

SpiraTest Administration Guide

Version 1.0

Inflectra Corporation

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1. Introduction

SpiraTest[™] provides an integrated, holistic Quality Assurance (QA) management solution that manages requirements, tests and incidents in one environment, with complete traceability from inception to completion.

This administration guide outlines how to setup a working installation of the SpiraTestTM system, and how to perform routine administrative tasks.

It assumes a basic understanding of how to setup and administer either a Windows 2003 Server or Windows XP workstation, and also assumes that you have access to a valid Administrator level account.

For information on how to use SpiraTestTM to manage the quality assurance lifecycle of your project, please refer to the *SpiraTestTM User Manual* instead.

2. Installing SpiraTest[™]

This section outlines how to prepare your system for installation of SpiraTest[™], how to actually install the software using the provided installation package, and finally how to ensure that your web-server is correctly configured to ensure secure operation.

The first sub-section will outline what hardware and software configurations are supported and the exact installation sequence for both Windows NT and Windows 2000. The second sub-section will explain how to load the SpiraTest[™] software onto the server, and discuss common problems and solutions.

Requirement	Minimum Specification
Processor:	PC-compatible with Intel® Pentium P4® processor or equivalent
Memory:	512 MB, 1 GB recommended
Operating System:	Windows XP Professional (recommended)* Windows 2000 Professional Edition* Windows Server 2003 (recommended) Windows 2000 Server Edition
Service Packs:	Windows XP Professional SP2* Windows 2000 Professional Edition SP4* Windows Server 2003 SP2 Windows 2000 Server Edition SP4
Database:	Microsoft SQL Server 2000 Microsoft SQL Server 2005 (recommended) Microsoft SQL Server 2005 Express Edition Microsoft SQL Server Desktop Engine (MSDE) 2000
Web Server:	Internet Information Services (IIS) 5.0
Web Browser:	Internet Explorer 6.0 (recommended) Mozilla Firefox 2.0 Opera 9.0
Other Components:	Microsoft .NET Framework 1.1 Microsoft Data Access Components (MDAC) 2.7 Microsoft Excel 2003 (needed for Excel importer)

The minimum hardware and software requirements for running the SpiraTest[™] system are:

*Note that SpiraTest[™] can be loaded onto either Windows Server or Professional editions, provided that the IIS web-server is installed and that either SQL Server or MSDE is available as a database engine. However Windows 2000 Professional and Windows XP Professional can only support a maximum of 15 concurrent user web sessions. In general unless there are only going to be a couple of client machines hitting the server, we recommend using Windows Server (preferably Windows Server 2003).

2.1. System Prerequisites

Assuming that you have already installed the appropriate version of Microsoft Windows onto your computer (or that has been pre-installed for you), you need to then make sure that the various prerequisites have been correctly added to your installation before trying to install SpiraTestTM. The SpiraTestTM installer will check to ensure that the various prerequisites are in place, and will abort the install if any are missing, indicating to the user what action needs to be taken.

We recommend that you install / configure the prerequisites in the following order:

- Install SQL Server / MSDE 2000 or later
- ▶ Install Internet Explorer 6.0 or later
- > Ensure that IIS is installed
- ► Install the .NET Framework v1.1 or later
- > Ensure that ASP.NET is installed

2.1.1. Install SQL Server / MSDE 2000 or later

Install the appropriate version of the database software, following the instructions provided with the installation. Note that during the installation, make sure that you choose "Mixed Mode" authentication. This will allow you to log-in to the database either using Windows NT Integrated Authentication or using SQL Server login/password authentication. This is important as SpiraTestTM uses a SQL Server login/password to access the database.

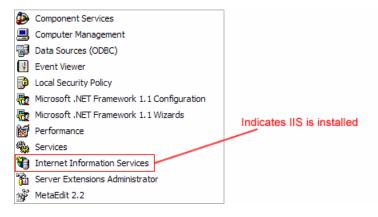
2.1.2. Install Internet Explorer 6.0 or later

Install the appropriate version of the browser, following the instructions provided with the installation. You are free to use Internet Explorer, Mozilla, Firefox or Opera with SpiraTest[™]. Other browsers (Netscape, Safari, etc.) may work with SpiraTest[™], but they have not been exhaustively tested for compatibility by Inflectra.

2.1.3. Ensure that IIS is installed

On Windows Server installations, IIS is usually installed as part of the factory configuration, whereas on Windows XP and 2000 Professional installations, you typically need to manually add the components to the factory configuration.

To check if you have IIS installed, click Start > Settings > Control Panel > Administrative Tools. Under the "Administrative Tools folder", you should see an icon for "Internet Information Services". If you don't see this icon, then it means that you need to add IIS to your computer:



To install IIS, you need to click Start > Settings > Control Panel > Add or Remove Programs, then choose the option to "Add / Remove Windows Components" as illustrated below:

Windows Components Wizard	
Windows Components You can add or remove components of Windows XP.	Ē
To add or remove a component, click the checkbox. A sh part of the component will be installed. To see what's inclu Details. Components:	
🗹 🚎 Internet Explorer	0.0 MB
Internet Information Services (IIS)	13.5 MB
Management and Monitoring Tools	2.0 MB
Message Queuing	0.0 MB
MSN Explorer	20 7 MB 🔛
Description: Includes Windows Accessories and Utilities f	or your computer.
Total disk space required: 56.3 MB	
Space available on disk: 38693.2 MB	Details
< Baok	Next > Cancel

Check the box marked "Internet Information Services (IIS)", and click the <Next> button to install the missing Windows components. Once the installation has completed, IIS will now be installed on your system. To verify that this is the case, type <u>http://localhost</u> into the address bar of Internet Explorer on your computer. You should see a screen either displaying a webpage, or the initial IIS startup page:

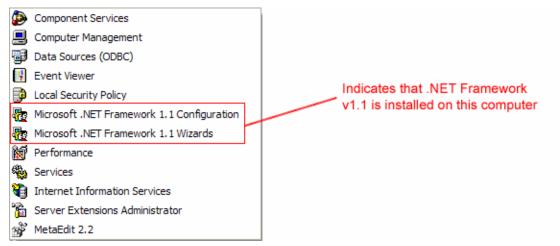
² Welcome to Windows XP Server Internet Serve	rices - Windows Internet Explorer	🖃 🖃 🔛 🥓 Microsoft Inte	rpet Information Services 5.1 Docume		agtarer - D
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Microsoft	۲	IIS 5.1 Docu	mentation		Microsoft
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Your Web service is now running.			Window	It Information Services 5.1 () ws XP Web service that make information on your intrane	es it easy to
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for Microsoft Windows XP Professional	Integrated Hanagement You can manage IIS shrough the Windows XP Computer Managem		for e	ase Notes: Includes the late insuring proper installation a met Information Services.	
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		Web, Ne rost	Inter	tures: Lists the newly-introd met Information Services 5.1 ones from prior releases.	uced features in L and highlights
		iment,	- What bety	 What's Changed: Lists important changes between versions 4.0, 5.0, and 5.1 of 15. 	
Using Windows XP Professional with IIS installed, provides a personal and	in a production environment runn more powerful versions of Windo servers.	sing	Navigston Help • Web avail	Resources: Lists IIS-relate lable on the Internet.	d resources
development operating system that	20		Quic	k Site Setup with IIS: Expla default settings to create a v	ains how to use
allows you to:	Online Documentation				

If you don't see this page, but instead see an IIS error page (e.g. Internal Server Error 500), please refer to *Appendix A* – *Troubleshooting IIS* to fix your IIS installation before following the rest of this installation guide.

2.1.4. Install the .NET Framework v1.1 or later

On Windows XP SP2 and 2003 Server SP2 installations, Microsoft .NET Framework v1.1 is usually installed as part of the factory configuration, whereas on Windows 2000 and pre-SP2 installations, you typically need to manually add the components to the factory configuration.

To check if you have Microsoft .NET installed, click Start > Settings > Control Panel > Administrative Tools. Under the "Administrative Tools folder", you should see an icon for "Microsoft .NET Framework 1.1 Configuration". If you don't see this icon, then it means that you need to add the .NET Framework to your computer:



To install the .NET Framework, launch Internet Explorer and enter the URL:

<u>http://www.microsoft.com/netframework</u>. From this page there will be links to download and install the latest version of the .NET Framework (version 2.0 at time of writing). Click on the option to download and install the .NET Framework, and follow the instructions provided. Once you have completed the install, verify that the installation was successful by looking in the "Administrative Tools" folder as illustrated above.

2.1.5. Ensure that ASP.NET is installed

Now that you have both IIS and .NET installed, you need to make sure that the Active Server Pages (ASP.NET) components that allow IIS to access the .NET framework have been correctly configured. If you installed .NET *after* IIS then ASP.NET is typically configured for you, but if you installed IIS afterwards, then further manual steps may be necessary.

To verify that ASP.NET has been correctly configured, click on Start > Settings > Control Panel > Administrative Tools > Internet Information Services to launch the IIS administrative console:

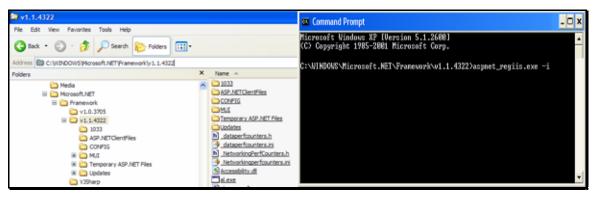
🕞 Internet Information Services		
File Action View Help		
	8 💂 🕨 ■ ॥	
🝓 Internet Information Services	Name	Path
SANDMAN (local computer)	🛞 IISHelp	c: \windows \help \iishelp
🖻 💼 Web Sites	Scripts	C:\Inetpub\Scripts
🕀 🌧 Default Web Site	vti_bin	C:\Program Files\Common Files\Micr
🗄 🍅 Default SMTP Virtual Server	Printers	C:\WINDOWS\web\printers

Expand the name of the web-server (marked as local computer), expand the "Web Sites" folder, right-click on "Default Web Site" and choose the "Properties" link. This will bring up the IIS configuration dialog-box. Then click on the <Configuration> button to bring up the "Application Configuration" window:

Rectory Security	HTTP Headers	Custom Errors	Server Extensions	Mappings	Options	Debugging	
Web Ste	ISAPI Fiters	Home Directory	Documents	E Contra			
When connecting to	o this resource, the con	tent should come from	r:	Cache	ISAPI ap	oplications	
(A directory located or 	in this computer		Applica	tion Mapp	ings	
(A share located on a	another computer		Exter	- B	ecutable Path	Verbs
	A redirection to a UF	11.		686	Cit	WINDOWS\system32\inetsrv\asp.dll	GET,HEA.
10.4	Children blogger			asax		WINDOWS\Microsoft.NET\Frame	GET,HEA.
Local Path:	C:\hetpub\www.root		Browse	ascx		WINDOWS\Mcrosoft.NET\Frame	GET,HEA.
Script source ac		Log vists		ashx asmx		WINDOWS\Microsoft.NET\Frame WINDOWS\Microsoft.NET\Frame	GET,HEA.
Read V	E	 Index this resource 		asp		WINDOWS/system 32/inetsrv/asp.dll	
Wite				aspx		WINDOWS\Microsoft NET\Frame	GET HEA
Directory browsin	9			axd	C:	WINDOWS\Mcrosoft.NET\Frame	GET, HEA.
Application Settings				.cdx		WINDOWS\system32\inetsrv\asp.dll	
				.cer		WINDOWS\system32\inetsrv\asp.dll	
Application name:	Default Application	n	Remove	.confi		WINDOWS\Microsoft.NET\Frame	GET,HEA.
Starting point:	<default sto<="" td="" web=""><td>5</td><td></td><td><</td><td></td><td></td><td>></td></default>	5		<			>
			Configuration				
Execute Permissions	s: Scripts only	*			dd	Edt Remove	1
Application Protection	m: Low (IIS Process) 👻	Unload	-			

If ASP.NET is correctly configured, you will see entries marked ".aspx", ".asax" in the "Application Mappings" portion of the window (see above). If you don't see those entries, then ASP.NET needs to be configured for this web site.

To configure ASP.NET on an existing IIS website, you need to open up Windows Explorer and navigate to the folder containing the .NET Framework. So, for example, if you have .NET Framework v1.1 installed, you would navigate to C:\ WINDOWS\ Microsoft.NET\ Framework\ v1.1.4322. Now, you need to open up a Windows command prompt by clicking Start > Programs > Accessories > Command Prompt. This will open up the command prompt window:



Now change the directory in the command window to the folder name in windows explorer (i.e. type CD C:\WINDOWS\Microsoft.NET\Framework\v1.1.4322 where the version number matches the version number of the framework you have installed). Once you have changed the directory to the appropriate folder, simply type aspnet_regiis.exe - i to configure ASP.NET. You can now verify that ASP.NET has been installed by checking the IIS management console (as described above).

2.2. Installing the Software

Now that all the prerequisites have been correctly installed, you are now ready to install SpiraTest[™] onto your system. To perform the installation, you will need the installation package downloaded from the Inflectra website, the name of the organization that the software is licensed

to, and the actual license key code which will be available in the customer area of the Inflectra website.

To start the installation, double-click on the SpiraTestTM installation package (it will have a filename of the form SpiraTest-v1.x.x.msi), and the Windows Installer will display the following dialog box:

🕞 SpiraTest Setup	×
	Welcome to the SpiraTest Setup Wizard
	The Setup Wizard will install SpiraTest v1.0.0.0 on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
	inflectra≓
	< Back Next > Cancel

Click the <Next> button to start the installation wizard, which will gather information from you regarding how you want to setup the system, before actually installing the web-server files and database components. If any of the prerequisites were not correctly installed, the installer will display an error window that lists the missing component(s) instead of this screen. If this happens, please refer to section 2.1 for installation of any prerequisites.

SpiraTest License Agreement
End-User License Agreement Please read the following license agreement carefully
INFLECTRA SOFTWARE END USER LICENSE AGREEMENT IMPORTANT: THIS SOFTWARE END USER LICENSE AGREEMENT (EULA) IS A LEGAL AGREEMENT BETWEEN YOU AND INFLECTRA. READ IT CAREFULLY BEFORE COMPLETING THE INSTALLATION PROCESS AND USING THE SOFTWARE. IT PROVIDES A LICENSE TO USE THE SOFTWARE AND CONTAINS WARRANTY INFORMATION AND LIABILITY DISCLAIMERS. BY INSTALLING AND USING THE SOFTWARE YOU ARE CONFIDMING YOUR
\bigcirc I do not accept the terms in the License Agreement
< Back Next > Cancel

The next screen in the installation wizard outlines the SpiraTest[™] End User License Agreement (EULA). Please read this carefully as it describes the legal contract between you – the user of the software – and Inflectra Corporation, the developer and publisher. Once you have read the agreement and understood your rights and obligations, select the radio button marked "I accept the terms in the License Agreement" and click the <Next> button.

The following screen will be displayed:

SpiraTest Setup	
Customer Information Please enter your customer information	spiraTes
User Name:	
ןי <u>O</u> rganization:	
License <u>K</u> ey:	
< Ba	ck Next > Cancel

You need to enter your full name, the organization that was issued the software license, and finally the full hexadecimal license key that was provided with the software. Once you click <Next>, the installer will verify that all three were entered, and that the license key matches the product being installed and that it matches the organization name. The installer will warn you of any discrepancies, but will allow you to proceed; however after installation, the system will not operate until a correct license key is entered.

If for any reason you are unable to get the provided license key to work, please contact Inflectra customer support immediately and they will resolve the issue.

After clicking <Next>, you will be given the choice of installation to perform:

🔀 SpiraTest Setup	
Choose Setup Type Choose the setup ty	be that best suits your needs
1	Ivpical Installs the most common program features. Recommended for most users.
	Custom Allows users to choose which program features will be installed and where they will be installed. Recommended for advanced users.
N COL	Complete All program features will be installed. (Requires most disk space)
	< Back Next > Cancel

By default, the installer will install all of the SpiraTestTM features onto the target system, so we recommend choosing either a "Typical" or "Complete" install, which will both install the complete system. For advanced users who want to either change the folder to which the system is installed (by default it is C:\Program Files\SpiraTest), or to prevent the installation of the optional web-services data integration modules, you can choose the "Custom" option, which allows you to change those settings prior to installation.

This manual assumes that the Typical/Complete option is chosen, in which case the following screen is displayed:

Page 8 of 30

SpiraTest	
Select A Virtual Directory Select the web site virtual root	spiraTest
This will install SpiraTest in the following virtual dir To install to this virtual directory, dick "Next". To name below.	
Virtual Directory SpiraTest	
Canc	el < Back Next >

This screen allows you to change the name of the web-site URL that will be user to access the system. By default, users would need to type into their browsers: <u>http://<server name>/SpiraTest</u>. Should you want to have a different name – other than SpiraTest – change the name in the Virtual Directory box, otherwise simply accept the default name and click <Next>. Note: The installer will check to make sure that the name you have chosen is not already in use, and will warn you if it is.

Upon clicking <Next>, you will be taken the database connection screen:

🙀 SpiraTest	
Select A Databa Select the datab	cniraToct
	nnect SpiraTest to the following SQL server database. database, dick "Next". To use a different database, enter the name below.
<u>D</u> atabase	SpiraTest
<u>S</u> erver	SANDMAN
<u>U</u> ser	sa
Password	
	Cancel < Back Next >

The "Database" box is the name of the database schema that the installer will create inside SQL Server. The default value is "SpiraTest", and we recommend that you use this.

For the "Server" box, you need to enter the name of the Microsoft SQL Server instance that is running on your system; the installer will default it to the hostname of the server (which in many cases will be correct). The easiest way to find out the database server name is to open up the SQL Server Administrative console (typically by clicking Start > Programs > Microsoft SQL Server > Enterprise Manager) and look for the name of the server.

For the "User" and "Password" fields you need to enter a SQL Server login that has Database Administrative (DBA) permissions. Typically the login is called "sa", and the password will have been chosen by you during the installation of SQL Server. (Note: The current version of SpiraTestTM requires the use of a SQL Server administration login for this process; future versions will be able to support use of integrated Windows NT authentication) Once you have entered the various pieces of information, click <Next>. The installer will attempt to connect to the database using the provided information, and it will display an error message if any of the information is incorrect. Assuming the information is correct, the following screen will be displayed:

🖟 SpiraTest Setup
Ready to Install The Setup Wizard is ready to begin the Typical installation
Click Install to begin the installation. If you want to review or change any of your installation settings, dick Back. Click Cancel to exit the wizard.
< Back Install Cancel

Click the <Install> button to actually begin the process of installing SpiraTestTM onto your system. The installer will display a progress bar that gradually fills as the installation proceeds:

🔂 SpiraTest Setup	×
Installing SpiraTest	spiraTest
Please wait while the Setup Wizard installs minutes.	SpiraTest. This may take several
	< Back Next > Cancel

Once the installation is complete, the following message will be displayed:

🛃 SpiraTest Setup	X
	Completing the SpiraTest Setup Wizard
	Click the Finish button to exit the Setup Wizard.
	inflectra≓
	< Back Finish Cancel

Congratulations! You have successfully installed SpiraTestTM onto your system. If you type <u>http://localhost/SpiraTest</u> into your browser you should see the SpiraTestTM login page, as illustrated in the *SpiraTestTM* User Manual. If for any reason you don't see the login page, please refer to *Appendix A – Troubleshooting IIS*.

2.3. Security Considerations

The Microsoft Internet Information Services (IIS) web-server and SQL Server database are powerful tools to managing web-based applications. However it is important to make sure that they are correctly secured to prevent unauthorized access to applications being hosted on them. This is a fast changing field and beyond the scope of this guide to address, however we recommend reading the following article for details on how to secure IIS:

http://www.windowsecurity.com/articles/Installing Securing IIS Servers Part1.html

In addition to the steps outlined in this article, it is important to note that by default, all web pages served by IIS using the HTTP protocol are unencrypted, and as such, the usernames and passwords used by SpiraTestTM to log into the application can be read by network sniffing tools. If you are using SpiraTestTM purely within an intranet environment, this may not be an issue. However if you are externally hosting SpiraTestTM onto a publicly accessible website, we recommend installing a Secure Sockets Layer (SSL) encryption certificate, and restricting all web-traffic to the secure HTTPS protocol instead. For details on how to perform this task, please refer to *Appendix B* - *Installing an SSL Certificate*.

3. System Administration

Now that you have successfully installed SpiraTestTM, this section of the guide outlines how to perform the typical system-wide administrative tasks necessary for setting up projects in the system, managing users and verifying the license information. To perform these tasks, you need to login to the system with a username that has "System Administration" permissions. The special "Administrator" username is created by the installer for this very purpose. You should initially login to SpiraTestTM with the username Administrator, and the password PleaseChange. It is recommend that this password be changed as soon as possible to something that is secure yet memorable by clicking on the "User Profile" link – see the SpiraTestTM User Manual for more details.

Once you have logged in as the Administrator, you need to click the "Administration" link above the main navigation bar. This will display the Administration home page:

0.	T tetp://bir	dnan/spratest/A	chrinistration_agos #						4	4+ X obtanin	c SSL certificates	
Edit .	view Favorite	Tools Help										
*	Spraffeet Ad	menant abort Home		-						9.01	- [] 7apt +	O Tools •
-	-		We	come, System Administrato	1 My Profile	1 Administratio	mil Log (Dut .				Help?
spi	raTes	t	- 1.50 K			1						berbeiker .
			My	Page Project Hame	Begarment	Ten Cau		ncidenta -				_
dminis Project	and the second second	n - Library In	formation System	<< Back to Project Home	Sy	stem Administr	ation << [lack to My Page	2			
	Details	V0001000000000000000000000000000000000										
100	Details	000000000	and the second	100000000000000000000000000000000000000	100	ect Manager	CRETE:	101-1-01				15
Pleas	e review the im you have finish	termation listed ved. click IUpd	d below and make an [ate] to confirm them	ry changes if necessary		Project Name		Web Site	10	Creation Dat	- Any - V	
	ct Name*:		mation System				1			1-Dec-2005	Construction of the local division of the lo	
Descr	Description Sample application that allows					Legacy Applicat Library Information		anne the second	faimationsystem arg		No Yes	
	Serie Contraction		manage books, a			Sample Applicat		www.lemput		1-Dec-2005	Yes	
	and lending records for a typical branch library					Sample Applicat				1-Dec-2005	Yes	
						1						
Web:	Veb Site www.libraryinformationsystem.org							- Filter - Add	- Clear Filters			
			- 0	pdate + Cancel	1.1	10						
le or 11	embership			17-		er Manageme	nt					
	Full Name			B. 1 B. L.		First Name	M	Last Name	User Name	Admin	Active	
Del	Fred Blogg		User Name fredbioggs	Project Role Project Owner						- Any - 👻	- Any - 💌	
and the second	Joe P Smit		icesmith	and the second s		Bob	-	Builder	bbuilder	No	Yes	
				Observer 🛩		Fred	p	Bloggs	tedbloggs	Yes	Yes	
	System Ad	ministrator	administrator	Project Owner 💌		Joe Mike	P	Smith	pesmith	No	Yes	
			+ Ad	d + Delete + Update		Phil		Hoskins	phoskins	No	Yes	
57072	NO STREET		- Section	Carl Land Street Start Land Land		Rook	a	Ramet	topenamies	No	Yes	
xicei D	Data Import					System	-	Administrator	administrator	Yes	Yes	
10 50	iraTest Encel	mpioter				1						
2000		Area Ve								• Filter • Add	· Clear Filters	1
										1 Truste		 \$ 100%

The Administration home page is divided into two main areas – the *project administration* panel on the left hand side, and the *system administration* panel on the right hand side. If you are a "project owner" and are currently logged into that project, then you will see the project administration panel, and if you have been given the system administrator permission, then you will see the system administration panel. You may have both of these permissions or just one.

This section describes the functionality available to the *system administrator* only. The two main tasks performed by the system administrator are creating/editing projects and creating/editing users. These tasks typically need to be performed before any other users can use the system, since there will be no logins or projects available other than the sample ones provided during the installation.

3.1. Project Management

The screen below illustrates the section of the screen devoted to the *project management* administrative functionality:

- C	Ettp://sind view Favorites		dhinish alton, aspx #						fy [X] obtaining	SSL certificates	
*	SpraTest Adm								9 · 0 · 6	- 12 Page - 0	Tools +
spi	raTes	ť		ome, System Administrator	and a second second					E	inte ?
Indiaist				Non Project Home Re			ecidente				
roject	Administration	- Library In	formation System «	< Sack to Project Home	System Administra	stion <<	lack to My Page				
roject	Details				Project Manager	nent					
				changes if necessary.	Project Name		Web Site		Creation Date	Active	
			ate] to confirm them.				E E	17		- Any - 💌	
2020	ct Name*:		mation System		Legacy Applicati				1-Dec-2005	No	
Descri	pton	Sample application that allows				Library Information System www.Meany-informationsystem.e Sample Application One www.temput.org Sample Application Two			1-Dec-2005	Yes	
	and lending records for a typical branch library							real	1-Dec-2005 1-Dec-2005	Yes	
				1	DOLLING .				1.144		
Web 5	Neb Site: www.libraryinformationsystem.org				1	· Filter . Add	- Clear Filters				
			- Ups	tate - Cancel						A Real Property in the local data	-
cor M	embership			17-	User Manageme						
Det	Full Name		User Name	Project Role	First Name	M	Last Name	User Name	Admin	Active	
-	Fred Bloggs		fredbioggs	Project Owner M		10		No. No.	- Any - 🛩	- Any - 💌	
-	Joe P Smith		joesmith	Observer M	Bob Fred	-	Builder Bloggs	tedbloggs	No Yes	Yes	
-	System Adr	ninistrator	administrator	Project Owner M	Joe	P	Smith	pesmith	No	Yes	
	Development		L'estre strenes		Milce		Jones	misses	No	Yes	
+ Add + Delete + Update					Phil		Hoskins	phaskins	No	Yes	
xcel D	ata Import				Roger	Q	Ramjet	togenamies	No	Yes	
-	raTest Excel In	and the second			System		Administrator	administrator	165	145	
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This section of the screen displays the list of projects in the system (both inactive and active) together with their website URL, date of creation and active status.

You can filter the list of projects by either choosing an active status, or entering a portion of the name, web-site or date into the appropriate text box. When you click the <Filter> button, the list of projects will be filtered by the criteria you entered. You can clear the filter selection by clicking the <Clear Filter> button. In addition, the list of projects is paginated into groups of ten (10). You can step through the different pages by clicking the page numbers at the bottom of the project list.

To add a new project to the system, simply click the <Add> button at the bottom of the project list, and a new screen will be displayed that allows you to enter the new project information:

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Description:				
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You need to enter a name for the project (which cannot be the same as any already in use), together with an optional description and/or web-site URL. You should initially make sure that the project is marked as "Active". Once you are satisfied with the information, click the <Insert> button to actually create the new project.

In a similar way, to edit the details of an existing project, simply click the project name hyperlink in the project list box, and you will be taken to the following screen that allows you modify the project details:

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Administration > Project Details		
	ation listed below and make any changes if necessary. click [Update/Insert] to confirm them.	
Project Name*:	Library Information System	
Description:	Sample application that allows users to manage books, authors and lending records for a typical branch library	
Web Site:	www.libraryinformationsystem.org	
Active Project*:	Yes 🗸	
	► Update ► Cancel	
Copyright (C) 2006, Inflectra Corpor	ration SpiraTest v1.0	inflectra
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On this screen you can edit the name, description, website URL and active status. Once you have made the necessary changes, click the <Update> button to commit them. If you decide that you want to ignore the changes, click the <Cancel> button and the changes will be discarded.

3.2. User Management

The screen below illustrates the section of the screen devoted to the *user management* administrative functionality:

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	users to manage books, authors and lending records for a typical branch library		Sample Applicat		www.tempun	erg	1-Dec-2005	Yes	
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Fred Blo		fredbloggs	Project Owner 💌	Bob		Builder	bbuilder	No	Yes
Joe P S	mith	joesmith	Observer 🛩	Fred		Bloggs	tedbloggs	Yes	Yes
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		1000		Miloe		Jones	rojones	No	Yes
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This section of the screen displays the list of users in the system (both inactive and active) together with their first name, middle initial, last name, username (login), administrative permission status and active status.

You can filter the list of users by either choosing an administrative / active status, or entering a portion of the first name, middle initial, last name or username into the appropriate text box. When you click the <Filter> button, the list of users will be filtered by the criteria you entered. You can clear the filter selection by clicking the <Clear Filter> button. In addition, the list of users is paginated into groups of ten (10). You can step through the different pages by clicking the page numbers at the bottom of the user list.

To add a new user to the system, simply click the <Add> button at the bottom of the user list, and a new screen will be displayed that allows you to enter the new user information:

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Spiratest Welcome, System Administrator <u>My Profile</u> Administration Log Out My Page Project Home Requements Test Cause Incidents	Help?
Please review the information listed below and make any changes if necessary. Once you have finished, click [Update]insen] to confirm them	
First Name*: Middle Initial:	
Last Name*:	
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System Administrator": No 💌	
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• Insert • Cancel	
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In a similar way, to edit the details of an existing user, simply click the username hyperlink in the user list box, and you will be taken to the following screen that allows you modify the user details:

SpiraTest Change User Details - Wir	idows Internet Explorer	
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le Edit view Pavorites Tools Help	100	
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Administration > User Details		
Please review the information I Once you have finished, click (sted below and make any changes if necessary. Update/insen] to confirm them	
First Name*:	Fred	
Middle Initial:		
Last Name':	Bioggs	
User Name':	hedbloggs	
Email Address*:	hedbloggs@spiratest.com	
System Administrator*:	Yes w	
Active User*:	Yes w	
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On this screen you can edit the first name, middle initial, last name, username, email address, system administration status and active status. Once you have made the necessary changes, click the <Update> button to commit them. If you decide that you want to ignore the changes, click the <Cancel> button and the changes will be discarded.

3.3. License Management

At the bottom of the system management pane, there is a small section of the screen that displays the current software license information. It displays the currently licensed product (e.g. SpiraTest), the version licensed (e.g. v1.0.0.0), the type of license in effect (x-user fixed, x-user concurrent, demonstration, enterprise, etc.), the organization that the license belongs to, and finally the number of users concurrently logged-in.

Description: Sample application that allows weeze to manage books, suthors add leading records for a typical web Ster www.ltmayinformationsystem.org • Ugetime • Cameer Ser Membership Dei Full Name Vee Management • Jace P Smith joernet • Jace P Smith joernet • Add • Deleter • Object Owner • Object Owner • Object Owner • Object Owner • Object Owner <td< th=""><th>* *</th><th>SovaTest Adv</th><th>website abort mone</th><th></th><th>99</th><th></th><th></th><th></th><th></th><th>9·0·</th><th>₩ • [] Page • (</th><th>) Tools + 🚺</th></td<>	* *	SovaTest Adv	website abort mone		99					9·0·	₩ • [] Page • () Tools + 🚺
Image: Second	Descrip	tion.	users to manage and lending reco	books, au	there	Samp	e Application D	ne www.te		1-Dec-2005	Yes	
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This last piece of information is useful since it helps administrators track down how many licenses are currently in use.

4. Project Administration

This section describes the functionality available to a *project administrator* only. The two main tasks performed by the project administrator are modifying the details of the project and changing the project user membership. These tasks would be performed after the system administrator has created the project, created the users, and designated a user as a project administrator. This allows the system administrator to delegate responsibility for managing project-level permissions.

4.1. Project Details

The screen below illustrates the section of the screen devoted to the *project details* administrative functionality:

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and lending records for a typical branch library					Sample Applicat		WORK JETTENE	Ling	1-Dec-2005	Yes		
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	Joe P Smit	th	joesmith	Observer 🛩		Fred		Bloggs	tedbloggs	Yes	Yes	
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On this screen you can edit the name, description, and website URL. Once you have made the necessary changes, click the <Update> button to commit them. If you decide that you want to ignore the changes, click the <Cancel> button and the changes will be discarded.

4.2. User Membership

The screen below illustrates the section of the screen devoted to the *user membership* administrative functionality:

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	Details				Project Manager						
Please review the information listed below and make any changes if necessary.			Project Name		Web Site		Creation Da	te Active			
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Descri			Library Information			domationsystem.org	1-Dec-2005	Yes			
			CONTRACTOR CONTRACTOR	Sample Application One www.tempuri.org Sample Application Two			1-Dec-2005 Yes 1-Dec-2005 Yes				
		branch 11	prery	222222222	Sample Appeca	001.100			1-040-2005	Tes	
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Del	Full Name		User Name	Project Role			T I	E E	- Any - 🛩	- Any - 💌	
	Fred Bloggs		fredbioggs	Project Owner 💌	Bob		Builder	bbuilder	No	Yes	
	Joe P Smith	Č.	joesmith	Observer 🛩	Fred	1.00	Bloggs	tedbloggs	Yes	Yes	
	System Adr	ninistrator	administrator	Project Owner 💌	Joe	P	Smith	pesmith	No	Yes	
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To add a user to the project, so that can access its information, simply click the <Add> button and the new user membership form will be displayed below the user membership list:

U	ser Me	mbership		
	Del	Full Name	User Name	Project Role
		Fred Bloggs	fredbloggs	Project Owner 💌
		Joe P Smith	joesmith	Observer 🖌
		System Administrator	administrator	Project Owner 👻
A	dd Use	er Membership	► Add	► Delete ► Update
	User: E	Bob Builder 🛛 🖌	Role: Project Owner	~
			Cancel Inse	ert

Choose the name of the user to add and the role you want him/her to play. Once you are satisfied, click <Insert> to actually add the user, or <Cancel> if you want to return back to the administration home page without making any changes.

Similarly, to modify the role of a user assigned to the project, simply change the role for that user's entry in the drop-down menu and click the <Update> button.

To remove a user from the project, simply check the box to the left of the user's name and click the <Delete> button. Note that this only removes them from the project, not the entire system.

4.2.1. Project Roles

There are five (5) possible roles that a user may be assigned to a project with:

- Project Owner the same rights as a Manager, but in addition can access the project administration tools
- Manager can see all screens and add/edit all artifacts, but cannot access project administration tools
- Developer can see all screens, but can only add/edit incidents and tests and change requirement coverage
- Tester can see all screens, but can only add/edit incidents and execute tests. Note: cannot delete incidents, only a Manager can do that.
- Observer can see all screens, but cannot perform any write operations (insert / update / delete)

Note: The System Administrator is automatically added to every project as a Project Owner, and can never be removed as Project Owner, made inactive or made a different role on the project.

4.3. Excel Data Import

The web-based interface of SpiraTest[™] is ideal for creating and managing requirements, test cases and incidents for a new project. However when migrating requirements, test cases, test steps and incidents for an existing project from another system or Microsoft Office document (e.g. Excel), it is useful to be able to load in a batch of artifacts, rather than having to manually enter them one at a time. To simplify this task, SpiraTest[™] comes with a Microsoft Excel data importer that can bulk-load requirements, test cases, test steps and incidents from a populated Excel sheet into SpiraTest[™].

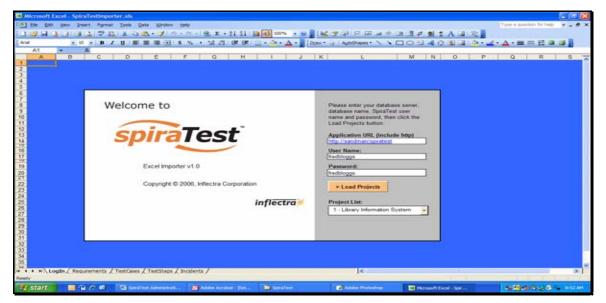
The Excel Importer template can be downloaded from the Administration home page. As illustrated below, there is a hyperlink to the spreadsheet on the bottom of the project administration pane:

siraTest Administr	ration Home -	Windows Internet E	aplarer							
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		late] to confirm them	and the second second			E			- Any - 💌	
Project Name*:	Library Inform	mation System		Legacy Applic	ation			1-Dec-2005	No	
Description Sample application that allows and lending records for a typical		Library Informs	ation System	servery libraryin	doinationsystem org	1-Dec-2005	Yes			
		Sample Applic	Sample Application One www.tempuri.org			1-Dec-2005	Yes			
	branch 11		a typical	Sample Applic	ation Two			1-Dec-2005	Yes	
Web Site	www.libraryi	nformationsystem or		14				- Filter - Add	- Clear Filters	
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Del Full Name		User Name	Project Role				18	- Any - 🛩	- Any - 🛩	
Fred Blogg	ia.	fredbioggs	Project Owner M	Bob		Builder	bbuilder	No	Yes	
Joe P Smit	th	joesmith	Observer 🛩	Fred		Bloggs	tedbloggs	Yes	Yes	
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Simply right-click on the "SpiraTest Excel Importer" link and choose to download the spreadsheet to your local machine. Once downloaded, open up the spreadsheet in Microsoft Excel and choose to "Enable Macros" when prompted.

4.3.1. Logging-in and Selecting the Project

When you first open the SpiraTest Importer Excel sheet, you will see the "Login" window. If this is not the first sheet that opens, click on the "LogIn" tab to display it.



This page allows you to login to SpiraTest[™] via Excel and choose the project that you want to import data into. Enter into the Application URL cell the web address that you use to access SpiraTest[™] in your browser. This is usually of the form http://<hostname>/SpiraTest. Make sure that you remove any suffixes from the address (e.g. Default.aspx).

Then, in the user-name and password cells, enter the user-name and password that you normally log into SpiraTest[™] with on the web. Once you have entered this, click the <Load Projects> button to load the list of projects that you are authorized to access.

Now, select the project you're interested in from the drop-down menu. You are now ready to begin importing requirements, test cases, test steps and/or incidents into the project.

4.3.2. Importing Requirements

To import requirements, first you need to click on the "Requirements" tab in the Excel sheet:

A7	B C D E F G H I	19	ĸ	1	M N	0	P	Q R
					and the second se			
sp	iraTest			> 5	cart Import	-		_
_		Requirements Import				-		
oject	1 - Library Information System							
					2			
	Requirement Name		Importance	Status				
	Test Root Rem Test Child		1 - Critical 1 - Critical	1 - Requested 1 - Requested				
	Test Child		1 - Critical	1 - Requested		-		
	Test Root tem		Z - High	2 - Planned		-		
	Test Child		3 - Medium	2 - Planned				
	Test Child		2 - Medium	2 - Planned				
	Test Child		3 - Medium	3 - In Progress				
	Test Child		3 - Medium	3 - In Progress				
	Test Child Test Child		4 - L/pel	3 - In Progress				
	Test Child		4 - 1,pet	4 - Completed		-		
			_			-		
	-		_					
						_		
				-				
			_	-				
						-		

Next, you need to either enter the requirements into the Excel sheet or cut and paste them in from another existing Excel sheet that you've been using to manage requirements. The sheet expects the requirements to be indented according to the hierarchical arrangement of the requirements. In addition, each requirement should be designated an *importance* and *completion status* from the relevant drop-down lists. If you're not sure, you can leave the importance blank, but you must enter a status, so we recommend initially using "Requested"

Once you have entered all the requirements, click the <Start Import> button. The Excel importer will now access the SpiraTest[™] import web-service and begin loading the data. Once the import has finished, a message box will be displayed indicating if there were any errors in the import. If there were any errors, then an error message will be displayed to the right of each entry that failed. This will enable you to correct the specific entry that failed, and re-run the import for that line.

4.3.3. Importing Test Cases

To import test cases, first you need to click on the "Test Cases" tab in the Excel sheet:

	3	ĸ		M	10	0	р	9	
piraTest			*	Start Import	31				
-	Test Case Import		-						
sct: 1 - Library Information System					_				
st. 1 - Chinary minimation system									
Test Folder / Case Name		Folder Yill	Test Case Id	1					
Test Folder 1		Poider Fill	Test Cate Ha	1					
Test Folder 1.1		v.	000084						
Test Case 1 ta		14	DOCCOM						
Test Case 1 th		14	000087	<u> </u>					
Test Case 1a		14	dacees						
Test Folder 1.2		Y.	000085	1					
Test Case 1.2a		14	000091	i					
Test Case 1.2b		N	1055592						
Test Folder 2		Y	005593	1					
Test Case 2a		N	1005594	1					
Test Case 2b		N	005594	1					
			10000	t					
				1					
				1					
			1	1					
				1					
				1					
			2	1					
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				1					
				4					

Next, you need to either enter the test cases and test folders into the Excel sheet or cut and paste them in from another existing Excel sheet that you've been using to manage test cases. The sheet expects the test folders to be indented according to their hierarchical arrangement, with the test cases arranged inside these folders. Each entry needs to be designated as either a test case or a test folder, by choosing either Y or N from the drop-down list.

Once you have entered all the test folders and test cases, click the <Start Import> button. The Excel importer will now access the SpiraTest[™] import web-service and begin loading the data. Once the import has finished, a message box will be displayed indicating if there were any errors in the import. If there were any errors, then an error message will be displayed to the right of each entry that failed. This will enable you to correct the specific entry that failed, and re-run the import for that line.

4.3.4. Importing Test Steps

To import test steps, you first need to click on the "Test Steps" tab in the Excel sheet:

	- 1	5	N + SIZI@@ @ ⊡ + Q + Δ +				-
A.	B	C	D	E	F G H	1.	3
-							
sp	piraTe	SE	the second se		> Start Import		
		-	Test Step Import				
-	1 - Library	Information System				-	
-							
	Test Case	ID: 000095					
_	- and the second		and the second sec	the second se			
_	Step #	Description	Expected Result	Sample Data			
	0001	Click here	What we expect	Some data			
	0002	Type in these		More data			
	0003	Make something happen	It should happen		-		
	0004				-		
	0005				-		
	0000						
	00001				-		
	0000						
	0010				-	-	
	0011						
	0012					1	
	0013						
	0014						
	0015						
	0016						
	0017				-		
	0018				_		
	0019				_		
	0021						
	0022						
	0023				-		
	0024				-	-	
	0025						

Next, you need to either enter the test steps into the Excel sheet or cut and paste them in from another existing Excel sheet that you've been using to manage test steps. They should be entered in list form, with the step number, description, expected result and sample data fields filled out. The step number and description fields are required, and the other two are optional. In addition, you need to enter the ID of the test case you want to load the steps into at the top of the sheet in the cell provided. This ID can be found on the Test Cases page inside SpiraTestTM.

Once you have entered all the test steps, click the <Start Import> button. The Excel importer will now access the SpiraTest[™] import web-service and begin loading the data. Once the import has finished, a message box will be displayed indicating if there were any errors in the import. If there were any errors, then an error message will be displayed to the right of each entry that failed. This will enable you to correct the specific entry that failed, and re-run the import for that line.

4.3.5. Importing Incidents

To import incidents, first you need to click on the "Incidents" tab in the Excel sheet:

* 5					⊃⊐4∂∎⊒≥-∠-∆-≡	
B	C	D	E		G	1 1
aTest					> Start Import	
				Incident Import		
- Library Informati				incident import		
- Library Informati	on system					
Туре	Status	Priority	Name	Description	Resolution	
1 - Incident	1 - Network		New Incident	Description of the new incident		
2 - Bug	4 - Fixed	1 - Ontical	Fixed Bug	Description of the fixed bug	We fixed the bug this way	-
- Enhancement	3 - Assigned	2 - High	Assigned Enhancement	Description of the assigned enhancement		-
L - Isoue	2 - Open		Open Issue	Description of the open issue	No. And States	
5 - Training	5 - Closed	4 - Low	Closed Training Item	Description of the closed training item	We resolved the issue using method x	
- Limitation	6 - Not Reproducible			Description of the limitation	We couldn't reproduce this defect	
- Change Request	2 - Open	2 - High	Open Change Request	Description of the change request		
I - Risk	3 - Assigned	3 - Medium	Assigned Risk	Description of the assigned risk		
-						
	-		-			_
-						-
	-					-
	-		-			_
		-				-
	-		-			-
	-		-			-
	-	-	-			-
	-	-	-			-
	-	-	-			-
	-	-	-	-		-

Next, you need to either enter the incidents into the Excel sheet or cut and paste them in from another existing Excel sheet that you've been using to manage bugs / issues / defects. The sheet expects the incidents to be arranged in a list with a name, description and optional resolution. In addition to these three text fields, you need to choose the type (incident, bug, issue, etc.), status (new, open, assigned, etc.), and priority (critical, high, etc.) from the appropriate drop-down lists.

Once you have entered all the incidents, click the <Start Import> button. The Excel importer will now access the SpiraTest[™] import web-service and begin loading the data. Once the import has finished, a message box will be displayed indicating if there were any errors in the import. If there were any errors, then an error message will be displayed to the right of each entry that failed. This will enable you to correct the specific entry that failed, and re-run the import for that line.

5. Appendices

5.1. Appendix A – Troubleshooting IIS

If you receive the dreaded "IIS 500 Internal Error" webpage when you try and access an ASP or ASP.NET application on the server, there can be a myriad of causes. However a good first place to look for the cause is inside the Windows Event Viewer, which stores all errors raised in the system.

To open the Event Viewer, click Start > Settings > Control Panel > Administrative Tools > Event Viewer. This will open up the event viewer:

Event Viewer (Local)						
Name	Type	Description	Size			
Application Security System	Log Log Log Log	Application Error Records Security Audit Records System Error Records Custom Log Error Records	64.0 KB 64.0 KB 64.0 KB 			
	Name Application Security System	Name Type Application Log Security Log System Log	Name Type Description Application Log Application Error Records Security Log Security Audit Records System Log System Error Records	Name Type Description Size It Application Log Application Error Records 64.0 KB It Security Log Security Audit Records 64.0 KB It System Log System Error Records 64.0 KB		

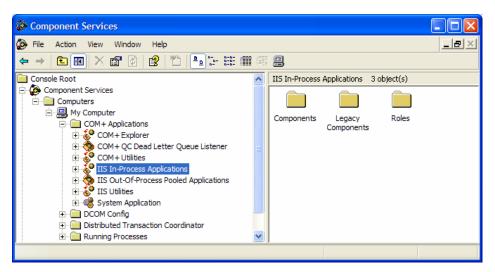
Click on the Application and System folders in turn and look for errors raised by "MSSQLSERVER", "SpiraTest", "DCOM", "Component Service" or "IISCTLS". Click on the error message, and copy the text of the message into a text editor (e.g. Notepad).

We recommend using either the Microsoft support website (<u>http://support.microsoft.com</u>) or a simple web search (<u>www.google.com</u>, <u>www.yahoo.com</u>, etc.) to search for the specific error message you cut and paste into notepad. This will typically find the cause of most common IIS errors.

5.1.1. Missing MSDTC Issue

There is one common error that has been found with installations where Microsoft SQL Server was installed *after* IIS was installed. This typically affects only Windows XP Professional, but could occur in other situations. What happens is that the SQL Server installation inadvertently removes the *Microsoft Distributed Transaction Coordinator* (MSDTC) service from the system during the installation.

To determine if this is indeed the cause of the observed error, you need to click on Start > Settings > Control Panel > Administrative Tools > Component Services:

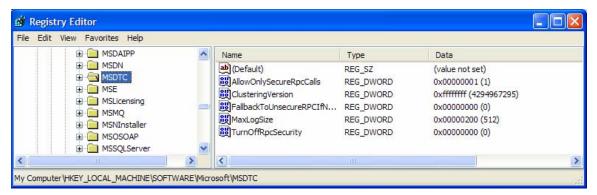


Once the window has opened, expand the folders marked "Component Services", "Computers", "My Computer" and "COM+ Applications" in turn. If the window opens correctly and displays the information illustrated above, then your IIS 500 error is being caused by something else.

However if you receive an error message that indicates an inability to connect with the "Distributed Transaction Coordinator", then you have to fix the MSDTC service to enable IIS and ASP.NET to operate properly.

To fix the issue, you need to make changes to the Windows System Registry (hereafter referred to as "the registry"). This is a process that should **not** be attempted by novice users, since any incorrect changes can complete wreck the Windows installation, requiring a complete reinstallation of the operating system.

To open the registry, click Start > Run, and type "Regedit.exe" into the dialog box, and the registry will open:



Expand the folders marked "My Computer", "HKEY_LOCAL_MACHINE", "SOFTWARE" and "Microsoft" in turn and navigate to the folder marked "MSDTC". Click the <Delete> button on your keyboard, and click <OK> on the confirmation box. Now close the registry editor.

Now you need to click on Start >Settings > Control Panel > Add or Remove Programs and click on the tab marked "Add/Remove Windows Components":

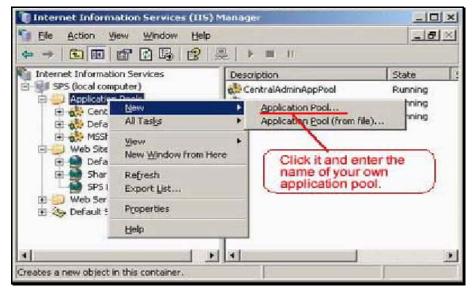
/indows Components You can add or remove compo	onents of Windows XP.	
To add or remove a component part of the component will be in: Details.		
Components:		
💌 📻 Accessories and Utilities	S	18.0 MB
Fax Services		3.8 MB
 ✓ ✓ Fax Services ✓ ✓ Indexing Service 		3.8 MB 0.0 MB
/~		
Indexing Service	rvices (IIS)	0.0 MB
 ✓ 💬 Indexing Service ✓ 🥶 Internet Explorer 		0.0 MB 0.0 MB 13.5 MB
Pindexing Service Pindexing Service Pindexing Service Pindexing Service	s Accessories and Utilities f	0.0 MB 0.0 MB 13.5 MB

Don't change any of the selected components, but instead simply click the <Next> button. The Windows installer will detect that the MSDTC is missing (due to the registry change you made) and will now reinstall it correctly. Once this has finished, reboot the system and you should now be able to access ASP and ASP.NET applications from within IIS.

5.1.2. Application Session Pooling Issues

This issue will only affect Windows Server 2003 installations using IIS 6.0. With this release, Microsoft introduced several new features into the IIS web server that affect how sessions and application pools are handled. Most web hosting companies host multiple websites in the same application pool. When resources are maxed out for an application pool IIS 6 starts to recycle these sites causing application variables to be lost for those recycled sites.

If you are experiencing application/session loss symptoms then we would recommend asking your web hosting company to place you in your own application pool with all recycling options disabled and the recycle worker process set to recycle only once during the day at a set time.



To make these changes yourself, you need to follow these steps:

Add new application pool for "SpiraTest".

All and a second se	Directory Security HTTP Headers	and the second sec
TTHE CONTENT OF COMP.	resource should come from:	
6	The designated directory	
	A share located on enother compu	ter
	A redirection to a URL	
Logal path:	(owaasp	-
Script source acce	nss 🔽 Log visits	
Read	Index this re	source
Write	The second se	plicaiton pool you
Directory browsin	created before	ų –
Application settings	/	
Application name:	owaasp	Remove
Starting point:	<default nowaa<="" site="" td="" web=""><td></td></default>	
		Configuration
Execute germissions:	Scripts only	-
Application pool:	J. J.	₩ Unigad

Next, choose your own application pool in the web site properties:

Click <OK> and you should now find that the issues with sessions disappearing has been corrected.

5.2. Appendix B – Installing an SSL Certificate

This section outlines how you can install a Secure Sockets Layer (SSL) certificate onto IIS to allow users to access SpiraTestTM via an encrypted protocol, so that usernames, passwords and sensitive project data cannot be "sniffed" across the network. This is especially important if your web-server is being accessed across the Internet.

This section assumes that you already have a Certificate Authority (CA) available to generate an SSL certificate for you. This can either be a third-party provider (e.g. Verisign) or a tool used to generate "self certificates" that can be used internally to your organization (e.g. the IIS Certificate Server that ships with Windows 2000 Server and Windows Server 2003). For more information on the differences between these two options, please read the following documents:

http://www.microsoft.com/technet/prodtechnol/WindowsServer2003/Library/IIS/8d3bb71a-0a7f-443f-8084-908d0dab9caa.mspx?mfr=true (installing self or third-party certificate on Windows Server 2003)

http://www.somacon.com/p42.php (installing self-certificate on Windows XP)

Once you have decided how you will generate the certificate, you next need to generate the request for the certificate from your web server. First, click Start > Settings > Control Panel > Administrative Tools > Internet Information Services to bring up the IIS management console:

🝓 Internet Information Services	l							
File Action View Help								
🝓 Internet Information Services	Name	Path						
🗄 🖳 💭 SANDMAN (local computer)	🛞 IISHelp	c: \windows \help \iishelp						
🖃 🔚 Web Sites	Scripts	C: \Inetpub \Scripts						
🕀 😥 Default Web Site	🔁 _vti_bin	C:\Program Files\Common Files\Micr						
🗄 🏷 Default SMTP Virtual Server	Printers	C:\WINDOWS\web\printers						

Now, right-click on the "Default Web Site" and choose "Properties", then click the "Directory Security" tab:

Default Web Site Pr	operties		? 🛛
Web Site	ISAPI Filters	Home Directory	Documents
Directory Security	HTTP Headers	Custom Errors	Server Extensions
Enable	and authentication co anonymous access a tication methods for th	and edit the	<u>E</u> dit
- IP address and dom	ain name restrictions -		
	or deny access to this Iresses or internet dorr		
			Edīt
Secure communicat	ions		
enable	re secure communicati e client certificates who ce is accessed.		Gerver Certificate
			E <u>d</u> it
	ОК	Cancel	Apply Help

Now, click the button marked "Server Certificate", click <Next> and choose the option marked "Create a new certificate", and click <Next>. You can then choose to either prepare the certificate request and sent it later, or to send the certificate request immediately to an online CA. If you are using a third-party CA and are connected to the Internet choose the second option, otherwise choose the first option.

IIS Certificate Wizard
Name and Security Settings Your new certificate must have a name and a specific bit length.
Type a name for the new certificate. The name should be easy for you to refer to and remember. Name:
SpiraTest Installation - Development Server
The bit length of the encryption key determines the certificate's encryption strength. The greater the bit length, the stronger the security. However, a greater bit length may decrease performance.
Bit length:
Server Gated Cryptography (SGC) certificate (for export versions only)
Select cryptographic service provider (CSP) for this certificate
< Back Next > Cancel

Enter the name for the certificate, typically this will contain the name of the organization, purpose of the certificate and any other pertinent information that will help you distinguish it.

You should choose a bit-length of at least 2048 bits, and leave the other options unchecked unless you are using the server outside of the United States, in which case you will need to choose the "Server Gated Cryptography (SGA)" option. Click the <Next> button when you are finished.

IIS Certificate Wizard
Organization Information Your certificate must include information about your organization that distinguishes it from other organizations.
Select or type your organization's name and your organizational unit. This is typically the legal name of your organization and the name of your division or department. For further information, consult certification authority's Web site.
Organization:
Inflectra Corporation
Organizational unit:
Software Development
< Back Next > Cancel

Now enter the organization and organizational unit name that best describes who is requesting the certificate. Click <Next> when you are finished.

IIS Certificate Wizard
Your Site's Common Name Your Web site's common name is its fully qualified domain name.
Type the common name for your site. If the server is on the Internet, use a valid DNS name. If the server is on the intranet, you may prefer to use the computer's NetBIOS name. If the common name changes, you will need to obtain a new certificate.
Common name:
sandman
< Back Next > Cancel

Next enter the "common name" for the web site that will be using the certificate. For a website that will be accessed across the Internet, this should the fully qualified domain name (e.g. <u>www.mysite.com</u>), whereas for a website that is limited to a local intranet, the computer name will suffice (e.g. myhost). Click <Next> when you are finished.

IIS Certificate Wizard
Geographical Information The certification authority requires the following geographical information.
Country/Region:
State/province:
Maryland
City/locality:
Silver Spring
State/province and City/locality must be complete, official names and may not contain abbreviations.
< Back Next > Cancel

Next enter the country / region, state / province and city / locality that best describe where the web-server will operate or where the organizational entity resides. Once you are finished, click <Next>.

IIS Certificate Wizard	X
Certificate Request File Name Your certificate request is saved as a text file with the file name you specify.	
Enter a file name for the certificate request.	
File name:	
c:\sandman_spiratest_bertreg.txt	Browse
<pre></pre>	Cancel

Next, enter the filename that you want to use for the *certificate request file*. This is the file that you will send to the Certificate Authority (CA) to request an SSL certificate. This filename should be memorable and describe what the certificate is for. The file extension should be .txt. Click <Next> once you have finished entering the filename.

IIS Certificate Wizard	
Request File Summary You have chosen to generate a	a request file.
To generate the following reque File name: c:\sandman_spirat Your request contains the follow Issued To Friendly Name Country/Region State / Province City Organization Organizational Unit	test_certreq.bd
	< Back Next > Cancel

Finally, you will get a confirmation screen that verifies the information you have entered. If you want to make changes, click the <Back> button, otherwise click <Next> to actually generate the certificate. Once finished, you will now have the certificate request file that you can send to the Certificate Authority (CA) to process your request.

Once the CA has processed your request, they will send back the actual SSL certificate that you can install onto your web-sever. The next steps will describe how to install the certificate once you receive it back from the CA.

Once you have received the SSL certificate back from the CA, save the file onto your hard-disk with the file-extension .cer. Now open up the IIS management console (as described above), right-click on the "Default Web Site" icon and choose "Properties". Now select the "Directory Security" tab, and click the button marked <Server Certificate> under the heading "Secure Communications". When the dialog box appears, choose the second option – to process an existing request. This will bring up the following dialog box:

IIS Certificate Wizard	X
Process a Pending Request Process a pending certificate request by retrieving the file that contains the certification authority's response.	
Enter the path and file name of the file containing the certification author	rity's response.
Path and file name:	
c:*.cer	Browse
< Back Next >	Cancel

Now, browse to the place on your hard disk where you saved the SSL certificate (with extension .cer) and select the file you saved. Click <Next> to load the certificate. Once the certificate has been loaded, all that remains is to tell IIS to require a secure HTTPS connection, so that users don't attempt to access the website over the unencrypted HTTP protocol.

From the IIS properties dialog box, click the button marked <Edit> under the "Secure Communications" heading:

Secure Communications	$\mathbf{\times}$
Require secure channel (SSL)	
Require 128-bit encryption	
Client certificates	
 Ignore client certificates 	
 Accept client certificates 	
Require client certificates	
Enable client certificate mapping	-
Client certificates can be mapped to Windows user	
accounts. This allows access control to resources using	
client certificates.	
	_
Enable certificate trust list	
Current CTL:	
New Edit	
OK Cancel Help	

Check the box marked "Require secure channel (SSL)", and click the <OK> button. You have now successfully configured IIS for secure HTTPS data transmission.

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