

PAWZ AGENT V10.0

Release Notes

February 2012

Revision/Update:

Version 10.0 is a feature release.

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Nashua, New Hampshire

Printed February 2012

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PAWZ AGENT Release Notes – V10.0

Release Overview

These release notes give an overview of new features and of the installation for PAWZ Agent Version 10.0. Please refer to the *PAWZ User and Installation Guide* for more in-depth information.

Summary of Features and Changes

The following is a summary of new features and changes specific to this release

PAWZ Agent had the following changes in v10.0

- VMware ESX multiple collector threads supported
- PAWZ Agent VMware ESX realtime support

Release Contents

This release of the PAWZ Agent product set consists of :

- PAWZ Agent
- PAWZ Real-time Agent
- PAWZ Agent Release Notes
- PAWZ User and Installation Guide

For more information on all the components, see PAWZ User and Installation guide and the Software Product Description.

Feature: PAWZ Agent Changes 10.0

PAWZ Agent had the following changes in V9.1

- VMware ESX support on Windows
- PAWZ Perf fixes

Feature: PAWZ Planner Support

On UNIX and OpenVMS, PAWZ Planner support is incorporated with the eCAP Analyze software. During installation, the “eCAP Analyze / Reduce / PAWZ Planner support” should be selected.

On Windows, installing the PAWZ Agent will automatically install the PAWZ Planner Support software.

The PAWZ Planner Support software enables the PAWZ Agent to provide the PAWZ Server with a data file, for workload characterization, that is tailored for Capacity Planning. This file, called a .MERG file is transferred to the PAWZ Server after a MERG request.

Feature: PAWZ Agent Application Data Transfer Support

PAWZ Agent (since V7.3) has been changed to support transfer of application data files to a remote server system.

These file transfer requests originate from PerfCap’s File Transfer Application (FTA) product.

The PAWZ Agent only allows data to be transferred from paths that have been permitted to be accessed. They are defined on installation. The path list is stored in the pawz_hostname.config file or in the system registry on Windows platforms.

If the application data transfer request tells the pawz agent that the data file has an embedded time format. The following list of time formats are matched against the

filename.

Time Formats:

YYYYMmmDD YYYYmmmDD YYYYMMMDD YYYYMMDD YYYYMMMD	DDMmmYYYY DDmmmYYYY DDMMMYYYY DDMMYYYY	YYYY-mmm-DD YYYY-MMM-DD YYYY-Mmm-DD YYYY-MM-DD
DD-mmm-YYYY DD-Mmm-YYYY DD-MMM-YYYY DD-MM-YYYY	DD_mmm_YYYY DD_Mmm_YYYY DD_MMM_YYYY DD_MM_YYYY	YYYY_mmm_DD YYYY_MMM_DD YYYY_Mmm_DD YYYY_MM_DD
YYYYMmmD YYYYmmmD YYYYMMMD	DMmmYYYY DmmmYYYY DMMMYYYY	

PAWZ AGENT for OpenVMS

PAWZ Agent for OpenVMS – Installation

Installation of PAWZ Agent on OpenVMS Systems does NOT require a system reboot. The PAWZ Agent is installed with the VMSINSTAL utility.

The PAWZ Agent on OpenVMS now has a directory hierarchy to match the UNIX platform.

Logical	Description	Default
PAWZ\$LIBRARY	Root	sys\$sysdevice:[pawz]
PAWZ\$DB	Database	sys\$sysdevice:[pawz.db]
PAWZ\$DOC	Documentation	sys\$sysdevice:[pawz.doc]
PAWZ\$LOG	Log Files	sys\$sysdevice:[pawz.log]
PAWZ\$TMP	Temporary Files	sys\$sysdevice:[pawz.tmp]
PAWZ\$SETTINGS	Settings Files	sys\$sysdevice:[pawz.settings]

PAWZ Agent for OpenVMS – Post Installation

When installing in a VMS cluster environment, the post installation will require update of DCLTABLES on each node. After the DCLTABLES are updated, the \$PAWZ CONFIGURE should be run on each cluster node. Alternatively, the \$PAWZ CONFIGURE can be run on one system and the resulting .CONFIG file copied for each node in the cluster, see the sample below. There needs to be a PAWZ\$SETTINGS: PAWZ_hostname.CONFIG file for each node in the cluster.

PAWZ Agent for OpenVMS – Settings file

The settings file is a file that contains user startup preferences for the pawzagent.

The settings file created with the PAWZ CONFIGURE command is located in the PAWZ\$SETTINGS directory. This file will be named PAWZ_hostname.CONFIG.

After this file is created and contains the user preferences, using the \$PAWZ AGENT/START command will first read the settings file and then parse out any command line options, which will override the settings file.

PAWZ Agent for OpenVMS – PAWZ CONFIGURE

PAWZ CONFIGURE is the command used to create a pawz agent settings file on OpenVMS.

The following is sample output from running PAWZ CONFIGURE.

\$ PAWZ CONFIGURE

PAWZ Agent configuration:

Welcome to the pawzagent configuration program.

For help press ? at any command prompt

Enter PAWZ Agent Port (nn, ?) [1661] : <CR>

Enter PAWZ Server IP Address (n.n.n.n, ?) [0.0.0.0] : <CR>

Verbose logging (y,n,?) [n]? : N

Enter AppData Path (n,?) []? : **data:[appdata.dat]**

Enter Compression Command (n,?) [n]? : **zip -j -q *.zip ***

Selected settings are as follows:

PAWZ Server:	0.0.0.0
Setting Server:	0.0.0.0
PAWZ Port:	1661
Verbose Logging	No
AppData Path:	data:[appdata.dat]
Compression Command:	zip -j -q *.zip *

Keep these settings? (y/n) [y]:

Your settings are stored in the following file:

SYSS\$SYSDEVICE:[PAWZ.SETTINGS]pawz_SYS001.config

To modify these settings, execute:

```
$ PAWZ CONFIGURE
  PAWZ Agent initialization completed.
$
$! if clustered, create a .config for each node in the cluster
```

```
$ COPY SYS$SYSDEVICE:[PAWZ.SETTINGS]pawz_SYS001.config -
  SYS$SYSDEVICE:[PAWZ.SETTINGS]pawz_SYS002.config
```

PAWZ Agent for OpenVMS – logging

The PAWZ agent creates and uses 1 log file per day. The log files are located in the PAWZ\$LOG directory. When Starting the PAWZagent, the /VERBOSE qualifier will turn on detailed logging.

Log files are retained for 5 days before being deleted.

PAWZ Agent for OpenVMS – PERF file

The PERF file is a performance information data file which is transferred between the PAWZ Agent and the PAWZ Server. The agent will create this file when requested to by the PAWZ server, on nightly or demand download requests. This .PERF file is created on VMS using the PAWZ\$PERF.EXE image. Creating the .PERF file generally is transparent to the end user; but at times it may be necessary to manually run the command to create it for troubleshooting purposes. The syntax is as follows

```
$ PAWZ PERF /PMD_NODE=nodename/BEGIN=10-APR-2004:00:00/END=10-
APR-2004:23:59 /PERF=nodename.perf
```

There is an optional qualifier /VERBOSE

There is an optional qualifier /VERSION

The PAWZ\$PERF.EXE image will NOT create a .PERF from data collectors other than eCAP Performance monitor V4.0 and newer.

PAWZ Agent for OpenVMS – system logicals

PAWZ Agent for OpenVMS has some system logicals to control its behavior. These can be added to the PAWZ Agent startup file, *SYS\$STARTUP:PAWZ\$STARTUP.COM*

PAWZ\$AGENT_PRIORITY (default 4)
PAWZ\$AGENT_PGFLQUO (default 300000)

These should be defined with /SYSTEM and /EXECUTIVE.

PAWZ Agent for OpenVMS – command line options

The PAWZ Agent is controlled on OpenVMS system with the PAWZ command and the AGENT component. The PAWZ AGENT command has the following command line qualifiers.

Qualifier	Description	Default
/START	Start the PAWZ Agent	
/STOP	Stop the PAWZ Agent	
/STATUS	Get The PAWZ Agent status	
/PORT=[n]	Set PAWZ Agent port	1661
/GROWTH_INTERVAL=[n]	Set PMD file size check interval rate in seconds.	900
/VERSION	Get PAWZ Agent version	
/WRITE_CONFIG	Write PAWZ Agent settings file to PAWZ\$SETTINGS folder.	

PAWZ Real-Time Agent for OpenVMS – command line options

The PAWZ Real time Agent is controlled on OpenVMS system with the PAWZ command and the REALTIME component. The PAWZ REALTIME command has the following command line qualifiers.

Qualifier	Description	Default
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/START	Start the PAWZ Real-Time Agent	
/STOP	Stop the PAWZ Real-Time Agent	
/STATUS	Get The PAWZ Real-Time Agent status	
/SCAN=[n]	Set Scan Rate	2
/[NO]PROCESS	Turn On/Off collecton of per-process data	/NOPROCESS
/PORT=[n]	Set PAWZ Real-Time Agent port	2101
/PRIORITY=[n]	Set Real-Time Agent Priority. The range is from 0 to 23	18
/VERSION	Get PAWZ Real-Time Agent version	
/WRITE_CONFIG	Write PAWZ Real-Time Agent settings file to PAWZ\$SETTINGS folder.	

PAWZ Real-Time Agent for OpenVMS – settings file

The settings file is a file that contains user startup preferences for the PAWZ Real time Agent. This file, REALTIME_hostname.CONFIG is located in the settings directory of the PAWZ Agent install folder, PAWZ\$SETTINGS. It contains user preferences for starting pawz\$rta. After this file is created and contains the user preferences, issuing the \$PAWZ REALTIME command will first read the preferences file and then parse out any command line options, which will override the settings file.

At this time, the installation does not create the settings file and there is not a program to set the values. The settings file can be created by issuing:

```
$ PAWZ REALTIME /WRITE_CONFIG
```

This will create a PAWZ\$SETTINGS:RTA_`hostname`.config file. This is an ASCII file which can be edited.

PAWZ Agent for VMS PERF file option PAWZ\$PERF_INCLUDE_DSA

The PAWZ\$PERF processing will filter out DSA shadow set drives; only the physical drives are reported. In some cases, a user may wish to see the DSA master devices. To enable the PAWZ\$PERF to send the DSA information to the PAWZ Server, add the following line to the PAWZ\$STARTUP.COM file.

```
$ DEFINE/SYS/EXEC PAWZ$PERF_INCLUDE_DSA 1
```

PAWZ Agent for UNIX Platforms

PAWZ Agent for UNIX platforms– installation

The PAWZ Agent installation for UNIX platforms is combined with the eCAP monitor installation. Please refer to the **eCAP Monitor Release Notes** for detailed installation information.

The default installation directory for UNIX platforms depends on the platform. See table below.

The directory hierarchy contains all files for the pawzagent as well as eCAP Monitor, Analyze, Reduce and Planner. The logs subdirectory will contain all log files from the pawzagent and eCAP Monitor. The data sub-directory contains the data files (cpc) from the performance monitor. This directory can be changed by creating a soft link to a directory where the files are to be installed.

Each UNIX platform is installed with the install.sh script. This script will uninstall currently installed PerfCap software and then invoke the systems native installation facility with the user's selections.

PAWZ Agent for UNIX platforms– default installation path

PAWZ Agent software for UNIX platforms now has a default installation path that is more consistent with standards of each operating system. The new defaults are:

OS	Default
HP TRU64	/usr/opt/perfcap
HP-UX	/opt/perfcap
IBM AIX	/usr/perfcap
Linux	/usr/perfcap
Sun Solaris	/opt/perfcap

NOTE

At this time, on UNIX platforms, if the default installation path is changed a soft link must exist from the default location pointing to the new installation directory.

PAWZ Agent for UNIX platforms– Silent Installation

The silent_install.sh script that was introduced in V7.0 has been deprecated. Silent installs now are done with the install.sh using command line qualifiers.

- silent
- help
- package_dir <path>
- data_dir <path>
- install_dir <path>
- license_dir <path>
- save_db (retain dba files)

- peak <ms value>
- poll <ms value>
- dump <dump value in seconds>
- retain <ndays>
- mapdisk <map disknames on Solaris>

- pawz_port <port>
- pawz_verbose
- pawz_server <ipaddress of pawzserver>
- pawz_appdata_dir <path>
- pawz_compression <compresson command>

- rta_port <rtaport>
- rta_scan <scan rate in seconds>
- rta_verbose
- rta_process
- user username**
- group groupname**

Samples

```
sh install.sh –silent
```

(this will install with default options or reinstall with currently set options)

```
sh install.sh –silent –license_dir /tmp –data_dir /data/ECP –poll 2000 –dump 120 \  
–rta_process
```

(this will install looking for the license files in /tmp and setting the directory for data files in /data/ECP. The collector will scan at 2000 ms and write to disk every 120 seconds. The real time agent will collect process information)

PAWZ Agent for UNIX platforms – post installation – init.d

It is recommended that you use the system's initd mechanism for starting and stopping the eCAP monitor on system reboots

This may be done manually by copying the *install_path/settings/perfcap.initd* file to:

AIX

```
# cp /usr/opt/perfcap/init.d/perfcap /etc/rc.d/perfcap  
#chown root:system /etc/rc.d/perfcap  
  
#chmod +x /etc/rc.d/perfcap  
  
# ln -s /etc/rc.d/perfcap /etc/rc.d/rc2.d/S90perfcap  
# ln -s /etc/rc.d/perfcap /etc/rc.d/rc3.d/K90perfcap  
# ln -s /etc/rc.d/perfcap /etc/rc.d/rc4.d/K90perfcap  
# ln -s /etc/rc.d/perfcap /etc/rc.d/rc5.d/K90perfcap  
# ln -s /etc/rc.d/perfcap /etc/rc.d/rc6.d/K90perfcap  
# ln -s /etc/rc.d/perfcap /etc/rc.d/rc7.d/K90perfcap  
# ln -s /etc/rc.d/perfcap /etc/rc.d/rc8.d/K90perfcap  
# ln -s /etc/rc.d/perfcap /etc/rc.d/rc8.d/K90perfcap
```

HP-UX

```
# cp /opt/perfcap/init.d/perfcap /sbin/init.d/perfcap  
# chown bin:bin /sbin/init.d/perfcap  
# chmod 555 /sbin/init.d/perfcap  
# ln -s /sbin/init.d/perfcap /sbin/rc3.d/S90perfcap  
# ln -s /sbin/init.d/perfcap /sbin/rc0.d/K90perfcap
```

Linux (RedHat)

```
# cp /usr/local/perfcap/settings/perfcap.initd /etc/rc.d/init.d/perfcap
# chkconfig --add perfcap
# chkconfig --list perfcap
```

Linux (SLES Suse)

```
# cp /usr/local/perfcap/init.d/perfcap /etc/rc.d/perfcap
# chkconfig --add perfcap
# chkconfig --list perfcap
```

Solaris

```
# cp /opt/perfcap/init.d/perfcap /etc/init.d/perfcap
# chown root:sys /etc/init.d/perfcap
# chmod +x /etc/init.d/perfcap
# ln -s /etc/init.d/perfcap /etc/rc3.d/S90perfcap
# ln -s /etc/init.d/perfcap /etc/rc0.d/K90perfcap
```

Tru64

```
# cp /usr/opt/perfcap/settings/perfcap.initd /sbin/init.d/perfcap
# ln -s /sbin/init.d/perfcap /sbin/rc3.d/S90perfcap
# ln -s /sbin/init.d/perfcap /sbin/rc0.d/K90perfcap
```

If you have modified the /etc/inittab file, please remove entries which start the cpcunix process.

Please review the install_path/settings/perfcap.initd file to ensure that startup command line is correct for your site.

PAWZ Agent for UNIX platforms – post installation – firewall

PAWZ Agent uses TCP Port 1661 and 2101 to communicate with the PAWZ Server. These ports should be opened.

PAWZ Agent for UNIX platforms – post installation – firewall Redhat

The port can easily be opened through GNOME firewall utility

/usr/bin/system-config-securitylevel

If GNOME is not a option, these ports can be opened by modifying the file */etc/sysconfig/iptables*.

The following 2 lines should be added just before the last line. Which typically is a REJECT.

```
-A RH-Firewall-1-INPUT -m state --state NEW -m tcp -p tcp --dport 1661 -j ACCEPT  
-A RH-Firewall-1-INPUT -m state --state NEW -m tcp -p tcp --dport 2101 -j ACCEPT
```

Insert before this line

```
-A RH-Firewall-1-INPUT -j REJECT --reject-with icmp-host-prohibited
```

After the `/etc/sysconfig/iptables` file has been modified, restart your firewall

```
# service iptables restart
```

```
# iptables -list should show the new entries.
```

Note: the port 1661 is displayed as `netview-aix-1`

PAWZ Agent for UNIX Non-Root usage

See the **eCAP Monitor Release Notes** for detailed information on running PerfCap Software as non-root (Solaris, Linux).

PAWZ Agent for UNIX platforms– settings file

The settings file is a file that contains user startup preferences for the pawzagent. This file, `pawz_hostname.config` is located in the settings directory of the perfcap install folder `/usr/opt/perfcap/settings`. It contains user preferences for starting the pawzagent. After this file is created and contains the user preferences, issuing the pawzagent command will first read the preferences file and then parse out any command line options, which will override the settings file.

There are settings for each command line option; they are customizable by running the `pawz_configure` program. This file is run during installation and is also available post installation by running `/usr/opt/perfcap/bin/pawz_configure`.

PAWZ Agent for UNIX platforms– pawz configure

The following is sample output from running `pawz_configure`. Detailed

information is available by entering a '?' at each prompt.

#!/usr/opt/perfcap/bin/pawz_configure

PAWZ Agent configuration:

Welcome to the pawzagent configuration program.

For help press ? at any command prompt

Enter PAWZ Agent Port (nn, ?) [1661] : <CR>

Enter PAWZ Server IP Address (n.n.n.n, ?) [0.0.0.0] : **192.168.0.100** <CR>

Verbose logging (y,n,?) [y]? : **n**

Enter AppData Path (n,?) [/?] : **/data/appdata_dir**

Enter Compression Command (n,?) [n]? : **gzip -c * > *.gz**

Selected settings are as follows:

PAWZ Server:	192.168.0.100
Setting Server:	0.0.0.0
PAWZ Port:	1661
Verbose Logging	No
AppData Path:	/data/appdata_dir
Compression Command:	gzip -c * > *.gz

Keep these settings? (y/n) [y]: **Y**

Your settings are stored in the following file:

`/usr/opt/perfcap/settings/pawz_sys01.config`

To modify these settings, execute image:

`/usr/opt/perfcap/bin/pawz_configure`

PAWZ Agent initialization completed.

#

PAWZ Agent for UNIX platforms – command line options

The PAWZ Agent is activated with the *pawzagent* command on UNIX based systems. The command line qualifiers are as follows:

Qualifier	Description	Default
-start	Start the PAWZ Agent	(default)
-stop	Stop the PAWZ Agent	
-status	Get The PAWZ Agent status	
-port <nn>	Set PAWZ Agent port	1661
-priority <nn>	Set priority level from -20 (highest) to 20 (lowest).	0
-datadir <path>	Directory to find raw data files	<i>Install_path/data</i>
-logdir <path>	Directory for log files	<i>Install_path/logs</i>
-appdatadir <path>	Directory for application data files	""
-compression <cmd>	Compression command for compressing application data.	""
-server <server IP>	PAWZ Server IP	0.0.0.0
-[no]verbose	Verbose logging	-noverbose
-version	Get PAWZ Agent version	
-write_config	Write PAWZ Agent settings file to <i>install_dir/settings</i>	
-user <username>	User to run pawzagent	root

PAWZ Agent for UNIX platforms – logging

The PAWZ agent now creates and uses 1 log file per day. The log files are located in the logs directory under the installation directory. When starting the pawzagent, the -verbose qualifier will turn on detailed logging.

PAWZ Agent for UNIX platforms – PERF file

The PERF file is a performance information data file which is transferred between the PAWZ Agent and the PAWZ Server. The agent will create this file when requested to by the PAWZ server, on nightly or demand download requests. This .PERF file is created on UNIX using the pawzperf image. Creating the .PERF file generally is transparent to the end user; but at times it may be necessary to manually run the command to create it for troubleshooting purposes. The syntax is as follows:

```
# on TRU64
```

```
# /usr/opt/perfcap/bin/pawzperf -cpcunix  
/usr/opt/perfcap/data/ecp_hostname_2004Apr14.cpc-1 \  
-begin 14-APR-2004:00:00 -end 14-APR-2004:23:59 -perf ./nodename.perf
```

Using the pawzperf command with no command line qualifiers will process the previous 24 hours data with the existing .memory file (in settings folder). It will create a .PERF file (in the tmp folder) named hostname_yyyyMMMdd.perf

```
# /usr/opt/perfcap/bin/pawzperf
```

There is an optional qualifier -verbose

PAWZ Real-Time Agent for UNIX platforms – command line options

The PAWZ Real time Agent is activated with the *pawzrta* command on UNIX based systems. The command line qualifiers are as follows:

Qualifier	Description	Default
-start	Start the PAWZ Real-Time	(default)
-stop	Stop the PAWZ Real-Time	
-status	Get The PAWZ RealTime Status	
-[no]collectproc	Turn on/off collection of per-process data	-nocollectproc

-[no]alert	Turn on/off real-time alerting	-alert
-scan <nn>	Set scan rate in seconds	2
-port <nn>	Set TCPIP port	2101
-priority <nn>	Set the process priority from -20 (highest) to 20 (lowest)	0
-logdir <path>	Log file directory	<i>Install_path/logs</i>
-[no]verbose	Enable/disable verbose logging	-noverbose
-write_config	Write config file to the settings folder	
-user	User account (Solaris/Linux)_	Root

PAWZ Real-Time Agent for UNIX platforms – settings file

The settings file is a file that contains user startup preferences for the PAWZ Real-Time Agent. The file `rta_hostname.config` is located in the settings directory of the perfcap installation folder. (e.g. `/usr/local/perfcap/settings`). It contains user preferences for starting `pawzrta`. After this file is created, it contains the user's preferences. Issuing the `pawzrta` command will first read the preferences file and then parse out any command line options, which will override values from the settings file.

At this time, the installation does not create the settings file and there is not a program to set the values. The settings file can be created by issuing the “`pawzrta - write_config`” command. This will create `rta_`hostname`.config` file in the settings folder. This is an ASCII file which can be edited.

EMC Data Collection

The following examples use an EMC symmetrix controller named 000190100828

The Data files (tp) are found at *C:\ECC\WLAArchive\Symmetrix\000190100828\interval*

I) STEPS TO SET UP EMC DATA COLLECTION AND AUTOMATICALLY GENERATE PERF FILES:

Download and install the PerfCap EMC kit.

After installation open regedit and go to

[\\HKEY_LOCAL_MACHINE\Software\PerfCap\PAWZagent\EMCDataDirectory](#)

Put the path of the EMC data directory.

Example: The EMCdataDirectory should be set to *C:\ECC\WLAArchive*. This will allow the PAWZ Agent to find data files in either the Symmetrix or Clariion sub folders.

then the registry value for EMCDataDirectory will be *C:\ECC\WLAArchive*
(Only local path supported in this version).

Name	Type	Data
ab (Default)	REG_SZ	(value not set)
ab ApplicationDataDirectory	REG_SZ	D:\Program Files\PerfCap\ecap\Monitor\data
ab BinDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\Bin
ab Company	REG_SZ	CompanyName
ab CompressionCommand	REG_SZ	zip -q -j *.zip *
ab DataDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\Data
ab DeviceDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\device
ab EMCDataDirectory	REG_SZ	C:\ECC\WLAArchive
ab InstallDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent
ab KeepPerf	REG_SZ	0
ab Log Details	REG_SZ	1
ab Log Details RTA	REG_SZ	1
ab LogDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\log
ab LogRetention	REG_SZ	5
ab LoopDelay	REG_SZ	5
ab LowPriority	REG_SZ	0
ab PerfFromLibrary	REG_SZ	0
ab PerfMatrix	REG_SZ	1
ab Port	REG_SZ	1661
ab RTA_LowPriority	REG_SZ	0
ab RTA_Port	REG_SZ	2101
ab RTA_Process	REG_SZ	1
ab RTA_Scan	REG_SZ	2
ab ScratchDirectory	REG_SZ	D:\program files\perfcap\findit\agent\tmp
ab ServerIPAddress	REG_SZ	0.0.0.0
ab SettingsDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\settings
ab SettingsServer	REG_SZ	0.0.0.0
ab TmpDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\tmp
ab User	REG_SZ	UserName
ab Version	REG_SZ	V9.2-001:May 25 2011

NOTE: Automatic generation of .perf file is not supported in this version if EMC data path is remote.

NOTE: If EMC data path cannot be local and is a remote path then follow:

II) STEPS TO MANUALLY GENERATE PERF FILES IF EMC DATA PATH IS REMOTE

Add the EMC node to the PAWZ Server.

The nightly download or demand download should process the data, load it to the PAWZ database and publish the graphs.

II) STEPS TO MANUALLY GENERATE PERF FILES IF EMC DATA PATH IS REMOTE:

After installation open regedit and go to [\\HKEY_LOCAL_MACHINE\Software\PerfCap\PAWZagent\EMCDataDirectory](#)

Put the path of the EMC data directory.

Example: If the EMC data files reside under

R:\ECC\WLAArchive\Symmetrix\000190100828\interval

then the registry value for *EMCDataDirectory* will be *R:\ECC\WLAARCHIVE*

Name	Type	Data
(Default)	REG_SZ	(value not set)
ApplicationDataDirectory	REG_SZ	D:\Program Files\PerfCap\ecap\Monitor\data
BinDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\Bin
Company	REG_SZ	CompanyName
CompressionCommand	REG_SZ	zip -q -j *.zip *
DataDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\Data
DeviceDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\device
EMCDataDirectory	REG_SZ	R:\ECC\WLAArchive
InstallDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent
KeepPerf	REG_SZ	0
Log Details	REG_SZ	1
Log Details RTA	REG_SZ	1
LogDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\log
LogRetention	REG_SZ	5
LoopDelay	REG_SZ	5
LowPriority	REG_SZ	0
PerfFromLibrary	REG_SZ	0
PerfMatrix	REG_SZ	1
Port	REG_SZ	1661
RTA_LowPriority	REG_SZ	0
RTA_Port	REG_SZ	2101
RTA_Process	REG_SZ	1
RTA_Scan	REG_SZ	2
ScratchDirectory	REG_SZ	D:\program files\perfcap\findit\agent\tmp
ServerIPAddress	REG_SZ	0.0.0.0
SettingsDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\settings
SettingsServer	REG_SZ	0.0.0.0
TmpDirectory	REG_SZ	C:\Program Files\PerfCap\PAWZ\Agent\tmp
User	REG_SZ	UserName
Version	REG_SZ	V9.2-001:May 25 2011

Map the remote EMC data drive on the system where the EMC PAWZ Agent is installed.

Convert the .ttp file(s) manually by running the following command in a DOS window:

```
"C:\Program Files\PerfCap\PAWZ\Agent\Bin\pawz_convert_ttp.exe" -host 000190100828 -date 20110401 -perf "C:\Program Files\PerfCap\PAWZ\Agent\tmp\scds-emccc01a_2011Apr01_010400.perf" -top 20
```

Copy the .perf file from "C:\Program Files\PerfCap\PAWZ\Agent\tmp\" folder to the tmp folder under the PAWZ Server installation directory.

Typically "C:\Program Files\PerfCap\PAWZ\Server\tmp\"

Log on to the PAWZ Server website.

Go to Manage → Admin → pawz settings page.

Under Data Management, select the Check Local Directory checkbox and click Save.



Restart the PAWZ Server service.

The nightly download or demand download should process the data, load it to the PAWZ database and publish the graphs.

PAWZ Agent for Windows Platforms

PAWZ Real-Time Agent for Windows – installation

The PAWZ Agent is a system service which will run continuously on WINDOWS systems.

PAWZ Real-Time Agent for Windows – post installation

After completion of the PAWZ Agent installation, the PAWZ Agent and PAWZ Real

time Agent services should have been started.

PAWZ Agent for WINDOWS platforms – post installation – firewall

PAWZ Agent uses TCP Port 1661 and 2101 to communicate with the PAWZ Server. These ports should be opened.

PAWZ Real-Time Agent for Windows – java no longer required

Java is no longer required. Port 2102 is no longer used.

PAWZ Real-Time Agent for Windows – logging

The PAWZ agent now creates and uses 1 log file per day. The log files are located in the log folder under the installation directory (C:\Program Files\PerfCap\PAWZ\Agent\log).

Verbose logging for the Agent can be enabled by editing the system registry entry HKLM\SOFTWARE\PerfCap\PAWZagent\Log Details. The value should be “1” (for detailed logging on) or “0” (for detailed logging off).

PAWZ Agent for Windows – registry entries

The following table contains each PAWZ Agent registry entry, default value and a description.

The root for PAWZ Agent is:

HKEY_LOCAL_MACHINE \ SOFTWARE \ PERFCAP \ PAWZagent

Name	Default
-------------	----------------

Port	1661
-------------	-------------

Port contains the PAWZ Agent to PAWZ Server TCP socket port.

InstallDirectory	C:\program files\PerfCap\PAWZ\Agent
-------------------------	--

InstallDirectory contains the PAWZ Agent root directory path.

TmpDirectory	C:\program files\PerfCap\PAWZ\Agent\Tmp
---------------------	--

TmpDirectory contains the path where the PAWZ Agent/RealTime Agent temporary files will be created.

BinDirectory **C:\program files\PerfCap\PAWZ\Agent\Bin**

BinDirectory contains the path where the PAWZ Agent/RealTime Agent executable and binary files will be installed.

LogDirectory **C:\program files\PerfCap\PAWZ\Agent\Log**

LogDirectory contains the path where the PAWZ Agent/RealTime Agent log files will be written.

SettingsDirectory **C:\program files\PerfCap\PAWZ\Agent\Settings**

SettingsDirectory contains the path where the PAWZ Agent/RealTime Agent settings files will be written.

OutgoingDirectory **C:\program files\PerfCap\PAWZ\Agent\Outgoing**

OutgoingDirectory is not used.

DeviceDirectory **C:\program files\PerfCap\PAWZ\Agent\Device**

DeviceDirectory contains the path where the PAWZ Agent/RealTime Agent device files will be installed. These files are for PAWZ Planner support.

LoopDelay “5”

LoopDelay 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 “”

AppDataDirectory contains a comma separated list of paths that the pawzagent is allowed to look into for application data.

CompressionCommand “”

CompressionCommand 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: `zip -q -j *.zip *`

LowPriority “0”

LowPriority 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”

LogRetention contains a value for how long the PAWZ Agent should retain log files.

KeepPerf 0

KeepPerf contains a value (“0” or “1”) for enabling/disabling keeping of .PERF files.

ServerIPAddress “0.0.0.0”

ServerIPAddress contains a comma seperated list of IP Address of PAWZ Server(s) that the Agent will respond to.

Log Details “0”

LogDetails contains a value (“0” or “1”) for enabling/Disabling verbose logging for the PAWZ Agent.

Log Details RTA “0”

Log Details RTA contains a value (“0” or “1”) for enabling/Disabling verbose logging for the PAWZ Real-Time Agent.

RTA_Port “2101”

RTA_Port contains the port for PAWZ Real-Time Agent to PAWZ Real-Time Server communications.

RTA_Process “0”

RTA_Process contains a value (“0” or “1”) for dnabling/disabling Real-Time collection of per-process data: NOT USED

Version “version string”

Version is an output registry entry. The pawzagent will set the value to the version and build date string.

Restrictions and Known Problems

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

[ALL] PAWZ Perf CPU offline

The PAWZ Agent through pawzperf may misreport CPU Utilization if Processors go on and off line. CPU will be charged to <noproc>

[ALL] PAWZ Perf Interval < 60

The PAWZ Agent through pawzperf is not able to process performance data files (CPC or PMD) that have a collection dump rate of less than 60 seconds. These will be reported as *Invalid Perf File*.

[ALL] PAWZ Perf Processing Data where DC dump rate changed

The PAWZ Agent through pawzperf is not able to process performance data files (CPC or PMD) after a data collector dump rate interval change. If the system changes from 300 to 120 seconds on the dump rate, the PAWZ perf will only process up to the point where the interval has changed.

[AIX] PAWZ Real-Time Memory Utilization reporting

The PAWZ Real-Time Agent on AIX does not collect memory utilization.

[TRU64] PAWZ Real-Time Agent hang

The PAWZ Real-Time Agent may hang if 100+ processes are created within 1 second of each other.

[UNIX] PAWZ Real-Time -collectproc

The PAWZ Real-Time Agent on qualifier -collectproc usage has changed. The new usage is -collectproc or -nocollectproc.

[VMS] PAWZ Real-Time Agent on VMS 8.2

The PAWZ Real-Time Agent does not work with OpenVMS Alpha 8.2.

[VMS] PAWZ Real-Time Processes

The PAWZ Real-Time Agent on OpenVMS does not add new processes to the Real-Time applet tree. The list of processes can become stale over time.

[WINDOWS] PAWZ port conflict

The PAWZ Real-Time Agent on Windows has a conflict of socket ports with the *Microsoft Queue Server Service*. Each use port 2101.

PAWZ Agent Problem Resolution

Problems that have been fixed are listed in the next sections. The first information on each line within the brackets is the eCAP version the fix refers to and the reference number (bug tracking ticket number).

PAWZ Agent problems fixed: OpenVMS

[V9.2] PAWZ Perf Process Count

A problem where the PAWZ PERF was not correctly computing the system process count (IA64) has been fixed.

[V9.1] PAWZ Real Time (IA64)

A problem where the PAWZ Realtime Agent obtaining disknames has been fixed.

[V9.0A, reference 3106] PAWZAgent VMS check PMD size change

A problem where the PAWZ Agent could shut down the eCAP Monitor when checking for PMD File growth, when the eCAP Monitor caches writes, has been fixed. The PAWZ Agent now uses a settable threshold for determining of the PMD file has not grown. The default is 15 minutes.

A command line qualifer has been added /GROWTH_INTERVAL=nn

[V9.0, reference 2990] PAWZ Realtime Agent Scan Rate

A problem where the PAWZ realtime agent would only collect data using the default 2 second scan rate has been fixed. Any user specified scan rate will work.

[V9.0, ALL, Reference 2963] PAWZ real time exceptions

A problem where the PAWZ Realtime agent was not processing the requests for real time exception data properly has been fixed.

PAWZ Agent problems fixed: UNIX

[V10.0, Solaris] Missing process data collection

A problem where ecap_monitor was not acquiring enough privileges to collect process statistics when started by the PAWZ Agent has been fixed.

[V9.2 , linux] CPU Nice time added

PAWZ perf adds CPU Nice time to the CPU by mode data.

[V9.1, Linux, reference 517] PAWZperf creating data spikes for per processor cpu utilization

A problem where the PAWZ Agent was producing .PERF files that created data spikes for per-processor CPU for LINUX systems has been fixed.

[V9.1, Linux, reference 514] PAWZperf cciss disk handling.

PAWZperf now correctly handles cciss disks on linux.

[V9.1, EMC, reference 190] Partial days data displayed

A problem where performance data was only being displayed from midnight to 8:30 has been fixed.

[V9.0A, Solaris, reference 3187] PAWZAgent reported negative memory size

A problem where the PAWZ Agent on Solaris 32 bit Intel was reporting a negative memory size has been fixed.

[V9.0A, Linux, reference 3146] PAWZAgent dmidecode error

A problem where the PAWZ Agent was printing an error to the terminal when image dmidecode was not found has been fixed.

[V9.0, reference 2990] PAWZ Realtime Agent Scan Rate

A problem where the PAWZ realtime agent would only collect data using the default 2 second scan rate has been fixed. Any user specified scan rate will work.

[V9.0, ALL, Reference 2963] PAWZ real time exceptions

A problem where the PAWZ Realtime agent was not processing the requests for real time exception data properly has been fixed.

[V9.0, AIX, reference 2230] AIX Process Page Fault data spike

A problem where Process Page Faults would be reported as a very large number has been fixed

[V9.0, AIX, reference 2836] AIX Process NIC data spike

A problem where NIC packet and transfer rates would be reported as a very large number has been fixed

[V9.0, AIX, reference 2836] AIX Process TCP data spike

A problem where TCP packet and transfer rates would be reported as a very large number has been fixed

[V9.0, AIX, reference 2884] AIX Per-Processor CPU

A problem where double the processors were being reported has been fixed.

[V9.0, AIX, reference 2971] AIX CPU Mode IO/WAIT

A problem where CPU IO/Wait time was incorrectly reported has been fixed.

PAWZ Agent problems fixed: Windows

[V9.2] 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.

[V9.2] PAWZ PERF disk statistics

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

[V9.2] EMC Data file purging.

PAWZ Agent now purges : \program files\perfcap\pawz\agent\data\ecpe*.cpc files.

[V9.2] PAWZ Agent File handle leak

A file handle leak has been fixed.

[V9.2] PAWZ PERF IP Discards

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

[V9.0] PAWZ Realtime Agent Scan Rate

A problem where the PAWZ realtime agent would only collect data using the default 2 second scan rate has been fixed. Any user specified scan rate will work.