

## WORKSTATION CONFIGURATION GUIDE



*This document addresses the steps required to achieve 21 CFR part 11 compliance when setting up and enVigil Server Workstation. Steps are also taken to disable features of the Operating System that could cause issues and prevent the system from continuous operation.*

## Introduction

This document constitutes a step by step procedure to be used when implementing a monitoring system based on enVigil Facility Monitoring Software. It concentrates on PCs running Windows XP Professional SP2/SP3 and Windows 7 Ultimate or Professional addition. enVigil only supports 32 bit versions of these operating systems. Windows Vista is supported by enVigil, due to its similarity to Windows 7. The Windows 7 steps of this document can be used to configure Windows Vista and although there may be some slight differences, the steps contain enough information to apply the equivalent changes.

This document lists the steps necessary when installing and configuring *enVigil 3.0* as a stand-alone system on a brand new PC's Windows installation.

Additional steps are required when implementing an enVigil view node system and are covered in a separate document *enVigil Remote Client Configuration Procedure* that document addresses both the changes needed on the enVigil Server PC and the enVigil Client installation procedure on the remote client.

For computers intended to run as a part of a domain you should be aware that any configuration changes made prior to joining the computer to the domain may be reset by the domains group policy. Therefore you should always check each step of this document after the computer has been joined to the domain.

## PC Prerequisites

Most enVigil implementations will use a new computer where the OS is pre-installed but not completed.

The PC specification will vary between projects, however several requirements are common:

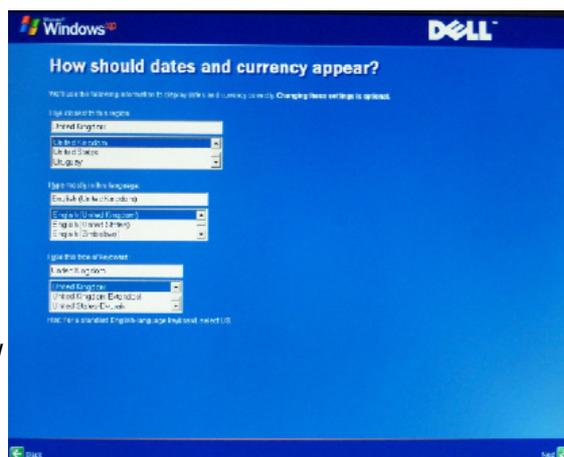
- **The OS should be Windows XP Professional SP2/SP3 or Windows 7/Vista (Ultimate or Professional).**
- **A Network Interface must be fitted (even if the PC will not be networked).**
- **A Parallel Port or spare USB port must be fitted to accommodate the security key (dongle).**
- **Spare PCI slot(s) should be available if serial interfaces are to be used.**
- **A USB Port should be fitted for printer support.**
- **An internal speaker should be fitted.**
- **All disks should be formatted as NTFS.**
- **A second, identical hard disk is recommended, for 'ghosting' or backup.**
- **A CD Writer is recommended.**

## Turning on the Computer for the First Time – Windows XP

When turning on a new computer for the first time it will complete the setup of Windows by presenting a series of screens and dialog boxes.

It may be that the PC comes with the operating system preloaded in which case you can skip this section and go to the '**Configuring the PC**' section.

Accept any PC manufacturer's license agreements as necessary and wait until the 'How should dates and currency appear?' is shown. Select the appropriate country settings and click 'Next':



Accept Microsoft's license agreements as necessary and proceed to the 'Help protect your PC' screen.

Select 'Not right now' in answer to the turn on automatic updates question.



## Entering the PC's name and description

You are now required to enter the PC name and description:

The 'Computer name' will have been specified in the project 'Functional Design Specification' (FDS) or 'Software Design Specification' (SDS) and will typically be 'EMS-Server' or 'FMS-Server'. DO NOT USE UNDERSCORE CHARACTERS; instead use the 'minus' character.

The computer description should be used to help describe the PC's function e.g. 'PharmaQual EMS Server'.



## Entering the Administrator password

The 'Administrator password' is critical and should be set to 'Administrator' at this stage. It is likely that the customer or end-user will take ownership of the main Administrator account at a later stage.



## Selecting the Internet Connection Method

The next screens concern the internet connection method, and should be set to 'LAN'.

If the PC is not part of a network with a DHCP server, and if you do not know the relevant IP addresses, then skip the screen that asks you to fill them in.



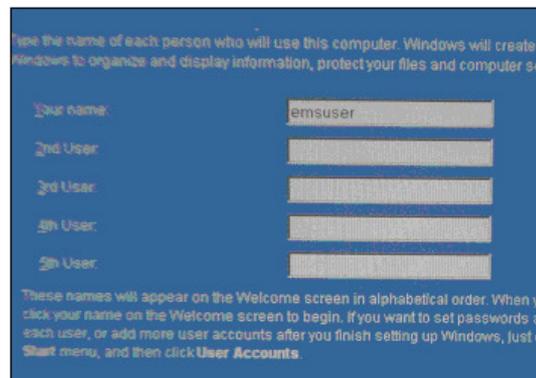
## Registering with Microsoft

The next Windows setup screen concerns registering with Microsoft and should be set to 'No, not at this time':



## Creating the initial user account as 'emsuser'

When asked to provide your name (and up to 4 other user's names), enter 'emsuser' as 'Your name' and leave the rest blank – this will create the initial 'emsuser' account at administrative level:



On completion of the Windows XP installation, the PC will eventually reboot and present a familiar Windows XP desktop.



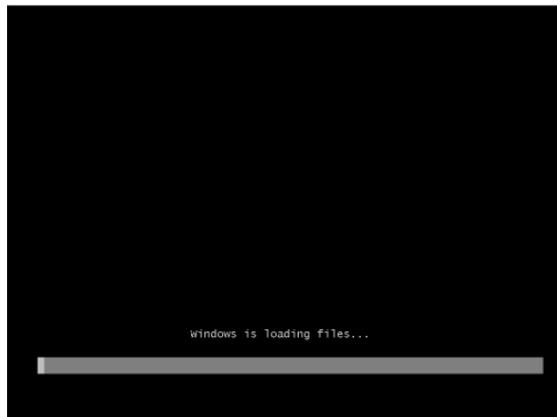
## Turning on the Computer for the First Time – Windows 7

**You must install either Windows 7 Ultimate (32 Bit) or Windows 7 Professional (32 Bit). enVigil does not support 64 Bit versions of the operating system.**

**Prior to installation ensure the PC is not connected to any network.**

It may be that the PC comes with the operating system preloaded in which case you can skip this section and go to the '**Configuring the PC**' section.

The Windows 7 installation process starts with a black loading screen while resources are loaded.



When prompted set the appropriate country settings and click 'Next':

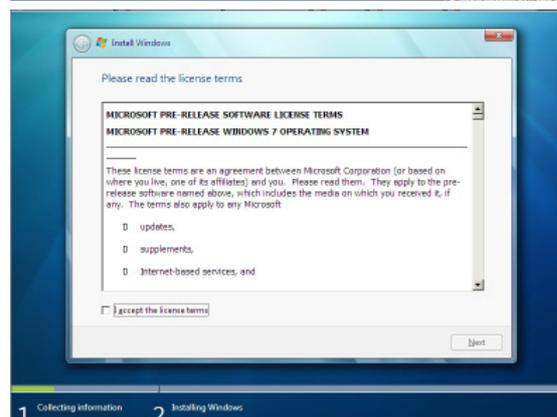
**Note: enVigil does not support languages that require wide character sets (e.g. Chinese, Japanese and Korean).**



On the next screen simply click the arrow next to the 'Install now' prompt:



Accept Microsoft's license agreements as necessary and proceed by clicking the 'Next' button:

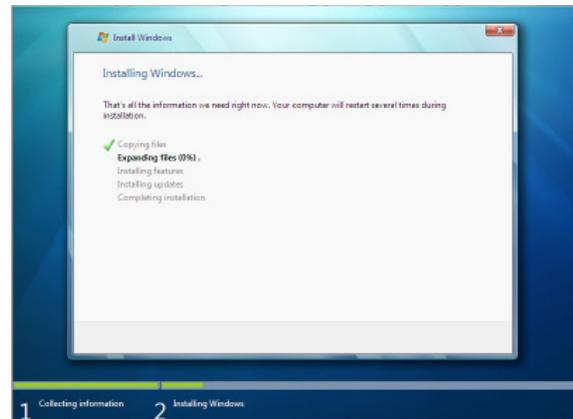
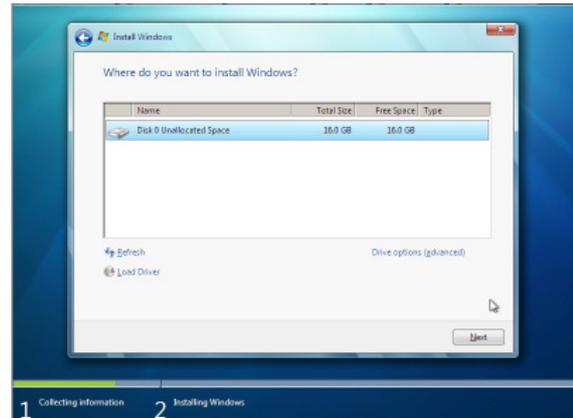
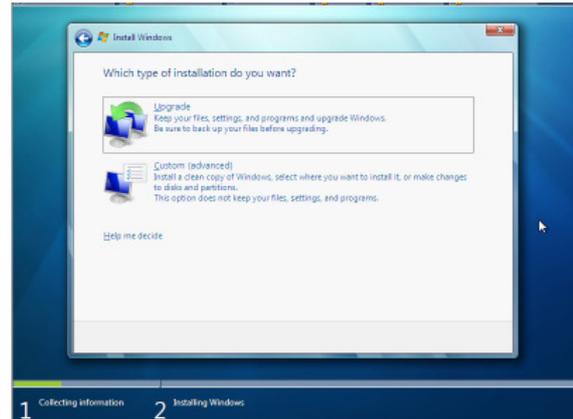


Even if performing an upgrade from another version of Windows select the 'Custom (advanced)' option. This ensures a 'clean' installation.

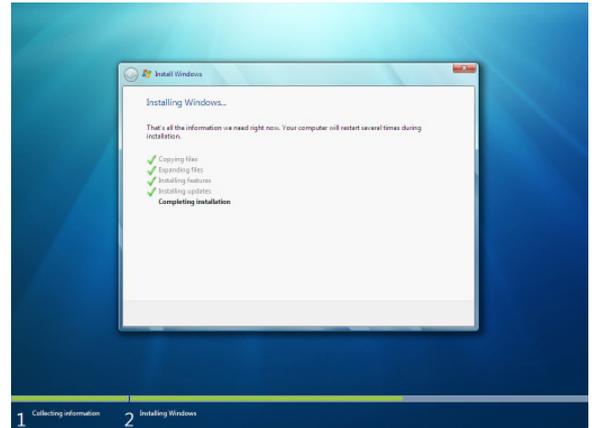
Select the disk or disk partition that you wish to install Windows 7 on and click the 'Next' button:

Windows will begin the first major phase of installation and can take many minutes to complete:

The Windows 7 installer will then reboot and you should see the 'Starting Windows' screen. It will be followed with some other screens labelled 'Updating registry settings..' and 'Setup is starting services...':



After a few minutes you should see the 'Completing installation' screen:



The installer then reboots the system for the second time:



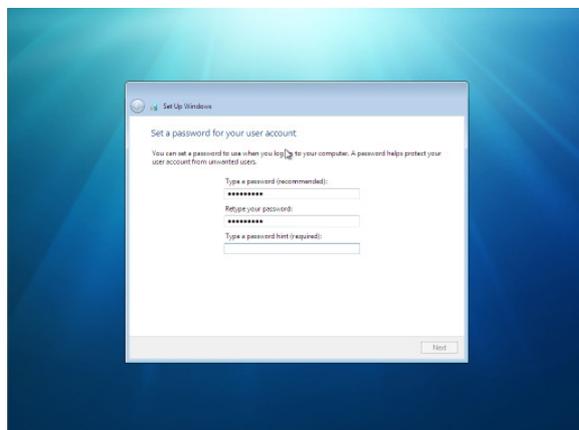
You are now required to enter the default user account and computer name:

Use '**emsuser**' as the default user name.

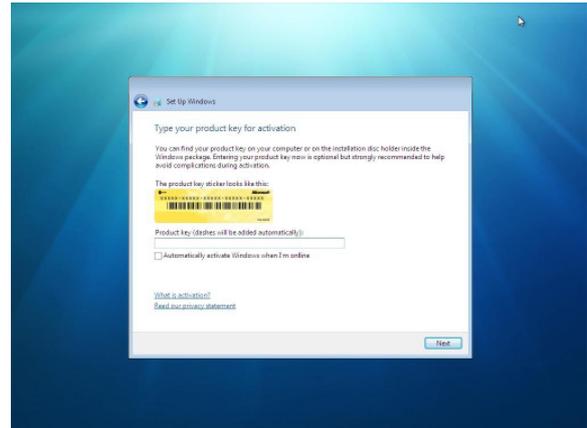
The 'computer name' will have been specified in the project 'Functional Design Specification' (FDS) or 'Software Design Specification' (SDS) and will typically be 'EMS-Server' or 'FMS-Server'. DO NOT USE UNDERSCORE CHARACTERS; instead use the 'minus' character.



Enter and confirm the password as 'emsuser'. A password hint so enter a password hint of 'EMS User standard':



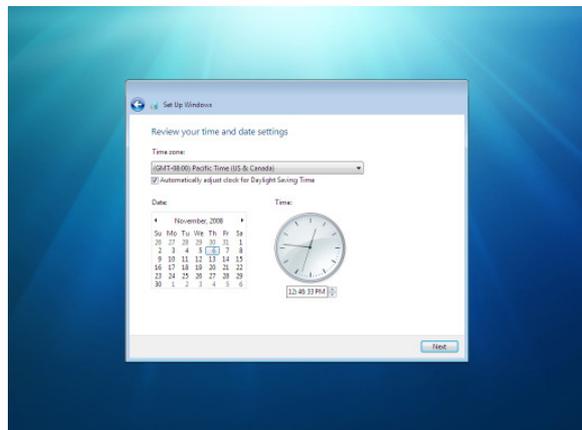
When prompted carefully enter the product key. You can usually find the product key on the installation case. Ensure that the 'Automatically activate Windows when I'm online' check box is unchecked:



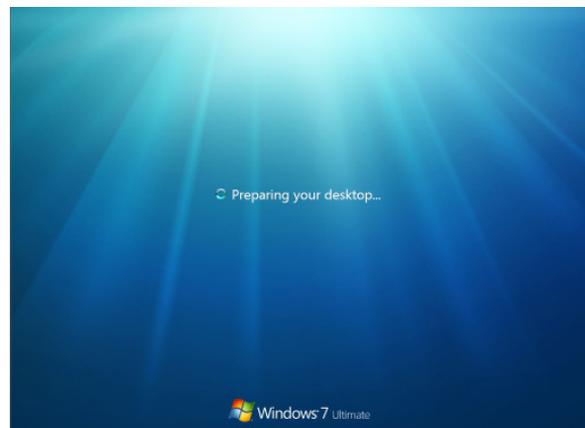
You may at this stage be taken to the 'Help protect your computer and improve Windows automatically' screen. Select the 'Ask me later' option:



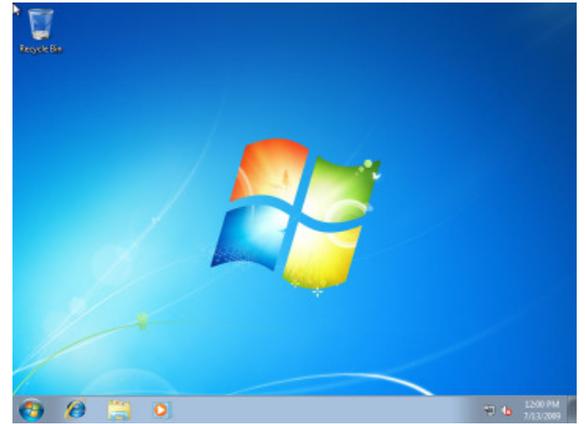
Set the system clock as required. Ensure that the clock is set to automatically adjust for Daylight Saving Time :



Windows 7 installer will then begin to prepare the desktop:



The Windows 7 desktop will then be shown:



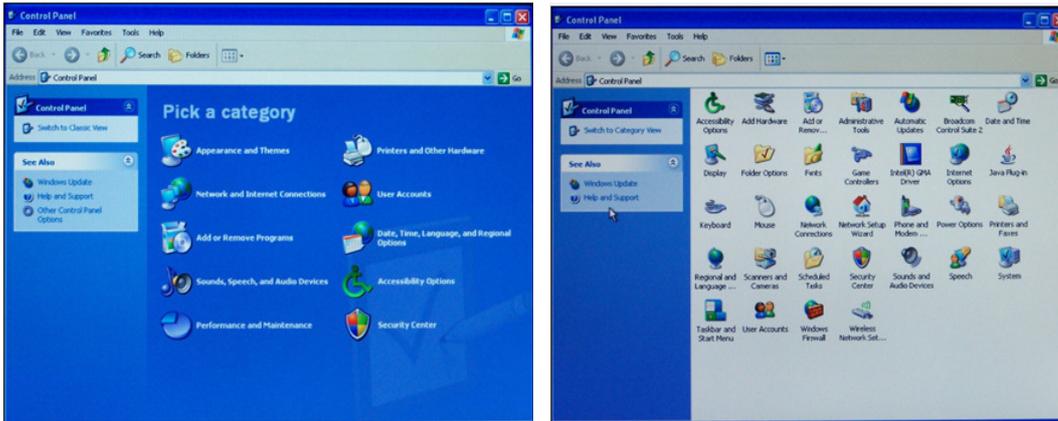
Windows 7 Installation is complete!

## Configuring the PC

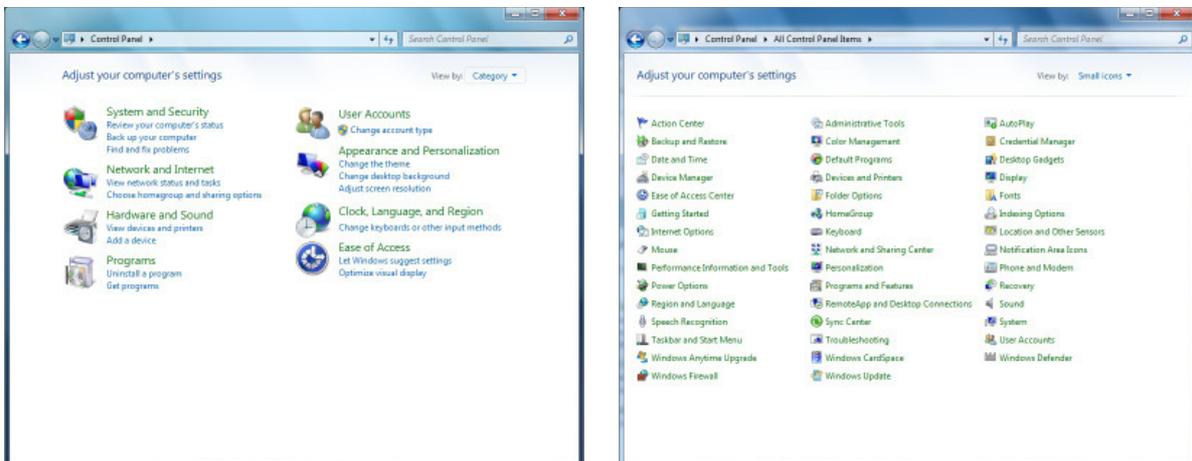
The following section describes the configuration of 'environmental' parameters required for optimum performance with enVigil. Examples are shown for Windows XP and the equivalent steps taken for Windows 7.

### Setting up the Control Panel

- In Windows XP the control panel should be set to '*Switch to Classic View*' to enable all options to be accessed:



- In Windows 7 ensure '*View by:*' is set to either '*Small Icons*' or '*Large Icons*':



## Removing unwanted applications

It is now necessary to remove undesirable applications such as trial versions of Anti-Virus or Dell OpenManage Client Instrumentation (OMCI). Attempt to shut down and disable any Anti-Virus and non-Microsoft Firewalls then use the Control Panel .. Add/Remove Programs to locate and uninstall these programs. Note that there may be several additional components such as 'LiveUpdate', 'LiveReg' etc. that must also be uninstalled.

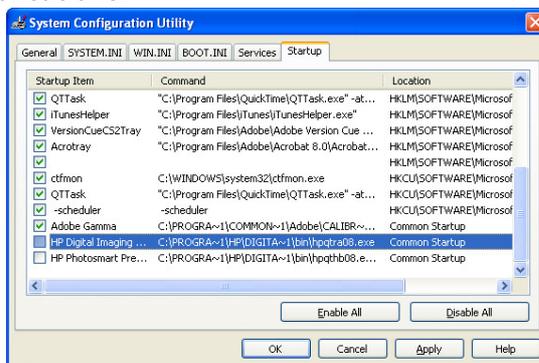
It is difficult to define the unwanted applications as the software installed on each PC is likely to change frequently. You should make a valued judgement as to whether the software is really needed. If you have any concerns or questions you should consult your IT department.

### For Dell machines ensure that Dell OMCI if present is uninstalled before proceeding.

Ensure that any unwanted entries are also removed from system startup (such as the 'EULA Launcher' on Dell machines). To run the system startup setup..

**XP:** Perform Start-> Run->msconfig.

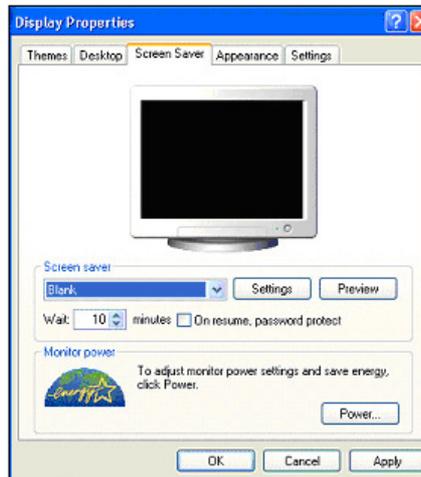
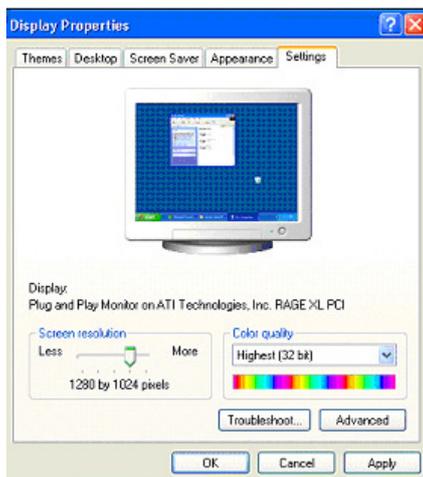
**Windows 7:** Simply type 'msconfig' in the start menus search bar and hit the enter key. Uncheck any unused applications.



## Setting the display resolution and blank screen saver

Windows XP:

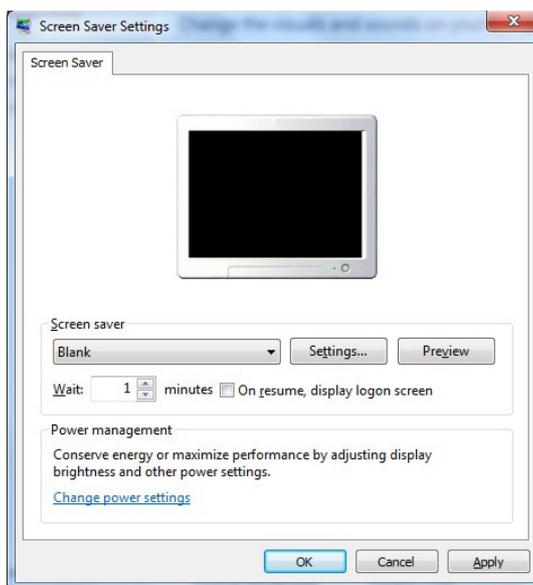
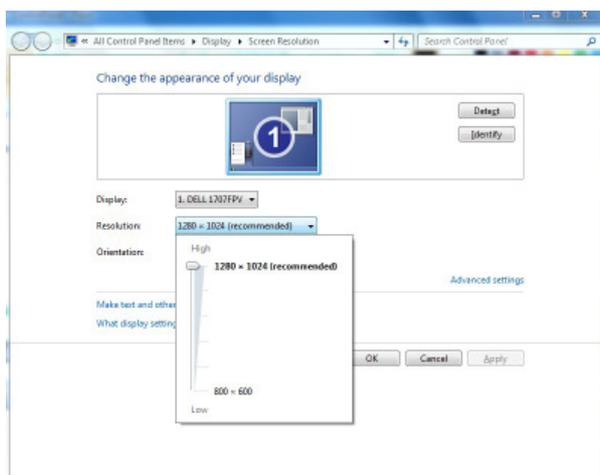
- **'Display Properties .. Settings .. Screen resolution'** should be set to **1280 x 1024 as a minimum resolution:**
- **'Display Properties .. Screen Saver .. Screen saver'** should be set to **'Blank'** with **'On resume, password protect'** unchecked:



## Setting the display resolution and blank screen saver (cont...)

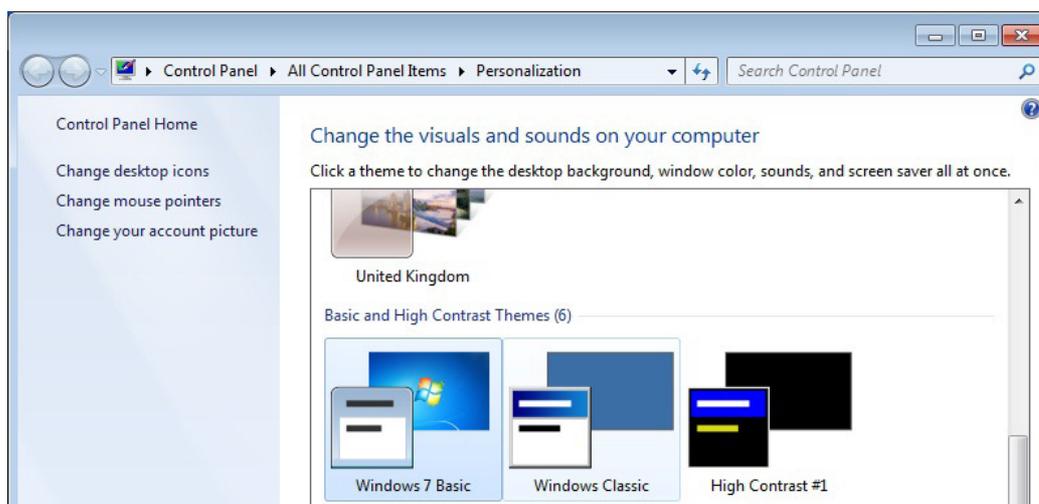
### Windows 7:

- Right click the Desktop and select 'Screen resolution'. Adjust the slider control to set the screen resolution to at least 1280 x 1024
- Right click the Desktop and select 'Personalize' from the pop up menu. Click the 'Screen Saver' button located at the bottom right corner of the Personalization dialog box. Screen saver should be set to 'Blank' with 'On resume, display logon screen' unchecked:



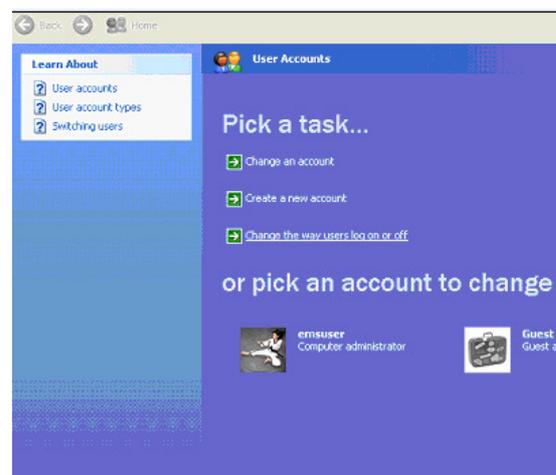
## Setting a basic theme - (Windows 7 only)

- Right click desktop and select 'Personalize' from the pop up menu. Scroll down to 'Basic and High Contrast Themes' select either 'Windows Classic' or 'Windows 7 Basic':



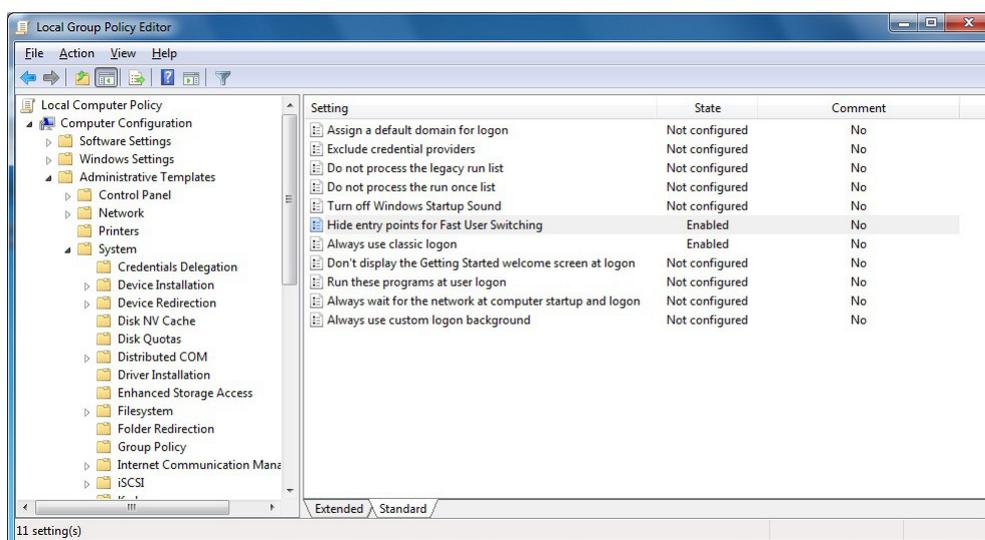
## Disabling the Welcome screen and setting 'emsuser' password (XP only)

- The Welcome screen should be disabled (and therefore fast switching between users): '**Control Panel .. User Accounts .. Change the way users log on or off**' should be set to not use the Welcome screen:
- Use the User Accounts screen to set the 'emsuser' user password to 'emsuser'



## Setting up Windows 7 Logon screen (Windows 7 Only)

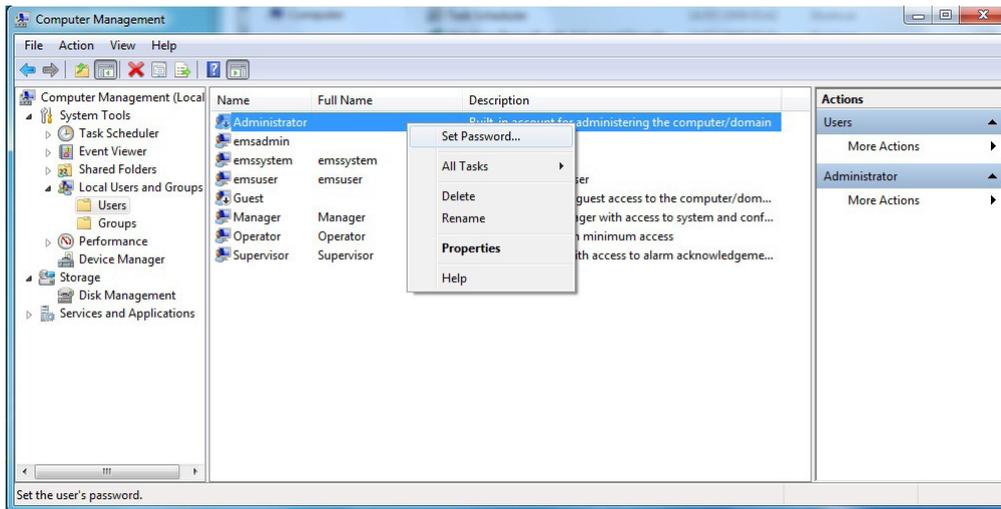
- Run the '**Local Group Policy Editor**' by typing '**gpedit.msc**' in the start menu search bar. Under **Local Policy->Administrative Templates->System->Logon** ensure '**Hide entry points for Fast User Switching**' and '**Always use classic logon**' settings are enabled



## Setting the Administrator password (Windows 7 Only)

- By default the built in Administrator account is hidden after Windows 7 installation. It should be enabled and set up with a suitably secure password.

Set the password via **Control Panel -> Administrative Tools -> Computer Management -> System Tools -> Local Users and Groups -> Users**. Right click the 'Administrator' user and select the 'Set Password...' option.



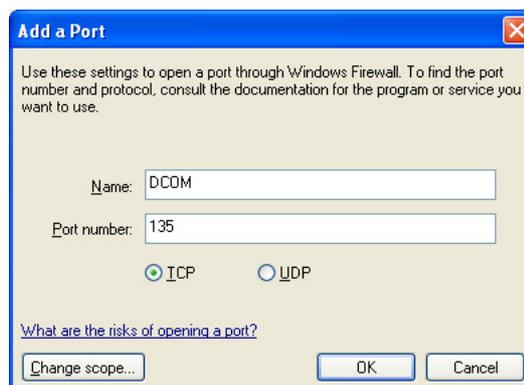
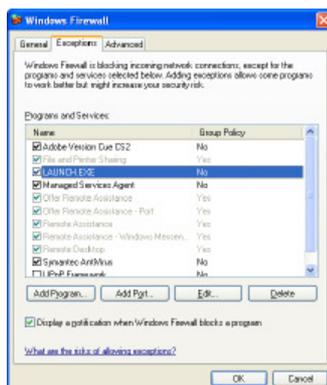
## Disabling the Windows Firewall (Windows XP)

- 'Control Panel .. Windows Firewall .. General' firewall protection should be switched off:

If it is not possible to turn off the firewall or an external non-Windows firewall is protecting the system (e.g. enforced by customer) you must:

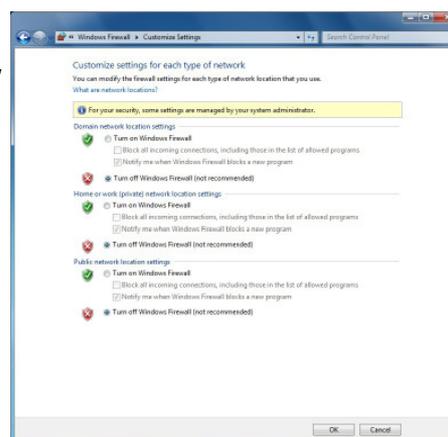
From the 'Exceptions' Tab

- 1) Click 'Add Program...'
- 2) Use 'Browse' button to navigate to the enVigil Installation directory and select and add the Launch.exe Program. Repeat to also add DBXServer.exe
- 3) Click the 'Add Port...' button. Set the 'Name' field to 'DCOM' and set the port number to 135, ensuring the 'TCP' radio button is selected and then click OK.



## Disabling the Windows Firewall (Windows 7)

- **'Control Panel .. Windows Firewall ...Click Turn Windows Firewall on or off. ...Click Turn off Windows Firewall (not recommended) under each network location, and then click OK:**



If it is not possible to turn off the firewall or an external non-Windows firewall is protecting the system (e.g. enforced by customer) you must add 'Inbound' and 'Outbound' rules for the DBXServer.exe and Launch.exe applications and also DCOM port 135.

### To add a program... (For both DBXServer.exe and Launch.exe in turn)

Click 'Advanced settings' from the Windows Firewall screen

1) Select 'Inbound Rules' from the left pane and click 'New Rule...' from the action pane to the right of the screen

2) Leave 'Program' selected and click the 'Next>' button

3) Ensure 'This program path:' is selected and use the 'Browse...' button to locate and select the application from the enVigil installation directory and then click 'Next>'

4) Ensure 'Allow the connection' is selected and click 'Next>'

5) Ensure that all check boxes are enabled for 'Domain', 'Private' and 'Public' and click 'Next>'

6) Enter a suitable name of 'DBXServer' and 'Launch', you can leave the description blank.

**REPEAT STEPS 1-6 but use 'Outbound Rules' in step 1.**

### DCOM Port 135 Rule...

7) Select 'Inbound Rules' from the left pane and click 'New Rule...' from the action pane to the right of the screen

8) Select 'Port' instead of 'Program' and click the 'Next>' button

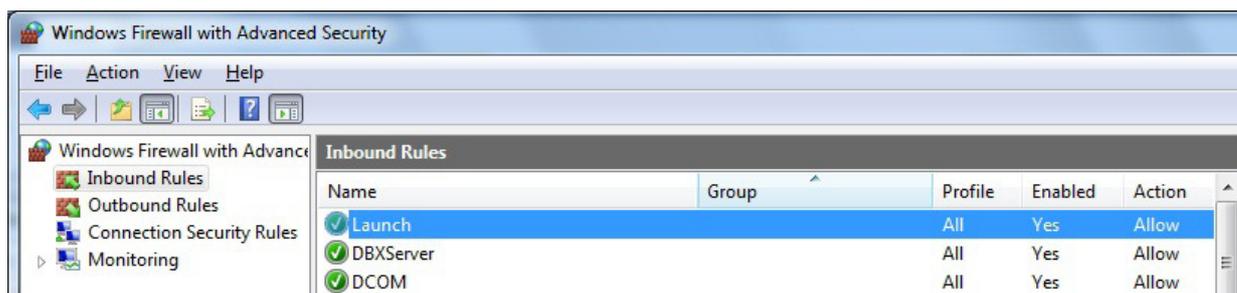
9) Ensure TCP is selected and enter '135' in the 'Specific local ports:' field and click the 'Next>' button

10) Ensure 'Allow the connection' is selected and click 'Next>'

11) Ensure that all check boxes are enabled for 'Domain', 'Private' and 'Public' and click 'Next>'

12) Enter a name of 'DCOM', you can leave the description blank.

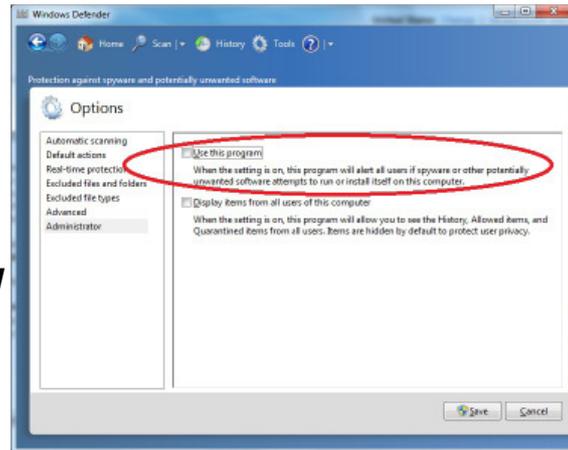
**REPEAT STEPS 7-12 but use 'Outbound Rules' in step 7.**



## Disabling Windows Defender (Windows 7 Only)

- 'Control Panel .. Windows Defender ...Tools...Options...Administrator.. Ensure 'Use this program' is unchecked and click the 'Save' button

**NOTE: Windows Defender may not be able to be disabled until it is updated via the internet. If possible you should temporarily connect the PC to the internet to update defender. Once updated it can be disabled.**



## Disabling Security Alerts and Automatic Updates(Windows XP)

- 'Control Panel .. Security Centre' alerts should be disabled for Firewall, Automatic Updates and Virus Protection:

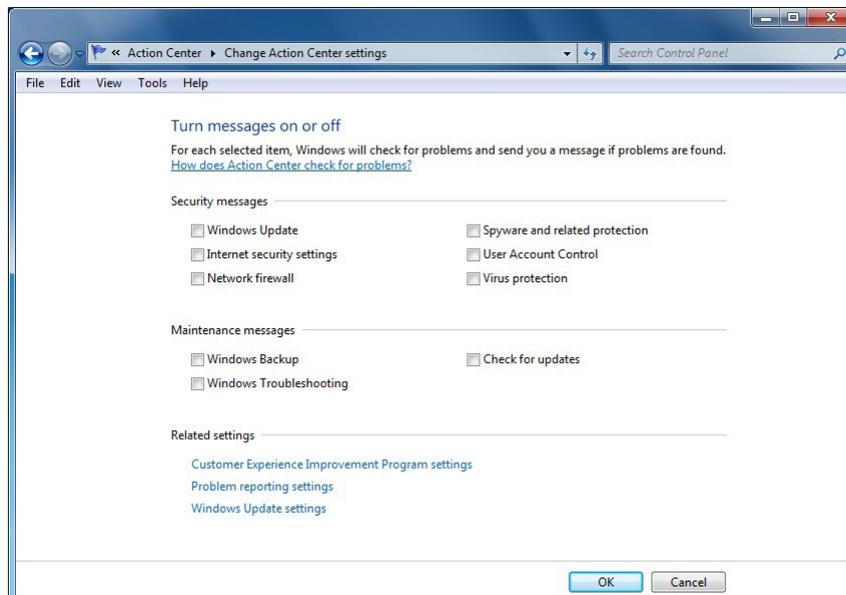


- 'Control Panel .. Security Centre' 'Automatic Updates' should be switched off:

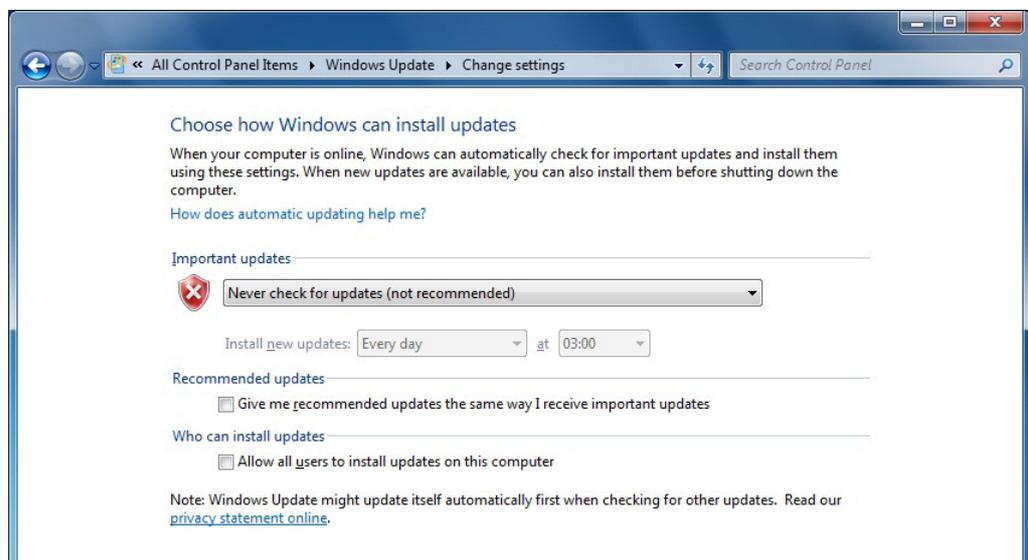


## Disabling Security Alerts and Automatic Updates(Windows 7)

- **'Control Panel .. Action Center...Change Action Center Settings...'** Ensure all check boxes are unchecked and click the 'OK' button:

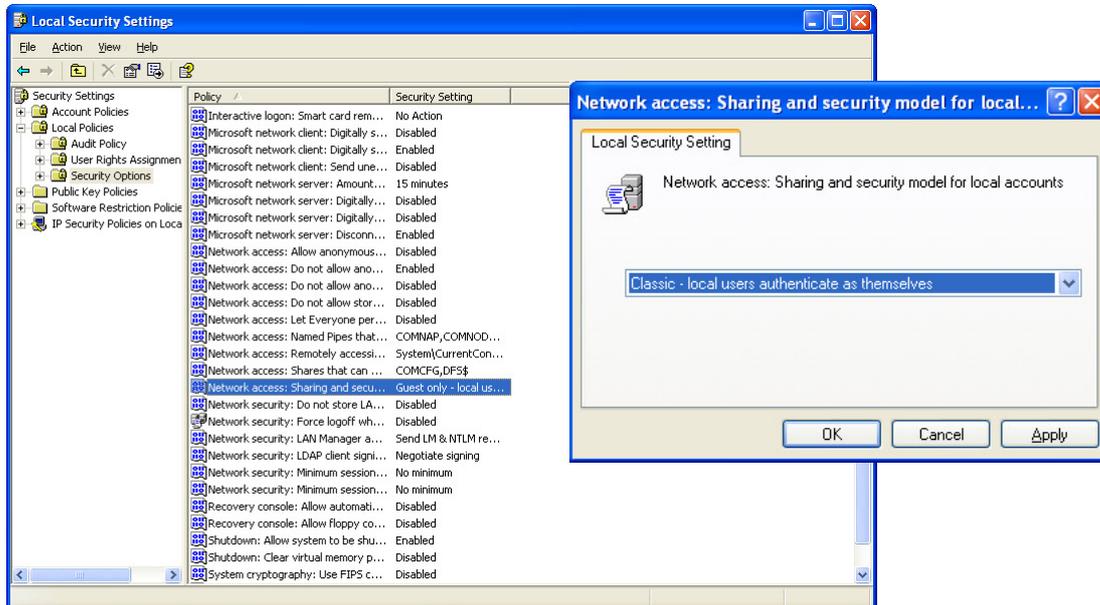


- **'Control Panel .. Windows Update... Change Settings'**. Ensure 'Never check for updates(not recommended)' is selected for 'Important updates'. Ensure check boxes under 'Recommended updates' and 'Who can install updates' are also unchecked and click the 'OK' button:



## Setting Local Security Policy (server only Windows XP & Windows 7)

- **'Control Panel .. Administrative Tools .. Local Security Policy.. Local Policies .. Security Options .. Network access: Sharing and security model for local accounts'** should be set to **'Classic – local users authenticate as themselves'** to allow Sharing and Security to be configured:

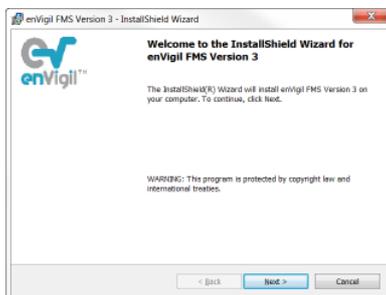
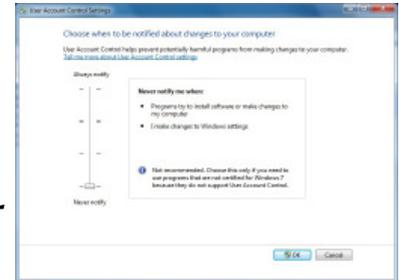


## Installing enVigil

After the first user account has been setup and the initial boot sequence is complete the computer is ready for the installation of enVigil. To install enVigil you must ensure that you are logged in as a user that has full local administrative privileges.

**If you are installing on a Windows 7 machine it is recommended that 'User Account Control' is turned off prior to installation. If it is not switched off the enVigil Installer will be unable to create the default local user accounts and these will have to be added manually.**

**Turn off UAC at following location 'Control Panel .. User Accounts ..Change User Account Control settings..'. Move the slider down to 'Never notify' and click the OK button. Reboot the PC to enable the UAC setting change.**



Insert the enVigil installation CD and the setup process should auto-run. If it does not, then navigate to the CD drive and run the enVigil Windows Installer package (for example, enVigil FMS Version 3.msi) located there and follow the on-screen installation instructions:



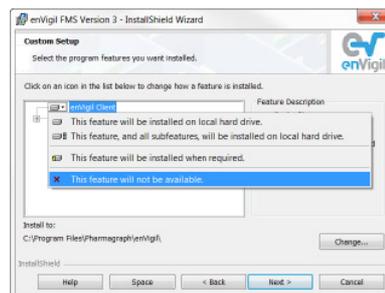
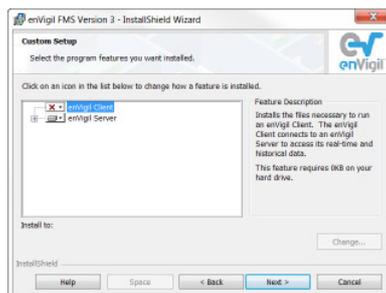
It is recommended that you accept the default installation folder of 'C:\Program Files\Pharmagraph\enVigil'. If required you can install to a different directory.

If installing on Windows 64 bit the default directory will be 'C:\Program Files (x86)\Pharmagraph\enVigil'

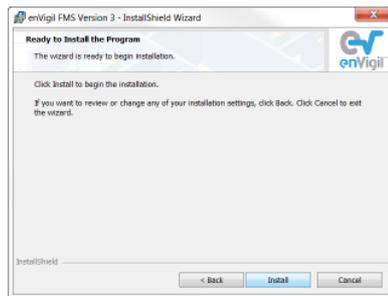


enVigil allows you perform a 'Custom' installation which allows you to specify whether to install 'enVigil Client', 'enVigil Server' and 'Demonstration configuration components'.

For machines that will run as an enVigil Server it is always recommended to choose the complete installation option.



If the enVigil Client software is really not required then you should select 'Custom' click the 'Next' button, select the 'This feature will not be available' option under the 'enVigil Client' feature and click the 'Next' button.

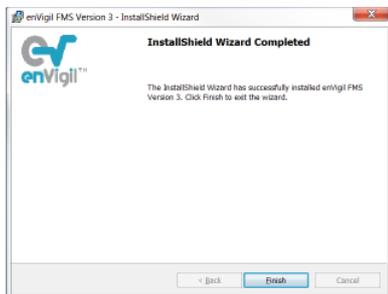


Installation is then ready to begin. Click the 'Install' button to start the installation.



During installation a progress bar will be shown while various tasks are being performed. Installation may take several minutes to complete.

Note: If installing on Windows 7 with User Account Control turned on you will be prompted to authorise the installation at various times. These security prompts suspend the installation.



The installer should show this screen when complete. Click the 'Finish' button.

When enVigil has been installed successfully some desktop shortcuts will have been created;

'Configure enVigil Server' - can be used to run the enVigil Server configuration program. It will only be created if the enVigil Server feature was chosen to be installed (or the 'Complete' installation option was chosen).

'enVigil Client Demonstration' - will run the enVigil Client software. If the 'Demonstration configuration' was chosen to be installed (or the 'Complete' installation option was chosen) the PharmaQual enVigil Demonstration client VCX file will be run. If the demonstration config was not chosen to be installed then enVigil client will run with a new (blank) screen ready for configuration. This shortcut will not be created if the enVigil Client feature was chosen to not be installed.

'Example PlayWave' - can be configured to play an audible alert when some system event occurs (please refer to the PlayWave manual section of the *enVigil-FMS System Configuration Guide*).



## Local User Accounts

The *enVigil* installation process should have created the following additional local user accounts:

Account name	Password	Information
EMSadmin	<predefined by Pharmagraph>	Reserved administrator account for system maintenance
EMSsystem	<predefined by Pharmagraph>	Reserved administrator account used to run background server processes
Manager	Manager	Administrator account used to create example enVigil 'Manager'
Supervisor	Supervisor	Standard User account used to create example enVigil 'Supervisor'
Operator	Operator	Administrator account used to create example enVigil 'Operator'

**If installation was carried out on Windows 7 while 'User Account Control' was turned on the installer would have failed to create these user accounts. The 'EMSuser', 'EMSsystem' and 'EMSadmin' accounts should therefore be added manually.**

**For non-Pharmagraph systems you can reset the EMSsystem and EMSadmin passwords. Be sure to document and safeguard the modified passwords.**

## Setting the default Password Policy (Windows XP & Windows 7)

- **'Control Panel .. Administrative Tools .. Local Security Policy.. Security Settings.. Account Policies.. Password Policy\Account Lockout Policy'**  
Apply the following settings:

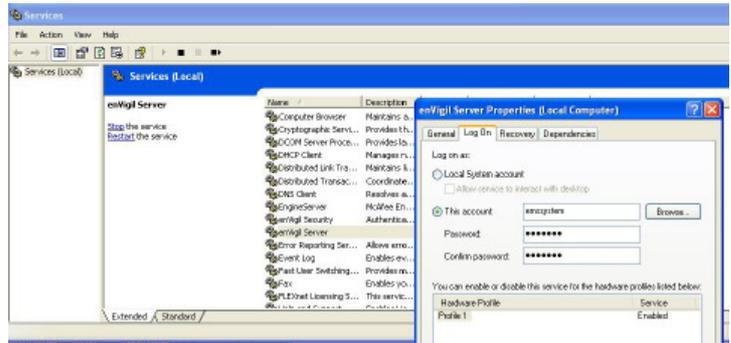
Policy	Setting
Enforce Password History	0 passwords remembered
Maximum Password Age	0 Days
Minimum Password Age	0 Days
Minimum Password Length	6 characters
Password must meet complexity requirements	Disabled
Store passwords using reversible encryption	Disabled
Account lockout duration	0 (Admin Reset)
Account lockout threshold	3 invalid logon attempts
Reset account lockout after	3 minutes

The enVigil Server service will now be setup to run under the 'EMSsystem' account.

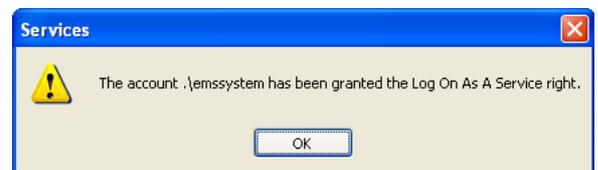
## Running the enVigil Server service as the 'EMSystem' account (server only) (XP & Windows 7)

If the demonstration configuration has not been installed this step can only be carried out once the enVigil Server has been configured to run at least one process.

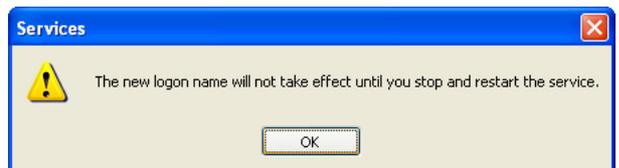
- **'Control Panel .. Administrative Tools .. Services .. enVigil Server .. Properties .. Log On'** should be set to 'This account' '\emssystem' with the appropriate password entered and confirmed:



This may result in a couple of message boxes confirming this:



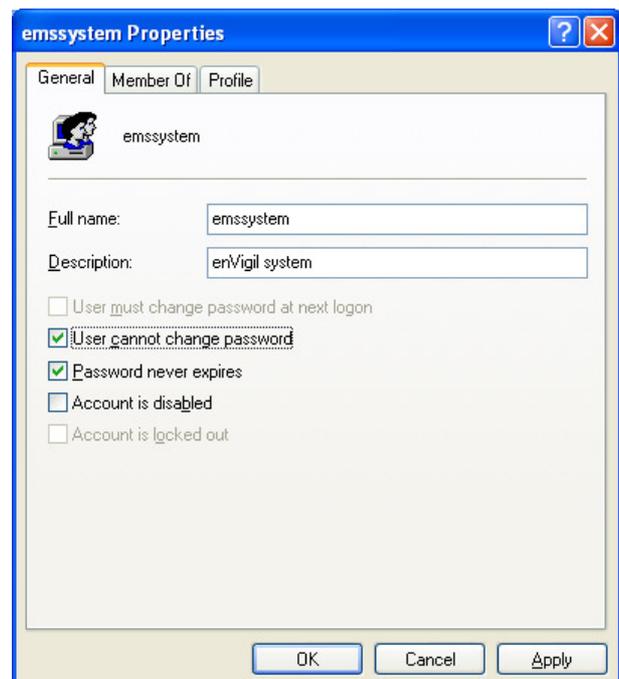
If the service is currently running then you may get a warning to stop and restart the service. This can be easily achieved using the 'restart' icon



## Checking local accounts for password expiry (XP & Windows 7)

Now check that the 'EMSystem', 'EMAdmin' and 'EMUser' user accounts are set to never expire.

- **'Control Panel .. Administrative Tools .. Computer Management .. Local Users and Groups .. Users'** the properties of each of those user's accounts should look like this:



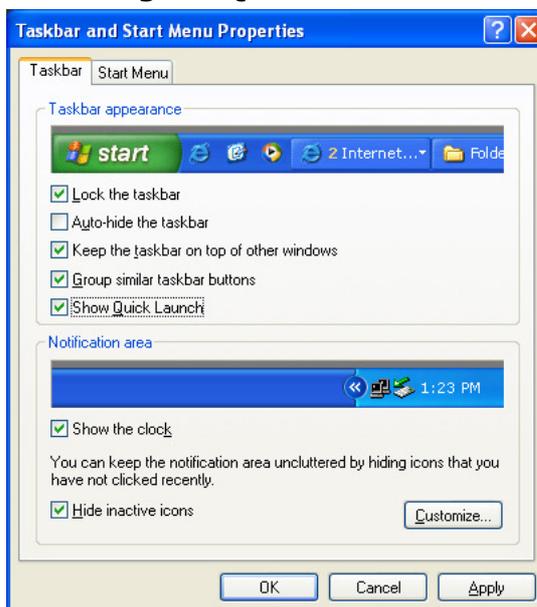
## Creating Task Bar Shortcuts(server only) (XP & Windows 7)

Because 'emsuser' will eventually be a low privilege account, some task bar shortcuts should be added. This is handled slightly differently in Windows XP and Windows 7. In Windows XP shortcuts are added to the 'Quick Launch' toolbar, Windows 7 allows you to 'pin' items to the taskbar.

Shortcuts will be created on the task bar so that certain facilities can be run using a higher privilege account such as 'EMSadmin'. Three new shortcuts will provide convenient access to the 'Local User Manager' Windows MMC 'plug-in', the 'Configure enVigil Server' (ConfServer.exe) program and the 'Configure enVigil Users' (ConfUserAccess.exe) program.

**Windows XP:** If the 'Quick Launch' toolbar is not visible, right click the task bar at the bottom of the screen and select 'Toolbars'..'Quick Launch':

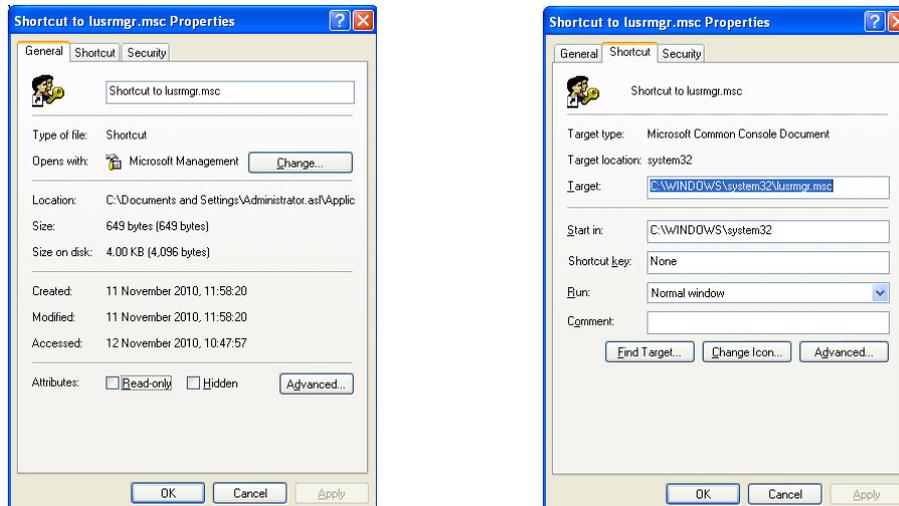
**Figure 1: Enabling the Quick Launch Toolbar (XP Only)**



Windows 7 does not have the 'Quick Launch' facility but instead you can simply 'pin' items to the task bar. To pin an item to the task bar simply drag the item (shortcut to application) to the task bar and release.

## Adding a Task Bar Shortcut to Local User Manager (server only) (XP & Windows 7)

To create the 'Local User Manager' shortcut, navigate to the 'C:\Windows\System32' folder, right click on 'LUSRMGR.MSC' and select 'Send to' > 'Desktop(create shortcut)'. Right click the resulting shortcut added to the desktop to access its properties:



**Figure 2: Local User Manager Shortcut (Windows XP)**

On the 'General' tab set the shortcut name to be 'Manage Windows Users' – this then appears as the tool tip when the user hovers over the Quick Launch icon.

On the 'Shortcut' tab, click the 'Advanced...' button

**Windows XP:** ensure that the 'Run with different credentials' check box is checked then click OK:

**Windows 7:** ensure that the 'Run as administrator' check box is checked then click OK:

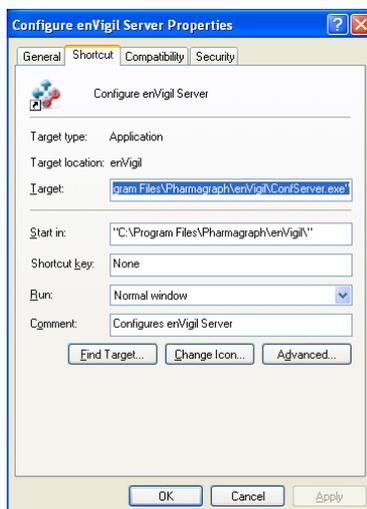
**Windows XP:** Hold down the shift key and drag the shortcut from the desktop to the Quick Launch toolbar to the right of the Start button.

**Windows 7:** Simply drag the shortcut to the task bar, position it to the right of the Start button if possible.

You can delete the shortcut that was originally added to the desktop.

## Adding a Task Bar Shortcut to Configure enVigil Server (server only) (XP & Windows 7)

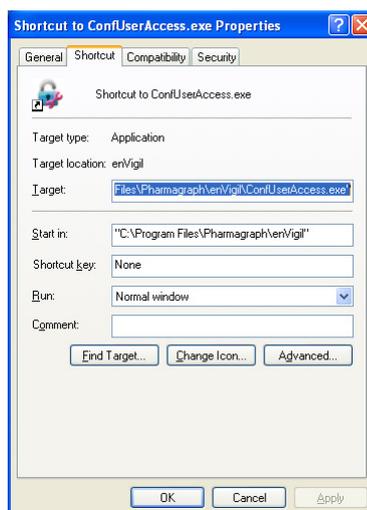
The existing desktop shortcut to 'Configure enVigil Server' should now have its advanced properties set as 'Run with different credentials' (Windows XP Only), 'Run as Administrator' is not required for Windows 7. Close the properties dialog then drag the shortcut to the Quick Launch toolbar (Windows XP) or Pin the shortcut to the task bar (Windows 7).



**Figure 3: Configure enVigil Server Shortcut (Windows XP)**

## Adding a Task Bar Shortcut to Configure enVigil Users (server only) (XP & Windows 7)

A shortcut to 'Configure enVigil Users' should now be added by navigating to the enVigil folder, 'ConfUserAccess.exe' application, right clicking it and selecting 'Send to > Desktop (create shortcut)', then using the same technique described above to set its advanced properties. Close the properties dialog then drag the shortcut to the Quick Launch toolbar (Windows XP) or Pin the shortcut to the task bar (Windows 7).



**Figure 4: Properties of Configure enVigil Users**

Delete the ConfUserAccess shortcut created on the desktop. Delete all other Quick Launch\Task Bar shortcuts to minimise confusion.

The Task Bar will eventually end up similar to the following:



Figure 5: Completed Quick Launch Shortcuts (Windows XP)

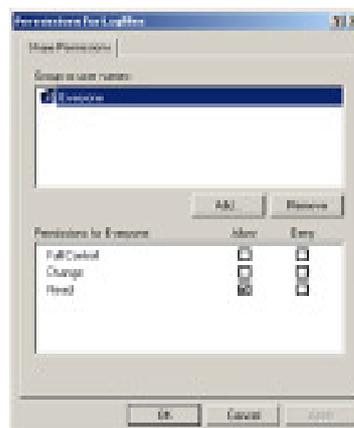


Figure 6: Completed Task Bar Pinned Items (Windows 7)

## Sharing the 'Logfiles' and 'Configuration' folder (server only) (Windows XP & Windows 7)

### Windows XP

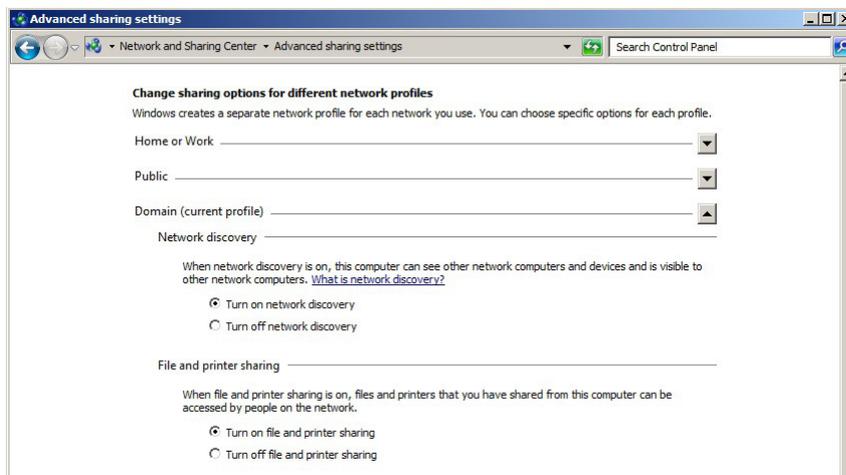
- Navigate to the 'C:\Logfiles' and 'C:\enVigilConfigs\ConfigName' folder and right click it to access its properties.
- Click the 'Sharing' tab and select 'Share this folder'



- Check that the 'Share name' is 'Logfiles' and 'ConfigName' and check that the 'Permissions' are 'Read' for 'Everyone' then click 'OK':

## Windows 7

Windows 7 requires an additional step to ensure that 'File and printer sharing' is switched on. To check this navigate as follows '**Control Panel**'...'**Network and Sharing Center**'..''**Change advanced sharing settings**'. Ensure that the 'Turn on file and printer sharing' option is selected and click 'Save Changes':



- Navigate to the 'C:\Logfiles' and 'C:\enVigilConfigs\ConfigName' folder and right click it and chose 'Share with'>'Specify people...'
- Select 'Everyone' from the drop down list box and click the 'Add' button.

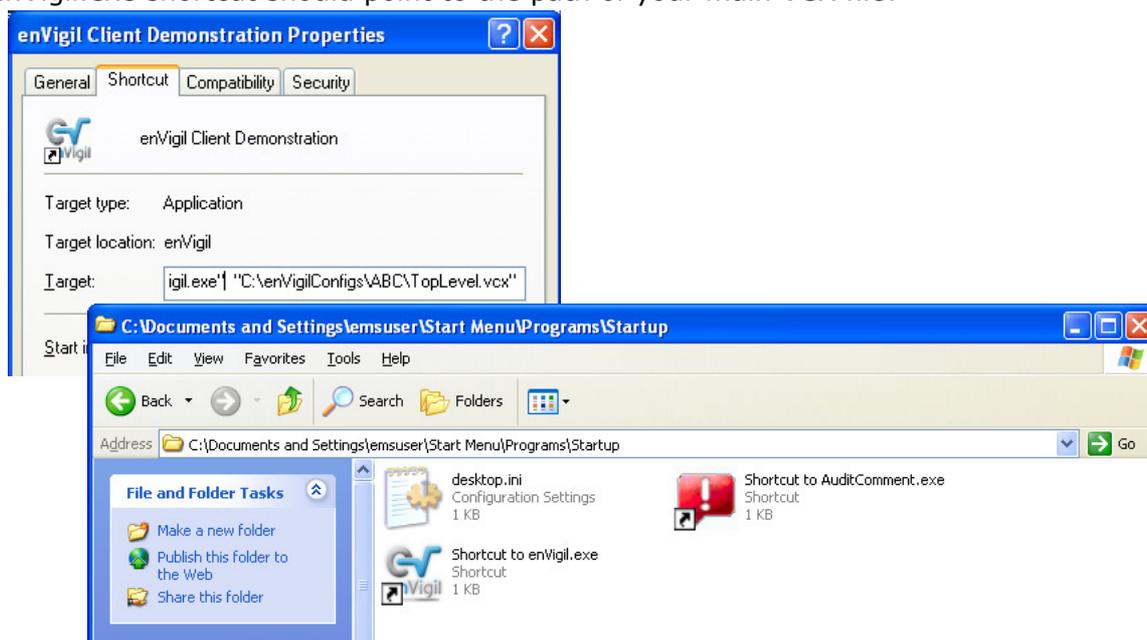
## Creating Startup Shortcuts (Windows XP & Windows 7)

You must create shortcuts for AuditComment.exe (server only) and enVigil.exe and copy them to emsuser's startup directory -

Windows XP -> 'C:\Documents and Settings\emsuser\Start Menu\Programs\Startup'

Windows 7 -> 'C:\Users\emsuser\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Startup'

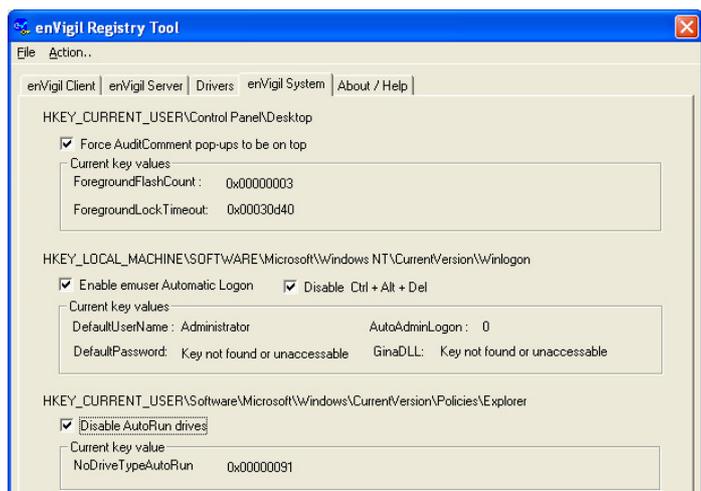
Your enVigil.exe shortcut should point to the path of your main VCX file:



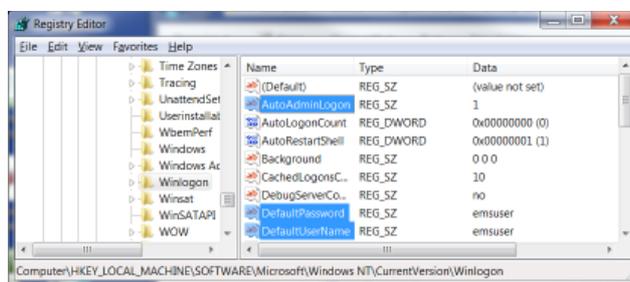
## Modifying enVigil behaviour via registry keys

There are a number of registry keys that modify the default behaviour of enVigil. Use the enVigil Registry Tool (EnVigilReg.exe) to modify these settings as required, more information can be found on each setting in the 'enVigil Registry Tool' section of the enVigil-FMS System Configuration Manual.

The 'System' tab of the enVigil Registry tool should be used to set the registry settings shown. These settings will ensure audit comment pop ups do not get hidden, AutoRun is disabled, Ctrl + Alt + Del is disabled and Windows logs in to 'EMSuser' windows account from boot up.



NOTE: If using Windows 64 bit you **must** set the 'DefaultUserName', 'Default Password' and 'AutoAdminLogon' keys manually in regedit!

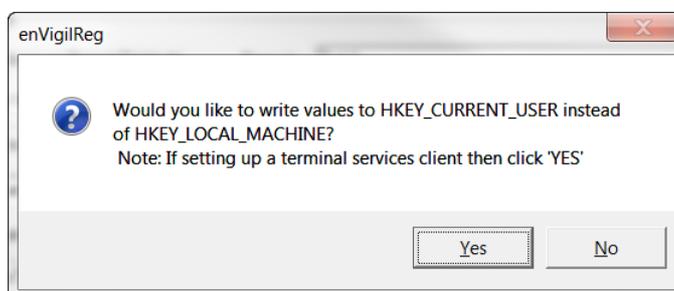


If you require the machine to be a dedicated enVigil Client (e.g. enVigil is the only software used on a day to day basis) you should set the 'Dedicated Client' setting on the 'enVigil Client' tab

Select Action->'Write values to registry' from the main menu to submit the changes.



When using the registry tool to change the behaviour of a terminal service client you should say 'Yes' to the dialog that prompts to change the registry keys of the HKEY\_CURRENT\_USER branch. You must ensure that the Windows account running the terminal services session is an administrator and has not yet been demoted otherwise access to write to the registry will be denied. See 'Appendix C -Terminal Service Setup Guide' for more information



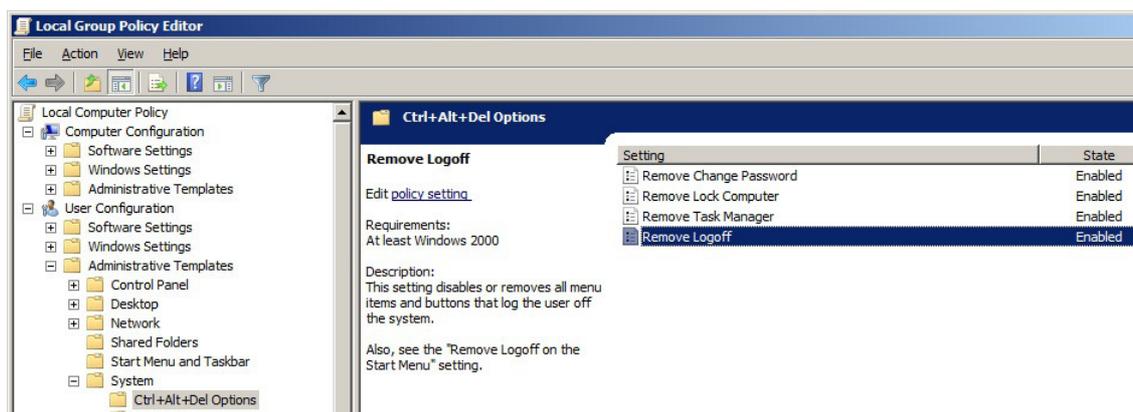
## Ensure Inhibit Sleep is set on the 'enVigil Server' Tab

## Disabling Ctrl+Alt+Del on Windows 7

It is not possible to disable Ctrl+Alt+Del in the same way with Windows 7. Instead the screen shown when Ctrl+Alt+Delete is key combination can be 'tweaked' so that no access to the operating system is given. Therefore the user cannot run 'Task Manager' (which gives the user the ability to run other programs) or even shutdown/restart the PC (Except by the On/Off button on the PC itself).

Type 'gpedit.msc' in the Windows 7 Search/Run toolbar and hit enter.

Navigate to the 'Ctrl+Alt+Del' Options' folder (Local Computer Policy...User Configuration... Administrative Templates...System...). Set all items to be 'Enabled' by double clicking the item and setting the 'Enabled' option:



Navigate to the 'Start Menu and Taskbar' Options' folder (Local Computer Policy... User Configuration... Administrative Templates.....). Set the 'Remove and prevent access to the Shut Down, Restart, Sleep, and Hibernate commands' to 'Enabled'. Note: This completely disables any ability to shutdown or restart the PC via the Windows 7 operating system, by any user. After this setting has been applied only the hardware on/off button on PC can be used. This setting is optional.

## Collection File (.CLX) Permissions

If your enVigil configuration requires that the user can modify any collections (e.g. they can modify the collection of points used by LB2 Convert GRX facility) you must ensure that the file permissions for the .CLX file are set such that the EMSUser account has 'Write' but not 'Delete' permissions:

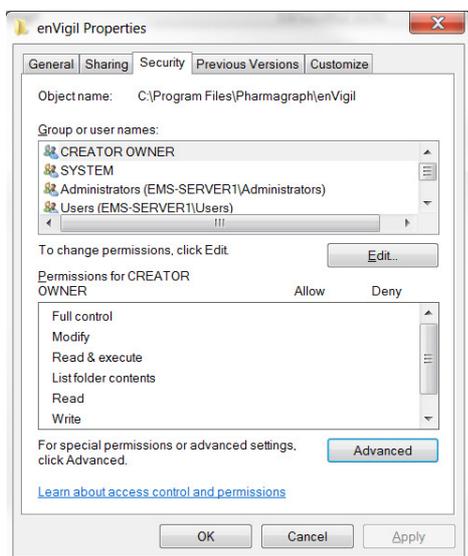
- Right click the CLX file and select Properties...
- Security tab... 'Add...'; 'Advanced...' Find Now...'
- Select 'EMSUser' account...OK ... OK.
- Now in the properties screen click the 'Advanced button...'
- On the 'Permissions' tab ensure EMSUser is selected and click the 'Edit' button
- Ensure that the Allow permission are all set except the 'Full Control' and 'Delete' entries.... OK...OK ...OK

**NOTE: See the enVigil Collections section of this manual for more information.**

## Setting the ownership permissions of the enVigil install, logfile and configuration directories

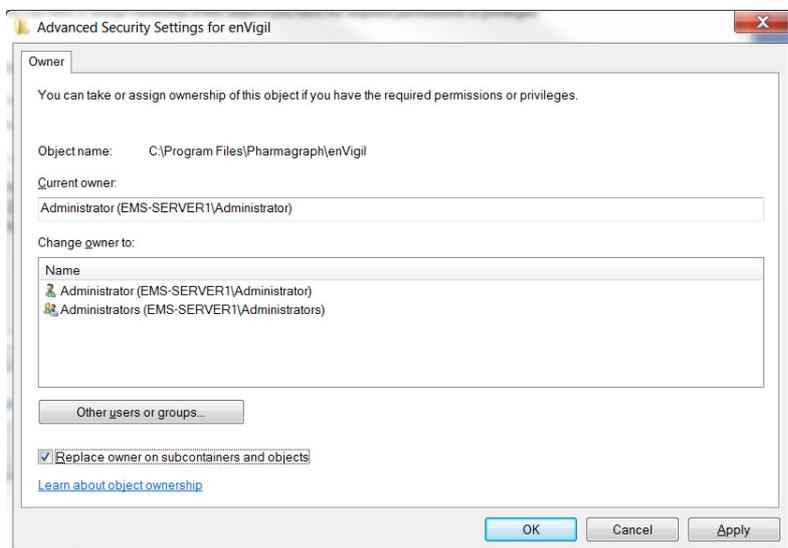
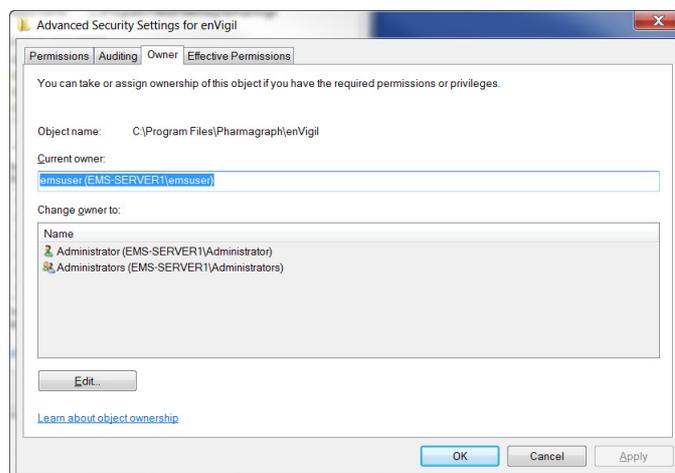
### Windows XP & Windows 7

- Navigate to the enVigil Install directory, the logfile directory (e.g. C:\Logfiles) and configuration directory (e.g. 'C:\enVigilConfigs\*ConfigName*') in turn, right click each folder to access its properties.



- Select the 'Security' tab and click the 'Advanced' button.

- Select the 'Owner' tab, if the current owner is listed as 'emsuser' follow the remaining steps to change the owner



- From the 'Owner' tab click the 'Edit' button
- Ensure that the check box 'Replace owner on subcontainers and objects' is checked

- Click the 'Administrator' user from the 'Change owner to:' list and click the Apply button. Click OK on the three currently open permission dialog boxes.

Current owner:

Administrator (EMS-SERVER1\Administrator)

## Setting 'emsuser' password and demoting to limited user (XP & Windows 7)

- Open 'Control Panel .. User Accounts .. Local Users and Groups .. Users'
- Right click on 'emsuser' and click 'Set a password', then enter and confirm password as 'emsuser'. Note the use of all lower case
- Right click 'emsuser' again and select 'Properties .. Member Of' and remove the Administrators group entry.

## Setting PC start up behaviour in the BIOS

- During the boot sequence of the PC enter the system BIOS as instructed on the screen (usually 'F2')
- Under the 'Power Management' option (or equivalent), ensure that the 'AC recovery' behaviour (or equivalent) is set to 'Continue from previous state' (or equivalent). Note that the wording and location of this facility will vary according to BIOS type. Use the appropriate option to ensure that the PC starts up automatically if the AC power failed during normal operation. It is unusual to make the PC boot when power is applied, even if it was not on at the time of AC failure.

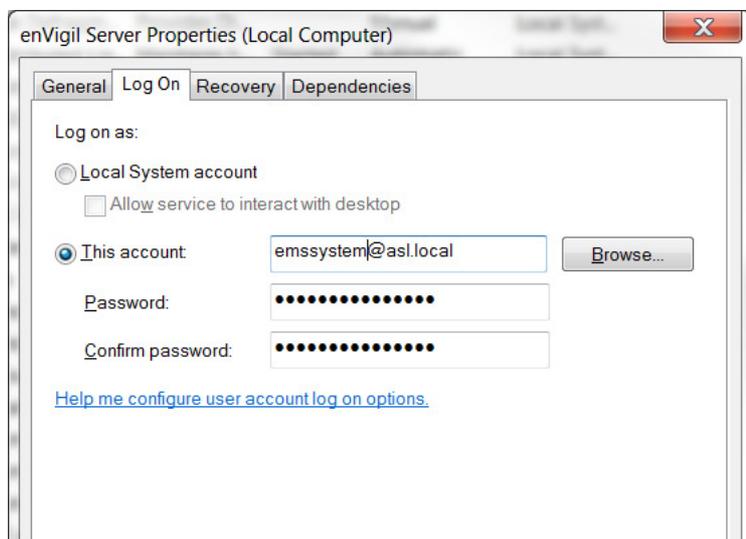
## Beware! - Joining the System to a Domain

For computers intended to run as a part of a domain you should be aware that any configuration changes made prior to joining the computer to the domain may be reset by the domains group policy. Therefore you should always check each step of this document after the computer has been joined to the domain.

## Domain User Accounts

If running the system on a domain you should request that the IT department sets up domain versions of the 'EMSUser', 'EMSSystem' and 'EMSAdmin' accounts. These accounts will replace the local user accounts created by the enVigil installer. The local accounts should therefore be deleted. The 'EMSUser' domain account can be a simple domain user account. 'EMSAdmin' and 'EMSSystem' **must** be domain accounts that have local administrative rights to the computer.

You **must** also repeat the '**Running the enVigil Server service as the 'EMSSystem' account**' section of this document but instead use the login credentials of the domain version of 'EMSSystem' :



When the enVigil Server is set to run as a domain account the connection to the network and the health of the Primary and Secondary Domain Controllers becomes critical. If the PC is booted without the network connection in place, or if the Domain Controllers are unavailable, the enVigil Server will not run. This is due to Windows requiring a connection to the Domain Controllers to authenticate the request to run the processes as the domain user. If there is any doubt that the stability of the domain is not reliable then the enVigil Server can be left to run as the local 'EMSSystem' account.

## Activity Check List -Highlight each step as it is completed

This contains some additional reminder steps not included in the main section of this document:

Step	Check
Power up PC for first time	
Set date/currency to UK/English	
Setup computer name as per FDS or SDS e.g. 'EMS-server', then enter a helpful computer description	
Record computer name used:	
Setup the local 'Administrator' password to be 'Administrator' (note the capital 'A')	
Setup internet connection method as 'LAN' but leave IP/DNS details blank (skip that setup page)	
Setup Owner Name as 'emsuser' when asked for 'Your name' – this will create the initial account	
Remove unwanted applications such as OMCI and Anti-Virus and Dell Backup Manager	
Set Control Panel to Classic View	
Set screen resolution as 1280 x 1024 where possible. LCD screens should always use native resolution. Set blank screen saver	
Set the Windows theme to basic theme	
Setup Windows 7 logon screen (W7)	
Disable the Welcome Screen (XP)	
Setting the Administrator password (W7)	
Disable Windows Firewall(XP + W7) + Defender (W7)	
[OR] Create Firewall exceptions for DBXServer.exe, Launch.exe and DCOM port 135	
Disable Windows Security Centre Alerts	
Disable Windows Automatic Updates	
Set Local Security Policy to Classic Network Access	
Install enVigil application from enVigil Installation disk	
Set default password policy	
Configure the enVigil Server Service to run as 'EMSsystem'	
Check that the 'EMSadmin', 'EMSsystem' and 'EMSuser' user accounts are set to never expire	
Create Taskbar shortcuts. Delete unnecessary taskbar shortcuts	
Copy the configuration files from the Configuration CD in to PC's folder under 'enVigil'	
Copy all patches from the Configuration CD 'enVigil' folder to the PC's 'enVigil' folder	
Share the Logfiles and Configuration directories	
Configure the desktop's enVigil Client shortcut to point to your project's main VCX file	
Drag a shortcut to enVigil Client to EMSuser's 'Start Menu' – 'Startup' option	
Create and drag a shortcut to 'AuditComment.exe' to EMSuser's 'Start Menu' – 'Startup' option	

<p>Modify enVigil behaviour if necessary using the enVigil Registry Tool:</p> <p>Including Ctrl + Alt + Del disable, Auto Run, Automatic Logon, Audit Comment always on top.</p> <p>Enable Dedicated Client if required.</p> <p>Enable Inhibit Sleep on Server tab.</p>	
Tweak Ctrl+Alt+Del screen (W7)	
Set 'emsuser' password	
Setup any additional serial interface cards, if any. Remember to set RS485 ports to 'Half-Duplex, Auto-gating' where necessary	
Set AC recovery behaviour in the system BIOS	
Setup a local printer, if any	
Setup a local UPS, if any, including setting the power fail timings	
Make backup copies of the completed enVigil configuration folder and enVigil executables folder to a memory key. Remember to copy these to to a permanent backup device, along with any registry tweaks. Use enVigil Registry Tool 'File..Save' to save registrysettings so that you can get recover configurations in future	
Remove 'emsuser' ownership permissions for install, config and logfile directories	
Demote the 'emsuser' account to 'Limited User'	
Reboot the PC and check that enVigil Client starts in the correct target screen	

Notes: