

<http://192.168.100.200/hidden.htm> followed by <ENTER>.

Your Web browser will now display:

```
Hidden Page
21 Jul 2011 02:29:01
Version: 2.3.0.0
M0:01=On
M0:02=On
M0:03=On
M0:04=On
```

Each Power Outlet support individually 3 commands: On, Off and Restart using following syntax:
M0:Ox=[ON], [OFF], [RESTART]

M0: ID of your Power Switch
Ox: Outlet number of your Power Switch
ON: ON command
OFF: OFF command
RESTART: Restart command

The first command must be preceded by a "?"

Commands can be concatenated using the character "&"

Commands can be specified in upper case, lower case or mixed case

The Hidden Page functionality also allows to control peripherals connected to the A-xBus (all sensors, Digital I/O Modules, Power Switches, Current probe...).

Example: if you want to switch to OFF the Power Outlet #1 and 3, type in:

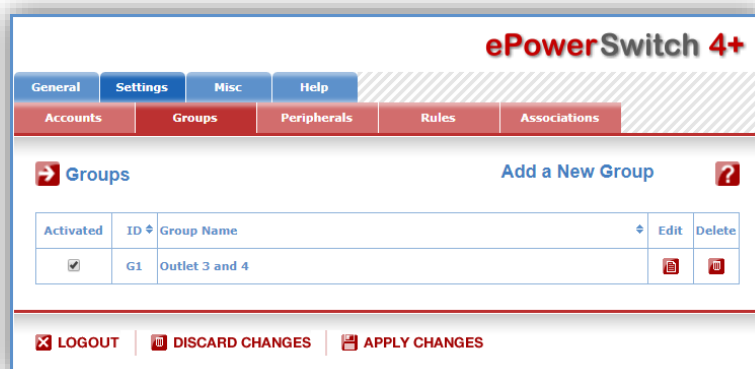
<http://192.168.100.200/hidden.htm?M0:O1=OFF&M0:O3=OFF>

Your Web browser will now display:

```
Hidden Page
21 Jul 2011 02:42:08
Version: 2.3.0.0
M0:01=Off
M0:02=On
M0:03=Off
M0:04=On
```

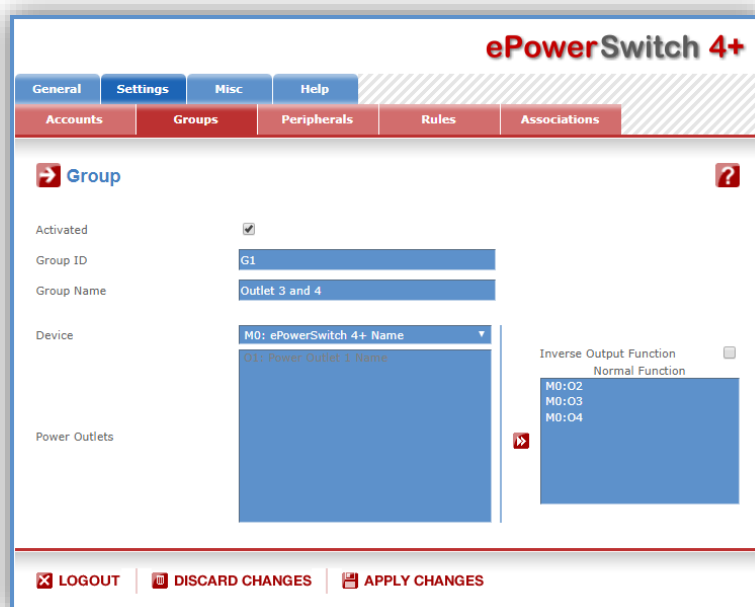

Settings / Groups

This page is used to create, modify and delete groups of power outlets which can be controlled by the **ePowerSwitch 4+**. This functionality is particularly useful if you have to control the power supply of devices using redundant power supplies. You can create groups including several power outlets distributed on several ePowerSwitch 8XS devices.



Activated	ID	Group Name	Edit	Delete
<input checked="" type="checkbox"/>	G1	Outlet 3 and 4		

- To delete an existing group, click on "Delete" of the corresponding device.
- To add or remove power outlets to/from an existing group, click on "Edit" of the corresponding device.
- To deactivate a Group, uncheck the box "Activated" of the corresponding group.
- To add a new group, click on "Add a New Group" on the right side of the page. A new page appears, allowing you to set all parameters of the group.



Activated

This check box must be checked to activate the group. It enables to deactivate temporarily a group of Power outlets while keeping all its settings for a later use.

Group Id:

The **ePowerSwitch 4+** automatically creates an ID Code to clearly identify each group of power outlets. All the ID Codes used to identify groups start with the letter "G".

Group Name:

In this field, enter the name you want to give to the selected group. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Device:

In this drop-down list, choose an ePowerSwitch from which you want to add power outlets to the selected group.

Power Outlets:

This field is used to add and remove power outlets to/from the group.

- To add power outlets to the group, press the Ctrl key and click on the power outlets of the ePowerSwitch selected in the field above. The selected power outlets are marked dark blue and their names are listed at the right of the field "Power Outlets".
- To remove a power outlet from the group, press the Ctrl key and click on the power outlet you wish to remove.

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

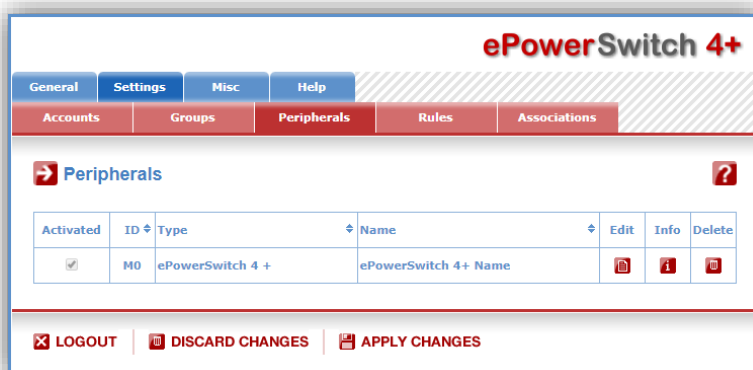
APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

Settings / Peripherals

This page enables to label the device, the 4 power outlets of the **ePowerSwitch 4+** and the shutdown function. Names of up to 32 alphanumeric characters in length are supported and appear in log files, Syslog messages and SNMP traps to avoid confusions.

1. Open you browser and log in to the Administrator's Page, (ex. <http://192.168.100.200/sysadmin.htm>).
2. Enter the administrator name and password (default for both = admin). The home page appears.
3. Click on the Settings Tab, on the Peripherals Tab and then on the Edit symbol.
Following new page appears, allowing you to define the labels.



ePowerSwitch 4+

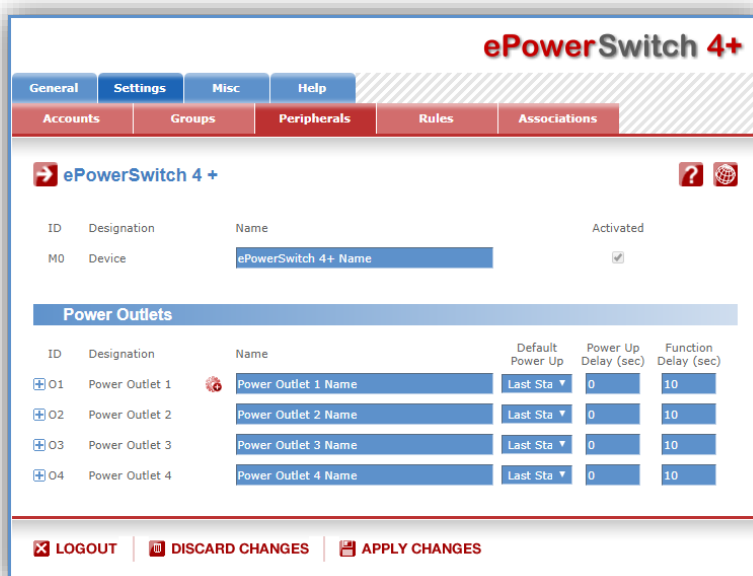
General Settings Misc Help

Accounts Groups Peripherals Rules Associations

Peripherals

Activated	ID	Type	Name	Edit	Info	Delete
<input checked="" type="checkbox"/>	M0	ePowerSwitch 4 +	ePowerSwitch 4+ Name			

LOGOUT DISCARD CHANGES APPLY CHANGES



ePowerSwitch 4+

General Settings Misc Help

Accounts Groups Peripherals Rules Associations

ePowerSwitch 4 +

ID Designation Name Activated

M0 Device ePowerSwitch 4+ Name ☒

Power Outlets

ID	Designation	Name	Default Power Up	Power Up Delay (sec)	Function Delay (sec)
O1	Power Outlet 1	Power Outlet 1 Name	Last Sta ▼	0	10
O2	Power Outlet 2	Power Outlet 2 Name	Last Sta ▼	0	10
O3	Power Outlet 3	Power Outlet 3 Name	Last Sta ▼	0	10
O4	Power Outlet 4	Power Outlet 4 Name	Last Sta ▼	0	10

LOGOUT DISCARD CHANGES APPLY CHANGES

ID:

The **ePowerSwitch 4+** automatically creates an ID Code to clearly identify each device.

- M0 identifies the **ePowerSwitch 4+** device

Name:

In these fields, enter the name you want to give to the selected device. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Activated

This check box must be checked to activate the device and enables to deactivate it temporarily while keeping all its settings for a later use.

Power Outlets:**ID:**

The **ePowerSwitch 4+** automatically creates an ID Code to clearly identify each Power outlet.

- O followed by a number identifies each Power outlet

**Create new rule:**

Click on this button to create a new rule.

Name:

In this field, enter the name you want to give to each power outlet of the ePowerSwitch. The name can be from 1 to 32 characters long and can contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Default Power-Up:

In the drop-down lists, choose for each power outlet the default status to apply after power-up.

You can choose between:

- "On" if you want the corresponding power outlet to be always switched On after power-up.
- "Off" if you want the corresponding power outlet to be always switched Off after power-up.
- "Last Status" if you want that the corresponding power outlet takes again the state it was in before power failure.

Power up delay:

In this field, enter the power up delay you want to define for each power outlet. Power up delay means the delay before the power outlet will take the defined status after power up. The delay can be set between 1 and 255 seconds, the value 0 means that no delay has to be applied after power up.

Function delay:

In this field, enter the delay you want to define before the execution of a function (for example Restart function of an outlet).

Shutdowns Functions**ID:**

The **ePowerSwitch 4+** automatically creates an ID Code to clearly identify the Shutdown Function.

- SD1 identifies the Shutdown Function 1.

**Create a new Shutdown Association:**

Click on this button to create a new Shutdown Association.

Name:

In this field, enter the name you want to give to the Shutdown function. The name can be from 1 to 32 characters long and can contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

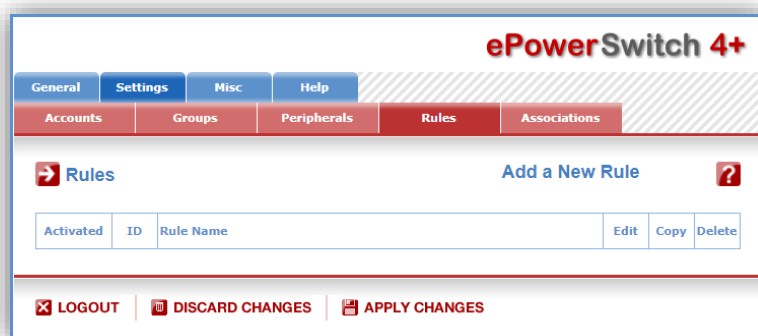
Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

Settings / Rules

Rules are used to control actions according to a specific event. For example, you can define a rule to switch a power outlet OFF and send an alert message using different methods like SNMP or Syslog when a temperature, humidity, ambient light or current exceeds a predefined value or when a contact is open.



- To remove an existing rule, click on "Delete" of the corresponding rule.
 - To modify a rule, click on "Edit" of the corresponding rule.
- This page is used to create, modify and delete rules.
- To add a new rule, click on "Add a New Rule" on the right side of the page.
- A new page appears, allowing you to set all the parameters of the rule.
- A total of 32 rules can be created and there are 8 different types of rules:

1. Schedule Rule:

This rule is used to trigger user-specified actions according to a defined time table.

This rule can be used to:

- execute **once** defined actions at specified time and weekday(s). In this case you must only specify the start time and the weekday(s),
- execute **repeatedly** defined actions during a given time. In this case you must specify the start time, the interval on which the rule has to be repeated and the end time.

Examples:

- The rule could be used to restart a power outlet (or a group of power outlets) at regular interval during a given time.
- The rule could be used to send sensor values over SNMP or a Syslog message at regular interval during a given time.

2. Timer Rule:

This rule can be used to trigger user-specified actions according to a defined time table.

This rule can be used to switch On or Off a power outlet (or a group of power outlets) or a digital output at specified time and weekday(s) for a specified time. You must define the start time, the weekday(s) and the stop time.

Example:

- The rule could be used to switch On a device every Monday and Friday from 8:00 AM (Start Time) and switch it automatically off every Monday and Friday at 05:00 PM (Stop Time)

3. Ping Monitoring Rule:

This rule is used to control actions according to the response to a Ping command.

This rule can be used to check if a computer or any IP device is connected to the network. If the host doesn't reply, the **ePowerSwitch 4+** can automatically restart the powered device.

4. Scan Monitoring Rule:

This rule is used to control actions according to the response to a Scan command.

This rule can be used to check if a specific protocol is available on a. If the connection is not possible, **ePowerSwitch 4+** can automatically restart the powered device.

5. Power Supply Monitoring Rule:

This rule is used to control actions according to the state of the power supplies of the **ePowerSwitch 4+** and its peripherals like the ePowerSwitch 8XS and the Digital Input Module.

6. Digital Input Monitoring Rule:

This rule is used to control actions according to the state of a sensor, Push Button or a dry contact from the Digital Input Module.

7. Analog Input Monitoring Rule:

This rule is used to control actions when an analog input (temperature, humidity, ambient light, current...) exceeds a predefined value.

8. xBus Peripheral Connection Rule:

This rule is used to monitor the presence of xBus Peripherals and to trigger different actions when an xBus Peripheral is disconnected (cable disconnected or broken) or connected again.

9. Trigger Rule

This Rule is used to send a request over the Internet from your Device to another Device. The request sent by your Device is used to trigger an Action on the second Device, for instance to remotely turn on or off a Power Outlet, to close or open a Relay, to send an Alarm Message (SNMP Trap, email or Syslog).

Settings / Rules - Schedule Rule

This rule can be used to trigger user-specified actions according to a defined time table. The schedule rule is weekday based and the administrator can declare, for each weekday, a start time, an end time and after what time the rule should be repeated.

The schedule rule can also be used to send status information or sensor values on specified weekdays at regular interval.



Activated

This check box must be checked to activate the Rule and enables to deactivate temporarily a rule while keeping all its settings for a later use.

Rule ID:

The **ePowerSwitch 4+** automatically creates an ID Code to clearly identify each rule. All the ID Codes used to identify rules start with the letter "R" followed by a number from 1 to 32. If you delete a rule in the middle of the Rule list, the number of this rule will only be used again if no other rule is available.

Rule Name:

In this field, enter the name you want to give to the rule. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Rule Color:

In this field, select one of the 48 standard colours you want to use to highlight the rule when executed. To use own colours, just type in the Hex value of the colour you want. The Rule highlighting allows to quickly identify the triggered rule when displayed in the Rule Panel page or in a special user's page.

Rule Type:

In this drop-down list, choose Schedule Rule then configure the event and the actions to perform.

Configuring the Event

Schedule Action:

Here you can define the time when the rule has to be executed. In the Drop-Down lists choose the time and below, check one or more day boxes.

Start Time

Defines what time the rule starts.

Repeat Time

Defines the time period in which the rule repeats.

Remark: Repeat Time cannot be set to zero.

Stop Time

Defines what time the rule ends.

Remarks:

- End Time must be greater than or equal to Start Time.
- If the rule has to be executed only once at the selected weekday, enter the same value for Start Time and End Time.
- If the rule has to be executed 24 hours at the selected weekday, Start Time must be 1 minute later than EndTime.

Applicable weekday

Defines which day(s) the rule has to be executed.

Configuring the Action(s)

Type of Action

For the Event defined above, you can choose and configure following actions:

Set Outputs

Remarks:

This type of Action only appears if:

- your Device has own Power Outlets or has access to Power Outlets of connected xBus Peripheral Units
- your Device has access to Relay Outputs of connected xBus Peripheral Units
- you have created interface associations (Go to Settings/Associations).

Select this checkbox and choose in the corresponding drop-down lists the Output to use for this Rule.

Each Power Outlet can be switched to On, Off or Restarted.

If you choose "Restart" you can also define a Restart delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

- If you choose a delay different from 0, this delay will replace the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

Each Relay Output can be switched to Open, Close, Pulse Open, Pulse Close.

If you choose Pulse open or Pulse close you can also define a delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

- If you choose a delay different from 0, this delay will replace the delay defined Peripherals page (goto Settings/Peripherals/Edit).

Rule to cancel

This type of Action only appears if you already have created a Rule which you want to cancel

Select this checkbox and choose in the corresponding drop-down lists the Rule you want to cancel.

Send Magic

Your Device has the possibility to send a Magic Word over IP to another Device in order to remotely trigger an action.

- Send magic: specify the Magic Word to use, it can be from 1 to 32 characters long, and can contain alphanumeric characters.
- to: specify the IP address of the destination device
- port: specify the Port number used to send the Magic Word, default port number is 52389

Send Syslog Message

This type of Action can only be configured if you have already specified at least one destination Syslog Server (Go to General/Log Settings Page).

Check this box if you want to send a message to a Syslog server. In the following drop-down lists choose the facility and the severity of the message to send.

Send Trap Message

Remark: This type of Action appears and can be configured only if you have already specified at least one destination SNMP Server (Go to General/SNMP Page).

Check this/these box(es) and specify one or two SNMP addresses in the corresponding field if you want to send SNMP messages to one or two SNMP Servers.

Mail to

Remark: This Action can only be configured if you have already specified an SMTP Mail Server (Go to General/SMTP).

Check this box and specify a valid email address.

Syslog / Trap / Mail Message

Remark: This field can only be configured if you already have specified at least one destination Syslog Server (General/Log Settings Page) or one destination SNMP Server (Goto General/SNMP Page).

Up to 255 characters may be entered in this free text field. The text will appear in the Syslog, the Trap and the emails.

The message can be completed with the status of an input (a power supply or door contact for example) or the value of a sensor (a temperature sensor for example). For this, simply enter, between two "%" characters, the ID of the corresponding input Device (for details see § 5.1 Sending status and values using rules).

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

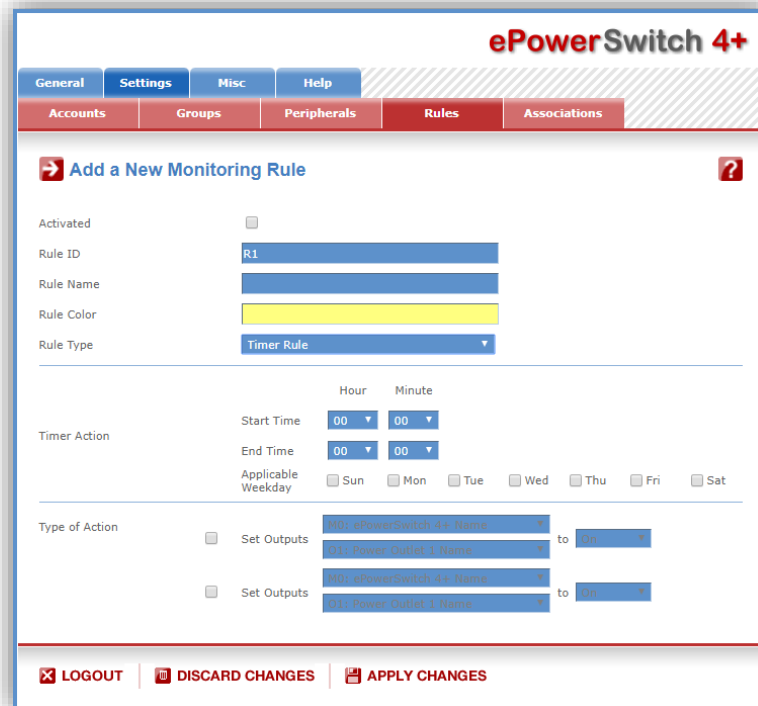
Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

Settings / Rules - Timer Rule

This rule can be used to trigger some actions according to a defined time table. For instance, you could create a rule to switch OFF a Power Outlet every Friday at 6 PM and create another rule to switch the Power Outlets ON again every Monday at 8 AM.



Activated

This check box must be checked to activate the rule. It enables to deactivate temporarily a rule while keeping all its settings for a later use.

Rule ID

The Power Switch automatically creates an ID Code to clearly identify each rule. These codes start with the letter "R" followed by a number.

Rule Name

In this field, enter the name you want to give to the rule. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Rule Color:

In this field, select one of the 48 standard colours you want to use to highlight the rule when executed. To use own colours, just type in the Hex value of the colour you want. The Rule highlighting allows to quickly identify the triggered rule when displayed in the Rule Panel page or in a special user's page.

Rule Type

In this Drop-Down list, choose Schedule Rule.

Rules are used to control actions according to a specific event. To create a rule, you will first have to configure the chosen event and then to choose the actions to perform.

Configuring the Event

Timer Action

Start Time

Defines what time the rule starts.

Stop Time

Defines what time the rule ends.

Applicable weekday

Defines which day(s) the rule has to be executed.

Configuring the Action(s)**Type of Action**

For the Event defined above, you can choose and configure following actions:

Set Outputs**Remarks:**

This type of Action can only be configured if:

- your Device has own Power Outlets or has access to Power Outlets of connected xBus Peripheral Units
- your Device has own Relay Outputs or has access to Relay Outputs of connected xBus Peripheral Units
- your Device has access to Relay Outputs of connected xBus Peripheral Units
- you have created interface associations (Go to Settings/Associations).

Select this checkbox and choose in the corresponding drop-down lists the Output to use for this Rule. Each Power Outlet can be switch to On, Off or Restarted.

If you choose "Restart" you can also define a Restart delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the "Power Outlets Page".
- If you choose a delay different from 0, this delay will replace the delay defined in the "Settings/Peripherals/Edit Page".

Each Relay Output can be switch to Open, Close, Pulse Open, Pulse Close.

If you choose Pulse open or Pulse close you can also define a delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the "Power Outlets Page".
- If you choose a delay different from 0, this delay will replace the delay defined in the "Settings/Peripherals/Edit Page".

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

Settings / Rules - Ping Monitoring Rule

This rule can be used to check if a computer or any IP device is connected to the network. It sends ping packets and listens for replies from the specific host. If the host doesn't reply, the **ePowerSwitch 4+** can automatically switch the powered device off and after a specified delay, switch it again on (for details see Ping & Scan Method).



Activated

This check box must be checked to activate the Rule and enables to deactivate temporarily a rule while keeping all its settings for a later use.

Rule ID:

The **ePowerSwitch 4+** automatically creates an ID Code to clearly identify each rule. All the ID Codes used to identify rules start with the letter "R" followed by a number from 1 to 32. If you delete a rule in the middle of the Rule list, the number of this rule will only be used again if no other rule is available.

Rule Name:

In this field, enter the name you want to give to the rule. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Rule Color:

In this field, select one of the 48 standard colours you want to use to highlight the rule when executed. To use own colours, just type in the Hex value of the colour you want. The Rule highlighting allows to quickly identify the triggered rule when displayed in the Rule Panel page or in a special users page.

Rule Type:

In this drop-down list, choose Ping Monitoring Rule then configure the event and the actions to perform.

Configuring the Event

Monitored device address:

In this field enter the IP address of the IP device that you want to monitor using the Ping command.

Wait Time for Answer:

In this field, define the delay in seconds for the Answer Timeout.

The delay can be set between 1 and 10 seconds.

Interval between Requests:

In this field, define the delay in seconds between ping commands sent to the IP device to monitor. The delay can be set between 30 and 65535 seconds.

Number of unsuccessful Requests before Action:

In this field, define the number of Ping commands to be sent to the IP device before executing the actions.

The number can be set between 1 and 65535 seconds.

Delay before First Request after Action:

In this field, define the time in seconds before restarting the monitoring after the reboot action.

The delay can be set between 30 and 65535 seconds.

Maximum Number of Actions

In this field, define the maximum number of actions.

The number can be set between 0 and 255.

Configuring the Action(s)

Type of Actions:

For the Event defined above, you can choose and configure following actions:

Set Outputs**Remark:**

This type of Action only appears if:

- your Device has own Power Outlets or has access to Power Outlets of connected xBus Peripheral Units
- your Device has access to Relay Outputs of connected xBus Peripheral Units
- you have created interface associations (Go to Settings/Associations).

Select this checkbox and choose in the corresponding drop-down lists the Output to use for this Rule.

Each Power Outlet can be switched to On, Off or Restarted.

If you choose "Restart" you can also define a Restart delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).
- If you choose a delay different from 0, this delay will replace the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

Each Relay Output can be switched to Open, Close, Pulse Open, Pulse Close.

If you choose Pulse open or Pulse close you can also define a delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).
- If you choose a delay different from 0, this delay will replace the delay defined Peripherals page (goto Settings/Peripherals/Edit).

Rule to cancel

This type of Action only appears if you already have created a Rule which you want to cancel
Select this checkbox and choose in the corresponding drop-down lists the Rule you want to cancel.

Send Magic to

Your Device has the possibility to send a Magic Word over IP to another Device in order to remotely trigger an action.

- Send magic: specify the Magic Word to use, it can be from 1 to 32 characters long, and can contain alphanumeric characters.
- to: specify the IP address of the destination device
- port: specify the Port number used to send the Magic Word, default port number is 52389

Send Syslog Message

Remark: This type of Action can only be configured if you have already specified at least one destination Syslog Server (Go to General/Log Settings Page).

Check this box if you want to send a message to a Syslog server. In the following drop-down lists choose the facility and the severity of the message to send.

Send Trap Message

Remark: This type of Action appears and can be configured only if you have already specified at least one destination SNMP Server (Go to General/SNMP Page).

Check this/these box(es) and specify one or two SNMP addresses in the corresponding field if you want to send SNMP messages to one or two SNMP Servers.

Mail to

Remark: This Action can only be configured if you have already specified an SMTP Mail Server (Go to General/SMTP).

Check this box and specify a valid email address.

Syslog / Trap / Mail Message

Remark: This field can only be configured if you already have specified at least one destination Syslog Server (General/Log Settings Page) or one destination SNMP Server (Goto General/SNMP Page).

Up to 255 characters may be entered in this free text field. The text will appear in the Syslog, the Trap and the emails.

The message can be completed with the status of an input (a power supply or door contact for example) or the value of a sensor (a temperature sensor for example). For this, simply enter, between two "%" characters, the ID of the corresponding input Device.

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

Settings / Rules - Scan Monitoring Rule

This rule can be used to check if a specific protocol is available on a server (for example HTTP, FTP, Telnet, POP...). If the connection is possible, **ePowerSwitch 4+** knows that a server program is running there. If the connection is not possible, **ePowerSwitch 4+** can automatically switch the powered device off and, after a specified delay, switch it again on (for details see Ping & Scan Method).



ePowerSwitch 4+

General Settings Misc Help

Accounts Groups Peripherals Rules Associations

Add a New Monitoring Rule

Activated ☐

Rule ID: R1

Rule Name:

Rule Color:

Rule Type: Scan Monitoring Rule

Monitored Device Address 1: Port to scan:

Monitored Device Address 2: Port to scan:

Wait Time for Answer: 1 sec

Interval between Requests: 30 sec

Number of unsuccessful Requests before Action: 1

Delay before First Request after Action: 30 sec

Maximum Number of Actions: 0

Type of Action:

- ☐ Set Outputs: [R0: ePowerSwitch 4+ Name] to [On]
- ☐ Set Outputs: [R0: ePowerSwitch 4+ Name] to [On]
- ☐ Send magic to: port 22385
- ☐ Send Syslog Message: Local use 0 Emergency
- ☐ Send Trap Message: enterpriseSpecific
- ☐ Mail to: Syslog/Trap/Mail Message

LOGOUT DISCARD CHANGES APPLY CHANGES

Activated

This check box must be checked to activate the Rule and enables to deactivate temporarily a rule while keeping all its settings for a later use.

Rule ID:

The **ePowerSwitch 4+** automatically creates an ID Code to clearly identify each rule. All the ID Codes used to identify rules start with the letter "R" followed by a number from 1 to 32. If you delete a rule in the middle of the Rule list, the number of this rule will only be used again if no other rule is available.

Rule Name:

In this field, enter the name you want to give to the rule. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Rule Color:

In this field, select one of the 48 standard colours you want to use to highlight the rule when executed. To use own colours, just type in the Hex value of the colour you want. The Rule highlighting allows to quickly identify the triggered rule when displayed in the Rule Panel page or in a special users page.

Rule Type:

In this drop-down list, choose Scan Monitoring Rule then configure the event and the actions to perform.

Configuring the Event**Monitored Device Address:**

In this field, enter the IP address of the IP device that you want to monitor using the Scan command. In the "Port to scan" field, enter the port number you want to monitor. The value can be set between 1 and 65535.

Wait Time for Answer:

In this field, define the delay in seconds for the Answer Timeout. The delay can be set between 1 and 10 seconds.

Interval between Requests:

In this field, define the delay between the scan commands sent to the IP device. The delay can be set between 30 and 65535 seconds.

Number of unsuccessful Requests before Action:

In this field, define the number of Port scanning commands to be sent to the IP device before executing the actions.

The number can be set between 1 and 65535 seconds.

Delay before First Request after Action:

In this field, define the time in seconds before restarting the monitoring after the reboot action. The delay can be set between 30 and 65535 seconds.

Maximum Number of Actions

You can limit the number of times the action can be executed. This option is useful to limit the number of times a server can be rebooted. In this field, define the number of times the rule can be executed. The delay can be set between 0 and 255 seconds. Default is 0 and means that the action can be performed continuously.

Configuring the Actions

For the Event defined above, you can choose and configure following actions:

Set Outputs**Remarks:**

This type of Action only appears if:

- your Device has own Power Outlets or has access to Power Outlets of connected xBus Peripheral Units
- your Device has access to Relay Outputs of connected xBus Peripheral Units
- you have created interface associations (Go to Settings/Associations).

Select this checkbox and choose in the corresponding drop-down lists the Output to use for this Rule. Each Power Outlet can be switched to On, Off or Restarted.

If you choose "Restart" you can also define a Restart delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

- If you choose a delay different from 0, this delay will replace the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

Each Relay Output can be switched to Open, Close, Pulse Open, Pulse Close.

If you choose Pulse open or Pulse close you can also define a delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

- If you choose a delay different from 0, this delay will replace the delay defined Peripherals page (goto Settings/Peripherals/Edit).

Rule to cancel

This type of Action only appears if you already have created a Rule which you want to cancel
Select this checkbox and choose in the corresponding drop-down lists the Rule you want to cancel.

Send Magic to

Your Device has the possibility to send a Magic Word over IP to another Device in order to remotely trigger an action.

- Send magic: specify the Magic Word to use, it can be from 1 to 32 characters long, and can contain alphanumeric characters.
- to: specify the IP address of the destination device
- port: specify the Port number used to send the Magic Word, default port number is 52389

Send Syslog Message

Remark: This type of Action can only be configured if you have already specified at least one destination Syslog Server (Go to General/Log Settings Page).

Check this box if you want to send a message to a Syslog server. In the following drop-down lists choose the facility and the severity of the message to send.

Send Trap Message

This type of Action appears and can be configured only if you have already specified at least one destination SNMP Server (Go to General/SNMP Page).

Check this/these box(es) and specify one or two SNMP addresses in the corresponding field if you want to send SNMP messages to one or two SNMP Servers.

Mail to

Remark: This Action can only be configured if you have already specified an SMTP Mail Server (Go to General/SMTP).

Check this box and specify a valid email address.

Syslog / Trap / Mail Message

Remark: This field can only be configured if you already have specified at least one destination Syslog Server (General/Log Settings Page) or one destination SNMP Server (Goto General/SNMP Page).

Up to 255 characters may be entered in this free text field. The text will appear in the Syslog, the Trap and the emails.

The message can be completed with the status of an input (a power supply or door contact for example) or the value of a sensor (a temperature sensor for example). For this, simply enter, between two "%" characters, the ID of the corresponding input Device.

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

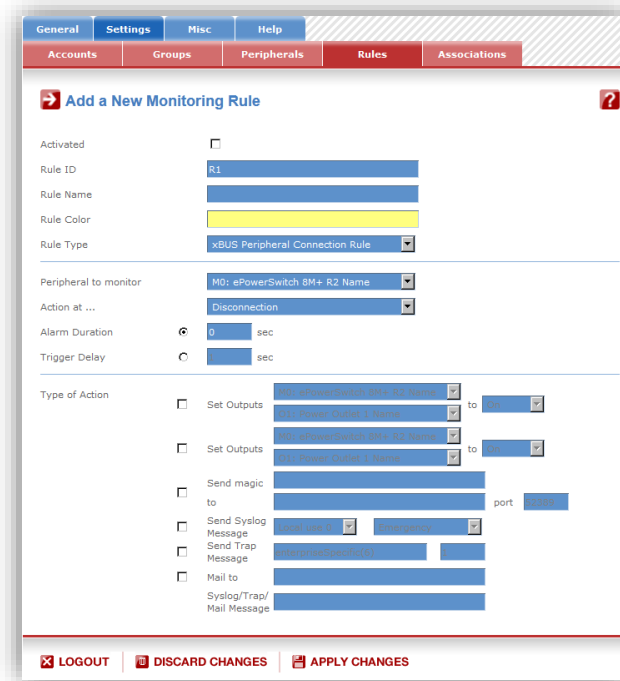
Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

Settings / Rules - xBus Peripheral Connection Rule

Remark: This rule can ONLY be used on devices with an xBus interface.
It enables to monitor the connection of external xBus peripheral devices like Sensors, digital .



Activated

This check box must be checked to activate the Rule. It enables to deactivate temporarily a Rule while keeping all its settings for a later use.

Rule ID

The administrator can create up to 255 Rules and the Power Switch automatically creates an ID Code to clearly identify each Rule. These codes start with the character "R" followed by a number from 1 to 255.

Rule Name

In this field, enter the name you want to give to the Rule. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Rule Color

In this Drop-Down Color Picker, choose the color you want to apply for the rule in the Rule Panel page (Go to Misc/Rule Panel)if the rule is triggered.

Rule Type

In this Drop-Down list, choose Analog Input Monitoring Rule.

Rules are used to control Actions according to a specific event. First you will have to configure the chosen event as follows, then you will choose the Action(s) to perform.

Configuring the Event

Peripheral to monitor

In the first Drop-Down list choose the sensor you want to use.

A character between brackets can follow this ID Code:

- The "X" character means that the corresponding peripheral is physically not connected.
- The "I" character means that the corresponding peripheral is physically connected but not activated. If you want to activate it, go to the "Settings/Power Outlets" Page.

- The " " character (blank) means that the corresponding peripheral is physically connected and activated.

In the second Drop-Down list, choose the power input (Input A or Input B) you wish to monitor.

Action at...

The options "higher than" and "lower than" enable you to define when the Rule has to be executed.

- Choose "higher than" if you want to execute the Rule if the environment value exceeds the value you defined in the field on the right of "higher than".

- Choose "lower than" if you want to execute the Rule if the environment value is below the value you defined in the field on the right of "lower than".

For temperature, you can define values between 0C and 50C

For relative humidity, you can define values between 10 RH and 90 RH

Alarm Duration

By checking this box, you can enter a duration for the selected Digital Input. This Digital Input will then trigger the corresponding action(s) only if the alarm was active for this period. The value can be set between 0 and 60 sec..

Trigger Delay

By checking this box, you can enter a trigger delay for the selected Digital Input. This Digital Input will then trigger the corresponding action(s) only after the specified delay. The value can be set between 1 and 60 sec

Configuring the Actions

Type of Action

For the Event defined above and depending on your Device, you can choose different Actions:

Set Outputs

This type of Action only appears if:

- your Device has own Power Outlets or has access to Power Outlets of connected xBus

Peripheral Units

- your Device has access to Relay Outputs of connected xBus Peripheral Units

- you have created interface associations (Go to Settings/Associations).

Select this checkbox and choose in the corresponding drop-down lists the Output to use for this Rule. Each Power Outlet can be switched to On, Off or Restarted.

If you choose "Restart" you can also define a Restart delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

- If you choose a delay different from 0, this delay will replace the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

Each Relay Output can be switched to Open, Close, Pulse Open, Pulse Close.

If you choose Pulse open or Pulse close you can also define a delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

- If you choose a delay different from 0, this delay will replace the delay defined Peripherals page (goto Settings/Peripherals/Edit).

Rule to cancel

This type of Action only appears if you already have created a Rule which you want to cancel

Select this checkbox and choose in the corresponding drop-down lists the Rule you want to cancel.

Send Magic to

Your Device has the possibility to send a Magic Word over IP to another Device in order to remotely trigger an action.

- Send magic: specify the Magic Word to use, it can be from 1 to 32 characters long, and can contain alphanumeric characters.

- to: specify the IP address of the destination device
- port: specify the Port number used to send the Magic Word, default port number is 52389

Send Syslog Message

Remark: This type of Action can only be configured if you have already specified at least one destination Syslog Server (Go to General/Log Settings Page).

Check this box if you want to send a message to a Syslog server. In the following drop-down lists choose the facility and the severity of the message to send.

Send Trap Message

Remark: This type of Action appears and can be configured only if you have already specified at least one destination SNMP Server (Go to General/SNMP Page).

Check this/these box(es) and specify one or two SNMP addresses in the corresponding field if you want to send SNMP messages to one or two SNMP Servers.

Mail to

Remark: This Action can only be configured if you have already specified an SMTP Mail Server (Go to General/SMTP).

Check this box and specify a valid email address.

Syslog / Trap / Mail Message

Remark: This field can only be configured if you already have specified at least one destination Syslog Server (General/Log Settings Page) or one destination SNMP Server (Goto General/SNMP Page).

Up to 255 characters may be entered in this free text field. The text will appear in the Syslog, the Trap and the emails.

The message can be completed with the status of an input (a power supply or door contact for example) or the value of a sensor (a temperature sensor for example). For this, simply enter, between two "%" characters, the ID of the corresponding input Device.

LOGOUT

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES

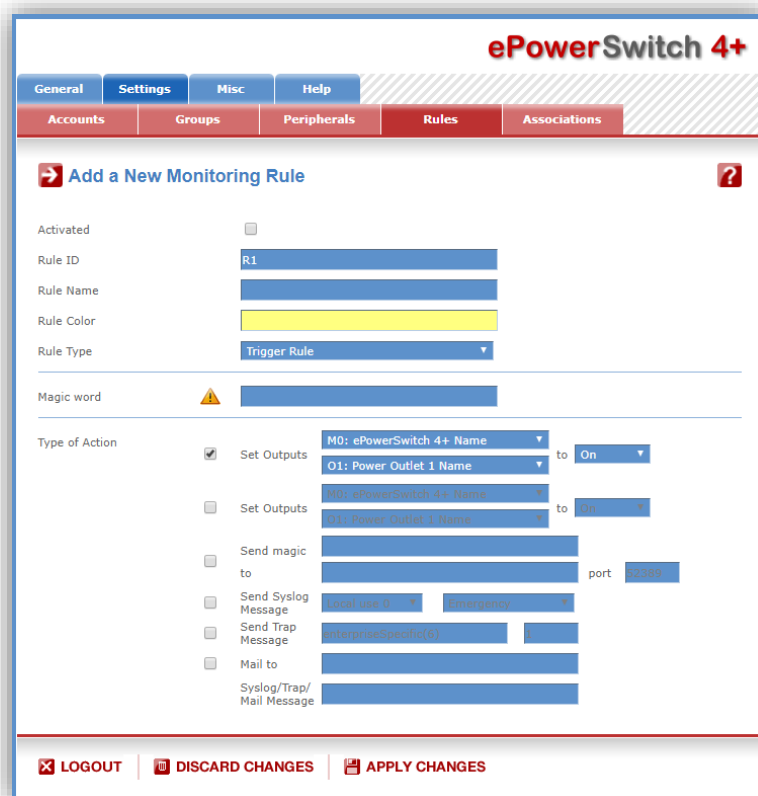
Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES

Click "Apply Changes" at the bottom of the page to save changes.

Settings / Rules - Trigger

This Rule is used to send a request over the Internet from your Device to another Device. The request sent by your Device is used to trigger an Action on the second Device, for instance to remotely turn on or off a Power Outlet, to close or open a Relay, to send an Alarm Message (SNMP Trap, email or Syslog).



Activated

This check box must be checked to activate the Rule. It enables to deactivate temporarily a Rule while keeping all its settings for a later use.

Rule ID

The administrator can create up to 255 Rules and the Power Switch automatically creates an ID Code to clearly identify each Rule. These codes start with the character "R" followed by a number from 1 to 255.

Rule Name

In this field, enter the name you want to give to the Rule. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Rule Color

In this Drop-Down Color Picker, choose the color you want to apply for the rule in the Rule Panel page (Go to Misc/Rule Panel) if the rule is triggered.

Rule Type

In this drop-down list, choose Trigger Rule then configure the event and the actions to perform.

Configuring the Event

Magic word:

In this field, enter the word you want to use to trigger the corresponding action on a remote device. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Configuring the Actions

Type of Action

For the Event defined above and depending on your Device, you can choose different Actions:

Set Outputs

Remark:

This type of Action only appears if:

- your Device has own Power Outlets or has access to Power Outlets of connected xBus Peripheral Units
- your Device has access to Relay Outputs of connected xBus Peripheral Units
- you have created interface associations (Go to Settings/Associations).

Select this checkbox and choose in the corresponding drop-down lists the Output to use for this Rule.

Each Power Outlet can be switched to On, Off or Restarted.

If you choose "Restart" you can also define a Restart delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).
- If you choose a delay different from 0, this delay will replace the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).

Each Relay Output can be switched to Open, Close, Pulse Open, Pulse Close.

If you choose Pulse open or Pulse close you can also define a delay between 0 and 3600 seconds.

- If you choose 0 second for the delay, the delay will be the delay defined in the Peripherals page (goto Settings/Peripherals/Edit).
- If you choose a delay different from 0, this delay will replace the delay defined Peripherals page (goto Settings/Peripherals/Edit).

Rule to cancel

This type of Action only appears if you already have created a Rule which you want to cancel

Select this checkbox and choose in the corresponding drop-down lists the Rule you want to cancel.

Send Magic to

Your Device has the possibility to send a Magic Word over IP to another Device in order to remotely trigger an action.

- Send magic: specify the Magic Word to use, it can be from 1 to 32 characters long, and can contain alphanumeric characters.
- to: specify the IP address of the destination device
- port: specify the Port number used to send the Magic Word, default port number is 52389

Send Syslog Message

Remark: This type of Action can only be configured if you have already specified at least one destination Syslog Server (Go to General/Log Settings Page).

Check this box if you want to send a message to a Syslog server. In the following drop-down lists choose the facility and the severity of the message to send.

Send Trap Message

Remark: This type of Action appears and can be configured only if you have already specified at least one destination SNMP Server (Go to General/SNMP Page).

Check this/these box(es) and specify one or two SNMP addresses in the corresponding field if you want to send SNMP messages to one or two SNMP Servers.

Mail to

Remark: This Action can only be configured if you have already specified an SMTP Mail Server (Go to General/SMTP).

Check this box and specify a valid email address.

Syslog / Trap / Mail Message

Remark: This field can only be configured if you already have specified at least one destination Syslog Server (General/Log Settings Page) or one destination SNMP Server (Goto General/SNMP Page).

Up to 255 characters may be entered in this free text field. The text will appear in the Syslog, the Trap and the emails.

The message can be completed with the status of an input (a power supply or door contact for example) or the value of a sensor (a temperature sensor for example). For this, simply enter, between two "%" characters, the ID of the corresponding input Device.

LOGOUT

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES

Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES

Click "Apply Changes" at the bottom of the page to save changes.

Settings / Associations

This page is used to configure the settings related to Safe Shutdown and Wake on LAN. It enables to create an Association of interfaces which can be implemented in Rules or used manually with your browser.

Following associations can be created:

Safe Shutdown

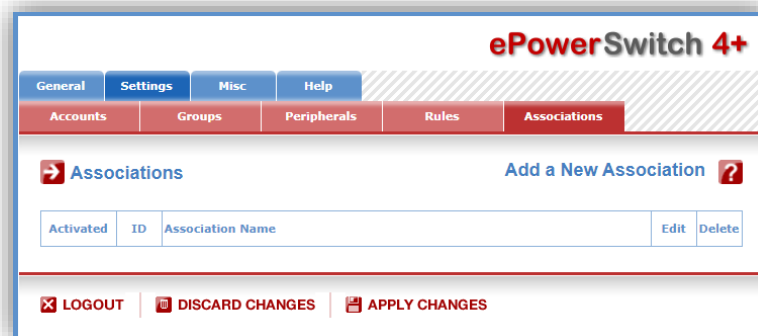
- Association of a Power Outlet (or a Group of Power Outlets) and an RS232 interface

Wake on LAN

- Association of a Power Outlet (or a Group of Power Outlets) and the MAC address of a Server

Safe Shutdown and Wake on LAN

- Association of a Power Outlet (or a Group of Power Outlets), an RS232 interface and the MAC address of a Server



The screenshot shows the ePowerSwitch 4+ web interface. At the top, there's a navigation bar with tabs: General, Settings (selected), Misc, and Help. Below this is a sub-navigation bar with tabs: Accounts, Groups, Peripherals, Rules, and Associations (selected). The main content area is titled 'Associations' and includes a link 'Add a New Association' with a question mark icon. Below the title is a table with columns: Activated, ID, Association Name, Edit, and Delete. The table is currently empty. At the bottom of the interface, there are three buttons: LOGOUT, DISCARD CHANGES, and APPLY CHANGES.

- To remove an existing Association, click on the corresponding "Delete" button.
- To modify an Association, click on the corresponding "Edit" button.

This page is used to create, modify and delete an Association. Click on "Add a New Association" on the right side of the page. A new page appears, allowing you to set all the parameters.



ePowerSwitch 4+

General Settings Misc Help

Accounts Groups Peripherals Rules Associations

Add a New Association

Activated ☐

Association ID AS1

Association Name

Function Delay (sec) 10

Device Selection

Activated ☐

Device Outlet/Group

WOL: ePowerSwitch 4+ Name

WOL: Power Outlet 4 Name

Wake on LAN

Activated ☐

WoL Delay (sec) 10

MAC Address 00:00:00:00:00:00

Shutdown

Activated ☐

Shutdown Delay 10

Device Serial Port

LOGOUT DISCARD CHANGES APPLY CHANGES

Activated

This check box must be checked to activate the Association and enables to deactivate it temporarily while keeping all its settings for a later use.

Association ID

The Power Switch automatically creates ID codes to clearly identify each rule. The codes used to identify Associations start with the letters "AS" followed by a number.

Association Name

In this field, enter the name you want to give to the Association. The name can be from 1 to 32 characters long, and can contain alphanumeric characters.

Remark: Do not use quotes or special characters in labels!

Function Delay (after Shutdown before continue)

In this field, specify a delay after which the associated power outlet will be switch to off.

This delay is applicable only if the association does not have a Power Outlet. The delay can be set between 1 and 3600 seconds.

Device selection

Activated

This check box must be checked to activate the Device and enables to deactivate it temporarily while keeping all its settings for a later use.

Device

In the first drop-down list, choose the device you want to control. If the Power Switch is used as stand-alone unit, this Drop-Down list will only show the Power Switch itself.

In the second drop-down list, choose the power outlet you want to control.

Wake Up on LAN

Activated

This check box must be checked to activate the function and enables to deactivate it temporarily while keeping all its settings for a later use.

WoL Delay

In this field, enter the delay you want to define before the execution of the function.

MAC Address

In this field, enter the MAC address of the PC you want to associate on the Wake Up on LAN function.

Shutdown

Activated

This check box must be checked to activate the function and enables to deactivate it temporarily while keeping all its settings for a later use.

Shutdown Delay

In this field, enter the delay you want to define before the execution of the function.

Shutdown Device

In this Drop-Down list, choose the device which will be used to trigger the Shutdown action. If the Power Switch is used as stand-alone unit, this Drop-Down list will only show the Power Switch itself.

Group:

Remark: This type of action appears and can be configured only if you have already created at least one group (Settings/Groups Tab).

In this field, choose the group of power outlets which will be used for the Shutdown rule.

- To select a group, select the output you want to add in the left field and click on the Arrow button, the output will then appear in the right field.
- To remove the group displayed in the right field, select this group in the right field and click on the Arrow button, the group will then appear in the left field.

LOGOUT:

Click "Logout" at the bottom of the page to exit the session without saving changes.

DISCARD CHANGES:

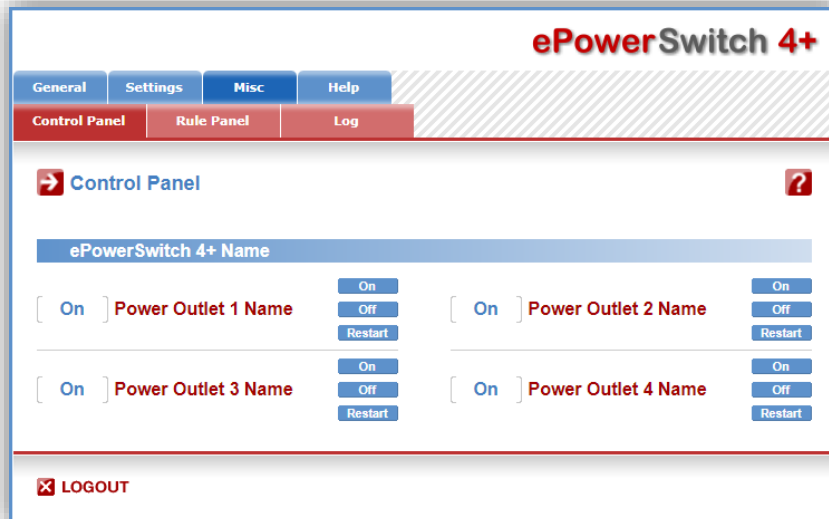
Click "Discard Changes" at the bottom of the page to discard all the changes you have made on this page.

APPLY CHANGES:

Click "Apply Changes" at the bottom of the page to save changes.

Misc / Control Panel

This page is very helpful for the administrator because it gives a complete overview of all the peripherals which are currently connected or have been connected to the **ePowerSwitch 4+**. At a glance, the administrator can check the status of the power supplies of the **ePowerSwitch 4+** and the connected Peripherals. He can also check the values of the connected sensors, check the status of the connected dry contacts and of course control all the power outlets of the connected ePowerSwitch units.



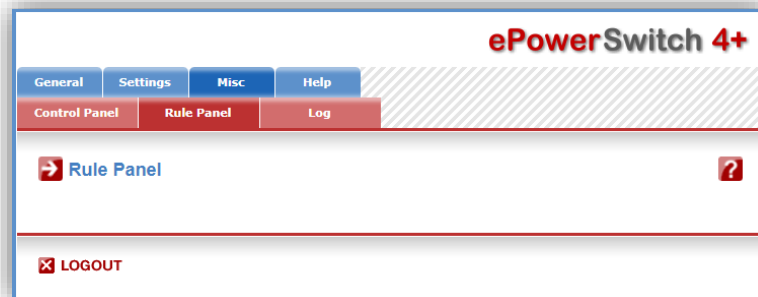
The screenshot shows the 'ePowerSwitch 4+' web interface. At the top, there are navigation tabs: 'General', 'Settings', 'Misc', and 'Help'. Below these, there are sub-tabs: 'Control Panel', 'Rule Panel', and 'Log'. The 'Control Panel' tab is active, showing a 'Control Panel' header with a red arrow icon and a help icon. Below the header, there is a section titled 'ePowerSwitch 4+ Name' with a text input field. Underneath, there are four rows, each representing a power outlet. Each row has a status indicator (a blue 'On' button) and a name field. To the right of each name field, there are three buttons: 'On', 'Off', and 'Restart'. At the bottom left, there is a 'LOGOUT' button with a red 'X' icon.

ePowerSwitch 4+ Name			
[On]	Power Outlet 1 Name	[On]	Power Outlet 2 Name
		[On]	Power Outlet 3 Name
		[On]	Power Outlet 4 Name

LOGOUT

Misc / Rule Panel

This page shows all the rules the administrator has created and activated. The rules which have been executed can also be highlighted in different colours according to the emergency of the action. The highlight colours can be customized during the creation of the rule (Settings/Rules Page).



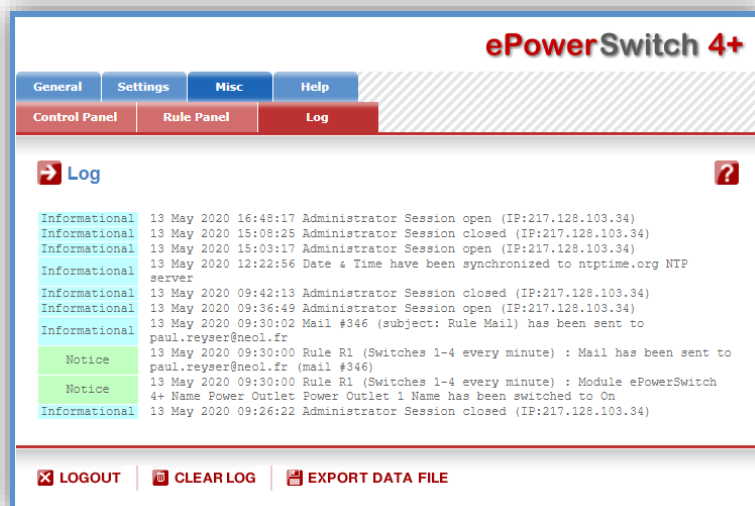
Remarks:

The page is automatically refreshed every 10 seconds.

Unlike a standard session, the web server of the ePowerSwitch 4+ won't automatically close this kind of session. Opening many sessions of this affects the performances of the web server.

Misc / Log

The log file keeps a running log of events and activities occurring on the device. The logs are automatically cleared when the device is rebooted. The file will display 10 recent logs.



The screenshot shows the ePowerSwitch 4+ web interface. The top navigation bar includes tabs for General, Settings, Misc, and Help. Below this, there are sub-tabs for Control Panel, Rule Panel, and Log. The Log tab is currently selected, displaying a list of log entries. Each entry is preceded by a colored square indicating its severity: blue for Informational, green for Notice, and red for Error. The log entries are as follows:

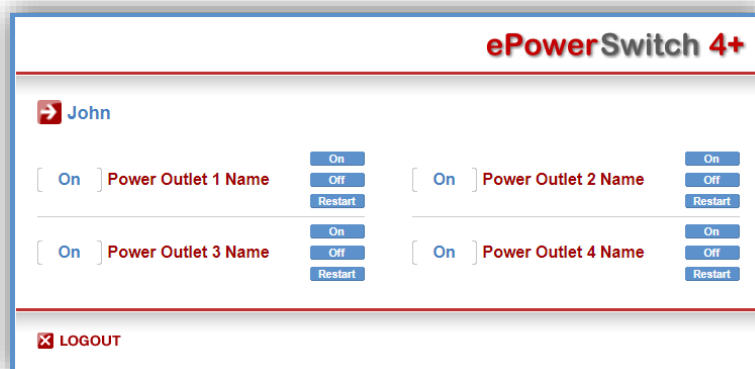
Severity	Timestamp	Event Description
Informational	13 May 2020 16:48:17	Administrator Session open (IP:217.128.103.34)
Informational	13 May 2020 15:08:25	Administrator Session closed (IP:217.128.103.34)
Informational	13 May 2020 15:03:17	Administrator Session open (IP:217.128.103.34)
Informational	13 May 2020 12:22:56	Date & Time have been synchronized to ntp.time.org NTP server
Informational	13 May 2020 09:42:13	Administrator Session closed (IP:217.128.103.34)
Informational	13 May 2020 09:36:49	Administrator Session open (IP:217.128.103.34)
Informational	13 May 2020 09:30:02	Mail #346 (subject: Rule Mail) has been sent to paul.reyser@neol.fr
Notice	13 May 2020 09:30:00	Rule R1 (Switches 1-4 every minute) : Mail has been sent to paul.reyser@neol.fr (mail #346)
Notice	13 May 2020 09:30:00	Rule R1 (Switches 1-4 every minute) : Module ePowerSwitch 4+ Name Power Outlet Power Outlet 1 Name has been switched to On
Informational	13 May 2020 09:26:22	Administrator Session closed (IP:217.128.103.34)

At the bottom of the log page, there are three buttons: LOGOUT, CLEAR LOG, and EXPORT DATA FILE.

Part IV : Power outlet control and peripherals status

Via the Internet using a standard browser

1. Start your Web browser and type the IP address of your **ePowerSwitch 4+**. The browser displays the authentication dialog box.
2. Enter a username and its corresponding password. The status of the **ePowerSwitch 4+** is displayed.



3. In the drop-down list, choose the power control unit you want to control or the peripheral for which you want to know the status.

If you log in as system administrator, you will be able to:

- control all the power outlets and all the power outlet groups of the connected ePowerSwitch devices,
- display the instant values of all the connected sensors (temperature, humidity, ambient light),
- display the status of all digital inputs.

If you log in as a user (**ePowerSwitch 4+** handles up to 40 accounts), you will be able to:

- control individually all the power outlets and all the power outlet groups for which you have the rights,
- display the values of all the connected sensors for which you have the rights,
- display the status of all the digital inputs for which you have the rights.

The ON button allows you to switch ON the corresponding power outlet or group of power outlets. The OFF button allows you to switch OFF the corresponding power outlet or group of power outlets. The RESTART button allows you to switch OFF the corresponding power outlet or group of power outlets. The power outlet or group of power outlets will then be automatically switched ON after the delay defined by the administrator (see Settings / power outlets Page).

Through a serial connection

The power outlets of the ePowerSwitch 4 Master can be controlled using a simple ASCII protocol over an RS232 serial connection.

1. Use the supplied RS232 serial cable to connect the ePowerSwitch Master to an available serial port of your PC.
2. Run a terminal program such as Windows HyperTerminal or the MicroTerminal program on the CD (folder miscellaneous).
3. Configure the appropriate serial port with the following settings:
4. 9.600 bauds, 8 bits, no parity, 1 stop bit and no flow control.
If you use the MicroTerminal program on the CD (folder miscellaneous) you only have to choose the used serial port, this program is already configured at 9600,n,8,1.

On your computer, press <ENTER> until the configuration menu appears on your screen.

```
-----
NETWORK INTERFACE PARAMETERS:
  IP address on LAN is 192.168.1.240
  LAN interface's subnet mask is 255.255.255.0
  IP address of default gateway to other networks is 192.168.1.2
MISCELLANEOUS:
  HTTP Port is 80
  Finder program is enabled.
  HTTP config is enabled.
-----
```

Press M to modify these settings.

Syntax of the command line:

/P0y=z (the command line MUST start with a slash)

Parameter	Value	Function
y	0	means that all 8 power outlets have to be controlled together with one command
	1 to 4	indicates the number of the power outlet you want to control
z	0	Command to switch the socket(s) Off
	1	Command to switch the socket(s) On
	r	Command to restart the socket(s)
	t	Command to toggle the state of the socket

Examples to control the Master:

```
/P00=1 <ENTER> switch all the 4 power outlets ON
/P00=0 <ENTER> switch all the 4 power outlets OFF
/P03=r <ENTER> restart power outlet 3
/P02=t <ENTER> toggle power outlet 2
```

Remarks:

- The ePowerSwitch accepts lower case and upper case commands.
- The ePowerSwitch sends an echo for each received character.

Through the network using simple commands in your own program

Developers who want to implement the power outlet control in own programs can access to a special page named hidden.htm and control individually the power outlets using simple commands.

To configure the Hidden Page Account, go to Settings / Accounts / Hidden Page Account.

Part V : Update

How to update products with Firmware version 2.x.x.x

To update your product, you need our Updater program for Windows which enables you to update nearly all our products. To receive this program for free, send us an email at support@neol.fr.

- The update can ONLY be done over the LAN (because we use a UDP Broadcast to discover the product to update).
- The IP address of the product to update MUST be **192.168.100.200**.
- The product to update MUST be accessible using a browser by the PC used for the Update. Please check before trying to update your product.
- It is NOT possible to update products using an old hardware (Firmware 2.x.x.x).

Update Procedure:

1. Connect the Power Switch to update to your LAN.
The address of the Power Switch must be 192.168.100.200.
2. Start the Updater program.
3. Click on the Scan button (first button in the tool bar). Your Power Switch will appear in the Updater Window. If not, check your network connection and press the SCAN button again.
4. Click on the Update button (second button in the tool bar) and follow the instructions on the screen.

Part VI : Appendix

Ping and Scan Methods

ePowerSwitch 4+ has two methods to check whether an IP equipment (PC, server, router, Webcam...) is still alive:

Address Pinging:

The first method uses the well-known Ping command whereby a request is sent to a specific IP address. The Ping command, which is an echo request, enables you to determine through an ICMP protocol (Internet Control Message Protocol) if an IP device is available on the network. If the system reacts to this request, **ePowerSwitch 4+** knows that the TCP/IP connection is established. If the system does not react to one or several requests, **ePowerSwitch 4+** can automatically switch the device off and after a specified delay switch it again on (Reboot function).

Port Scanning:

The second method uses the Port Scan command to test a specific TCP/IP port. In other words, this command allows you to find out if a specific protocol is available on a server (for example HTTP, FTP, Telnet, POP...). **ePowerSwitch 4+** simply tries to connect to a specific server port. If the connection is possible, **ePowerSwitch 4+** knows that a server program is running there. If the connection is not possible, **ePowerSwitch 4+** can automatically switch the device off and after a specified delay switch it again on (Reboot function).

Remarks:

- The Supervision function works only if the ePowerSwitch 4+ is connected to the LAN.
- The Ping and Scan functions can be used separately or together.
- The network route between ePowerSwitch 4+ and the IP device you wish to supervise should be as direct as possible, so do not use unnecessary routers and complex wiring between them.
A problem on a router or the wiring could reboot the IP device to supervise.
- Execute several Pings and/or Scans before running the Reboot function. It could be possible that the IP device doesn't respond although it is still working.
- Choose a realistic supervision cycle. One second is possible, however it's not necessary to overload the network with Ping and Scan requests.

Recommended values:

- Interval between Requests: 10 sec or more
- Number of unsuccessful Requests before Reboot: 3 or more
- Delay before Reboot: 10 sec or more
- Delay before restarting monitoring after Reboot: 120 sec or more

Technical Data

Network standards	IEEE 802.3, 10/100 BASE-T
Network protocols	TCP/IP, HTTP,
xBus Network connection	RJ-45 connector for STP CAT5 Max. network cable length 200 meters
Terminal connection	USB Type-B male
Operating temperature	0°C to +50°C
Operating humidity	10% to 80% RH (not condensing)
Dimensions (LxDxH)	485 x 73 x 45 mm
Weight	1 kg

Commonly used Ports

TCP 80: Used for HTTP connections.

- UDP 123:** Used to allow time synchronization over NTP (Network Time Protocol).
UDP 161: Used for SNMP Requests.
UDP 162: Used for SNMP Traps.
UDP 514: Used to deliver Syslog messages.

Syslog Messages: Severity Level Definitions

The Emergency level is the most severe type of message generated by **ePowerSwitch 4+** and the Debug severity level is the least severe one.

Severity Level 0, Emergency:

The following messages appear at severity 0:
- Continuous error!

Severity Level 1, Alert:

The following messages appear at severity 1:
- Settings have been reinitialized through the serial connection
- **ePowerSwitch 4+** does not respond
- Satellite "number" does not respond
- Sensor "number" does not respond
- Failure on Power Input of Master M0
- Failure on Power Input A of Satellite (number)
- Failure on Power Input B of Satellite (number)

Severity Level 2, Critical:

The following messages appear at severity 2:
- "file" config corrupted: restoring default values

Severity Level 3, Error:

ePowerSwitch 4+ doesn't generate Severity Level 3.

Severity Level 4, Warning:

The following messages appear at severity 4:
- Settings have been changed through the serial connection
- Settings have been changed through the network by User "name"

Severity Level 5, Notice:

The following messages appear at severity 5:
- Master M0 has been connected
- Satellite (number) has been connected
- Sensor (number) has been connected
- System has been restarted through the serial connection
- Power Supply of Master restored
- Power Supply A of Satellite (number) restored
- Power Supply B of Satellite (number) restored
- Rule (number) : Outlet (number) of Master has been switched ON
- Rule (number) : Group (number) has been switched ON
- Rule (number) : Dry Contact Output (number) has been open

Severity Level 6, Informational:

The following messages appear at severity 6:
- System has been started
- Date & Time have been synchronized to a Network Time Server
- User "name" : Outlet (number) of Master M0 has been switched ON
- User "name" : Group (number) has been switched ON
- Dry Contact Input (number) has been opened
- Dry Contact Input (number) has been closed
- Dry Contact Output (number) has been opened
- Dry Contact Output (number) has been closed
- Session opened by user "name"

Severity Level 7, Debug:
ePowerSwitch 4+ doesn't generate Severity Level 7.

STATEMENT OF CONFORMITY



STATEMENT OF CONFORMITY ePowerSwitch 4+

Neol S.A.S. declares that this equipment is in compliance with the Electromagnetic Compatibility Directive and the Low Voltage Directive:

Application of Council Directives:	2014/35/EU of 26 February 2014 2014/30/EU (EMC) of 26 February 2014 2011/65/EU (RoHS) of 8 June 2011
Standards to Which Conformity declared:	EN 60950-1:2006 /A1:2010 /A11:2009 /A12:2011 EN55022 Klasse B:2010 EN55024:2010, EN50581:2012
Manufacturer's Name and Address:	Neol S.A.S. 4 Rue Nationale 67800 BISCHHEIM FRANCE
Type of Equipment:	Power Distribution Unit (PDU) Input Connections 1 x 16A - DE or FR Plug Output Connections 4 x 10A - DE or FR Sockets
Type Designation:	ePowerSwitch 4+
Model No:	EPS 4+
Years of Manufacture:	2020

We, the undersigned, hereby declare that the equipment specified above conforms to the above directives.

Bischheim, 23 March 2020

Paul REYSER



General Manager
NEOL S.A.S.