PowerControl for MediaPortal

Version 1.9.1

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1.   Summary

PowerControl is a MediaPortal plugin to manage your network computer and devices.

2.   Requirements

This plugin requires MediaPortal v1.3.0 or higher (for more information see the homepage http://www.team-mediaportal.com) and the installation of some 3rd party tools ("psshutdown" to control windows based devices and "plink" for Unix based devices remotely).

3.   Installation

To install the PowerControl plugin, please run the installer "PowerControl.mpe1" or, if you want to manually install the plugin, follow the described steps:

Step 1:   unzip the file "PowerControl.zip" to a temporary directory and open this directory
Step 2:   navigate to folder "*PowerControl\Release\Plugins\Windows*"
Step 3:   copy all files to the MediaPortal plugin directory, e.g. "*c:\program files\team mediaportal\plugins\windows*"
Step 4:   navigate to folder "*PowerControl\Release\Languages\PowerControl*"
Step 5:   copy all files and directories to your MediaPortal language folder, e.g. "c:\programdata\team mediaportal\mediaportal\language\PowerControl"
Step 6:   download the 3rd party software package "PSTools" from here, unzip the file and copy the executable file psshutdown.exe into the windows directories, e.g. "c:\windows"
Step 7:   download the 3rd party executable file plink.exe from here into the windows directories, e.g. "c:\windows"

4.   Plugin Configuration

If you have installed the plugin, please open your MediaPortal Configuration Utility, go to "Plugins", select "PowerControl" in the list of plugins and press button "Config" to change configuration options.

4.1.   Actions
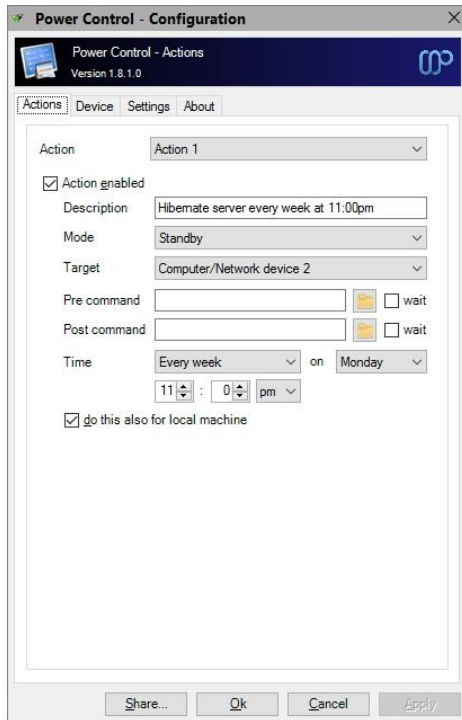
Enable action: Define the required action here. Please enter a description, select the action mode, select the target computer or network device and time related information.

If you want to start a pre- or post command, enter or select the appropriate command. **Hint:** These commands are executed locally on your HTPC only.

Additionally you can start the action also for your local computer, for this please checks the option "do this also for local machine".

Hint: Press the button "Apply" to save your settings, before you select another action. Otherwise the changes are lost.

4.2. Device

Computer/Network device: Here you can define up to 5 computers or network devices, which are connected to your local network. Please enter a description, type and OS family, IP address and MAC address. Alternatively please select the type of device.

User name/Password: Enter the appropriate user name and password here, if the computer or network requires different credentials.

Wakeup Port: Enter the required wakeup port here, default value is 40000.

Perform alive check: Switch on this option, if you would check the online status using the Alive Check Scheduler.

Hint: Press the button "Apply" to save settings, before you select another computer or network device. Otherwise the changes are lost.

4.3. Settings
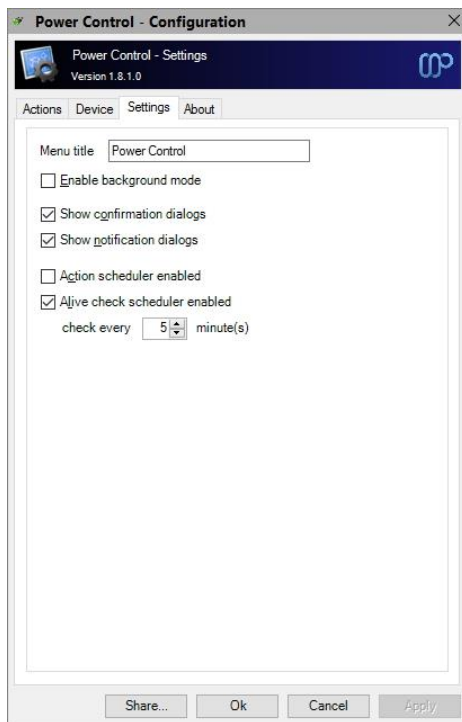
Menu title: Enter the menu title here.

Enable background mode: Enable or disable the Menu Mode / Background Mode version.

Show confirmation dialogs: If this option is turned on, a confirmation dialog opens before starting an action.

Show notification dialogs: If this option is turned on, notification dialog opens after starting an action.

Action scheduler enabled: Switch on this option to enable the action scheduler by default.

Alive check scheduler enabled: Switch on this option to enable the alive check scheduler by default. Additionally please define a valid refresh time period.

4.4. Expert Settings

Expert settings are not visible by default. If you want to edit some internal settings, please hold down the Shift key, when you click the plugin in the configuration dialog.
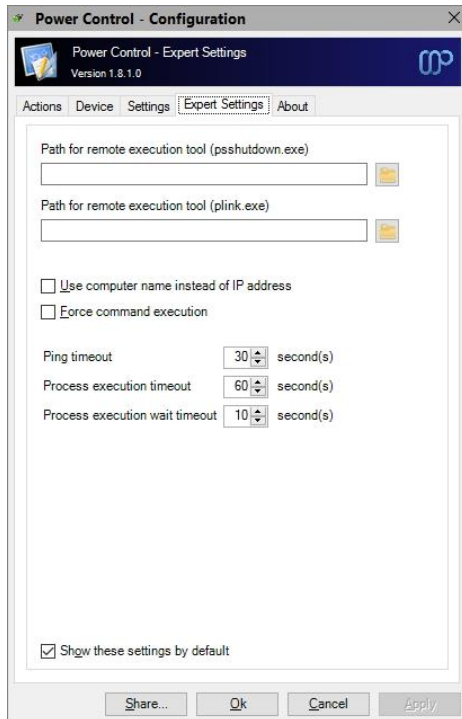
Path for remote execution tool (psshutdown.exe): Here you can enter the alternative program path to the 3rd party tool psshutdown.exe. If this value is not specified, the plugin tries to load this program from "c:\windows".

Path for remote execution tool (plink.exe): Here you can enter the alternative program path to the 3rd party tool plink.exe. If this value is not specified, the plugin tries to load this program from "c:\windows".

Use computer name instead of IP address: If this option is checked, the plugin use the device name instead of the IP address.

Force command execution: By default, an initiated action waits until all related system tasks are finished. Switch on this option, if you want to force the selected action type.

Ping/Process execution/Process execution wait timeout: Please specify the default timeout values here.

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5.   Troubleshooting

If you have problems with device control, please check that your target machine meets the minimum requirements.

5.1.   Windows based devices

Please check, if

- it is not running Windows XP Home.
- the Workstation service is running (check using services.msc).
- the Server service is running (check using services.msc).
- the Admin$ share is available (check using computer management).
- the Windows Network is running and Printer and File Sharing are activated.
- incoming network users authenticate as themselves (to achieve this: (1) Turn off simple file sharing and thus turn on classical file sharing. (2) Turn off network users identify as guests and thus turn on network users identify as themselves. Note: Classical Network Authentication requires a non-empty password. If you have not already done so, assign the user who will logon to \\target a strong password).

Additionally please

- make sure that the user who will execute the command on the target machine has got admin privileges.
- check your firewall settings. By default, the firewall can block any incoming traffic. So it may be necessary to open port 445 on your target machine for incoming traffic from your local machine.

As soon as your target machine meets all of the above listed requirements, from your local machine try to execute these commands to your target machine:

- "net use \\target\Admin$ /user:Administrator"
- "dir \\target\Admin$"
- "net use \\target\Admin$ /delete (only disconnects, does not delete anything.)"

If these 3 commands work, then it should be possible to run the "psshutdown" command to \\target as well.

If your problem cannot be solved, please consult the PSTools FAQ [here](#).

5.2. Unix based devices

Please support here with your experiences, thank you.

6.   Settings and Profile Sharing

By default, all plugin related settings will be saved locally inside the pre-configured client data directory of MediaPortal. In addition to that, PowerControl allows sharing settings and profile information among clients. This way you have to define your various plugin settings, credentials, etc. only once and accordingly every client can access this data. Before starting with settings and profiles sharing, please observe the following hints and requirements.

- In principle all local and network storages or cloud services (e.g. OneDrive, Dropbox, SugarSync) can be used for sharing. Before using this feature, possible device or service specific configurations should be checked to prevent access or synchronization problems later.
- The current implementation does not support concurrent read or write operations. Also, the synchronization or latency behavior of a device or service cannot be influenced.
- When using a shared network folder, the device must be available and the operating system must know the credentials to access the device.
- When using an OneDrive folder, an internet connection must be established and the synchronization tool must be installed and running across all devices. Additionally the selected OneDrive folder must be available offline (Windows 8 and below only) or enabled as a sync folder.
- When using a Dropbox folder, an internet connection must be established and the synchronization tool must be installed and running across all devices. Additionally the selected Dropbox folder must be enabled as a selective sync folder.
- To share passwords or keys correctly, all synchronized devices must be in the same network domain or workgroup.

The button "Share" inside the dialog allows the definition of the central configuration storage path. Enter this path information in every client's setup to ensure, that each clients will use the same settings.

Depending on the selection, the button "Ok" will use the central file storage as defined (when sharing is enabled) or the pre-configured client data directory (when sharing is disabled). The button "Apply" acts in the same way without closing the configuration dialog itself.

7. Window Properties

This plugin offers some properties, see the following table for more information.

Property Name	Return value
#PowerControl.Action	Current action
#PowerControl.NetworkDevice<digit>[1]Alive	Alive status of network device (alive/not alive/unknown)
#PowerControl.NetworkDevice<digit>[1]AliveImage	Alive status image of network device[2]
#PowerControl.NetworkDevice<digit>[1]Description	Description of network device
#PowerControl.NetworkDevice<digit>[1]IPAddress	IP address of network device
#PowerControl.NetworkDevice<digit>[1]MACAddress	MAC address of network device
#PowerControl.NetworkDevice<digit>[1]State	State of network device (enabled/disabled)
#PowerControl.NetworkDevice<digit>[1]Type	Type of network device (Server/Client/Storage Device/Game Controller/Router/other device)
#PowerControl.NetworkDevice<digit>[1]TypeImage	Type image of network device[3]

[1]: digit is a number between 0 and 4

[2]: valid values are "powercontrol_greenflag.png", "powercontrol_redflag.png"

[3]: valid values are "powercontrol_server.png", "powercontrol_client.png", "powercontrol_storage.png", "powercontrol_gamecontroller.png", "powercontrol_router.png" and "powercontrol_other.png"

8.   Screenshots
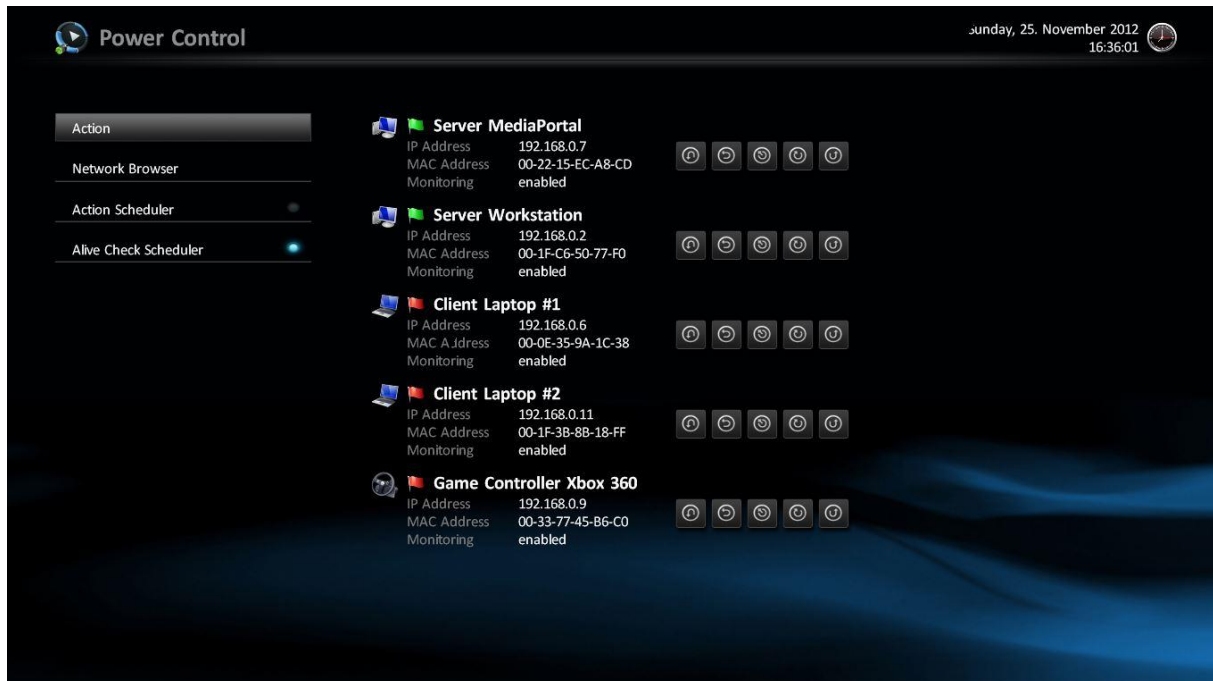
PowerControl main window example

9.   Button Functions

Action – Starts a defined action manually (affect remote network devices only)

Network Browser – Opens a network browser (currently only for information)

Action Scheduler – Activate/Deactivate the action scheduler

Alive Check Scheduler – Activate/Deactivate alive check scheduler

Activate hibernate for appropriate device

Activate restart for appropriate device

Activate shutdown for appropriate device

Activate standby for appropriate device

Activate wakeup for appropriate device

10. Version History

- 0.1.0 – Internal release
- 0.2.0 – first community release
- 0.3.0 – GUI, global properties and Alive check functionality added
- 0.3.1 – Wakeup port configuration added, new device type category
- 0.3.2 – reworked configuration dialog, network browser added
- 0.3.5 – username/password addition for devices, pre-/post command addition for actions
- 0.4.0 – Version/Subsystem control functionalities added
- 0.4.1 – small bug fixes
- 0.4.2 – add expert settings to configure path location of needed external applications
- 0.4.3 – last improvements for MediaPortal v1.2.0
- 1.0.0 – final version
- 1.0.1 – change compatibility flags to support MediaPortal v1.3.0, changes to configuration window
- 1.0.2 – source maintenance, cumulative updates
- 1.1.0 – rework of core routines, support for UNIX based devices, use of "psshutdown.exe" instead of "psexec.exe"
- 1.1.1 – minor improvements for MediaPortal v1.3.0, skin changes
- 1.2.0 – maintenance release
- 1.2.1 – fix for timer specific issues in case threaded plugin loading is enabled
- 1.2.2 – fix possible deadlock condition for background worker specific issues in case threaded plugin loading is enabled
- 1.2.3 – change compatibility flags to support MediaPortal v1.5.0
- 1.2.4 – refactoring of plugin startup code, code cleanup, internal maintenance/test release
- 1.3.0 – several performance improvements
- 1.3.1 – change compatibility flags to support MediaPortal v1.6.0
- 1.4.0 – rework to support updated plugin framework v1.1.0
- 1.4.1 – fix a minor timeout issue under rare circumstances
- 1.5.0 – change target framework to .NET 4.0, change compatibility flags to support MediaPortal v1.7.0, support for updated plugin framework v1.2.0
- 1.5.1 – change compatibility flags to support MediaPortal v1.8.0
- 1.5.2 – rework update mechanism, changes to support plugin framework 1.3.0
- 1.6.0 – change compatibility flags to support MediaPortal v1.9.0
- 1.6.1 – minor enhancements, change compatibility flags to support MediaPortal v1.10.0
- 1.6.2 – architectural enhancements
- 1.7.0 – rework of configuration dialog
- 1.8.0 – cryptographic routines updated, functionality to share settings and profiles added, support for MediaPortal v1.12.0
- 1.8.1 – rework of message management routines, improvements to sharing functionality, maintenance
- 1.9.0 – support for plugin framework v1.4.0, change compatibility flags to support MediaPortal v1.13.0
- 1.9.1 – maintenance release, change compatibility flags to support MediaPortal v1.14.0

11. Skin Changes

- 0.3.2   – button "Network Browser" (ID 3) added, button "Action Scheduler" ID changed to 4, button "Alive Check Scheduler" ID changed to 5
- 1.1.1   – change button type of ID 4 and ID 5 to checkbutton

12. Known Limitations

- none

13. Copyright Information

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