



Environment Manager Troubleshooting and Debugging

AppSense®

Environment Manager

Policy

Troubleshooting and Debugging

user environment management™

Common Questions

- “Nothing happens at logon”
- “The users drive is not being mapped”
- “The desktop is not being redirected”
- “The users icons are not on the desktop”
- The Environment Vars are not being set
- “The user doesn’t get all the policy actions applied”

Possible reasons for EM Policy not working..

- An issue with the deployment and the AppSense software

Or

- A problem with the configuration and the environment we are running in....

Possible reasons for EM Policy not working..

- There is no licence installed in the Management Centre or target machine
- Machine is not in the correct deployment group
- The deployment group has not been assigned the EM Agent or config
- The config being used is not being updated on the client machine
- The agent or config has downloaded but not been installed on the client machine
- EM Agent.exe is not running on the target machine
- EM Notify is not running and is not getting messages from winlogon
- EM Agent is running, but it is not starting an EMAgentAssist.exe for each user
- EM is running under the SYSTEM account, but in the context of the user and the user does not have access to map to the printer/drive in question


Check the licence

http://apbkamcv8/ManagementServer - Local User - Management Console

Management Console v8.0.705.0

Enterprise Licensing <<

Licensing

License Code	Activation Code	Description
 16210001-48CFCE3C-6F66E...	503A4B91	AppSense Management Suite 8.0 Server License

Actions

- Add License
- Delete License
- Edit License
- Activate License
- Import Licenses
- Export Licenses
- Refresh
- Help

Home


Deployment Groups

Alerts

Packages

Reports

Summary

 License Code: 13210001-492D2205-584C3346
License State: Expired
Expiry Date: 20/10/2009 (0 days)
Description: AppSense Management Suite 8.0 Evaluation License
- Expires 26 Nov 2008 (0 Days Remaining)

Confirm machine has been deployed to

Management Console v8.0.705.0

Deployment Groups <<

- Overview
 - Unassigned Computers
 - Computers
 - Directory Groups
 - Computer Groups
 - Terminal Servers
 - Settings
 - Alerts
 - Events
 - Computers
 - TownsCorpXP
 - TownsLaptop
 - TownsXPS
 - Windows Vista Machines
 - Windows XP Machines

Terminal Servers > Computers

Name	Alerts	Platform	Last Response	Diagnostics State
APBKTS01	6	32-bit	20/10/2009 15:37:38	Completed
APBKTS02	7	64-bit	20/10/2009 15:38:11	Completed

Alerts Events Packages Computer Details Diagnostics

Name	Version	Product	Installation Status
AppSense Performance M...	8.0.710.0	Performance Manager	Installed
PM Config	8.0.7.0	Performance Manager	Installed
AppSense Environment M...	8.0.736.0	Environment Manager	Installed
AppSense Application Ma...	8.0.708.0	Application Manager	Installed
DWP Test	8.0.2.0	Application Manager	Installed
EM Demo Config	8.0.62.0	Environment Manager	Installed
AppSense Client Communi...	8.0.407.0	Management Center	Installed

Home Deployment Groups Alerts Packages Reports Security

Confirm correct packages and latest version...

Management Console v8.0.705.0

Deployment Groups << Terminal Servers > Packages

The following packages will be installed:

Type	Name	Pl...	Version	Modified	Description
Application Manager					
Agent	AppSense Application Manager...	32 Bit	8.0.708.0	15/07/200...	Server Configuration Utilit...
Agent	AppSense Application Manager...	64 Bit	8.0.708.0	15/07/200...	Server Configuration Utilit...
Conf...	DWP Test	-	Using latest (8.0.2.0)	06/08/200...	Other,
Environment Manager					
Agent	AppSense Environment Manag...	32 Bit	8.0.736.0	11/09/200...	Management console uplo...
Agent	AppSense Environment Manag...	64 Bit	8.0.736.0	11/09/200...	Management console uplo...
Conf...	EM Demo Config	-	Using latest (8.0.62.0)	17/09/200...	Other,
Management Center					
Agent	AppSense Client Communicatio...	64 Bit	8.0.4...		Server Configuration Utilit...
Performance Manager					
Agent	AppSense Performance Manag...	32 Bit	8.0.710.0	15/07/200...	Server Configuration Utilit...

The following packages are available:

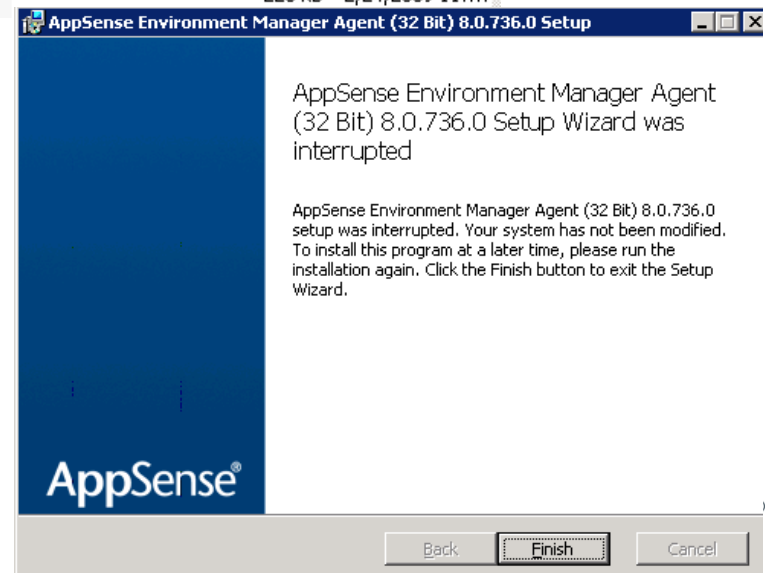
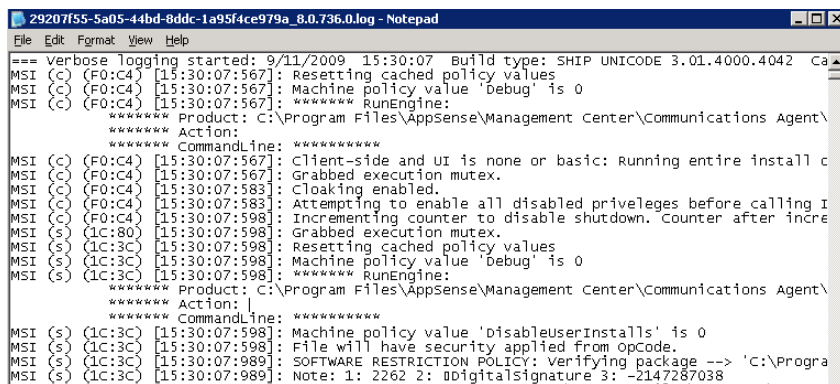
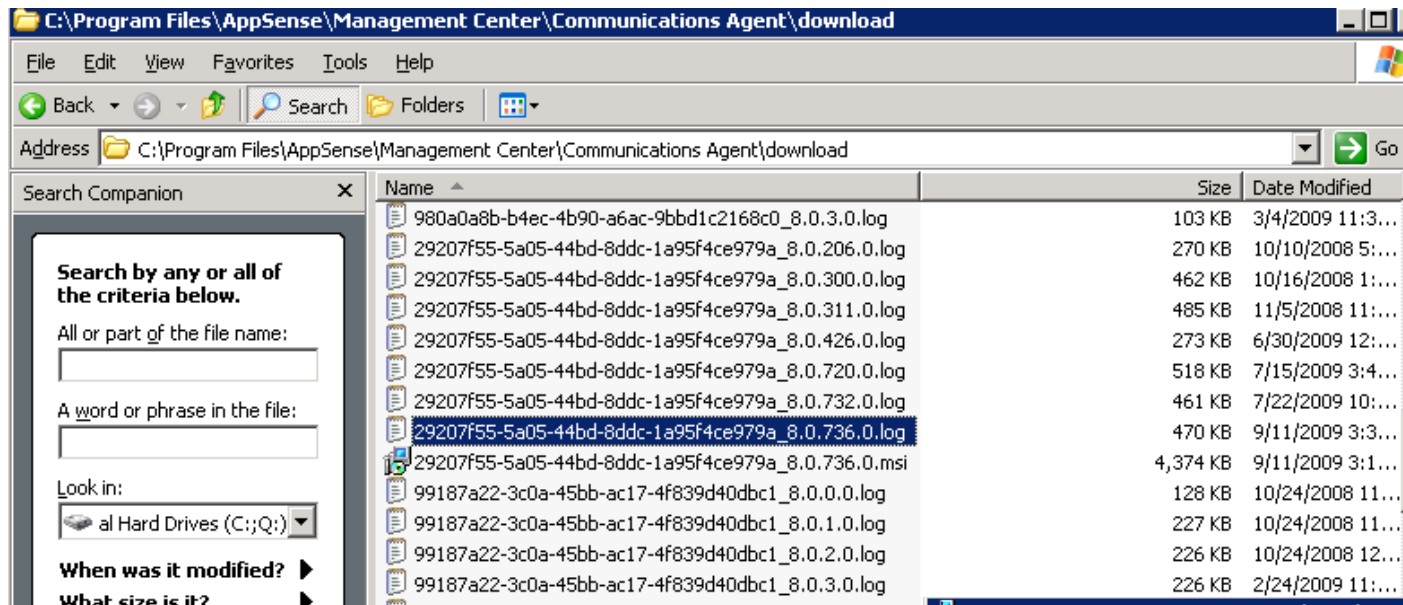
Type	Name	Pl...	...	Modified	Description
Application Manager					
Environment Manager					
Agent	AppSense Environment Manager Agent	32 Bit	8.0.73...	11/09/2009 ...	Management console uploade...
Agent	AppSense Environment Manager Agent	32 Bit	8.0.73...	22/07/2009 ...	Management console uploade...
Agent	AppSense Environment Manager Agent	32 Bit	8.0.72...	15/07/2009 ...	Server Configuration Utility up...
Agent	AppSense Environment Manager Agent	32 Bit	8.0.43...	09/04/2009 ...	Management console uploade...
Agent	AppSense Environment Manager Agent	32 Bit	8.0.42...	24/02/2009 ...	Server Configuration Utility up...
Agent	AppSense Environment Manager Agent	32 Bit	8.0.31...	05/11/2008 ...	Server Configuration Utility up...
Agent	AppSense Environment Manager Agent (...	64 Bit	8.0.73...	11/09/2009 ...	Management console uploade...
Agent	AppSense Environment Manager Agent (...	64 Bit	8.0.73...	22/07/2009 ...	Management console uploade...

Actions

- Assign
- Unassign
- Show All Versions
- Show Latest Version
- Use Latest Version
- Refresh
- Help

Submit

The agent or config has downloaded but not been installed on the client machine

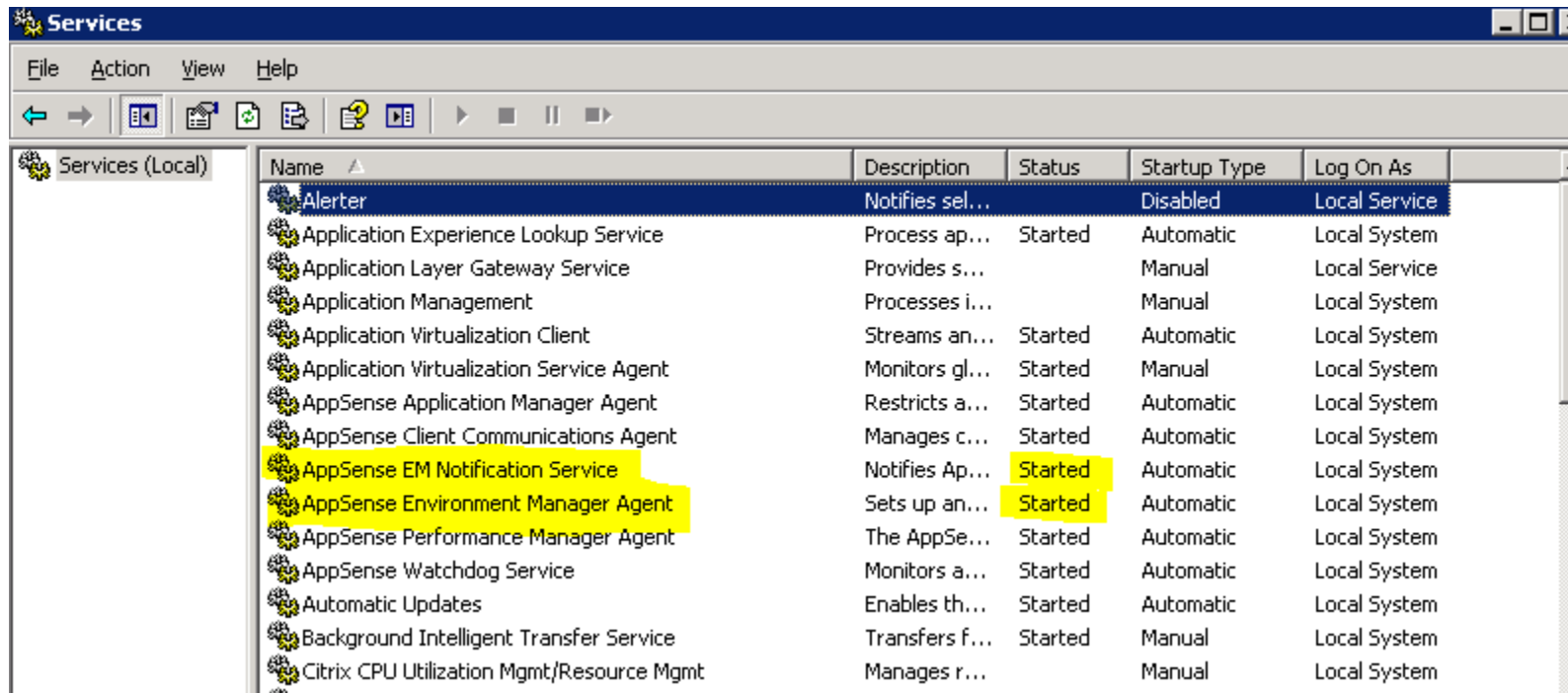


Check add remove programs on client machine

The screenshot shows the Windows 'Add or Remove Programs' control panel window. The title bar reads 'Add or Remove Programs'. On the left sidebar, there are three buttons: 'Change or Remove Programs', 'Add New Programs', and 'Add/Remove Windows Components'. The main area is titled 'Currently installed programs:' and includes a 'Show updates' checkbox (unchecked) and a 'Sort by:' dropdown menu set to 'Name'. Below this is a list of installed programs with columns for Name, Size, and Used space. The program 'AppSense Environment Manager Agent (32 Bit) 8.0.736.0' is highlighted in yellow. A 'Remove' button is visible next to the top program.

Program Name	Size	Used
AppSense Application Manager Agent (32 Bit) 8.0.708.0	15.01MB	rarely
AppSense Application Manager Configuration 'DWP Test' 8.0.2.0	0.49MB	
AppSense Client Communications Agent (32 Bit) 8.0.407.0	3.81MB	
AppSense Environment Manager Agent (32 Bit) 8.0.736.0	8.83MB	
AppSense Environment Manager Configuration 'EM Demo Config' 8.0.62.0	0.00MB	
AppSense Performance Manager Agent (32 Bit) 8.0.710.0	5.40MB	
AppSense Performance Manager Configuration 'PM Config' 8.0.7.0	0.46MB	
Citrix MetaFrame Presentation Server for Windows	76.85MB	
EMUtilsInstaller	24.37MB	
Java 2 Runtime Environment, SE v1.4.2_06	137.00MB	
MetaFrame Presentation Server - Administration Snap-in	81.18MB	
Microsoft Application Virtualization Terminal Services Client	39.43MB	
Microsoft Office Standard Edition 2003	226.00MB	
Microsoft Visual C++ 2005 Redistributable	5.21MB	
MSXML 4.0 SP2 (KB936181)	2.62MB	
MSXML 4.0 SP2 (KB954430)	2.62MB	

Check the services tab and make sure that both AppSense Environment Manager Agent and EM Notify Services are enabled and started.



The screenshot shows the Windows Services console window. The 'Services (Local)' tree view is expanded, and the following table represents the data shown in the main pane:

Name	Description	Status	Startup Type	Log On As
Alerter	Notifies sel...	Disabled	Disabled	Local Service
Application Experience Lookup Service	Process ap...	Started	Automatic	Local System
Application Layer Gateway Service	Provides s...		Manual	Local Service
Application Management	Processes i...		Manual	Local System
Application Virtualization Client	Streams an...	Started	Automatic	Local System
Application Virtualization Service Agent	Monitors gl...	Started	Manual	Local System
AppSense Application Manager Agent	Restricts a...	Started	Automatic	Local System
AppSense Client Communications Agent	Manages c...	Started	Automatic	Local System
AppSense EM Notification Service	Notifies Ap...	Started	Automatic	Local System
AppSense Environment Manager Agent	Sets up an...	Started	Automatic	Local System
AppSense Performance Manager Agent	The AppSe...	Started	Automatic	Local System
AppSense Watchdog Service	Monitors a...	Started	Automatic	Local System
Automatic Updates	Enables th...	Started	Automatic	Local System
Background Intelligent Transfer Service	Transfers f...	Started	Manual	Local System
Citrix CPU Utilization Mgmt/Resource Mgmt	Manages r...		Manual	Local System

Check Task Manager on client machine and confirm EMAgent.exe is running

Image Name	User Name	Session ID	CPU	Mem Usage
AMAgent.exe	SYSTEM	0	00	13,928 K
Cca.exe	SYSTEM	0	00	11,076 K
CdfSvc.exe	NETWORK SERVICE	0	00	3,324 K
cdmSvc.exe	SYSTEM	0	00	2,588 K
CpSvc.exe	Ctx_SmaUser	0	00	3,656 K
csrss.exe	SYSTEM	0	00	3,540 K
csrss.exe	SYSTEM	1	00	2,556 K
ctfmon.exe	administrator	1	00	1,128 K
ctbxmlls.exe	SYSTEM	0	00	2,508 K
EMAgent.exe	SYSTEM	0	00	7,128 K
EMAgentAssist.exe	SYSTEM	0	00	7,272 K
EMAgentAssist.exe	SYSTEM	1	00	11,660 K
EMNotify.exe	SYSTEM	0	00	3,876 K
encsvc.exe	SYSTEM	0	00	2,288 K
explorer.exe	administrator	1	00	18,920 K
icabar.exe	administrator	1	00	1,716 K
ImaSrv.exe	SYSTEM	0	00	25,764 K
logon.scr	LOCAL SERVICE	0	00	336 K
lsass.exe	SYSTEM	0	00	9,368 K
lserver.exe	SYSTEM	0	00	9,648 K
mfcmm.exe	SYSTEM	0	00	5,860 K
msdtc.exe	NETWORK SERVICE	0	00	4,616 K
mshta.exe	administrator	1	00	5,872 K
msiexec.exe	SYSTEM	0	00	1,840 K
notepad.exe	administrator	1	00	1,380 K

Processes: 59 CPU Usage: 0% Commit Charge: 314M / 2510M

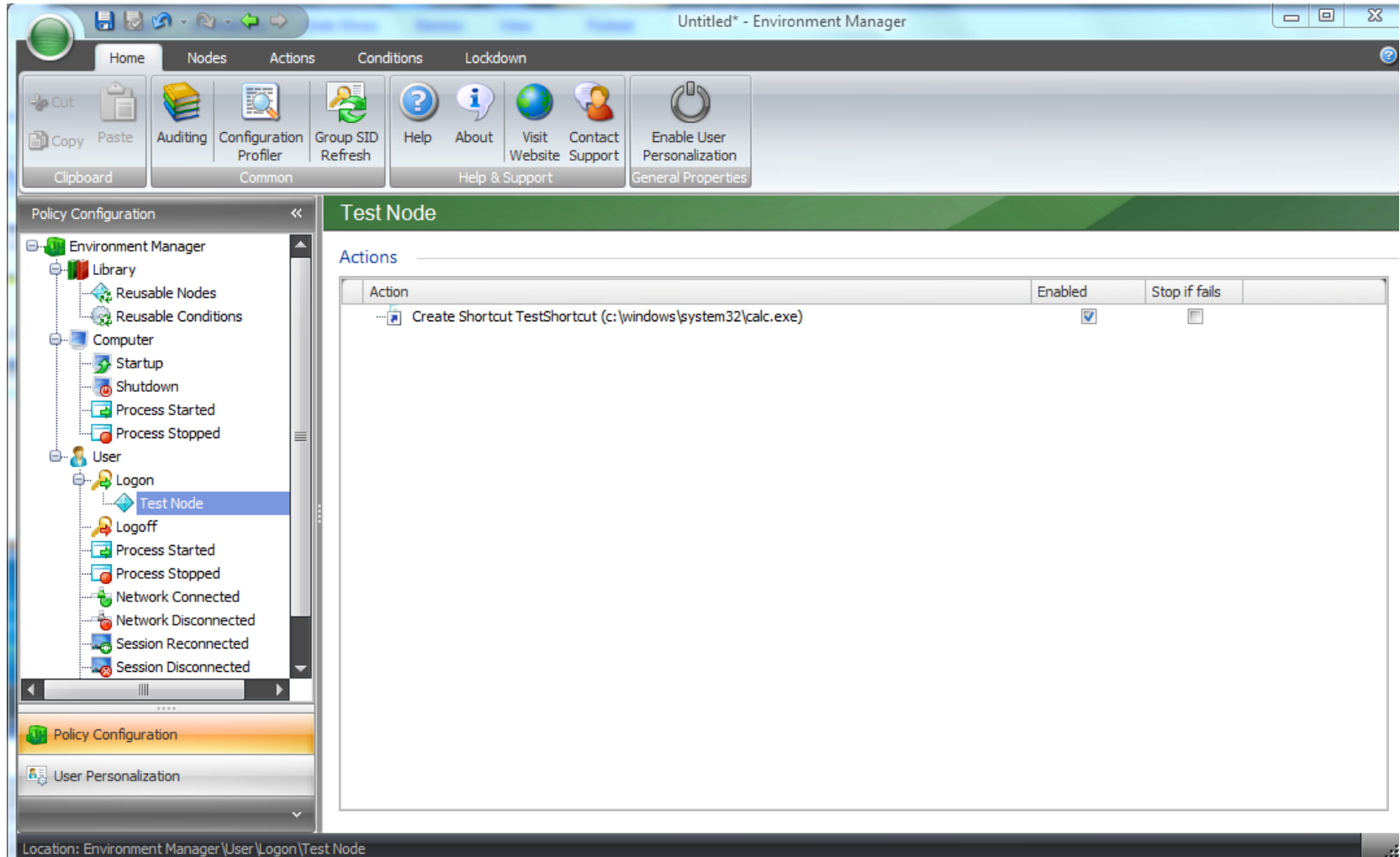
Check Task Manager whilst logged on as the user –

There should be at least 2 EMAgent Assist .exe running – one for the system, one per session

NOTE!

There will be 2 EM AgentAssists per session on a 64bit OS

Place “test” - Place a shortcut on the desktop



The screenshot displays the Environment Manager console window titled "Untitled* - Environment Manager". The interface includes a top menu bar with "Home", "Nodes", "Actions", "Conditions", and "Lockdown". Below the menu is a toolbar with icons for Cut, Copy, Paste, Auditing, Configuration Profiler, Group SID Refresh, Help, About, Visit Website, Contact Support, and Enable User Personalization. The main area is divided into a left-hand "Policy Configuration" tree and a right-hand "Test Node" configuration pane. The tree shows a hierarchy: Environment Manager > Library > Reusable Nodes > Computer > Logon > Test Node. The "Test Node" configuration pane shows a table of actions:

Action	Enabled	Stop if fails
Create Shortcut TestShortcut (c:\windows\system32\calc.exe)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

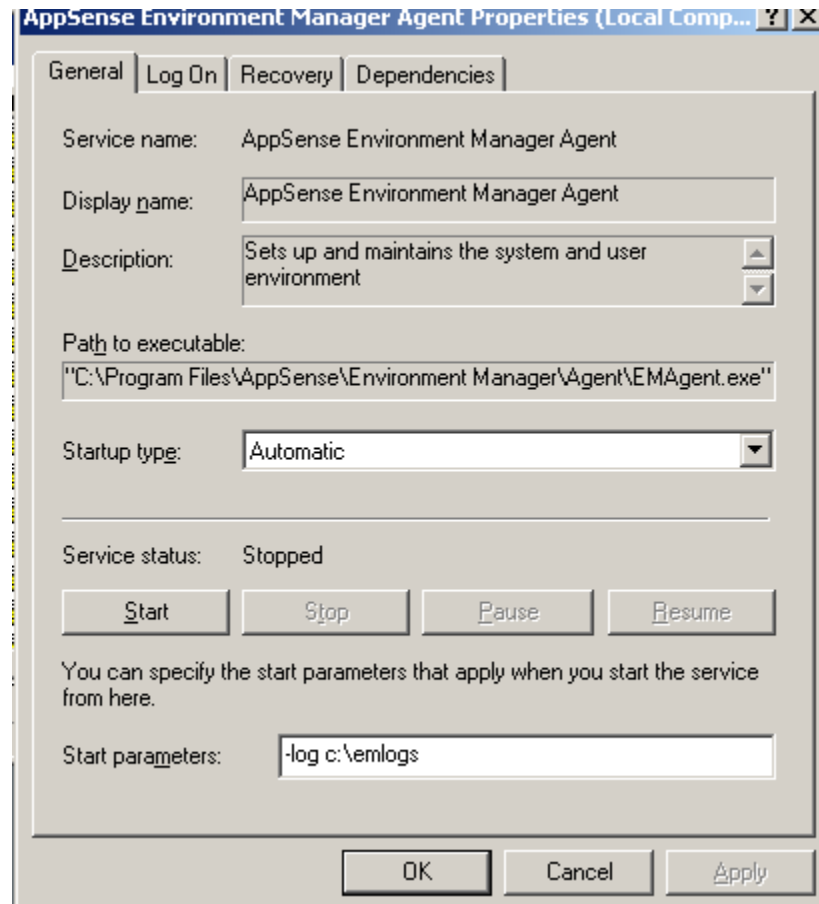
At the bottom of the console, the status bar indicates the location: "Location: Environment Manager\User\Logon\Test Node".

“BUT I HAVE DONE ALL THAT SIMON!...

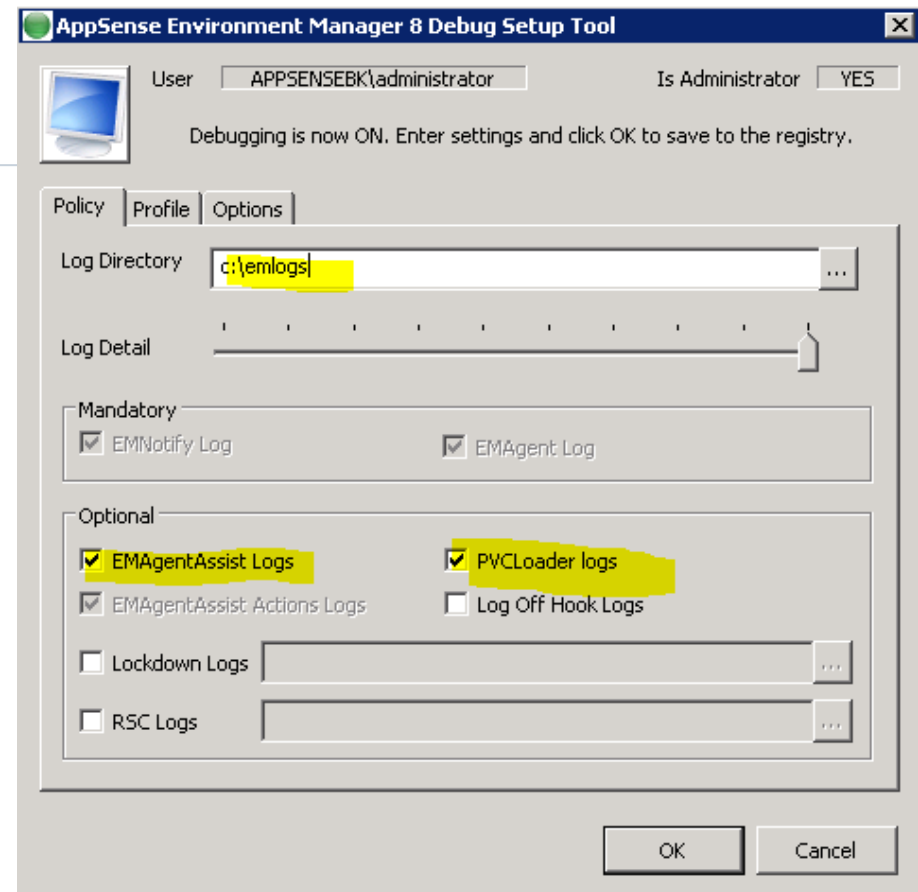
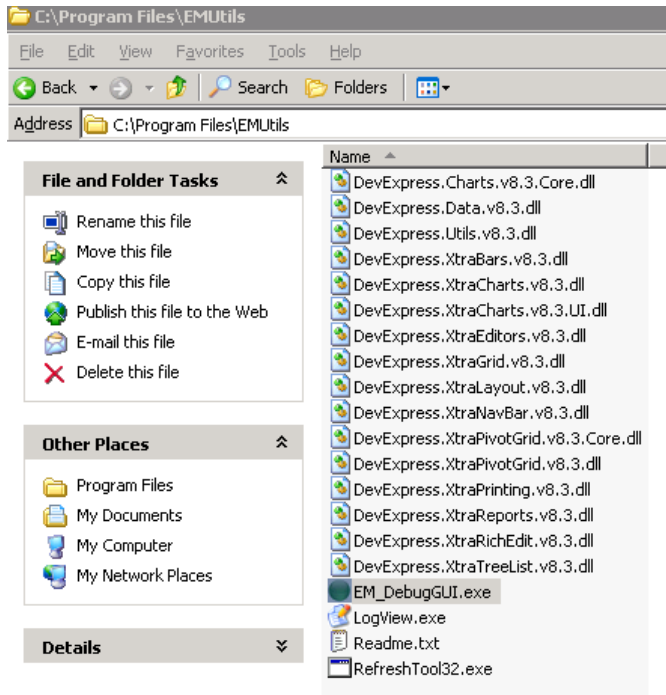
and EM Policy is STILL not applying...”

It's a problem with the configuration
and the environment we are running
in....

Enable Logging

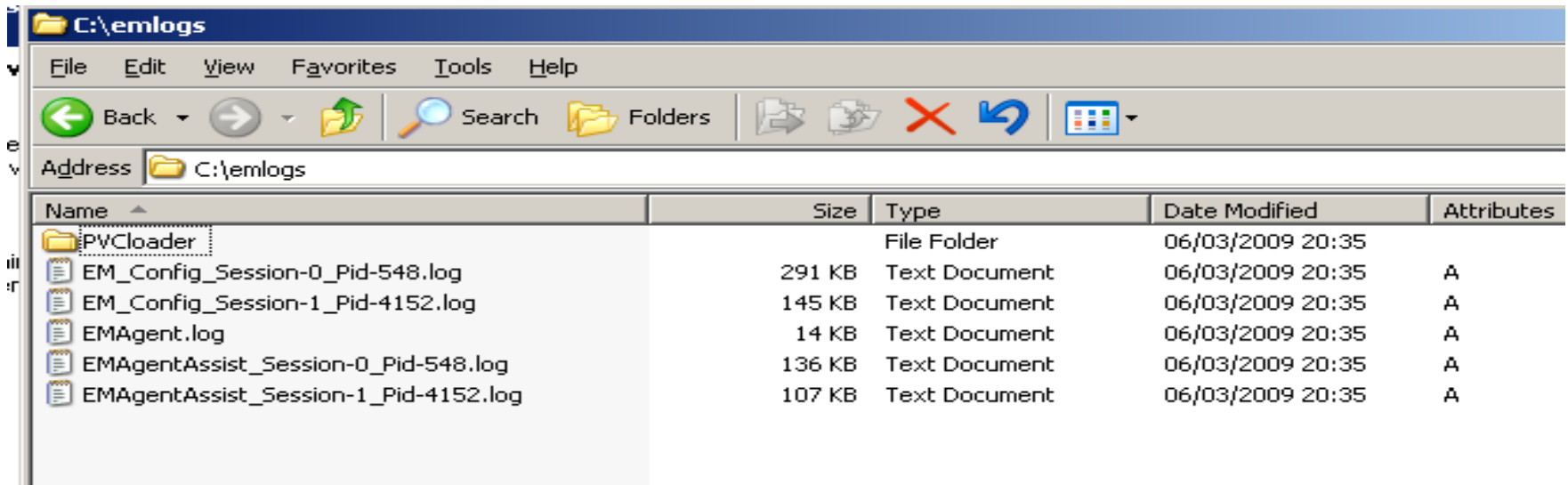


EM Logger tool



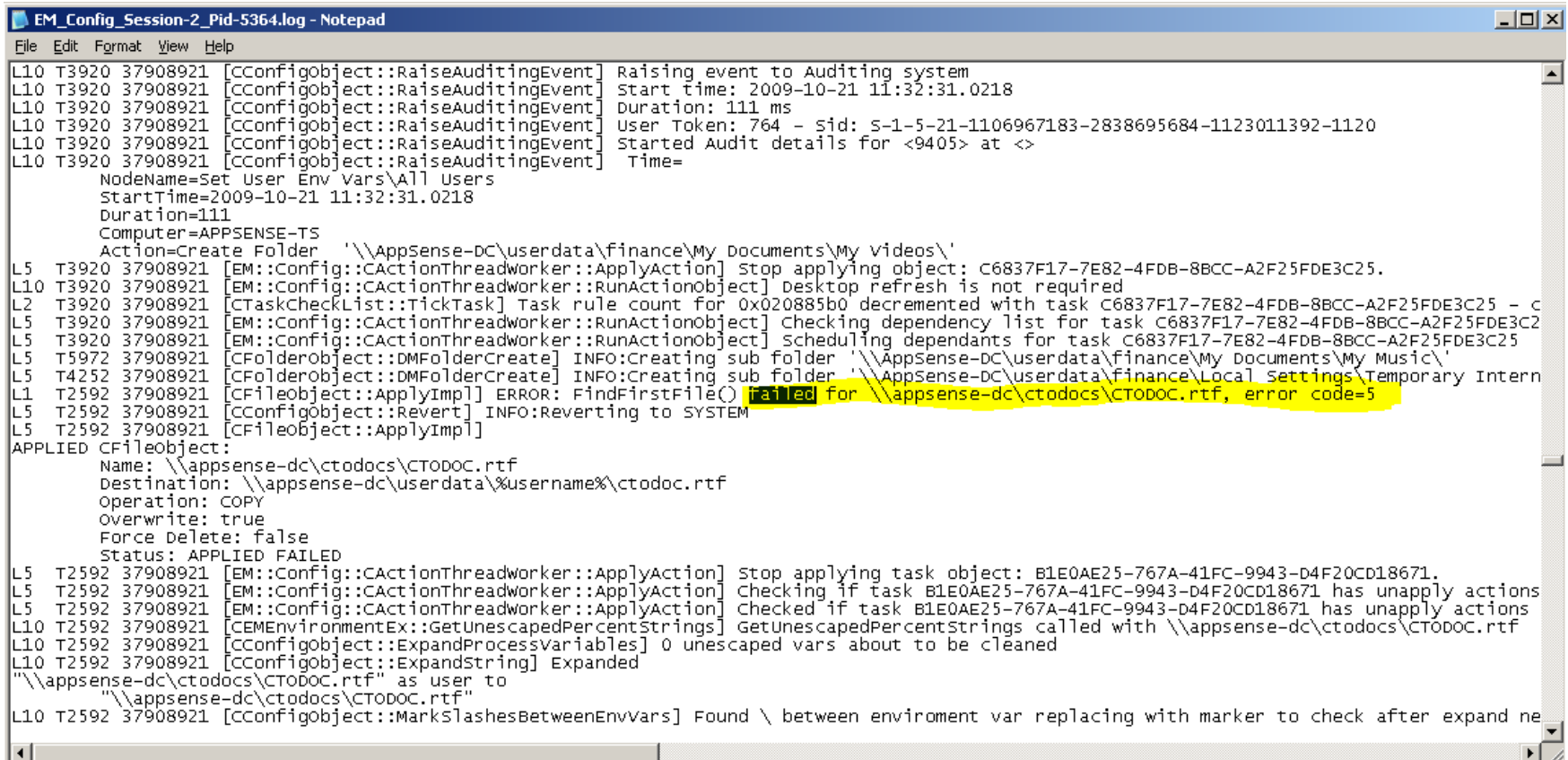
- Use the tool when troubleshooting Machine Start Up Actions as it set reg keys which will not be forgotten post reboot
- Always enabled EMAgentAssist logs
- There is a seperate 64bit version

Collect the logs



- Match the user to the session ID and look into the EM Agent Config logs
- EM_Config_Session log shows the POLICY errors
Use the EM Log viewer to analyse errors
- Run reports to see what the timings of logon are.

View the Config Session log....

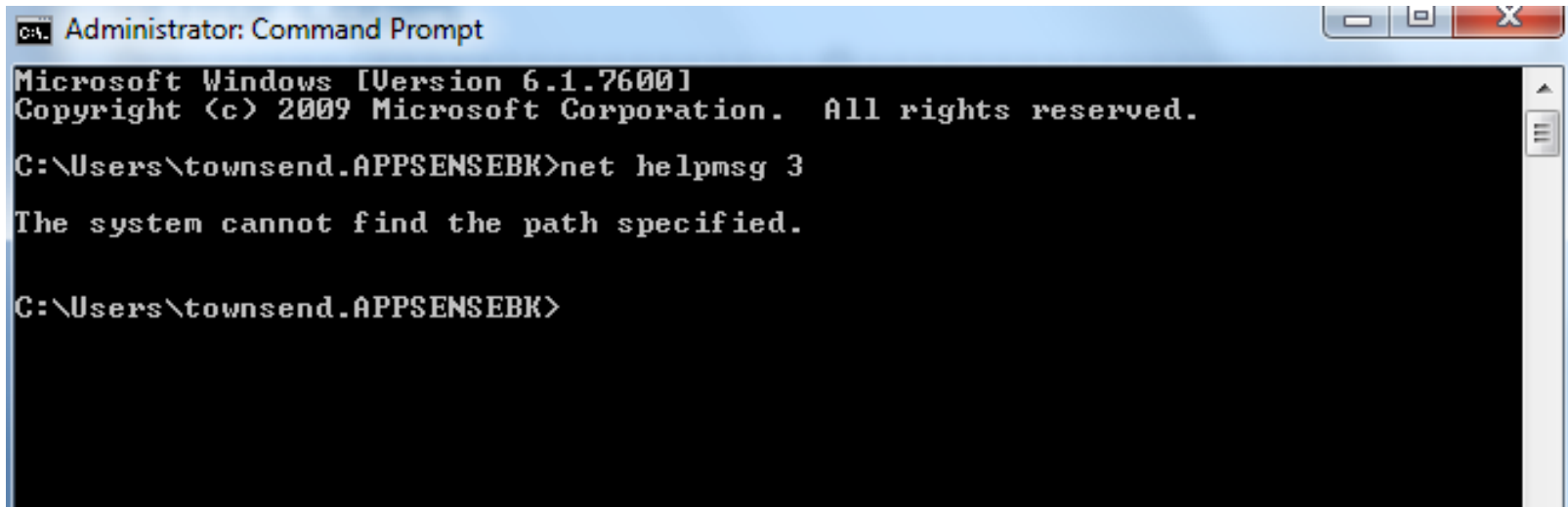


```
EM_Config_Session-2_Pid-5364.log - Notepad
File Edit Format View Help
L10 T3920 37908921 [CConfigobject::RaiseAuditingEvent] Raising event to Auditing system
L10 T3920 37908921 [CConfigobject::RaiseAuditingEvent] Start time: 2009-10-21 11:32:31.0218
L10 T3920 37908921 [CConfigobject::RaiseAuditingEvent] Duration: 111 ms
L10 T3920 37908921 [CConfigobject::RaiseAuditingEvent] User Token: 764 - sid: s-1-5-21-1106967183-2838695684-1123011392-1120
L10 T3920 37908921 [CConfigobject::RaiseAuditingEvent] Started Audit details for <9405> at <>
L10 T3920 37908921 [CConfigobject::RaiseAuditingEvent] Time=
NodeName=Set User Env Vars\All Users
StartTime=2009-10-21 11:32:31.0218
Duration=111
Computer=APPSENSE-TS
Action=Create Folder '\\AppSense-DC\userdata\finance\My Documents\My Videos\'
L5 T3920 37908921 [EM::Config::CActionThreadworker::ApplyAction] Stop applying object: C6837F17-7E82-4FDB-8BCC-A2F25FDE3C25.
L10 T3920 37908921 [EM::Config::CActionThreadworker::RunActionObject] Desktop refresh is not required
L2 T3920 37908921 [CTaskCheckList::TickTask] Task rule count for 0x020885b0 decremented with task C6837F17-7E82-4FDB-8BCC-A2F25FDE3C25 - c
L5 T3920 37908921 [EM::Config::CActionThreadworker::RunActionObject] Checking dependency list for task C6837F17-7E82-4FDB-8BCC-A2F25FDE3C25
L5 T3920 37908921 [EM::Config::CActionThreadworker::RunActionObject] Scheduling dependants for task C6837F17-7E82-4FDB-8BCC-A2F25FDE3C25
L5 T5972 37908921 [CFolderobject::DMFolderCreate] INFO:Creating sub folder '\\AppSense-DC\userdata\finance\My Documents\My Music\'
L5 T4252 37908921 [CFolderobject::DMFolderCreate] INFO:Creating sub folder '\\AppSense-DC\userdata\finance\Local Settings\Temporary Intern
L1 T2592 37908921 [CFileobject::ApplyImpl] ERROR: FindFirstFile() failed for \\appsense-dc\ctodocs\CTODOC.rtf, error code=5
L5 T2592 37908921 [CConfigobject::Revert] INFO:Reverting to SYSTEM
L5 T2592 37908921 [CFileobject::ApplyImpl]
APPLIED CFileobject:
Name: \\appsense-dc\ctodocs\CTODOC.rtf
Destination: \\appsense-dc\userdata\%username%\ctodoc.rtf
Operation: COPY
Overwrite: true
Force Delete: false
Status: APPLIED FAILED
L5 T2592 37908921 [EM::Config::CActionThreadworker::ApplyAction] Stop applying task object: B1E0AE25-767A-41FC-9943-D4F20CD18671.
L5 T2592 37908921 [EM::Config::CActionThreadworker::ApplyAction] Checking if task B1E0AE25-767A-41FC-9943-D4F20CD18671 has unapply actions
L5 T2592 37908921 [EM::Config::CActionThreadworker::ApplyAction] Checked if task B1E0AE25-767A-41FC-9943-D4F20CD18671 has unapply actions
L10 T2592 37908921 [CEMEnvironmentEx::GetUnescapedPercentStrings] GetUnescapedPercentStrings called with \\appsense-dc\ctodocs\CTODOC.rtf
L10 T2592 37908921 [CConfigobject::ExpandProcessVariables] 0 unescaped vars about to be cleaned
L10 T2592 37908921 [CConfigobject::ExpandString] Expanded
"\\appsense-dc\ctodocs\CTODOC.rtf" as user to
"\\appsense-dc\ctodocs\CTODOC.rtf"
L10 T2592 37908921 [CConfigobject::MarkslashesBetweenEnvVars] Found \ between enviroment var replacing with marker to check after expand ne
```

Search for “failed” or “error code=”

Error Codes

- Error Code = 2 “file not found”
- Error Code = 3 “path not found”
- Error Code = 5 “access denied”
- Error Code = 53 “network path not found”



The screenshot shows a Windows Command Prompt window titled "Administrator: Command Prompt". The window content is as follows:

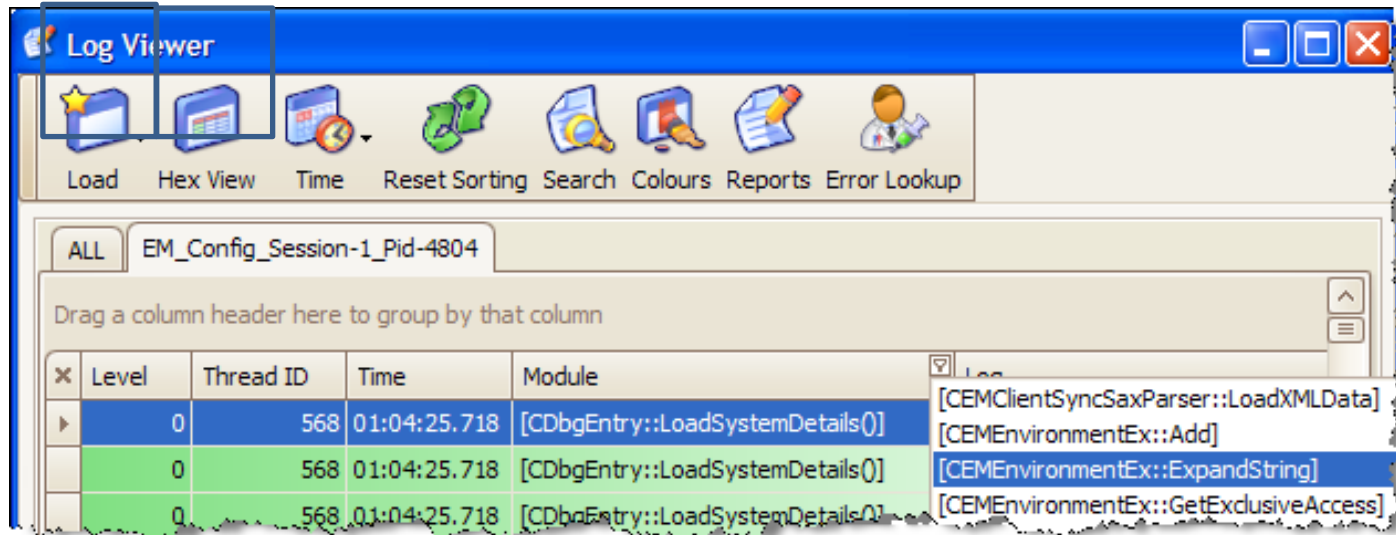
```
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\townsend.APPSENSEBK>net helpmsg 3

The system cannot find the path specified.

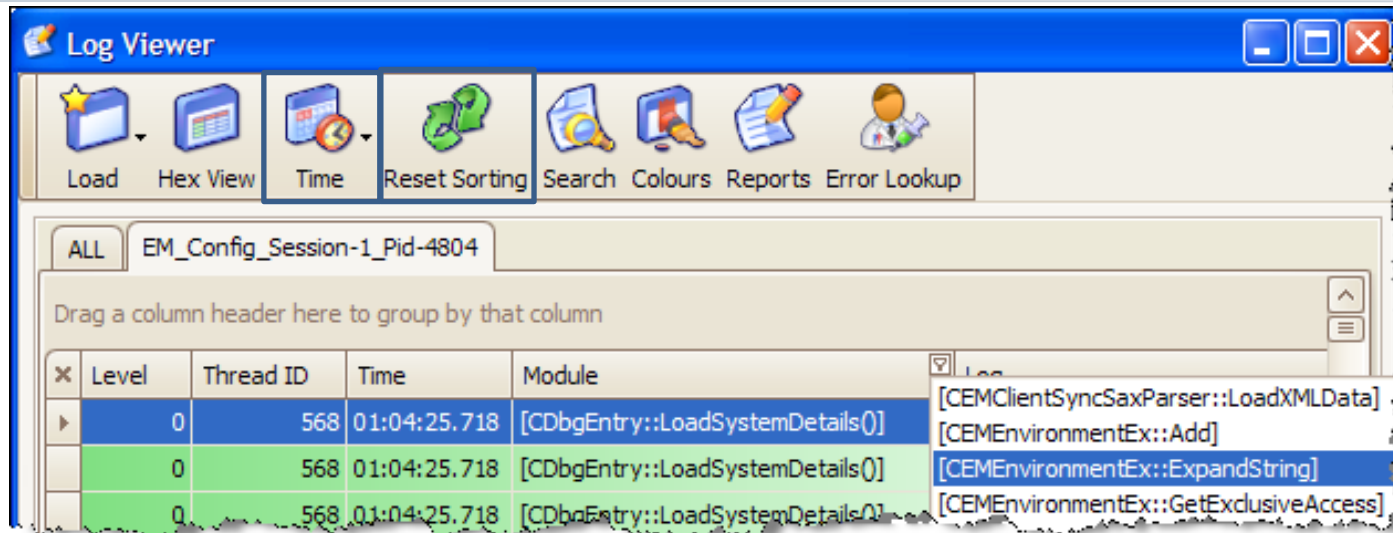
C:\Users\townsend.APPSENSEBK>
```

Alternatively.....use the Log Viewer



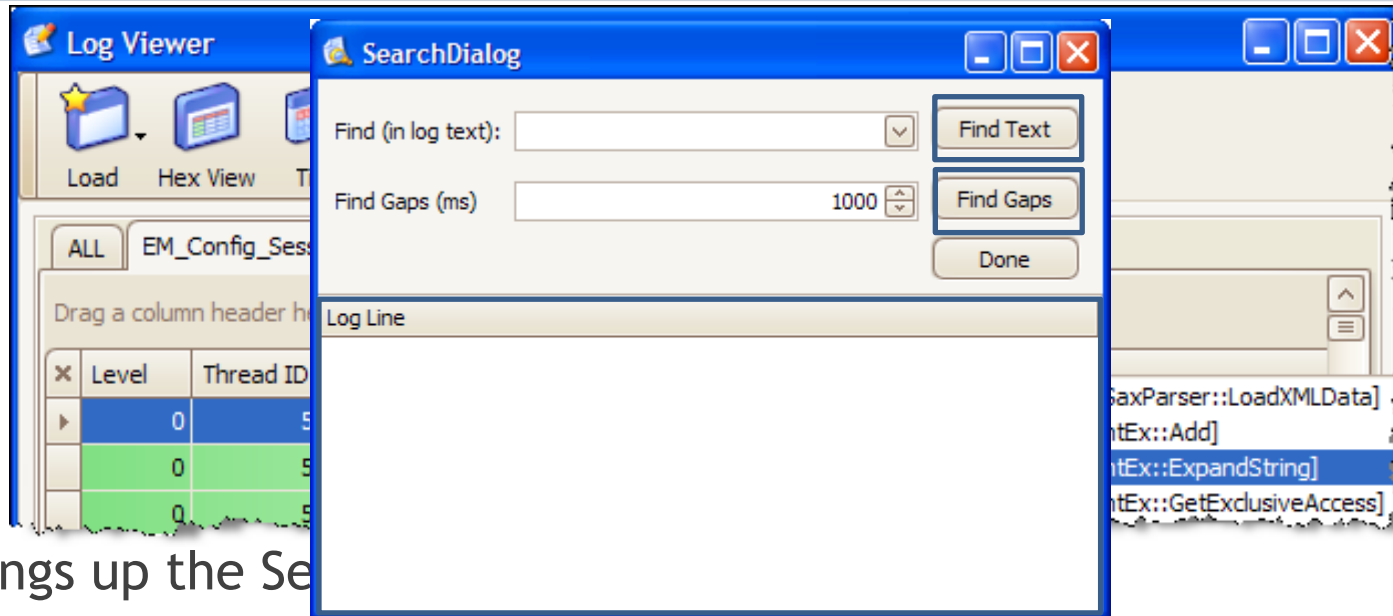
- A graphical viewer for the logs which highlights difference threads (actions and criteria) and allows you to sort by time.

Log Viewer - Button Bar



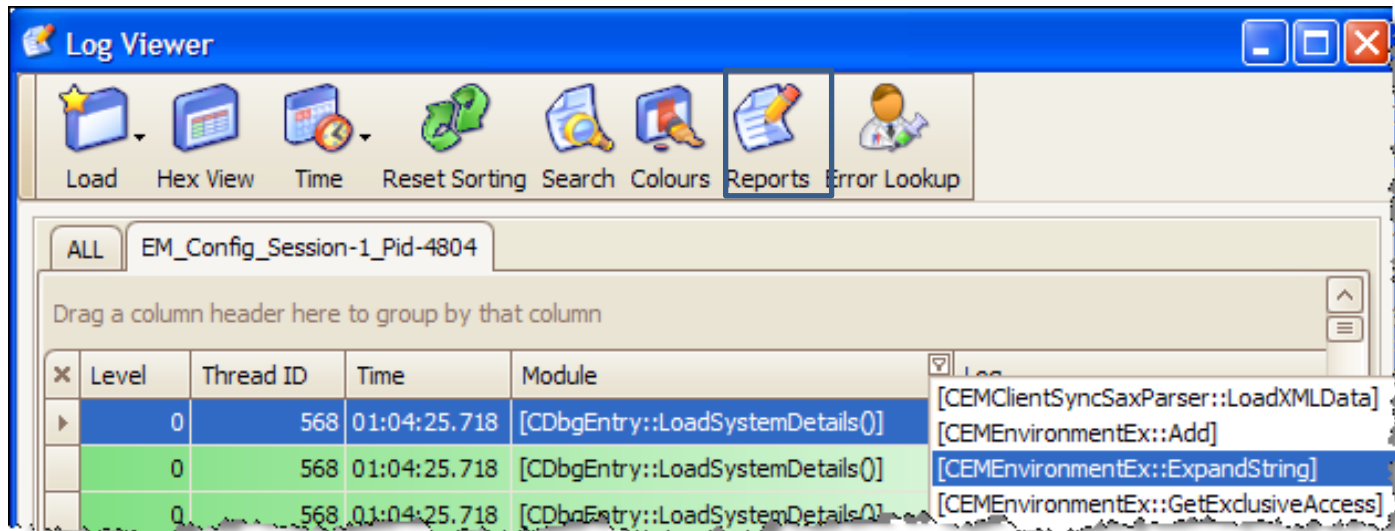
- Time -> Drop Down Options
 - Time & Date Displays time and date in the time column
 - Time Only Displays only the time in the time column
 - Ticks Replaces the time column with the tick count
 - Sync Time Synchronises the time to the selected log line
 - Zero Time Sets the first line to 0 and sync the rest to it
- Reset Sorting
 - Resets the sorting back to the original load order

Log Viewer - Button Bar (Search)



- Brings up the Search Dialog
- Find Text
 - SQL Query of current view
- Find Gaps
 - Gaps in a thread's execution
- Results
 - Displays “clickable” list
 - When the dialog is closed the list can be traversed with F3 and Alt-F3

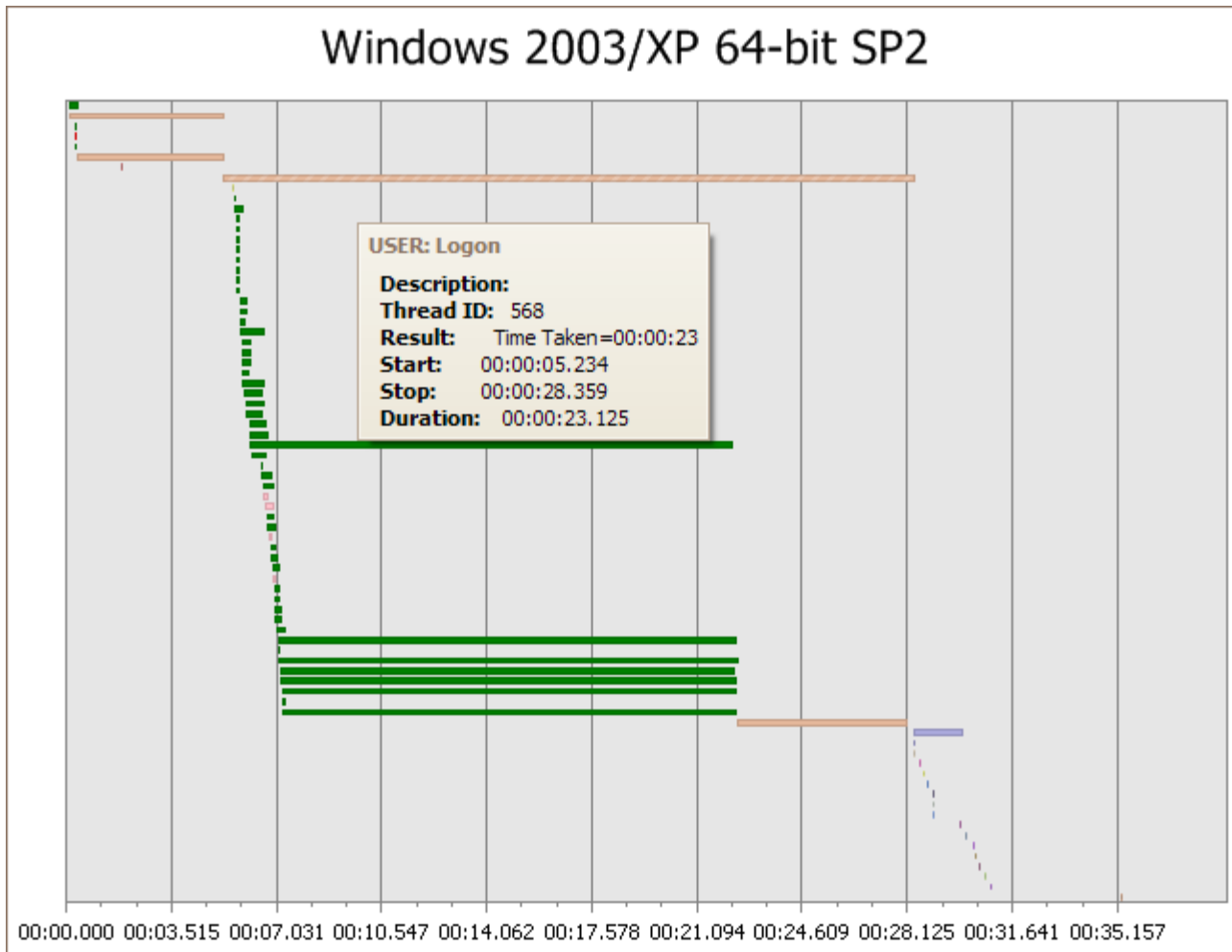
Log Viewer - Button Bar (Reports)



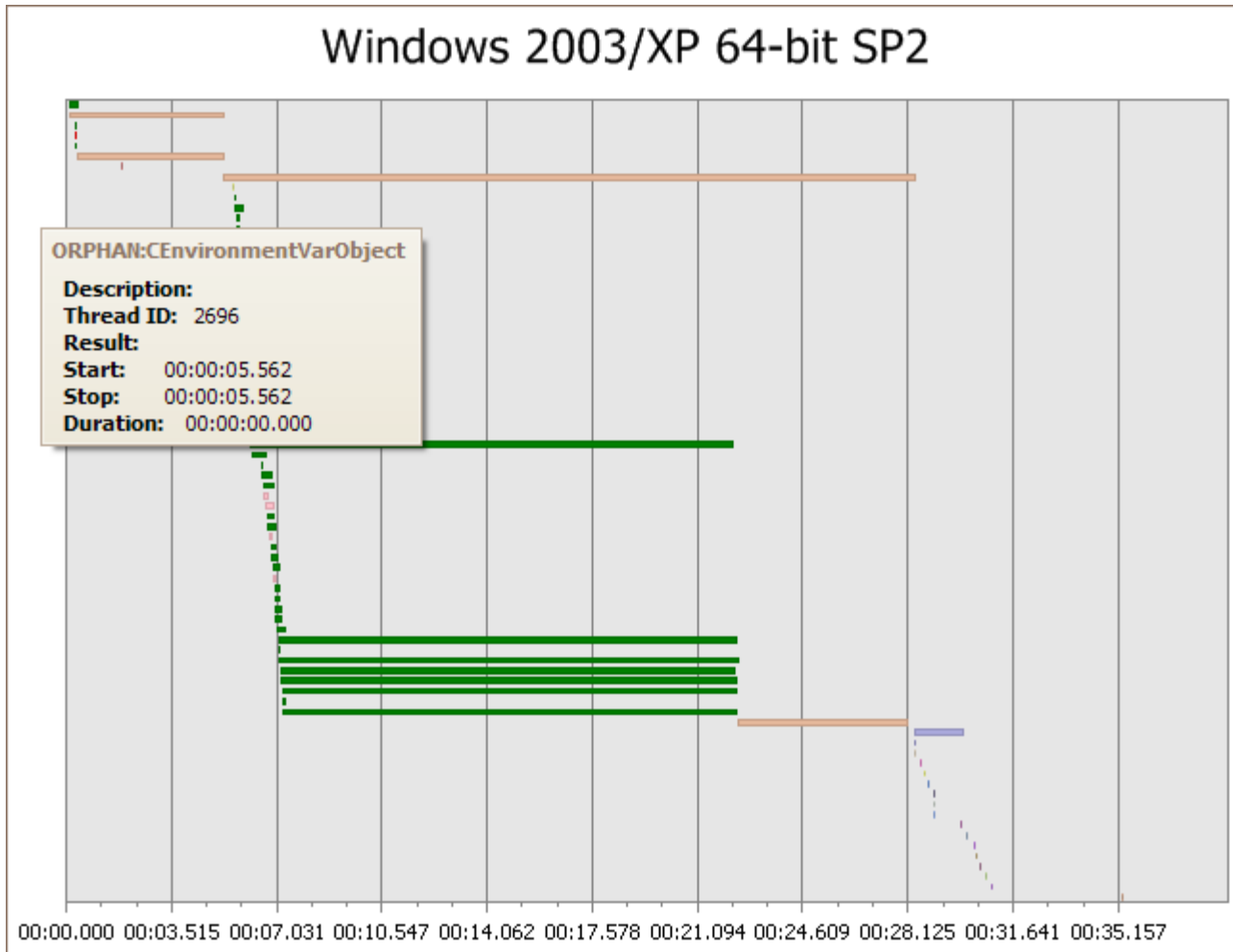
- Reports

- Best done on ALL (with Config Session and Agent Session Logs)
- Sorts data by time
- Displays the reports dialog

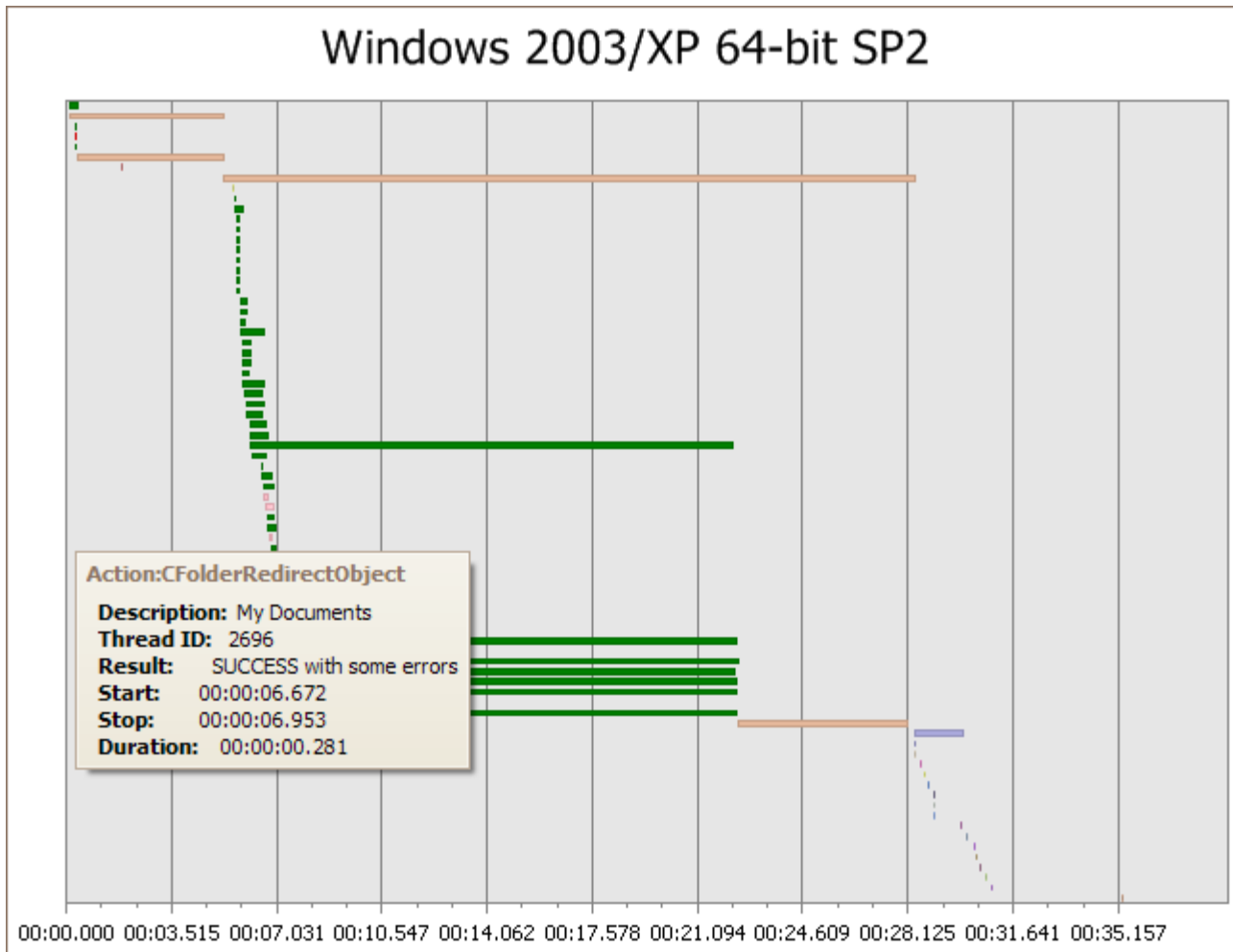
Log Viewer - Reports View



Log Viewer - Reports View



Log Viewer - Reports View



AppSense®

Demo

user environment management™

AppSense®

Environment Manager

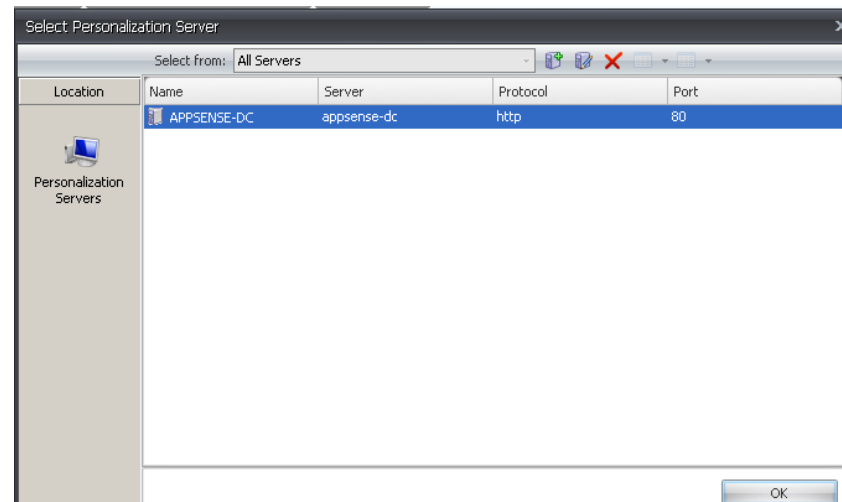
Personalization

Troubleshooting and Debugging

user environment management™

Personalisation

- Confirm you have enabled the Personalization Server in the Policy side of the configuration



Confirm you have at least one site

The screenshot displays the AppSense Management Console interface. At the top, the browser address bar shows "EMDEMOCONFIG on http://appsense-dc/ManagementServer - Environment Mana". The main navigation bar includes "Home", "Personalization", and "Tools". Below this is a toolbar with icons for "Connect", "Disconnect", "Move Up", "Move Down", "Add Application Group", "Add Application", "Add Personalization Group", "Add Server", "Add Site", "Delete", "Rename", and "Refresh".

The "User Personalization" section is active, showing a tree view on the left under "[APPSENSE-DC]". The tree structure is as follows:

- Personalization Applications
- Personalization Groups
 - EM Test Group
 - Administrators
 - Default Users
- Sites
 - Default Site
 - APPSENSE-DC

On the right side of the "User Personalization" section, there is a blue informational box with the following text:

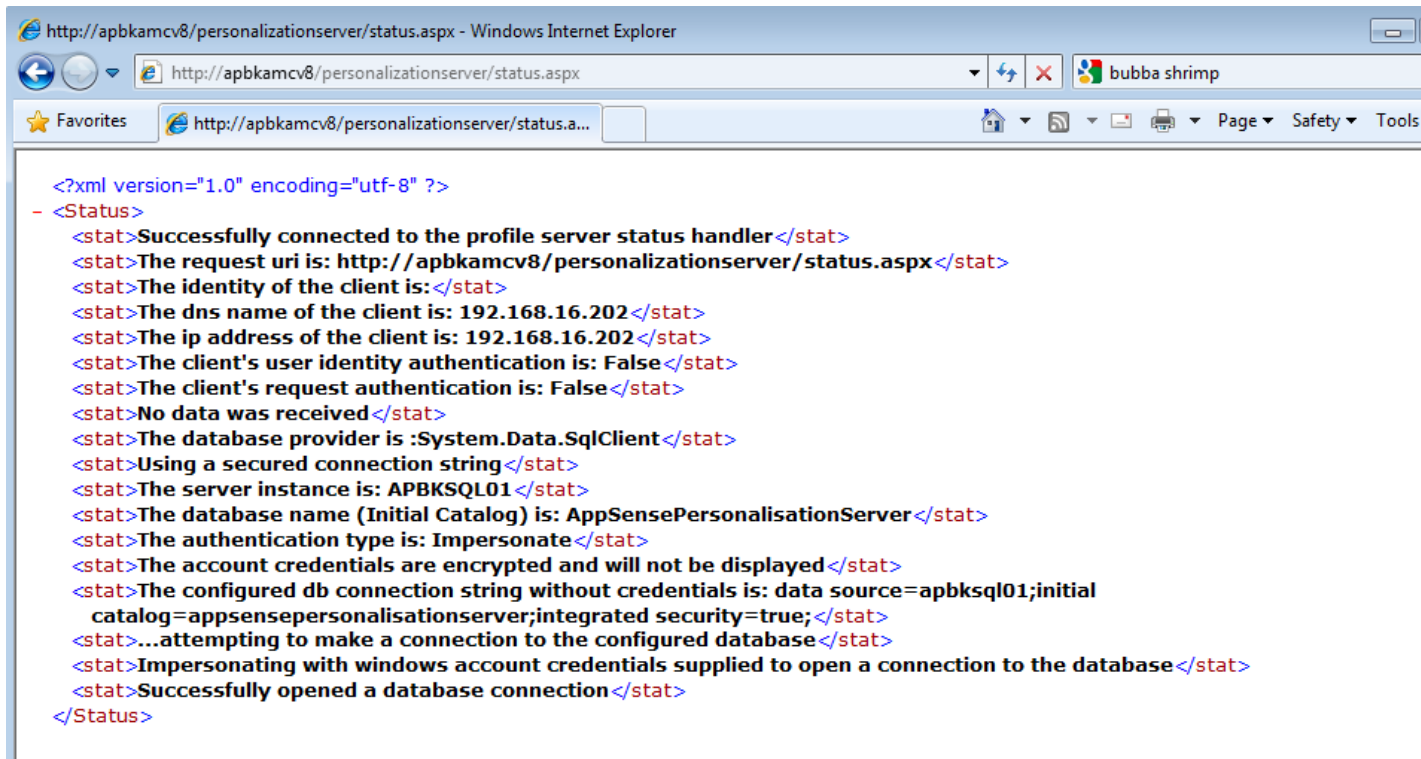
User Personalization

User Personalization provides the ability to capture the changes that users make to the application and also desktop settings on a per session basis. These changes are then stored in a database associated with the user from wherever they log on, regardless of operating system or delivery mechanism.

[Connect to Personalization Server](#)
Get started by connecting to a Personalization Server

How to test the Personalisation Server Connection

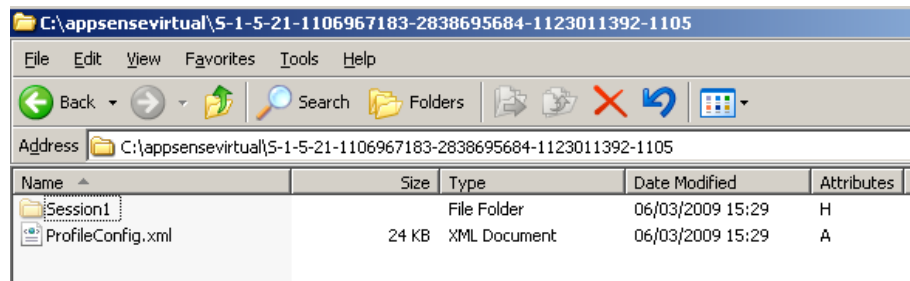
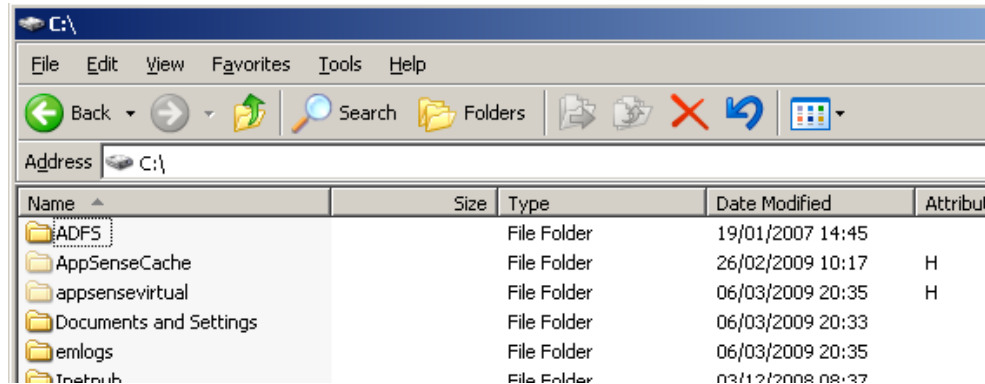
- <http://machinename/personalizationserver/status.aspx>



```
<?xml version="1.0" encoding="utf-8" ?>
- <Status>
  <stat>Successfully connected to the profile server status handler</stat>
  <stat>The request uri is: http://apbkamcv8/personalizationserver/status.aspx</stat>
  <stat>The identity of the client is:</stat>
  <stat>The dns name of the client is: 192.168.16.202</stat>
  <stat>The ip address of the client is: 192.168.16.202</stat>
  <stat>The client's user identity authentication is: False</stat>
  <stat>The client's request authentication is: False</stat>
  <stat>No data was received</stat>
  <stat>The database provider is :System.Data.SqlClient</stat>
  <stat>Using a secured connection string</stat>
  <stat>The server instance is: APBKSQL01</stat>
  <stat>The database name (Initial Catalog) is: AppSensePersonalisationServer</stat>
  <stat>The authentication type is: Impersonate</stat>
  <stat>The account credentials are encrypted and will not be displayed</stat>
  <stat>The configured db connection string without credentials is: data source=apbksql01;initial
  catalog=appsensepersonalisationserver;integrated security=true;</stat>
  <stat>...attempting to make a connection to the configured database</stat>
  <stat>Impersonating with windows account credentials supplied to open a connection to the database</stat>
  <stat>Successfully opened a database connection</stat>
</Status>
```

How to test the Personalisation Server Connection

- Check the client machine and look for the ProfileConfig.XML
 - C:\AppSenseCache\SID\ProfileConfig.XML



Check the PVC has loaded..

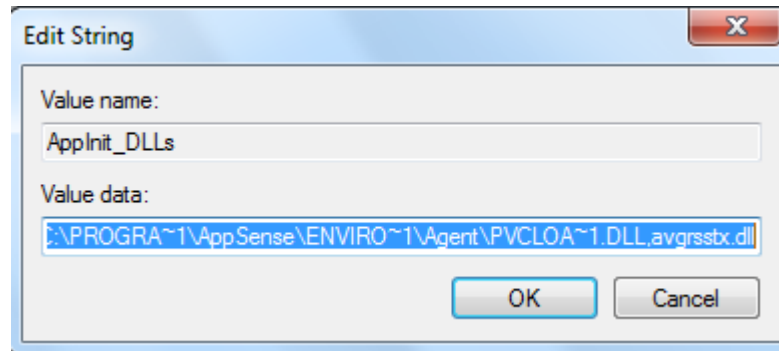
PVCload_s0-pid6108-t20995281.log - Notepad

File Edit Format View Help

```
T3940 20995281 Logging started
T3940 20995281 Acquiring config
T3940 20995281 Sending cfg req (85 bytes), "C:\WINDOWS\system32\notepad.exe"
T3940 20995437 Got cfg reply (0 bytes)
T3940 20995437 Process NOT managed by PMM
T3940 20995437 All done
T3940 20995437 PVCloader all done
```

Check the AppInit Key...

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows
NT\CurrentVersion\Windows



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Questions

user environment management™