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| elysiumtest.gif |
| MOD ASET Server Setup |
| Basic configuration of MOD test ASET servers |
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| **4th January 2013** |

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| This document describes the installation and configuration steps required to install the MOD ASET pathology test servers supplied under contract modification ASTB/003 amendment 12 (Mirrored server installation at nominated MOD contractor site issued as GFA). |

ASET Pathology server setup

# Overview

The multi-user version of the ASET Pathology laboratory system is supplied as a client-server architecture running under the Windows operating system. The server component comprises a 4th Dimension (4D) server application alongside the ASET pathology application. The client component comprises the 4D client software which can be freely distributed on any number of suitable Windows client machines. The server application is licensed on a concurrent attached client basis and this is enforced on the server machine by user licences entered on the 4D server application. The 4D server application supports a form of database mirroring to provide a higher degree of system availability and redundancy.

This installation is licensed as two (2) 4D server systems, each of which is licensed for two (2) concurrent client connections. This will allow the implementation of a mirrored ASET installation to replicate the Camp Bastion deployment for testing purposes. The complete suite of required ASET software is supplied as a simple ZIP download that can be extracted on the target machines and copied to other machines as required.

# System requirements

The ASET application is a Windows only product and both the 4D Server and 4D Client application will run under a variety of the Windows operating systems. The Camp Bastion deployment uses the Windows Server 2003 (32 bit?) OS for the ASET server machines and Windows XP (32 bit) on the client machines. The supported configurations are:

Server machine Windows XP

Windows 7 (32 or 64 bit)

Windows server 2003 (R1 or R2 and 32 or 64 bit)

At least 4Gb of RAM

At least 400 Mb free disk space + size of data file

Client machine Windows XP

Windows 7 (32 or 64 bit)

At least 2Gb of RAM

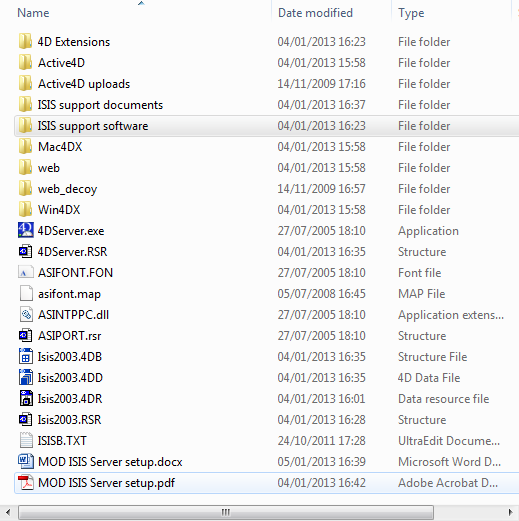
At least 16 Mb free disk space

Both the Server and Client software will run happily under properly configured virtual machines. The Client and Server software communicate using standard TCP networking so both Client and Server machines must have access to a shared Ethernet network segment.

# Installation

The server software and client do not require special installation as all of the required components are containing in single Windows directories and no modification is required of the Windows registry.

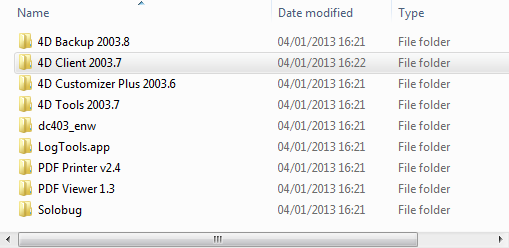
Download the zipped suite of ASET programs and install on the target server machine. Un-zip the download file to a directory location which has full write privileges, the extracted directory has the following contents:



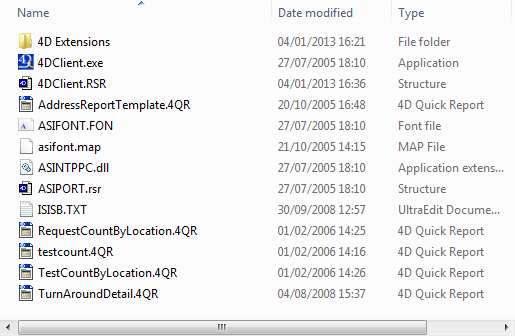
The server application (4DServer.exe) and the ASET application and blank data file (ASET2003.xxx) are located at the root level of this directory. The server application can be launched by double-clicking the 4DServer.exe icon and then selecting ASET2003.4DB in the file selection dialog or by dragging the ASET2003.4DB icon across the 4DServer.exe icon and releasing it.

The server software broadcasts its presence on port number 19816 and this may need to be un-blocked on the server machine with suitable exceptions added to any firewalls on the ASET network. Further, Windows regards the ASET2003.4DB file as a data file and some Windows versions will prevent this file executing code – to prevent this, a suitable exception will need to be entered in the Windows DEP settings.

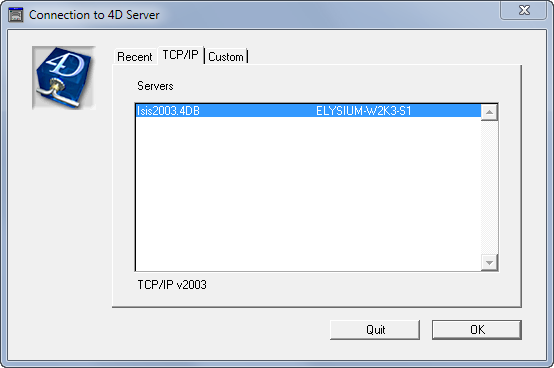
The 4D Client software is located in the ‘ASET Support software’ directory which has the following contents:



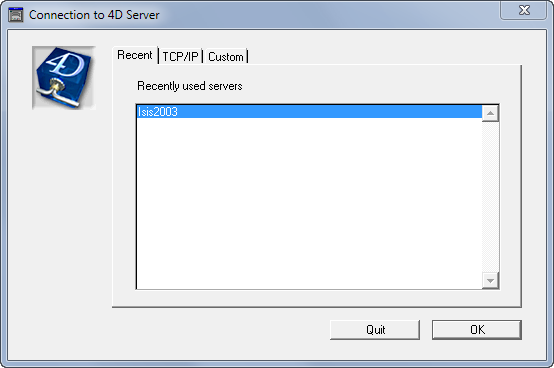
The directory ‘4D Client 2003.7’ contains all the required client software and this directory can be copied in total to any client machines. Once again the ‘4D client 2003.7’ directory must be placed in a location with full write privileges. The ‘4D client 2003.7’ directory contents:



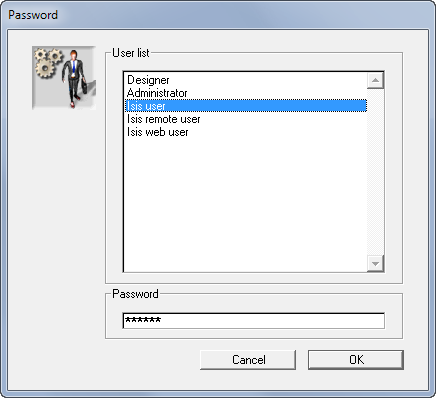
To launch the 4D client software simply double click the ‘4DClient.exe’ icon. Once running, the client software will display a list of running servers from which you can select the ASET2003 server to connect:



On subsequent connection attempts the ‘Recent’ tab will be pre-selected with the previous server also pre-selected and this mechanism can be used to connect:

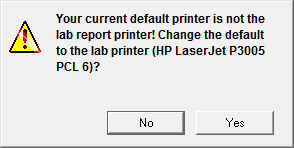


Once connected to the ASET server the first of two validation dialogs are presented.

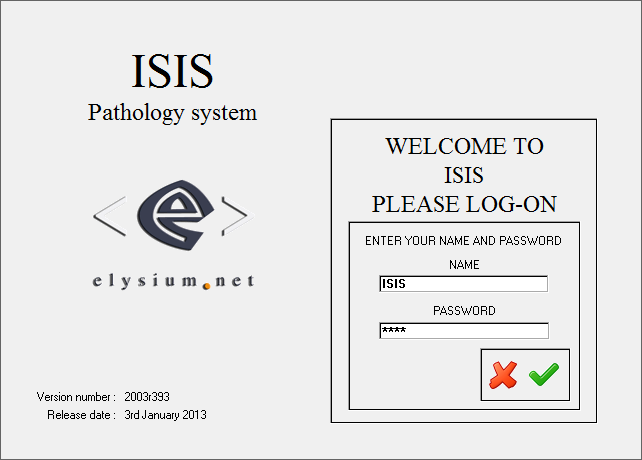


Select the user ‘ASET user’ and enter the password ‘Lotus7’.

A printer selection dialog may be presented which can initially be ignored:



The second user selection dialog should then be presented:

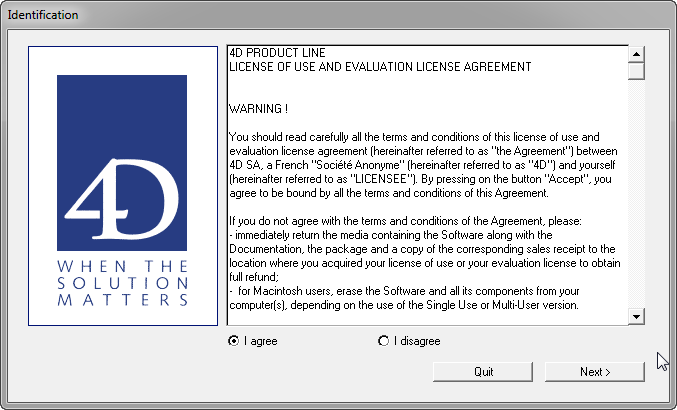


This dialog validates the individual laboratory user and assigns their system access privileges. The supplied blank data file contains sufficient static data to allow for system testing (the test and profile data from the original Bastion deployment) but no personal data (so no defined laboratory users). The default user name is ‘ASET’ and the password is also ‘ASET’ and this user has access to all the system functions.

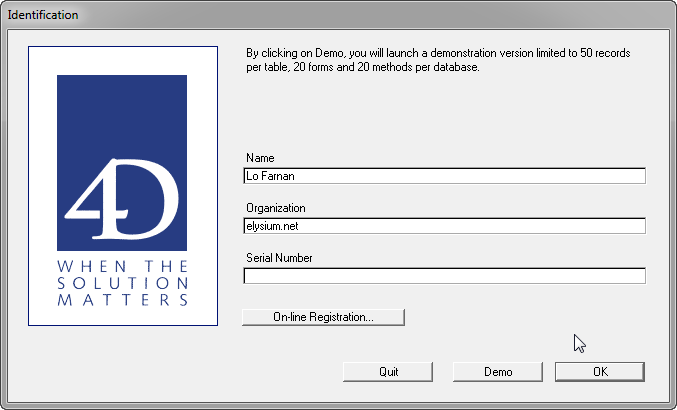
# Licensing

The system licensing is controlled on the 4D server machine and is applied as a concurrent attached client model. The supplied systems both need to be licensed for two (2) concurrent users and the built in web server. To activate these licenses the activation keys need to be entered on the server machines. The license keys will be provided under separate cover.

When first launched the 4D server application will need to have the license information entered. The first displayed screen shows the license agreement and you will need to agree to this:

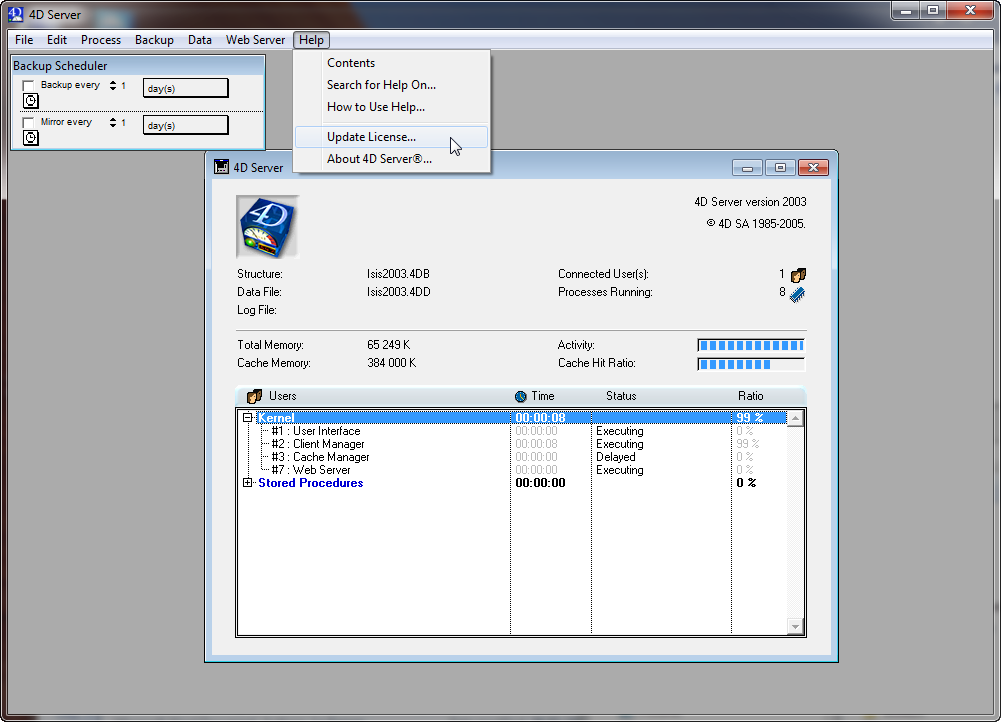


Once accepted the next screen allows the entry of the main 4D server licence key:

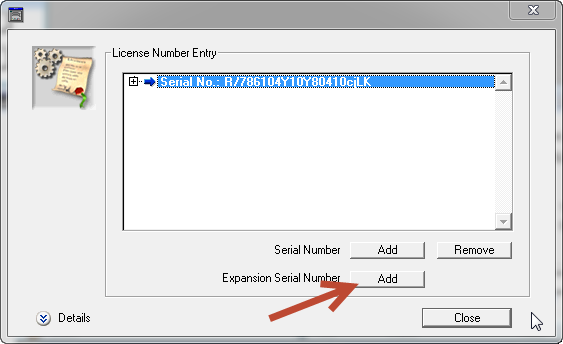


Enter a name, organisation and the supplied serial number for this instance of 4D server. The 4D software will not allow more than one instance with this serial number to run on the same network. The standard initial install, once licensed, will support the two (2) concurrent 4D client required. (Additional client licences can be purchased in one (1) user increments at any future time.

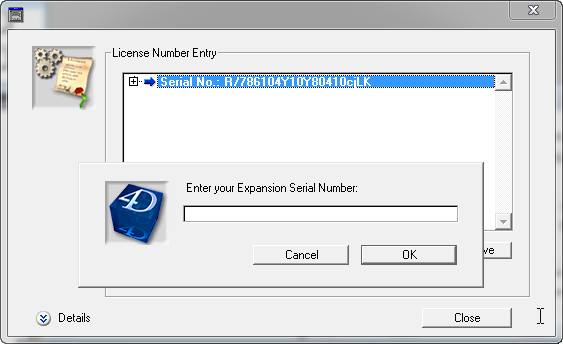
As well as the standard client licence additional licences will need to be added to each server to support the built in word processor and the web server. These licences are added once the server is running by selecting the ‘Update license’ option from the 4D server help menu:



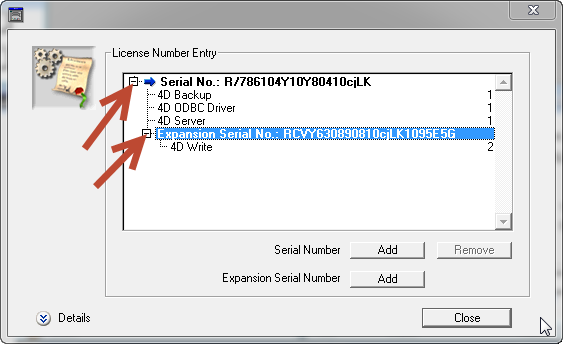
This will bring up the following dialog:



Click the ‘Add’ button for the Expansion Serial Number option.



Type in the expansion number for the word processor licence (4D write) and if entered correctly this will appear in the licence number screen under the initial serial number when that is expanded using the left hand list expander symbol:



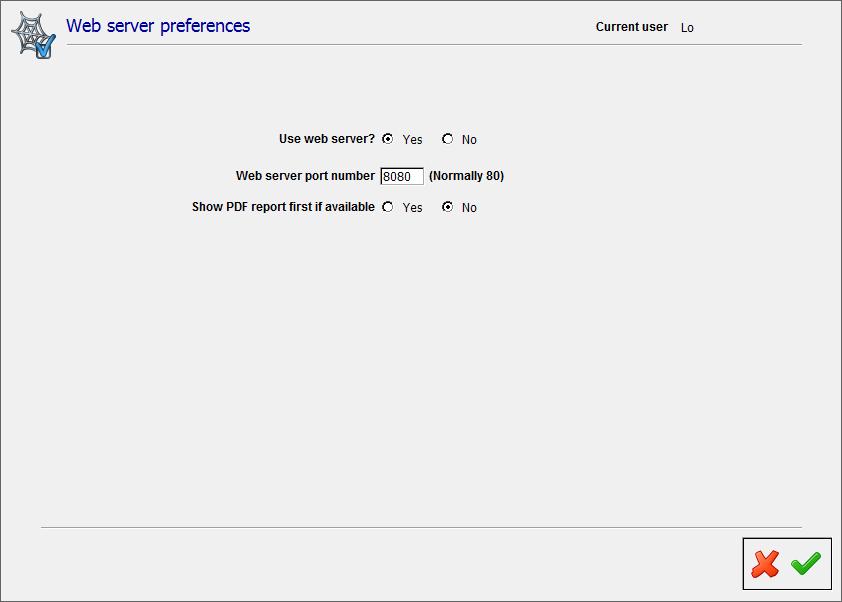
Repeat this process to add the web server licence key to fully license this 4D server.

Repeat this whole process on the second server machine with the second set of licence numbers.

The complete server installation may be moved onto a different server machine simply by copying the main ASET directory in its entirety but this will necessitate the re-entry of all of the licensing details on the new machine when the server is started. Entry of the licence numbers makes changes to the Windows registry of the host machine.

# Web server

The ASET software contains a built in web server that runs in concert with the 4D server software and launches automatically when the ASET server starts. The web server will by default use the standard web server port of 80 and this must also be available and un-blocked on the server machine. This default port can be changed subsequently in the ASET system preferences from the client end but will necessitate a server re-start to apply the new port settings:



The web server uses a separate licensing scheme that is bound to the IP address of the server machine. The web server will run for eight (8) hours when un-licensed before a server re-start is required. The licence is supplied as a key file that needs to be located in the ‘Win4DX’ directory of the main ASET directory. When installed on the test system if the IP addresses of the two servers are supplied to elysium.net then we will supply the suitable key files to licence the web servers. For testing it would be simpler, and perhaps more representative, if the test servers were set-up with the same IP addresses as the deployed servers in Bastion. If, once licensed, it becomes necessary to change the IP addresses of the server machines then new licence keys will need to be supplied and this will incur an additional one off charge (currently £1500 per server).

# Mirror setup

The 4D architecture supports a basic mirroring function that is currently in use in Camp Bastion. The mirroring system uses one server machine running an instance of the ASET (4D) server software whilst the second server runs the 4D Backup program. The running instance of the ASET server periodically sends the transaction logs to the backup machine where the backup program integrates this into a copy of the live data file. In the event of a main server failure the backup data file can then be opened on the backup machine with the second instance of the 4D server application.

Full instructions for setting up the mirror are contained in the document ‘ASET Mirroring’ which may be found in the ‘ASET Support documentation’ directory in the main download directory.