SpiraTest Administration Guide

Version 1.5

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 SpiraTest™ system, and how to perform routine administrative tasks.

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

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

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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 Windows 2003, Windows Vista and Windows XP. The second sub-section will explain how to load the SpiraTest™ software onto the server, and discuss common problems and solutions.

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

Requirement	Minimum Specification
Processor:	PC-compatible with Intel® Pentium P4® processor or equivalent
Memory:	1 GB, 2 GB recommended
Operating System:	Windows Server 2003 (recommended) Windows Vista* Windows XP Professional* Windows 2000 Server Edition Windows 2000 Professional Edition*
Service Packs:	Windows Server 2003 SP2 Windows XP Professional SP2* Windows 2000 Professional Edition SP4* Windows 2000 Server Edition SP4
Database:	Microsoft SQL Server 2005 SP2 (recommended) Microsoft SQL Server 2000 Microsoft SQL Server Desktop Engine (MSDE) 2000 Microsoft SQL Server 7.0
Web Server:	Internet Information Services (IIS) 5.0 or higher
Web Browser:	Internet Explorer 6.0 (recommended) Mozilla Firefox 2.0 Opera 9.0
Other Components:	Microsoft .NET Framework 1.1 or higher Microsoft Data Access Components (MDAC) 2.7 Microsoft Excel 2003 (needed for Excel importer)

*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 Vista (except Ultimate edition), Windows XP Professional and Windows 2000 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 2003.

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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 SpiraTest™. The SpiraTest™ 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 2005, 2000, 7.0 or MSDE 2000
- 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 2005, 2000, 7.0 or MSDE 2000

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 SpiraTest™ uses a SQL Server login/password to access the database.

We recommend SQL Server 2005® Express Edition® for most users. This free version of SQL Server will offer sufficient performance for most installations and can be easily downloaded from the Microsoft® web-site at http://msdn.microsoft.com/vstudio/express/sql/register/default.aspx.

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 Vista, 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:

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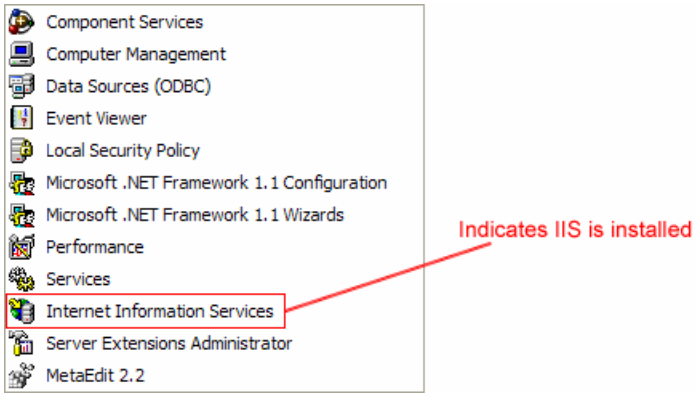
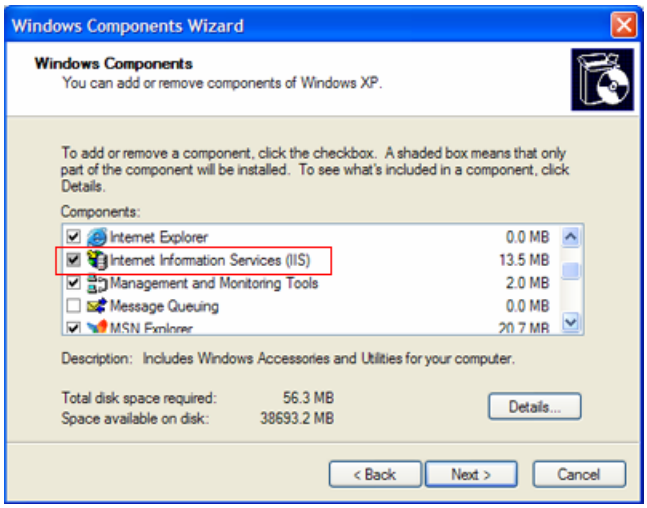


To install IIS, you need to click Start > Settings > Control Panel > Add or Remove Programs, then choose the option to “Add / Remove Windows Components” as illustrated below:



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 http://localhost 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:

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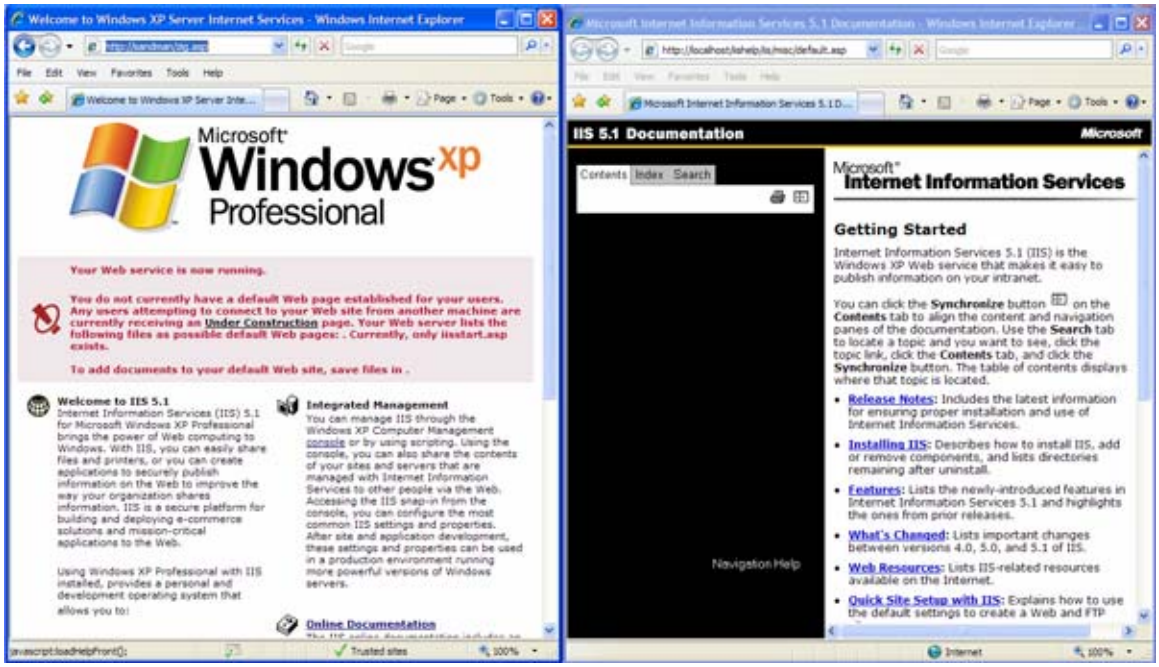
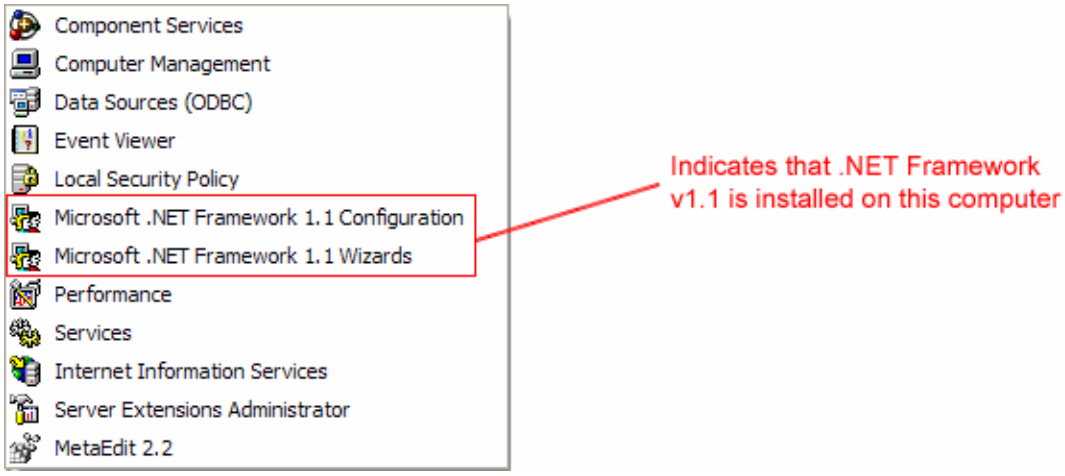


If you don't see this page, but instead see an IIS error page (e.g. Internal Server Error 500), please refer to *Appendix A – Troubleshooting IIS* to fix your IIS installation before following the rest of this installation guide.

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

On Windows Vista, 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: http://www.microsoft.com/netframework. 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

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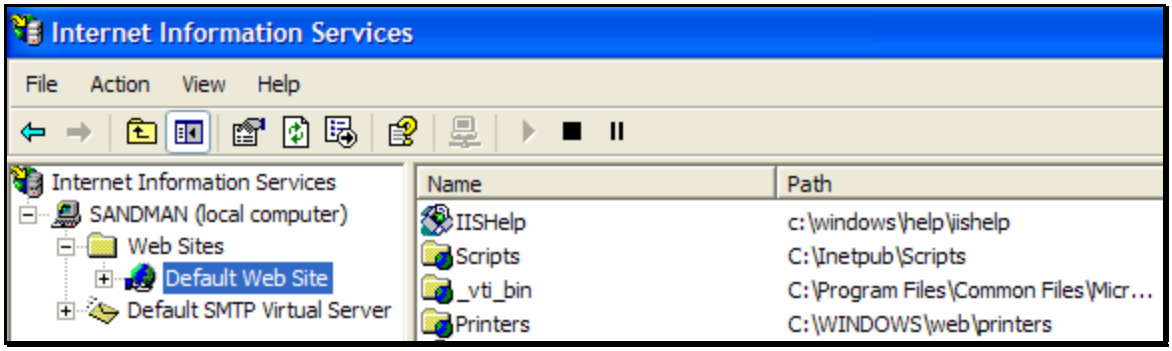
completed the install, verify that the installation was successful by looking in the “Administrative Tools” folder as illustrated above.

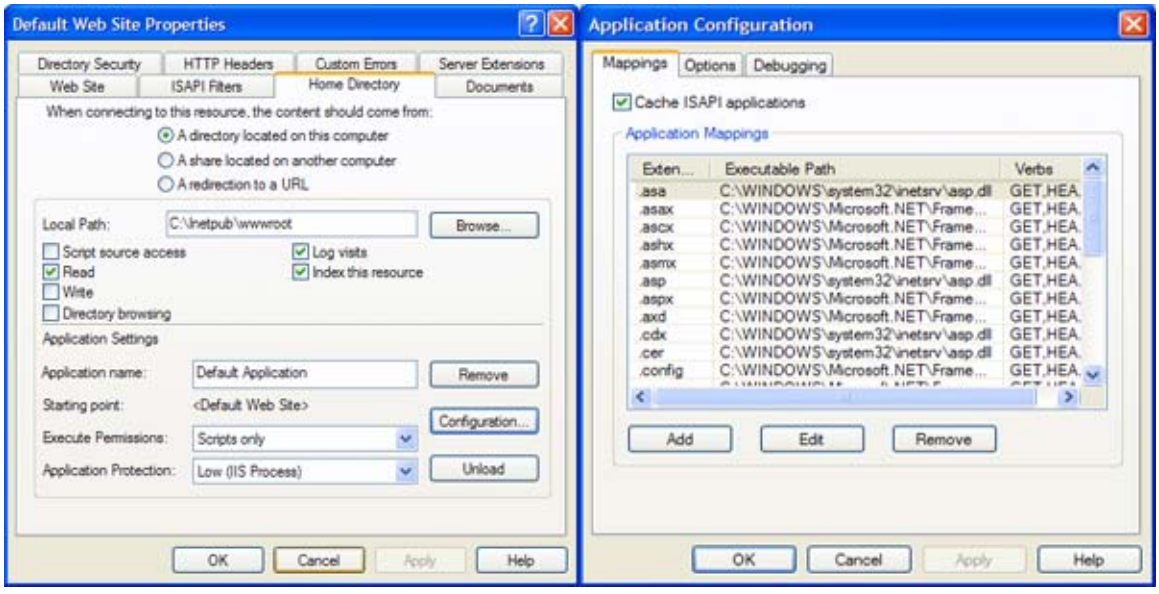
2.1.5. Ensure that ASP.NET is installed

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:



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:



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

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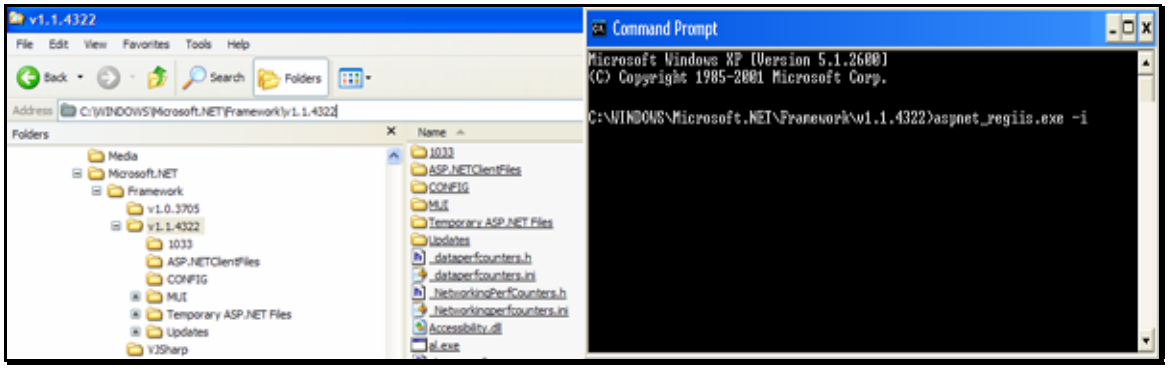
Start > Programs > Accessories > Command Prompt. This will open up the command prompt window:



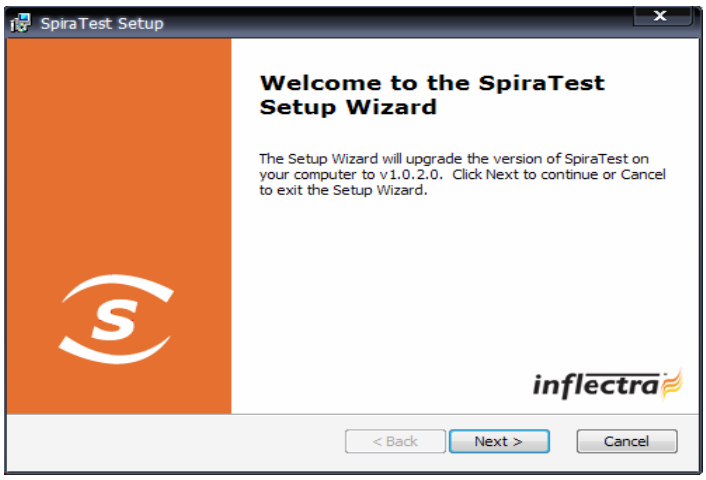
Now change the directory in the command window to the folder name in windows explorer (i.e. type `CD C:\ WINDOWS\ Microsoft.NET\ Framework\ v1.1.4322` where the version number matches the version number of the framework you have installed). Once you have changed the directory to the appropriate folder, 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 SpiraTest™ installation package (it will have a filename of the form `SpiraTest-v1.x.x.x.msi`), and the Windows Installer will display the following dialog box:

If you are upgrading from an earlier version of SpiraTest, the dialog box will be similar except that it will instead let you know that you are upgrading from an existing version to version 1.3:

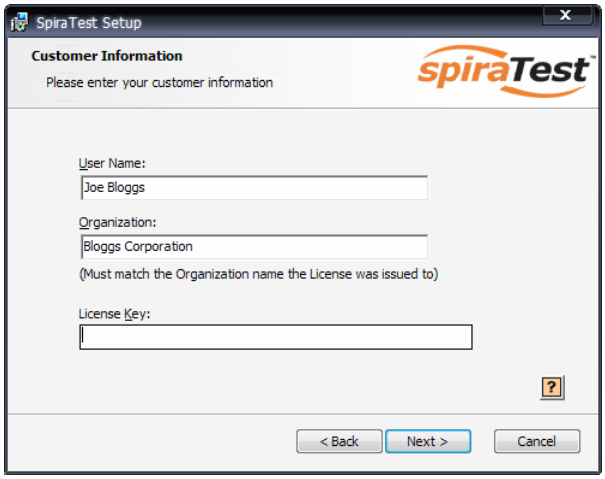


In this instance the installer will update the program files on your computer and migrate your data into the new version seamlessly. If for any reason you don't see the upgrade message and you have an existing installation, don't continue, but instead contact Inflectra customer support first. This will ensure that your existing data is not overwritten by a clean install.

In either case, 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.

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.

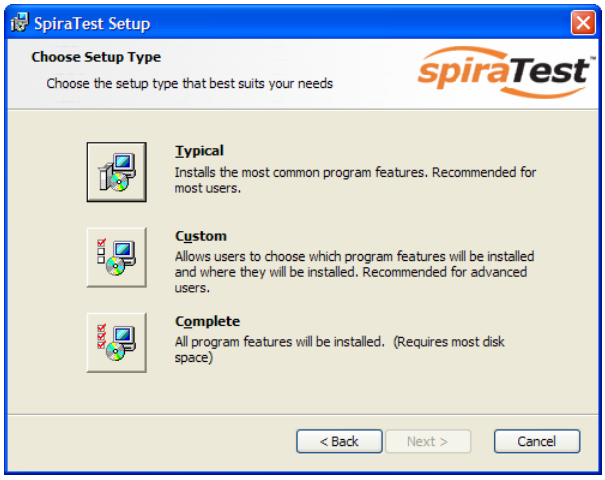
The following screen will be displayed:



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.

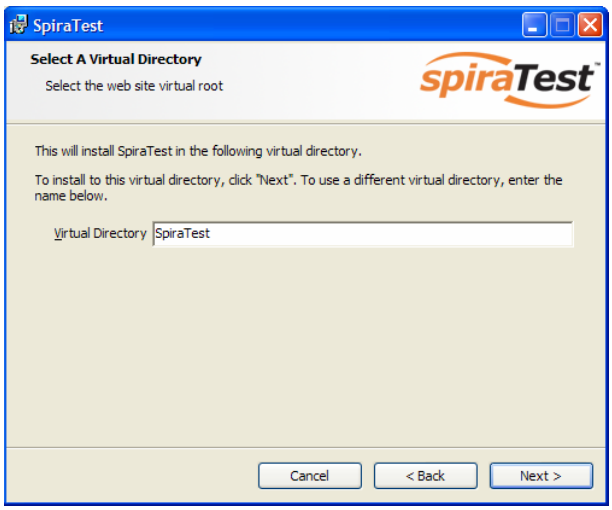
If for any reason you are unable to get the provided license key to work, please contact Inflectra customer support immediately and they will resolve the issue.

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



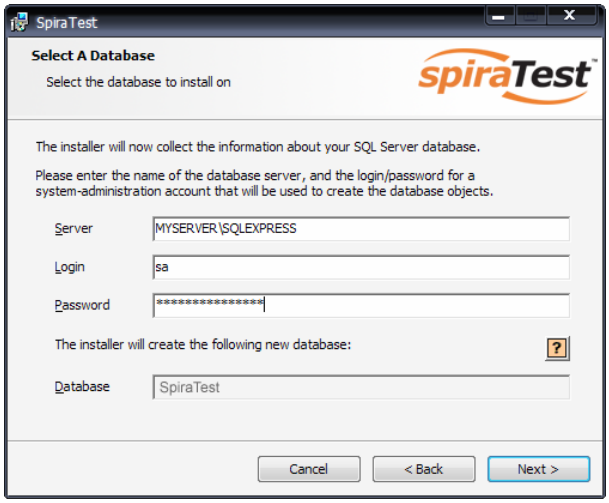
By default, the installer will install all of the SpiraTest™ features onto the target system, so we recommend choosing either a “Typical” or “Complete” install, which will both install the complete system. For advanced users who want to change the folder to which the system is installed (by default it is `C:\Program Files\SpiraTest`), change the name of the database created (by default it will be 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:



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: http://<server name>/SpiraTest. 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:



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.

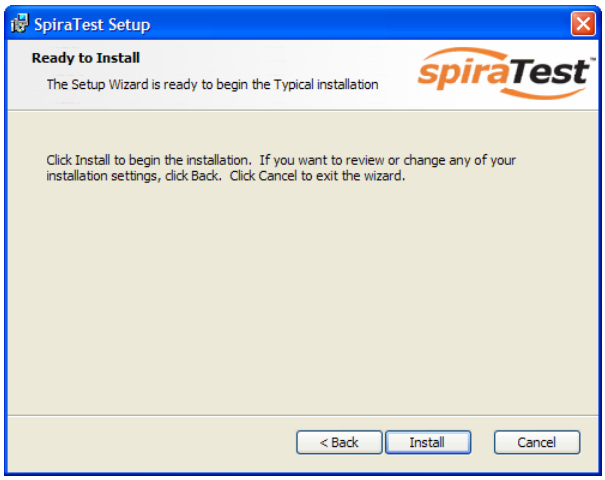
For SQL Server 2005 Express edition installations, the Server name is usually the name of your computer followed by "\SQLEXPRESS", so for example, if your computer is called MyComputer, the server name would be MyComputer\SQLEXPRESS. Omitting the second part (called the instance name) would lead to a "host not found" error.

For the "Login" 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 SpiraTest™ requires the use of a SQL Server administration login for this process)

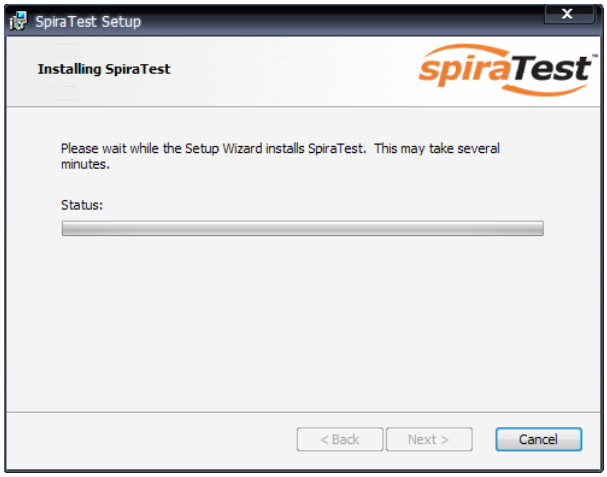
The “Database” box is the name of the database schema that the installer will create inside SQL Server. The default value is “SpiraTest”, and will be set to read-only unless you chose the “Custom” installation option.

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:

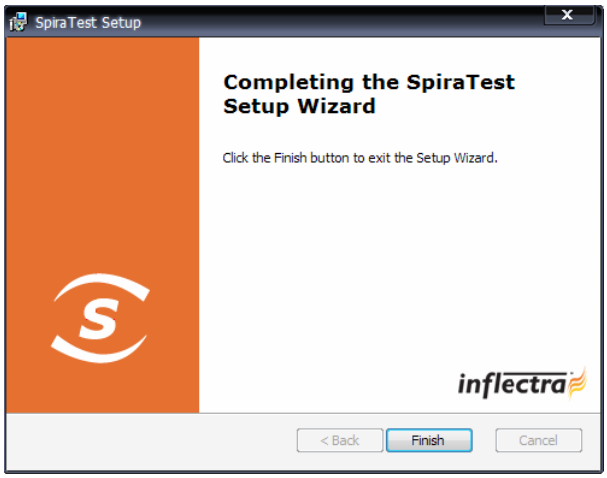


Click the <Install> button to actually begin the process of installing SpiraTest™ onto your system. If you are installing SpiraTest™ onto Windows Vista, then you will first be prompted by the Windows User Access Control (UAC) security system to confirm that you want to install a new piece of software. Click the option that confirms you want to proceed with the install.

The installer will then display a progress bar that gradually fills as the installation proceeds:



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



Congratulations! You have successfully installed SpiraTest™ onto your system. If you type http://localhost/SpiraTest into your browser you should see the SpiraTest™ login page, as illustrated in the *SpiraTest™ User Manual*. If for any reason you don't see the login page, please refer to *Appendix A – Troubleshooting IIS* or contact Inflectra Technical Support using one of the methods described at our website http://www.inflectra.com/Support.

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:

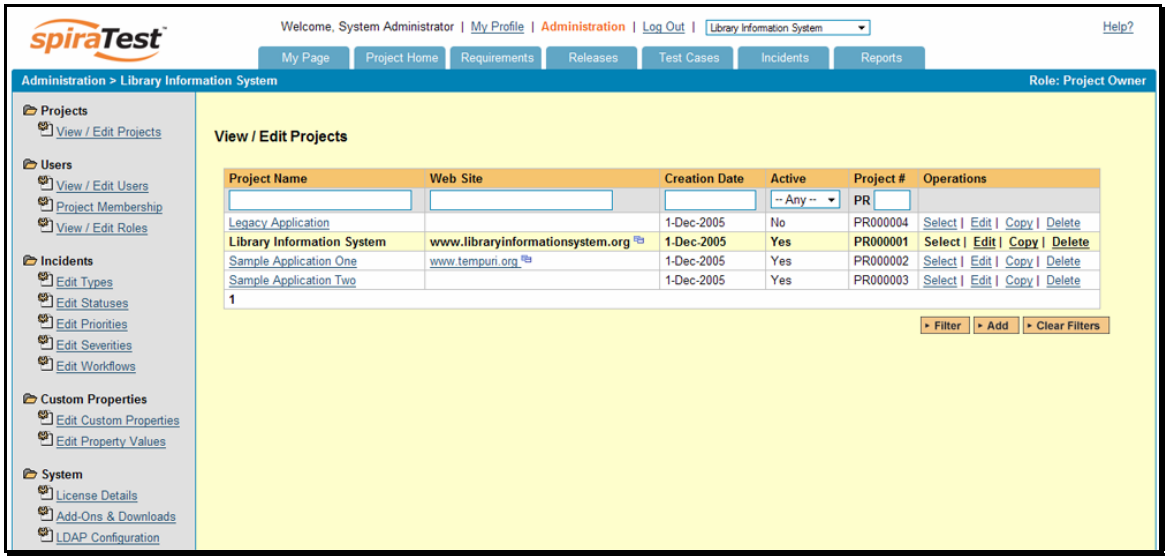
http://www.windowsecurity.com/articles/Installing_Securing_IIS_Servers_Part1.html

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 SpiraTest™ to log into the application can be read by network sniffing tools. If you are using SpiraTest™ purely within an intranet environment, this may not be an issue. However if you are externally hosting SpiraTest™ 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 SpiraTest™, 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 SpiraTest™ 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 SpiraTest™ 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:



The Administration home page is divided into two main areas – the left hand navigation bar that contains links to all the available administration options (grouped under folders) and the main pane that displays the available settings for the selected option. By default, the "View/Edit Projects" administration screen will be displayed in the main pane.

The options available to you in the left hand navigation bar will vary depending on your level of administrative privileges. If you have the "system administration" privilege granted, then all the options will be available, whereas if you are just a "project owner", only those options relating to managing a specific project will be available.

When you first install the system, the three main tasks you will need to perform as the system administrator are creating/editing projects, creating/editing users and then adding the users as members of the various projects. 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.

Each of the individual administrative options is described in turn below:

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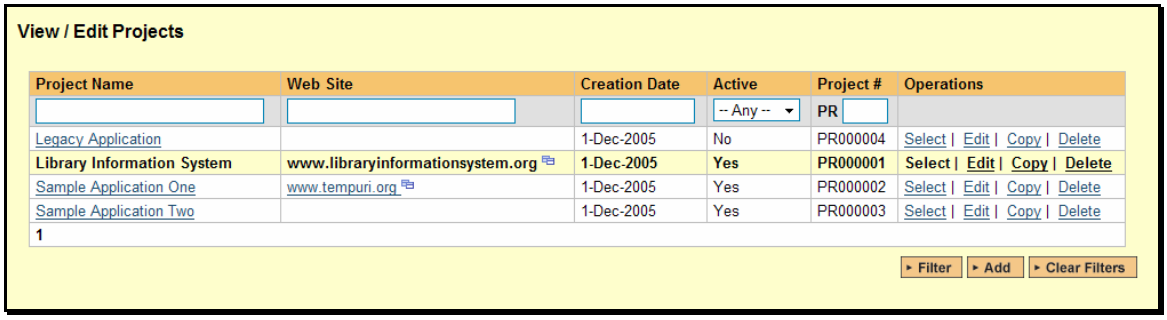
3.1. Projects

3.1.1. View/Edit Projects

The following screen is displayed when you choose the “View/Edit Projects” link from the Administration sidebar navigation:

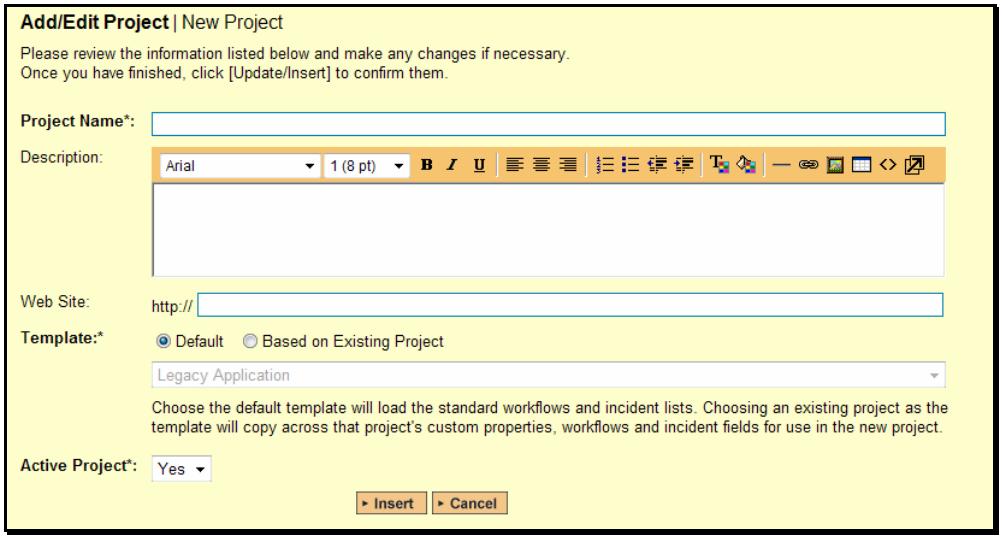


This screen displays the list of projects in the system (both inactive and active) together with their website URL, date of creation and active status. Clicking on either the “Select” link in the right-hand column or the name of the project will change the currently selected project to one clicked, and any project-specific administration tasks will be applied to this project.

To permanently delete a project, you should click the “Delete” link to the right of the project details. This is irreversible and will delete all the artifacts associated with the project. If you want to temporarily delete a project, simply set its Active flag to ‘No’ instead. To make a copy of a project to reuse its test cases, releases list and requirements matrix, simply click the “Copy” link to the right of the project. *Note that this will not make a copy of any historical information, test runs or incidents.*

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 Filters> 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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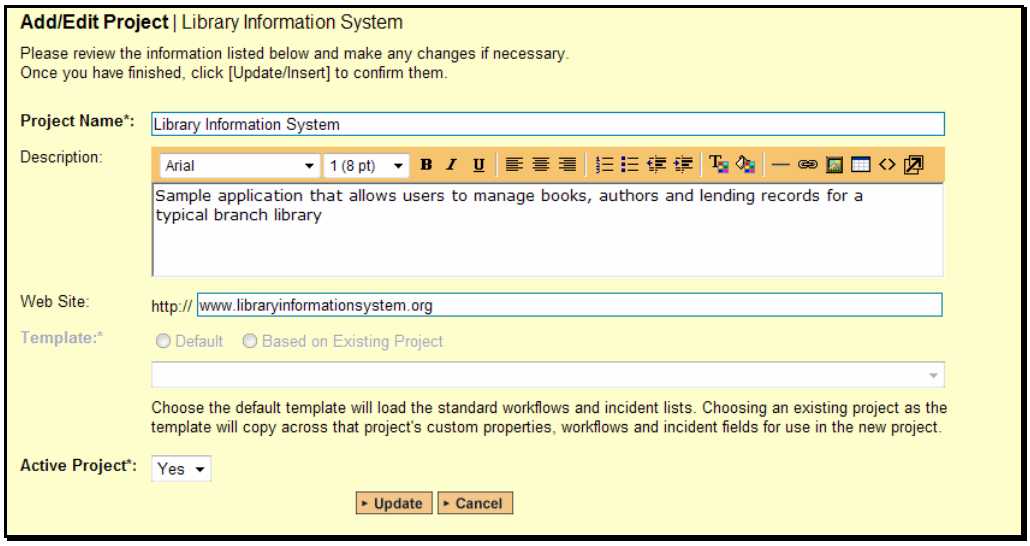
You need to enter a name for the project (which cannot be the same as any already in use), together with an optional description and/or web-site URL. You should initially make sure that the project is marked as “Active”. In addition, you can choose to either use the “default template” or to use an existing project as the template. Using an existing project as the template will copy across the workflows, user membership, custom properties and other configuration settings that you want to reuse in the new project. 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 “Edit” hyperlink in the right hand column of the project list box, and you will be taken to the following screen that allows you modify the project details:

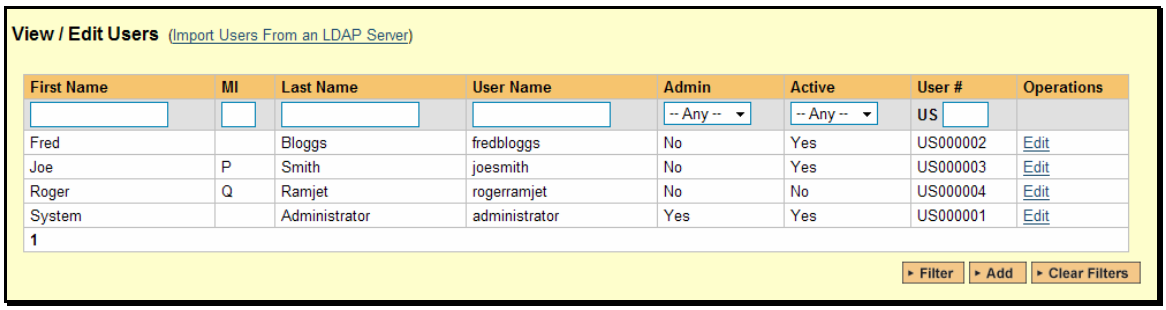


On this screen you can edit the name, description, website URL and active status. Once you have made the necessary changes, click the <Update> button to commit them. If you decide that you want to ignore the changes, click the <Cancel> button and the changes will be discarded.

3.2. Users

3.2.1. View / Edit Users

The following screen is displayed when you choose the “View/Edit Users” link from the Administration sidebar navigation:



This 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.

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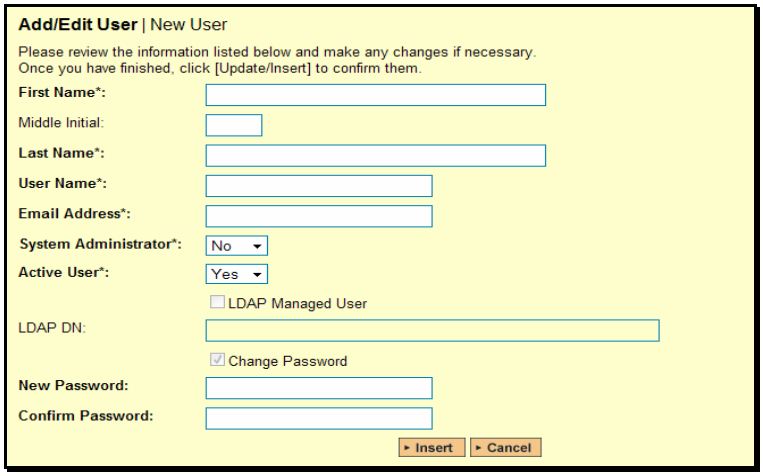
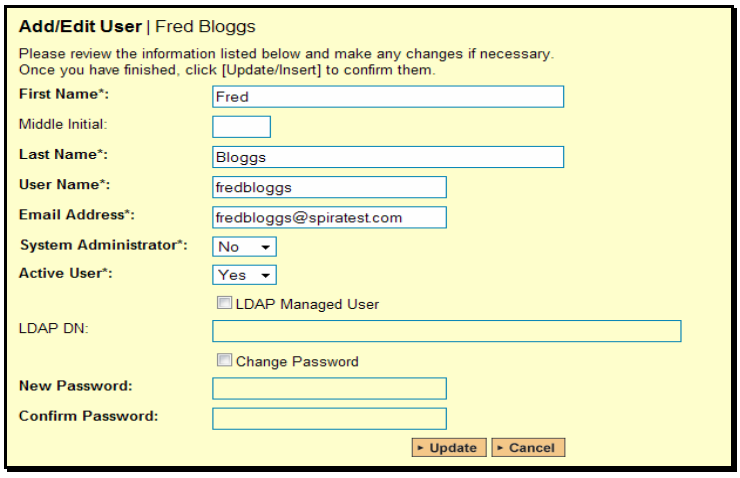
You can filter the list of users by either choosing an administrative / active status, or entering a portion of the first name, middle initial, last name or username into the appropriate text box. When you click the <Filter> button, the list of users will be filtered by the criteria you entered. You can clear the filter selection by clicking the <Clear Filters> 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:



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



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.

Note: In the edit mode, you also have the option is specifying that a user is an “LDAP Managed User”. In this mode you enter the fully Distinguished Name (DN) for that user in your corporate LDAP server and provide no password. SpiraTest will then query your corporate LDAP server for the password information, reducing the number of passwords a user needs to remember. Please see the sections on “Importing LDAP Users” and “LDAP Configuration” for more details.

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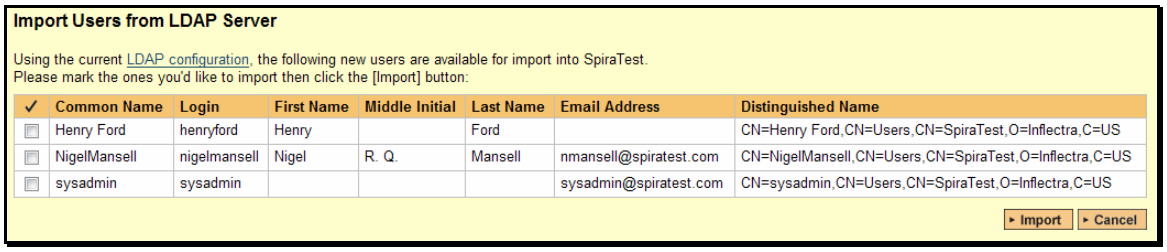
3.2.1.1. Importing LDAP Users

If your organization already has an LDAP compatible user management system in place (e.g. Windows Active Directory, Novell eDirectory, OpenLDAP, IBM Tivoli, etc.), then instead of having to manually enter users one by one into SpiraTest, you can simply import them from your LDAP Server. Before doing this however, you need to first setup the LDAP configuration (see the section on LDAP Configuration below.

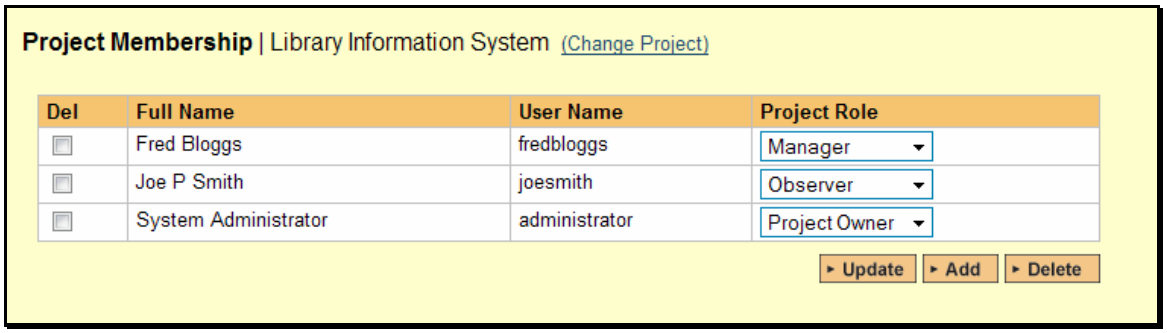
Once you have setup your LDAP server configuration in SpiraTest, clicking on the “Import Users From and LDAP Server” will bring up the following screen:



This screen lists all the users available in the LDAP server that have not been already imported into SpiraTest. The users are listed by name along with their login, email address and fully distinguished LDAP name (DN). Select the checkbox of any users you want to import and click <Import> to complete the operation. These users can now login to SpiraTest and use their existing LDAP login and password information.

3.2.2. Project Membership

The following screen is displayed when you choose the “Project Membership” link from the Administration sidebar navigation:



This screen displays the name of the current project together with a list of all the users who are currently members of the project along with their currently assigned project role. If you want to modify the membership for a different project, simply click the “Change Project” link to be take back to View/Edit Projects screen where you can select a different project.

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:

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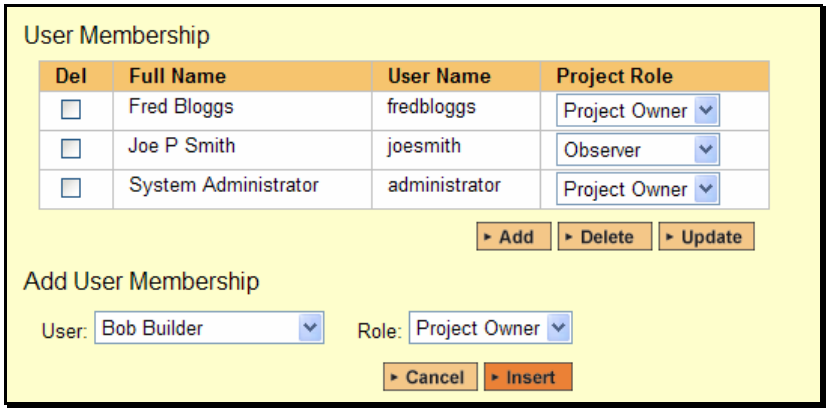

Choose the name of the user to add and the role you want him/her to play. Once you are satisfied, click <Insert> to actually add the user, or <Cancel> if you want to return back to the administration home page without making any changes.

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.

3.2.3 View / Edit Roles

There are six (6) default project 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)
- **Incident User** – can only view and edit incidents. This user cannot even see the project's requirements, test cases or releases.

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.

You can make changes to the permissions associated with each of these default roles, and also create as many additional roles as you like. To customize the roles in your installation of SpiraTest™, simply click on the "View / Edit Roles" link in the Administration sidebar navigation:

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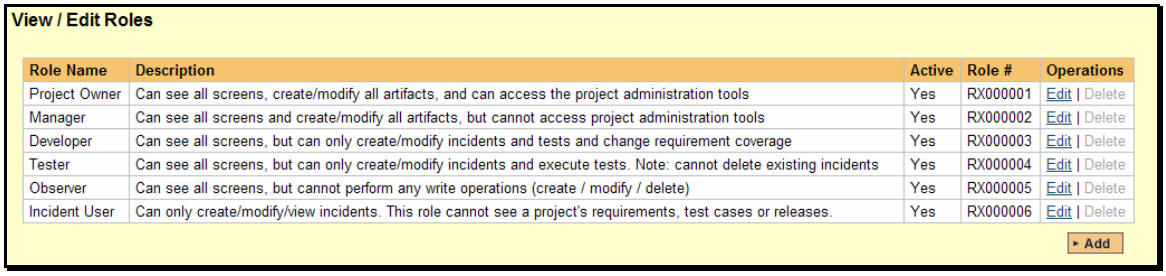
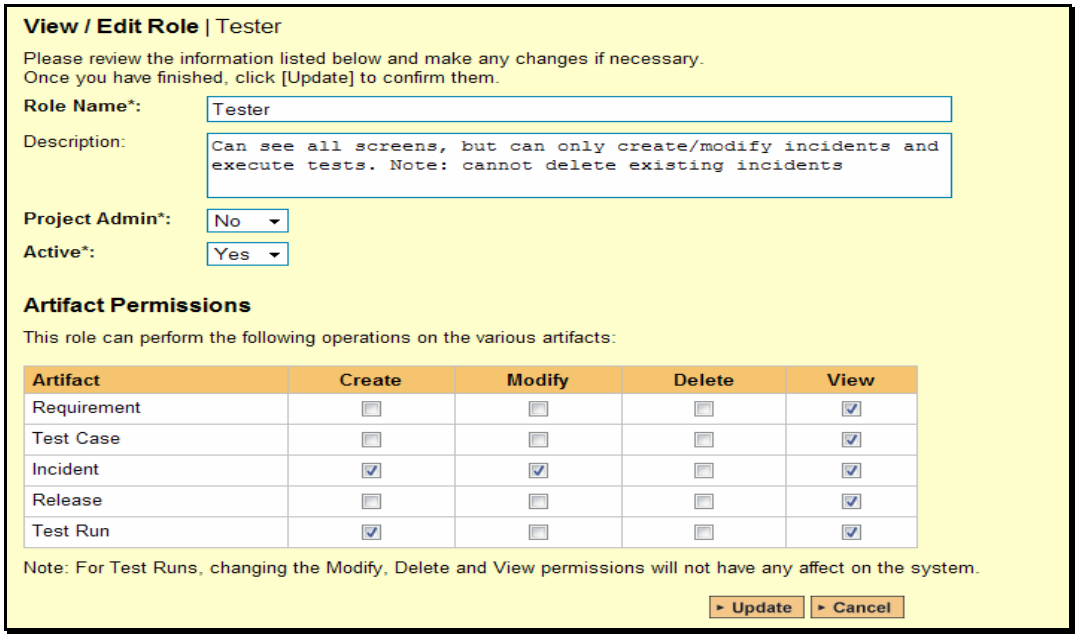


The screen lists all of the roles currently configured in the system (both active and inactive) together with the name, description, and an active flag. You can create new roles by clicking the <Add> button which will create a new default role entry in the list. You can edit the name, description and associated permissions of a role by clicking on the appropriate “Edit” link. You can delete an existing role, by clicking the “Delete” link. Note that you cannot delete any of the default roles, but can instead make them inactive.

Clicking on the edit link will take you to the following screen:



You can edit the name, description, project admin and active flags, and also specify the specific artifact-level permissions associated with the role. The project admin flag denotes whether this role has administration-level access to the project (for example the project owner role has this set by default). The other permissions allow you to specify if a user can create, modify, delete or view each of the artifacts in the system. If a user does not have view permissions for the artifact, then the corresponding tab in the system will also be disabled.

Note: The permission needed to *execute a test case* is the “Create + Test Run” permission. Test Runs cannot be modified, so the Modify/Delete/View permissions will have no effect.

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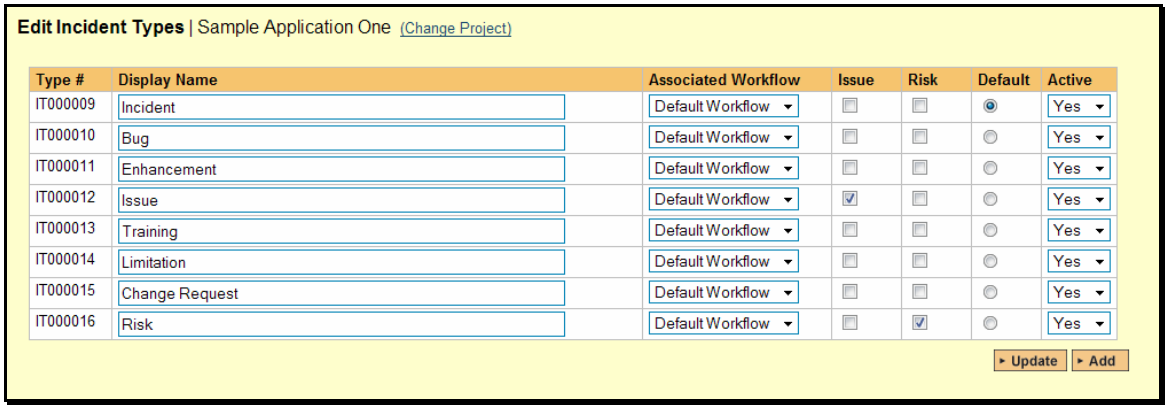
3.3. Incidents

In addition to being able to create custom properties and values for incidents (same as for all artifacts in SpiraTest), you can also change the values populated in many of the standard fields used in the incident tracker – types, statuses, priorities and severities. The process for changing each of these is described below:

3.3.1. Edit Types

The following screen is displayed when you choose the “Edit Types” link from the Incidents section of the administration sidebar:



The screen displays a list of all the defined incident types for the current project. By default the screen will be populated with the standard SpiraTest incident types. To edit an existing incident type, simply change the name, associated workflow, issue check-box, risk check-box, set a default type and/or change the active flag then click <Update>.

You can’t delete an existing incident type, but to prevent it appearing in any drop-down-lists, all you need to do is change its active flag to “No” and click <Update>. To add a new incident type, click the <Add> button and a new row will be added to the list which you can now edit.

The associated workflow drop-down list allows you to specify which workflow the incident type will follow. This is a very powerful feature since it allows you to configure different workflows for different incident types; i.e. a bug may follow a workflow geared to identification and resolution, whereas a risk may only need a much simpler set of steps and actions.

The issue and risk check-boxes allow you to specify if the incident type is an issue or risk-type, which means it is would be eligible for display in the issue or risk section of the project home page respectively. The default radio button allows you to specify which incident type should be the default for newly created incidents. This is the type that a new incident will be set to unless changed by the creator of the incident. Note that you must have at least one active incident type, and you cannot set an inactive type as the default.

3.3.2. Edit Statuses

The following screen is displayed when you choose the “Edit Statuses” link from the Incidents section of the administration sidebar:

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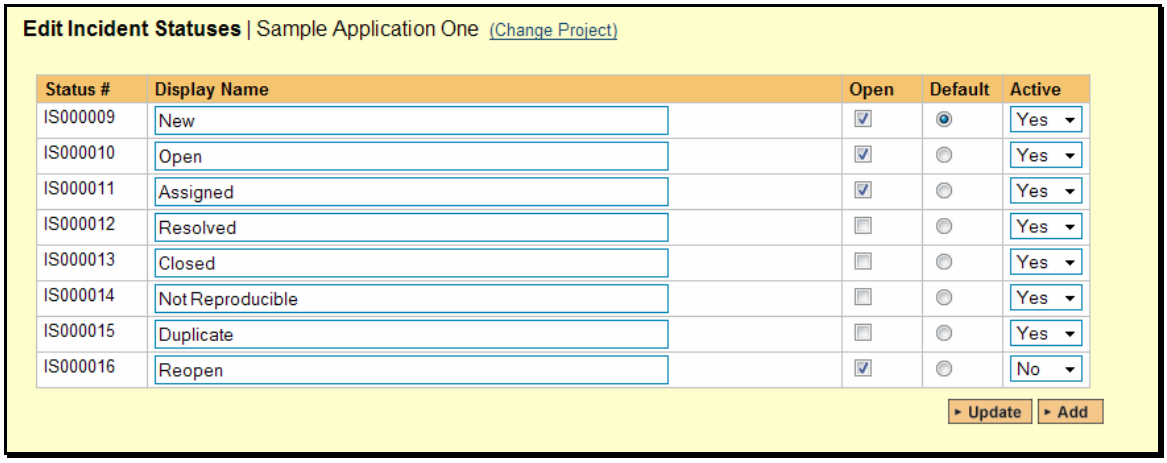


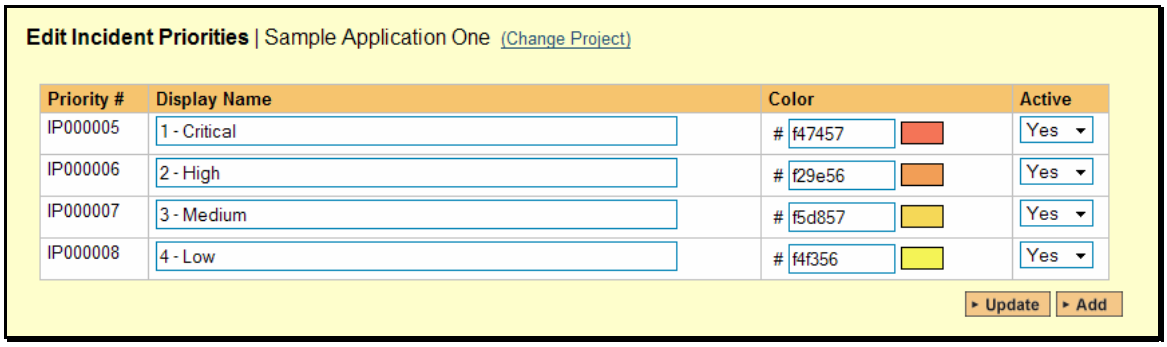
The screen displays a list of all the defined incident statuses for the current project. By default the screen will be populated with the standard SpiraTest incident statuses. To edit an existing incident status, simply change the name, open check-box, set it as the default status and/or change the active flag then click <Update>.

You can't delete an existing incident status, but to prevent it appearing in any drop-down-lists, all you need to do is change its active flag to "No" and click <Update>. To add a new incident status, click the <Add> button and a new row will be added to the list which you can now edit.

The open check-box allow you to specify if the incident status should be considered open or not, which means it is would be eligible for display in the various sections of the user's home page and the project home page that list open incidents. The default radio button allows you to specify which incident status should be the default for newly created incidents. This is the status that a new incident will be set to when first created, and acts as the first step in the incident workflow. Note that you must have at least one active incident status, and you cannot set an inactive status as the default.

3.3.3. Edit Priorities

The following screen is displayed when you choose the "Edit Priorities" link from the Incidents section of the administration sidebar:



The screen displays a list of all the defined incident priorities for the current project. By default the screen will be populated with the standard SpiraTest incident priorities. To edit an existing incident priority, simply change the name, color and/or change the active flag then click <Update>. Note that you can either enter the hexadecimal RRGGBB code for the color or use the pop-up color picker.

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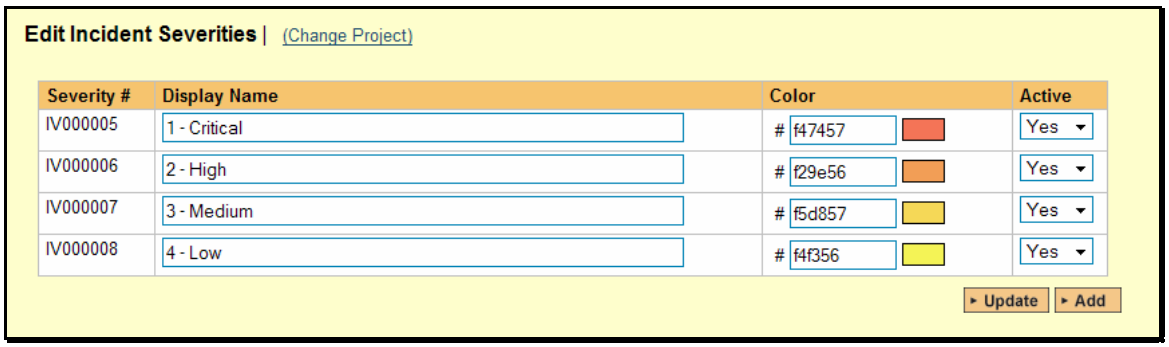
You can't delete an existing incident priority, but to prevent it appearing in any drop-down-lists, all you need to do is change its active flag to "No" and click <Update>. To add a new incident priority, click the <Add> button and a new row will be added to the list which you can now edit.

3.3.4. Edit Severities

The following screen is displayed when you choose the "Edit Severities" link from the Incidents section of the administration sidebar:

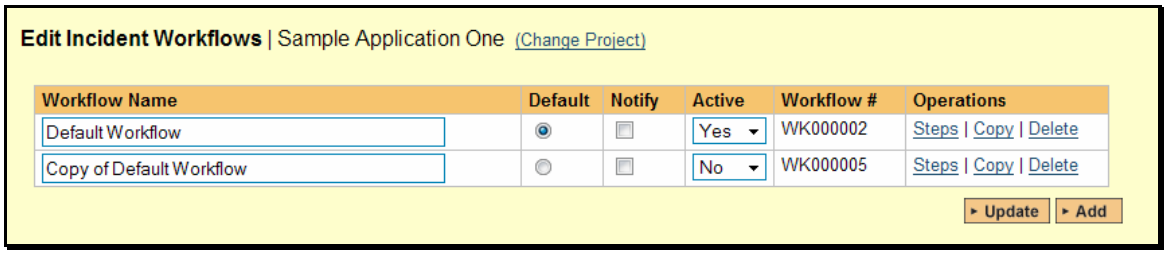


The screen displays a list of all the defined incident severities for the current project. By default the screen will be populated with the standard SpiraTest incident severities. To edit an existing incident severity, simply change the name, color and/or change the active flag then click <Update>. Note that you can either enter the hexadecimal RRGGBB code for the color or use the pop-up color picker.

You can't delete an existing incident severity, but to prevent it appearing in any drop-down-lists, all you need to do is change its active flag to "No" and click <Update>. To add a new incident severity, click the <Add> button and a new row will be added to the list which you can now edit.

3.4. Workflows

Clicking on the "Edit Workflows" link in the Administration sidebar navigation brings up the list of defined incident workflows for the current project. A workflow is a predefined sequence of incident statuses linked together by "workflow transitions" to enable a newly created incident to be reviewed, prioritized, assigned, resolved and closed, as well as to handle exception cases such as the case of a duplicate or non-reproducible incident. The workflow list screen for a sample project is illustrated below:



To modify the name, default status, notify and/or active flags, simply change the values in the appropriate text-box, radio-button, check-box or drop-down list and click the <Update> button. To add a new workflow, simply click the <Add> button and a new workflow will be created with the standard SpiraTest steps and transitions.

You can have as many workflows as you like in a project, but only one can be marked as the default. Each incident type is assigned to a workflow; this allows you to have different incident

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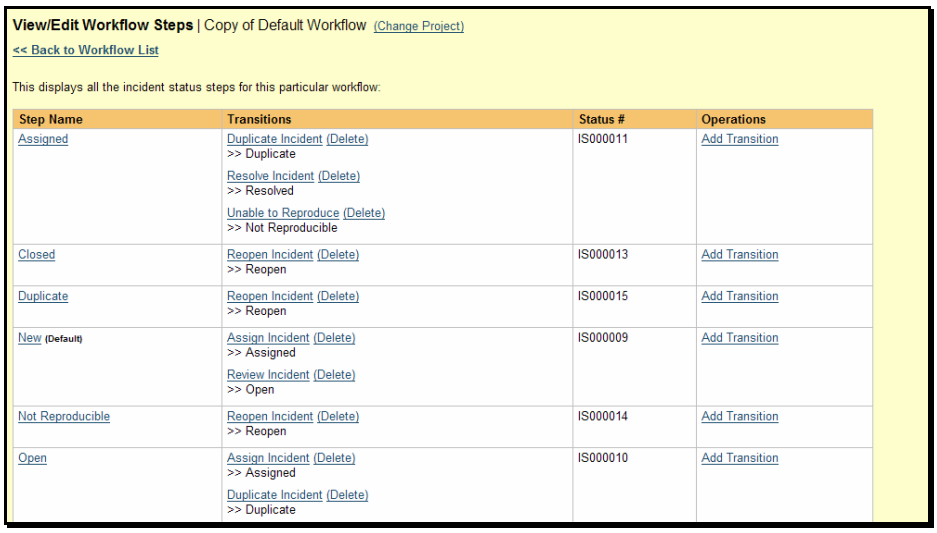
types follow different paths from creation of closure. However when a new incident type is created, it will be initially associated with the project's default workflow.

The notify flag is used to tell SpiraTest whether that particular workflow should have email notifications turned on or off. You define what transitions and which recipients should receive the emails in the workflow transition editor (see below), but you can globally turn on/off notifications here as well. This is useful if you find that the notifications are becoming an annoyance, or if the email server is unavailable for a period of time.

Note: You can only assign an active workflow to an incident type, and similarly you cannot make a workflow inactive that is currently linked to an incident type. This is important as all incident types need to be linked to an active workflow at all times.

3.4.1. Edit Workflow Details

Clicking on the <Steps> button of an inactive workflow brings up the following screen that lists all the workflow steps and workflow transitions that comprise the workflow:



View/Edit Workflow Steps | Copy of Default Workflow (Change Project)

<< Back to Workflow List

This displays all the incident status steps for this particular workflow:

Step Name	Transitions	Status #	Operations
Assigned	Duplicate Incident (Delete) >> Duplicate Resolve Incident (Delete) >> Resolved Unable to Reproduce (Delete) >> Not Reproducible	IS000011	Add Transition
Closed	Reopen Incident (Delete) >> Reopen	IS000013	Add Transition
Duplicate	Reopen Incident (Delete) >> Reopen	IS000015	Add Transition
New (Default)	Assign Incident (Delete) >> Assigned Review Incident (Delete) >> Open	IS000009	Add Transition
Not Reproducible	Reopen Incident (Delete) >> Reopen	IS000014	Add Transition
Open	Assign Incident (Delete) >> Assigned Duplicate Incident (Delete) >> Duplicate	IS000010	Add Transition

This page lists in the left-most column all the various incident statuses defined for the project. The next column lists all the possible transitions that can occur *from that status*. In addition, with each transition is listed the name of the resulting *destination status* that the transition leads to. E.g. from the assigned status, depending on your role (see later) you can move the incident to either duplicate, resolves or not-reproducible depending on which transition the user takes.

Clicking on the name of a step or transition takes you to the appropriate details page (see below) where you can set the properties of the step or transition respectively. To delete an existing transition, simply click the <Delete> button after the transition name, and to add a new transition, click the <Add Transition> button in the Operations column.

3.4.2. Edit Workflow Transition

When you click on the transition name link from the previous screen, you are taken to the workflow transition details screen:

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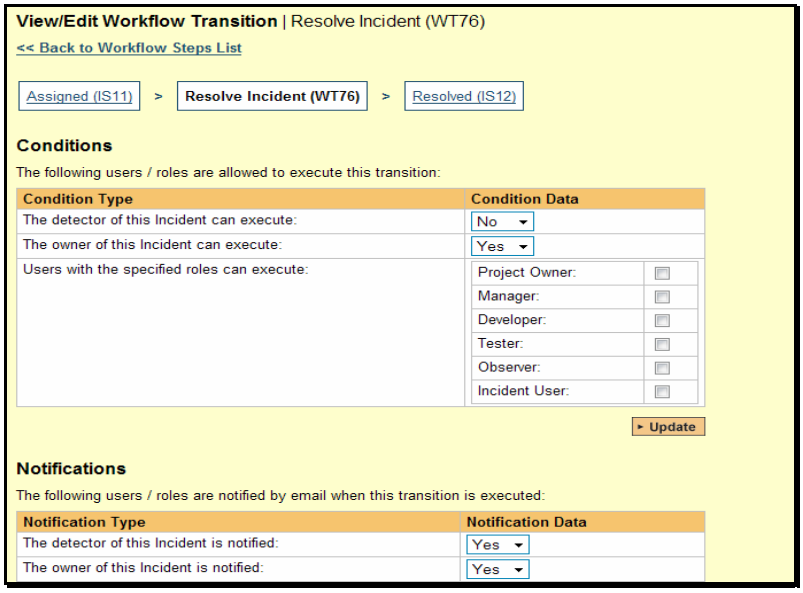


The top part of the screen is the “workflow browser” which illustrates how the transition relates to the workflow as a whole. It displays the current transition in the middle, with the originating and destination steps listed to either side. Clicking on either incident status name will take you to the appropriate workflow step details page. This allows you to click through the whole workflow from start to finish without having to return to the workflow details page.

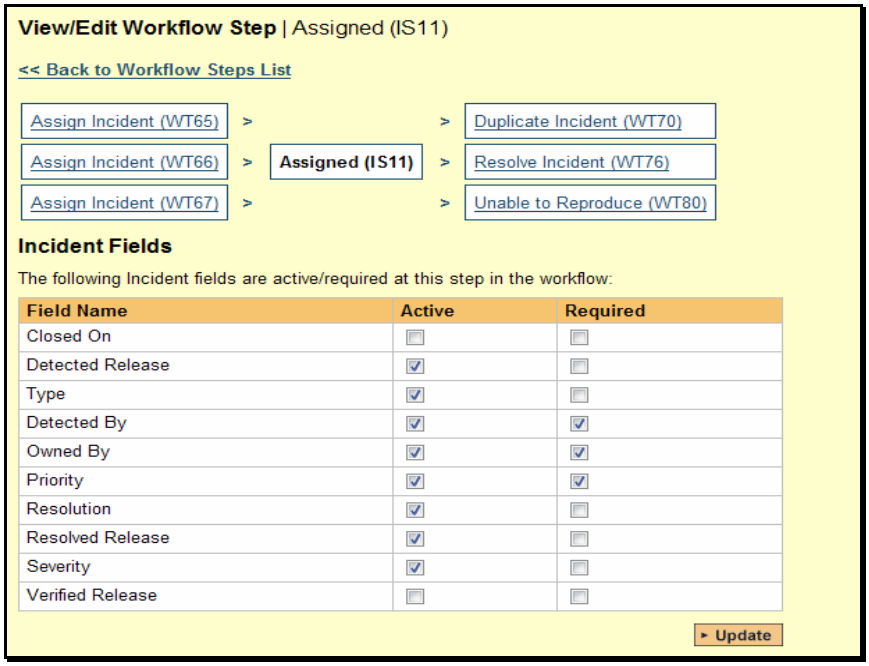
Each transition has a series of conditions which need to be satisfied for a user to actually execute the transition (i.e. move the incident from the originating status to the destination status) and a set of notification rules that allow you to specify who should get an email notification if the transition is executed. Both the conditions and notifications allow you to set three types of user role:

- The detector of the incident can be allowed to execute the transition, and/or be notified when the transition occurs. For example, when an incident is marked as Resolved, the detector should be the only one who’s allowed to move it to Closed. Similarly when an incident is moved from Assigned to Resolved, the detector should probably be notified so that he knows to log in and verify that it has been resolved satisfactorily.
- The owner of the incident can be allowed to execute the transition, and/or be notified when the transition occurs. For example, when an incident is marked as Assigned, the assigned owner should be the only one who’s allowed to move it to Resolved. Similarly when an incident is moved from Open to Assigned, the owner should probably be notified so that he knows to log in and begin resolving the incident.
- A user with a specified role can be allowed to execute the transition, and/or be notified when the transition occurs regardless of whether they are the detector or owner. For example a user with role “Manager” might want the power to close all incidents regardless of ownership status, and might also want to be notified when any incident is marked as Not-Reproducible.

You can set any of these conditions by changing the drop-down list and/or check-boxes and clicking the appropriate <Update> button.

3.4.3. Edit Workflow Step

When you click on the incident status name link from either of the previous screens, you are taken to the workflow step details screen:



The top part of the screen is the “workflow browser” which illustrates how the step relates to the workflow as a whole. It displays the current incident status in the middle, with the possible originating and destination transitions listed to either side. Clicking on either workflow transition name will take you to the appropriate workflow transition details page. This allows you to click through the whole workflow from start to finish without having to return to the workflow details page.

This page allows you to define the behavior of the various incident fields (i.e. those that are a standard part of SpiraTest such as Priority) and incident custom properties for this particular step in the workflow. You can set each of the fields/custom properties as being active and/or required for each step in the workflow. Note that you cannot set a field/property as being required and inactive since this would prevent a user from ever updating the incident. For example, when an incident is in the New status, you might make the owner field inactive (since a detector shouldn’t need to know who will ultimately own it), when it gets to the Open status, you might make the field active, and when it gets to the Assigned status, you might make it active and required. This allows you to tailor the information gathered to the appropriate place in the workflow.

To actually make these changes, all you need to do is select the appropriate checkboxes in the list of fields and custom properties and click the corresponding <Update> button.

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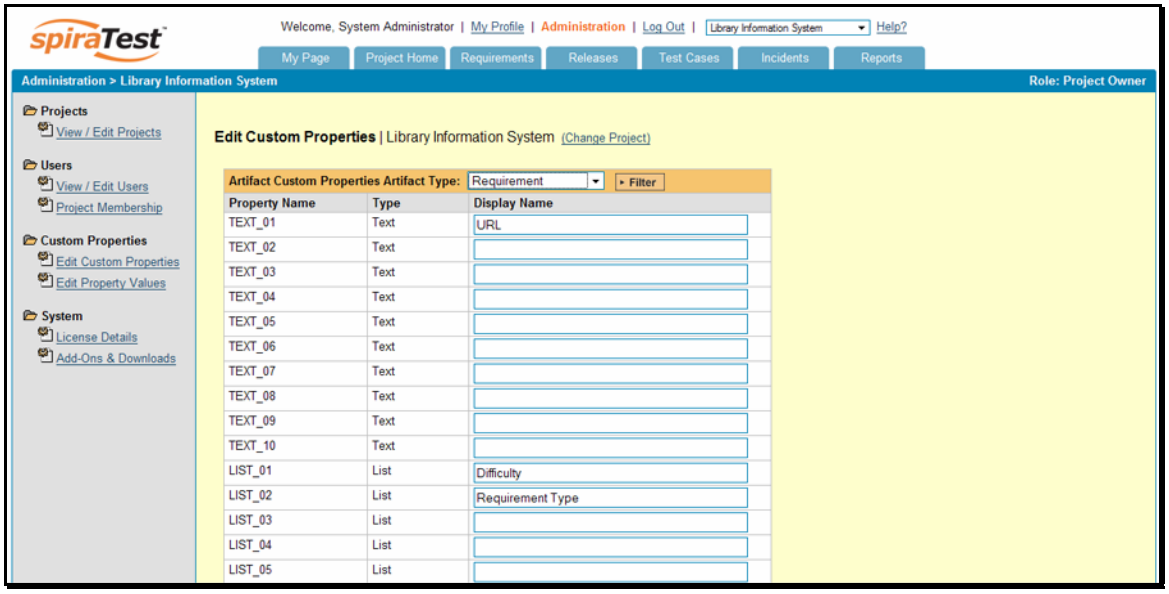
3.5. Custom Properties

3.5.1. Edit Custom Properties

The following screen is displayed when you choose the “Edit Custom Properties” link from the Administration sidebar navigation:



The screen displays a list of all the possible custom properties for a particular artifact type for the current project. Each artifact type (requirement, test case, etc.) can have up to ten (10) custom freetext properties and up to ten (10) list properties. The freetext properties are ones where the user can enter any textual data they like, so typically it is useful for notes, comments and other freeform fields where the range of inputs is not known ahead of time. The list properties are ones where you want the user to pick the value from a predefined list of options defined by you ahead of time.

Initially the screen will default to showing the existing custom properties for a project’s Requirements; to change the list to a different artifact type (e.g. Incidents), all you need to do is change the artifact type in the drop-down-list and click the <Filter> button. This will refresh the list to show the custom properties for that artifact type.

To add a custom property to an artifact, all you have to do is enter an alias name for the custom property from one of the twenty (20) available entries in the list and click the <Update> button. Any entry that has a defined alias will be displayed on that artifact’s details page. To remove an existing custom property for an artifact, again all you need to do is click on the alias text box for that entry and delete the name of the property, then click <Update>. The system will automatically insert entries for newly added aliases and delete entries for those whose aliases are removed.

If you create a new custom property using one of the ten (10) list properties, then initially there will be no list values defined, and a user viewing the artifact will see an empty drop-down-list. Therefore once you have defined custom list properties, the next step is to define custom values for each of them. This is described in the next section (3.5).

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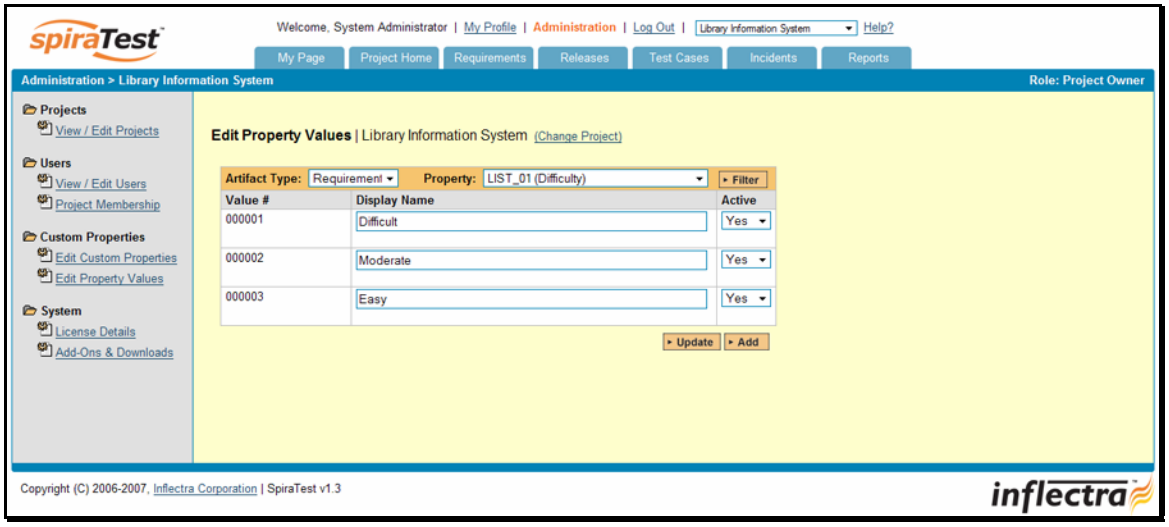
3.5.2. Edit Property Values

The following screen is displayed when you choose the “Edit Property Values” link from the Administration sidebar navigation:



The screen displays a list of all the defined property values for a specific custom list property for a given artifact type in the context of the current project. By default the screen will initially be empty, so the first thing you need to do is select the artifact type that you want to view/edit the custom property values for (e.g. select Requirement). The second drop-down-list will then refresh itself with the names of the defined custom list properties for that artifact type - both the physical name (LIST_01) and the alias (Difficulty). Click the <Filter> button and the table will then refresh to display the list of defined custom property values for that combination.

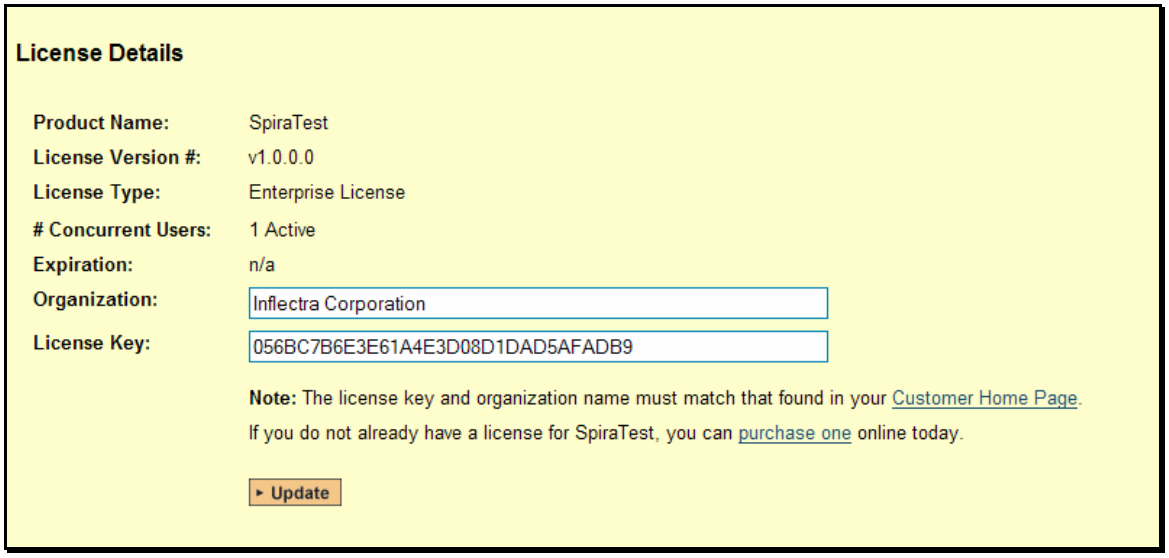
To edit an existing custom property value, simply change the name in the textbox and click <Update>. You can’t actually delete an existing property value, but to prevent it appearing in any drop-down-lists, all you need to do is change its active flag to “No” and click <Update>. To add a new property value, click the <Add> button and a new row will be added to the list which you can now edit.

3.6. System

3.6.1 License Details

The license details page displays the information about the installed license for the particular instance of SpiraTest being used. The information displayed includes: the product name (e.g. SpiraTest), the license version (e.g. v1.0.0.0), type of license in effect (x-user fixed, x-user concurrent, demonstration, enterprise, etc.), the organization that the license belongs to, the actual license key code and finally the number of users concurrently logged-in. This last piece of information is useful as it helps administrators track down how many licenses are currently in use.

A sample page is illustrated below:



To change the license key used by the system (for example, if to upgrade from Trial edition to Standard edition), you do **not** need to reinstall SpiraTest. All you need to do is simply change the information in the **organization** and **license key** text-boxes to match the license key and organization name found in the customer area of our website (http://www.inflectra.com/CustomerArea) anc click the <Update> button.

If there is an issue with the license key (e.g. a trial version that is passed its expiration date, or where the license key doesn't match the organization name) an error will be displayed describing the specific issue with the information you entered. If you are unable to get the system to work with the license key information, please contact Inflectra customer support at: support@inflectra.com.

3.7. Add-Ons and Downloads

In addition to the web interface that is typically used to interact with SpiraTest, there are a variety of downloadable tools and extensions that allow SpiraTest to be used in conjunction with other applications, and also to enable the migration of data from other systems into SpiraTest.

To view the list of available add-ons and downloads, simply click the "Add-Ons and Downloads" link in the Administration navigation sidebar and you will be taken to the following page on the Inflectra website:

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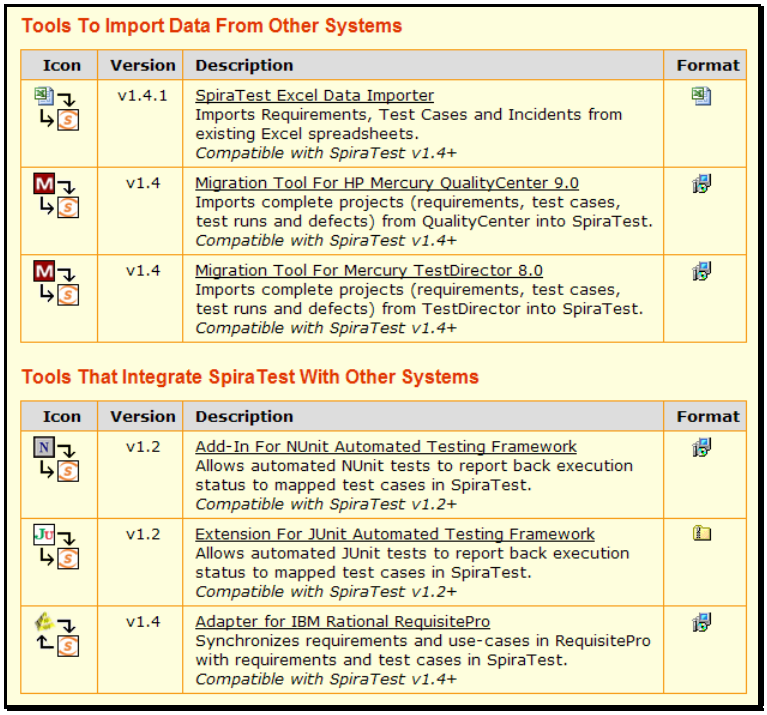

Tools To Import Data From Other Systems

Icon	Version	Description	Format
	v1.4.1	SpiraTest Excel Data Importer Imports Requirements, Test Cases and Incidents from existing Excel spreadsheets. *Compatible with SpiraTest v1.4+*	
	v1.4	Migration Tool For HP Mercury QualityCenter 9.0 Imports complete projects (requirements, test cases, test runs and defects) from QualityCenter into SpiraTest. *Compatible with SpiraTest v1.4+*	
	v1.4	Migration Tool For Mercury TestDirector 8.0 Imports complete projects (requirements, test cases, test runs and defects) from TestDirector into SpiraTest. *Compatible with SpiraTest v1.4+*	

Tools That Integrate SpiraTest With Other Systems

Icon	Version	Description	Format
	v1.2	Add-In For NUnit Automated Testing Framework Allows automated NUnit tests to report back execution status to mapped test cases in SpiraTest. *Compatible with SpiraTest v1.2+*	
	v1.2	Extension For JUnit Automated Testing Framework Allows automated JUnit tests to report back execution status to mapped test cases in SpiraTest. *Compatible with SpiraTest v1.2+*	
	v1.4	Adapter for IBM Rational RequisitePro Synchronizes requirements and use-cases in RequisitePro with requirements and test cases in SpiraTest. *Compatible with SpiraTest v1.4+*	

From this screen, you can right-click and download a variety of tools that can be used to accomplish different tasks with SpiraTest. Each of these is described separately below:

- **SpiraTest Excel Data Importer**
  To simplify the task of loading data from legacy systems, 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™. This tool is described in more detail in section 4.
- **Migration Tool for HP Mercury QualityCenter® 9.0**
  This application is a data migration tool that allows you to migrate an existing testing project from HP/Mercury QualityCenter into SpiraTest. To use the application, you need to right-click on the Windows Installer package (.msi) link illustrated above and download the package to your workstation. Once downloaded, please refer to the separate *SpiraTest Migration and Integration Guide* that outlines the process for installing and using the tool.
- **Migration Tool for HP Mercury TestDirector® 8.0**
  This application is a data migration tool that allows you to migrate an existing testing project from HP/Mercury TestDirector into SpiraTest. To use the application, you need to right-click on the Windows Installer package (.msi) link illustrated above and download the package to your workstation. Once downloaded, please refer to the separate *SpiraTest Migration and Integration Guide* that outlines the process for installing and using the tool.
- **Integration Adapter for IBM Rational RequisitePro®**
  This application is an integration adapter that allows you to periodically load and update Requirements and Use Cases from Rational RequisitePro into SpiraTest. To use the application, you need to right-click on the Windows Installer package (.msi) link illustrated above and download the package to your workstation. Once downloaded, please refer to the separate *SpiraTest Migration and Integration Guide* that outlines the process for installing and using the tool.

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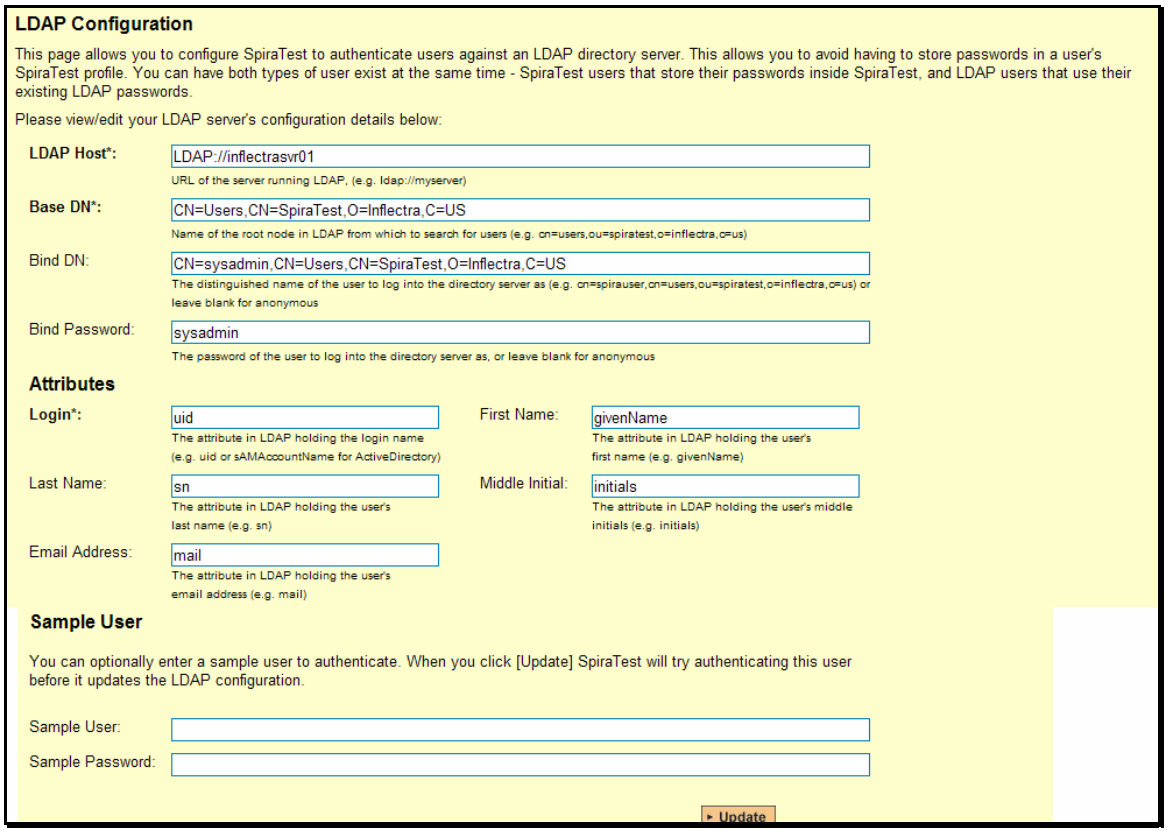
- **Extension for JUnit Automated Testing**
  This download is a zip-file (.zip) containing an extension to the JUnit automated testing framework that allows you to mark JUnit test cases with special attributes that indicate that are to report their test run status back to SpiraTest™. Details on how to install and use this extension are provided in the separate *SpiraTest Automated Testing Integration Guide*.

- **Add-In For NUnit Automated Testing**
  This download is a Windows Installer package (.msi) containing an add-in to the NUnit automated testing framework that allows you to mark NUnit test cases with special attributes that indicate that are to report their test run status back to SpiraTest™. Details on how to install and use this extension are provided in the separate *SpiraTest Automated Testing Integration Guide*.

3.8. LDAP Configuration

As described previously, you can configure SpiraTest™ to use an external LDAP server for importing new user profiles into the system, and for authenticating users – instead of having to store separate passwords inside SpiraTest™. However you need to first configure the LDAP server settings. To do this, click on the "LDAP Configuration" link the Administration navigation:



You need to fill out the various configuration settings for your LDAP server, each of which is explained in more detail below:

- **LDAP Host**
  This should contain the full URL needed to access your LDAP server. It needs to include the protocol name LDAP:// or LDAPS:// (depending on whether secure or not), server name and any port number (only needed if not using the default LDAP ports).

- **Base DN**
  This should be the distinguished name of the object inside your LDAP server that contains the list of user accounts. This varies by the type of LDAP server, please consult your LDAP server documentation for more details.
- **Bind DN**
  This should be the distinguished name of the user inside your LDAP server that will be used to authenticate against when importing users. If not provided, SpiraTest™ will try and authenticate with the LDAP server anonymously.
- **Bind Password**
  The is the password of the user specified in the Bind DN field above.
- **Login Attribute**
  When SpiraTest™ imports users from the LDAP server it needs to know the user attribute inside the LDAP server that it should use to generate the SpiraTest™ user-name. For most LDAP servers the appropriate attribute would be “uid”. However for Windows ActiveDirectory, the attribute “sAMAccountName” should be used instead.
- **First Name Attribute**
  Providing this optional attribute will allow SpiraTest™ to automatically populate the first name field of the imported user instead of simply using the username as a placeholder.
- **Last Name Attribute**
  Providing this optional attribute will allow SpiraTest™ to automatically populate the last name field of the imported user instead of simply using the username as a placeholder.
- **Middle Initial Attribute**
  Providing this optional attribute will allow SpiraTest™ to automatically populate the middle initial field of the imported user instead of simply leaving it blank.
- **Email Address Attribute**
  Providing this optional attribute will allow SpiraTest™ to automatically populate the email address field of the imported user instead of simply using the username@spiratest.com as a placeholder.
- **Sample User**
  You can optionally enter a sample user-name and password to test that the user is correctly authenticated against the server. You can update the LDAP configuration without setting this, but if you do provide a sample user/password, it will not save the configuration unless the authentication succeeds.

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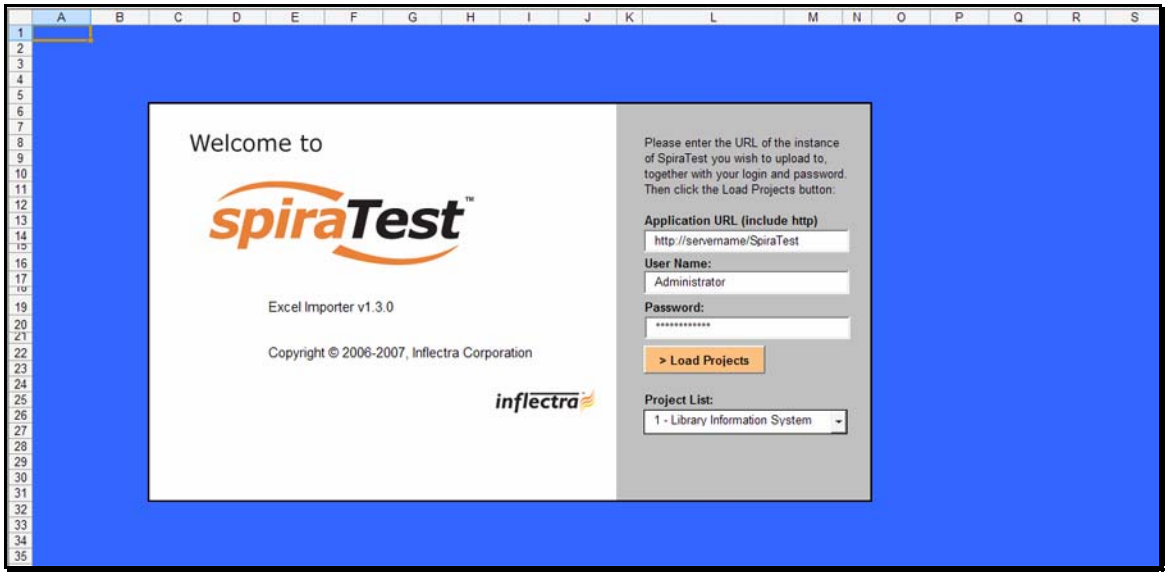
4. Excel Data Import

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 Downloads section of the Inflectra website as described in the "Add-Ons and Downloads" section above. 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.

4.1. 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 textbox 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).

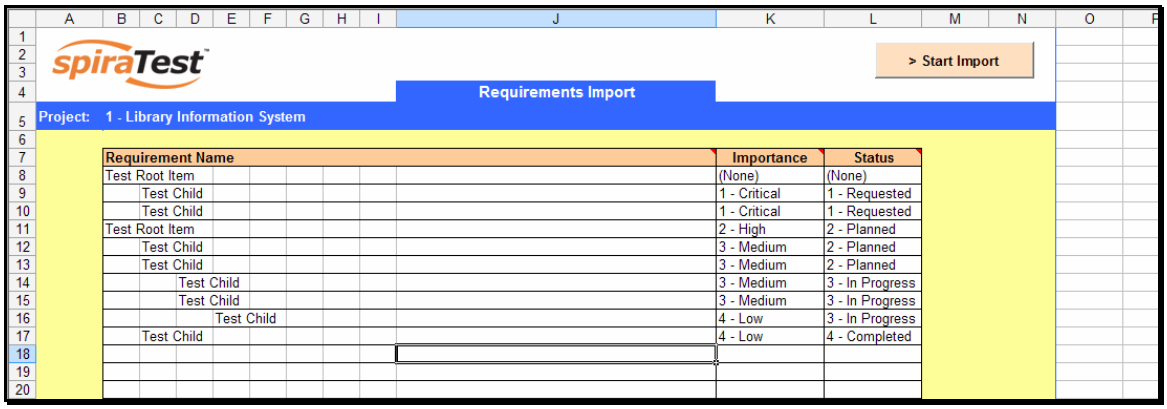
Then, in the user-name and password textboxes, enter the user-name and password that you normally log into SpiraTest™ with on the web. Once you have entered this, click the <Load Projects> button to load the list of projects that you are authorized to access.

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.

4.2. Importing Data

4.2.1. Importing Requirements

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



spiraTest

> Start Import

Requirements Import

Project: 1 - Library Information System

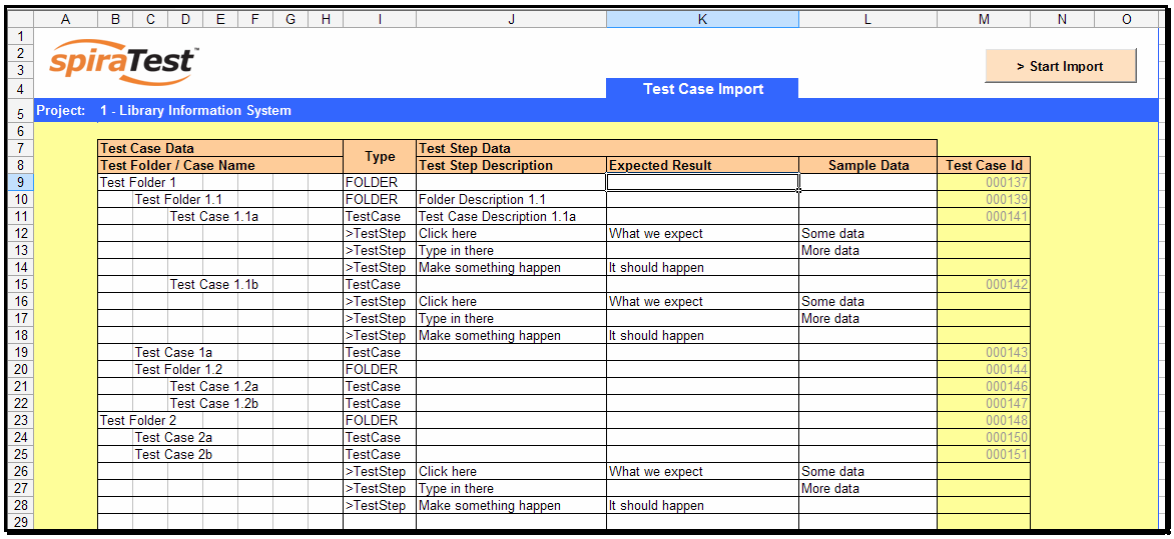
Requirement Name	Importance	Status
Test Root Item	(None)	(None)
Test Child	1 - Critical	1 - Requested
Test Child	1 - Critical	1 - Requested
Test Root Item	2 - High	2 - Planned
Test Child	3 - Medium	2 - Planned
Test Child	3 - Medium	2 - Planned
Test Child	3 - Medium	3 - In Progress
Test Child	3 - Medium	3 - In Progress
Test Child	4 - Low	3 - In Progress
Test Child	4 - Low	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.

4.2.2. Importing Test Cases

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



spiraTest

> Start Import

Test Case Import

Project: 1 - Library Information System

Test Case Data	Type	Test Step Data			
Test Folder / Case Name		Test Step Description	Expected Result	Sample Data	Test Case Id
Test Folder 1	FOLDER				000137
Test Folder 1.1	FOLDER	Folder Description 1.1			000139
Test Case 1.1a	TestCase	Test Case Description 1.1a			000141
	>TestStep	Click here	What we expect	Some data	
	>TestStep	Type in there		More data	
	>TestStep	Make something happen	It should happen		
Test Case 1.1b	TestCase				000142
	>TestStep	Click here	What we expect	Some data	
	>TestStep	Type in there		More data	
	>TestStep	Make something happen	It should happen		
Test Case 1a	TestCase				000143
Test Folder 1.2	FOLDER				000144
Test Case 1.2a	TestCase				000146
Test Case 1.2b	TestCase				000147
Test Folder 2	FOLDER				000148
Test Case 2a	TestCase				000150
Test Case 2b	TestCase				000151
	>TestStep	Click here	What we expect	Some data	
	>TestStep	Type in there		More data	
	>TestStep	Make something happen	It should happen		

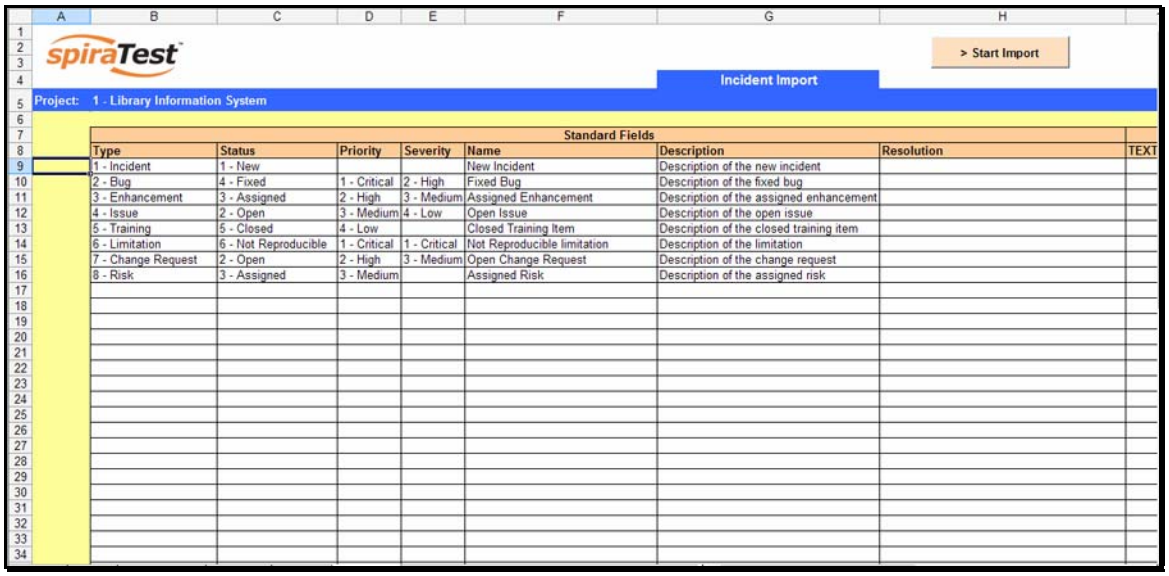
Next, you need to either enter the test cases, test folders, and test steps into the Excel sheet or cut and paste them in from another existing Excel sheet that you’ve been using to manage test

cases. The sheet expects the test folders to be indented according to their hierarchical arrangement, with the test cases arranged inside these folders, and test steps listed under each test case. Each entry needs to be designated as either a test case, test folder or test step, by choosing “FOLDER”, “Test Case”, or “>Test Step” from the drop-down list. Each test step should be entered along with its description, expected result and sample data. The description is required, and the other two are optional.

Once you have entered all the test folders, test cases, and 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.

4.2.4. Importing Incidents

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



	Standard Fields							
	Type	Status	Priority	Severity	Name	Description	Resolution	TEXT
	1 - Incident	1 - New			New Incident	Description of the new incident		
	2 - Bug	4 - Fixed	1 - Critical	2 - High	Fixed Bug	Description of the fixed bug		
	3 - Enhancement	3 - Assigned	2 - High	3 - Medium	Assigned Enhancement	Description of the assigned enhancement		
	4 - Issue	2 - Open	3 - Medium	4 - Low	Open Issue	Description of the open issue		
	5 - Training	5 - Closed	4 - Low		Closed Training Item	Description of the closed training item		
	6 - Limitation	6 - Not Reproducible	1 - Critical	1 - Critical	Not Reproducible limitation	Description of the limitation		
	7 - Change Request	2 - Open	2 - High	3 - Medium	Open Change Request	Description of the change request		
	8 - 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 and closed date. In addition to these three text fields, you need to choose the type (incident, bug, issue, etc.), status (new, open, assigned, etc.), priority (critical, high, etc.), and severity (critical, high, etc.) from the appropriate drop-down lists. In addition, there are columns for six (6) custom field values to be entered – two freetext and four list properties. Before entering these, you need to make sure that the appropriate custom properties have been configured in the application (see section 3.4).

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.

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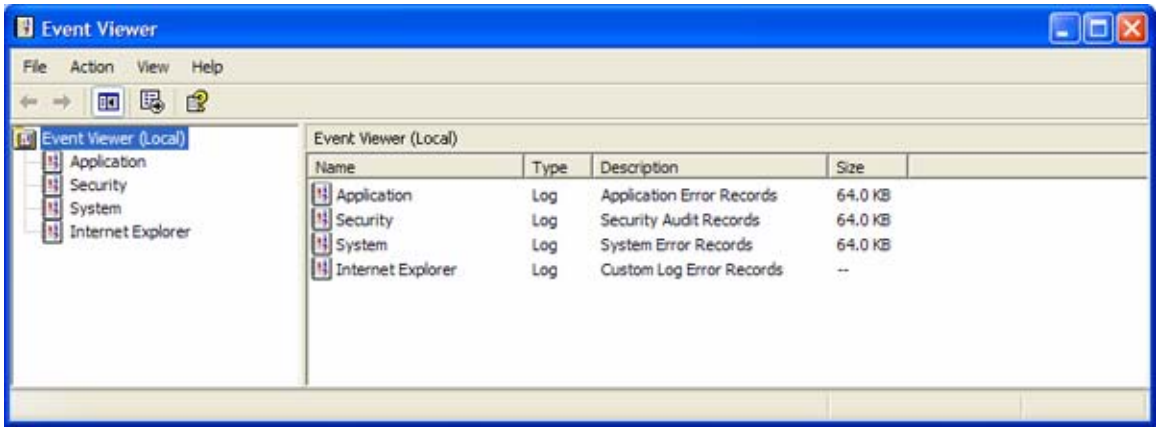
5. Appendices

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:



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 (http://support.microsoft.com) or a simple web search (www.google.com, www.yahoo.com, 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:

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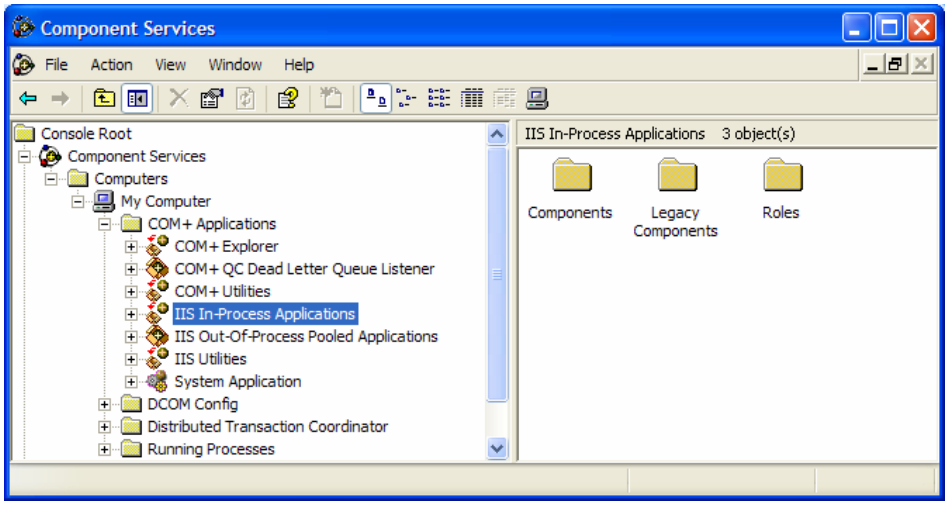
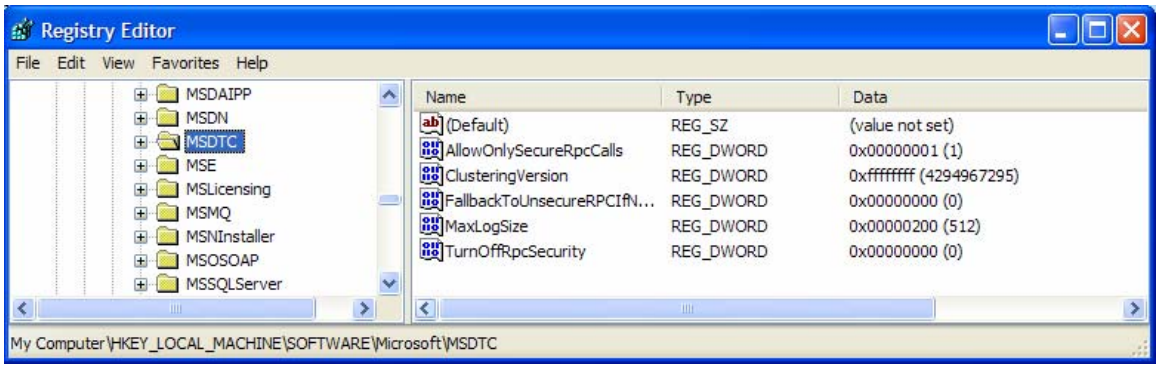


Once the window has opened, expand the folders marked “Component Services”, “Computers”, “My Computer” and “COM+ Applications” in turn. If the window opens correctly and displays the information illustrated above, then your IIS 500 error is being caused by something else.

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”:

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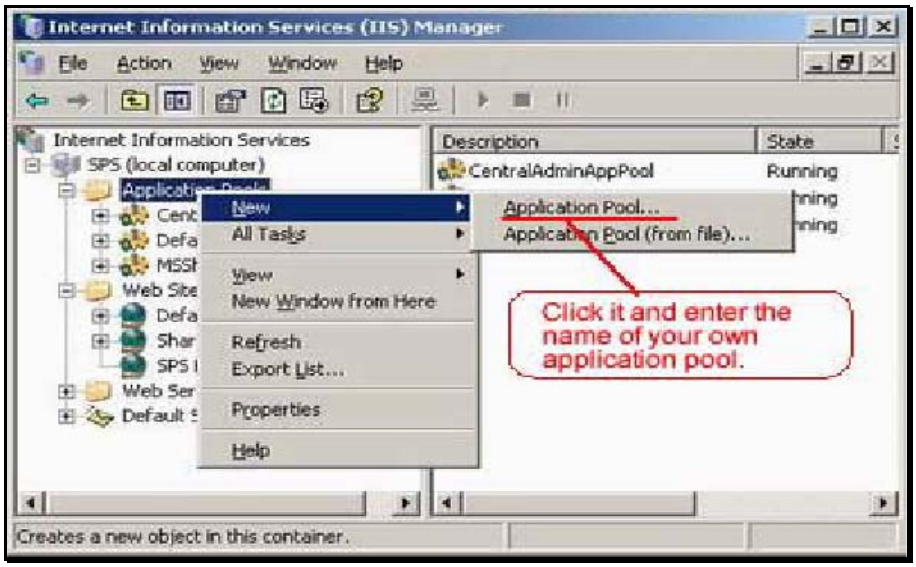
Don't change any of the selected components, but instead simply click the <Next> button. The Windows installer will detect that the MSDTC is missing (due to the registry change you made) and will now reinstall it correctly. Once this has finished, reboot the system and you should now be able to access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

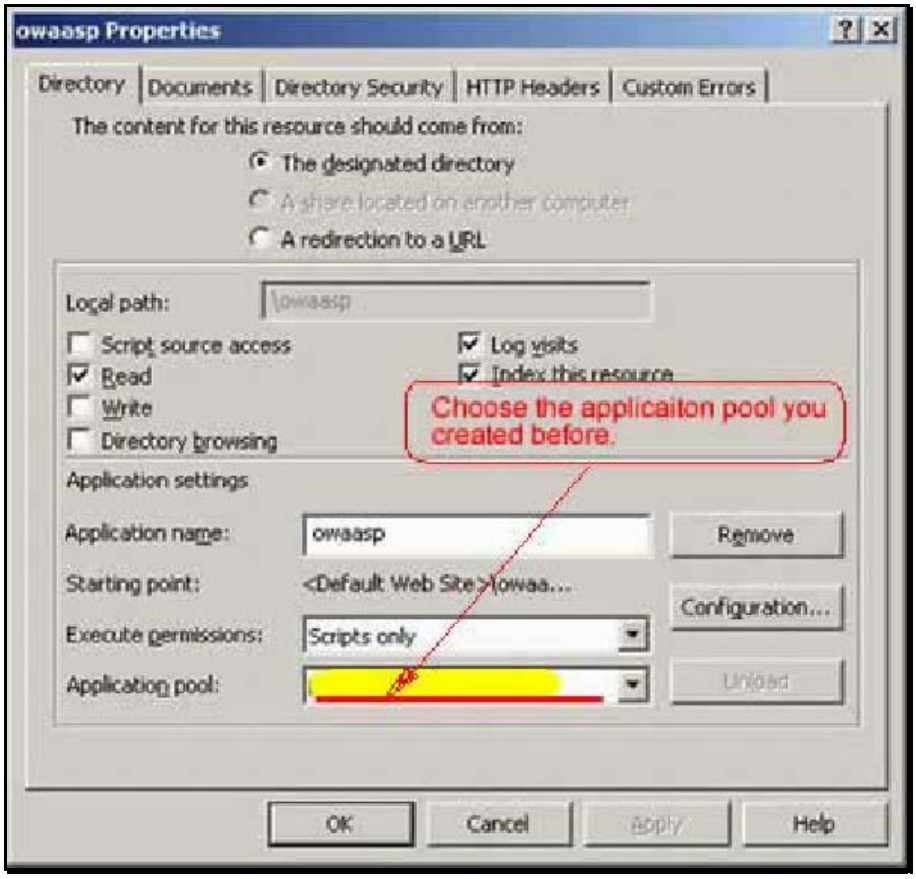
If you are experiencing application/session loss symptoms then we would recommend asking your web hosting company to place you in your own application pool with all recycling options disabled and the recycle worker process set to recycle only once during the day at a set time.

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



Add new application pool for "SpiraTest".

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.

5.1.3. Using SpiraTest on IIS with Windows x64 Editions

On Windows servers running a 64-bit version of the operating system (e.g. Windows Vista x64 Edition, Windows 2003 Server x64 Edition, Windows XP x64 Edition), you need to configure IIS to run in 32-bit compatibility mode, since ASP.NET v1.1 can only run in 32-bit mode. This should be done ***before*** attempting to install SpiraTest™.

To run the 32-bit version of ASP.NET 1.1, follow these steps:

- Click Start, click Run, type cmd, and then click OK.
- Type the following command to enable the 32-bit mode:

```
cscript C:\inetpub\adminscripts\adsutil.vbs SET
W3SVC/AppPools/Enable32bitAppOnWin64 1
```

- Type the following command to install the version of ASP.NET 1.1 and to install the script maps at the IIS root and under:

```
C:\Windows\Microsoft.NET\Framework\v1.1.4322\aspnet_regiis.exe -i
```

- Make sure that the status of ASP.NET version 1.1.4322 is set to Allowed in the Web service extension list in Internet Information Services Manager.

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5.2. Appendix B – Installing an SSL Certificate

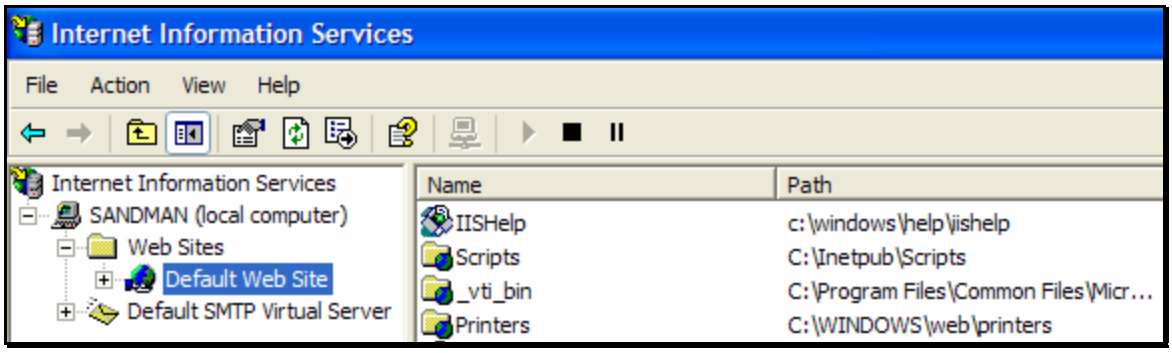
This section outlines how you can install a Secure Sockets Layer (SSL) certificate onto IIS to allow users to access SpiraTest™ via an encrypted protocol, so that usernames, passwords and sensitive project data cannot be "sniffed" across the network. This is especially important if your web-server is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

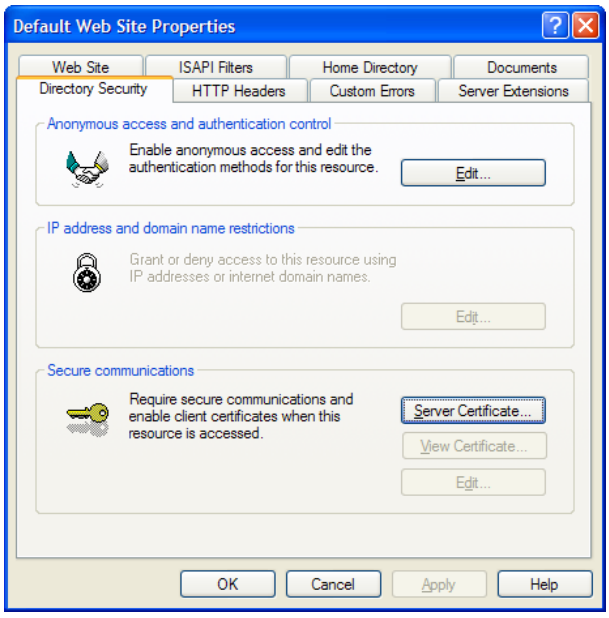
http://www.microsoft.com/technet/prodtechnol/WindowsServer2003/Library/IIS/8d3bb71a-0a7f-443f-8084-908d0dab9caa.mspx?mfr=true (installing self or third-party certificate on Windows Server 2003)

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

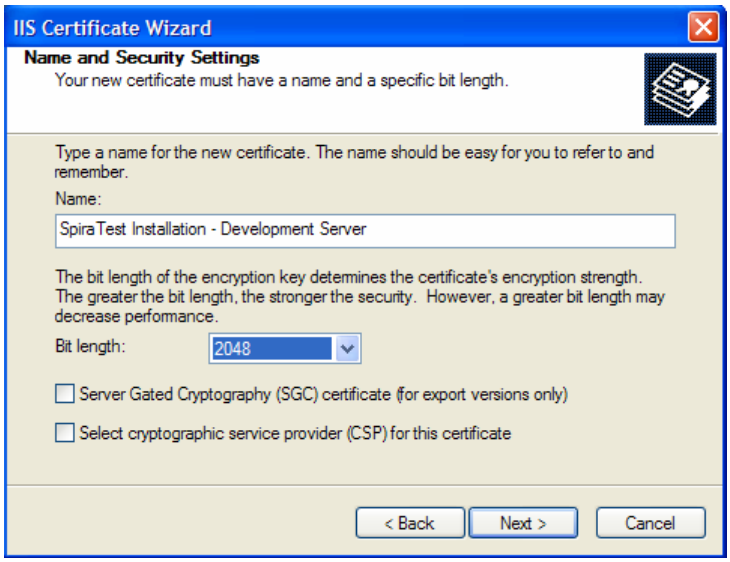
Once you have decided how you will generate the certificate, you next need to generate the request for the certificate from your web server. First, click Start > Settings > Control Panel > Administrative Tools > Internet Information Services to bring up the IIS management console:



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

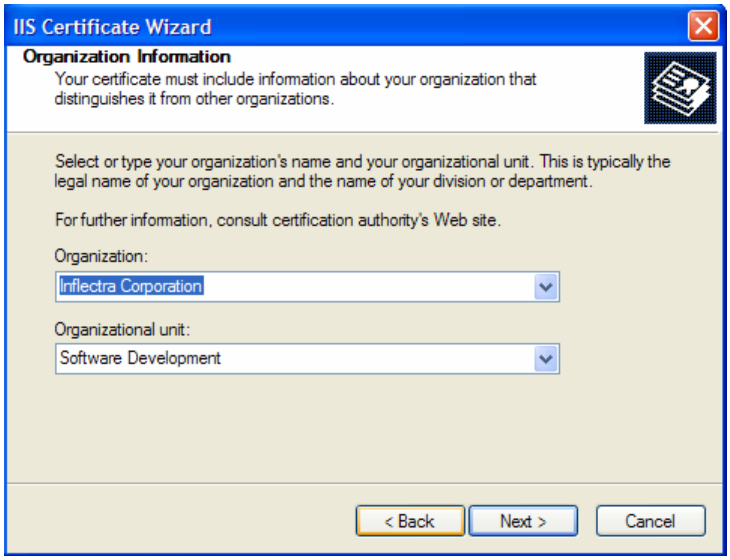


Now, click the button marked “Server Certificate”, click <Next> and choose the option marked “Create a new certificate”, and click <Next>. You can then choose to either prepare the certificate request and sent it later, or to send the certificate request immediately to an online CA. If you are using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

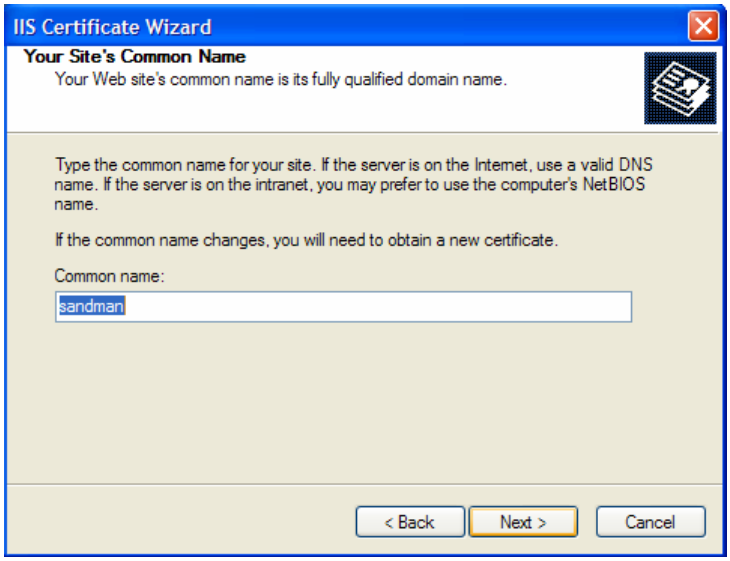


Enter the name for the certificate, typically this will contain the name of the organization, purpose of the certificate and any other pertinent information that will help you distinguish it.

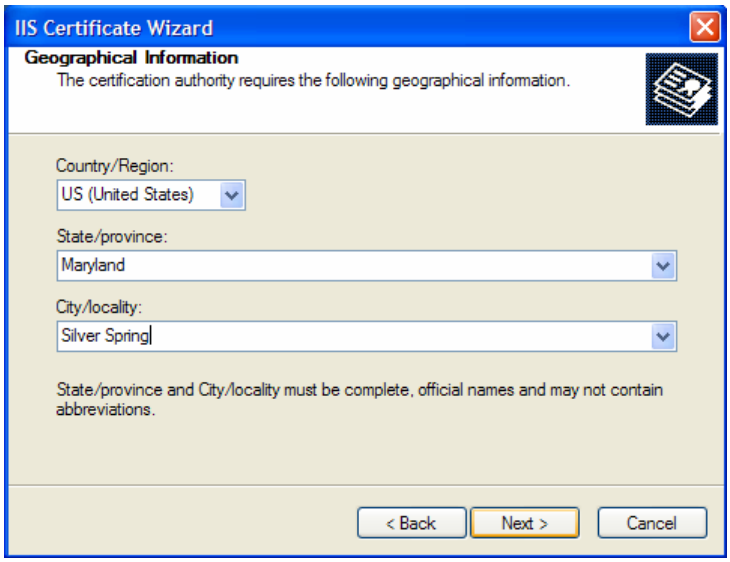
You should choose a bit-length of at least 2048 bits, and leave the other options unchecked unless you are using the server outside of the United States, in which case you will need to choose the “Server Gated Cryptography (SGA)” option. Click the <Next> button when you are finished.



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



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. www.mysite.com), 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.



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>.

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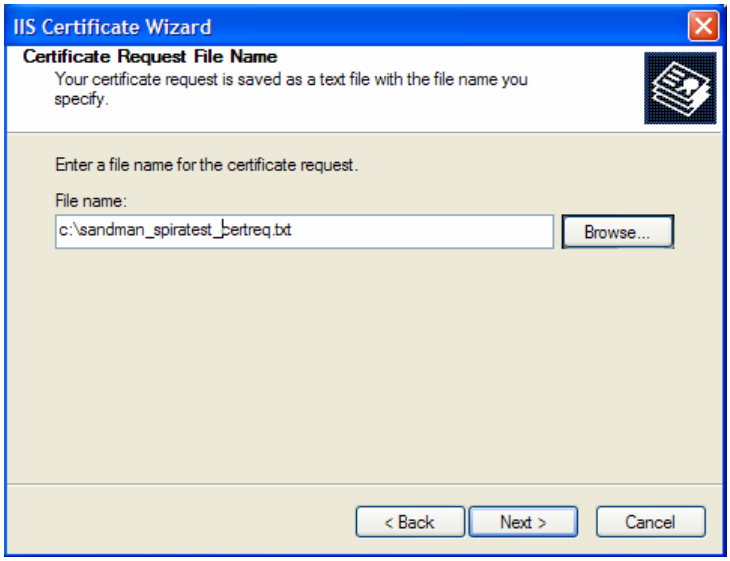
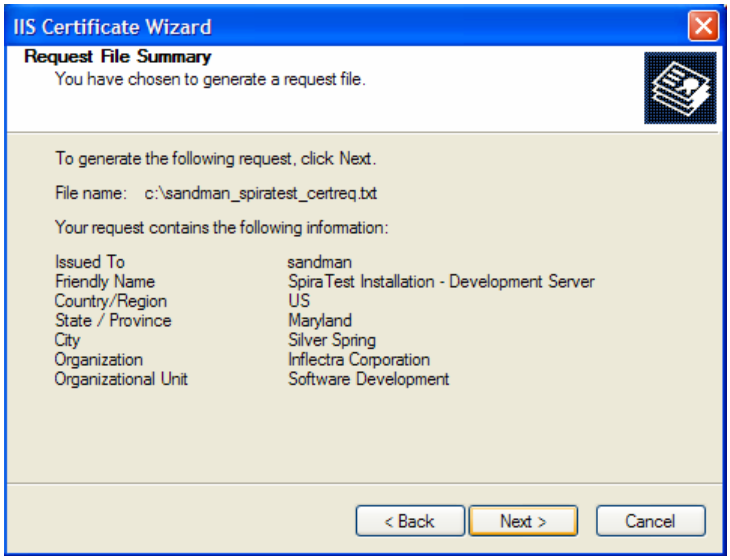


Next, enter the filename that you want to use for the *certificate request file*. This is the file that you will send to the Certificate Authority (CA) to request an SSL certificate. This filename should be memorable and describe what the certificate is for. The file extension should be `.txt`. Click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



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.

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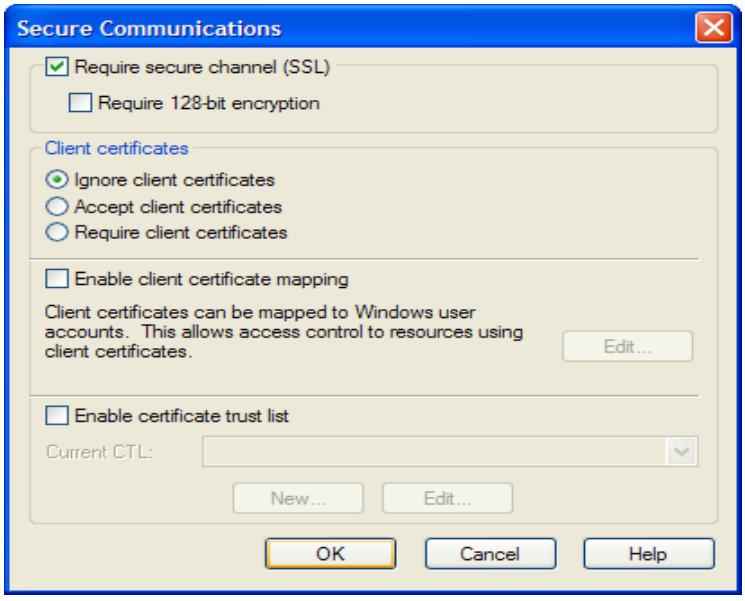
Once you have received the SSL certificate back from the CA, save the file onto your hard-disk with the file-extension `.cer`. Now open up the IIS management console (as described above), right-click on the "Default Web Site" icon and choose "Properties". Now select the "Directory Security" tab, and 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:

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:



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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5.3. Appendix C – Disabling Features of SpiraTest

SpiraTest™ provides a complete test management solution that manages requirements, tests and defects in an integrated environment. However recognizing that you may already have made investments in other tools that provide bug-tracking, requirements management and test management, there is an option to disable any of the three main application modules (requirements, tests and incidents). This will remove them both from the main navigation tabs and from the project and users' home pages.

To disable any of the tabs, you need to simply open up the `web.config` file in a text editor and add the following lines to the configuration file in between the `<appSettings>` tags:

```
<add key="SpiraTest.HiddenTabs"
     value="Requirements;Test Cases;Incidents" />
```

You need to enter the list of modules to disable separated by semicolons (with no spaces in between). Note that the example above will disable all the modules. Once you have saved the configuration file, the changes will take place immediately.

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The section of the manual that describes modifying the Windows System Registry ("Registry") should only be attempted by experienced Windows administrators who are familiar with its organization and contents. Inflectra cannot be held liable for any losses due to damage to the system registry made by inexperienced personnel.

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