



Shibboleth on Windows Installation Documentation

Windows Installer Test Group

Version 1.1

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These guides have been prepared by organisations who participated in the JANET Shibboleth on Windows project. These guides are provided for general information purposes and are not intended to be definitive or exhaustive guides to the configuration, installation and implementation of Shibboleth On Windows.

§Introduction

This document details the steps required to install the Shibboleth on Windows. The Shibboleth on Windows software package installs software to enable an Identity Provider (IdP) service for connectivity into federated access systems.

This document does not detail how to configure the installed service: see further documentation produced by the Shibboleth on Windows Installer Test Group.

Appendix A provides details of the directory structure created during the installations

Appendix B provides useful links about the software and its development, with a series of more general links about provision of the UK Access Management Federation, and about Identity software and services

Beta Testing Notes

During beta testing the software was provided as a downloadable MSI package. This document assumes that the software will eventually be available on CD, so installation by that method is assumed. Details of manually starting the installation are given, with reference to the major name of the installation msi package: for example if the package was called QuickInstallBeat1.msi, it will be referred to here as QuickInstall.msi.

Software Installation Prerequisites

- Windows 2003 Server
- 120Mb Disk Space
- 1Gb memory
- Active Directory Infrastructure (LDAP, Kerberos Services)
- Internet access
- TCP Ports 8442, 8443 accessible from the Internet to the Windows Server
- Web Security Certificate (SSL) for Server Client Connectivity Port

Beyond a typical Windows 2003 Standard Edition installation, or 2003 Advanced Server Edition, you do not require any other services. You are not required to install IIS or any other additional Web server software.

The server should be a member of the domain to which your users belong, that is, those users who will be using the identity services. The server does not have to be a domain controller; it can be a standard member server within the Active Directory infrastructure.

Details on securing the installation and server will be detailed in further documents from the Shibboleth on Windows Installer Test Group.

Typical Installation

The typical installation route provides all the details automatically. Beyond choosing this installation method there are no further user input requirements. This method installs the software on the first disk in the system, typically drive C.

This installation route installs the default language pack that is configured within the installation package. Typically this is the English language pack.

The steps detailed below assume that the software was obtained on CD. If this is not the case then substitute step 1 with the location of where the software (QuickInstall.msi) was downloaded to.

Steps

1. Insert the CD into the server. The software should run automatically. If the software does not start automatically, navigate to the installation device CD-ROM and double click on the QuickInstall.msi file. You should be greeted with the welcome screen (see figure 1):



Figure 1. Initial Welcome Screen.

2. Click 'Next' to continue.
3. You will then get the Control Information dialogue box. If your server is connected to the network, and is a member of the Active Directory domain, all of the values will be filled in automatically. However you may wish to change two items. 'DNS Name or IP Address for this IdP' should be set to the hostname that your users will use for accessing this service, and the 'Scope that this IdP will assert' field should have the example configuration shown in figure 2. Click 'Next' to continue the installation.

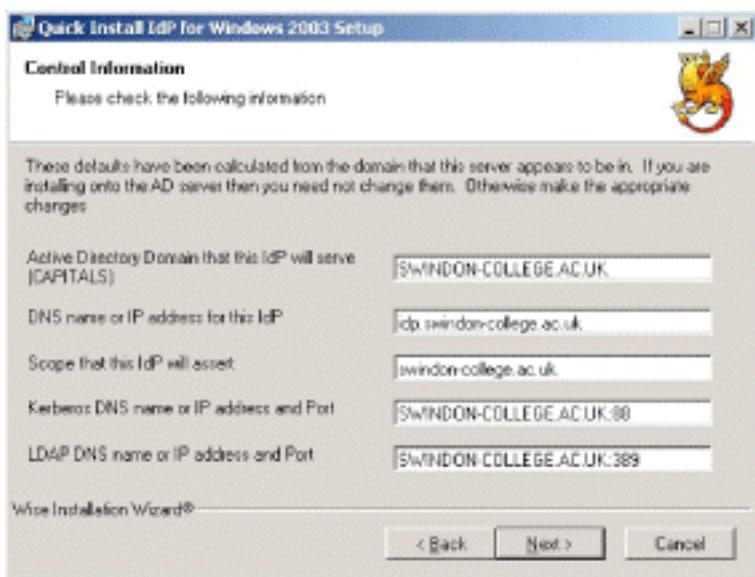


Figure 2. Control Information Dialogue.

4. Ensure that the Typical radio button is selected (see figure 3): click ‘Next’ to continue the installation.

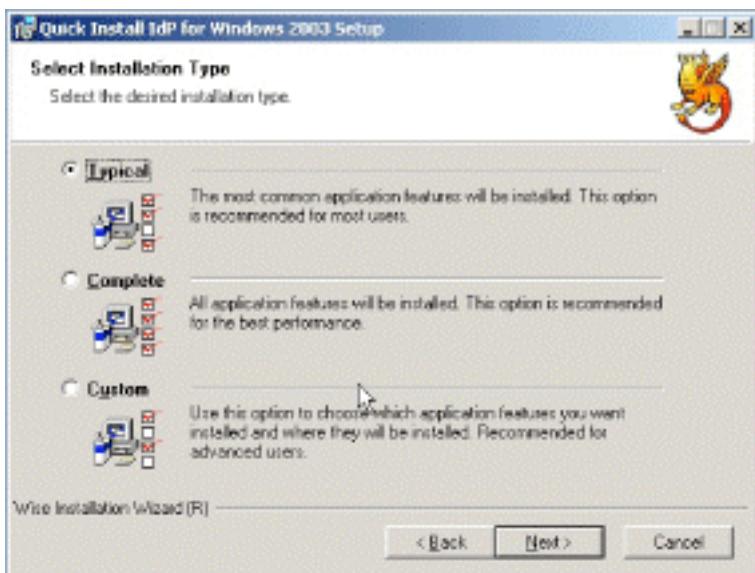


Figure 3. Install Type Dialogue.

5. Click ‘Next’ when you are ready to install, or ‘Back’ to review your choices (see figure 4).

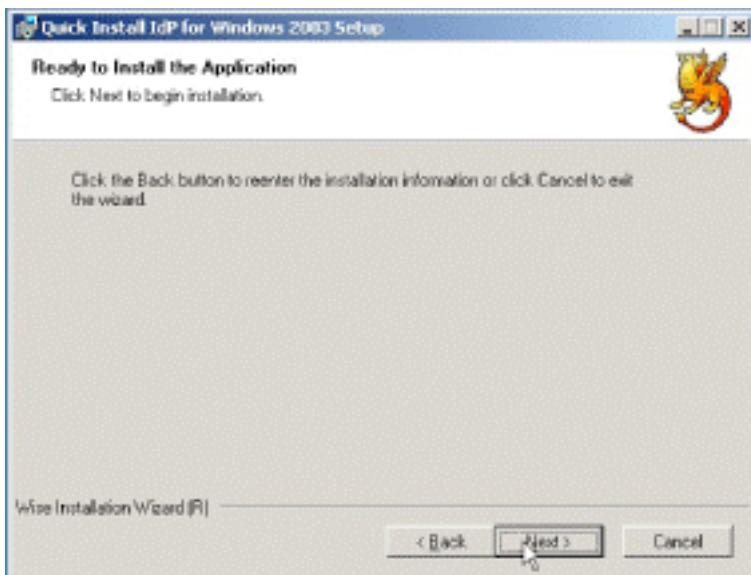


Figure 4. Installation File Copy Dialogue.

6. The software should now begin to be copied to the hard disk and initial installation configuration should take place. You will see various DOS boxes pop up during the installation. At the end of the installation process you will see a results page, similar to the one in figure 5. This file is saved in the installation directory and may be viewed again. To continue, close the Internet Explorer application.

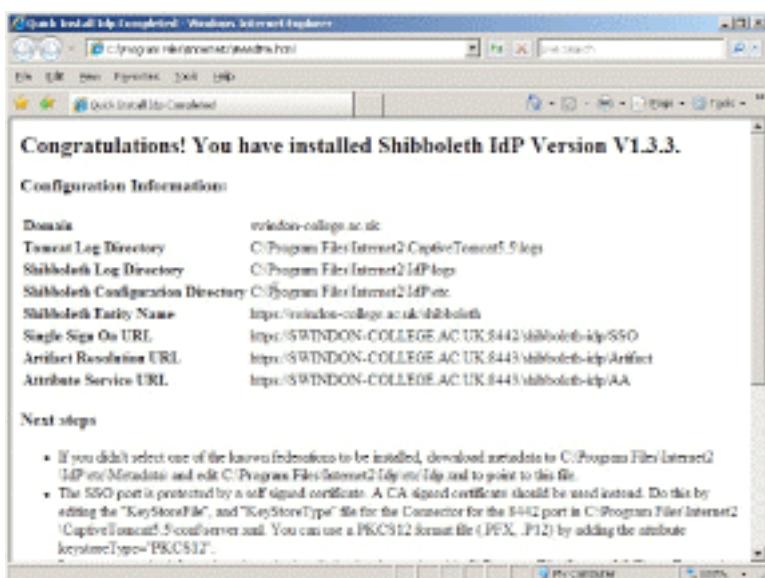


Figure 5. Installation Results Dialogue.

7. Click the 'Finish' button to end the installation (see figure 6).



Figure 6. Install Finish Dialogue.

Complete Installation

The complete installation route provides all the details automatically. Beyond choosing this installation method there are no further user input requirements. This method installs the software on the first disk in the system, which typically tends to be drive C.

This installation route installs all additional language packs that are configured within the installation package.

The steps detailed below assume that the software was obtained on CD. If this is not the case then substitute step 1 with the location of where the software (QuickInstall.msi) was downloaded to.

Steps

1. Insert the CD into the server. The software should run automatically. If the software does not start automatically, navigate to the installation device CD-ROM and double click on the QuickInstall.msi file (see figure 7). You should be greeted with the welcome screen.



Figure 7. Initial Welcome Dialogue.

2. Click 'Next' to continue
3. You will then get the Control Information dialogue box. If your server is connected to the network, and is a member of the Active Directory domain, all of the values will be filled in automatically. However you may wish to change two items. The 'DNS Name or IP Address for this IdP' should be set to the hostname that your users will use for accessing this service and the 'Scope that this IdP will assert' field should follow the example configuration shown in figure 8. Click 'Next' to continue the installation

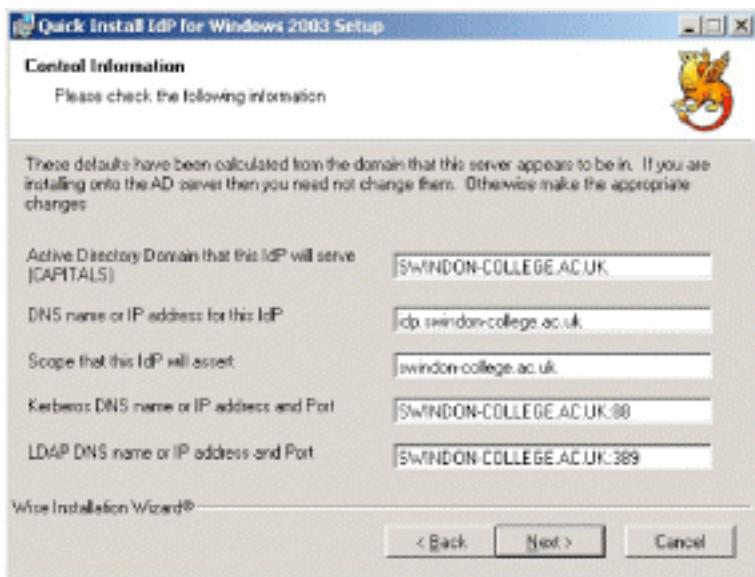


Figure 8. Control Information Dialogue.

4. Ensure that the 'Complete' radio button is selected (see figure 9). If it is not selected, click on the radio button to select it. Then click 'Next'.

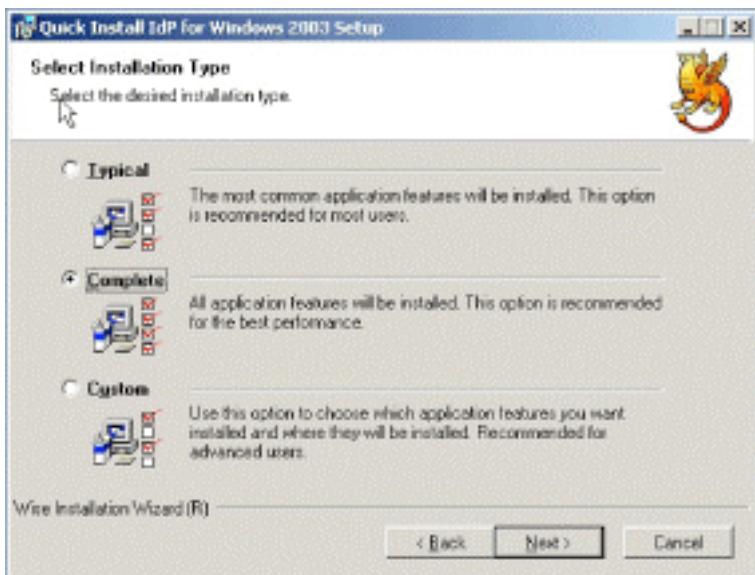


Figure 9. Install Type Dialogue.

5. When ready to install the application, click 'Next' to continue or 'Back' to review your choices (see figure 10).

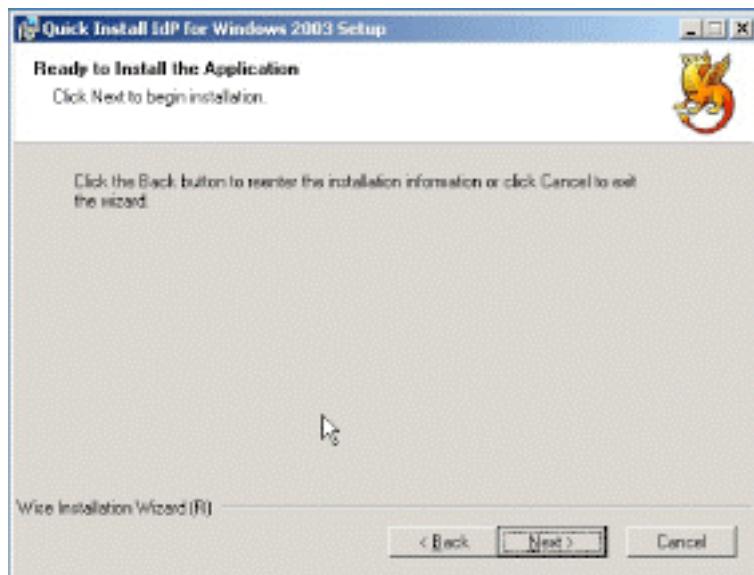


Figure 10. Install File Copy Dialogue.

- The software should now begin to be copied to the hard disk and initial installation configuration should take place. You will see various DOS boxes pop up during the installation. At the end of the installation process you will see a results page similar to the one in figure 11. This file is saved in the installation directory and may be viewed again. To continue close the Internet Explorer application.

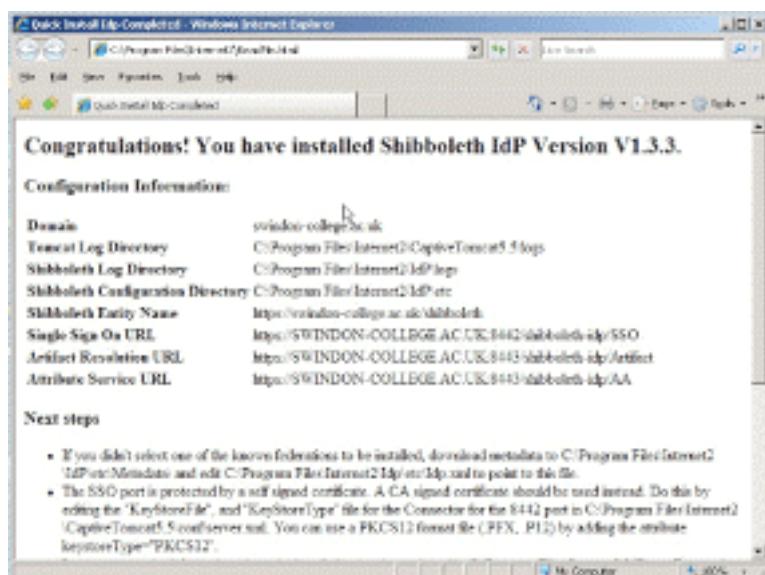


Figure 11. Installation Results Page.

- Click the 'Finish' button to end the installation (see figure 12).



Figure 12. Install Finish Dialogue.

Custom Installation

The custom installation route allows you to choose the various components of the Shibboleth software application. This will usually be used when requiring different or additional language packs. This method installs the software on the first disk in the system, which typically tends to be drive C.

This installation route installs all additional language packs that are configured within the installation package.

The steps detailed below assume that the software was obtained on CD. If this is not the case then substitute step 1 with the location of where the software (QuickInstall.msi) was downloaded to.

Steps

1. Insert the CD into the server. The software should run automatically. If the software does not start automatically then navigate to the installation device and double click on the QuickInstall.msi file. You should be greeted with the welcome screen (see figure 13).



Figure 13. Initial Welcome Dialogue.

2. Click 'Next' to continue.
3. You will then get the Control Information dialogue box. If your server is connected to the network and is a member of the Active Directory domain, all of the values will be filled in automatically. However you may wish to change two items. The 'DNS Name or IP Address for this IdP' should be set to the hostname that your users will use for accessing this service and 'Scope that this IdP will assert' field should have the example configuration shown in figure 14.
4. Click 'Next' to continue.

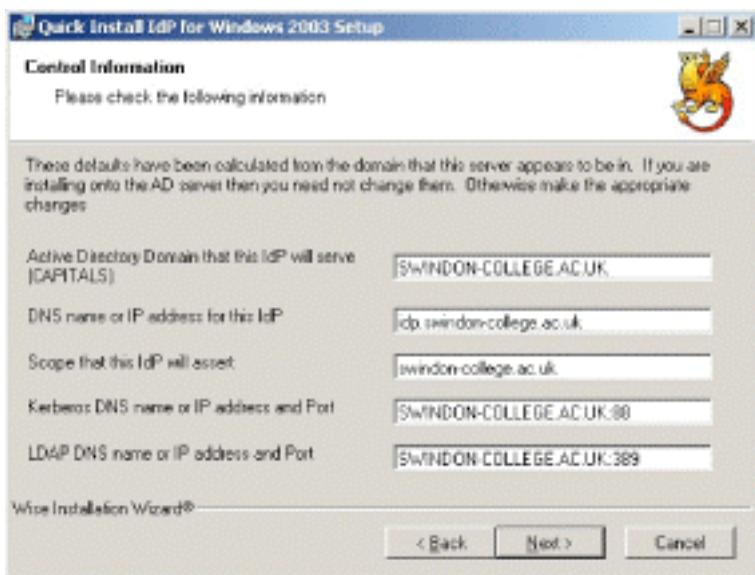


Figure 14. Control Information Dialogue.

5. Ensure that the ‘Custom’ radio button is selected (see figure 15). If it is not selected, click on the radio button to select it. Then click ‘Next’ to continue.

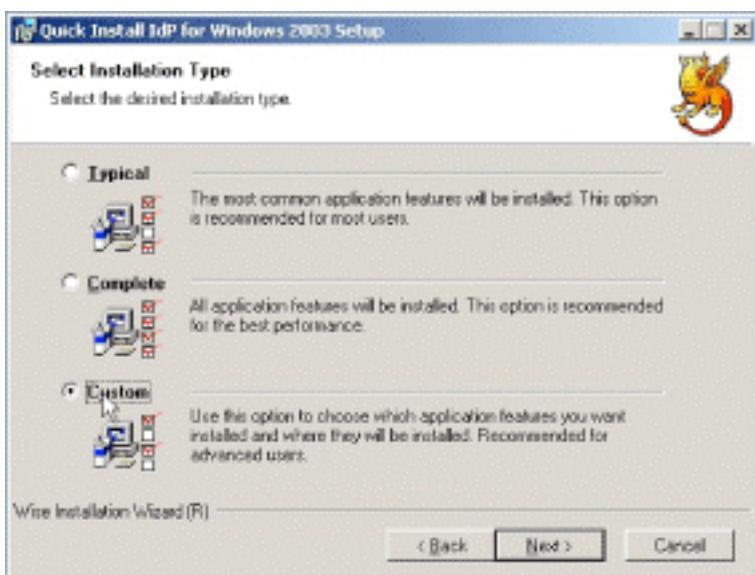


Figure 15. Installation Type Dialogue.

6. You should now see a screen which allows you to change the default installation directory and allows you to select/deselect various components within the software installation (see figure 16). Click the ‘Browse’ button to select a different directory.

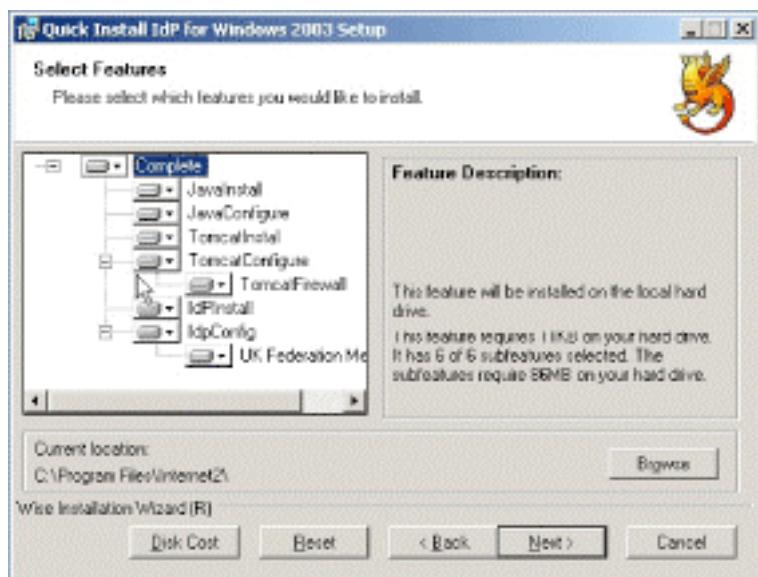


Figure 16. Select Features Dialogue.

7. In this installation a different installation directory was selected. Click 'OK' to continue, then click the 'Next' button to continue the installation. See figure 17 for an example of the directory selection dialogue box.

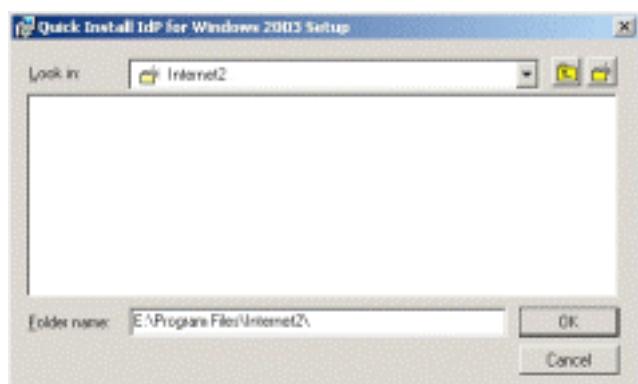


Figure 17. Directory Selection Dialogue.

8. When ready to install the application, click 'Next' to continue or 'Back' to review your choices (see figure 18).

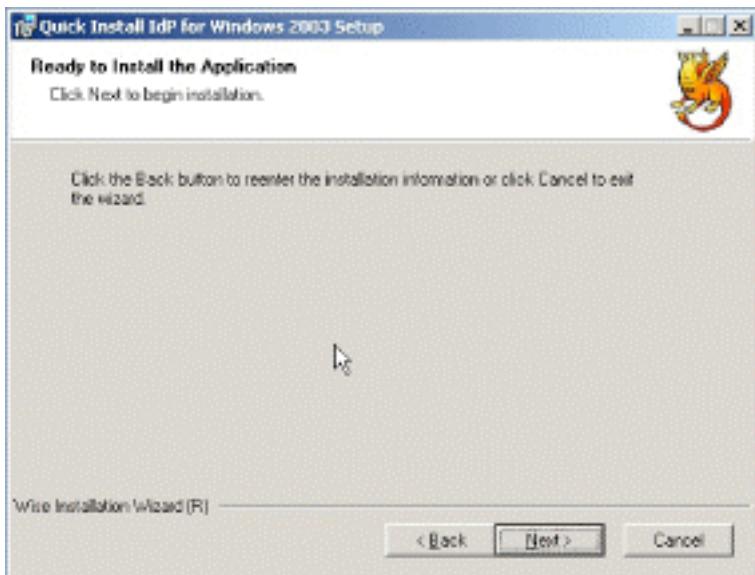


Figure 18. File Copy Dialogue.

9. The software should now begin to be copied to the hard disk and initial installation configuration should take place. You will see various DOS boxes pop up during the installation.
10. At the end of the installation process you will see a results page, similar to the one shown in figure 19. This file is saved in the installation directory and may be viewed again. To continue, close the Internet Explorer application.

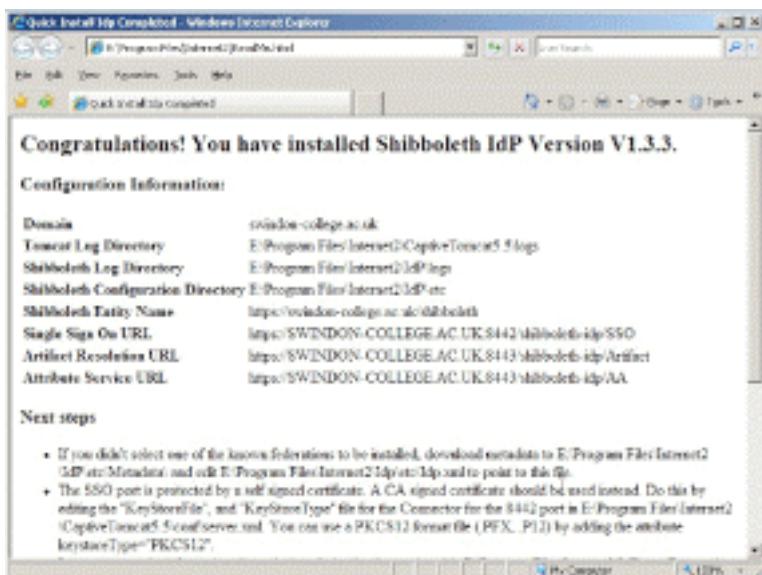


Figure 19. Install Results Page.

11. Click the 'Finish' button to end the installation (see figure 20).

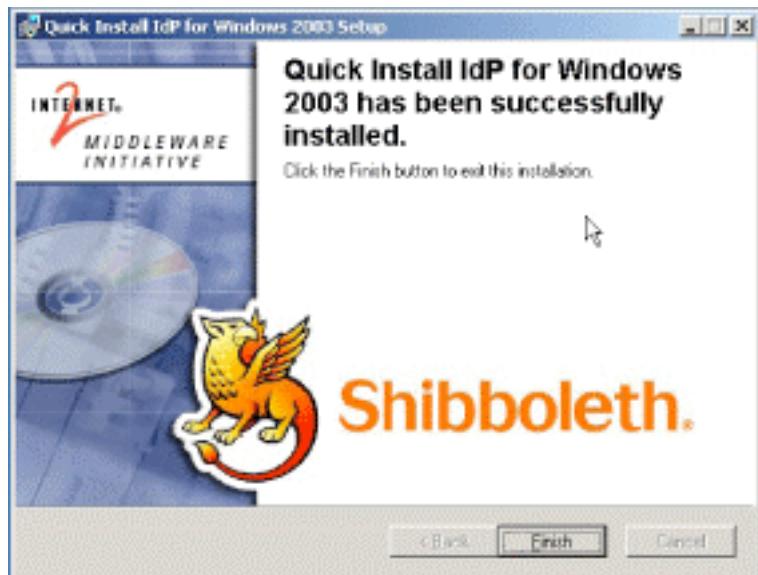


Figure 20. Install Finish Dialogue.

Automatic Installation

The automatic installation route allows you to install the Shibboleth software application without any intervention. This method chooses default values for the installation. This method installs the software on the first disk in the system, which typically tends to be drive C.

The steps detailed below assume that the software was downloaded to a location on the server you wish to install the software to. The install application name is QuickInstall.msi.

Steps

1. Insert the CD into the server.
2. Open a DOS prompt, click on ‘Start’, then ‘Run’, type ‘cmd’ and click on ‘OK’.
3. Change to the directory where the file was downloaded.
4. Type the following command ‘msiexec /i QuickInstall.msi /qb’ (see figure 21).
5. The installation will then proceed. You will see various DOS boxes appearing during the installation process.

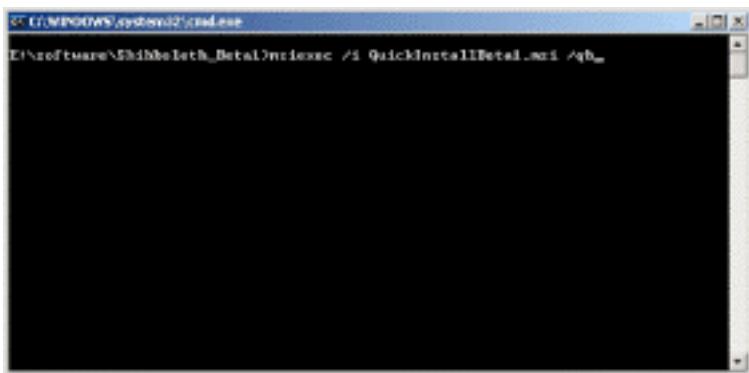


Figure 21. Automatic Install Command Line.

6. You will also see the results page (see figure 22). To finish the install, close Internet Explorer.

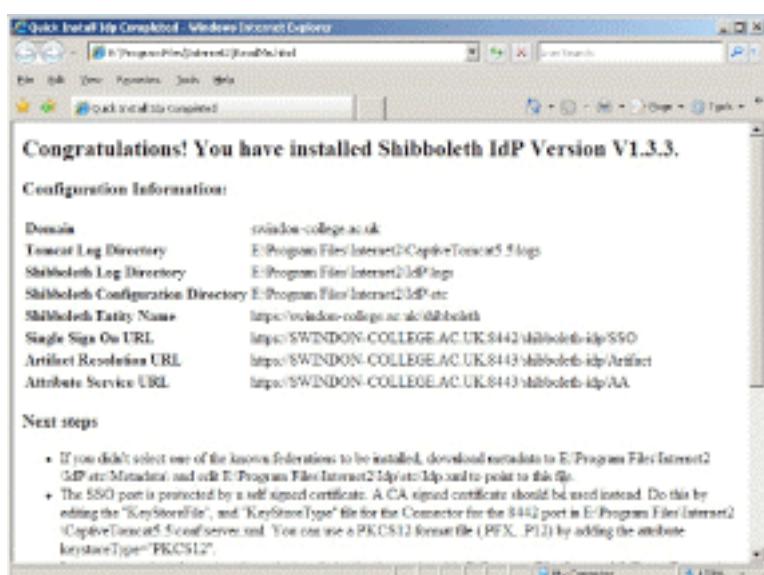


Figure 22. Install Results Page.

Uninstalling the Software

This section details how to uninstall the software. Whilst the installation removes most of the files, the final removal of the install directory structure must be done manually, as you may have created additional files during usage of the program.

Steps

1. Click on the ‘Start’ button.
2. Click on ‘Settings’.
3. Click on ‘Control Panel’.
4. Once the Control Panel window has started, click on the ‘Add/Remove Programs’ icon (figure 23).

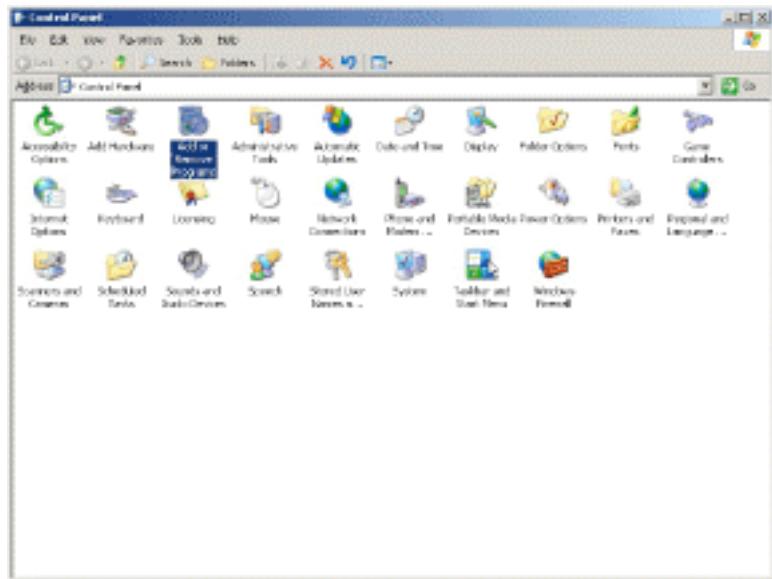


Figure 23. Control Panel.

5. The Windows Add/Remove Programs dialogue box will open.
6. Locate the item ‘Quick Install IdP for Windows 2003’. Click to highlight the item (see figure 24).

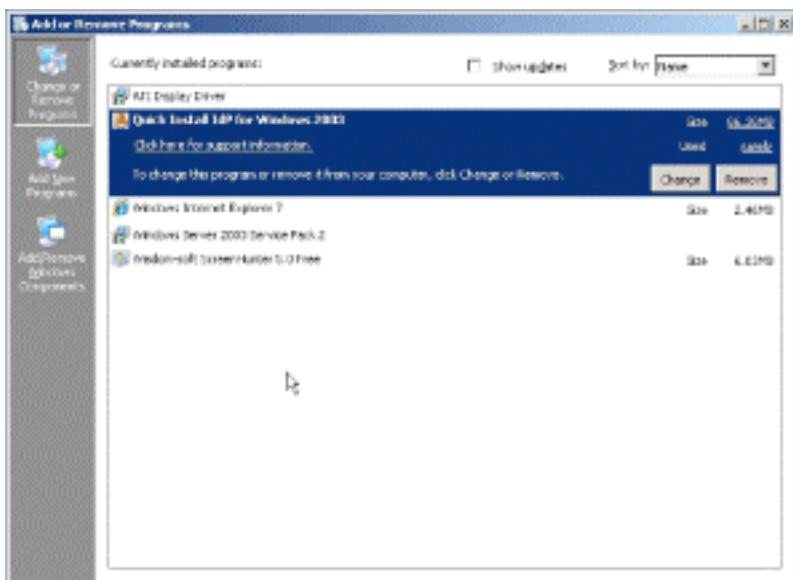


Figure 24. Add/Remove Dialogue.

7. Click on the 'Remove' button.
8. The uninstall dialogue box will appear. Click 'Yes' to remove the software (see figure 25).

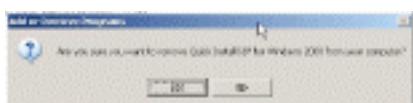


Figure 25. Remove Program Dialogue.

9. Close the 'Add/Remove Programs' dialogue box.
10. Click on 'My Computer'.
11. Click on drive C:.
12. Click on the 'Program Files' folder.
13. Click to highlight the folder 'Internet2' (see figure 26).

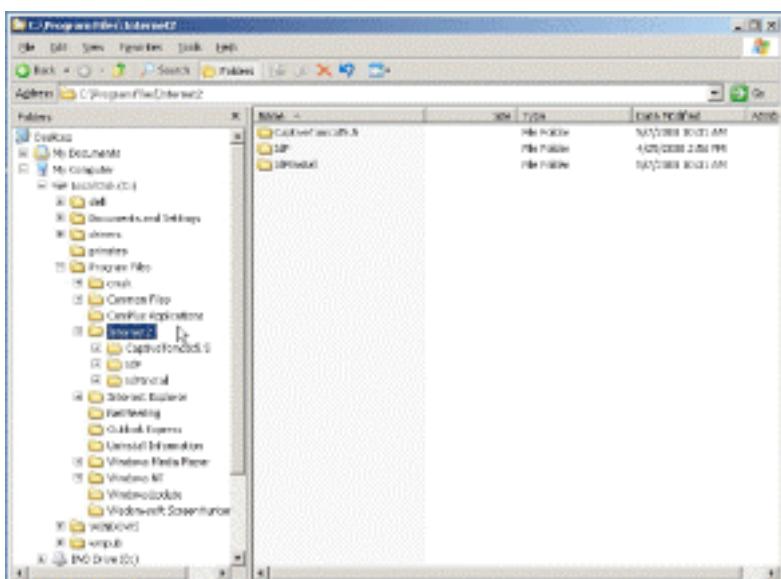


Figure 26. Explorer Window showing IdP Install Directory.

14. Click on Files in the menu bar and choose 'Delete' from the menu. Click 'yes' to confirm

deletion.

Verifying the Installation

To verify the installation quickly you can view the service to see if it is running, check that the TCP ports are available, check in task manager that the program installed has started, and also check the event viewer to verify running services. Additionally you can check the installation log file for the service.

Checking the TCP Ports

1. Click on Start.
2. Then click on 'Run'.
3. Type 'cmd' in the 'Open:' text field, then click 'Ok'.
4. Type the following command 'netstat -an' and then press 'Enter'.
5. Amongst the output you should see the following lines:
TCP 0.0.0.0:8442 0.0.0.0:0 LISTENING
TCP 0.0.0.0:8443 0.0.0.0:0 LISTENING
6. This indicates that a service is listening on the two TCP ports initiated during the installation process.

Check Service Program Installation

1. Click on Start.
2. Then click on 'Run'.
3. Type 'taskmgr.exe', in the 'Open:' text field, then click 'Ok'.
4. Click on the 'Processes' tab.
5. Look for the process 'tomcat5'.
6. This indicates that the program has started.

Checking Service Status

1. Click on Start.
2. Click on 'Run'.
3. Type the following command 'services.msc /s' in the 'Open:' text field, then click 'Ok'.
4. The Services control applet should start.
5. Look for the service 'tomcat5'. The service status column should indicate that it's in the 'started' state. This indicates that the Tomcat service has started and Windows believes that it is in a running state (see figure 27 for an example).

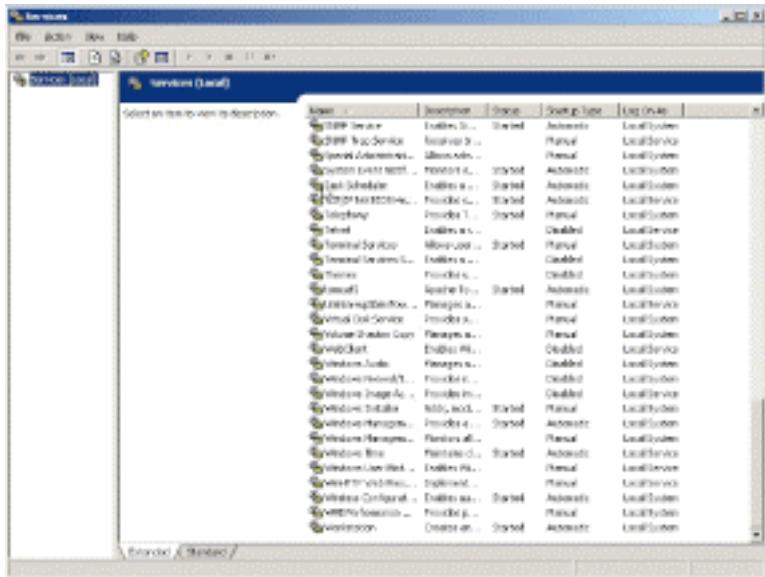


Figure 27. Services Dialogue Screen.

Checking with the Event Viewer

1. Click on Start.
 2. Click on 'Run'.
 3. Type the following command 'eventvwr.msc /s' in the 'Open:' text field, then click 'Ok'.
 4. Click on the 'Application' section and look for install success events (see figures 28 and 29).

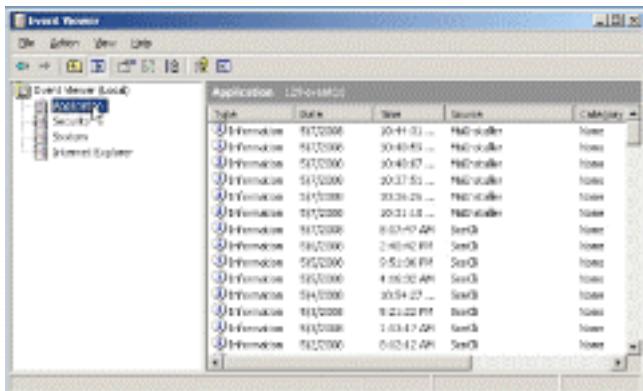


Figure 28. Event Viewer Application Section.

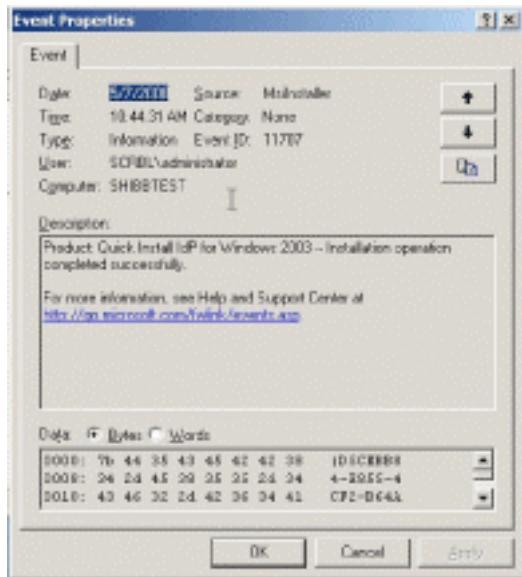


Figure 29. Application Event for IdP Installation.

5. Click on the ‘System’ section and look for service start success events (see figures 30 and 31).

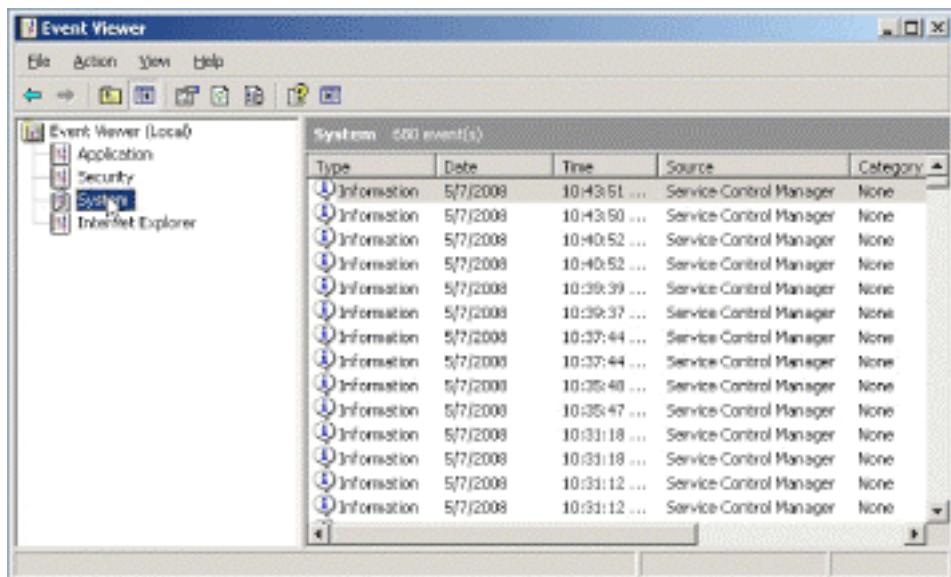


Figure 30. Event Viewer System Section.

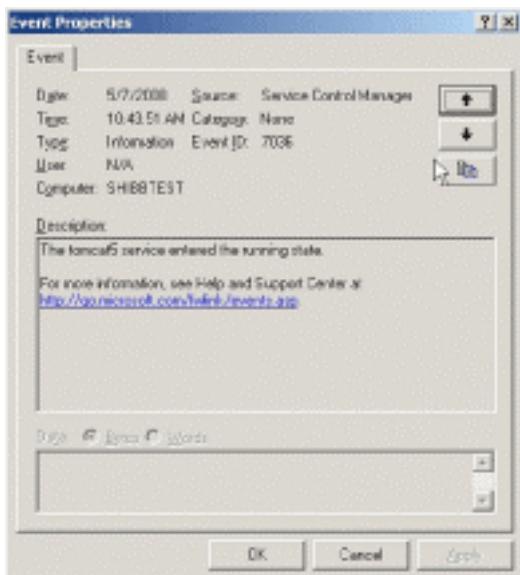


Figure 31. Tomcat Service Event.

Appendix A: Installation Directory Structure

This section assumes that the software was installed in the default location on the C drive.

Top Level Directory

C:\Program Files\Internet2

Java Directory

C:\Program Files\Internet2\CaptiveJava

Tomcat Directory

C:\Program Files\Internet2\CaptiveTomcat5.5

IdP Directory

C:\Program Files\Internet2\IdP

IdP Application Logging Directory

C:\Program Files\Internet2\IdP\logs

Appendix B: Useful Links

Web Links

UK Access Management Federation. The main site for the UK Federation:

<http://www.ukfederation.org.uk/>

Documentation on Internet2 Site. The Internet2 site provides a run through the Installer with instructions on test shib and next steps.

<https://spaces.internet2.edu/display/SHIB/IdPActiveDirectory>

SWITCH - Shibboleth Demo. This is a link to a demo on the Authentication and Authorization Infrastructure (AAI) available on the SWITCH site.

<http://www.switch.ch/aai/demo/>

Identity Provider Case Studies. This link takes you to a number of case studies on the UK federation site. These JISC case studies will provide some insight into writing-up a case study.

http://www.jisc.ac.uk/whatwedo/themes/access_management/federation/federation_res_case_study.aspx

Shibboleth test site. This is the site for testing IdP and SP installations.

<http://www.testshib.org/>

Mailing Lists

These lists generate a lot of data, which can sometimes quite quickly overwhelm your email account! You are advised only to join if you feel comfortable about dealing with the number of emails you will receive.

JISC Shibboleth Mailing List

You may find some relevant discussions on AD and Windows installation here. Useful to listen to some of the issues involved in Shibboleth installation.

<http://www.jiscmail.ac.uk/cgi-bin/webadmin?SUBED1=jisc-shibboleth&A=1>

UK federation Discussions, and Announcements

These are lists for discussions and announcements that you may find beneficial. It discusses issues with the federation.

<http://www.jiscmail.ac.uk/cgi-bin/webadmin?SUBED1=ukfederation-discuss&A=1>

<http://www.jiscmail.ac.uk/cgi-bin/webadmin?SUBED1=ukfederation-announce&A=1>

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