PC Dashboard
(Version 1.6)

Computer Administration and Performance Monitoring
in a Windows Networked Environment

[Preliminary Guide]

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This Guide is intended for usage by domain administrators in corporate environments.
It details the operation of the PC Dashboard application. ©2016

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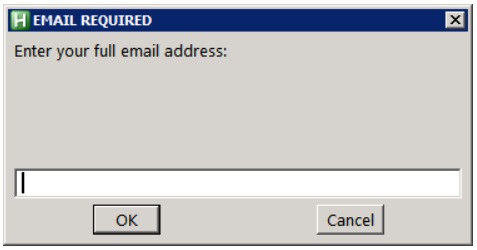
Program Introduction

The PC Dashboard program was conceived with two purposes in mind: 1) as a way to monitor business critical computers in areas like Call Centers or Production lines and alert administrators visually and through email when performance events are occurring and 2) providing a convenient mechanism to work with remote Windows-based computers using a variety of command line utilities.

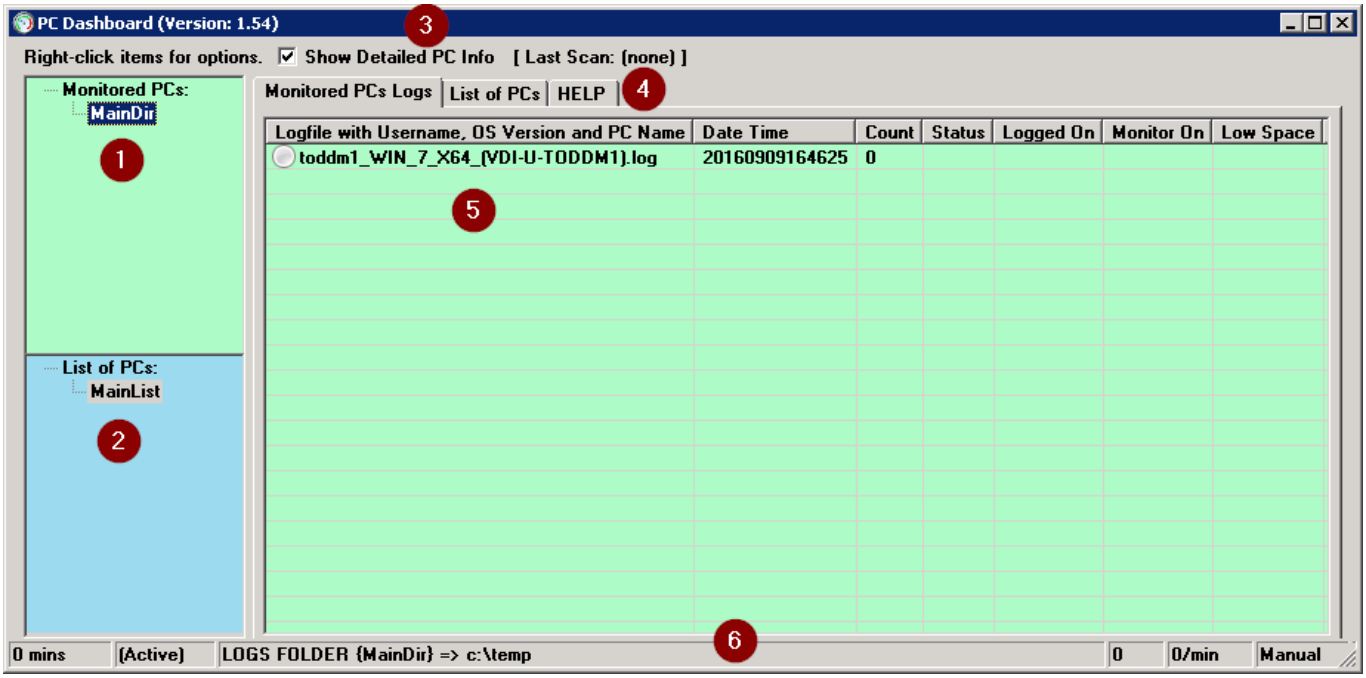
Embedded into the program are all necessary tools except the **RSAT** (Remote Server Administrator Tools) and **LAPS** (Local Admin Password Solution) applications which need to be installed. All of the other tools are copied into the local c:\temp directory. Several temporary files are also created in that folder during operation of the program. Users of the program should have Domain Admin privileges. Otherwise, many functions will not operate correctly.

Quick Start

The PC Dashboard.exe file may be copied to any folder and run with minimal setup. During initial startup, users will only be prompted for a valid company email address.



The program will set the default Monitored directory to c:\temp and create a starting PC List file called DashboardPCs.txt in the same folder as the program. The main window then appears as follows.



The components in this window are:

1) List of Monitored Directories – here are found one or more directories which the program actively monitors for changes to files that end with .log. When any of these files are updated, usually by the secondary Process Monitor program, the user will see a notification and the event Counter for that Log will

increase. The count may be maintained from one session to another, but, normally each session sets all counters to zero.

2) List of PCs Lists – here are found one or more lists of PCs, which are simply text files containing valid computer names found in the current domain. There can be any number of lists with one active at a time. A site related list, a list of PCs being remotely worked on or any other type of list can be managed here.
3) Show Detailed Info – when any list of PCs is being updated, this check box controls whether or not full inventory details are gathered. If users wish to get a quick inventory of site, they can do so here and also Export those details to Excel. If the list is long and has been updated recently, users may wish to uncheck this box to speed up subsequent scans. The Online/Offline status, username, full name and IP address are always gathered.
4) Tabs – clicking here allows users to switch between the currently Monitored Logs folder and PC List views. Basic Help is found on tab 3.
5) List view – The largest area of the window is either the list of Log file being monitored or the current PC list. Double-clicking on a Log file displays its contents in the CSV File viewer application. Double-clicking on an entry in the PC List view will update its current status.
6) Status bar – The status bar shows the following: a) session time, b) monitoring status: Active or Paused, c) the current Monitored folder or selected PC List, d) the total Hung process Events, e) the events in the last minute and f) whether hourly Auto Updating is on (Auto or Manual). Users may double-click on any of these items for more information.

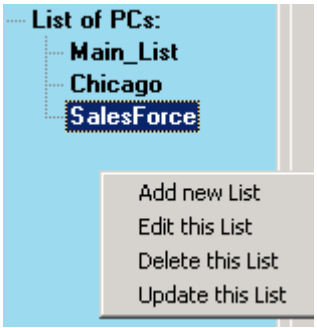
In order to start using the program, simply double-click on *MainList* then press Ctrl-A to add individual PCs or press Ctrl-E to edit the PCs list in Notepad. You can also generate a list of PCs using the IP Scanner discussed later on. Once you have a list of PCs, right-click and choose Update ALL PCs Status. This will update PCs status; after which you can apply many tools on any PC.

Right-Click Menus

For each section of the window, there are several context sensitive menus.

Right-clicking in the Monitored PCs Treeview area gives these options:

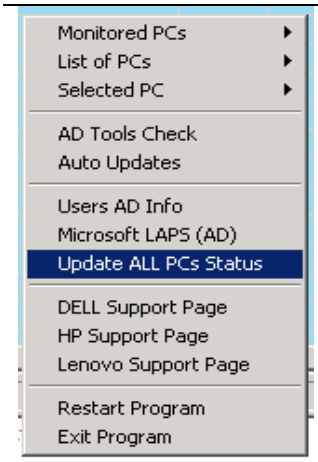
1) Add Monitored Dir – prompts users for additional directories to monitor Log files in. Each chosen folder needs to have one or more Log files that have been created by Process Monitor on remote PCs.
2) Browse this Dir – displays the contents of the currently selected Log folder.
3) Stop Monitoring this Dir – temporarily stop monitoring the selected Log folder and removes it from the list. Users may remove monitored folders from the Setup window via Alt-S.
4) Update this Dir – scans the current set of Monitored PCs to get their status.



Right-clicking in the List of PCs Treeview area gives these options:

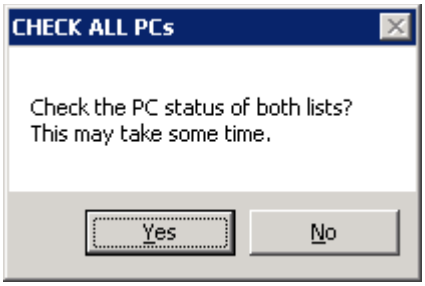
1) Add new List – prompts for list name and a filename then creates a new list starting with the current computer name.
2) Edit this List – edits the selected list of PCs with Notepad
3) Delete this List – prompts to delete the selected list from the Treeview and from disk.
4) Update this List – scans the current list of PCs and updates their status and details.

Updating to get current PCs Status



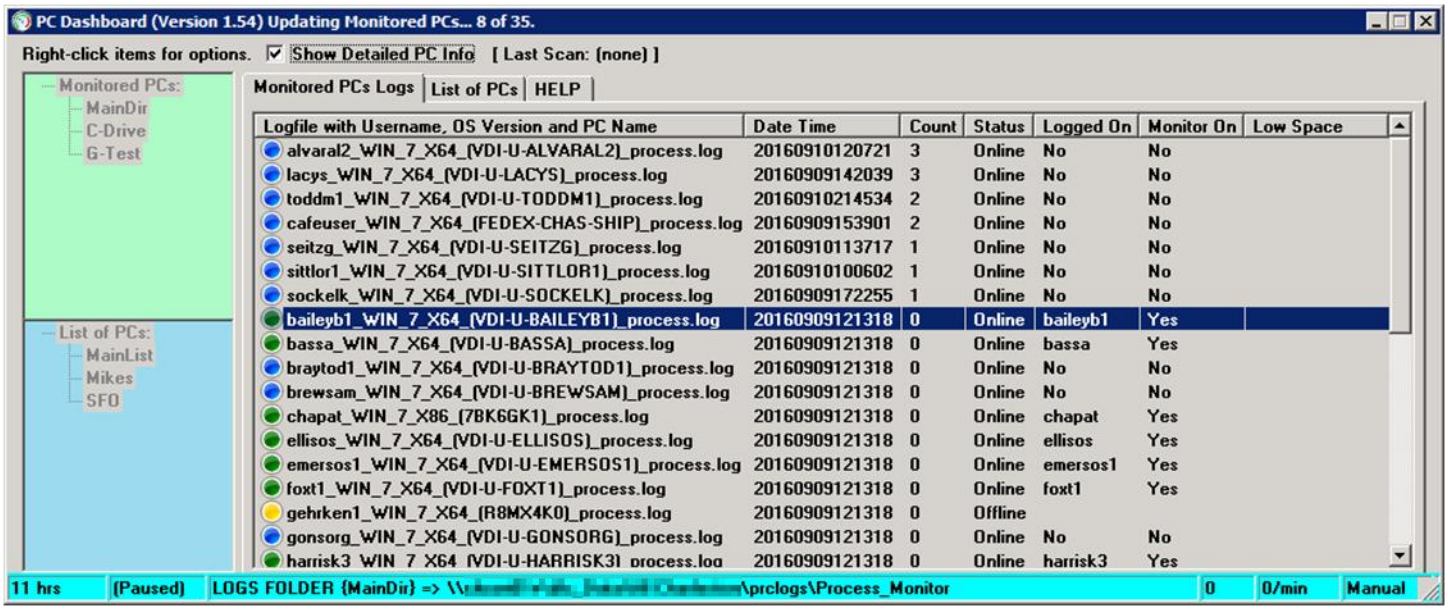
The first operation that should be performed is to update the status of both types of lists.

Right-click in the list view area and choose Update ALL PCs Status. This will scan through both Monitored PCs and any List of PCs you have set.



Since the lists may be long you are prompted to continue.

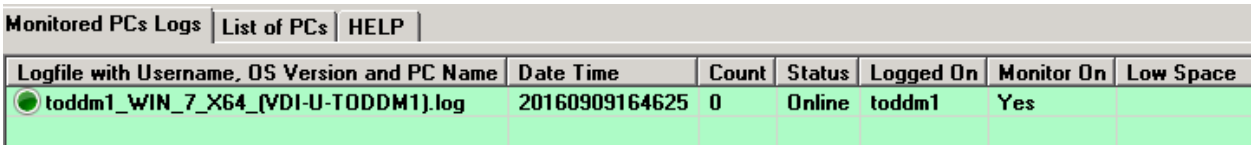
After clicking Yes, you will see the progress in the bottom right System tray area and also in the PC Dashboard window title bar.



While a list is being updated, clicking in it or the two tree view areas is disabled. This is due to the intensity of gathering updates. Monitoring of Log files is also paused but any events that occur during updates will be shown afterwards. You may also set Auto Updates from the right-click menu, which will occur every hour unattended.

Monitored PCs lists

The following information is shown on the Monitored PCs list: 1) the Log file name containing the username, OS Version, 32/64bit and the PC name, 2) the Date Time of the PCs last Hung process event, 3) the Online/Offline Status, 4) the logged on user, 5) whether the PC's Process Monitor is active and 6) whether the PC has less than 200MB of disk space. Double-clicking on any entry will display the full Log file.



Whenever a log file is updated by Process Monitor you will see an alert in the bottom right corner like this one if verbose notifications are on. Otherwise, you will see a 'Sending email' window for every 10 events logged.

Icons also indicate the status of the PCs which created the Log files. Circular icons are for PCs that have not had any Hung processes during this session. Square icons are for PCs that have registered Hung processes.

Circles are colored as follows:

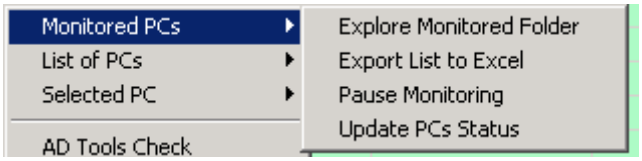
Grey – PC before status is known
Yellow – offline PC
Blue – online PC, monitor inactive
Green – online PC, monitor active

Square are colored as follows:

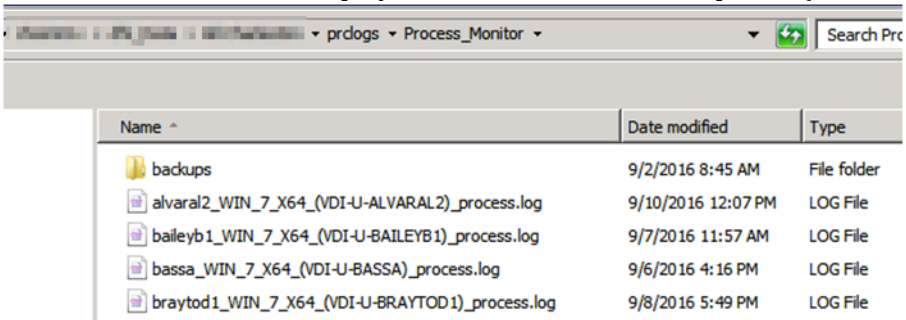
Grey – PC before status is known
Yellow – offline PC
Blue – online PC, monitor inactive
Green – online PC, monitor active
Red – PC with 10 or more Hung process events

Options specific to Monitored PCs

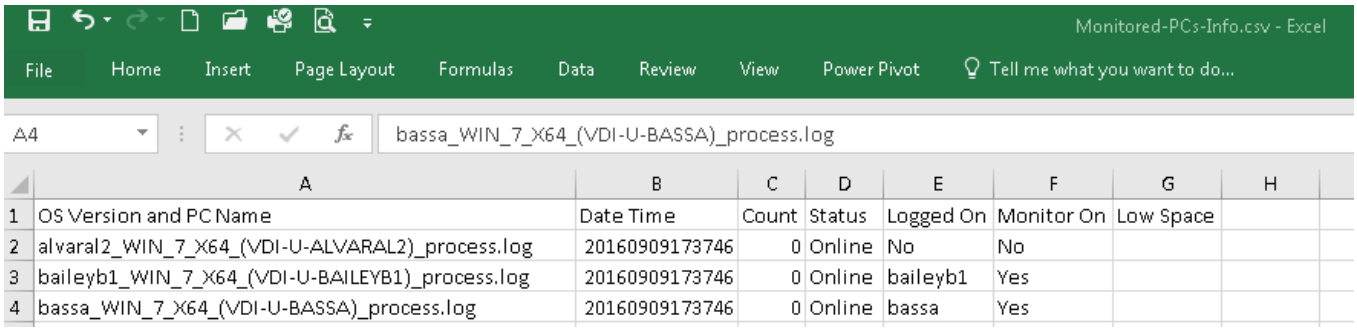
Other options are available for the currently selected Monitored Directory or folder:



Explore Monitored Folder – display the folder in Windows Explorer (Press Ctrl-W)



Export to Excel – exports the current list view to Excel. Once there, users will need to convert Text to Columns and choose the vertical bar as the Delimiter.



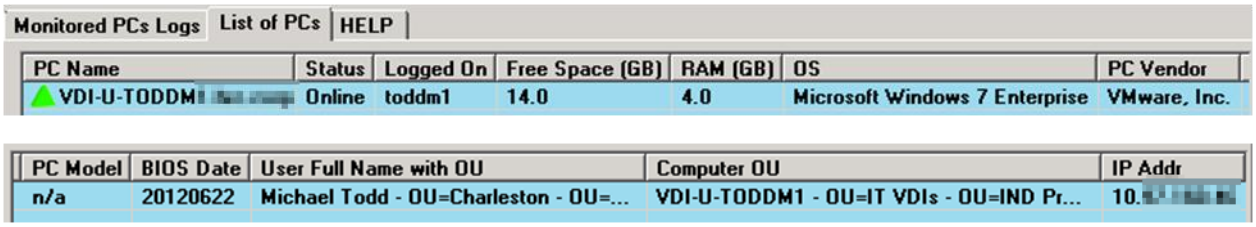
	A	B	C	D	E	F	G	H
1	OS Version and PC Name	Date Time	Count	Status	Logged On	Monitor On	Low Space	
2	alvaral2_WIN_7_X64_(VDI-U-ALVARAL2)_process.log	20160909173746	0	Online	No	No		
3	baileyb1_WIN_7_X64_(VDI-U-BAILEYB1)_process.log	20160909173746	0	Online	baileyb1	Yes		
4	bassa_WIN_7_X64_(VDI-U-BASSA)_process.log	20160909173746	0	Online	bassa	Yes		

Pause Monitoring – if desired, monitored may be paused, but, file changes will still be queued and displayed after turning off pause.

Update PCs Status – updates the current Logs list view.

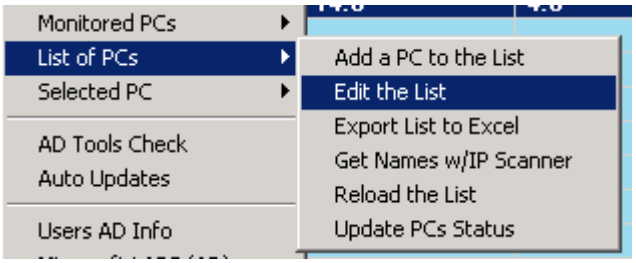
List of PCs lists

Clicking on List of PCs shows the computers currently in the chose list, with the following additional information: 1) PC Name, 2) Online/Offline status, 3) currently logged on user, 4) disk free space in gigabytes, 5) total system RAM, 6) installed OS, 7) PC hardware vendor, 8) PC Model name, 9) BIOS last date updated, 10) user full name and OU, 11) computer name and OU and 12) current IP address. Double-clicking an entry causes it to be updated.

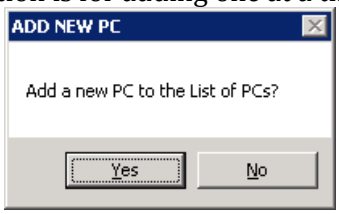


Options specific to PCs Lists

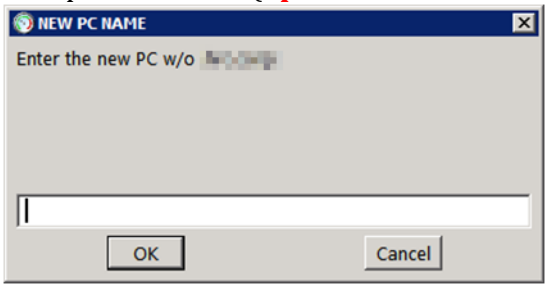
Other options related to List of PCs are:



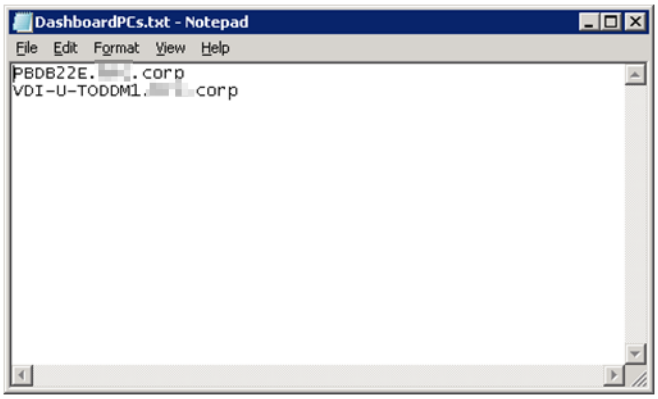
Add a PC to the List – users may add any number of PCs; this option is for adding one at a time. (Ctrl-A)



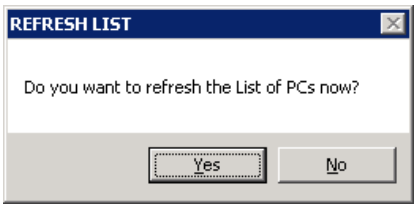
Prompt to add a PC. (**update domain in source**)

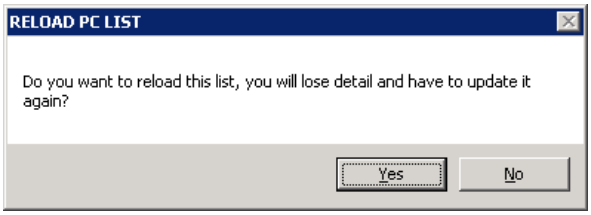


Edit the List – this option opens the currently list in Notepad. After closing Notepad, the user is prompted to refresh the list view. (Ctrl-E)

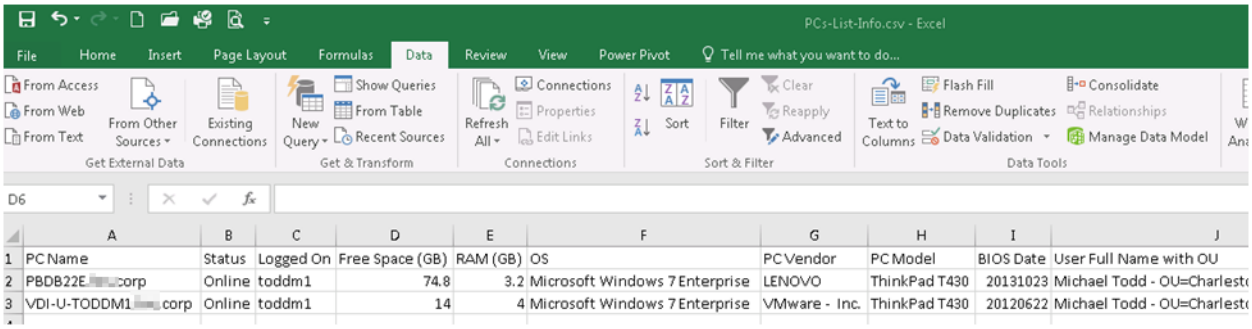


Prompts to Refresh the list after editing.

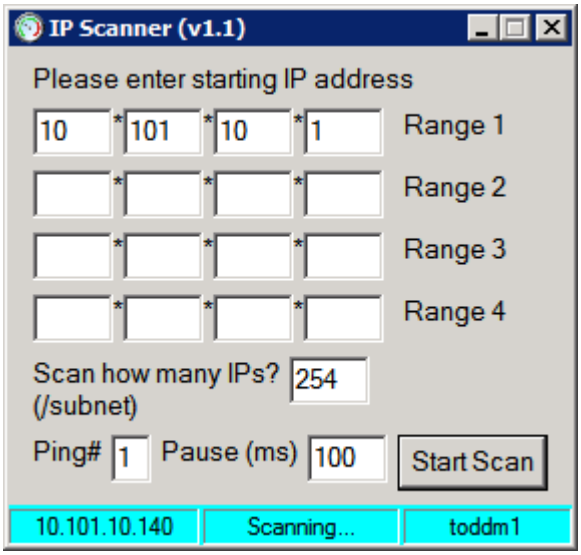




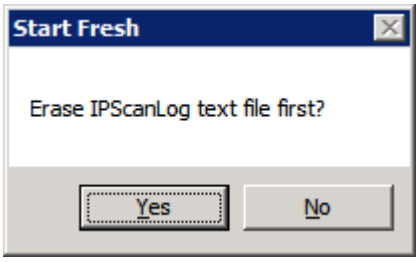
Export to Excel – exports the current list view to Excel. Once there, users will need to convert Text to Columns and choose the vertical bar as the Delimiter.



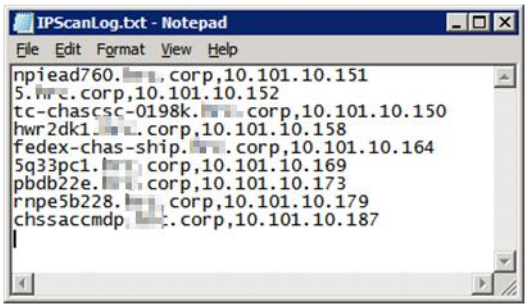
Get Names w/IP Scanner – this option uses the separate IP Scanner to quickly generate lists of PCs.



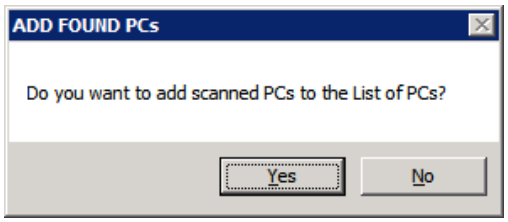
Clear previous IP Scan file if desired.



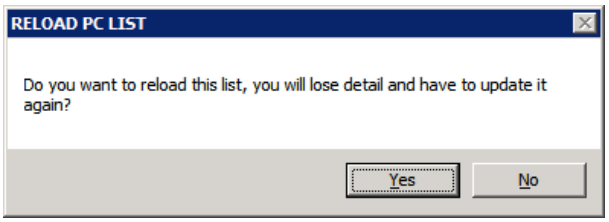
Results of IP Scan, edit as needed.



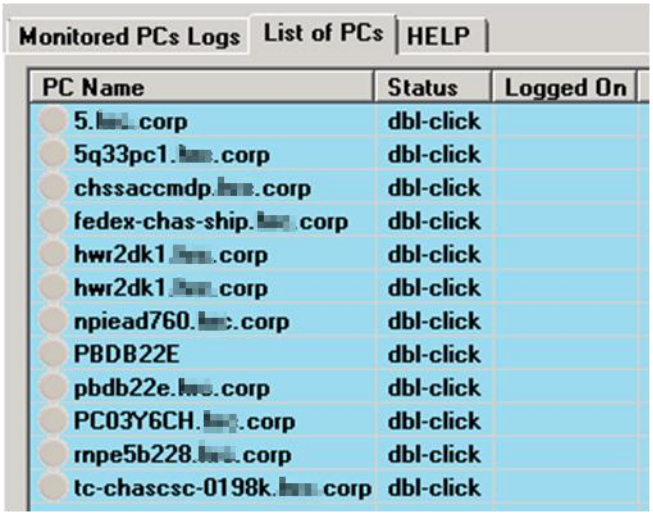
You may now add those PCs to this list.



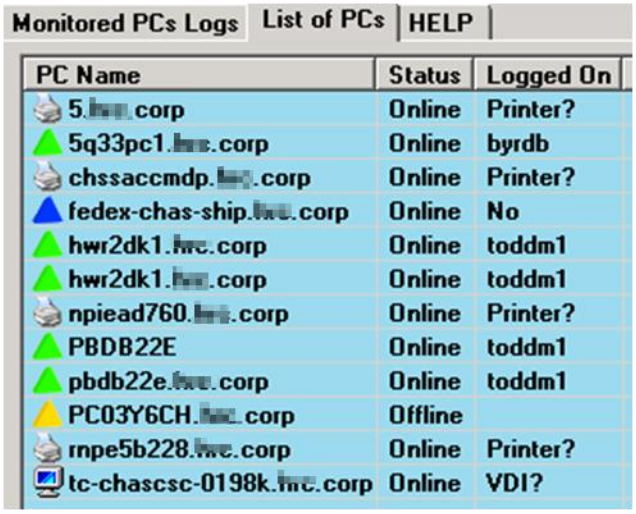
Reload clears PCs details until the next Update.



Newly added PCs to the current list:



After Right-clicking and choosing Update PCs:

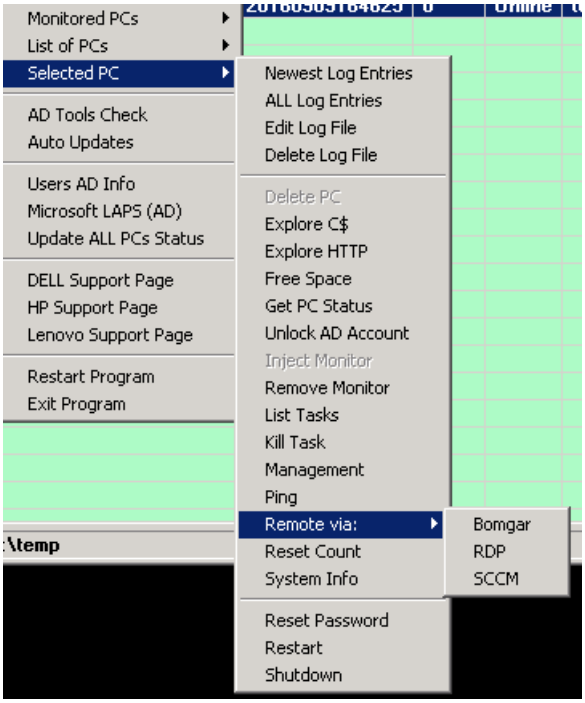


ICONS and COLORS:

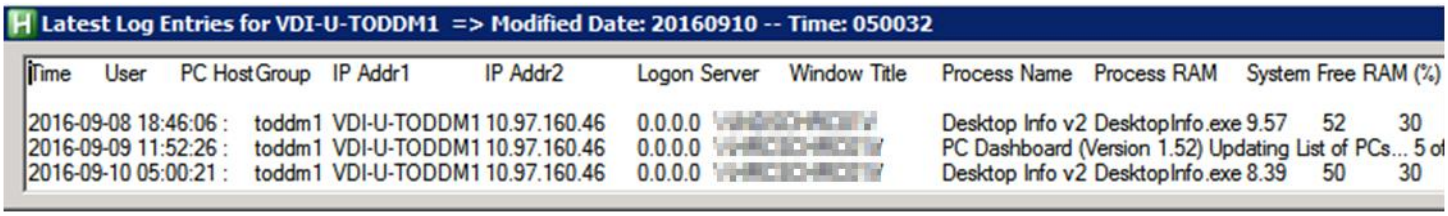
Before updating PCs they will all have a grey icon and no status.
After updating they will have one of the following icons:
Yellow triangle – offline device
Blue triangle – online device
Green triangle – online and logged in device
Printer - when a device is online and no C drive is reachable
Monitor (VDI) – when a device is online with no C drive and named like a VDI

Selected PC (currently highlighted) Options

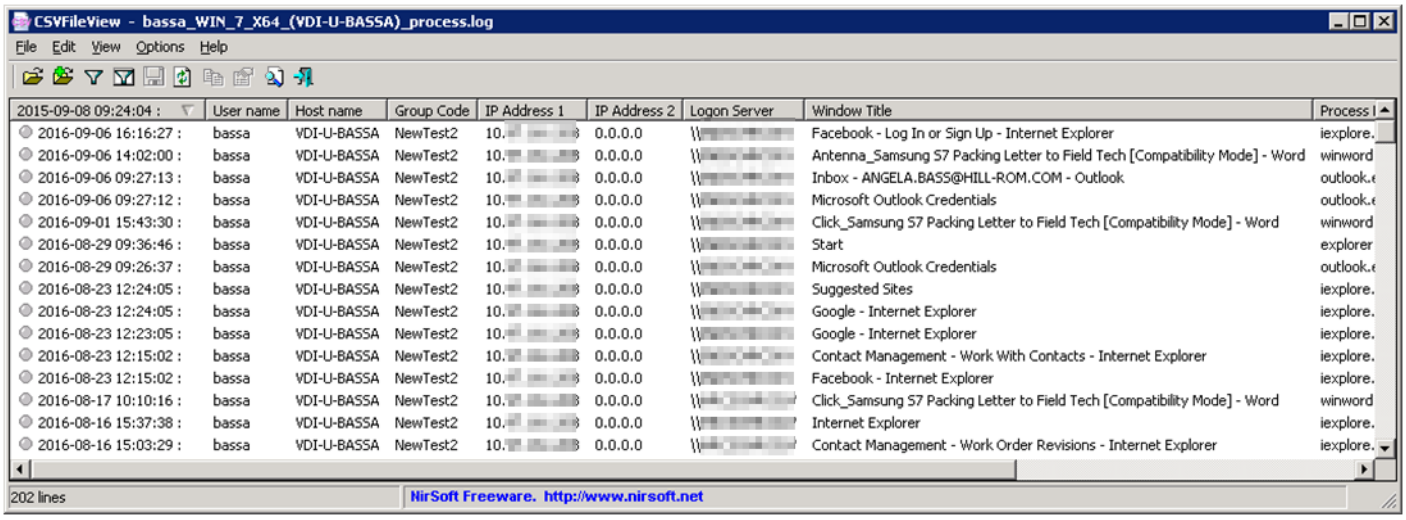
The great majority of options are available to both Monitored PCs and any PC in any list. These are detailed next:



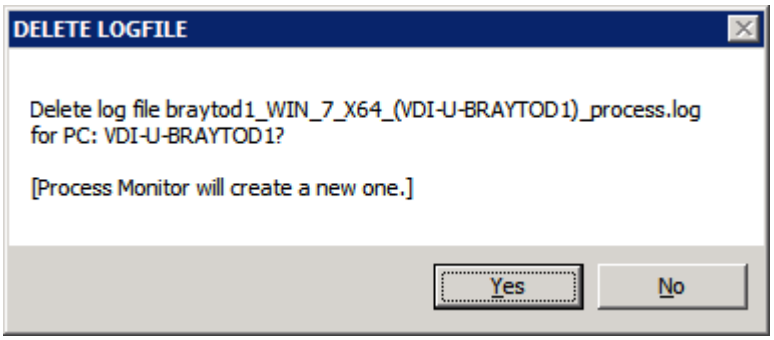
Newest Log Entries displays the last 3 entries in a text box.



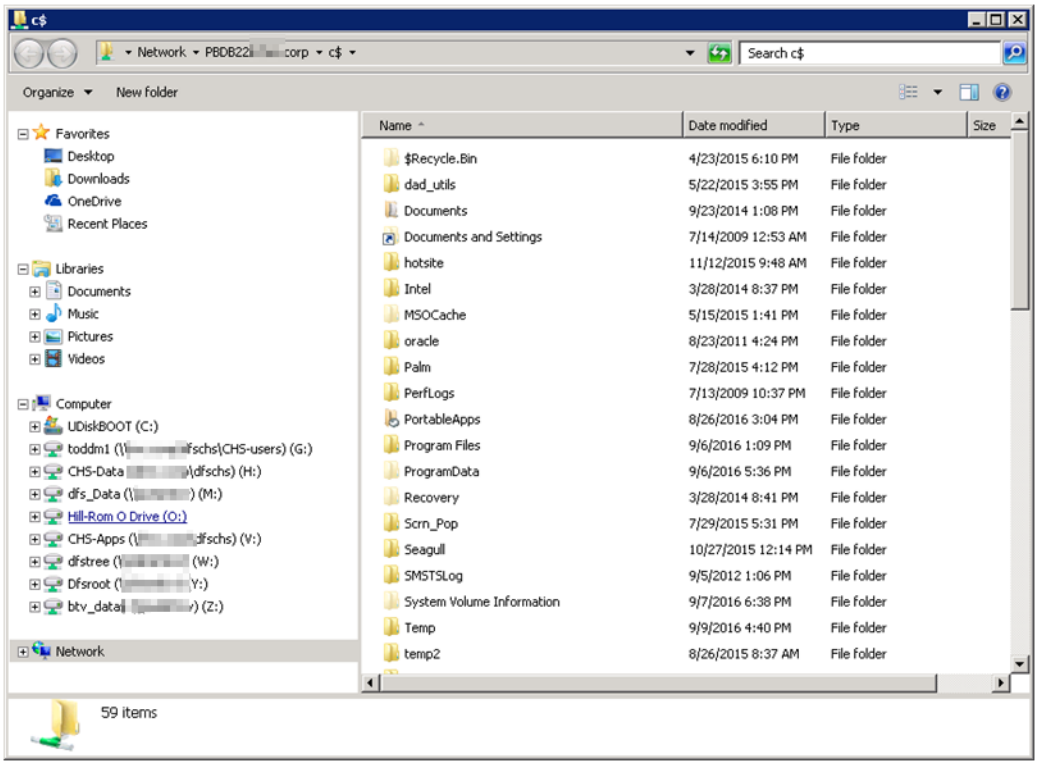
ALL Log Entries opens the Log file in CSV File View. (Press Ctrl-S)



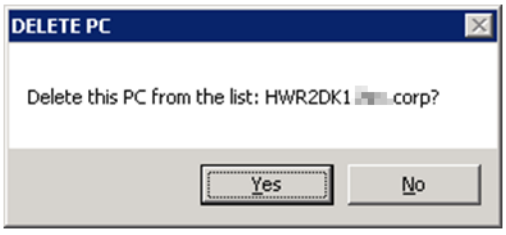
Delete Log file displays the following prompt. (Press Ctrl-D)



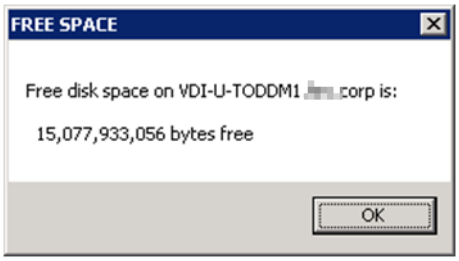
Explore C$ will display the root folder of the selected PC. (Ctrl-W)



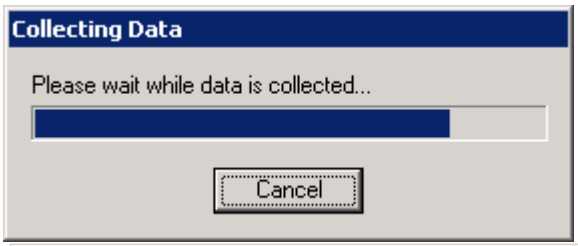
Delete PC will remove the PC from view and from the List (Press Ctrl-D).

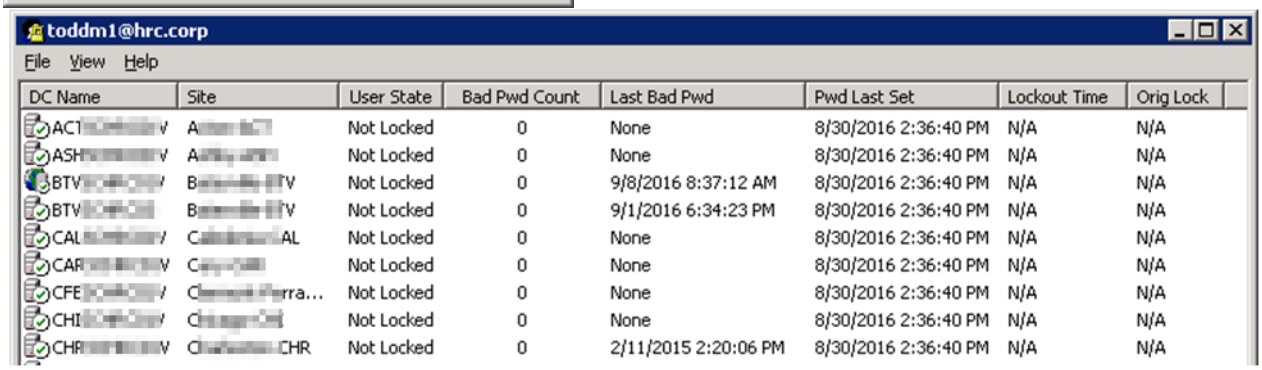


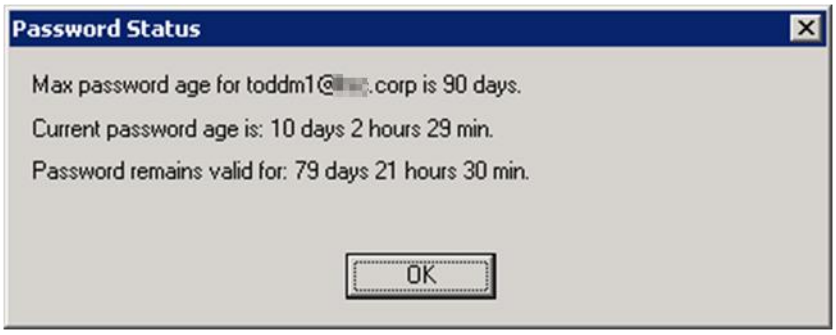
Free Space will show C drive space on the selected PC (Press Ctrl-F).

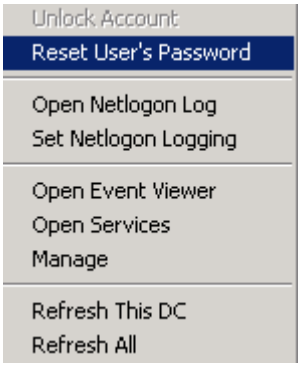


Unlock AD Account – launches LockoutStatus to display user status by domain controller (Press Ctrl-U). The program options that are usable are Unlock Account (if locked), Reset User's Password and Password Status. The other items are usable only by users that have server/domain controller privileges.

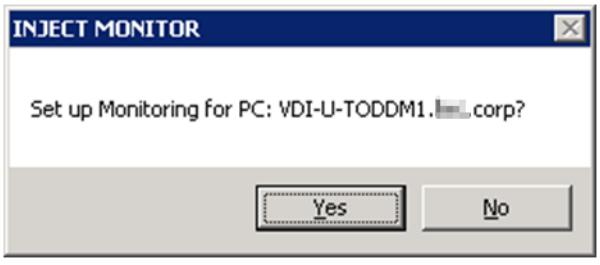


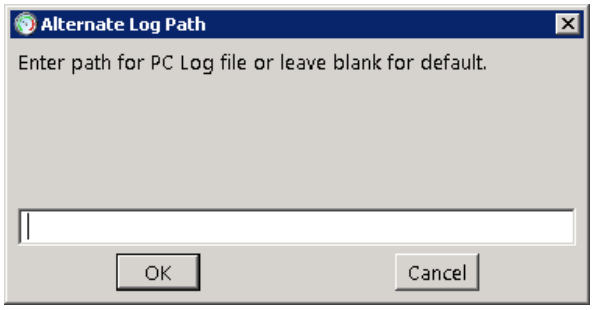






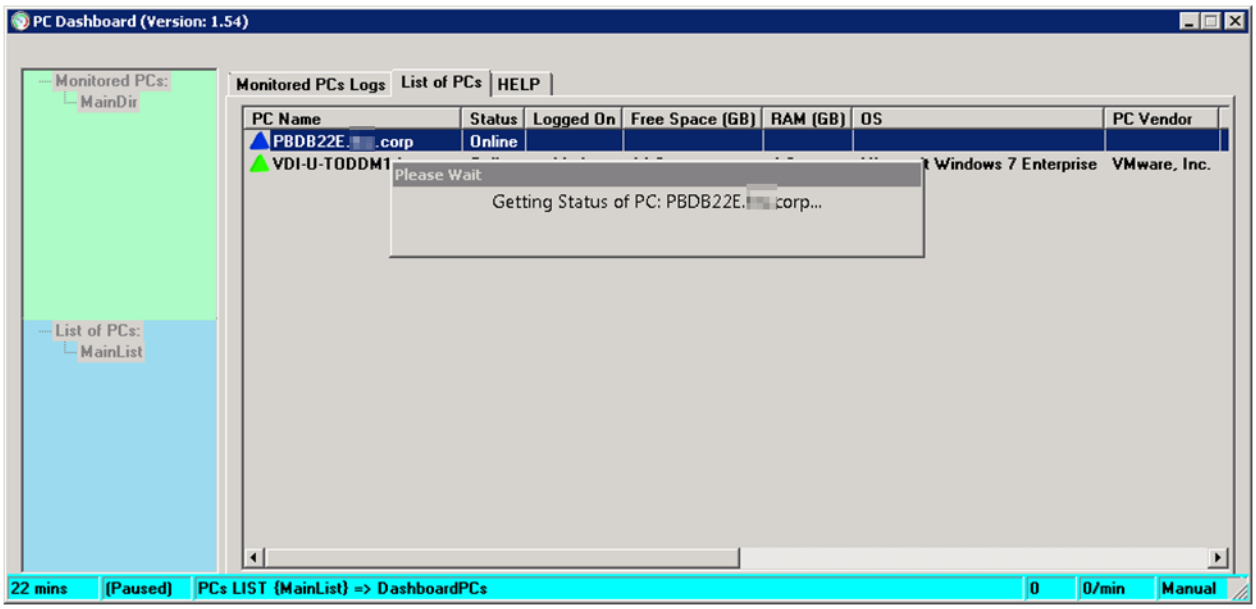
Inject Monitor – this option is used from the PC List to copy the Process Monitor app to the selected PC and add it to the computer's Startup folder. For users who are complaining of performance issues or whose PCs are mission critical, Injecting will create a Log file and allow you to monitor changes. You can enter any network path that the remote user has read/write rights to or leave the path blank and it will default to the Process Monitor folder.



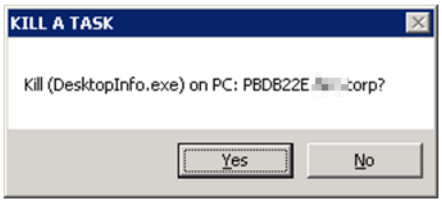


Remove Monitor – this option is used from the Logs view on the selected PC Log to stop Process Monitor and remove it from the c:\temp folder and the Startup folder.

Get Status – this will update the currently selected PC or Log file (Press Ctrl-G).

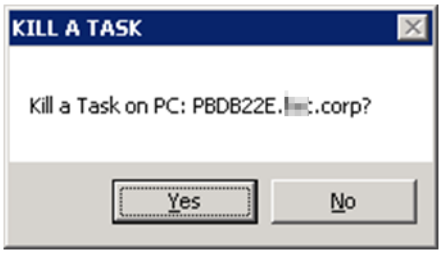


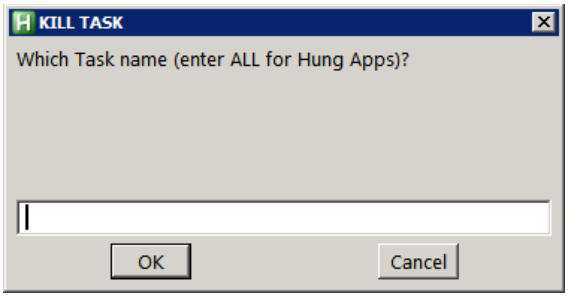
List Tasks – this option gathers then displays the running tasks on the current PC (Press Ctrl-T).



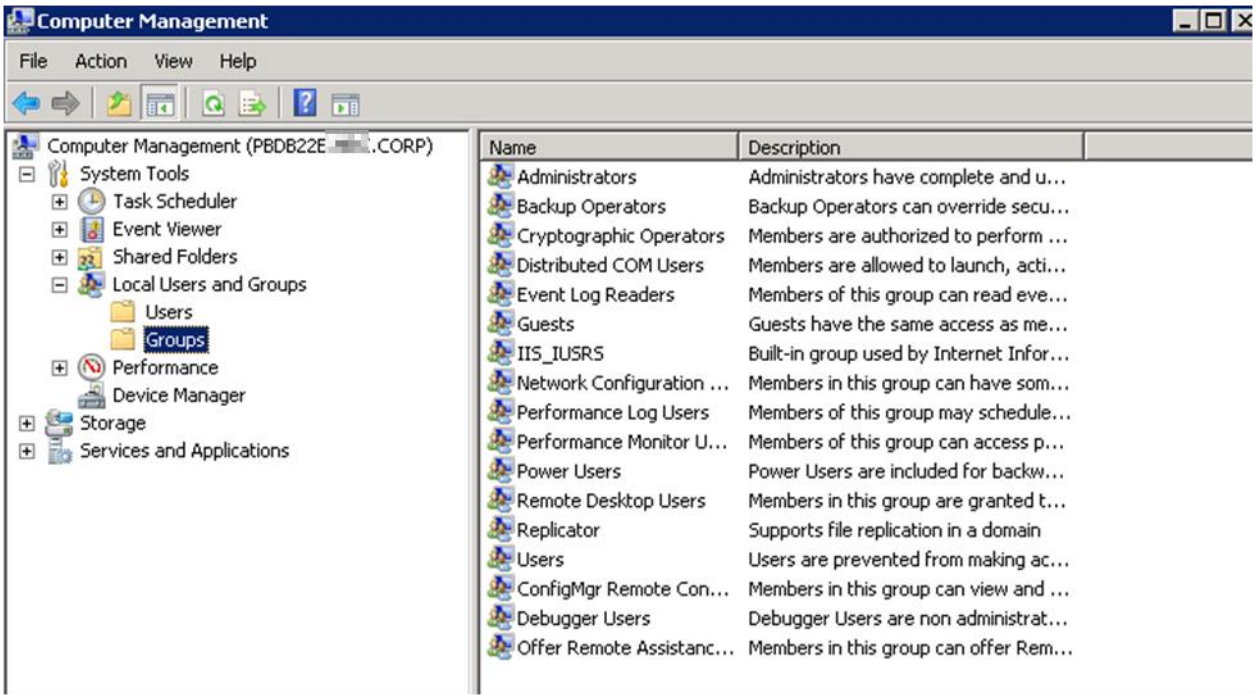
Double-clicking on an entry will display the option to kill that task (if not system critical)

Kill a Task – if you already know that Task name, you can use this option. If you are not sure, you can also enter ALL and it will attempt to close all tasks that are not responding (Press Ctrl-K).

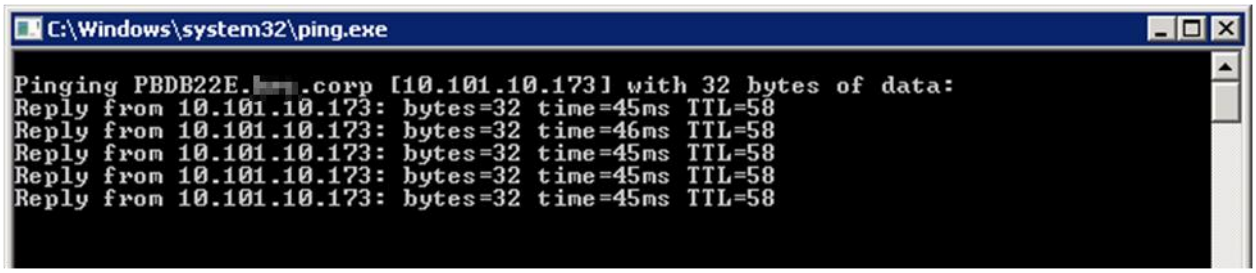




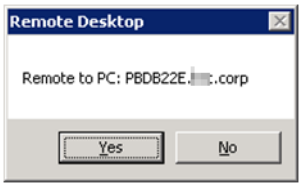
Management – this option open Computer Management and pastes in the selected computer name and can be used to view events, check Admin rights, etc. (Press Shift-Ctrl-M).

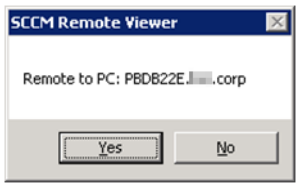


Ping – use this option to open a command window and start pinging the chosen PC (Ctrl-P).



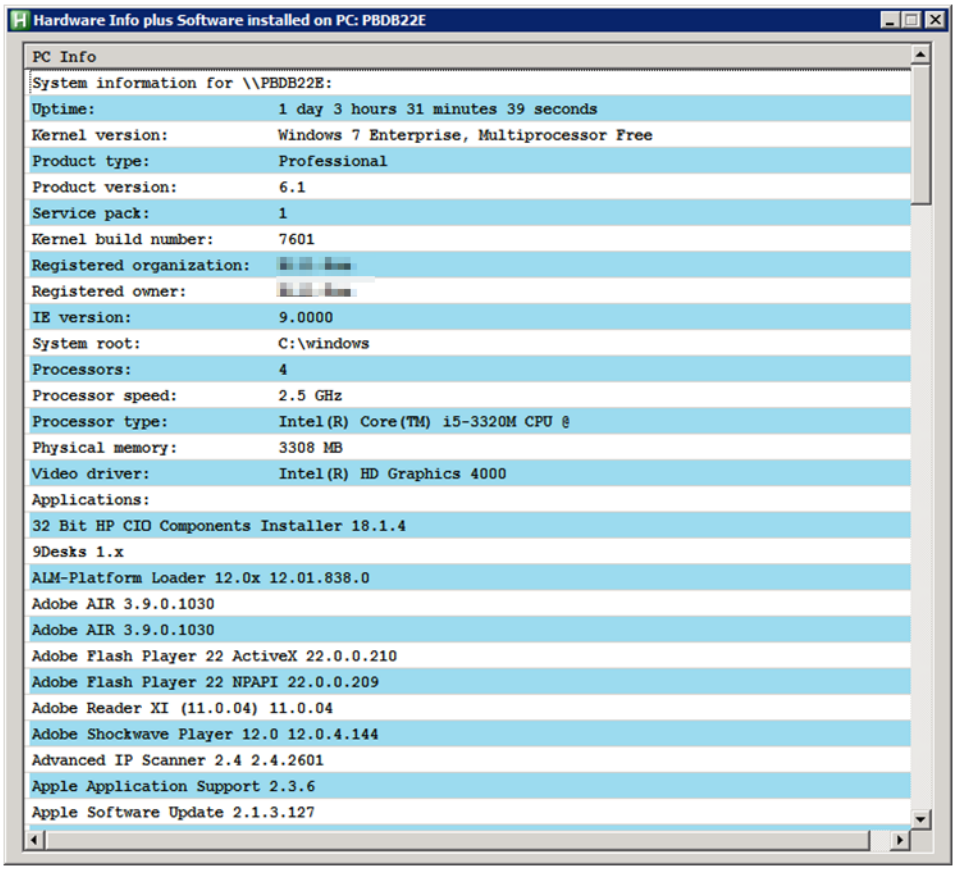
There are three Remote Control options: Bomgar (Shift-Ctrl-B), Remote Desktop (Shift-Ctrl-R) and SCCM Remote (Shift-Ctrl-S) that can be used on the selected PC. Bomgar must be logged into and just minimized.





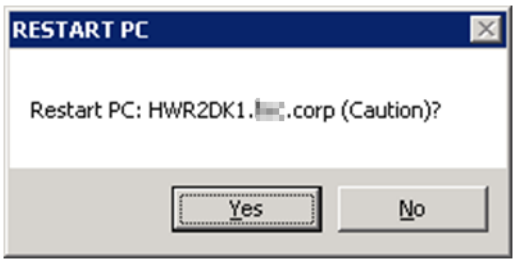
Reset Count – this option is used with a PC on the List of PCs to zero its counter and optionally update the total count for this session.

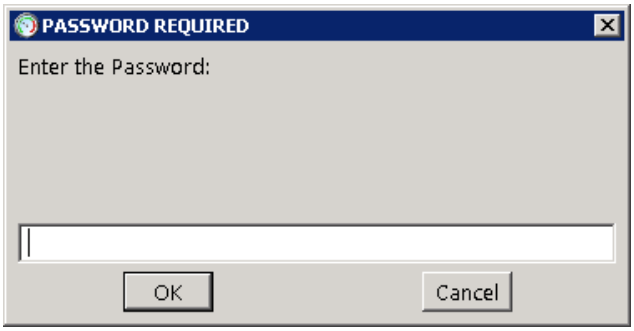
System Info – this option lists various information about the remote PC including most of its installed software (Press Ctrl-I).



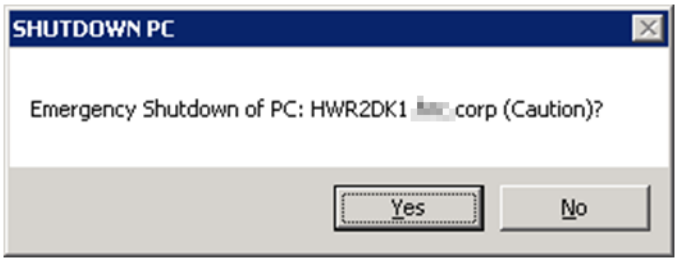
Reset Password – to quickly unlock the logged in user's network account and change the password, use this option.

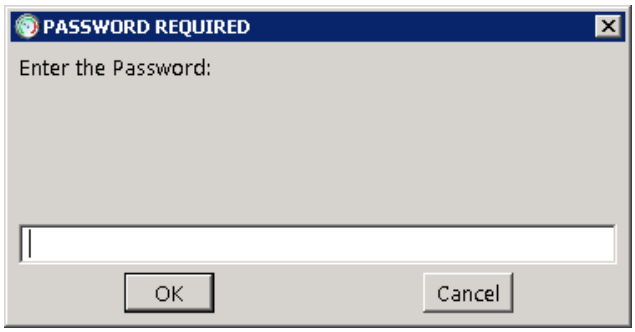
Restart – if the situation is warranted, you may restart the user's PC with this option. It requires a password.



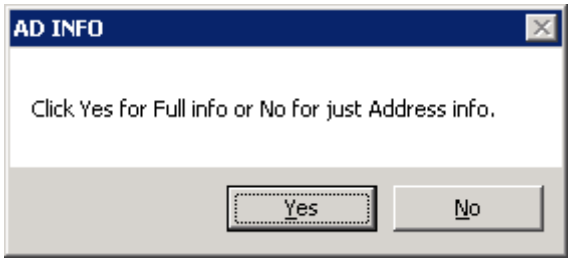


Shutdown – if the situation is virus or malware related, you may shutdown the user's PC with this option. It requires a password. The remote user will see a popup window saying the PC is being shut down and to contact the Help Desk.

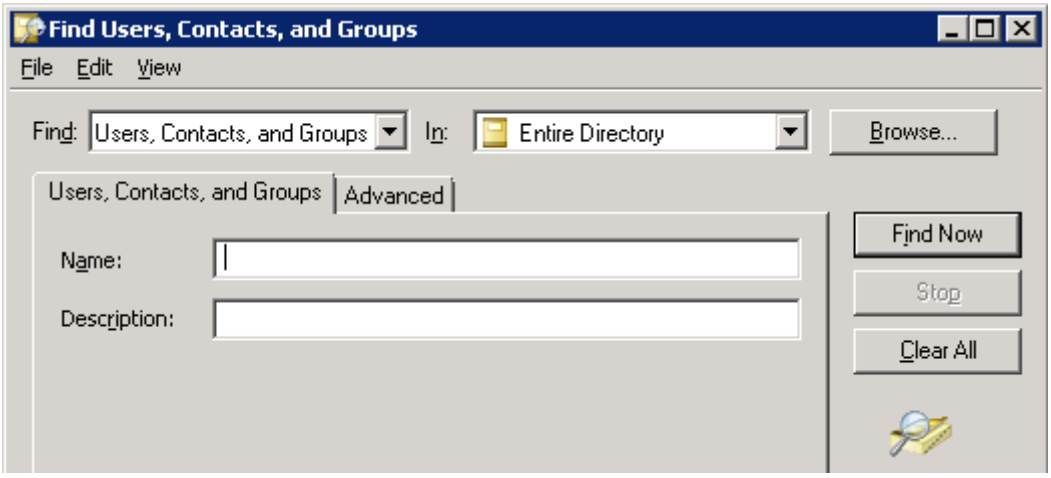




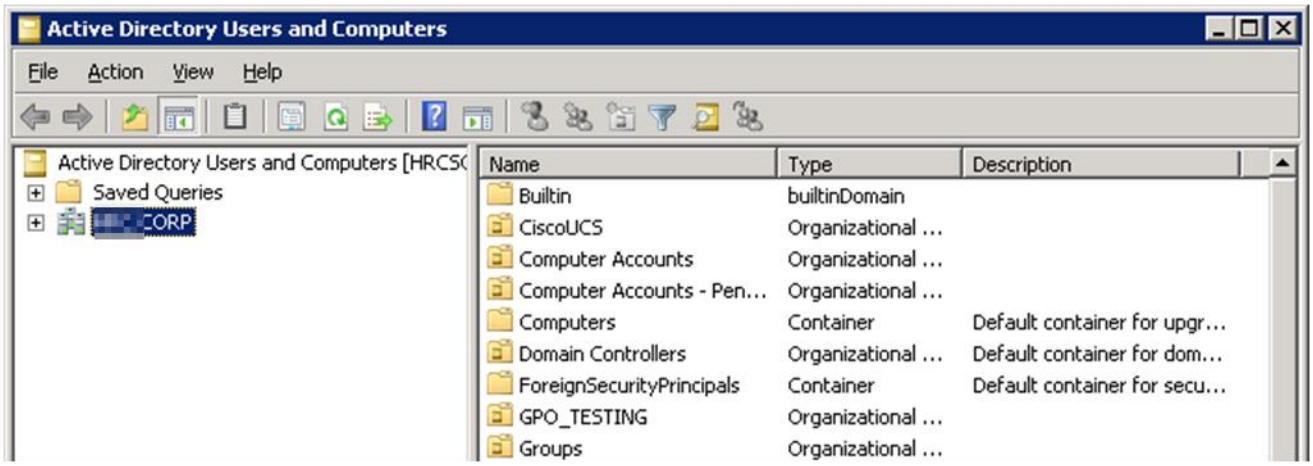
User AD Info – to display either basic or full user active directory information, use this option.



BASIC



FULL



Quick Function Keys

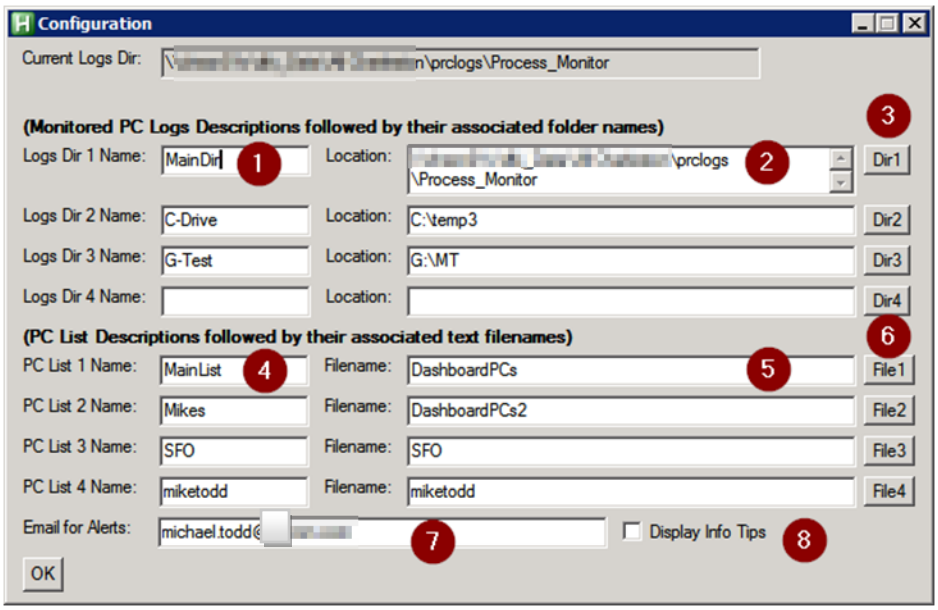
Many of the PC Dashboard options are accessible via Control key shortcuts as shown on the Help tab.

Function Keys that act on the selected PC or current List:
[Newest additions are marked with an *]

Alt-A => Add or Remove a User to a PC's Admin group *
Alt-C => Full or Partial Check Disk *
Alt-E => Export list to Excel
Alt-N => PC Notes utility
Alt-S => Setup Window
Alt-U => Update active list *
Ctrl-A => Add a New PC to the List of PCs
Ctrl-D => Delete a PC and/or a Log File
Ctrl-E => Edit the PC's Logfile or the Current PC List
Ctrl-F => Show PC Free Disk space
Ctrl-G => Get (update) PC's Status info
Ctrl-I => Display PC Hardware/Software Info
Ctrl-K => Kill a single PC Task
Ctrl-L => Run LAPS to display local Admin password
Ctrl-O => Get Office 365 Version
Ctrl-P => Ping PC
Ctrl-R => Reset Event Counter for selected Log or all Logs
Ctrl-S => Show Logfile in CSViewer
Ctrl-T => Display PC's Running Tasks
Ctrl-U => Display User's AD account status
Ctrl-W => Use Windows Explorer to C$
Shift-Ctrl-B => Remote Control with Bomgar
Shift-Ctrl-C => AD Computers & Users
Shift-Ctrl-I => Browse with Internet Explorer (for Printers)
Shift-Ctrl-M => Open PC in Computer Management console
Shift-Ctrl-R => Remote Control with Remote Desktop
Shift-Ctrl-S => Remote Control with SCCM

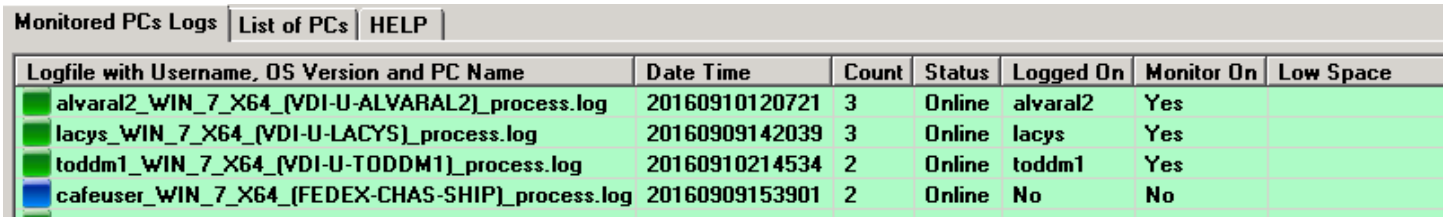
Program Configuration Window

The Configuration window makes it easy to add, rename and/or remove Monitored directories and PC Lists. Enter directory names in items 1, enter directories in items 2 or choose them with the Dir buttons. Do the same with Lists, enter list names in items 4, the list file names in items 5 or use File buttons. Enter or change email address in item 7. Lastly, click on Display Info Tips when learning the program, uncheck it later to turn off Tips.



Switching between lists

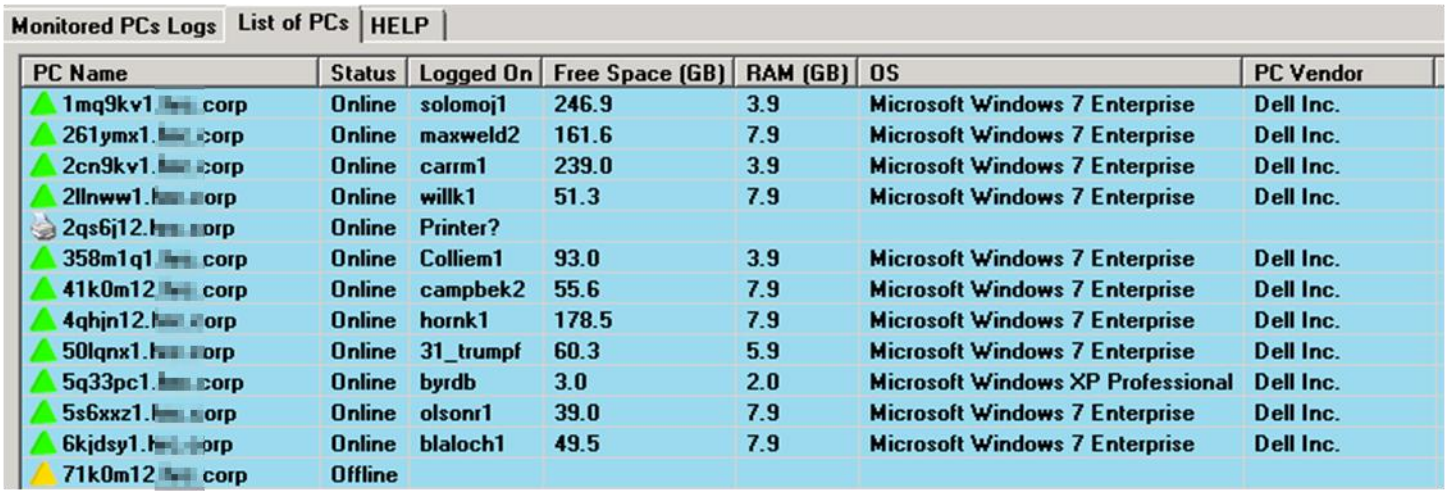
Monitored PCs Logs showing Counts greater than zero resulting in square icons. The highest count is always on top then sorted by time and log file name. Monitored directories may be switched to by clicking on other directory names in the tree view list. The program will save the status and values of each list.



Monitored PCs Logs | List of PCs | HELP

Logfile with Username, OS Version and PC Name	Date Time	Count	Status	Logged On	Monitor On	Low Space
alvaral2_WIN_7_X64_(VDI-U-ALVARAL2)_process.log	20160910120721	3	Online	alvaral2	Yes	
lacys_WIN_7_X64_(VDI-U-LACYS)_process.log	20160909142039	3	Online	lacys	Yes	
toddm1_WIN_7_X64_(VDI-U-TODDM1)_process.log	20160910214534	2	Online	toddm1	Yes	
cafeuser_WIN_7_X64_(FEDEX-CHAS-SHIP)_process.log	20160909153901	2	Online	No	No	

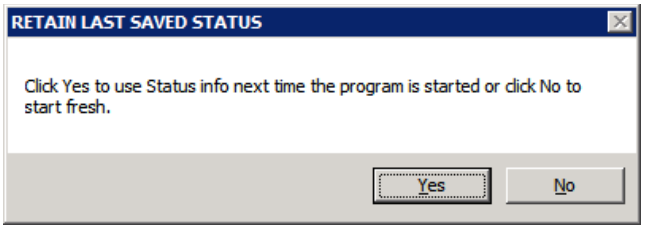
List of PCs may be switched to with a double-click on the list name. The program will save the status and values of each list.



Monitored PCs Logs | List of PCs | HELP

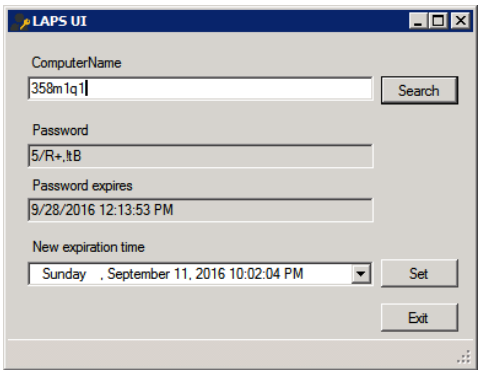
PC Name	Status	Logged On	Free Space (GB)	RAM (GB)	OS	PC Vendor
1mq9kv1.[redacted]corp	Online	solomoj1	246.9	3.9	Microsoft Windows 7 Enterprise	Dell Inc.
261ymx1.[redacted]corp	Online	maxweld2	161.6	7.9	Microsoft Windows 7 Enterprise	Dell Inc.
2cn9kv1.[redacted]corp	Online	carrm1	239.0	3.9	Microsoft Windows 7 Enterprise	Dell Inc.
2llnww1.[redacted]orp	Online	willk1	51.3	7.9	Microsoft Windows 7 Enterprise	Dell Inc.
2qs6j12.[redacted]orp	Online	Printer?				
358m1q1.[redacted]corp	Online	Colliem1	93.0	3.9	Microsoft Windows 7 Enterprise	Dell Inc.
41k0m12.[redacted]corp	Online	campbek2	55.6	7.9	Microsoft Windows 7 Enterprise	Dell Inc.
4qhjn12.[redacted]orp	Online	hornk1	178.5	7.9	Microsoft Windows 7 Enterprise	Dell Inc.
50lqnx1.[redacted]orp	Online	31_trumpf	60.3	5.9	Microsoft Windows 7 Enterprise	Dell Inc.
5q33pc1.[redacted]corp	Online	byrdb	3.0	2.0	Microsoft Windows XP Professional	Dell Inc.
5s6xxz1.[redacted]orp	Online	olsonr1	39.0	7.9	Microsoft Windows 7 Enterprise	Dell Inc.
6kjdsy1.[redacted]orp	Online	blaloch1	49.5	7.9	Microsoft Windows 7 Enterprise	Dell Inc.
71k0m12.[redacted]corp	Offline					

Whenever you exit the program, you will be prompted to save the detailed status and info. This is in case you want to retain these values the next time program is started. Otherwise, all the lists will need to be updated.



Other menu items and Control options

Microsoft LAPS – when used from the right-click menu, this option opens the LAPS utility and waits for a computer name to be entered in order to get its Admin password. If a computer on the list is selected, then pressing Ctrl-L will open LAPS and automatically enter the computer name.

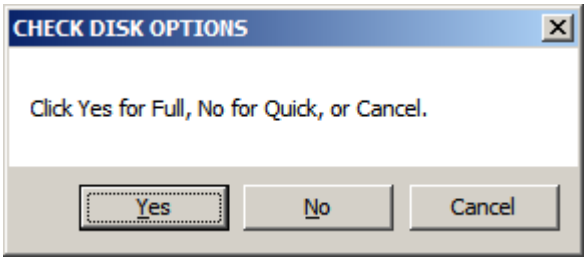


Microsoft Office – press Ctrl-O to determine the version of Office on the remote PC.

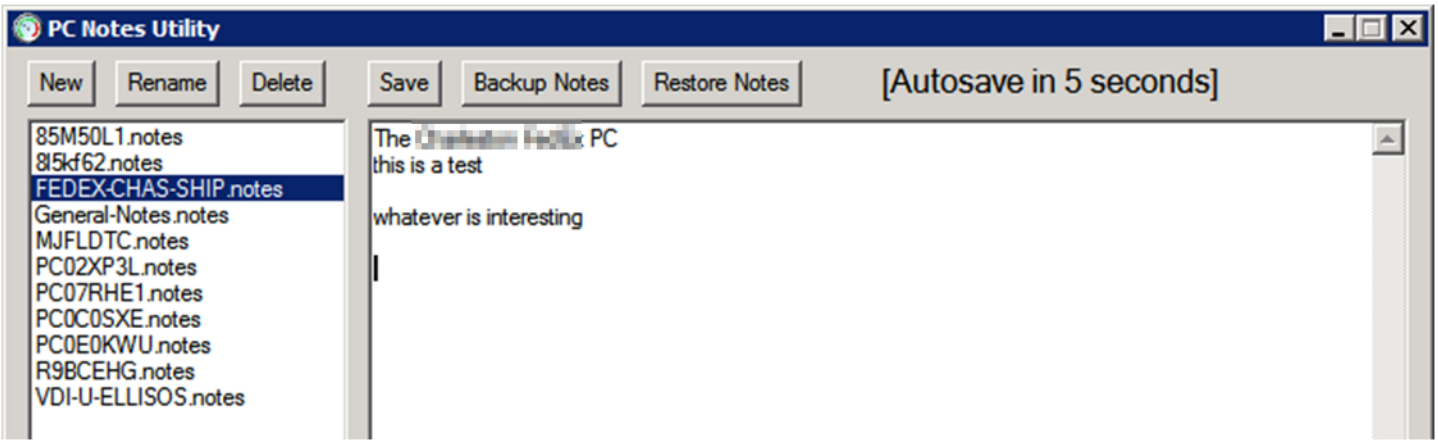
Find Host for a VDI – this will attempt to get the host name for the selected VDI's session.

Clicking the Tray icon will hide and show the program. It also shows the latest count.

PC Check Disk – use this on a selected PC to begin a quick or a full check disk after restarting the PC.



PC Notes Utility – press Alt-N to display the Notes utility. It allows you to take notes on any PC and will select it automatically if present. If the highlighted entry has no associated Note, it will be created.



Utilities used along with PC Dashboard

These utilities are bundled into the PC Dashboard executable:

CSVFileView -> Log file viewer

PSlist -> Get PC Tasks

PSkill -> Kill PC Task

PSinfo -> Displaying PC Info and software

PSloggedon -> Get PC logged on user Info

SwithMail -> Generate email alerts

Process Monitor -> For injecting process monitor into another PC to log hung processes

IP_Scanner -> Allows users to enter a range of IPs and retrieve PC names to help create a List of PCs

Lockoutstatus -> Allows users retrieve Login info for selected user, unlock account, reset password

The program also uses the following commands and applications:

TaskKill -> Windows standard taskkill, has the option to kill all non-responding apps

DsQuery -> used to retrieve user fullname, computer OU

DsMod, DsGet -> used with DsQuery to unlock an AD account and reset the user's password

WMIC -> Windows Machine Instrumentation Command line is used to retrieve PC Hardware Vendor, Model, RAM, BIOS Date

*CmRcViewer -> SCCM Remote Control Viewer, user may optionally install

Mstsc -> Microsoft Remote Desktop

*Bomgar -> Bomgar Remote Control app, user must install

Net.exe -> Add/Remove a domain user to local administrators group on a PC

Command lines used

Explore C Drive	run, \\%PC%\c$
Explore with IE	run, iexplore.exe %PC%
Remote Desktop	run, mstsc.exe /v:%PC%
Show Log	run, c:\temp\CSVFileView.exe %F%
Edit Log	RunWait, notepad.exe %A_ScriptDir%\%file%.txt
PC Management	run, compmgmt.msc
Free space	runwait, %comspec% /c "dir \\%PC%\c$ >c:\temp\dirfree.txt"
OR	DriveSpaceFree, FreeSpace, \\%PC%\c$
PC Check Disk	Chkdsk /f **(quick)** or Chkdsk /f /r **(full)**
PC Info	runwait, %comspec% /c "c:\temp\psinfo.exe -s /accepteula \\%PC% >c:\temp\psinfo.txt"
PC Task List	runwait, %comspec% /c "c:\temp\pslist.exe \\%PC% /accepteula >c:\temp\pslist.txt"
PC Task Kill	RunWait, %comspec% /c c:\temp\pskill.exe -t /accepteula \\%PC% "%Task%"
OR	RunWait, %comspec% /c taskkill /s %PC% /im "%Task%" /f /t
Kill Hung Tasks	taskkill /s %PC% /fi "STATUS eq NOT RESPONDING" /f /t
Restart PC	run, %comspec% /c shutdown.exe /m %PC2% /r /f
Shutdown PC	run, %comspec% /c shutdown.exe /s /m \\%PC% /t 30 /c "Your computer has a virus and will be shutdown. Call IT Helpdesk at 1-800-xxx-4951"
Ping PC	run, %comspec% /c ping.exe -t "%PC%"
Reset Password	runwait, %comspec% /c dsquery.exe user -samid %username% | dsmod user -disabled no -pwd %newpass% -mustchpwd no

Email alert	RunWait, c:\temp\swithmail.exe /s /from "m.todd@xxxx.com" /name "M. Todd" /server "relay.hrc.corp" /to "%email%" /sub "%A_ComputerName% Monitored a Hung Process Event #%Counter% on %HungPC%" /b "Hung Process Log file: %Filename%"
Get AD Status	run, c:\temp\lockoutstatus.exe -u:%username%@hrc.corp
Is Logged On	runwait, %comspec% /c "c:\temp\psloggedon.exe -x -l /accepteula \\%PC% |find "HRC\" >c:\temp\psloggedon.txt"
Get PC RAM	runwait, %comspec% /c wmic.exe /node:"%PC%" computersystem get totalphysicalmemory /value | find "=" >c:\temp\pcram.txt
Get O365	runwait, %comspec% /c psexec.exe /accepteula \\%PC2% reg.exe query HKEY_CLASSES_ROOT\Outlook.Application\CurVer >c:\temp\pco365.txt
Get OS	runwait, %comspec% /c wmic.exe /node:"%PC%" os get caption /value | find "=" >c:\temp\pcos.txt
Get PC Vendor	runwait, %comspec% /c wmic.exe /node:"%PC%" csproduct get vendor /value | find "=" >c:\temp\pcvendor.txt
Get PC Model	runwait, %comspec% /c wmic.exe /node:"%PC%" csproduct get version /value | find "=" >c:\temp\pcmodel.txt **[LENOVO]**
	runwait, %comspec% /c wmic.exe /node:"%PC%" csproduct get name /value | find "=" >c:\temp\pcmodel.txt **[HP or DELL]**
Get BIOS Date	runwait, %comspec% /c wmic.exe /node:"%PC%" bios get releasedate /value | find "=" >c:\temp\pcbios.txt
Get Full Name	RunWait, %comspec% /c dsquery.exe user -samid %LoggedOn% >c:\temp\pcfullname.txt
Get PC OU	RunWait, %comspec% /c dsquery.exe computer -name %PC2% >c:\temp\pcou.txt
AD Users	Run, %comspec% /c dsa.msc **[FULL]**
	run, %comspec% /c rundll32.exe dsquery, OpenQueryWindow **[BRIEF]**
Run LAPS	run, c:\program files\LAPS\AdmPwd.UI.exe
Add to Admin Group	runwait, %comspec% /c psexec.exe \\%PC% net localgroup administrators hrc\%user% /add
Remove from Admin	runwait, %comspec% /c psexec.exe \\%PC% net localgroup administrators hrc\%user% /del