

## PowerMAN New Features Guide v5.5

Release 5.5.4.6130 April 2023

### Overview

PowerMAN v5.5 introduces some significant new product features. This document describes the more important changes in both the PowerMAN client and reporting software. Please see the individual product release notes for more detailed information.

Firstly, PowerMAN now provides more granular control over power management policy exceptions. Protected objects can now be configured to only apply during specific working hours, on specific days or when a user is actually logged on. This change allows policies to be better tuned to the operating environment and has the potential to greatly reduce the occasions when power management is unnecessarily disabled and consequently further reduce energy waste. In addition, to simplify configuration, PowerMAN now also provides a specific "fallback" policy to define what should happen when no other power policy is applicable. A more detailed description of these changes is contained in the PowerMAN Administration Guide.

Secondly, this release improves support for the "Modern" standby feature (S0ix, S0 low-power idle or AoAc mode) present on some high-end portable devices and permits scheduled policies to optionally repeat multiple times per day. This has the potential to simplify complex configurations, which would have previously required multiple scheduled policies.

Thirdly, to support the increased popularity of remote working, this release adds an optional prompt to remind the user that the system is idle and will soon enter a power saving mode or logout. This is intended to assist scenarios where the user is present but has not interacted with the computer for a prolonged period due to a remote meeting, VoIP call or similar.

Finally, this release also introduces a variety of new reporting features to extend the anonymous data collected by the PowerMAN and allow it to be better used for PC utilization and asset monitoring. PowerMAN now supports weekly reporting to complement the traditional daily and monthly reports and provides a convenient method to locate workstations by name with wildcard support. In addition, this release includes a number of bug fixes and removes support for some legacy operating systems: Windows XP, Windows Server 2003 and Windows Vista. Consequently, the minimum supported OS is now Windows 7 SP1.

This document provides a brief explanation of recent new features and is intended for System Administrators who are already familiar with PowerMAN. This document describes client/server release v5.5.4.

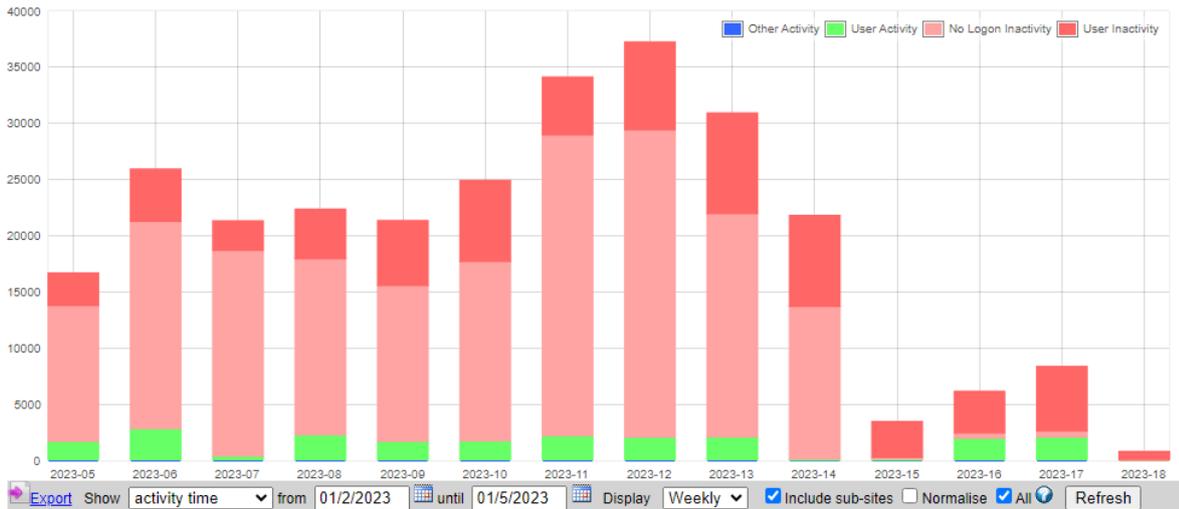
The majority of the new features present have followed feedback supplied by our customers. We remain very grateful to those sites for all the testing and feedback they have provided and hope they will find this release the most functional and reliable yet. In some cases, previews of these features may have been present in recent beta builds of PowerMAN.



## New features in PowerMAN v5.5

1. PowerMAN now provides significantly improved support for systems with "**Modern**" standby (e.g. S0ix, S0 low-power idle or AoAc). This is a new standby mode that was first introduced with Windows 8 / Microsoft "Surface" devices and is now becoming increasingly popular on other high-end portable Windows 10/11 devices. If available, PowerMAN will use this mode when configured to "Sleep".
2. PowerMAN now supports a **monthly summary report**. This complements the existing daily and weekly reports. Some of the charts have been redesigned to improve readability and are now displayed in a new stacked bar chart format and the reporting API has also been extended to support the new chart types:

### Weekly Activity / Hours



3. PowerMAN now supports optional **email summary notification reports**. These can be sent daily, weekly, monthly or annually to notify stakeholders of recent energy saving performance. This feature requires the cloud (hosted) reporting platform or PMES v5.5.4 or later.

	Week commencing 23/10
Unique computers	2163
User active hours	19641 (27 %)
Other active hours (Defined by system administrator)	0 (0 %)
User inactive hours	52597 (73 %) 18536 due no user logon (26 %) 34060 due to inactivity whilst user logged on (47 %)
Total hours	72237 (100 %)
Inactive cost (estimated)	£ 573.02
Suggestion	PowerMAN "Default Power Policy" may reduce inactivity when user is logged on. For example: This could logout an inactive user after a period of time or place the computer in a power saving mode.

4. The **Devices** tab now provides a convenient search feature to locate workstations by name. This supports \* and ? wildcard characters. In addition, a date filter has been added to allow only assets reporting data within a certain date range to be included:

Summary | Live | **Devices**

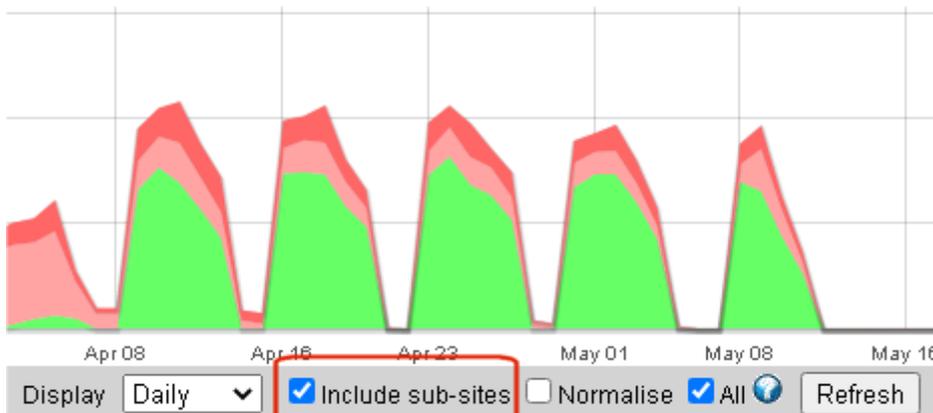
### Operations Devices

Client Version: All | Computer Name: Workstation??1 (Use \* and ? for wildcards) | OS Version: All | CPU: All | Battery: All | Logical Cores: All | Vendor: All | RAM: All to All GB | Product Code: All | Hard Disks: All | BIOS: All | Optical Drives: All | BIOS Version: All | Free System Drive: All GB

Export Show 1000 Computers last status from 11/05/2022 until 11/08/2022  Include sub-sites Refresh Showing 5 of 76 available records

Computer	Version	OS	Battery	Vendor	Product/Code	BIOS Firmware	Version	CPU	Logical Cores	RAM MB	Disks/Optical	Free System Drive MB	Last Status
Workstation071	5.4.0.5932	6.1.7601 Service Pack 1	False	Hewlett-Packard	1496	Hewlett-Packard	J01 v02.15	Intel(R) Pentium(R) CPU G630 @ 2.70GHz	2	3242	1 / 1	245189	11/05/2022
Workstation161	5.4.0.5932	6.1.7601 Service Pack 1	False	Hewlett-Packard	1496	Hewlett-Packard	J01 v02.15	Intel(R) Pentium(R) CPU G630 @ 2.70GHz	2	3242	1 / 1	250846	11/05/2022
Workstation201	5.4.0.5932	6.1.7601 Service Pack 1	False	Hewlett-Packard	1496	Hewlett-Packard	J01 v02.15	Intel(R) Pentium(R) CPU G630 @ 2.70GHz	2	3242	1 / 1	280624	11/05/2022
Workstation211	5.4.0.5932	10.0.9200	False	HP	8299	HP	P01 Ver. 02.04	Intel(R) Core(TM) i5-7500 CPU @ 3.40GHz	4	3975	1 / 1	307451	11/05/2022
Workstation251	5.4.0.5932	6.1.7601 Service Pack 1	False	Hewlett-Packard	3398	Hewlett-Packard	K01 v02.00	Intel(R) Core(TM) i5-3470S CPU @ 2.90GHz	4	3476	1 / 1	51188	11/05/2022

- The main activity chart now includes the option to exclude data from child sub-sites. Previously, this data was always included and could not be omitted. This feature allows child sub-sites to be optionally ignored:



- Similarly, the computers report now includes the option to directly include computers from child sub-sites. On supported browsers, clicking a specific computer will open the detailed computer report in a new browser tab:

### Computers

Computer	Client Version	Last Status	Inactive %	Inactive Hours	Active Hours	No Logon	Inactive User	User	Other	WakeAll
Workstation072	5.4.0.5932	11/05/2022	91.75	22.25	2.00	[Progress bar]				Wake
Workstation174	5.4.0.5932	11/05/2022	66.67	20.50	10.25	[Progress bar]				Wake
Workstation214	5.4.0.5932	11/05/2022	50.85	15.00	14.50	[Progress bar]				Wake
Workstation315	5.4.0.5932	11/05/2022	64.71	13.75	7.50	[Progress bar]				Wake
Workstation179	5.4.0.5932	11/05/2022	48.68	9.25	9.75	[Progress bar]				Wake

Export Show worst 5 computers from 05/05/2022 until 11/05/2022  Include computers in sub-sites Refresh

- PowerMAN now supports optional network configuration reporting. This feature is enabled by default from v5.5.4. It can report network interface adapter name(s), MAC address, IP addresses and, if appropriate, subnet mask(s). This feature supports both IP v4 and IP v6. The information collected may also be viewed using the new NETWORKINFO command. This feature is also available in the PowerMON SKU. It requires reporting platform / PMES v5.5.4 or later:

### Network Information

Description	Physical/MAC	Active	Hardware	Addresses
 Realtek PCIe GBE Family Controller	5CE0C52AB190			192.168.200.190/24, FE80:0000:0000:0000:ABCD:1234:0190:64
 Intel(R) Dual Band Wireless-AC 7265 WIFI	C860008C1190			192.168.202.190/24

- PowerMAN can now optionally cease device monitoring when the system is offline or specific network conditions are present. This can be used to control data collection when the computer has a specific IP address or is connected or not connected to a specific network. When data collection is inhibited, the historical activity reports show the computer state as unknown/powered-off. These new features may be used to limit data collection to specific locations.
- The computer summary report has been redesigned to be easier to understand. The page has been split into sub-categories for basic information, general hardware information and power management specific information. Each sub-category now includes the date and time it was last updated.

### Operations / Workstation072

<b>Site</b>	<a href="#">Operations</a>	OU=Operations,OU=Desktop,DC=corp,DC=local
<b>Name</b>	Workstation072 <a href="#">Wake</a>	CN=Workstation072,OU=Operations,OU=Desktop,DC=corp,DC=local
<b>Registered</b>	06/02/2022	<b>Windows® Version</b> 6.1.7601 Service Pack 1
<b>Last Live Status (Local)</b>	14/05/2022 09:44:45	<b>Live Status</b> <a href="#">User Activity</a>
<b>Last Status</b>	11/05/2022	<b>Last Startup</b> 11/05/2022 10:05:42
<b>Client Version</b>	5.4.0.5932	<b>Battery</b> No Battery (Desktop)
<b>Platform</b>	x86 (32-bit)	<b>Timezone</b>  0.0 hour(s) UTC

### Hardware

<b>CPU Sockets/Cores/Logical</b>	1 / 4 / 4 2893 MHz	<b>CPU Model</b>	Intel(R) Core(TM) i5-3470S CPU @ 2.90GHz
<b>System RAM</b>	3476 MB	<b>System Model / Vendor</b>	3398 / Hewlett-Packard
<b>Fixed / Optical Drives</b>	1 / 1	<b>BIOS Vendor</b>	Hewlett-Packard

Last Updated: 11/05/2022 10:05:42

### Power Management Capabilities

<b>Supports States</b> 	S345	<b>Supports Wake from</b> 	S1234
<b>Supports "Modern/Connected" Standby</b>	Not supported	<b>Supports always connected PC</b>	Not supported
<b>Hardware Buttons</b>	Power	<b>Disk Standby</b>	Supported
<b>Hibernation File (S4)</b>	Present	<b>System HDD Free</b>	261,601 MB
<b>Hybrid Sleep (Fast S4)</b>	Not supported	<b>Fast Startup (Hiberboot)</b>	Not supported

Last Updated: 11/05/2022 10:05:42

- The PowerMAN **demand or "pull" reporting API** has been extended to support optional sub-sites, a new monthly summary report and a new detailed (per 15-minute data). The revised API syntax is documented in the PowerMAN Platform Reporting Guide.
- PowerMAN now shows the number of computers reporting data in the last 30/90-days (or most recently available data if applicable):

<b>Organisation</b>	Demonstration 2022	OU=Desktop,DC=corp,DC=local
<b>Created</b>	01/01/2021	<b>First Data</b> 14/08/2021
<b>Expires</b>	Never	<b>Last Data</b> 12/05/2022
<b>Data Retention</b> 	1835 days (Summary)	<b>Total Computers</b> 317 <a href="#">Export</a> / Recent (30-days) 322 <a href="#">Export</a> / Recent (90-days) <a href="#">Export All</a>
	1835 days (Detail)	
		<b>Total Sub-Sites</b> 11 <a href="#">Export</a>

- To improve privacy, PowerMAN Enterprise Server now permits workstation names to be optionally hidden in the reporting interface. Previously this required client-side configuration:

## Configuration

Auto Computer Move	<input checked="" type="checkbox"/> Enable computer auto-move	<input checked="" type="checkbox"/> Update sub-sites		Save
Show Computers	<input checked="" type="checkbox"/> Show computers	<input checked="" type="checkbox"/> Update sub-sites		Save
Auto Site Creation	<input type="checkbox"/> Enable auto site creation (OU Based)			Save
Anonymous Viewing	<input checked="" type="checkbox"/> Permitted			Save

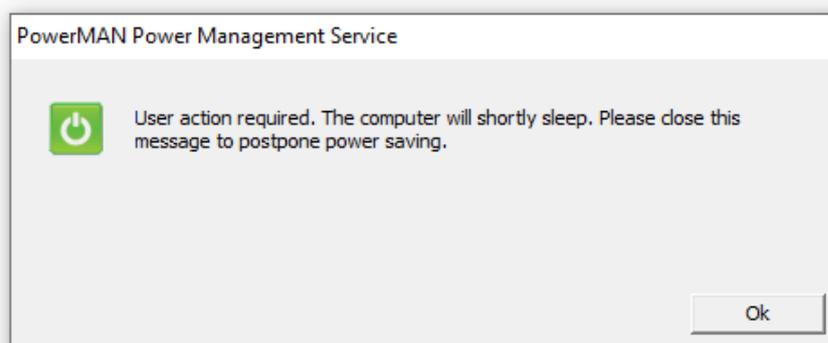
- PowerMAN now provides a **distinct “fallback” policy** for each of the Default, No User and Specific User power policy features. The “fallback” policy, if present, will apply when no other policy is applicable in that category. The fallback policy does not have time/day restrictions.
- The live reporting feature has been extended to provide a public PC availability report for use in public access dashboards and similar:

## Live Computer Status

Computer Name	Unknown	Available	Not Available
Workstation001	Workstation021	Workstation058	Workstation137
Workstation002	Workstation038	Workstation070	Workstation160
Workstation003	Workstation041	Workstation080	Workstation163
Workstation004	Workstation044	Workstation088	Workstation167
Workstation005	Workstation046	Workstation112	Workstation207
Workstation010	Workstation048	Workstation114	Workstation213
Workstation013	Workstation056	Workstation115	Workstation223
Workstation016	Workstation057	Workstation124	Workstation225
Workstation017			

Show detailed activity status    Refresh

- PowerMAN now supports optional **power saving pending** and **logout pending** user prompts. These may be used to remind an inactive user, who is in a long presentation, online meeting, VoIP call or similar that power saving will commence shortly. Closing the dialog will postpone the action for another cycle. This feature is intended to increase power management savings in scenarios where a cautious system administrator may otherwise disable power management or configure an unusually long timeout to avoid disrupting inactive users.



- PowerMAN protected programs and computer names now support optional environment variables and wildcards (\* and ?). These may be used to reduce configuration complexity by allowing a wildcard to be used instead of multiple separate protected objects. This feature was already available for protected files.
- Individual protected programs, files and computers can now conditionally apply only when CPU load% is above a threshold or during certain working hours. This allows these policies to be more finely targeted at specific circumstances.
- PowerMAN now permits classes of protected objects (protected programs, files or computers) to be disabled outside of specific hours, days, dates of the month or when nobody is logged on. This allows these policies to be disabled outside of working hours or at the weekends and consequently reduces the occasions when power management is unnecessarily inhibited.

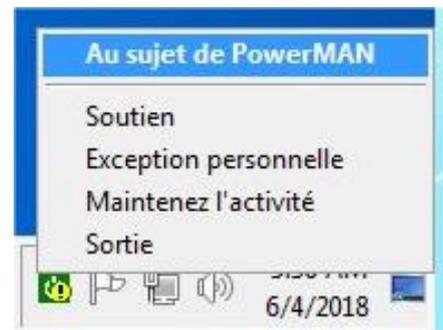
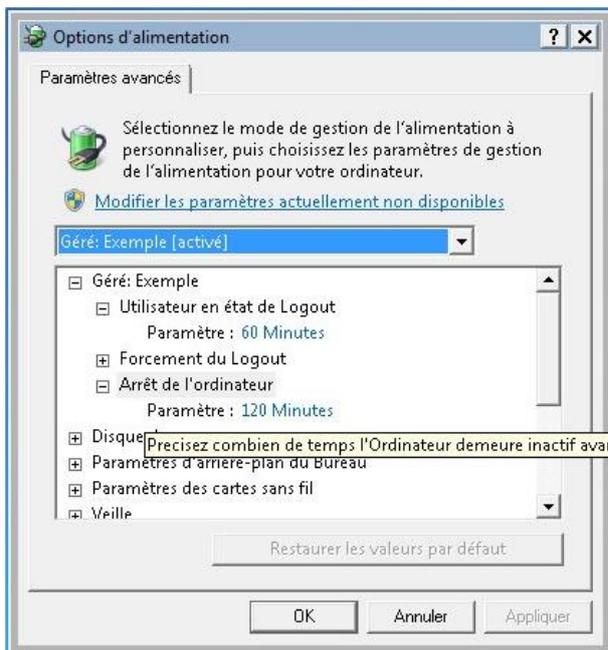
The supported combinations of protected object features and class restrictions are shown in the table below:

Protected object class:	Per protected object features				Optional class restrictions			
	Environment variables	Wildcards	Min CPU%	Specific times only	Dates of month	Days of week	Specific times only	Logged on only
Computer (all)	No	No	No	No	Yes*	Yes*	Yes*	Yes*
Computer (by name)	No	Yes	Yes	Yes				
File exists	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Program running	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\* The Protected Computer (All) and Protected Computer (by name) features share common restriction settings

19. Similarly, the protected user feature can now optionally apply only on certain days, such as weekdays, or during certain hours. These changes ensure that power management need only be inhibited for specific users when strictly necessary.
20. The protected server service feature can now optionally apply only on certain days, such as weekdays, or during certain hours. In addition, the policy may now be more finely tuned to apply only when specific classes of file or printer share, including hidden shares, are present. These changes ensure that power management need only be inhibited when strictly necessary.
21. PowerMAN scheduled wake-up and scheduled sleep, hibernate, restart and shutdown policies may now optionally repeat multiple times per day until either a specific time or midnight. This allows potentially complex configurations, which would have previously required multiple scheduled actions, to be simplified.
22. The PowerMAN command-line interface has been updated and each command now includes a brief description. These changes are intended to assist system administrators in troubleshooting, scripting and other similar scenarios. The revised commands include:
  - a. INHIBIT - Inhibit power management for some time or until a certain date (maximum of 7 days) whilst system maintenance tasks are undertaken. This command requires administrator privileges.
  - b. ISPROTECTED - Determine if a protected object is currently applicable. The result is also available as a result code which can be used in scripts / batch files.
  - c. ISSCHEDULED - Determine if a scheduled action is currently pending. The result is also available as a result code which can be used in scripts / batch files.
  - d. NETWORKINFO – Report network configuration and connection status
  - e. INFO – Reports hardware / OS power management information. This command has been updated to report if Fast Start-up (HiberBoot) and Hybrid Sleep are available.
  - f. DISPLAYON/OFF - Turn the display on/off from scripts and during updates (to save additional energy)
  - g. HIBERCHECK and SLEEPCHECK – Enter the hibernate / sleep state and optionally attempt to resume some time later. These commands have been updated to support resume on a specific date/time. This can be used to verify hardware support or integrated into a maintenance script or similar.
23. PowerMAN now supports an optional grace period after a protected object is no longer applicable. This can be used to extend the period that power management is inhibited when protected activities, like rendering or system updates, are executed sequentially.
24. PowerMAN now supports 10 of each protected time (maintenance window), scheduled sleep/hibernate/shutdown and wake-up policies.
25. SSL/TSL (encrypted) reporting is now mandatory for the cloud (hosted) reporting platform. This is located at “secure.pmstats.org”. Non-SSL reporting is still supported on private servers.

26. PowerMAN is now distributed with a simplified ADM/ADMX policy template for the PowerMON edition. This product provides only power monitoring / utilization reporting and does not permit power policies to be applied. It can be used as part of an initial power management audit or alongside another power management tool. PowerMAN now includes the PowerMAN GUI to provide quick access to personal workstation statistics.
27. PowerMAN now supports alternative weekend definitions used in some worldwide cultures out-of-the-box. It provides built-in support for the following combinations: Sat/Sun, Fri/Sat and Thurs/Fri. Other combinations can be created by amending the PowerMAN ADM/ADMX policy template.
28. PowerMAN now directly supports the Windows Fast Start-up or “HiberBoot” mode. When enabled, the system enters the hibernate state instead of the shutdown state. This may be advantageous because most systems can resume from hibernation much faster than a full start-up.
29. PowerMAN now has a revised Italian and Spanish PowerMAN UI and new support for a French UI:



## About Data Synergy



Data Synergy is a British company based in Sheffield. We have over fifteen years' experience developing and supporting software solutions for enterprise PC deployment and management. We do not resell other vendors' products and do all of our development, sales and support from our UK base.

Our products have evolved through listening to customer ideas and applying our unrivalled knowledge of PC internals. If you have a suggestion for a new product or feature we would love to talk to you.

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