

PerfCap Agents for Windows and VMware ESX/ESXi Version V10.0

User and Installation Guide

February 2012

Revision/Update:

Version 10.0 is new feature release.

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PerfCap Agents for Windows and VMware ESX/ESXi Version V10.0

Release Overview

These release notes address version V10.0 of the eCAP Monitor, eCAP Monitor for VMware ESX/ESXi, PAWZAgent, and FindITAgent. Current fixes and known problems are outlined at the end of this document.

This software contains the set of performance data collectors and system agents from PerfCap, for Windows and VMware ESX/ESXi. This software requires a licensing from PerfCap to enable functionality. The eCAP Monitor for Windows and ESX collectors share a license file, *ecap-monitor.txt* (V9.1 format). FindIT Agent requires a *finditagent.txt* file to enable its functionality.

This installation installs a system service for eCAP Monitor for Windows and a system service for eCAP Monitor for VMware ESX.

eCAP Monitor for VMware ESX / ESXi (3.5, 4.n, 5) (vSphere) remotely collects ESX performance data by connecting with the VMware Hypervisor. The eCAP Monitor for VMware ESX is multi-threaded and can collect performance data from multiple VMware ESX hosts.

Having eCAP Monitor for VMware ESX collect performance data from individual VMware hosts is done through the PAWZServer. When a VMware host is added to PAWZServer, it will send a request to the PAWZAgent to register and start an eCAP monitor collector thread.

Summary of features and changes

V10.0 introduces the following features.

- Monitor Multiple ESX/ESXi systems
- PAWZ Agent add/removes ESX collector threads
- Real Time Data Collection

Release Contents

This release of PerfCap Agents product set on Windows consists of two licensed components:

- eCAP Monitor
- FindIT Agent.

Version 10.0 is comprised of the following items:

- PerfCap Agents 10.0 software
 - eCAP Monitor for Windows
 - eCAP Monitor for VMware ESX/ESXi
 - PAWZ Agent
 - PAWZ Real-Time Agent
 - FindIT Agent

- PerfCap Agents 10.0 User and Installation Guide

Pre-Installation

Several steps should be taken through the vSphere Client prior to installing PerfCap Agents for Windows and VMware ESX.

Required Software for Installaton

- Java Runtime Environment 1.6
- On Windows Server2003, NET framework 2.0

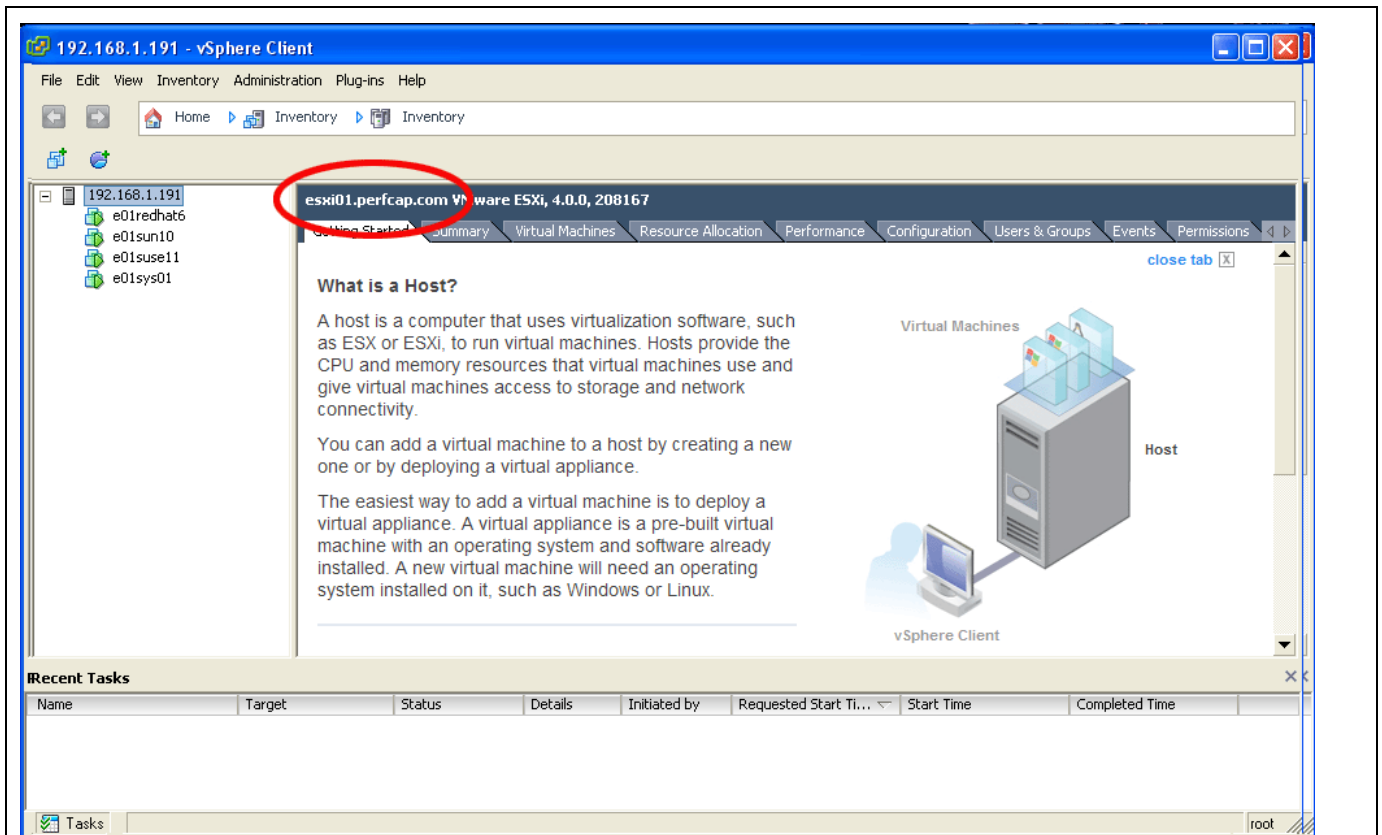
Required Information for Installation:

- A VMware ESX / ESXi account
- VMware host name
- VMware IP address or DNS name
- Path were JRE is installed, (Typically C:\Program Files\Java\Jre6)
- ecap-monitor.txt for Windows or ESX

ESX/ESXi hostname determination

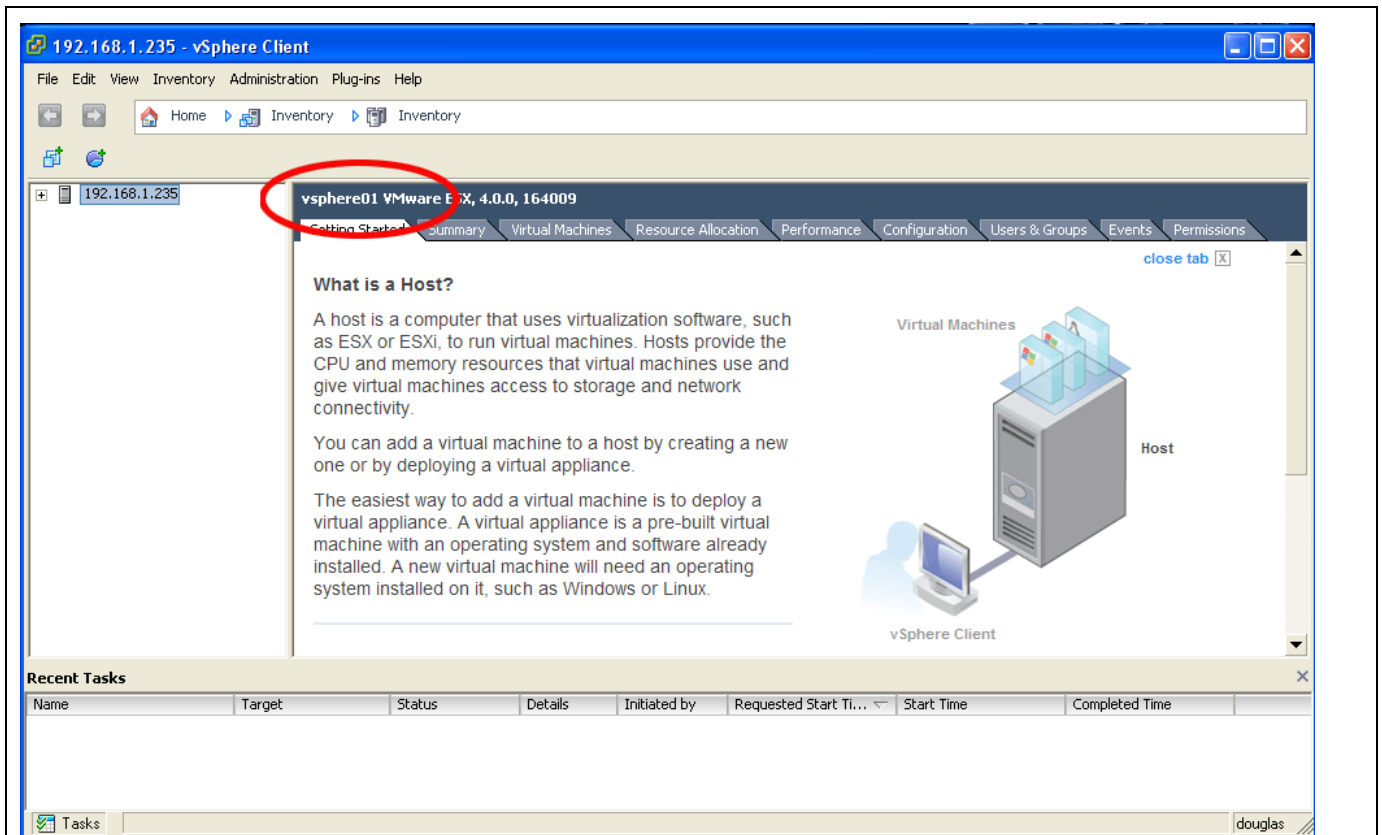
The VMware ESX hostname must be **exactly** what the ESX/ESXi system has defined. This may be fully qualified or not. This will be entered into the PAWZserver DC host screen.

Example 1) Getting hostname from vSphere Client



The connection string for this ESXi system is esxi01.perfcap.com

Example 2) Getting hostname from vSphere Client



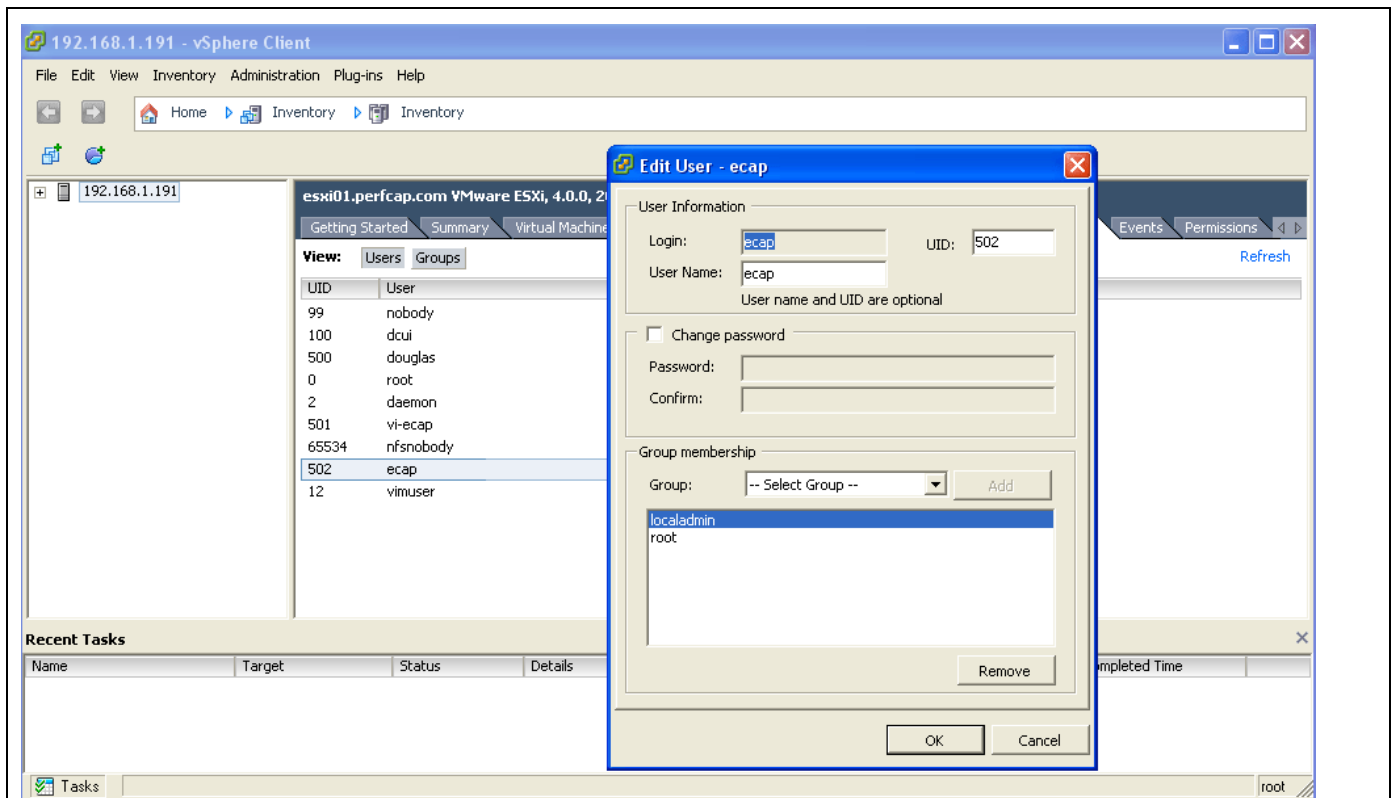
The connection string for this ESX system is vsphere01

ESX/ESXi Account creation for data collection

A non-privileged user account must be used for the eCAP Monitor for VMware ESX.

Add User

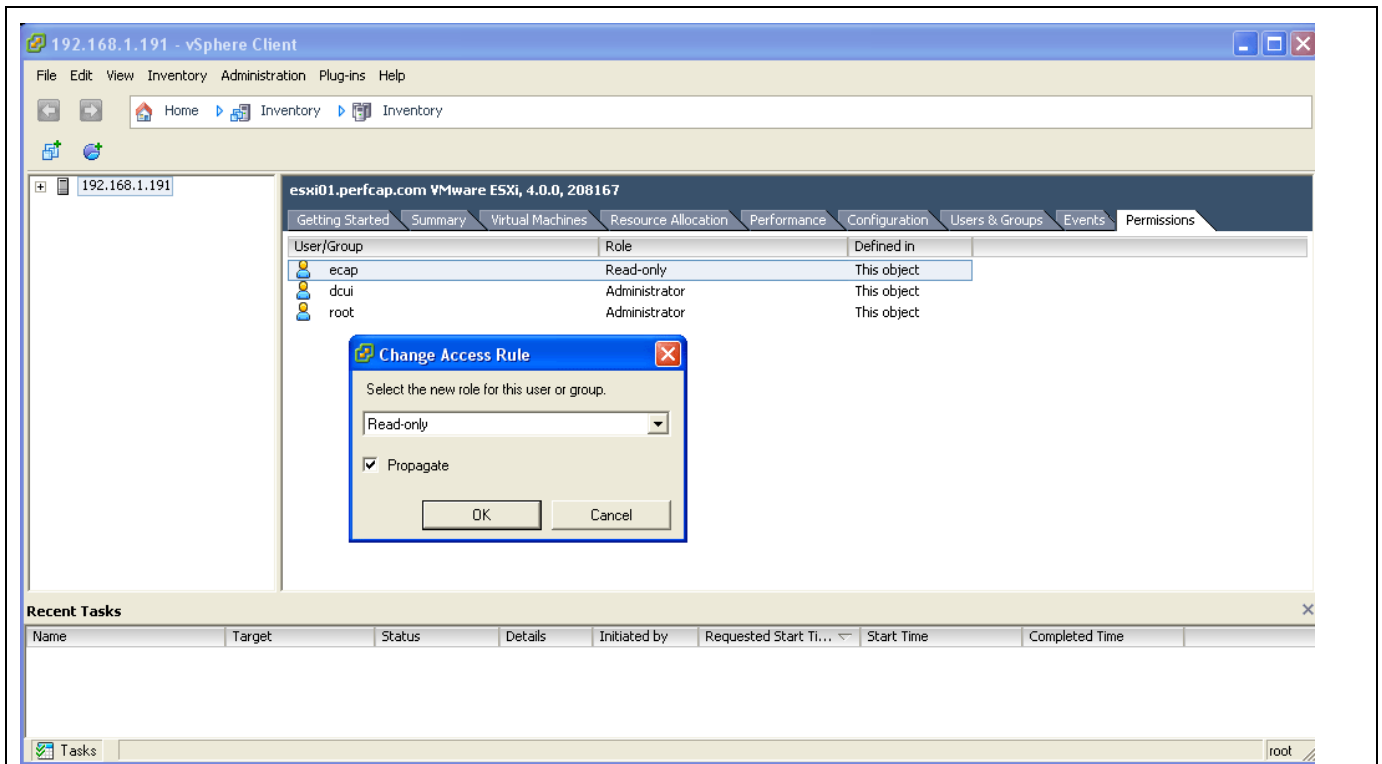
To add a user account, navigate to the “Users and Groups tab.



Set User Permission

Navigate to the “Permissions” tab.

The permissions can be set to “Read Only”. The access rule must be marked “propagate”. This allows the account gather VM guest performance data.



Java JRE location

Java JRE is typically installed to C:\Program Files\Java\Jre6. Use a Windows explorer to ensure Java JRE is installed and to discover its installed location.

ecap-monitor.txt license file

An ecap-monitor.txt license file that enables data collection for both “Windows” and “ESX” should be obtained.

Installation

PerfCap Agents for Windows and ESX/ESXi software is installed on a Windows Server system. The following chapter explains the interactive and non-interactive installations.

No VMware configuration information is supplied on installation.

Required Software:

- Windows 2003 or Windows 2008
- Java JRE (1.6)
- (Windows 2003 requires .Net Framework 2.0)
- .Net Framework 3.5 (for VMware Connection editor utility) (optional)

Note: There are separate installation packages for 32 bit windows and 64 bit windows.

Interactive Installation:

To start the installation, either double clicks the file:

“PerfCap Agents 10.0 for Windows and VMware ESX.msi”

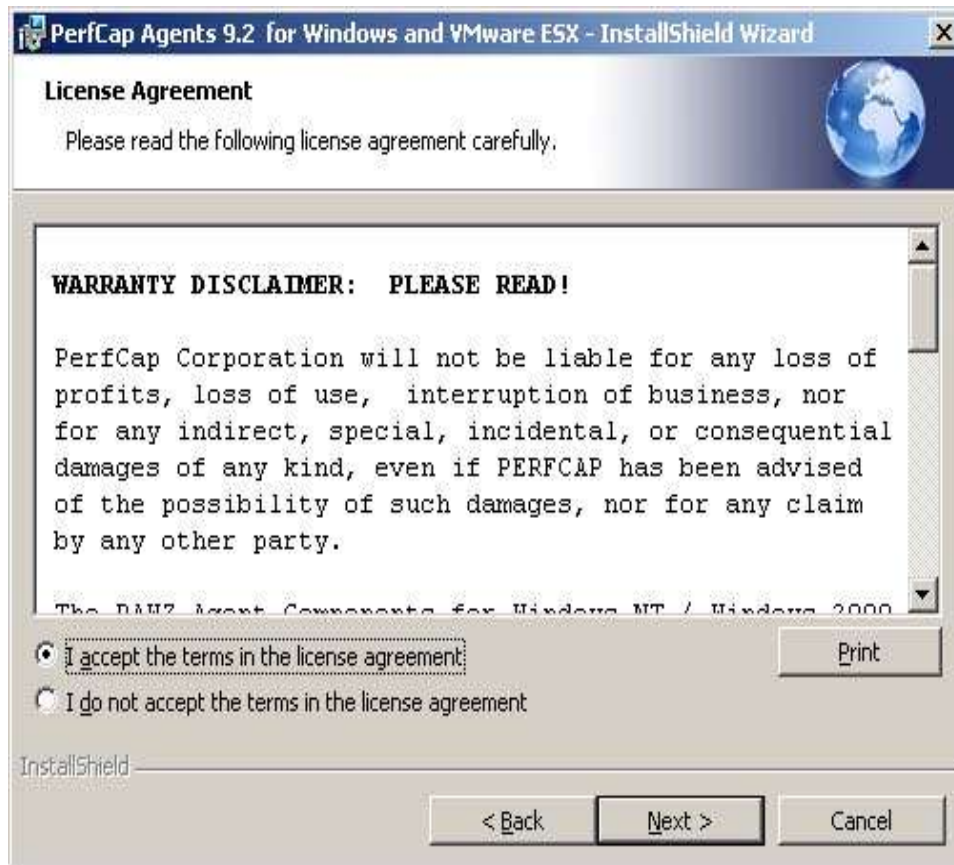
or enter:

```
msiexec “PerfCap Agents 10.0 for Windows and VMware ESX.msi”
```

Screen 1) Welcome



Screen 2) License Agreement.



Screen 3) Installation directory



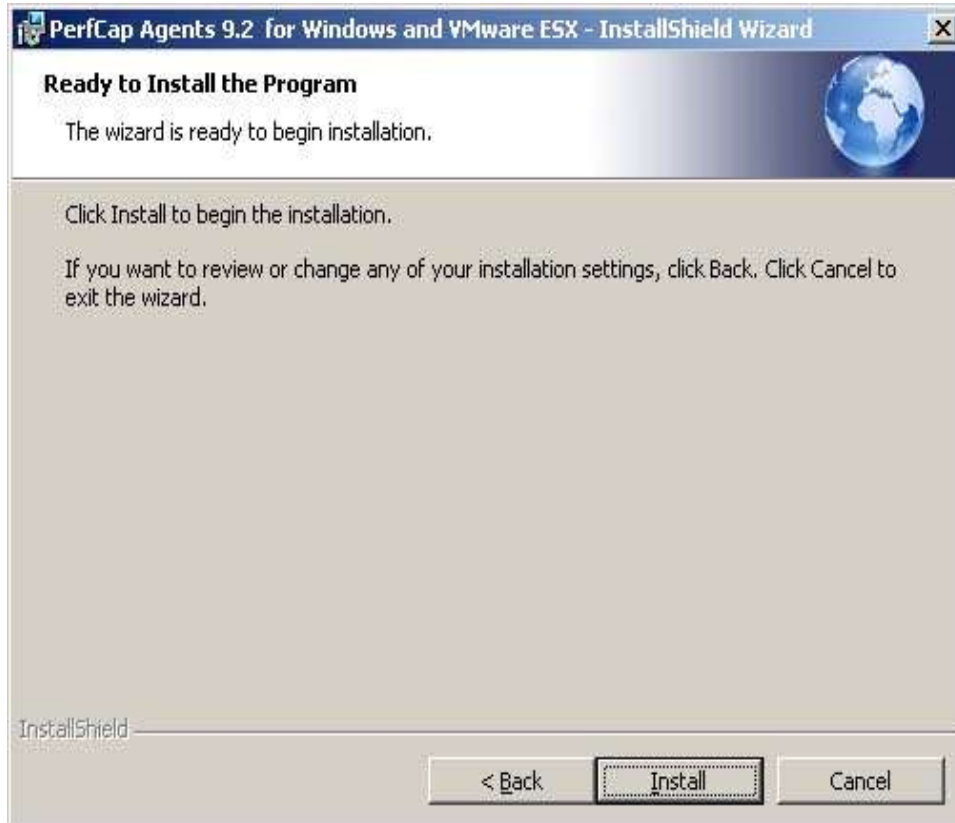
Screen 4) Select Java JRE home



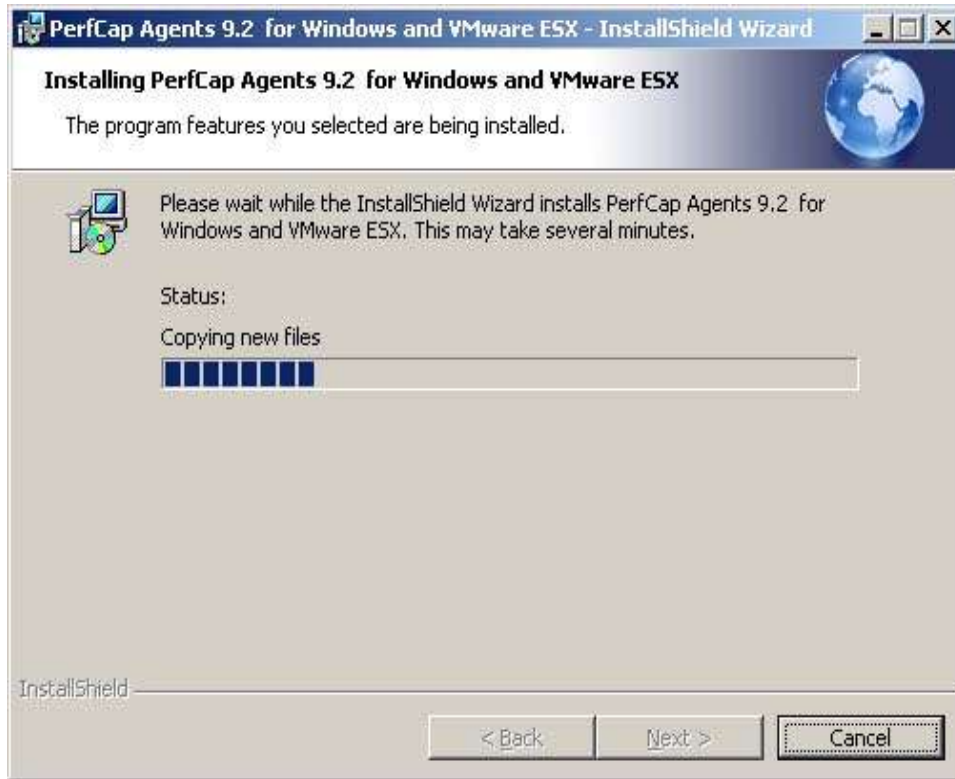
Screen 5) Installation type



Screen 6) Start installation



Screen 7) In Progress



Screen 8) Installation complete.



Non-Interactive installation:

The /q /n properties are used to start a non-interactive installation. Other information is passed to the msi package through package properties.

Installation command:

msiexec /qn /I "PerfCap Agents 10.0 for Windows and VMware ESX.msi"

Package properties:

Property Name	Default Value
Common properties	
INSTALLDIR	C:\Program Files\PerfCap
eCAP Monitor for Windows properties	
ECAP_CONTINUOUS	1
ECAP_CUSTOM_METRIC_FILTER	""
ECAP_DUMP_RATE	120
ECAP_LICENSE	C:\ecap-monitor.txt
ECAP_LOG_DETAILS	0
ECAP_LOW_PRIORITY	0
ECAP_MANAGE_RETENTION	0
ECAP_METRIC_LIST	2,4,86,230,234,236,238,260,510,638,546,658,700
ECAP_PEAK_RATE	0
ECAP_RETENTION	30
ECAP_SCAN_RATE	5000
ECAP_START_SERVICE	1
eCAP Monitor for VMware ESX properties	
ECAP_ESX_DUMP_RATE	120
ECAP_ESX_JAVA_HOME	""
ECAP_ESX_JAVA_MAX_HEAPSIZE	-mx300m
ECAP_ESX_START_SERVICE	1
ECAP_ESX_VMWARE_NAME	""
ECAP_ESX_VMWARE_PASSWORD	""

ECAP_ESX_VMWARE_USERNAME	""
PAWZ Agent properties	
PAWZAGENT_APPDATA_DIRECTORY	""
PAWZAGENT_COMPRESSION_COMMAND	""
PAWZAGENT_KEEP_PERF	0
PAWZAGENT_LOG_DETAILS	0
PAWZAGENT_LOG_RETENTION	5
PAWZAGENT_LOOP_DELAY	5
PAWZAGENT_LOW_PRIORITY	0
PAWZAGENT_PAWZSERVER_IP	0.0.0.0
PAWZAGENT_PORT	1661
PAWZAGENT_SETTINGS_SERVER	0.0.0.0
PAWZ Real-Time Agent properties	
PAWZRTA_PORT	2101
PAWZRTA_LOG_DETAILS	0
PAWZRTA_LOW_PRIORITY	0
PAWZRTA_PROCESS	1
PAWZRTA_SCAN	2
FindIT Agent properties	
FINDIT_LICENSE	"C:\finditagent.txt"
FINDITAGENT_APPLICATION	""

FINDITAGENT_ASSET_NUMBER	""
FINDITAGENT_ASSET_TYPE	""
FINDITAGENT_CONTINUOUS	1
FINDITAGENT_DATA_RETENTION	3
FINDITAGENT_LOCATION	""
FINDITAGENT_LOG_DETAILS	0
FINDITAGENT_LOG_RETENTION	3
FINDITAGENT_MONITOR_CPU	1
FINDITAGENT_MONITOR_PROCESS	1
FINDITAGENT_ORGANIZATION	""
FINDITAGENTs_PORT	3336
FINDITAGENT_SERVER_IP	""
FINDITAGENT_START_SERVICE	1

Installation command with properties:

```
msiexec /qn ECAP_LICENSE=C:\ecap-monitor.txt ECAP_DUMP_RATE=60 ^
ECAP_PEAK_RATE=10000 ^
ECAP_SCAN_RATE=5000 ^
INSTALLDIR="D:\Program Files\PerfCap" /I "PerfCap Agents 10.(VMware ESX).msi"
```

Post-Installation

The installation no longer requires any VMware access information. This information is automatically added when a VMware ESX host is added to the PAWZ Server. The PAWZ Agent will add an entry to the **ecap_monitor_esx_startup.csv** file and start a collector thread.

Troubleshooting: Service startup

When the PerfCap eCap Monitor for VMware ESX service will not run check

- The ecap_monitor_esx log files
- The System Event Log.

The ecap_monitor_esx log files generally will give the reason for failure. If there are no ecap_monitor_esx log files, after starting the service, the java configuration may not be correct.

The system event log will log errors associated with running java (and java not found). It also logs the full command that is used by the service to run the data collection. By using Cut and Paste, you can run the command from a *cmd* window which may shed light on why the service is stopping.

ecap_monitor_esx log files:

The log files written by the eCAP Monitor for VMware ESX generally provide a good indication of the reason why the ecap_monitor_esx stopped. The log file will contain the exception output from connecting to the VMware ESX/ESXi system. These exceptions include access denied, system unreachable, invalid password, and other networking errors.

There are log files for the ecap_monitor_esx service (ecpv_ecap_monitor_esx_yyyymmdd.log) and for each VMware host that is being monitored.

ecpv_vmname_yyyymmdd.log

Sample Log file:

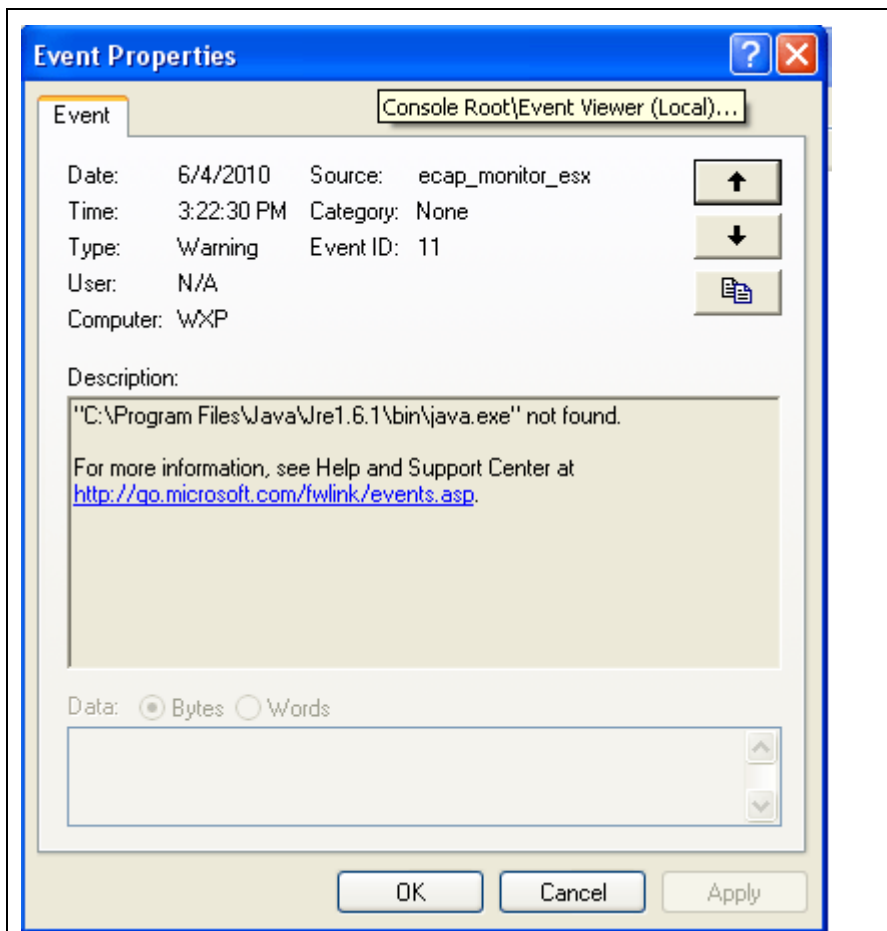
```
Dos> type ecpv_esxi01_2012Feb22.log
eCAP Monitor for ESX V10.0-001 (c) PerfCap Corporation 2012, All Rights Reserved
Feb 21 2012
```

```
Check license file, ecap-monitor.txt...
Thu Feb 22 00:00:36 2012 MonitorEsx, write CPC header records,
C:\Program Files\PerfCap\eCAP\Monitor\data\ecpv_esxi01_2012Feb22.cpc-1
Thu Feb 22 00:00:36 2012 MonitorEsx, write CPC Configuration record.
Thu Feb 22 00:00:36 2012 MonitorEsx, rewrite configuration file,
C:\Program Files\PerfCap\eCAP\Monitor\tmp\pawz_sysconf_esxi01.dat
Thu Feb 22 00:01:59 2012 MonitorEsx, write interval record 0
Thu Feb 22 00:02:59 2012 MonitorEsx, write interval record 1
Thu Feb 22 00:03:59 2012 MonitorEsx, write interval record 2
```

Error String	Description
vmwareGatherer.connect exception : java.net.NoRouteToHostException: No route to host: connect	VMware system is off-line
Error connecting to VMware server vsphere01.perfcap.com, null	VMware name is incorrect
Error, vmwareGatherer.connect exception : Cannot complete login due to an incorrect user name or password.	VMware access information is incorrect
Error, vmwareGatherer.connect exception : Permission to perform this operation was denied.	Account has insufficient privileges.

Java JRE settings

Having no log files in the C:\Program Files\PerfCap\Ecap\Logs folder may indicate that the java is unable to start. For this type of error, there will be a System Event Log entry with ID 11.



The first check is to see if the JavaHomeDirectory is set correctly.

Use the “eCAP to VMware ESX connection settings” utility to browse for the java.exe image.

Select java.exe and press OK.

Note: the “/bin/java.exe” will be stripped off when “OK” is pressed.

Now restart the ecap_monitor_esx service. (PerfCap eCAP Monitor for VMware ESX)

Note: If the ecap_monitor_esx service startup does not find java.exe with the fully specified path, it will attempt to start the collector by issuing the java command with no path. If the java installation path is in the system wide PATH environment variable, the service will be started.

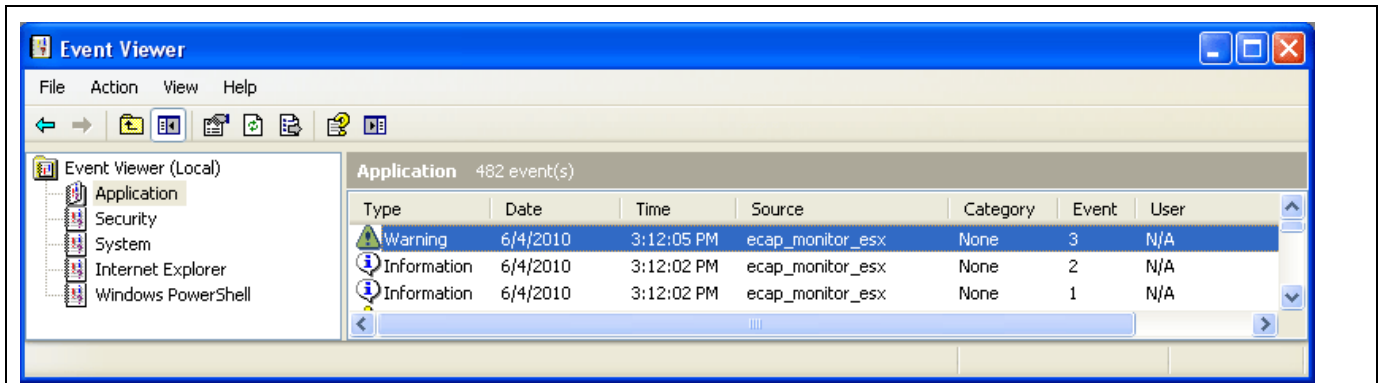
System event log:

The system event log contains startup and stop information from the `ecap_monitor_esx` system service. The PerfCap eCAP Monitor for VMware ESX service write system event log entries under the “*Application*” tree. The Event source is “*ecap_monitor_esx*”.

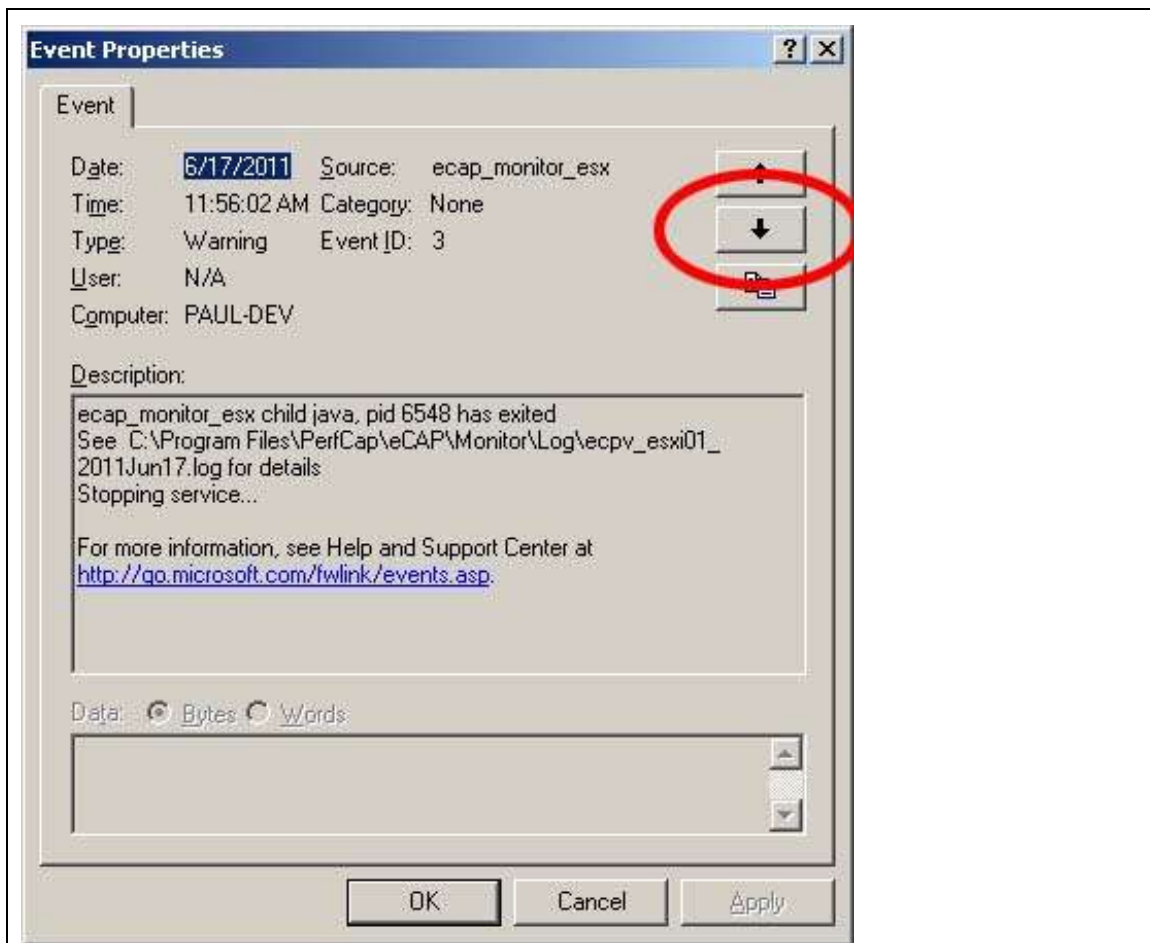
In the case where a determination as to the cause of the service startup failure cannot be made; it often is useful to run the full `ecap_monitor_esx java` command directly in a cmd window. This lets you see any java thrown exceptions, or other errors, that may not be written to the log file.

The following screens show how to navigate the System Event viewer and Cut and Paste the `ecap_monitor_esx java` command into a CMD window.

- 1) Open the system event log, open the *Application* tree.

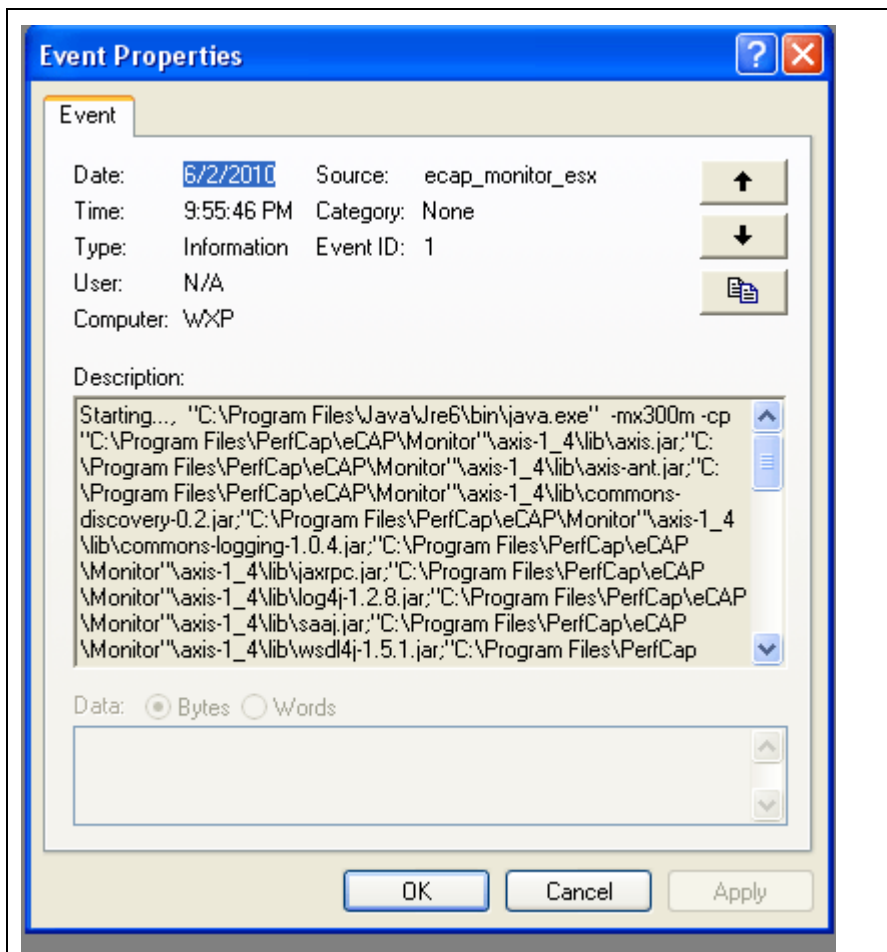


- 2) Double click `ecap_monitor_esx` Event 3.

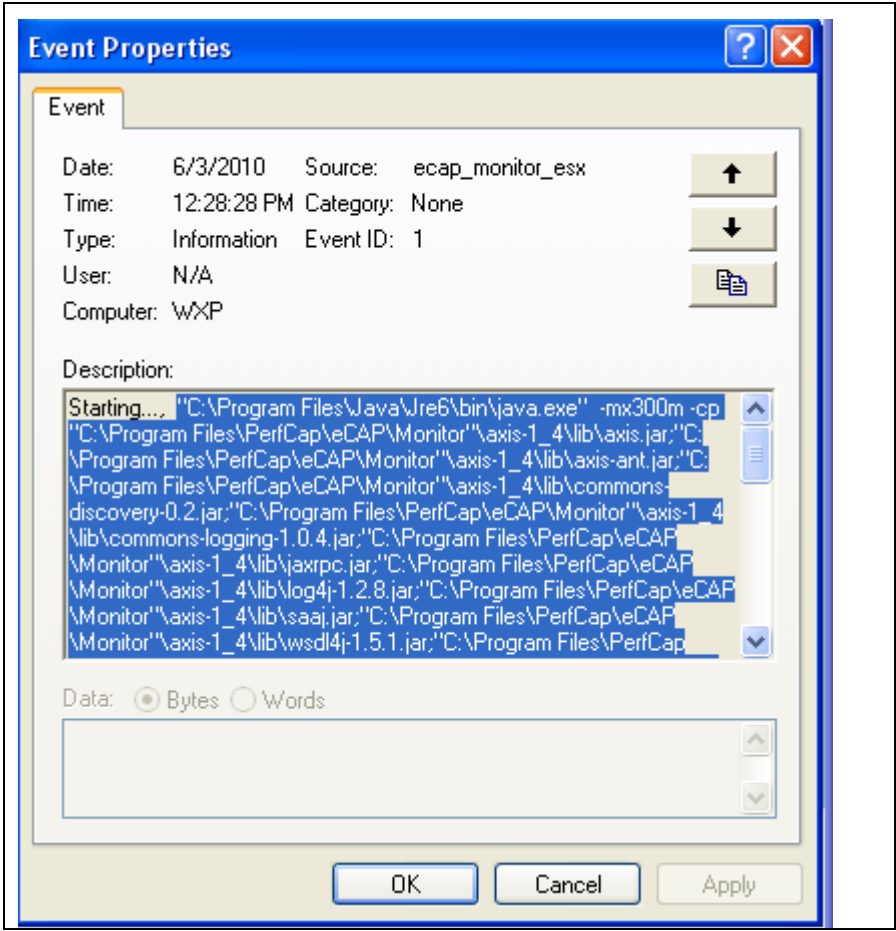


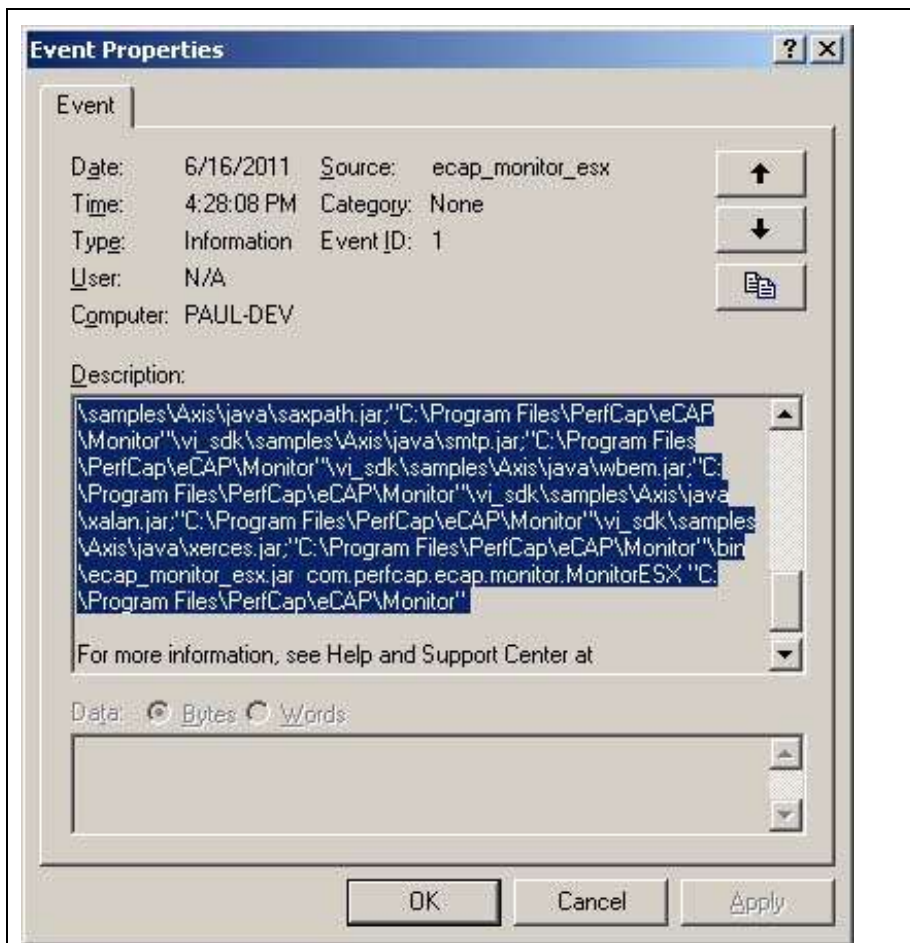
3) We can see that the java process (6548) stopped. We need to go back through the log entries until we find ecap_monitor_esx Event ID: 1.

Press the down arrow until you get to event 1



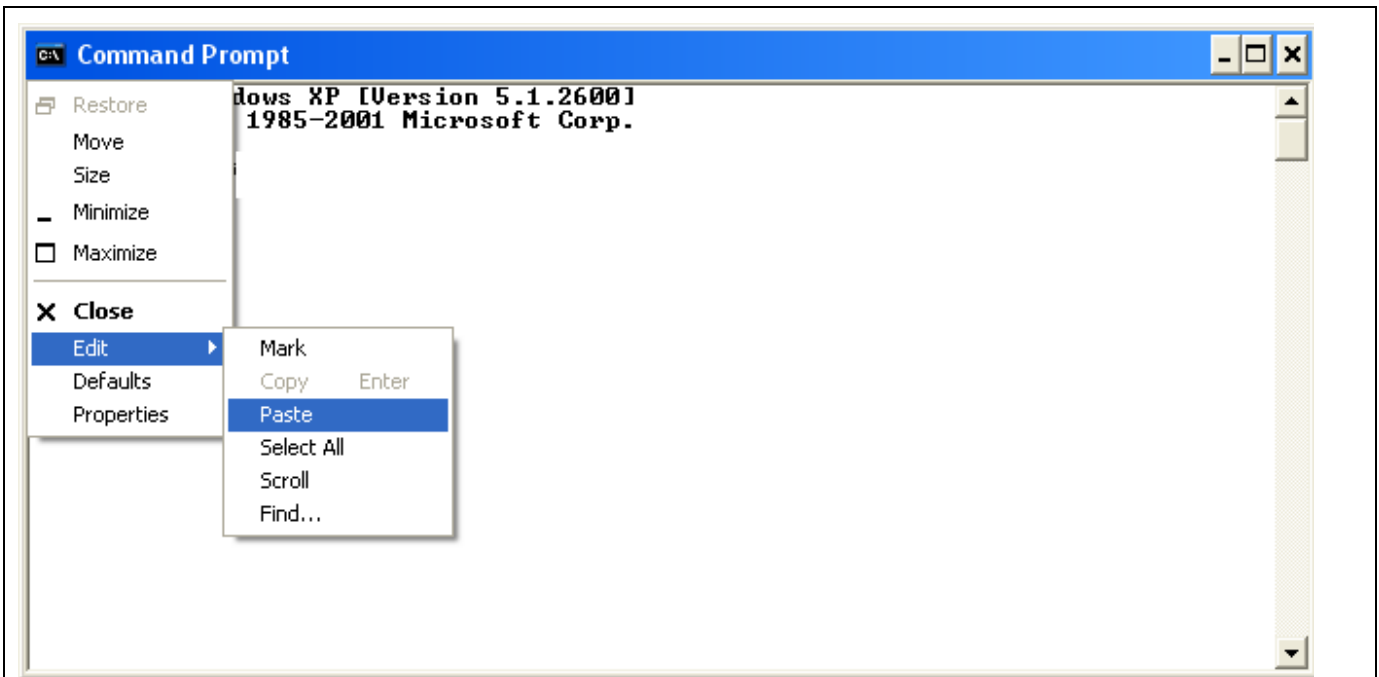
4) Highlight the command from right after "starting..." to the end and press Control-C



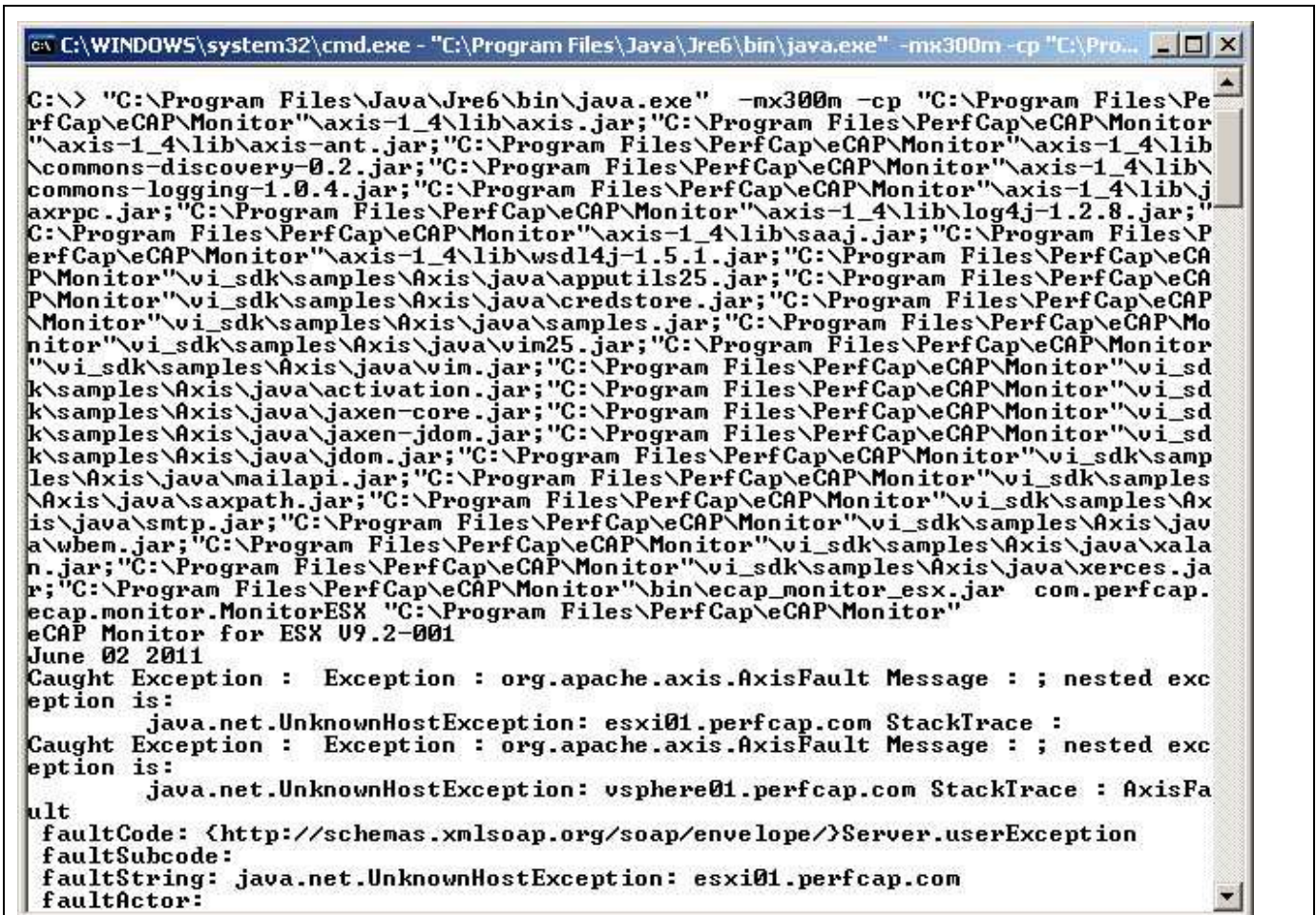


Press Control-C to copy the line to your clipboard.

5) Open a cmd window and select Edit->Paste



6) Press <Enter>



Note: The “Unable to find required classes (javax.activation.DataHandler and javax.mail.internet.mimeMultipart)” can be ignored.

The stack trace shows `java.net.ConnectionException`. This indicates that the current system is either not connected to the network or cannot find the ESX host system.

De-installation

The software can be removed interactively with “Add/Remove Programs” in the system control panel or with “Uninstall PerfCap Agents for Windows and VMware ESX” in the system start bar.

This will leave all performance data files and startup setting files in the product installation folder and it creates a save preferences in the system registry for re-installation.

Non-Interactive de-installation.

The software can also be removed non-interactively through the following *msiexec* command.

```
msiexec /qn /x {6311BE89-1A15-40CE-9353-65F6A2754FA1}
```

- This will not delete .CPC data files & retains settings in registry.

```
msiexec /qn /x RETAIN_SETTINGS="0" {6311BE89-1A15-40CE-9353-65F6A2754FA1}
```

- Remove settings

Installation settings

The following chapter describes some of the PerfCap Agents settings on the installed system.

Installation paths

The actual location may vary. The default installation root is C:\Program Files\PerfCap

Product	Default Location
ECAP Monitor	C:\Program Files\PerfCap\ecap\Monitor
ECAP Monitor for VMware ESX	C:\Program Files\PerfCap\ecap\Monitor
PAWZ Agent	C:\Program Files\PerfCap\PAWZ\Agent
PAWZ Real-Time Agent	C:\Program Files\PerfCap\PAWZ\Agent
FindIT Agent	C:\Program Files\PerfCap\FindIT\Agent

Services installed

The installation will install the following services.

Service Name	Service Display name	Service State
perfcappm	PerfCap eCAP Monitor	Started
ecap_monitor_esx	PerfCap eCAP Monitor for VMware ESX	Started.
pawzagent	PerfCap PAWZ Agent	Started
pawzrta	PerfCap PAWZ Real Time Agent	Started
finditagent	PerfCap FindIT Agent	Not Started

System Event Log

The `ecap_monitor_esx` service has the following system event log IDs. These are in the “Application” event log.

Source: `ecap_monitor_esx`

Event ID	Condition	Type
1	Starting, Startup command	Informational
2	Starting, Java PID	Informational
3	Stopping, Java PID exited	Warning
4	Not used	
5	Stopped Java Process	Informational
6	Unable to stop Java process	Warning
7	Stop on Java process failed	Warning
8	Not used	
9	Not used	
10	<code>ecap_monitor_esx_startup.csv</code> has no entries	Warning
11	Java not found	Warning

Startup Settings

eCAP Monitor for VMware ESX/ESXi

Startup settings file:

The *ecap_monitor_esx* service uses a startup settings file to contain the connection settings to the VMware ESX host system. This file is ***ecap_monitor_esx_startup.csv***. This file will be created by the PAWZ Agent as VMware ESX systems are added to a PAWZ Server.

System registry:

The *ecap_monitor_esx* service uses the system registry to store the java properties required to start the *ecap_monitor_esx* service. These properties are explained in the *System Registry* chapter of this document.

eCAP Monitor for Windows

Startup settings file:

The *ecap_monitor* service (PERFCAPPM) does not use a startup file.

System registry:

The *ecap_monitor* (PERFCAPPM) service uses the system registry to store many startup options. These properties are explained in the *System Registry Entries* chapter of this document.

System Registry Entries

The following tables contain each products registry entries, default value and a description.

eCAP Monitor for Windows

Registry Keys:

ECAP Monitor Registry Home	
HKEY_LOCAL_MACHINE\SOFTWARE\PERFCAP\PM	
Key Name	Default Value (all values are "String")
InstallDirectory	C:\Program Files\PerfCap\ECAP\Monitor
<i>InstallDirectory</i> contains the eCAP Monitor root directory path	
BinDirectory	C:\Program Files\PerfCap\ECAP\Monitor\Bin
<i>BinDirectory</i> contains the path where eCAP Monitor executable and binary files will be installed	
DataDirectory	C:\Program Files\PerfCap\ECAP\Monitor\Data
<i>DataDirectory</i> contains the path where eCAP performance data files will be written.	
LogDirectory	C:\Program Files\PerfCap\ECAP\Monitor\Logs
<i>LogDirectory</i> contains the path where eCAP Monitor log files will be written.	
DefaultMetricList	2,4,86,230,234,236,238,260,546,638,658,700
<i>DefaultMetricList</i> contains the Default Metric IDs the collector will monitor	
MetricList	2,4,86,230,234,236,238,260,546,638,658,700
<i>MetricList</i> contains the currently monitor Metric IDs.	
DefaultPeakList	2,4,238
<i>DefaultPeakList</i> contains the Default Peak Metric IDs the collector will monitor if PeakInterval is enabled.	
CustomMetricFilter	""

CustomMetricFilter uses to create a filter of additional metrics to be collected when the *ecap_monitor* is started. For example a value of “sql*, outlook” would cause all metrics with the name starting with sql and all metrics with the name outlook to be enabled. Their metric IDs are added to *CustomMetricIds*.

CustomMetricInterval	“900”
-----------------------------	-------

CustomMetricInterval contains the interval time to check for new custom metrics. The default is 900 seconds.

CustomMetricIds	“”
------------------------	----

CustomMetricIds contains metric ids obtained from matching names in the *CustomMetricFilter* value

CurrentMetricList	“”
--------------------------	----

CurrentMetricList contains the values from both *DefaultMetricList* and *CustomMetricIds*

PollInterval	120
---------------------	-----

PollInterval contains the interval in seconds to write collected performance data to disk. This should be a multiple of 60, (60, 120, 300...)

ScanInterval	5000
---------------------	------

ScanInterval contains the interval in milliseconds that process data is sampled.

PeakInterval	0
---------------------	---

PeakInterval contains the interval in milliseconds that peak data is sampled.

LowPriority	0
--------------------	---

LowPriority contains “0” to run at normal priority or “1” to run at below normal priority

ManageRetention	0
------------------------	---

ManageRetention contains a value (“0” or “1”) enabling/disabling having eCAP Monitor manage retention of the data files. Typically managing retention of data files is not necessary as PAWZ Server will manage it.

Retention	30
------------------	----

Retention contains the number of days the eCAP Monitor should retain data files. This is only enabled if the *ManageRetention* entry is “1”

Continuous	1
<i>Continuous</i> contains a value (“0” or “1”) enabling/disabling having eCAP Monitor run continuously. If it is set to “0” eCAP Monitor will stop itself at midnight. This is an historical entry, a system that had memory leaks in some performance counters caused eCAP Monitor to leak memory. The eCAP Monitor would disable itself and PAWZ Server would restart it, minimizing the amount of memory consumed by eCAP Monitor.	
ManageTimeDrift	1
<i>ManageTimeDrift</i> contains a value (“0” or “1”) enabling/disabling time drift management. If enabled, the collector adjusts the time the collector will sleep between intervals to maintain the desired sampling rate.	
Version	“version string”
<i>Version</i> is an output registry entry. The eCAP Monitor will set the value to the version and build date string.	
DataBufferSize	“”
<i>DataBufferSize</i> contains the optimal buffer size, in bytes, used for allocating data buffer space. This reduces collector overhead by minimizing data reallocations. This is an internal value and should not be modified.	

eCAP Monitor for VMware ESX/ESXi

Registry Key:

ECAP Monitor for ESX Registry Home	
HKEY_LOCAL_MACHINE\SOFTWARE\PERFCAP\ecap_monitor_esx	
Key Name	Default Value (all values are “String”)
JavaHomeDirectory	“C:\Program Files\Java\Jre6\”
<i>JavaHomeDirectory</i> must contain the root directory of the Java JRE. This folder must contain a subfolder named bin that contains the java.exe image.	
AxisDirectory	C:\Program Files\PerfCap\ECAP\Monitor\Axis
<i>AxisDirectory</i> contains the location of the Axis Libraries used by ecap_monitor_esx.	
ViDirectory	C:\Program Files\PerfCap\ECAP\Monitor\Visdk

ViDirectory contains the location of the VI SDK Libraries used by `ecap_monitor_esx`.

JavaMaxHeapSize

`-mx300`

JavaMaxHeapSize the command line qualifer to limit the maximum memory of the `ecap_monitor_esx`. `-mx300` limits to 300 Mb..

PAWZ Agent and PAWZ Real-Time Agent

Registry Key:

PAWZ Agent Registry Home	
HKEY_LOCAL_MACHINE\SOFTWARE\PERFCAP\PAWZagent	
Key Name	Default Value (all values are "String")
Port	1661
<i>Port</i> contains the PAWZ Agent to PAWZ Server TCP socket	
InstallDirectory	C:\program files\PerfCap\PAWZ\Agent
<i>InstallDirectory</i> contains the PAWZ Agent root directory path	
TmpDirectory	C:\program files\PerfCap\PAWZ\Agent\Tmp
<i>TmpDirectory</i> contains the path where the PAWZ Agent/RealTime Agent temporary files will be created.	
BinDirectory	C:\program files\PerfCap\PAWZ\Agent\Bin
<i>BinDirectory</i> contains the path where the PAWZ Agent/RealTime Agent executable and binary files will be installed.	
LogDirectory	C:\program files\PerfCap\PAWZ\Agent\Log
<i>LogDirectory</i> contains the path where the PAWZ Agent/RealTime Agent log files will be written.	
SettingsDirectory	C:\program files\PerfCap\PAWZ\Agent\Settings
<i>SettingsDirectory</i> contains the path where the PAWZ Agent/RealTime Agent settings files will be written.	
OutgoingDirectory	
<i>OutgoingDirectory</i> is not used.	
DeviceDirectory	C:\Program Files\PerfCap\PAWZ\Agent\Device

<i>DeviceDirectory</i> contains the path where the PAWZ Agent/RealTime Agent device files will be installed. These files are for PAWZ Planner support	
LoopDelay	5
<i>LoopDelay</i> contains a value between “0” and “20” . This sets a “n” millisecond delay in each CPU consuming loop of a PAWZPERF execution. This allows throttling of the PAWZPERF.exe image. This will spread the CPU consumed by the image over a longer time period.	
AppDataDirectory	“”
<i>AppDataDirectory</i> contains a comma seperated list of paths that the pawzagent is allowed to look into for application data.	
CompressionCommand	“”
<i>CompressionCommand</i> contains simple expression value that the PAWZ Agent to construct a command for compressing application data file(s) before transfer. The CompressionCommand should contain a valid command with asterisks in place of the data file name. For Example: <code>zip -q -j *.zip *</code>	
LowPriority	0
<i>LowPriority</i> contains a value of “1” or “0” . If set to “1” the PAWZ Agent will run data processing requests at BELOW_NORMAL priority.	
LogRetention	5
<i>LogRetention</i> contains a value for how long the PAWZ Agent should retain log files.	
KeepPerf	0
<i>KeepPerf</i> contains a value (“0” or “1”) for enabling/disabling keeping of .PERF files.	
ServerIPAddress	0.0.0.0
<i>ServerIPAddress</i> contains a comma seperated list of IP Address of PAWZ Server(s) that the Agent will respond to. The value 0.0.0.0 indicates any server.	
Log Details	0
<i>LogDetails</i> contains a value (“0” or “1”) for enabling/Disabling verbose logging for the PAWZ Agent.	

Log Details RTA	0
<i>Log Details RTA</i> contains a value (“0” or “1”) for enabling/Disabling verbose logging for the PAWZ Real-Time Agent.	
RTA_Port	2101
<i>RTA_Port</i> contains the port for PAWZ Real-Time Agent to PAWZ Real-Time Server communications.	
RTA_Process	0
<i>RTA_Process</i> contains a value (“0” or “1”) for enabling/disabling Real-Time collection of per-process data: NOT USED	
Version	“”
<i>Version</i> is an output registry entry. The pawzagent will set the value to the version and build date string.	

FindIT Agent

Registry Key:

FindIT Agent Registry Home	
HKEY_LOCAL_MACHINE\SOFTWARE\PERFCAP\finditagent	
Key Name	Default Value (all values are “String”)

AutoDiscAgentApplication	""
<i>AutoDiscAgentApplication</i> can be used to supply an application name to the FindIT server on an autodiscovery query.	
AutoDiscAgentAssetnumber	""
<i>AutoDiscAgentAssetnumber</i> can be used to supply an asset number to the FindIT server on an autodiscovery query.	
AutoDiscAgentAssettype	""
<i>AutoDiscAgentAssettype</i> can be used to supply an asset type to the FindIT server on an autodiscovery query.	
AutoDiscAgentLocation	""
<i>AutoDiscAgentLocation</i> can be used to supply an location to the FindIT server on an autodiscovery query.	
AutoDiscAgentOrganization	""
<i>AutoDiscAgentOrganization</i> can be used to supply an organization to the FindIT server on an autodiscovery query.	
BinDirectory	C:\Program Files\PerfCap\FindIT\Agent\Bin
<i>BinDirectory</i> contains the directory where FindIT Agent binary (executable) images are installed.	
Company	
<i>Company</i> is not used.	
ConfigDirectory	C:\Program Files\PerfCap\FindIT\Agent\Conf
<i>ConfigDirectory</i> contains the directory where FindIT Agent writes system configuration data.	
DataDirectory	C:\Program Files\PerfCap\FindIT\Agent\Data
<i>DataDirectory</i> contains the directory where FindIT Agent writes performance data.	
DataRetention	3
<i>DataRetention</i> contains the number of days to retain performance data files.	
InstallDirectory	C:\Program Files\PerfCap\FindIT\Agent

<i>InstallDirectory</i> contains the directory where FindIT Agent is installed.	
LogDetails	0
<i>LogDetails</i> allows or disallows verbose logging (0 disables or 1 enables)	
LogDirectory	C:\Program Files\PerfCap\Findit\Agent\Log
<i>LogDirectory</i> contains the directory where log files are to be written.	
MonitorCPU	1
<i>MonitorCPU</i> allows or disallows collection of CPU utilization. (0 disables or 1 enables)	
MonitorProcess	1
<i>MonitorProcess</i> allows or disallows collection of system process. (0 disables or 1 enables)	
Port	3336
<i>Port</i> contains the TCP socket port that FindIT Agent and FindIT Server communicate..	
RemoteCommandStatus	1
<i>RemoteCommandStatus</i> allows or disallows execution of scripts by the FindIT Agent used by auto update. (0 disables or 1 enables)	
ScratchDirectory	C:\Program Files\PerfCap\Findit\Agent\tmp
<i>ScratchDirectory</i> contains a directory used by FindIT Agent used for AutoUpdate commands.	
ServerIPAddress	""
<i>ServerIPAddress</i> contains the FindIT server IP address when the agent is limiting which FindIT servers to communicate with; otherwise it contains NULL.	
SystemMemorySize(MB)	""
<i>SystemMemorySize(MB)</i> can contain a user entered system memory size in megabytes. This field can be used if the FindITAgent is unable to determine the memory size.	
SystemModel	""
<i>SystemModel</i> can contain a user entered system model string. This field can be used if the FindITAgent is unable to determine the system model.	

SystemSerialNumber	“”
<i>SystemSerialNumber</i> can contain a user entered system model string. This field can be used if the FindITAgent is unable to determine the system serial number.	
TmpDirectory	C:\Program Files\PerfCap\Findit\Agent\tmp
<i>ScatchDirectory</i> contains a directory used by FindIT Agent used for temporary files..	
User	“”
<i>User</i> is not used.	
Version	“”
<i>Version</i> is an output registry entry. The finditaget will set the value to the version and build date string.	

Problem Resolution

The following chapter describes the problems from prior versions that have been fixed.

eCAP Monitor for VMware ESX

[10.0] Guest Connections

The `ecap_monitor_esx` process now connects the the VMware HyperVisor only once per interval to collect guest performance statistics.

[9.2] NIC data rate metrics

NIC data rates are now collected.

eCAP Monitor for Windows

[9.2] Memory Leak

A slight memory leak has been fixed.

[9.2] Handle Leak

A slight file handle leak has been fixed.

[9.2] Dropped NIC packets on CPC file creation

A problem where starting the `ecap_monitor` (or data file rollover at midnight) was causing contention to non-paged pool thereby causing the some NIC packet drops. Has been fixed. This was seen on Windows 2008 X64.

[9.1] Non instance performance data count.

Processing `cpc` data for non-instance performance data (memory counters) was seeing a spike in values for the last interval of the day if the data collector wrote out less the the maximum sample count. The `CPC` file has been modified to write the “seen” count. Now the processing knows how to compute the value based on the exact number of samples. The problem with data spikes is fixed.

PAWZ Agent

[9.2] File Handle Leak

A slight file handle leak has been fixed.

[9.2] PAWZ PERF data spikes for last interval fixed

A problem where the .PERF file generation would contain a data spike for the last entry has been fixed.

[9.2] PAWZ PERF disk statistics

Detailed disk statistics (disk response time, queue length) are more accurate.

[9.2] PAWZ PERF IP Discards

A problem where the IP discard rate was not correctly computed has been fixed.

[9.1] Application data file matching for date format YYYYMMD

PAWZ Agent now supports matching the YYYYMMD format. This allows transfer of application data files that use a single digit day format for days 1 through 9.

FindIT Agent

[9.1] FindIT Agent now returns description string on auto discovery

FindIT Agent now returns a detailed description of the system on auto discovery requests.

Restrictions and Known Problems

The following is a summary of currently known restrictions and potential problems.

eCAP Monitor for Windows

TCP metrics stop collecting on Windows 2000/2003

TCP, IP and UDP counters may stop functioning on some Windows 2000 systems. Use the `winmgmt/clearadp` command to reset them.

The `exctr/st` utility from Microsoft can also enable/disable performance counters.

eCAP Monitor for VMware ESX/ESXi

Installation requirements not checked

The installation does not check for the required .NET framework or Java JRE software.

ecap-monitor.txt license

The `ecap_monitor_esx` service will start without an `ecap-monitor.txt` license file. Data collector threads will not be able to start until a license file is placed in the installation folder.

Data Scan Rate

The `ecap_monitor_esx` always scans at a 20 second interval. If you have a 60 second dump rate, every minute the data is requested for the at a 20 second interval.

FindIT Agent for VMware ESX/ESXi

Platform not supported.

There is no support for having FindIT Agent gather data on the VMware ESX/ESXi system.

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