



## SpiraTeam® Administration Guide

Version 5.1

Inflectra Corporation

Date: November 29th, 2016



## Contents

---

<b>1. Introduction</b>	<b>1</b>
<b>2. Installing SpiraTeam®</b>	<b>2</b>
2.1. System Prerequisites	3
2.2. Installing the Software	13
2.3. Security Considerations	21
<b>3. System Administration</b>	<b>22</b>
3.1. Projects	23
3.2. Users	35
3.3. Custom Properties	45
3.4. Incidents	49
3.5. Requirements	60
3.6. Planning	67
3.7. Testing	79
3.8. Notifications	84
3.9. Documents	91
3.10. System	93
3.11. Integration	110
<b>4. Appendices</b>	<b>120</b>
4.1. Appendix A – Troubleshooting	120

## 1. Introduction

SpiraTeam® is an integrated Application Lifecycle Management (ALM) system that manages your project's requirements, releases, test cases, issues and tasks in one unified environment:

SpiraTeam® contains all of the features provided by SpiraTest® - our highly acclaimed quality assurance system and SpiraPlan® - our agile-enabled project management solution. With integrated customizable dashboards of key project information, SpiraTeam® allows you to take control of your entire project lifecycle and synchronize the hitherto separate worlds of development and testing.

This administration guide outlines how to setup a working installation of either SpiraTeam®, SpiraTest® or SpiraPlan®, and how to perform routine administrative tasks.

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

For information on how to use the features of SpiraTeam®, SpiraTest® or SpiraPlan®, please refer to the *SpiraTeam® User Manual* instead.

## 2. Installing SpiraTeam®

This section outlines how to prepare your system for installation of SpiraTeam®, 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 the different versions of Windows Server. The second sub-section will explain how to load the SpiraTeam® software onto the server, and discuss common problems and solutions.

The minimum hardware and software requirements for running the SpiraTeam® system are:

Server Requirements	
Requirement	Minimum Specification
<b>Processor:</b>	Intel® or AMD® x86 or x64 compatible processor
<b>Memory:</b>	2 GB, 4 GB recommended
<b>Operating System:</b>	Windows Server 2012 R1 & R2 (recommended) Windows Server 2008 R1 & R2 (recommended) Windows Server 2003 R1 & R2 Windows 10, 8, 7 (for demoing)
<b>Service Packs:</b>	Windows Server 2003 SP2
<b>Database:</b>	Microsoft SQL Server 2016 Microsoft SQL Server 2016 Express Edition Microsoft SQL Server 2014 Microsoft SQL Server 2014 Express Edition Microsoft SQL Server 2012 Microsoft SQL Server 2012 Express Edition Microsoft SQL Server 2008 R2 Microsoft SQL Server 2008 R2 Express Edition
<b>Web Server:</b>	Internet Information Services (IIS) 6.0 or higher ASP.NET Web Extensions 4.0 or higher
Client Requirements	
Requirement	Minimum Specification
<b>Web Browser:</b>	Microsoft Edge Internet Explorer 9.0+ Mozilla Firefox Google Chrome (Desktop and Android) Apple Safari (Desktop and iOS) Opera
<b>Other Components:</b>	Microsoft Excel 2003+ (optional) Microsoft Word 2003+ (optional) Microsoft Project 2003+ (optional)

\*Note that SpiraTeam® can be loaded onto either Windows Server or workstation editions, provided that the IIS web-server is installed and that SQL Server is available as a database engine. However Windows

workstation editions can only support a maximum of 5 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.

## 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 SpiraTeam®. The SpiraTeam® installer will check to ensure that the various prerequisites are in place, and will abort the installation if any are missing, indicating to you what action needs to be taken.

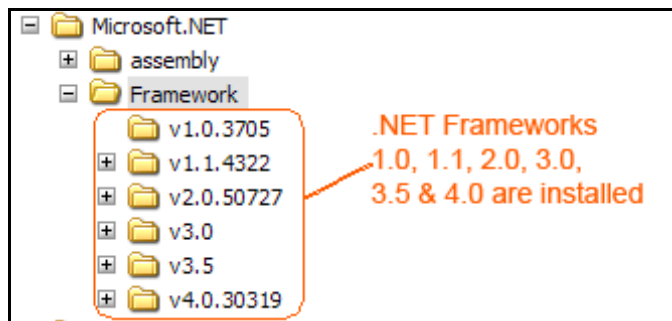
We recommend that you install / configure the prerequisites in the following order:

- Install the .NET Framework v4.0
- Install SQL Server 2016, 2014, 2012, 2008
- Install the latest version of Internet Explorer that your server OS allows
- Ensure that IIS is installed
- Ensure that ASP.NET 4.0 is enabled

### 2.1.1. Install the .NET Framework v4.0

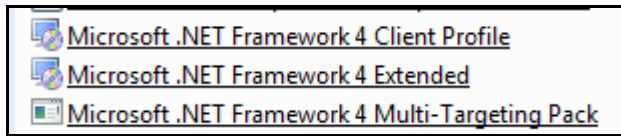
On Windows Vista, Windows 7 and Windows 2008 Server installations, Microsoft .NET Framework v4.0 is usually installed as part of the factory configuration, whereas on earlier operating systems, you might need to manually add the .NET 4.0 components to the factory configuration. On Windows 8, 10 and Server 2012, Microsoft .NET Framework 4.5 is installed which is fully compatible.

To see which version of the Microsoft .NET framework installed, open up Windows Explorer® and navigate to C:\WINDOWS\Microsoft.NET\Framework and then the subfolders listed will indicate which version(s) of the framework you have installed:



To install the .NET Framework, launch Internet Explorer and enter the URL: <https://www.inflectra.com/CustomArea>. Once you have logged-in to the customer area, under the “My Downloads” section there will be hyperlinks to download and install the appropriate version of the .NET Framework (version 4.0 at time of writing). Click on the option to download and install the .NET Framework, and follow the instructions provided. Once you have completed the install, verify that the installation was successful by looking in the “Administrative Tools” folder as illustrated above. You also need to make sure that .NET 4.0 has been installed if necessary.

Please make sure that the **Full .NET 4.0 Framework** is installed and not just the **.NET 4.0 Client Profile**. You can check which is installed by going to Start > Control Panel > Programs & Features and then looking for the different .NET 4.0 Framework components that are installed:



If you only see the “Microsoft .NET Framework 4 Client Profile” and not the “Microsoft .NET Framework 4 Extended”, then you need to install the additional .NET 4.0 components that are needed for server-based applications such as SpiraTeam to run.

### 2.1.2. Install SQL Server 2014, 2012, 2008 or 2005

Install the appropriate version of the database software, following the instructions provided with the installation. We recommend SQL Server Express Edition® for most users. This free version of SQL Server will offer sufficient performance for most installations and can be easily downloaded from either the customer area of our website (<http://www.inflectra.com/CustomerArea>) or directly from the Microsoft® web-site at <http://www.microsoft.com/express/sql>.

### 2.1.3. Install Internet Explorer

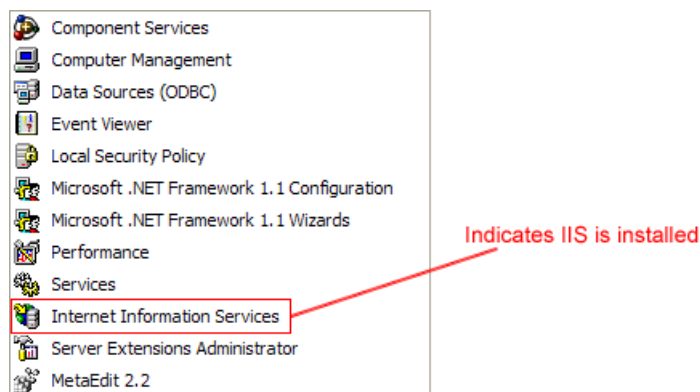
Install the latest version of the Internet Explorer web browser that is supported by your version of Windows. You are free to use Internet Explorer, Mozilla Firefox, Apple Safari, Google Chrome or Opera with SpiraTeam®. Other browsers may work with SpiraTeam®, but they have not been exhaustively tested for compatibility by Inflectra®.

### 2.1.4. Ensure that IIS is installed

On Windows Server OS installations, IIS is usually installed as part of the factory configuration, whereas on Windows workstation OS installations, you typically need to manually add the components to the factory configuration. The steps that you need to take to verify its installation are listed below for each operating system family:

#### a) Windows XP or 2003 Server

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



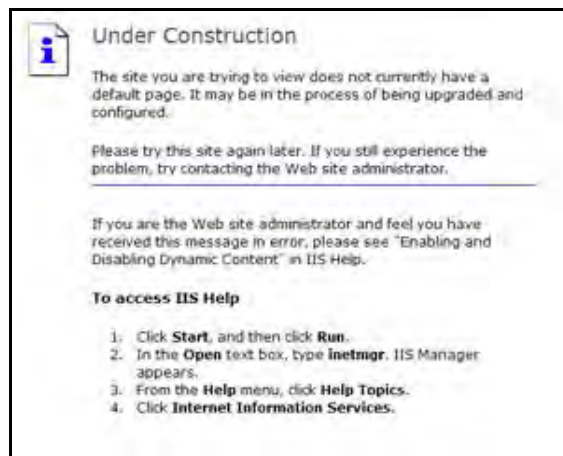
To install IIS, you need to click Start > Control Panel > Add or Remove Programs, then choose the option to “Add / Remove Windows Components” as illustrated below:



Check the box marked either “**Internet Information Services (IIS)**” or “**Application Server**”, 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 displaying the initial IIS startup page:



Windows XP IIS Default Page



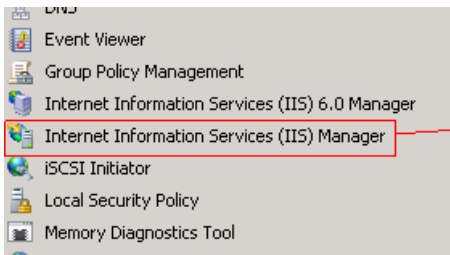
Windows 2003 Server IIS Default Page

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.

On Windows 2003 Server you may also need to go into the Web Service Extensions folder and make sure that ASP.NET 4.0 is marked as 'Allowed'. If you receive an HTTP 404 (Page Not Found) error when running SpiraTeam® then it usually means that ASP.NET 4.0 is marked as Prohibited.

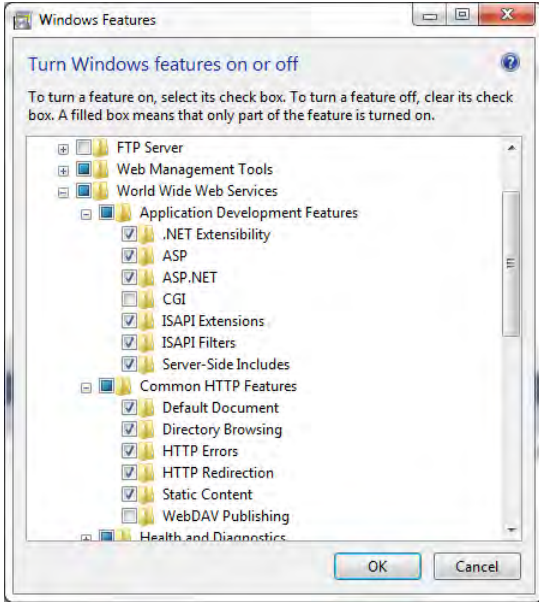
**b) Windows 7, Vista or Windows Server 2008**

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

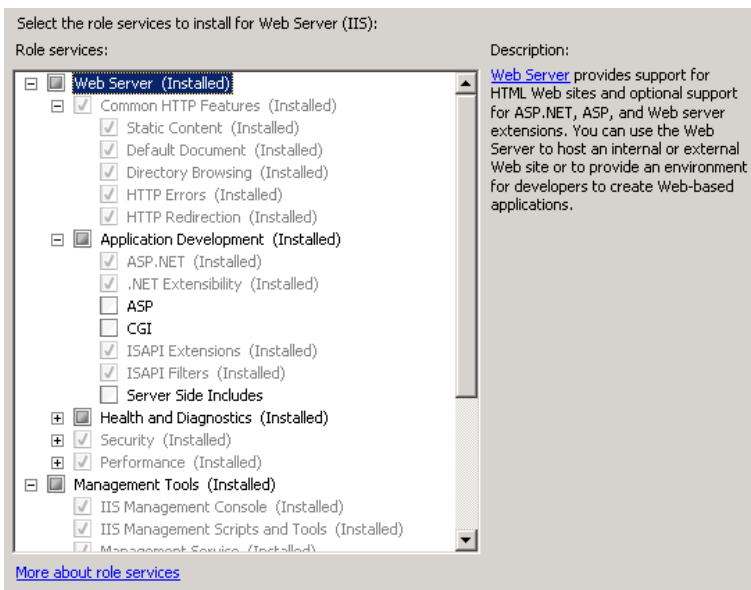


Indicates that IIS is installed

On **Windows 7 or Vista**, to install IIS, you need to click Start > Control Panel > Programs and Features, then choose the option to “Turn Windows features on or off”. This will bring up the list of features and roles that can be configured on the server:



On **Windows Server 2008**, you need to click on Server Manager, then under the “Roles” heading, choose the option to “Add Role” followed by selecting the new role “Web Server / IIS”. Then click “Next” to bring up the role configuration screen:





Make sure that the following features are enabled:

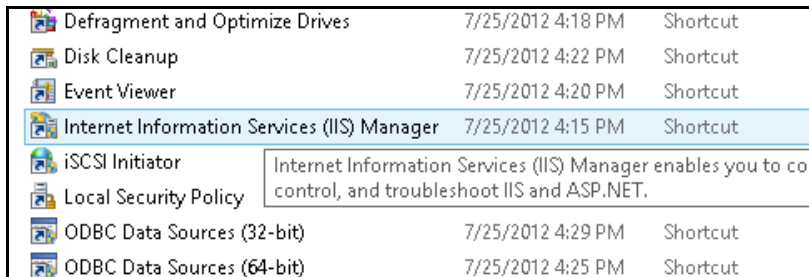
- Common HTTP Features
  - ▷ Static Content
  - ▷ Default Document
  - ▷ HTTP Errors
  - ▷ HTTP Redirection
- Application Development
  - ▷ ASP.NET
  - ▷ .NET Extensibility
  - ▷ ISAPI Extensions
  - ▷ ISAPI Filters
- Management Tools
  - ▷ IIS Management Console
  - ▷ IIS Management Service

To verify that this IIS is now installed, type <http://localhost> into the address bar of Internet Explorer on your computer. You should see a screen displaying the initial IIS startup page:



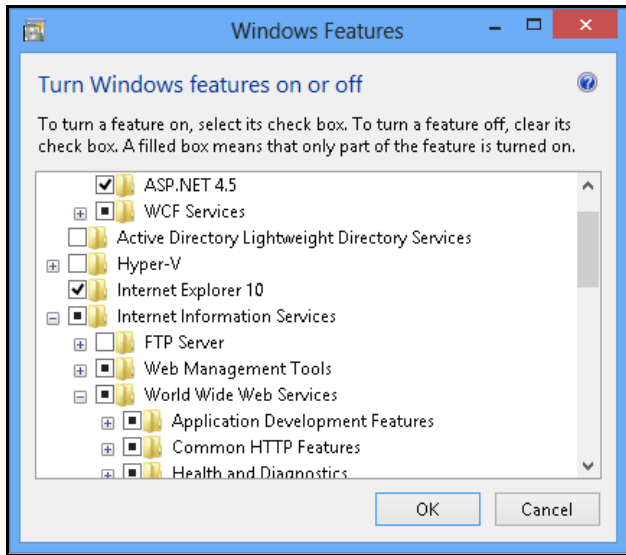
### **c) Windows 8 or Windows Server 2012**

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

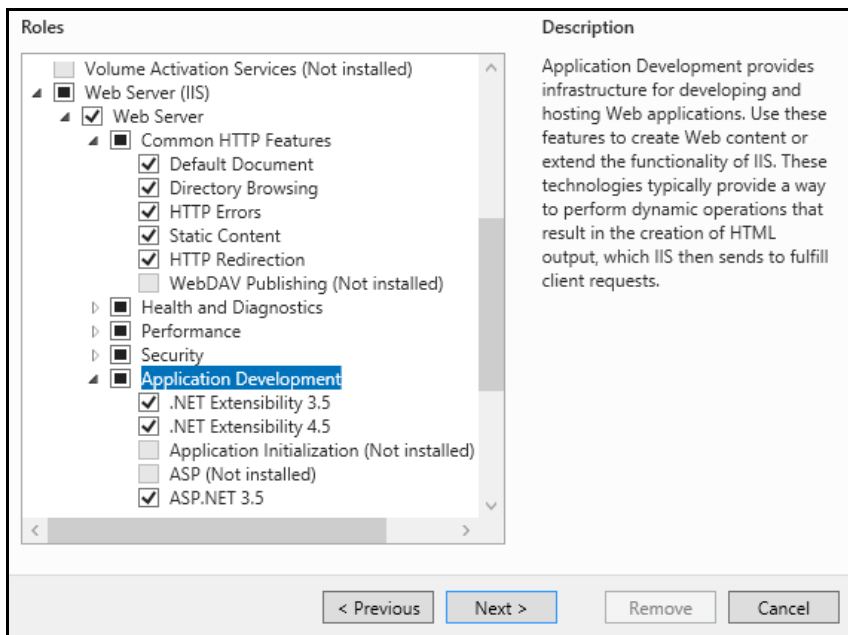


On **Windows 8**, to install IIS, you need to click Start > Control Panel > Programs and Features, then choose the option to “Turn Windows features on or off”. This will bring up the list of features and roles that can be configured on the server:





On **Windows Server 2012**, you need to click on Server Manager, then under the “Roles” heading, choose the option to “Add Role” followed by selecting the new role “Web Server / IIS”. Then click “Next” to bring up the role configuration screen:



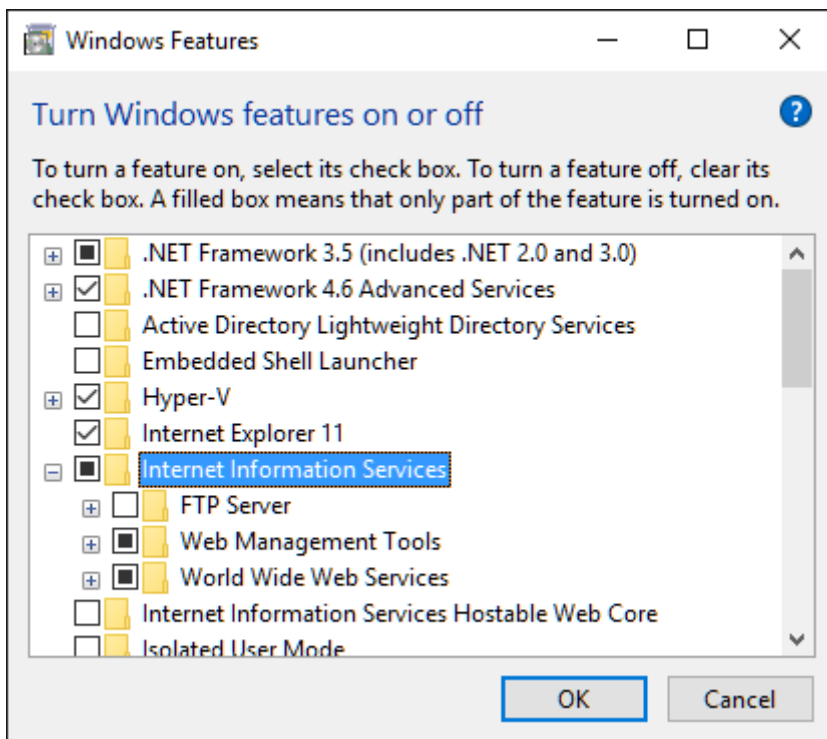
Make sure that the following features are enabled:

- Web Server (IIS)
  - ▷ Web Server
    - Common HTTP Features
      - ▷ Default Document
      - ▷ Directory Browsing
      - ▷ HTTP Errors
      - ▷ Static Content
      - ▷ HTTP Redirection
    - Application Development
      - ▷ .NET Extensibility 3.5

- ▷ .NET Extensibility 4.5
- ▷ ASP.NET 3.5
- ▷ ASP.NET 4.5
- ▷ ISAPI Extensions
- ▷ ISAPI Filters
- ▶ Management Tools
  - ▷ IIS Management Console
  - ▷ IIS Management Service
- ▶ .NET Framework 4.5 Features
  - ▷ .NET Framework 4.5
  - ▷ ASP.NET 4.5
  - ▷ WCF Services
    - ▶ HTTP Activation
    - ▶ TCP Port Sharing

#### **d) Windows 10**

To check if you have IIS installed, click Start > Control Panel > Programs, then choose the option to “Turn Windows features on or off”. This will bring up the list of features and roles that can be configured on the server. You should see 'Internet Information Services' in the dialog box that pops up:

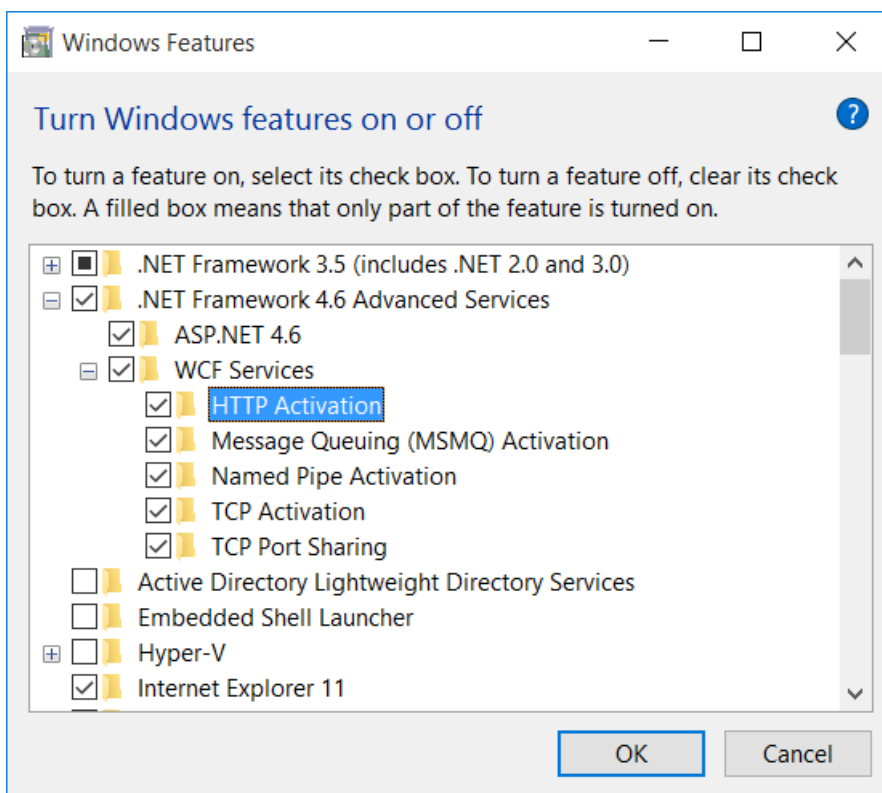


Make sure that the following features are enabled within the 'Internet Information Services' folder:

- ▶ Web Management Tools
  - ▷ IIS Management Console
  - ▷ IIS Management Service
- ▶ World Wide Web Services
  - ▷ Application Development Features
    - ▶ .NET Extensibility 3.5

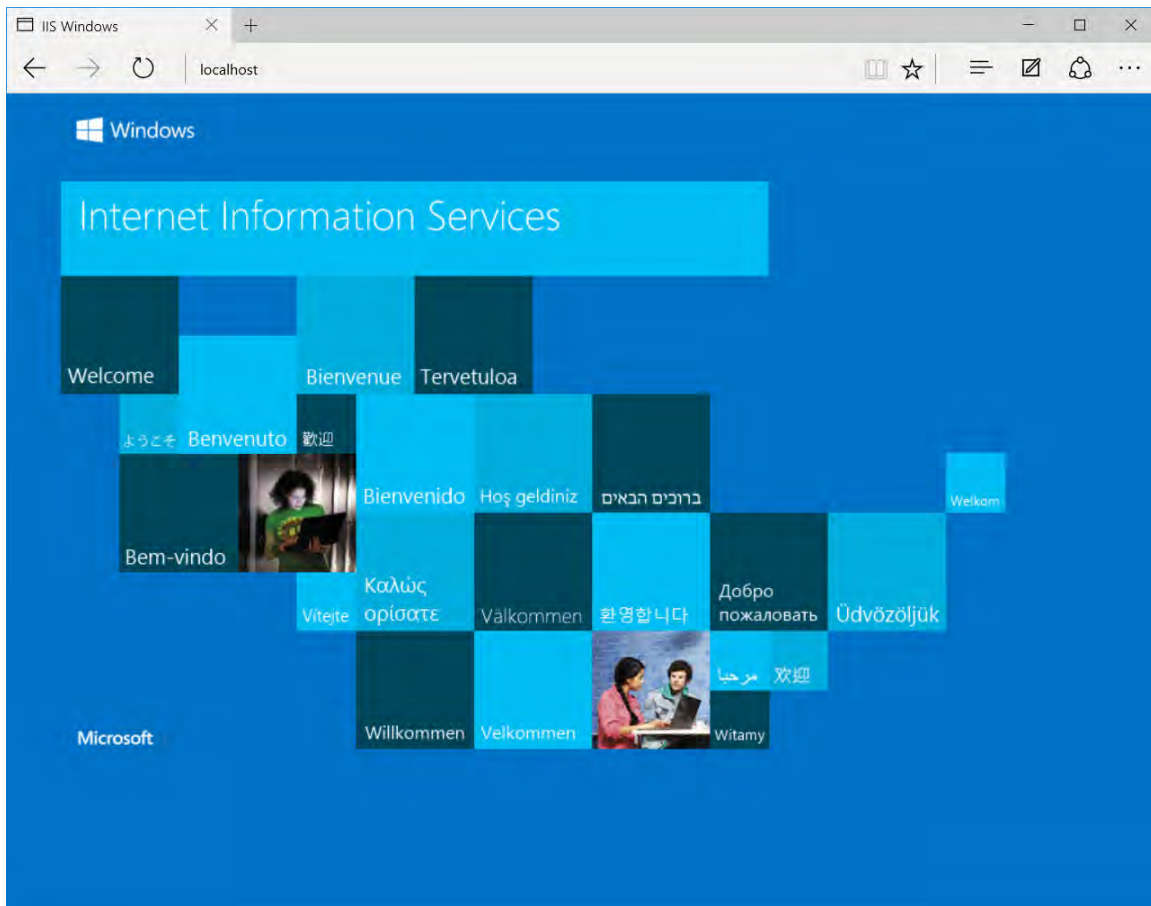
- .NET Extensibility 4.6
- ASP.NET 3.5
- ASP.NET 4.6
- ISAPI Extensions
- ISAPI Filters
- ▷ Common HTTP Features
  - Default Document
  - Directory Browsing
  - HTTP Errors
  - HTTP Redirection
  - Static Content

In the same panel ('Turn Windows Features on or off') you also need to check that the following features are enabled in the '.NET Framework 4.6 Advanced Services' folder:



- .NET Framework 4.6 Advanced Services
  - ▷ ASP.NET 4.6
  - ▷ WCF Services
    - HTTP Activation
    - TCP Port Sharing

To verify that this IIS is now installed, type <http://localhost> into the address bar of Internet Explorer on your computer. You should see a screen displaying the initial IIS startup page:

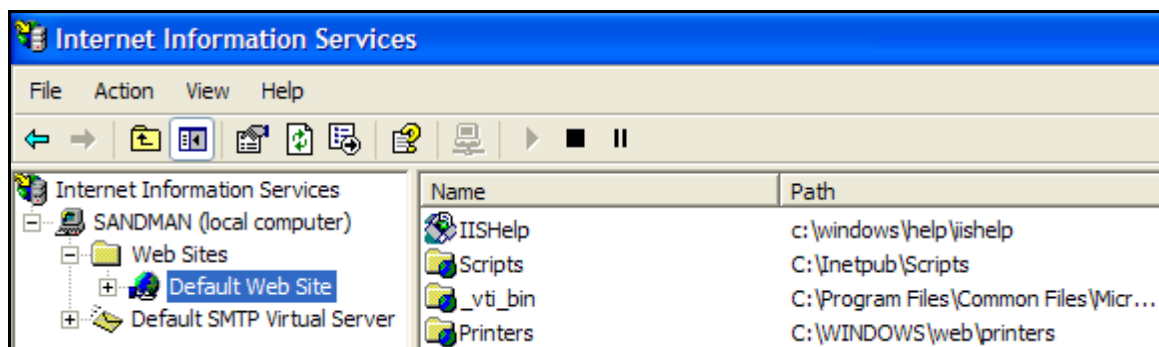


### 2.1.5. Ensure that ASP.NET is installed

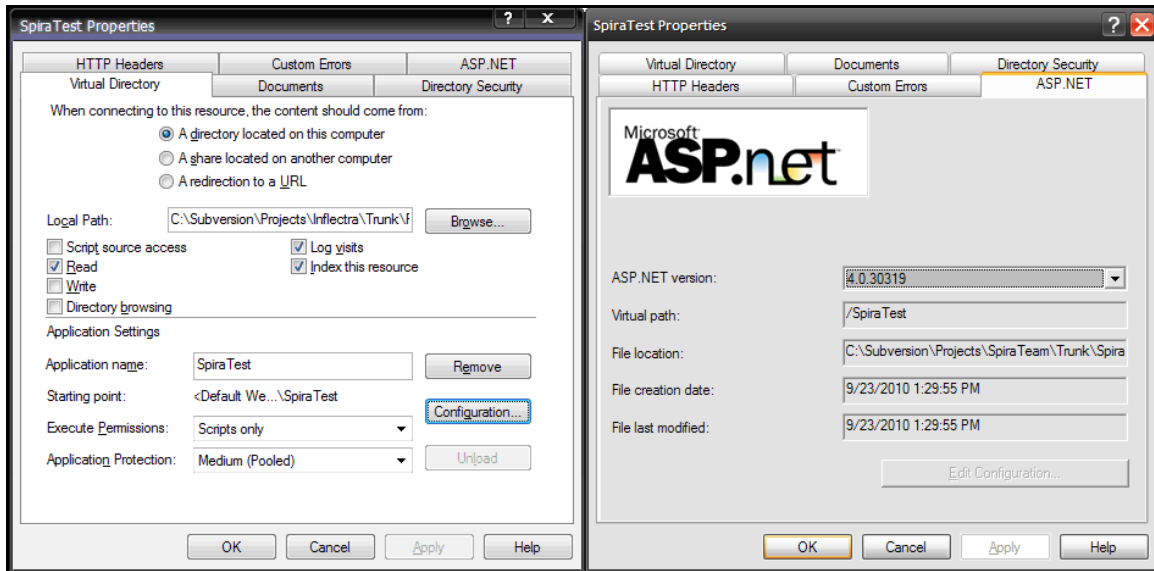
Now that you have both IIS and .NET installed, you need to make sure that the Active Server Pages (ASP.NET) components that allow IIS to access the .NET framework have been correctly configured. If you installed .NET *after* IIS then ASP.NET is typically configured for you, but if you installed IIS afterwards, then further manual steps may be necessary. The settings are different depending on which version of Windows you are using:

#### a) Windows XP or 2003 Server

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

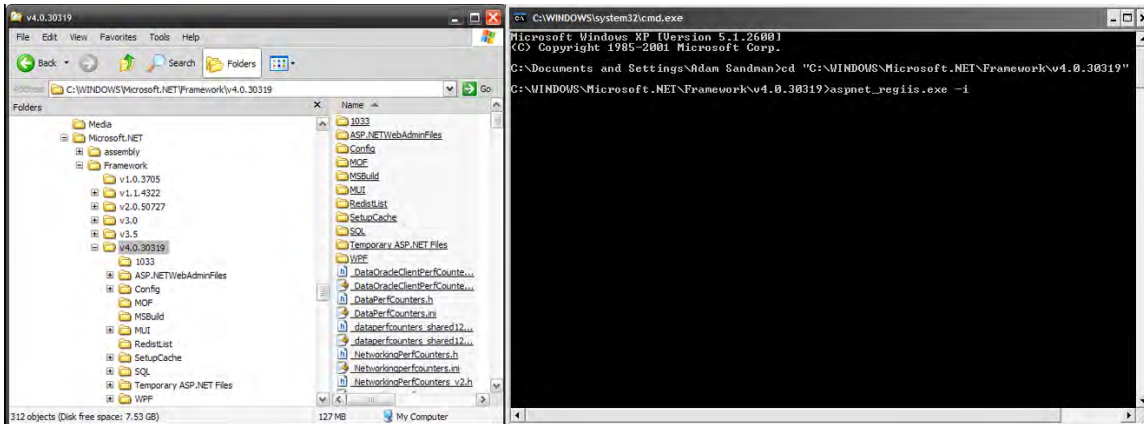


Expand the name of the web-server (marked as local computer), expand the “Web Sites” folder, right-click on “Default Web Site” and choose the “Properties” link. This will bring up the IIS configuration dialog-box with the ‘Virtual Directory’ tab highlighted. Then click on the ‘ASP.NET’ tab if it is listed:



If ASP.NET 4.0 is correctly configured you will see the ASP.NET tab, and it will list the ASP.NET version as being ‘4.0.30319’ as illustrated above. If you don’t see this tab, you either don’t have ASP.NET configured, or you have an earlier version of ASP.NET (v1.1 or v2.0) configured.

To configure ASP.NET 4.0 for 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 v4.0 installed, you would navigate to **C:\WINDOWS\MICROSOFT.NET\Framework\v4.0.30319**. Now, you need to open up a Windows command prompt by clicking Start > Programs > Accessories > Command Prompt. This will open up the command prompt window:

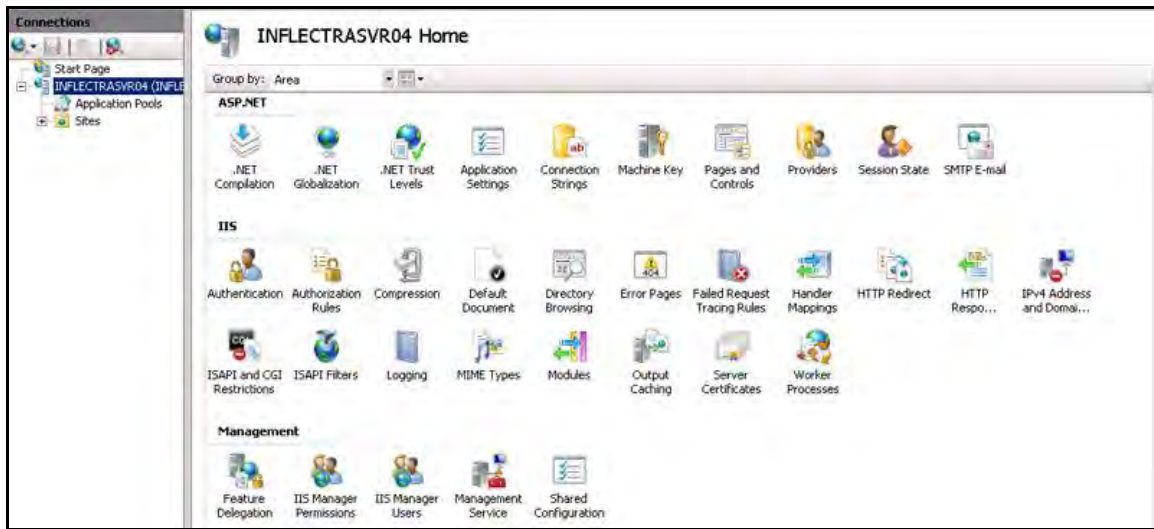


Now change the directory in the command window to the folder name in windows explorer (i.e. type **cd C:\WINDOWS\MICROSOFT.NET\Framework\v4.0.30319** where the version number matches the version number of the framework you have installed). Once you have changed the directory to the appropriate folder, 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).

*For 64-bit versions of Windows, please use C:\WINDOWS\MICROSOFT.NET\Framework64\v4.0.30319*

#### **b) Windows Vista, 7 or 2008 Server**

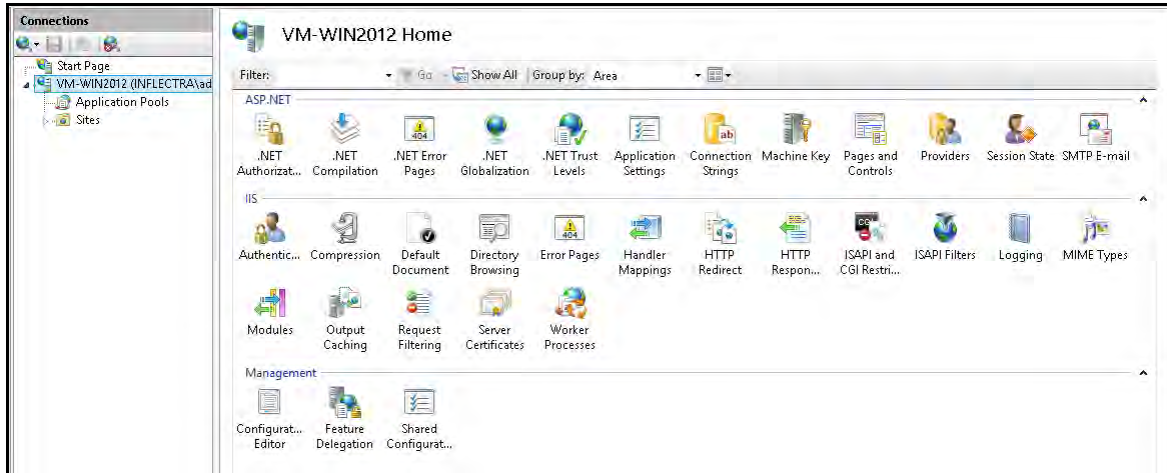
To verify that ASP.NET has been correctly configured, click on Start > Control Panel > Administrative Tools > Internet Information Services (IIS) Manager to launch the IIS administrative console:



You should see a section called “ASP.NET” occupying the top third of the IIS screen. If not, then you need to go back to section 2.1.3 and make sure that you chose the option to install ASP.NET when installing IIS.

### **c) Windows 8, 10 or 2012 Server**

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



You should see a section called “ASP.NET” occupying the top third of the IIS screen. If not, then you need to go back to section 2.1.3 and make sure that you chose the option to install ASP.NET when installing IIS.

## ***2.2. Installing the Software***

Now that all the prerequisites have been correctly installed, you are now ready to install SpiraTeam® 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 SpiraTeam® installation package (it will have a filename of the form SpiraTestPlanTeam-vX.X.X.X.msi), and the Windows Installer will display the following dialog box:



If you are upgrading from an earlier version of SpiraTeam®, the dialog box will be similar except that it will instead let you know that you are upgrading from an earlier version to the current one:

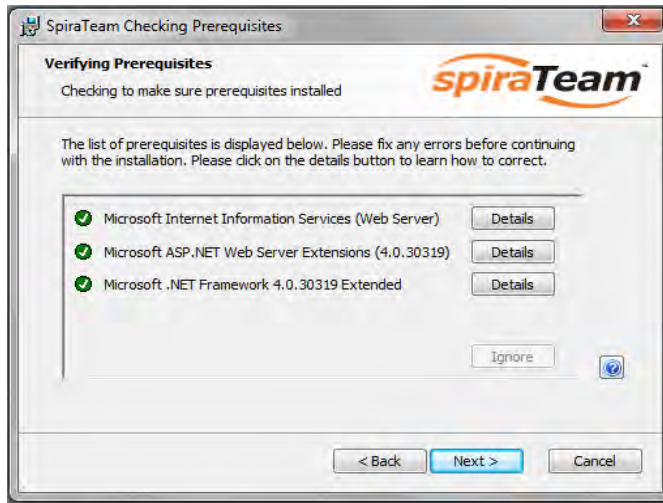


In this instance the installer will update the program files on your computer and migrate your data into the new version seamlessly. If for any reason you **don't see the upgrade message** and you have an existing installation, don't continue, but instead **contact Inflectra® customer support first**.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

In the case of an upgrade, the system will make a temporary backup of your database to the C:\Users\[UserName]\AppData\Local\Inflectra folder, so you need to make sure you have at least **twice the disk** space available on the C:\ drive as the size of your existing database. If you want to specify a different temporary location, please set the TST\_WORKING\_FOLDER Windows® environment variable to the location you wish to use instead.



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. The next page of the installation wizard will display a list of all the required pre-requisites and whether the installer could find them or not:



If any of the prerequisites were not correctly installed, the installer will display a red cross icon next to the missing component(s). If this happens, please refer to section 2.1 for installation of any prerequisites. If for any reason you have the prerequisite installed but the installer was not able to find it (this can occasionally happen on certain environments), click the “Ignore” button to proceed with the installation.

Once the prerequisites have been correctly installed, clicking “Next” will bring you to the next page in the installation wizard:



The next screen in the installation wizard outlines the SpiraTeam® 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 choose the product that you will be installing – SpiraTest®, SpiraPlan® or SpiraTeam®. This is important because the license key for each product is different.

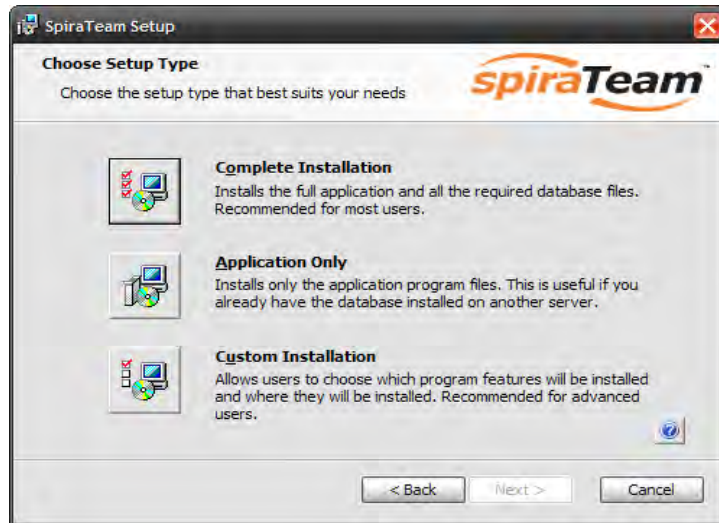
Once you have chosen the product, the following screen will be displayed:



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.

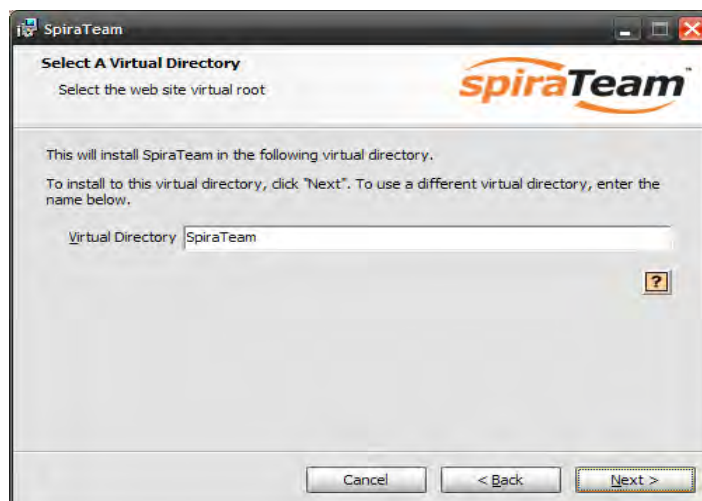
After clicking “Next”, you will be given the choice of installation to perform:



By default, the installer will install all of the SpiraTeam® features onto the target system, so we recommend choosing “Complete Installation”, which will both install the complete system – application and database. For advanced users who want to change the folder to which the system is installed (by default it is C:\Program Files\SpiraTeam), change the name of the database created (by default it will be SpiraTeam) or to prevent the installation of the optional web-services data integration modules, you can choose the “Custom Installation” option, which allows you to change those settings prior to installation.

The “Application Only” installation is useful when you need to move the application to a different server, but want to leave the database installed on the same server. In this case you can use the “Application Only” installation on the new server, and once the installation is completed, change the name of the database pointed to in the “Web.Config” file to the existing database server.

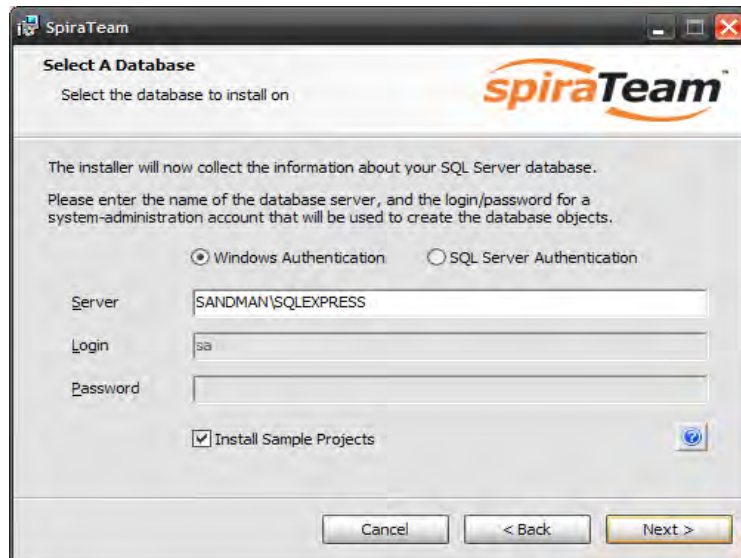
This manual assumes that the “Complete Installation” option is chosen, in which case the following screen is displayed:



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/SpiraTeam>. Should you want to have a different name – other than SpiraTeam – 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:



You can connect to the SQL Server database using either Windows Authentication or SQL Server Authentication, and the process is slightly different for each mode:

### 2.2.1. Windows Authentication

This is the easiest option when the application and database will be residing on the *same* server. In this case, choose the “Windows Authentication” option and the Login/Password boxes will be disabled. In this case, the installer will connect to the database using your current Windows login to create the application database objects, and SpiraTeam® will connect to the database during normal operation using either the ASPNET or NETWORK SERVICE Windows accounts (it depends on the version of the operating system).

### 2.2.2. SQL Server Authentication

This is the easiest option when the application and databases will be residing on *different* servers across the network. In this case, choose “SQL Server Authentication” and provide a SQL Server Login that has Database Owner (DB-Owner) permissions – e.g. the built in System Administrator (SA) account. The installer will use this DB-Owner account to create the database objects, and SpiraTeam® will use a special login (called SpiraTeam by default) for normal application operations.

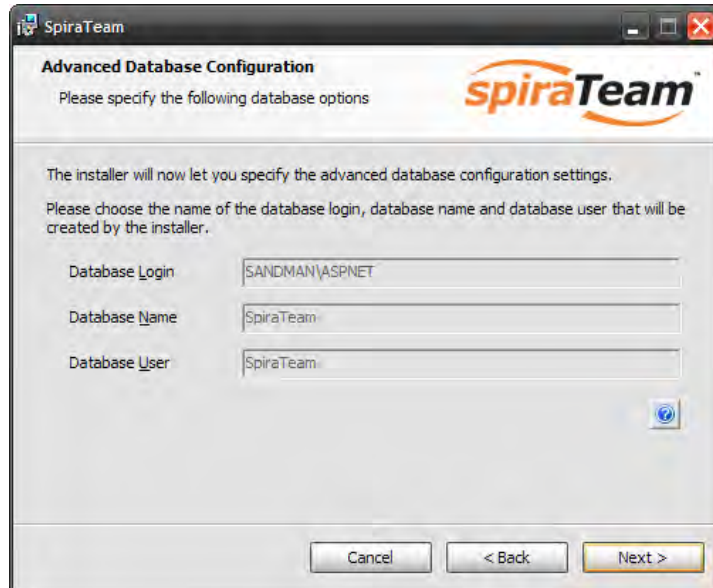
### 2.2.3. For Either Mode

In 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.

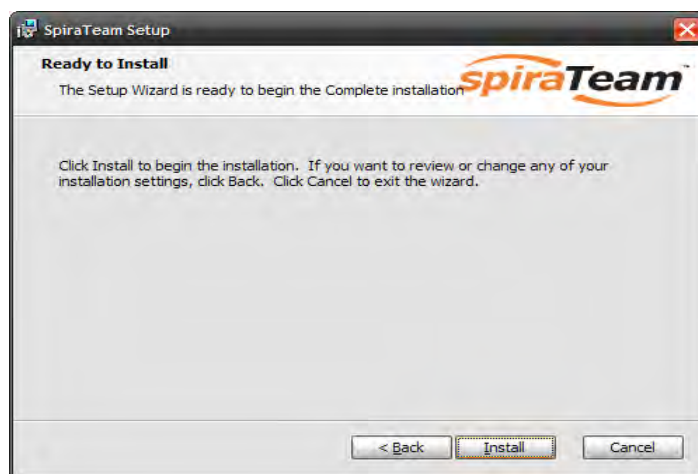
For SQL Server 2005/2008 Express edition installations, the Server name is usually the name of your computer followed by “\SQLEXPRESS”, so for example, if your computer is called MyComputer, the server name would be MyComputer\SQLEXPRESS. Omitting the second part (called the instance name) would lead to a “host not found” error.

You can also choose whether to install the sample projects or not – typically we recommend installing the sample projects for evaluation installations and excluding them for production installs.

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:

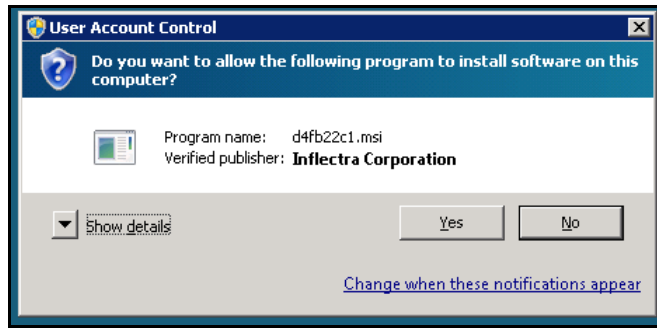


This page lets you customize the name of the database login, database name and database user that the application will create. If you chose the “Custom Installation”, then the fields will be editable, otherwise they will be read-only. Also if you chose “Windows Authentication” then the Database Login field will be set to the built-in Windows account associated with ASP.NET for the specific operating system being installed on (and cannot be changed). Once you have reviewed this page and made any changes, you should click “Next” to proceed:



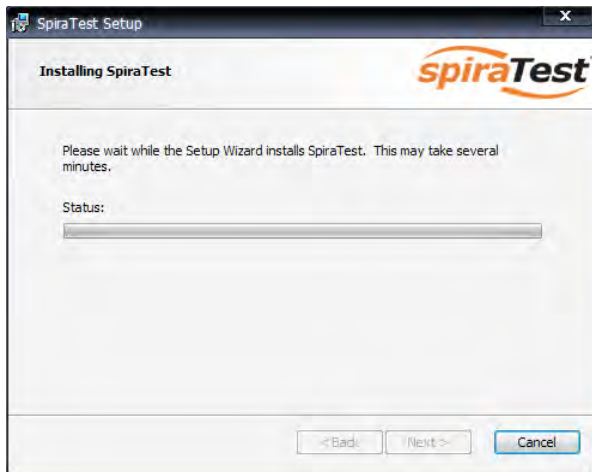
Click the “**Install**” button to actually begin the process of installing SpiraTeam® onto your system. If you are installing SpiraTeam® onto a version of Windows that has the **User Access Control (UAC)** enabled, then you will first be prompted to confirm that you want to install a new piece of software. Click the option that confirms you want to proceed with the install:





Click the “Yes” button to confirm that you want to install the software package.

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:



Click the “Finish” button to complete the installation.

Congratulations! You have successfully installed SpiraTeam® onto your system. If you type <http://localhost/SpiraTeam> into your browser you should see the SpiraTeam® login page, as illustrated in the *SpiraTeam® 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.iis.net/learn/manage/configuring-security>

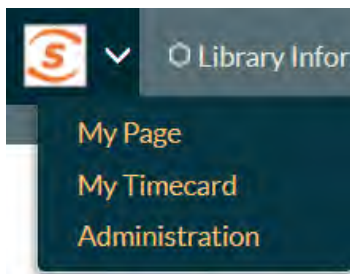
In addition to the steps outlined in this article, it is important to note that by default, all web pages served by IIS using the HTTP protocol are unencrypted, and as such, the usernames and passwords used by SpiraTeam® to log into the application can be read by network sniffing tools. If you are using SpiraTeam® purely within an intranet environment, this may not be an issue. However if you are externally hosting SpiraTeam® 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.



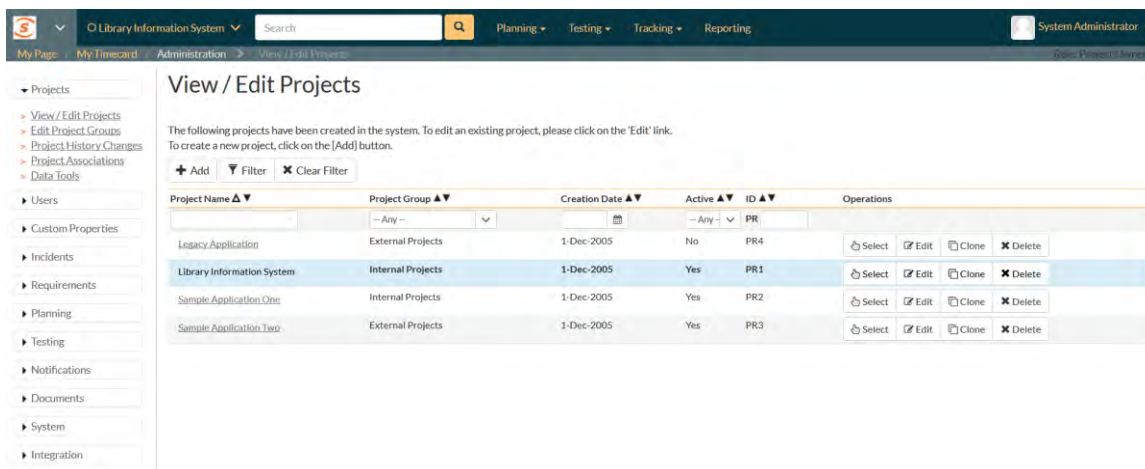
### 3. System Administration

Now that you have successfully installed SpiraTeam®, 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 SpiraTeam® with the username administrator, and the password PleaseChange. It is recommended 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 SpiraTeam® User Manual for more details.

Once you have logged in as the administrator, you need to click the “Administration” link which can be found in the main SpiraTeam dropdown menu in the top-left of the screen:



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 headings) 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:

### 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:

## View / Edit Projects

The following projects have been created in the system. To edit an existing project, please click on the 'Edit' link.  
To create a new project, click on the [Add] button.

[+ Add](#) [▼ Filter](#) [✕ Clear Filter](#)

Project Name ▲▼	Project Group ▲▼	Creation Date ▲▼	Active ▲▼	ID ▲▼	Operations
<input type="text"/>	-- Any --	<input type="text"/>	-- Any --	PR	
<a href="#">Legacy Application</a>	External Projects	1-Dec-2005	No	PR4	<a href="#">Select</a> <a href="#">Edit</a> <a href="#">Clone</a> <a href="#">Delete</a>
<a href="#">Library Information System</a>	Internal Projects	1-Dec-2005	Yes	PR1	<a href="#">Select</a> <a href="#">Edit</a> <a href="#">Clone</a> <a href="#">Delete</a>
<a href="#">Sample Application One</a>	Internal Projects	1-Dec-2005	Yes	PR2	<a href="#">Select</a> <a href="#">Edit</a> <a href="#">Clone</a> <a href="#">Delete</a>
<a href="#">Sample Application Two</a>	External Projects	1-Dec-2005	Yes	PR3	<a href="#">Select</a> <a href="#">Edit</a> <a href="#">Clone</a> <a href="#">Delete</a>

This screen displays the list of projects in the system (both inactive and active) together with their project group, 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.

You can filter the list of projects by either choosing an active status, project group, or entering a portion of the name 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. To sort the list of projects, just click on the appropriate arrow icon located in the header row of each field (one each for ascending / descending) In addition, the list of projects is paginated into groups of fifteen (15). You can step through the different pages by clicking the page numbers at the bottom of the project list.

To permanently delete a project, you should click the “Delete” button 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, set its Active flag to ‘No’ instead. To make a copy of a project to reuse its test cases, releases, test sets and requirements, 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.*

To add a new project to the system, 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:

## New Project Edit Project Details

[← Back To Project List](#)

Please review the information listed below and make any changes if necessary. Once you have finished, click [Save/Insert] to confirm them.

Project Name:\*

Description:

Format · **B** *I* U *I<sub>x</sub>*

Source

Project Group:\*

 ▼

Web Site:

Template:\*

 Default  Based on Existing Project

Legacy Application

Choose the default template will load the standard workflows and incident lists. Choosing an existing project as the template will copy across that project's custom properties, workflows and incident fields for use in the new project.

Active:\*

 Yes 

You need to enter a name for the project (which cannot be the same as any already in use); select which project group it belongs to and optionally enter a detailed 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, document types, document folders, data synchronization 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, click the “Edit” button 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:

# Library Information System Edit Project Details

[← Back To Project List](#)

Please review the information listed below and make any changes if necessary. Once you have finished, click [Save/Insert] to confirm them.

**Project Name:**

**Description:**

Format

**B I U I<sub>x</sub>** [List Icon] [List Icon] [List Icon] [List Icon] [List Icon] [List Icon] [List Icon] [List Icon] [List Icon] [List Icon] [List Icon] [List Icon] [List Icon] [List Icon]

Source

Sample application that allows users to manage books, authors and lending records for a typical branch library

**Project Group:**

**Web Site:**

**Active:**

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

### 3.1.2. Edit Project Groups

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

## Edit Project Groups

The following project groups have been created in the system. To edit an existing project group, please click on the 'Edit' link. To create a new project group, click on the [Add] button.

+ Add ▼ Filter ✗ Clear Filter

Project Group Name ▲ ▼	Web Site ▲ ▼	Default ▲ ▼	Active ▲ ▼	ID ▲ ▼	Operations
<a href="#">Default Group</a>		Yes	Yes	PG1	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
<a href="#">External Projects</a>		No	Yes	PG3	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
<a href="#">Internal Projects</a>	<a href="http://www.libraryinformationsystem.org">http://www.libraryinformationsystem.org</a>	No	Yes	PG2	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

This screen displays the list of project groups in the system (both inactive and active) together with their web site URL, date of creation and active status. Project Groups are used to relate projects that are in the same department/division/organization or are for a common customer, client, etc. When projects are in the same group, a user that is a member of the project group can see the special Project Group Dashboard that displays key metrics from all the projects in the group combined. Also such users will have observer-level access to the contained projects without needing to be explicitly added to each project.

You can filter the list of project groups 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 project groups will be filtered by the criteria you entered. You can clear the filter selection by clicking the “Clear Filters” button. To sort the list of project groups, just click on the appropriate arrow icon located in the header row of each field (one each for ascending / descending) In addition, the list of project groups is paginated into groups of fifteen (15). You can step through the different pages by clicking the page numbers at the bottom of the project list.

To permanently delete a project group, you should click the “Delete” button to the right of the project group details. Any projects contained in the group will not be deleted, but instead just moved to the default project group. There has to be at least one project group in the system at all times, so the project group designated as the ‘default’ one will not be available for deletion.

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

## New Project Group Project Group Details

[← Back To Project Group List](#)

Please review the information listed below and make any changes if necessary.  
Once you have finished, click [Save/Insert] to confirm them.

Name:

Description: 

Format - **B** *I* U ~~I<sub>x</sub>~~ | | | | | | | | | | | | |

Web Site:

Active:

Default:

You need to enter a name for the project group and optionally enter a detailed description and/or web-site URL. You should initially make sure that the project group is marked as “Active”. In addition, you can choose to make this project group the default one (meaning that it cannot be deleted and projects get added to it when their groups are deleted). Once you are satisfied with the information, click the “Insert” button to actually create the new project group.

In a similar way, to edit the details of an existing project group, click the “Edit” button in the right hand column of the project group list box, and you will be taken to the following screen that allows you modify the project group details:

## Internal Projects Project Group Details

[← Back To Project Group List](#)

Please review the information listed below and make any changes if necessary. Once you have finished, click [Save/Insert] to confirm them.

Name:

Description: 

Format - **B** *I* U *I*<sub>x</sub> :|: :|: | | -|E ” | | | | | | | |

Source

Contains the library project and sample application one

Web Site:

Active:  Yes

Default:  No

User Membership		Project List	
Full Name	User Name	Project Group Role	
<input type="checkbox"/> Fred Bloggs	fredbloggs	Group Owner	▼
<input type="checkbox"/> System Administrator	administrator	Group Owner	▼

On the top part of this screen you can edit the name, description, website URL, active status and default status. Once you have made the necessary changes, click the “Save” button to commit them. If you decide that you want to ignore the changes, click the “Cancel” button and the changes will be discarded.

In addition, the lower part of the screen allows you to view/edit the users that are members of the group and also see which projects are in the group:

### a) Group User Membership

This tab allows you to see which users are members of the group and which group role they have:

User Membership		Project List	
Full Name	User Name	Project Group Role	
<input type="checkbox"/> Fred Bloggs	fredbloggs	Group Owner	▼
<input type="checkbox"/> System Administrator	administrator	Group Owner	▼

The two project group roles are “Executive” and “Group Owner”:

- **Executive** – This role allows the user to see the dashboard for this project group, which contains all the key metrics for the contained projects displayed in an aggregated manner. Please see the *SpiraTeam User Manual* for more details on this dashboard. In addition, the user is automatically granted ‘observer’ permissions for all the projects in the group.



- **Group Owner** – This role consists of all the permissions granted to the “Executive” role above, but in addition allows the user to make changes to the Project Group itself in the Administration section.

To change the role of an existing project group member, just change the role in the drop-down list and click [Save]. To remove a member from the group, just select the appropriate checkboxes and click [Delete]. Finally, to add a new user to the group, click on the [Add] button:

## Internal Projects Add Project Group Membership

[← Back To Project Group Membership](#)

The following users are NOT members of this project group.

Please select a role for the users you want to add to the project group and click [Add]:

First Name ▲▼	MI ▲▼	Last Name ▲▼	User Name ▲▼	ID ▲▼	Project Role
				US	
Amy	E	Cribbins	amycribbins	US13	--- Select Role ---
Bernard	P	Tyler	bernardtyler	US11	--- Select Role ---
Donna	W	Harkness	donnaharkness	US6	--- Select Role ---
Henry	J	Cooper	henrycooper	US12	--- Select Role ---
Jack		Van Stanten	jackvanstanten	US7	--- Select Role ---
Joe	P	Smith	joesmith	US3	--- Select Role ---
Martha		Noble	marthanoble	US10	--- Select Role ---
Ricky		Pond	rickypond	US5	--- Select Role ---
Rory		Jones	roryjones	US9	--- Select Role ---
Rose	T	Smith	rosesmith	US8	--- Select Role ---

You now should narrow down the list of users by entering filter criteria and clicking [Filter]. Once you have located the appropriate user(s), just select a group role for them from the drop-down list and click [Add] to add them to the group in the specified role.

### b) Group Project List

This tab allows you to see the list of projects that are contained within the current group. Clicking on the name of the project will take you to the details page for that project:

Project Name	Web Site	Creation Date	Active	ID
<a href="#">Library Information System</a>	<a href="http://www.libraryinformationsystem.org">http://www.libraryinformationsystem.org</a>	1-Dec-2005	Yes	PR1
<a href="#">Sample Application One</a>	<a href="http://www.tempuri.org">http://www.tempuri.org</a>	1-Dec-2005	Yes	PR2

### 3.1.3. Project History

This page displays a list, by default in chronological order, of changes made to items within the selected project.



At this time, only changes made to Requirements, Tasks, Incidents, Test Cases, Test Steps, Test Sets, Releases, and Automation Hosts are recorded. Certain changes are to these artifacts are not recorded, such as location changes (indenting, outdenting), and comment additions.

## Library Information System Project History Changes Change Project

This page lists all the changes that were made in the selected project. To view the details and optionally restore or purge a specific changeset artifact, click the changeset ID number.

To revert multiple items at once, select the checkboxes and then click the "Revert" button. If you select multiple changesets for a single artifact, changes will be rolled back to the earliest changeset. You cannot roll back an Added, Purged, or Rollback changeset.

Refresh Apply Filter Clear Filter Revert Purge All

Displaying 1 - 15 out of 67 items

Change ID ▲▼	Change Date ▲▼	Changed By ▲▼	Artifact Type ▲▼	Artifact ID ▲▼	Artifact Name ▲▼	Change Type ▲▼	Signed
#67	19-May-2016	System Administrator	Test Run	32	Adding multiple new books	Modified	Not Signed
#66	19-May-2016	Fred Bloggs	Requirement	37	New Requirementsdf	Modified	Not Signed
#65	19-May-2016	Fred Bloggs	Requirement	37	New Requirement	Added	Not Signed
#64	18-May-2016	Fred Bloggs	Test Run	31	Ability to reassign book to different author	Modified	Not Signed
#63	18-May-2016	Fred Bloggs	Test Run	29	Author management	Modified	Not Signed
#62	18-May-2016	Fred Bloggs	Test Run	28	Book management	Modified	Not Signed
#61	18-May-2016	Fred Bloggs	Test Run	27	Ability to edit existing author	Modified	Not Signed
#60	18-May-2016	Fred Bloggs	Test Run	26	Ability to create new author	Modified	Not Signed
#59	18-May-2016	Fred Bloggs	Test Run	25	Ability to edit existing book	Modified	Not Signed
#58	18-May-2016	Fred Bloggs	Test Run	24	Ability to create new book	Modified	Not Signed
#57	18-May-2016	Fred Bloggs	Task	38	Create subject object insert method	Modified	Not Signed
#56	18-May-2016	Fred Bloggs	Task	42	Write subject object update queries	Modified	Not Signed
#55	18-May-2016	Fred Bloggs	Task	39	Write subject object insert queries	Modified	Not Signed
#54	18-May-2016	Fred Bloggs	Task	41	Create subject object update method	Modified	Not Signed
#53	18-May-2016	Fred Bloggs	Requirement	27	Ability to modify existing users in the system	Modified	Not Signed

Show 15 rows per page

Displaying page 1 of 5

There are a handful of change types recorded and displayed here:

- **Modified:** The most common, this means that one or more fields in this artifact were changed. Note that if a standard field and a custom field were changed at the same time, it will generate two separate entries, one for the standard fields, one for the custom fields.
- **Added:** This means that this artifact was added, created in the system, either by using the New menu option or by copying. Pasting an item that was cut will not result in an Added entry being created.
- **Rollback:** This items means that the artifact was rolled back to a specific event in the history.
- **Deleted:** This entry is created when an artifact is deleted from the system.
- **Undelete:** This entry is created when an artifact was deleted and then undeleted, making it live in the system again.
- **Purged:** This entry is created (and all other history items are removed) when a deleted artifact is purged from the system. Purged items are removed from the database, and cannot be recovered.

**Note:** When upgrading from a version before v3.1, each individual field changed will be considered a unique change, due to how previous versions recorded history. However, as soon as the application is upgraded, simultaneous changes will be grouped together based on their last-update date.

This screen allows the administrator several options:

- **Viewing Details:** The detail screen for each change set can be viewed by clicking on the change ID #. This will take you to the history details screen, described below.
- **Revert:** This button will roll back all items in the list that are checked. You must have at least one row checked to revert. See the section on reverting below.

- *Purge All*: This button will permanently purge all deleted items from the database. Once items are purged, they cannot be restored.

### 3.1.4.1. History Details Screen

The history details screen displays information on the selected change set:

The details for this changeset are listed below.

[← Back to List](#)
[View Item](#)
[Revert](#)

**Change ID:** 53      **Change Date:** 5/18/2016 2:42:49 PM  
**Changed By:** Fred Bloggs      **Change Type:** Modified  
**Artifact:** [Requirement \[RQ:27\]](#)      **Field Set:** Standard Fields  
**Artifact Name:** Ability to modify existing users in the system      **Signed:** [Not Signed](#)  
**Signature Hash:**

**Change Actions**

Field Name ▲▼	Old Value ▲▼	New Value ▲▼
Status	In Progress	Accepted
Release	1.0.2.0.0001	Iteration001

The History Details screen will show basic information as well as fields that were changed in this change set. Shown here is the Change ID, the date and time that the change was made, the user that made the change, the change type, the artifact affected, and the set of fields affected.

If a set of fields were affected (Standard or Custom), then the list of fields will be listed below. In the example above, the change was a Modification, and 5 fields were changed. In other change types, no fields will be displayed.

If the artifact is still available in the system, you can click the Artifact or click the 'View Item' button in the toolbar to view the item as it is currently. However, if the item has been deleted, a warning label will be displayed (as above in the example screenshot), the View Item links will be disabled, and a new option, "Purge" will appear on the toolbar.

### 3.1.4.2 Purging Items

Items that have been deleted by any user still remain in the database, but do not affect statistics or reports, and do not show up in reports and cannot be viewed. The artifacts are still in the database, however, and can be restored by clicking on the Restore button in the toolbar.

Purging an individual item can only be done while viewing one of its history detail screens. Once an item is purged, you will be taken back to the history list screen. All the previous history items for the artifact will be removed, and replaced with a single "Purged" history item.

Items that are purged cannot be restored into the database, as unique identifiers will be wiped from the database, so be sure that you are sure you want to purge an item before doing so.

You can purge all items in the project at once by clicking the "Purge All" button located on the History List page. This will take some time depending on how many deleted items are in your database, and it is

recommended that the database files be compressed in SQL Management Studio afterwards to free up space and compress clustered indexes.

### 3.1.4.3 Reverting Items

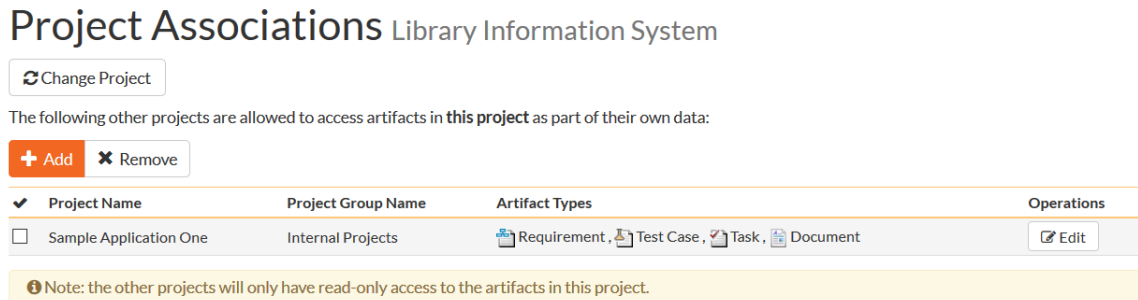
Reverting an artifact will attempt to reset all fields back to the selected change set, reverting all changes made after the selected change set as well. In certain cases, the artifact will not be able to be reverted – cases like this could be caused by other items having been deleted or purged. (For example, if Requirement #1 was linked to Release #4, and that Release does not exist anymore.) In cases like this, no fields will be reverted and the artifact will remain unchanged.

Reverting an item will cause it to be undeleted if it has been deleted.

You can revert multiple items from the History List page – however, the only items that can be reverted back are Deletes and Modifications. All other types will be ignored. When selecting multiple items, you can select more than a single change set for a specific artifact, the artifact will be rolled back to the earliest change set selected.

### 3.1.4. Project Associations

By default, all projects in SpiraTeam are completely self-contained. Artifacts in one project can only be linked or associated with artifacts in the same project. However, for some customers, they need a way to share artifacts between projects. This administration screen lets the project admin specify which other projects can access artifacts in the current project:



Project Associations Library Information System

Change Project

The following other projects are allowed to access artifacts in this project as part of their own data:

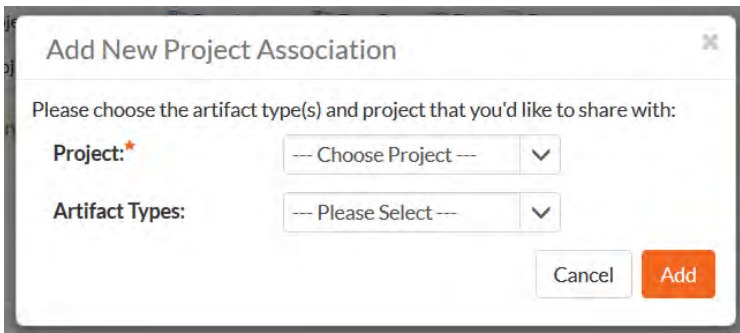
+ Add x Remove

Project Name	Project Group Name	Artifact Types	Operations
<input type="checkbox"/> Sample Application One	Internal Projects	Requirement,  Test Case,  Task,  Document	Edit

Note: the other projects will only have read-only access to the artifacts in this project.

Note: When you share artifacts from the current project to another project, the permissions in the other project will determine which users can see the items, so you need to make sure that is acceptable before enabling the sharing.

To share artifacts with another project, click on the 'Add' button in the toolbar:



Add New Project Association

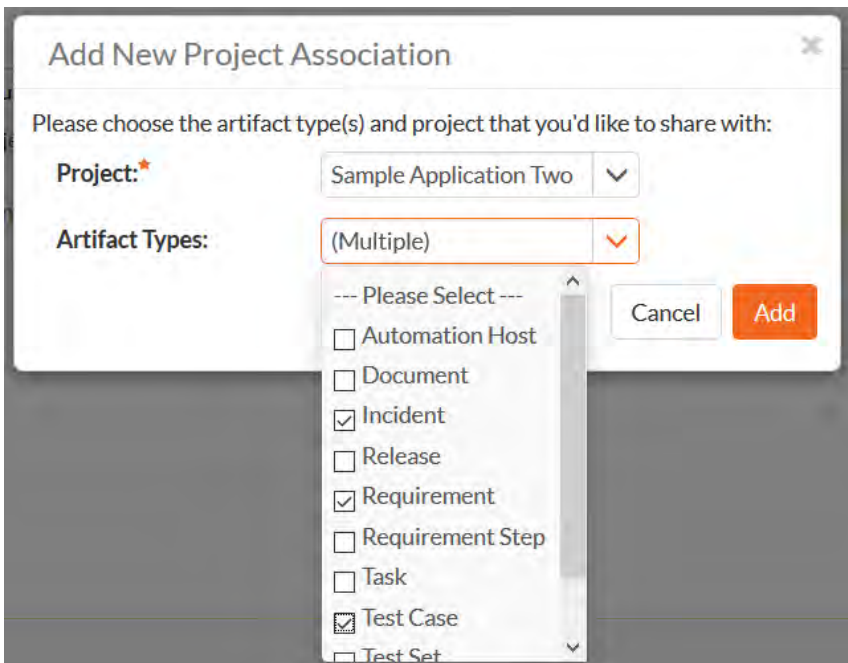
Please choose the artifact type(s) and project that you'd like to share with:

Project:

Artifact Types:

Cancel Add

Select the name of the project you want to share with and choose which artifact(s) you want to share with this project:



When you click the 'Add' button, SpiraTeam will add the new project association to the list:

## Project Associations Library Information System

[Change Project](#)

The following other projects are allowed to access artifacts in **this project** as part of their own data:

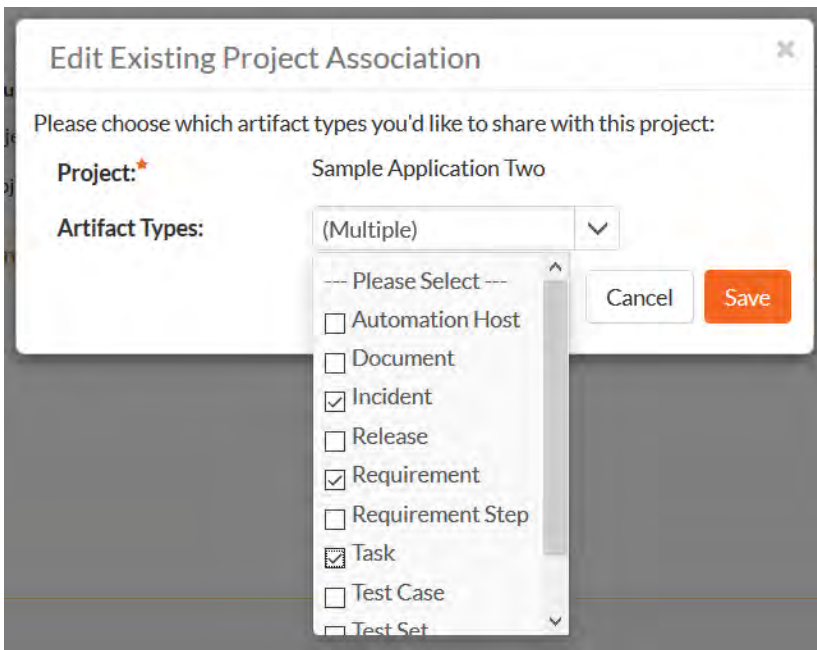
Successfully added the new project association.

[+ Add](#) [x Remove](#)

Project Name	Project Group Name	Artifact Types	Operations
<input type="checkbox"/> Sample Application One	Internal Projects	Requirement,  Test Case,  Task,  Document	<a href="#">Edit</a>
<input type="checkbox"/> Sample Application Two	External Projects	Requirement,  Test Case,  Incident	<a href="#">Edit</a>

**Note:** the other projects will only have read-only access to the artifacts in this project.

You can change the project association (for example to change which artifacts are shared) by clicking on the 'Edit' button to the right:



This updates the association list:

## Project Associations Library Information System

[Change Project](#)

The following other projects are allowed to access artifacts in **this project** as part of their own data:

Successfully updated the project association. ✕

[+ Add](#) [✕ Remove](#)

<input checked="" type="checkbox"/>	Project Name	Project Group Name	Artifact Types	Operations
<input type="checkbox"/>	Sample Application One	Internal Projects	Requirement, Test Case, Task, Document	<a href="#">Edit</a>
<input type="checkbox"/>	Sample Application Two	External Projects	Requirement, Incident, Task	<a href="#">Edit</a>

**Note:** the other projects will only have read-only access to the artifacts in this project.

To remove an association, simply select its checkbox and click 'Remove':

## Project Associations Library Information System

[Change Project](#)

The following other projects are allowed to access artifacts in **this project** as part of their own data:

The selected projects have been removed from the list. ✕

[+ Add](#) [✕ Remove](#)

<input checked="" type="checkbox"/>	Project Name	Project Group Name	Artifact Types	Operations
<input type="checkbox"/>	Sample Application One	Internal Projects	Requirement, Test Case, Task, Document	<a href="#">Edit</a>




**Note:** the other projects will only have read-only access to the artifacts in this project.

### 3.1.5. Project Data Tools

This page contains several different data management tools that can be used to identify certain data issues in the system and correct them. There are two main sections to this page – Data Caching and Indentation Hierarchy:

## Data Tools Library Information System [Change Project](#)

In order to improve the performance of the application, certain types of data is cached. Sometimes after making changes to the underlying data, you might want to refresh the cached information. To do that, click on one of the links below:

 Refresh the Database Indexes
 Refresh the Test Status Cache
 Refresh the Task Progress Cache

Sometimes corrupted indentation information can cause missing or duplicated rows in tables. If any of the flags below show 'Error', you can click on the link to try to fix them:

Requirements: [OK](#) [Correct](#)

Releases: [OK](#) [Correct](#)

#### a) Data Caching

In order to improve the performance of SpiraTeam®, certain types of project data are cached. If for any reason you make changes to test cases, test runs or tasks in the system through the database, you may need to update the cached values for test execution status and task progress that are displayed on the requirements and releases pages. To refresh the execution status or task progress data, click on the appropriate “Refresh” button illustrated above.

#### b) Indentation Hierarchy

The Requirement and Releases pages use an “Indent” system for managing the hierarchy of information. This allows requirements and test cases to be nested under parent items and be rapidly searched and filtered on. Sometimes if a move/copy operation is interrupted (due to a network outage, etc.) the hierarchy may get corrupted. If so, you’ll see a red **Error** message instead of the Green **OK**. If that happens, just click on the appropriate “Correct” button and the system will correct the indent levels for you.



## 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:

View / Edit Users

The following approved users exist in the system. To edit an existing user, please click on the 'Edit' link next to his/her name.  
To create a new user either click on the [Add] button or choose the option to Import from an LDAP server.  
To see any pending new user requests, click on the 'Pending Requests' item in the left hand navigation.

First Name ▲▼	MI ▲▼	Last Name ▲▼	User Name ▲▼	Admin ▲▼	Email ? ▲▼	Department ▲▼	Organization ▲▼	User # ▲▼	Active ▲▼	Operations
			-- Any --		-- Any --			US	-- Any --	
Amy	E	Cribbins	amycribbins	No	No	Software Engineering	US13	Yes	<input type="button" value="Edit"/>	
Bernard	P	Tyler	bernardtyler	No	No	Software Engineering	US11	Yes	<input type="button" value="Edit"/>	
Donna	W	Harkness	donnaHarkness	No	No	Software Engineering	US6	Yes	<input type="button" value="Edit"/>	
Fred		Bloggs	fredbloggs	No	No	QA	US2	Yes	<input type="button" value="Edit"/>	
Henry	J	Cooper	henrycooper	No	No	Software Engineering	US12	Yes	<input type="button" value="Edit"/>	
Jack		Van Stanten	jackvanstanten	No	No	Software Engineering	US7	Yes	<input type="button" value="Edit"/>	
Joe	P	Smith	joesmith	No	No	QA	US3	Yes	<input type="button" value="Edit"/>	
Martha		Noble	marthanoble	No	No	Software Engineering	US10	Yes	<input type="button" value="Edit"/>	
Ricky		Pond	rickypond	No	No	Software Engineering	US5	Yes	<input type="button" value="Edit"/>	
Roger	Q	Ramjet	rogerramjet	No	No	Software Engineering	US4	No	<input type="button" value="Edit"/>	
Rory		Jones	roryjones	No	No	Software Engineering	US9	Yes	<input type="button" value="Edit"/>	
Rose	T	Smith	rosesmith	No	No	Software Engineering	US8	Yes	<input type="button" value="Edit"/>	
System		Administrator	administrator	Yes	Yes		US1	Yes	<input type="button" value="Edit"/>	

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.

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. To sort the list of users, just click on the appropriate arrow icon located in the header row of each field (one each for ascending / descending). In addition, the list of users is paginated into groups of fifteen (15). 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, 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:

## New User Add User

Please review the information listed below and make any changes if necessary. Once you have finished, click [Save/Insert] to confirm them.

### User Information

First Name:*	<input type="text"/>	Department:	<input type="text"/>
Middle Initial:	<input type="text"/>	Organization:	<input type="text"/>
Last Name:*	<input type="text"/>	Email Address:*	<input type="text"/>
User Name:*	<input type="text"/>		

### SpiraTeam Settings

Email Enabled:*	<input checked="" type="checkbox"/> Yes	New Password:*	<input type="text"/>
System Administrator:*	<input type="checkbox"/> No	Confirm Password:*	<input type="text"/>
Locked Out:*	<input type="checkbox"/> No		
Enable RSS Feeds	<input checked="" type="checkbox"/> Yes		
RSS Token:	[B4380EA4-BFB5-478E-832E-D2DA48F0DC]	Password Question:*	<input type="text"/>
	<input type="button" value="Generate New"/>	Password Answer:*	<input type="text"/>

Passwords are required to be a minimum of 6 characters in length.  
Passwords are required to have a minimum of 0 non-alphanumeric characters.

### Project Membership

Projects:	<input type="text" value="--- Choose Project ---"/>	Project Role:	<input type="text" value="--- Select Role ---"/>
-----------	---	---------------	--

On this screen, you can enter information about the user, such as their name, email address, and department. You can also create their password, password reset question and answer. If you want the user to be able to subscribe to items in the system as RSS feeds, you should also make sure that the “Enable RSS Feeds” checkbox is selected and a GUID token is displayed in the text-box underneath.

When creating a new user, you can also set their role for projects. A user can be assigned a role to multiple projects at once, by checking the required checkboxes in the dropdown list of projects. The same role will be applied across all projects.

*Note: If you make a user a System Administrator, it will force that user to always have the ‘Project Owner’ role on all their assigned projects, regardless of the chosen role. If you disable this option, they will then revert back to their true role.*

In a similar way, to edit the details of an existing user, 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:

## Fred Bloggs Edit User

Please review the information listed below and make any changes if necessary. Once you have finished, click [Save/Insert] to confirm them.

### Dates for Latest Activity by User

Last Lockout: - Last Activity: 5/20/2016 10:11:19 AM Last Login: 5/20/2016 10:11:19 AM Last Password Change: -

### User Information

First Name:	Fred	Department:	QA
Middle Initial:		Organization:	
Last Name:	Bloggs	Email Address:	fredbloggs@mycompany.com
User Name:	fredbloggs		

### SpiraTeam Settings

Email Enabled:	<input type="checkbox"/> No	LDAP Managed User:	<input type="checkbox"/> No
System Administrator:	<input type="checkbox"/> No	LDAP DN:	
Active:	<input checked="" type="checkbox"/> Yes	New Password:	
Locked Out:	<input type="checkbox"/> No	Confirm Password:	
Enable RSS Feeds	<input checked="" type="checkbox"/> Yes		Passwords are required to be a minimum of 6 characters in length. Passwords are required to have a minimum of 0 non-alphanumeric characters.
RSS Token:	{7A05FD06-83C3-4436-B37F-51BCF00604}	Password Question:	What is 1+1?
	<input type="button" value="Generate New"/>	Password Answer:	

On this screen you can edit the first name, middle initial, last name, username, email address, system administration status and active status. You can also change the user's password (if the user is managed by SpiraTeam) or LDAP information (if managed by an external LDAP directory server). In LDAP-Managed mode you enter the fully Distinguished Name (DN) for that user in your corporate LDAP server and provide no password. SpiraTeam® will then query your corporate LDAP server for the password information, reducing the number of passwords that a user needs to remember. Please see the sections on *"Importing LDAP Users"* and *"LDAP Configuration"* for more details.

Once you have made the necessary changes, click the "Save" button to commit them. If you decide that you want to ignore the changes, click the "Cancel" button and the changes will be discarded.

At the top of the page you can also see information relating to the activity of the user on the system, such as when they last logged in.

In addition, there are three tabs that allow you to add/remove the user from projects, update the data-mapping used when synchronizing artifacts that are assigned or created by the current user, and, where relevant, specify whether the user can access the linked TaraVault™ source code management service..

If you click on the "Project Membership" tab you will be shown a list of projects that the user is currently a member of:

You can change the role that the user has on the various projects, by choosing the appropriate role from the drop-down list and then clicking [Save]. To remove the user from a project, select its checkbox and then click [Delete]. To add a user to a new project, click on the [Add] button and then choose the project and associated role from the list of projects on the screen that is displayed:

### Henry J Cooper Add User Project Membership

[← Back To User Details](#)

The user is NOT a member of the following projects.

Please select a role for the projects you want to add this user to, then click [Add]:

[Add](#) [Cancel](#)

Project Name	Web Site	Creation Date	Active	ID	Project Role
Sample Application One	<a href="http://www.tempuri.org">http://www.tempuri.org</a>	1-Dec-2005	Yes	PR2	--- Select Role ---
Sample Application Two		1-Dec-2005	Yes	PR3	--- Select Role ---

Then click [Add] to add the selected project(s) to the user’s project membership.

To view/change the list of usernames that a user has in an external bug-tracking system, click on the “Data Mapping” tab. This section is used by the SpiraTeam data-synchronization service to map incidents from SpiraTeam to other bug-tracking systems

Please see the *SpiraTeam External Bug-Tracking Integration Guide* for more details on using the data-mapping tab.

If you click on the TaraVault membership tab, you can choose whether or not the user has access the linked TaraVault source code repository. This service is only available for hosted/cloud instances of SpiraTeam, and more details can be found in section 3.11.4 of this guide.

#### 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 SpiraTeam®, 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 SpiraTeam®, clicking on the “Import Users From and LDAP Server” will bring up the following screen:

## Import Users from LDAP Server

Using the current [LDAP configuration](#), the following new users are available for import into SpiraTeam.  
Please mark the ones you'd like to import then click the [Import] button:

<input checked="" type="checkbox"/>	Common Name ▲▼	Login ▲▼	First Name ▲▼	Middle Initial ▲▼	Last Name ▲▼	Email Address ▲▼	Distinguished Name
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

This screen lists all the users available in the LDAP server that have not been already imported into SpiraTeam®. The users are listed by name along with their login, email address and fully distinguished LDAP name (DN). You can narrow down the list by entering partial name matches in any of the fields displayed and clicking [Filter] and/or you can sort the results by clicking on the directional arrows in the field headings.

Select the checkbox of any users you want to import and click “Import” to complete the operation. These users can now login to SpiraTeam® 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:

## Library Information System Project Membership

[Change Project](#)

The following users are members of this project. To change their role, just select the value in the dropdown and click Update. To add a new user to the project, click [Add]. To remove existing users, select their checkboxes and click [Delete].

[Save](#) [+ Add](#) [x Delete](#)

<input checked="" type="checkbox"/>	Full Name	User Name	Department	Organization	Project Role
<input type="checkbox"/>	Amy E Cribbins	amycribbins	Software Engineering		Incident User <input type="text"/>
<input type="checkbox"/>	Bernard P Tyler	bernardtyler	Software Engineering		Developer <input type="text"/>
<input type="checkbox"/>	Donna W Harkness	donnaharkness	Software Engineering		Tester <input type="text"/>
<input type="checkbox"/>	Fred Bloggs	fredbloggs	QA		Manager <input type="text"/>
<input type="checkbox"/>	Henry J Cooper	henrycooper	Software Engineering		Tester <input type="text"/>
<input type="checkbox"/>	Jack Van Stanten	jackvanstanten	Software Engineering		Developer <input type="text"/>
<input type="checkbox"/>	Joe P Smith	joesmith	QA		Observer <input type="text"/>
<input type="checkbox"/>	Martha Noble	marthanoble	Software Engineering		Tester <input type="text"/>
<input type="checkbox"/>	Ricky Pond	rickypond	Software Engineering		Developer <input type="text"/>
<input type="checkbox"/>	Rory Jones	roryjones	Software Engineering		Developer <input type="text"/>
<input type="checkbox"/>	Rose T Smith	rosesmith	Software Engineering		Tester <input type="text"/>
<input type="checkbox"/>	System Administrator	administrator			Project Owner <input type="text"/>

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, click the “Change Project” button to be taken back to View/Edit Projects screen where you can select a different project.

To modify the role of a user assigned to the project, 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, 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.

To add a user to the project, so that can access its information, click the “Add” button and you will be taken to the following screen that lists all the users in the system that are not currently members of the project:

## Library Information System Add Project Membership

[← Back To Project Membership](#) [Change Project](#)

The following users are NOT members of this project. Please select a role for the users you want to add to the project and click [Add]:

[Filter](#) [x Clear Filter](#) [+ Add](#) [x Cancel](#)

First Name ▲▼	MI ▲▼	Last Name ▲▼	User Name ▲▼	Department ▲▼	Organization ▲▼	ID ▲▼	Project Role
						US	
Donna	W	Harkness	donnaharkness	Software Engineering		US6	--- Select Role --- <input type="text"/>
Martha		Noble	marthanoble	Software Engineering		US10	--- Select Role --- <input type="text"/>



You now should narrow down the list of users by entering filter criteria and clicking [Filter]; you can also sort the results to make viewing easier. Once you have located the appropriate user(s), just select a project role for them from the drop-down list and click [Add] to add them to the project in the specified role.

### 3.2.3. Active Sessions

Often an administrator of the system will want to know how many users are currently logged into the system, especially on installations licensed by concurrent-user. Clicking on the 'Active User Sessions' administration option will display a list of all the users who currently have active sessions in the system:

#### Active User Sessions

You currently have 1 active user(s) in the system. ×

The following users currently have active sessions on this instance of SpiraTeam:

First Name	Last Name	User Name	Session ID	Interface	Last Logon	ID	Operations
System	Administrator	administrator	lgiyejh1uwplazzwnihac0n	Web Application	5/20/2016 9:43:08 AM	US1	<a href="#">End Session</a>

To end a user's session, please click on the appropriate 'End Session' link above.

Each user is displayed along with their user ID, whether they're connected through the application or via a third-party add-on, and the date they last logged-in. The administrator is able to forcibly end a user's session using the 'End Session' link to the right of their name. Clicking this link will result in that user being logged out when they try and perform an operation in the system. **Warning: You should make sure that the user is not actively using the system to prevent any unsaved data being lost.**

### 3.2.4. Pending Requests

If you have enabled the ability for users to register for new SpiraTeam accounts themselves (see section 3.9.6 – Security Settings), clicking on the "Pending Requests" administration option allows you to view a list of all the outstanding requests for new user accounts:

#### View Pending User Requests

The following new user requests exist in the system. To approve a user click the 'Approve' link, to deny a request click on the 'Delete' link.

First Name ▲▼	MI ▲▼	Last Name ▲▼	User Name ▲▼	Email ? ▲▼	User # ▲▼	Active ▲▼	Operations
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	-- Any --	US	-- Any --	

For each pending user request you can choose to either Approve or Deny the request:

- **Approve** – clicking this option will approve the user. They will get an email letting them know that they have been approved and can now log into the system.
- **Delete** – clicking this option will delete the pending user request from the system.

### 3.2.5. 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, tasks 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, tasks, 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 SpiraTeam®, click on the “View / Edit Roles” link in the Administration sidebar navigation:

## View / Edit Roles

The following roles have been defined in the system:

Role Name	Description	Active	ID	Operations
Project Owner	Can see all screens, create/modify all artifacts, and can access the project administration tools	Yes	RX1	<input type="button" value="View"/> <input type="button" value="Delete"/>
Manager	Can see all screens and create/modify all artifacts, but cannot access project administration tools	Yes	RX2	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Developer	Can see all screens, but can only create/modify incidents and tests and change requirement coverage	Yes	RX3	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Tester	Can see all screens, but can only create/modify incidents and execute tests. Note: cannot delete existing incidents	Yes	RX4	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Observer	Can see all screens, but cannot perform any write operations (create / modify / delete)	Yes	RX5	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
Incident User	Can only create/modify/view incidents. This role cannot see a project's requirements, test cases or releases.	Yes	RX6	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

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” button. You can delete an existing role, by clicking the “Delete” button. Note that you cannot delete any of the default roles, but can instead make them inactive.

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

## Manager Edit Role Details

Please review the information listed below and make any changes if necessary. Once you have finished, click [Save] to confirm them.

**Role Name:** \* Manager

**Description:** Can see all screens and create/modify all artifacts

**Project Admin:** \*  No  
Specifies whether this role has project administrative permissions

**Limited View:** \*  No  
Specifies whether this role has limited view permissions. Use this for roles that should only let a user see their own created/assigned items and nothing else in the project.

**Active:** \*  Yes  
Specifies whether this role is active or not

On the top of the screen, you can edit the name, description, project admin, limited view and active flags:

- **Project Admin** – this flag denotes whether this role has administration-level access to the project (for example the project owner role has this set by default)
- **Limited View** – this flag denotes that the role has a restricted view of the project, with the user only allowed to see the artifacts that they have either *created* or been *assigned*
- **Active** – This flag denotes if the role is active in the system

Underneath you can specify the various artifact-specific permissions for the role:

## Artifact Permissions

This role can perform the following operations on the various artifacts:

Artifact Type	Create	Modify All	Delete	View	Modify Owned	Bulk Edit
Automation Host	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Document	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Incident	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Placeholder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Release	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Requirement	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Requirement Step	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Task	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Test Case	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Test Run	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Set	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Test Step	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

These permission options 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. There are two kinds of Modify permission available:

- **Modify All** – this option specifies that the user can modify all the artifacts of this type in the project (e.g. the user can edit all test cases)
- **Modify Owned** – this option specifies that the user can modify only the artifacts in the project that were either created or assigned to this user (e.g. the user can edit only the requirements they created or have been assigned)

*Note: The permission needed to execute a test case is the “Create + Test Run” permission since that initiates the creation of a new test run.*

In addition, there are some artifact-wide permissions that can be specified for each role:

## Other Permissions

This role can perform the following operations throughout the system:

Artifact Type	Add	Edit	Delete	View
Document Folder	-	<input checked="" type="checkbox"/>	-	-
Comment	<input checked="" type="checkbox"/>	-	-	-
Source Code	-	<input checked="" type="checkbox"/>	-	<input checked="" type="checkbox"/>

This section lets you specify if the role allows users to add new documents to the project, edit existing documents, delete documents, edit the document folders, and view/edit source code revisions.

### 3.3. Custom Properties

SpiraTeam allows you to customize all of the artifacts in the system (requirements, test cases, incidents, etc.) by adding user-defined custom properties in addition to the built-in fields. You can create a variety of different types of custom properties. This section describes how you setup different custom lists and custom properties in your projects.

Artifacts in SpiraTeam can have up to 30 different custom properties per artifact-type, per project. There are different types of custom properties allowed:

- **Text:** Normal or Rich-Text field.
- **Integer:** Whole-Number entry.
- **Decimal:** Fractional number entry (currency, etc.)
- **Boolean:** Simple yes/no (on/off) checkbox.
- **Date:** Date selector.
- **List:** Custom List selector.
- **Multi-List:** Custom List selector that allows multiple values.
- **User:** List of assignable users.

Each custom property can have optional settings applied to it. Optional settings are as follows. (Note that not all settings are allowed for all property types.)

- **Default:** The default value when a new artifact is created.
- **Allow Empty:** Whether or not an empty value is allowed.
- **Precision:** (Decimal Only) How many decimal places is allowed (or the value is rounded to).
- **Minimum Value:** The minimum value allowed.
- **Maximum Value:** The maximum value allowed.
- **Minimum Length:** The minimum length of the data required in the field.
- **Maximum Length:** The maximum length of the data allowed in the field.
- **Rich Text:** Whether or not the text field allows HTML or not.
- **Custom List:** The defined Custom List for the field that users can select from.

**Important:** Note that setting 'Allow Empty' to No will override any *workflow step* definitions, and will always require a value to be entered in, even if the workflow is configured to have the field disabled!

### 3.3.1. Edit Custom Lists

If you are planning on having any list based custom properties in your project, then you first need to create and populate the custom project lists that the user will be able to select from. These lists are stored separately from the individual artifact types so that you can have one set of values (e.g. list of operating systems under test) be reused by multiple artifact types.

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

#### Edit Custom Lists Library Information System

[↻ Change Project](#)

The following custom lists have been created in this project. To add a new custom list, please click on the “Add List” option, to remove a custom list click the appropriate “Remove” button and to edit a custom list (including its values), click on the “Edit Values” button.

[+ Add List](#)

List #	List Name	# Values	Actions
[CL:1]	Difficulty	3	<a href="#">Edit Values</a> <a href="#">✕ Remove</a>
[CL:2]	Classification	2	<a href="#">Edit Values</a> <a href="#">✕ Remove</a>
[CL:3]	Test Type	3	<a href="#">Edit Values</a> <a href="#">✕ Remove</a>
[CL:4]	Operating System	7	<a href="#">Edit Values</a> <a href="#">✕ Remove</a>
[CL:5]	Web Browser	4	<a href="#">Edit Values</a> <a href="#">✕ Remove</a>
[CL:6]	Step Type	2	<a href="#">Edit Values</a> <a href="#">✕ Remove</a>

The screen displays all the custom lists currently defined within the project, together the number of values associated with each list. By default the screen will initially be empty so the first thing you need to do is click “Add List” to create a new custom list:

#### New List Edit Custom List Values

[← Back to Custom Lists](#)

List Name:

Selector Display Sorting:  [v](#)

The following custom values have been created for this list. Please make any changes and click [Save].  
To remove an existing custom list value just click the 'Remove' link.  
To add a new value, click the 'Add Value' link at the bottom of the grid.

Displaying:  [v](#)

List Value #	Value	Active	Status	Actions
No list values defined. <a href="#">Add Value</a>				
<a href="#">+ Add Value</a>				

[Save](#) [Cancel](#)

After changing the name of the list, and specifying whether the values will be ordered by their name or the order in which they were entered (called by ID), you can either click “Save” to commit the change, or click the “Add Value” option to add some list values:



## Database Platforms Edit Custom List Values

[← Back to Custom Lists](#)

List Name:

Selector Display Sorting:  ▼

The following custom values have been created for this list. Please make any changes and click [Save].  
To remove an existing custom list value just click the 'Remove' link.  
To add a new value, click the 'Add Value' link at the bottom of the grid.

Displaying:  ▼

List Value #	Value	Active	Status	Actions
[PV:24]	MongoDB	<input checked="" type="checkbox"/>	Active	<a href="#">✕ Delete</a>
[PV:22]	My SQL	<input checked="" type="checkbox"/>	Active	<a href="#">✕ Delete</a>
[PV:23]	RethinkDB	<input checked="" type="checkbox"/>	Active	<a href="#">✕ Delete</a>
<a href="#">+ Add Value</a>				

This is the set of values that the user will select from the drop-down list when the custom property is displayed. You can change the display to include:

- **All Active** – displays only custom list values that are active
- **All But Deleted** – displays all custom list values that are active or inactive but have not been deleted
- **All** – displays all custom list values, including those that have been deleted

To add a new custom list value, click the “Add Value” button and a new row will be added to the list which you can now edit. To edit an existing custom list value, change the name in the textbox and click “Save”. To delete a custom list value, click on the “Delete” hyperlink. If you want to remove an item from the list temporarily, you can set its Active dropdown list to ‘No’, if you want to remove an item permanently, just click the ‘Delete’ button.

*Note: Even if you delete a custom list value, there is an option to undelete by simply changing the display selection to “All” and clicking the ‘Undelete’ hyperlink next to a deleted value.*

To edit an existing custom list, you just need to click on the “Edit Values” button to display the custom list name and list of associated values (which is the same screen as the one displayed for a new list). To remove a custom list from the project, just click on the “Remove” button next to the custom list and the list and all its associated values will be deleted from the project.

### 3.3.2. Edit Custom Properties

This option is used to actually define the custom properties associated with each artifact type in the project. The following screen is displayed when you choose the “Edit Custom Properties” link from the Administration sidebar navigation:

## Edit Custom Properties Library Information System

 Change Project

The following custom properties are currently defined for the selected artifact type. To view the custom properties for a different artifact type, please change the type in the dropdown list below. You can add, edit or remote custom property definitions by clicking the appropriate link in the grid below:

Artifact Type:

Field #	Property Name	Type	Legacy Name	Actions
1	URL	Text	TEXT_01	<input type="button" value="Edit Definition"/> <input type="button" value="Remove"/>
2	Difficulty	List	LIST_01	<input type="button" value="Edit Definition"/> <input type="button" value="Remove"/>
3	Classification	List	LIST_02	<input type="button" value="Edit Definition"/> <input type="button" value="Remove"/>
4	Notes	Text	TEXT_02	<input type="button" value="Edit Definition"/> <input type="button" value="Remove"/>
5	Review Date	Date		<input type="button" value="Edit Definition"/> <input type="button" value="Remove"/>
6	Ranking	Integer		<input type="button" value="Edit Definition"/> <input type="button" value="Remove"/>
7	Decimal	Decimal		<input type="button" value="Edit Definition"/> <input type="button" value="Remove"/>
8				<input type="button" value="+ Add Definition"/>
9				<input type="button" value="+ Add Definition"/>

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 thirty (30) custom properties of various types.

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. This will refresh the list to show the custom properties for that artifact type.

To edit an existing custom property definition or add a new definition, click the “Edit Definition” button for a specific property, and the following dialog will be displayed:

Custom Property #1 Definition

Definition Options

Name:

Type:  ▼

The fields visible will vary depending on the type of custom property you have selected, but every custom property will need to have a Name and a Type. The Name is the caption that will be shown to the user when viewing or editing the artifact. The type is the type of data the field allows. If the custom property is either a List or Multi-List type, you will need to choose the associated Custom List that you previously defined.

Under the Options tab will be available options that can be set for the custom property:

Definition Options

Default:

Allow Empty:  ▼

Minimum Length:

Maximum Length:

Rich Text:  ▼

When finished, click the 'Save' button and you will be returned to the Custom Property list.

**Important:** When changing a custom property's type or removing a custom property, the data is not actually removed from the artifact. Therefore, if you change a custom property from a date type to a text custom property, the field will display the old date value until it is changed by the user.

### 3.4. Incidents

In addition to being able to create custom properties and values for incidents (same as for all artifacts in SpiraTeam®), 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:

### 3.4.1. Edit Types

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

## Edit Incident Types Library Information System

[Change Project](#)

The following incident types have been defined in the current project:

ID	Name	Workflow	Issue	Risk	Default	Active
IT2	<input type="text" value="Bug"/>	Default Workflow <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/> Yes
IT7	<input type="text" value="Change Request"/>	Default Workflow <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/> Yes
IT3	<input type="text" value="Enhancement"/>	Default Workflow <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/> Yes
IT1	<input type="text" value="Incident"/>	Default Workflow <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/> Yes
IT4	<input type="text" value="Issue"/>	Default Workflow <input type="button" value="v"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/> Yes
IT6	<input type="text" value="Limitation"/>	Default Workflow <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/> Yes
IT8	<input type="text" value="Risk"/>	Default Workflow <input type="button" value="v"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/> Yes
IT5	<input type="text" value="Training"/>	Default Workflow <input type="button" value="v"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/> Yes

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 SpiraTeam® incident types. To edit an existing incident type, 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 “Save”. 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.

### 3.4.2. Edit Statures

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

## Edit Incident Statuses Library Information System

[Change Project](#)

The following incident statuses have been defined in the current project:

ID	Name	Open	Default	Active
IS3	Assigned	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="checkbox"/>
IS5	Closed	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
IS7	Duplicate	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
IS1	New	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>
IS6	Not Reproducible	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
IS2	Open	<input checked="" type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
IS8	Reopen	<input checked="" type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
IS4	Resolved	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="checkbox"/>

[Save](#) [Add](#)

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 SpiraTeam® incident statuses. To edit an existing incident status, change the name, open check-box, set it as the default status and/or change the active flag then click “Save”.

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 “Save”. 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.

### 3.4.3. Edit Priorities

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

## Edit Incident Priorities Library Information System

[Change Project](#)

The following incident priorities have been defined in the current project:

ID	Name	Color	Active
IP1	1 - Critical	# f47457 	<input checked="" type="checkbox"/>
IP2	2 - High	# f29e56 	<input checked="" type="checkbox"/>
IP3	3 - Medium	# f5d857 	<input checked="" type="checkbox"/>
IP4	4 - Low	# f4f356 	<input checked="" type="checkbox"/>

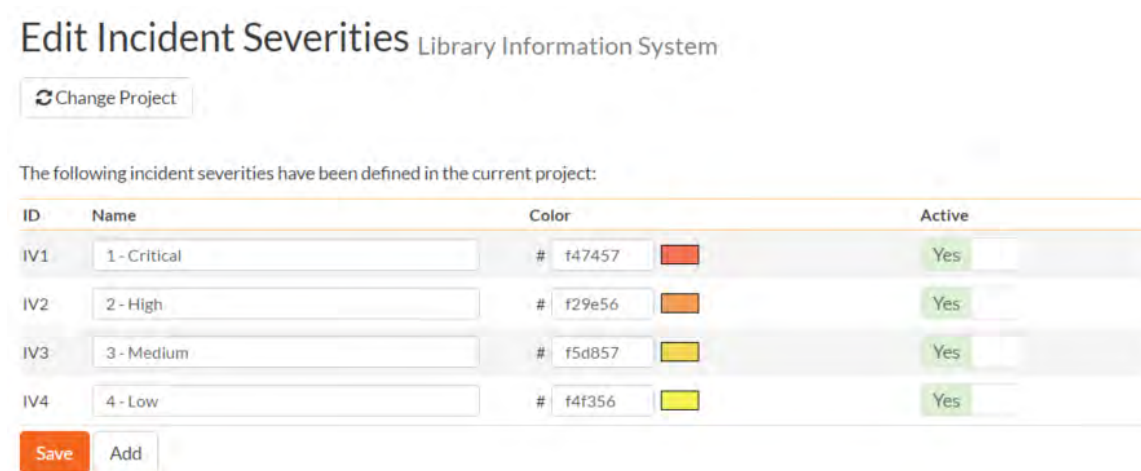
[Save](#) [Add](#)

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 SpiraTeam® incident priorities. To edit an existing incident priority, change the name, color and/or change the active flag then click “Save”. 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 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 “Save”. 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.

### 3.4.4. 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 SpiraTeam® incident severities. To edit an existing incident severity, change the name, color and/or change the active flag then click “Save”. 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 “Save”. 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.

### 3.4.5. Incident 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:



## Incident Workflows Library Information System

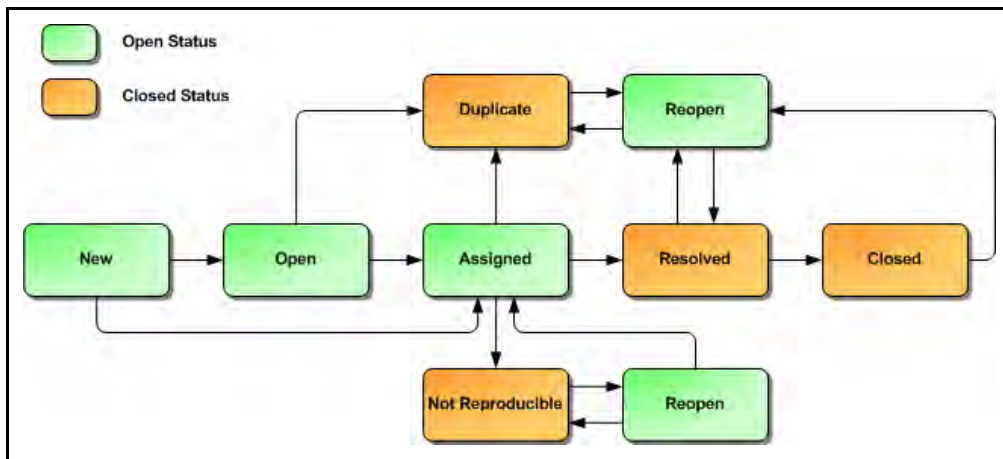
[Change Project](#)

There are the various workflows available in the project. To add a new workflow, click the 'Add Workflow' button, to edit an existing workflow, click on the 'Steps' button.

Workflow Name	Default	Notify	Active	Workflow #	Operations
Default Workflow	<input type="radio"/>	<input checked="" type="checkbox"/>	Yes	WK1	<a href="#">Steps</a> <a href="#">Clone</a> <a href="#">Delete</a>
<a href="#">+ Add Workflow</a>					
<a href="#">Save</a> <a href="#">Cancel</a>					

To modify the name, default status, notify and/or active flags, 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, click the "Add" button and a new workflow will be created with the standard SpiraTeam® 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 types follow different paths from creation to closure. However when a new incident type is created, it will be initially associated with the project's default workflow. The steps and transitions that make up the default workflow are illustrated in the diagram below:



The notify flag is used to tell SpiraTeam® 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.

### 3.4.5.1. Edit Workflow Details

Clicking on the “Steps” button of a workflow brings up the following screen that lists all the workflow steps and workflow transitions that comprise the workflow:

< **Default Workflow** View/Edit Workflow Steps

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

Step Name	Transitions	Status #	Operations
Assigned →	Duplicate Incident × → Duplicate Resolve Incident × → Resolved Unable to Reproduce × → Not Reproducible	IS3	+ Add Transition
Closed →	Reopen Incident × → Reopen	IS5	+ Add Transition
Duplicate →	Reopen Incident × → Reopen	IS7	+ Add Transition
New <small>Default</small> →	Assign Incident × → Assigned Review Incident × → Open	IS1	+ Add Transition
Not Reproducible →	Reopen Incident × → Reopen	IS6	+ Add Transition
Open →	Assign Incident × → Assigned Duplicate Incident × → Duplicate	IS2	+ Add Transition
Reopen →	Assign Incident × → Assigned Duplicate Incident × → Duplicate Resolve Incident × → Resolved Unable to Reproduce × → Not Reproducible	IS8	+ Add Transition
Resolved →	Close Incident × → Closed Reopen Incident × → Reopen	IS4	+ 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.

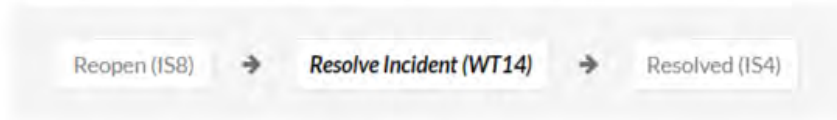
Clicking on the name of a step or transition takes you to the appropriate details page (see below) where you can set the properties of the step or transition respectively. To delete an existing transition, click the “x” button after the transition name, and to add a new transition, click the “Add Transition”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

### 3.4.5.2. Edit Workflow Transition

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

## Resolve Incident (WT14) Edit Workflow Transition

You can change the name and permissions associated with this workflow operation:



### Workflow Transition Details

**Name:**

**Notification Subject:**

[\(Display Email Subject Special Tokens\)](#)

**Require electronic signature:**

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.

This part of the screen lets you change the name of the transition and specify the subject line of any email notifications sent as part of this transition. To view the list of special tokens that can be used in the email subject, click on the “Display Email Subject Special Tokens” hyperlink:

**Email Notification Tokens**

The following are all available tokens for Incidents and their meanings. Tokens not in this list will be taken out of the final message. Click on a token to insert it into the current cursor position in the editor above.

<a href="#">\${ActualEffort}</a>	The actual effort, in HH:MM.	<a href="#">\${Build}</a>	The build that the incident was fixed in
<a href="#">\${ClosedDate}</a>	The artifact closed date.	<a href="#">\${CompletionPercent}</a>	The percent complete.
<a href="#">\${ComponentIds}</a>	The component(s) the incident is a part of	<a href="#">\${Description}</a>	The description of the artifact.
<a href="#">\${DetectedRelease}</a>	The detected release name.	<a href="#">\${EstimatedEffort}</a>	The estimated effort, in HH:MM.
<a href="#">\${IncidentType}</a>	The incident type.	<a href="#">\${Name}</a>	The name of the artifact.
<a href="#">\${Opener}</a>	The name of the Opener.	<a href="#">\${Owner}</a>	The name of the Owner.
<a href="#">\${Priority}</a>	The artifact's Priority.	<a href="#">\${RemainingEffort}</a>	The remaining incident effort
<a href="#">\${Resolution}</a>	Comments posted to the incident.	<a href="#">\${ResolvedRelease}</a>	The resolved release name.
<a href="#">\${Severity}</a>	The artifact's Severity.	<a href="#">\${StartDate}</a>	The start date of the artifact.
<a href="#">\${VerifiedRelease}</a>	The verified release name.	<a href="#">\${URL}</a>	URL to link to artifact.
<a href="#">\${NotifyTo}</a>	The notification receiver's name.	<a href="#">\${Product}</a>	The name of the application.
<a href="#">\${ProjectName}</a>	The name of the project.	<a href="#">\${ID#}</a>	The ID# of the item.

If a digital signature from the user is required to authorize and record the transition, set the toggle to yes for "Require Electronic Signature".

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):

## Conditions

The following users / roles are allowed to execute this transition:

Condition Type	Condition Data
The detector of this Incident can execute:	No
The owner of this Incident can execute:	Yes
Users with the specified roles can execute:	Project Owner: <input type="checkbox"/>
	Manager: <input type="checkbox"/>
	Developer: <input type="checkbox"/>
	Tester: <input type="checkbox"/>
	Observer: <input type="checkbox"/>
	Incident User: <input type="checkbox"/>

Save Cancel

Each transition also has a set of notification rules that allow you to specify who should get an email notification if the transition is executed.

## Notifications

The following users / roles are notified by email when this transition is executed:

Notification Type	Notification Data
The detector of this Incident is notified:	<input checked="" type="checkbox"/> Yes
The owner of this Incident is notified:	<input type="checkbox"/> No
Users with the specified roles are notified:	<input type="checkbox"/> Project Owner:
	<input type="checkbox"/> Manager:
	<input type="checkbox"/> Developer:
	<input type="checkbox"/> Tester:
	<input type="checkbox"/> Observer:
<input type="checkbox"/> Incident User:	

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.

### 3.4.5.3. 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:

< Assigned Edit Workflow Step Details

Assign Incident (WT2) → Assigned (IS3) → Duplicate Incident (WT7)

Assign Incident (WT3) → Resolve Incident (WT5)

Assign Incident (WT13) → Unable to Reproduce (WT6)

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 SpiraTeam® such as Priority):

## Incident Fields

The following Incident fields are hidden/disabled/required at this step in the workflow:

Field Name	Hidden	Disabled	Required
Actual Effort	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fixed Build	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closed On	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Component	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Detected Release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Est. Effort	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Type	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Name	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Detected By	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Owned By	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Priority	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Remaining Effort	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Resolved Release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Started On	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Verified Release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This page also allows you to define the behavior of the various incident custom properties for this particular step in the workflow:



## Incident Custom Properties

The following Incident custom properties are hidden/disabled/required at this step in the workflow:

Name	Type	Hidden	Disabled	Required
Notes	Text	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operating System	MultiList	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Web Browser	MultiList	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internal?	Boolean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ranking	Integer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review Date	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulty	List	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reviewer	User	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decimal	Decimal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

You can set each of the fields/custom properties as being:

- **Hidden** – The field / custom property will not be displayed when the incident is in this status
- **Disabled** – The field / custom property will be displayed, but will be greyed-out and read-only
- **Required** – The field / custom property will be required when the incident is in this status

Note that you cannot set a field/property as being required and either disabled or hidden 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 hidden (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.

### 3.5. Requirements

This section contains administrative options that are specific to the requirements functionality in the system.

#### 3.5.1. Edit Components

SpiraTeam lets you define a list of Components for each project. These components represent the main functional areas of the system and requirements can be associated with each of the defined components.

## Edit Components Library Information System

[Change Project](#)

The following components have been defined in this project. Please make any changes and click Save to commit:

Displaying:

ID	Name	Active	Status	Operations
[CP:3]	Administration	<input checked="" type="checkbox"/>	Active	<input type="button" value="X Delete"/>
[CP:2]	Author Management	<input checked="" type="checkbox"/>	Active	<input type="button" value="X Delete"/>
[CP:1]	Book Management	<input checked="" type="checkbox"/>	Active	<input type="button" value="X Delete"/>
<a href="#">+ Add Component</a>				

This page lets you display the list of components based on three predefined filters:

- **All Active** – This displays only the components that are listed as Active = Yes. Only active components will be displayed inside the main application.
- **All But Deleted** – This displays all the components (active and inactive) except those that have been deleted.
- **All** – This displays all the components (active, inactive, and deleted).

From this page you can click on the 'Add Component' option to add a new component in the list:

The following components have been defined in this project. Please make any changes and click Save to commit:

Displaying:

ID	Name	Active	Status	Operations
[CP:3]	Administration	<input checked="" type="checkbox"/>	Active	<input type="button" value="X Delete"/>
[CP:2]	Author Management	<input checked="" type="checkbox"/>	Active	<input type="button" value="X Delete"/>
[CP:1]	Book Management	<input checked="" type="checkbox"/>	Active	<input type="button" value="X Delete"/>
[CP:-1]		<input checked="" type="checkbox"/>	Active	
<a href="#">+ Add Component</a>				

After entering the name of the new component and choosing its Active status, click on 'Save' to commit the new item. To edit an existing component, edit its name and Active status and click 'Save'. Finally to delete a component, click the 'Delete' option next to its name. Once deleted, an item can be undeleted by changing the display to 'All' and then clicking 'Undelete'.

### 3.5.2. Requirement Workflows

Clicking on the "Edit Workflows" link under the Requirements heading, brings up the list of defined requirement workflows for the current project. A workflow is a predefined sequence of requirement statuses linked together by "workflow transitions" to enable a newly created requirement to be reviewed, prioritized, assigned, developed and tested, as well as to handle exception cases such as the case of a rejected or obsolete requirement. The workflow list screen for the sample project is illustrated below:

The following requirement types exist in the system. You can specify for this project, which workflows will be used for each requirement type:

Name	Workflow	ID
Design Element	Default Workflow	6
Feature	Default Workflow	2
Need	Default Workflow	1
Quality	Default Workflow	5
Use Case	Default Workflow	3
User Story	Default Workflow	4

There are the various requirement workflows available in the project. To add a new workflow, click the Add Workflow link, to edit an existing workflow, click on the Steps hyperlink:

Workflow Name	Default	Active	Workflow #	Operations
Default Workflow	<input type="radio"/>	<input checked="" type="checkbox"/> Yes	WK1	<a href="#">Steps</a> <a href="#">Clone</a> <a href="#">Delete</a>

[+ Add Workflow](#)

[Save](#) [Cancel](#)

The screen displays a list of all the standard requirement types in the system. The associated workflow drop-down list allows you to specify which workflow the requirement type will follow. This is a very powerful feature since it allows you to configure different workflows for different requirement types; i.e. a User Story may follow a simpler review process than a Feature or Use Case requirement.

You can have as many workflows as you like in a project, but only one can be marked as the default. Each requirement type must be assigned to a workflow. To modify the name, default flag, and/or active flag of an existing workflow, change the values in the appropriate text-box, radio-button, or drop-down list and click the "Save" button. To add a new workflow, click the 'Add Workflow' link and a new workflow will be created with the standard SpiraTeam® steps and transitions.

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

### 3.5.2.1. Edit Workflow Details

Clicking on the 'Steps' button of a workflow brings up the following screen that lists all the workflow steps and workflow transitions that comprise the workflow:

< **Default Workflow** View/Edit Workflow Steps

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

Step Name	Transitions	Status #	Operations
Requested <small>Default</small> →	<p>Accept Requirement ✕ → Accepted</p> <p>Review Requirement ✕ → Under Review</p>	1	+ Add Transition
Under Review →	<p>Accept Requirement ✕ → Accepted</p> <p>Reject Requirement ✕ → Rejected</p>	7	+ Add Transition
Rejected →	<p>Return to Review ✕ → Under Review</p>	6	+ Add Transition
Accepted →	<p>Assign Release ✕ → Planned</p> <p>Return to Review ✕ → Under Review</p>	5	+ Add Transition
Planned →	<p>Remove from Plan ✕ → Accepted</p> <p>Start Development ✕ → In Progress</p>	2	+ Add Transition
In Progress →	<p>Cancel Development ✕ → Planned</p> <p>Finish Development ✕ → Developed</p> <p>Mark as Completed ✕ → Completed</p>	3	+ Add Transition

This page lists in the left-most column all the various requirement statuses defined in the system. 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 Requested status, depending on your role (see later) the user can move the requirement to either Accepted or Under Review, depending on which transition the user takes.

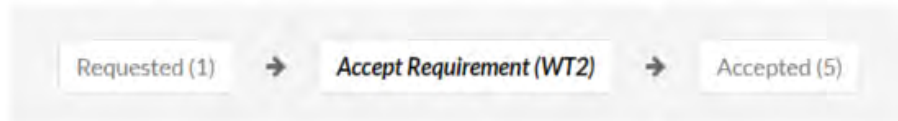
Clicking on the name of a step or transition takes you to the appropriate details page (see below) where you can set the properties of the step or transition respectively. To delete an existing transition, click the 'x' button after the transition name, and to add a new transition, click the 'Add Transition'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

### 3.5.2.2. Edit Workflow Transition

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

## < Accept Requirement (WT2) Edit Workflow Transition

You can change the name and permissions associated with this workflow operation:



### Workflow Transition Details

Name\*:

Require electronic signature:

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 requirement 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.

This part of the screen lets you change the name of the transition. If a digital signature from the user is required to authorize and record the transition, set the toggle to yes for “Require Electronic Signature”.

In addition, each transition has a series of conditions which need to be satisfied for a user to actually execute the transition (i.e. move the requirement from the originating status to the destination status):

### Conditions

The following users / roles are allowed to execute this transition:

Condition Type	Condition Data
The author of this requirement can execute::	No
The owner of this requirement can execute::	No
Users with the specified roles can execute:	Project Owner: <input checked="" type="checkbox"/>
	Manager: <input checked="" type="checkbox"/>
	Developer: <input type="checkbox"/>
	Tester: <input type="checkbox"/>
	Observer: <input type="checkbox"/>
Incident User: <input type="checkbox"/>	

The conditions section allows you to set three types of user role:

- The author of the requirement can be allowed to execute the transition. For example, when a requirement is marked as Completed, the author might be allowed to move it to Obsolete when it's no longer applicable.

- The owner of the requirement can be allowed to execute the transition. For example, when a requirement is marked as Under Review, the assigned owner should be the only one who's allowed to move it to Accepted.
- A user with a specified role can be allowed to execute the transition regardless of whether they are the author or owner. For example a user with role "Manager" might want the power to close all requirements regardless of ownership status.

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

### 3.5.2.3. Edit Workflow Step

When you click on the requirement 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 requirement 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 requirement fields (i.e. those that are a standard part of SpiraTeam® such as Importance):



## Requirement Fields

The following requirement fields are hidden/disabled/required at this step in the workflow:

Field Name	Hidden	Disabled	Required
Author	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Component	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Estimate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Importance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Requirement Name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Owner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Release	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This page also allows you to define the behavior of the various requirement custom properties for this particular step in the workflow:

## Requirement Custom Properties

The following requirement custom properties are hidden/disabled/required at this step in the workflow:

Name	Type	Hidden	Disabled	Required
URL	Text	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulty	List	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Classification	List	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes	Text	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review Date	Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ranking	Integer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decimal	Decimal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

You can set each of the fields/custom properties as being:

- **Hidden** – The field / custom property will not be displayed when the requirement is in this status
- **Disabled** – The field / custom property will be displayed, but will be greyed-out and read-only
- **Required** – The field / custom property will be required when the requirement is in this status

Note that you cannot set a field/property as being required and either disabled or hidden since this would prevent a user from ever updating the requirement. For example, when a requirement is in the Requested status, you might make the owner field hidden (since the author shouldn't need to know who will ultimately own it), when it gets to the Accepted status, you might make the field enabled, and when it gets to the In Progress status, you might make it enabled 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 “Save” button.

## 3.6. Planning

The Planning section is only available for installations of SpiraPlan® and SpiraTeam®, not SpiraTest® and lets you configure functionality related to project estimation and planning.

### 3.6.1. Planning Options

The Planning Options page lets you configure the schedule and calendar options for the various project estimation and planning modules. The settings are specific to each project:

Planning Options Library Information System

[Change Project](#)

The following schedule and calendar options are currently being used by this project. To change the settings, just modify the values and then click [Save] to commit the changes.

Once you are happy with the changes, it is recommended you refresh the schedule and progress information in the project through the [Data Caching](#) administration screen.

---

**General**

Work Hours Per Day:	8	hours
Work Days Per Week:	5	days
Non-Working Hours Per Month:	0	hours
Effort Calculations:	<input checked="" type="checkbox"/>	Include Task Effort
	<input checked="" type="checkbox"/>	Include Incident Effort
	<input type="checkbox"/>	Include Test Case Effort

---

**Requirements**

Default Estimate:	1.0	points
Point Effort:	8.0	hours <a href="#">Suggest</a>
<small>This is the conversion factor used to determine the number of person-hours per estimated point.</small>		
Auto-Create Tasks:	<input checked="" type="checkbox"/>	Create a new task when Requirement becomes 'In-Progress'
Auto-Planned:	<input checked="" type="checkbox"/>	When you assign a release to a requirement, it changes to the 'Planned' status automatically.
Use Task Status:	<input checked="" type="checkbox"/>	When all tasks switch to Completed, the associated requirement will change status to Developed automatically.
Use Test Status:	<input checked="" type="checkbox"/>	When all test cases are Passed, the associated requirement will change status to Tested automatically.

---

**Tasks & Incidents**

Default Effort:	6.0	hours
	<small>Tasks (Estimated Effort)</small>	
Time Tracking:	<input checked="" type="checkbox"/>	Enabled For Tasks
	<input checked="" type="checkbox"/>	Enabled for Incidents

[Save](#) [Cancel](#)

This page allows you to make changes to the following settings:

#### **General**

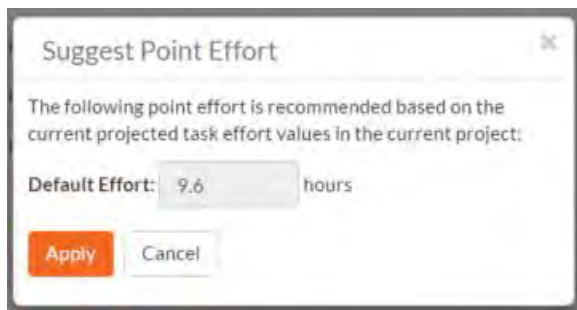
- **Work Hours Per Day** – this setting allow you to specify how many work hours should be used when converting an effort calculation from hours to calendar days. For example a 12 hour task

will occupy two days if you set the working hours per day to 6 hours, whereas the same task will occupy 1 ½ days only if you set the working hours per day to 8 hours.

- **Work Days Per Week** – this setting allows you to specify how many days in the week are *typically* worked on the project. By default the system assumes a 5-day (Mon-Fri) working week, but if your organization works Saturdays (for example), you may want to switch to a 6-day working week. If you want to use partial days, then just round up to the nearest day and add non-working hours (see below) to compensate.
- **Non-Working Hours Per Month** – this setting allows to specify how many non-working hours *typically* need to be accounted for. This is useful if you want to have a working week that contains a fractional number of days or if you have recurring activities that need to be removed from each month. *Note that if you have specific holidays, vacation days that need to be accounted for, it is better to use the Release/Iteration non-working time feature instead.*
- **Effort Calculations** – When calculating how much effort has been scheduled in a release or iteration, the system will aggregate the individual effort values (both estimated and actual) for all the task, incident and test cases artifacts associated with the release/iteration. This setting allows you to specify if you want only task, incident, or test case effort values to be included in the release/iteration total. This is useful if your project management methodology requires that incident or test case effort values be excluded from the total.

### Requirements

- **Default Estimate** – Normally when you create a new Requirement in the system it will be given an empty initial estimate (in points). However if many requirements are typically a standard size, then as a time-saver, the system will let you specify a default estimate value that will be used when a new requirement is created.
- **Point Effort** – When requirements are added to the Planning Board or Iteration planning screen, they will have an initial effort (in hours) that is used until tasks are added (see Auto-Create Tasks option). This field contains the standard conversion factor used to convert points into hours based on the current team velocity (how much time it takes on average to accomplish one story point). As the project progresses, the team velocity will change, so you can click on the [Suggest] button to have the system calculate how many hours each existing story point has taken to implement in the project and provide that as a recommendation:



- **Auto-Create Tasks** – When you change the status of a Requirement in the system to “In-Progress” the system will automatically add a default Task to that requirement if no tasks already exist. This is a useful shortcut that makes planning with requirements easier in the case when the requirements are of a size where they don’t need to be formally decomposed into multiple developer tasks. However if you don’t want the system to automatically create tasks in, you can deselect the option for the current project and it will turn off the feature.

- **Auto-Planned** – When this option is enabled, if you assign a release/iteration to a requirement, and the requirement is not already in the 'Planned' status, the system will automatically switch the status of the requirement to 'Planned'.
- **Use Task Status** – When this option is enabled, if you add any tasks to a requirement, the status of the requirement will be automatically governed by the aggregate status of the associated tasks.
- **Use Test Status** - When this option is enabled, if you associate any test cases to a requirement, the status of the requirement will be automatically switched from 'Developed' to 'Tested' when all the associated test cases are passed.

### **Task & Incidents**

- **Default Effort** – Normally when you create a new Task in the system it will be given an empty initial estimated effort. However if many tasks are typically a standard size, then as a time-saver, the system will let you specify a default estimated effort that will be used when a new task is created.
- **Time Tracking** – SpiraTeam® has an integrated time tracking system that allows the easy entry of the hours spent on all assigned incidents and tasks in one place (see the *SpiraTeam User Manual* for more details on this feature). This setting allows administrators to specify if they want the integrated time tracking features enabled for both incidents or tasks (or neither).

### **3.6.2. Release Workflows**

Clicking on the “Release Workflows” link under the Planning heading, brings up the list of defined release workflows for the current project. A workflow is a predefined sequence of release statuses linked together by “workflow transitions” to enable a newly created release to be reviewed, prioritized, assigned, developed and tested, as well as to handle exception cases such as the case of a cancelled or deferred release. The workflow list screen for the sample project is illustrated below:

**Release Workflows** Library Information System

[Change Project](#)

The following release types exist in the system. You can specify for this project, which workflows will be used for each release type:

Name	Workflow	ID
Major Release	Default Workflow	1
Minor Release	Default Workflow	2
Iteration	Default Workflow	3
Phase	Default Workflow	4

There are the various release workflows available in the project. To add a new workflow, click the Add Workflow link, to edit an existing workflow, click on the Steps hyperlink:

Workflow Name	Default	Active	Workflow #	Operations
Default Workflow	<input checked="" type="radio"/>	Yes	WK1	<a href="#">Steps</a> <a href="#">Clone</a> <a href="#">Delete</a>

[+ Add Workflow](#)

[Save](#) [Cancel](#)

The screen displays a list of all the standard release types in the system. The associated workflow drop-down list allows you to specify which workflow the release type will follow. This is a very powerful feature

since it allows you to configure different workflows for different release types; i.e. a Major release may follow a different process than an iteration.

You can have as many workflows as you like in a project, but only one can be marked as the default. Each release type must be assigned to a workflow. To modify the name, default flag, and/or active flag of an existing workflow, change the values in the appropriate text-box, radio-button, or drop-down list and click the “Save” button. To add a new workflow, click the ‘Add Workflow’ link and a new workflow will be created with the standard SpiraTeam® steps and transitions.

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

### 3.6.2.1. Edit Workflow Details

Clicking on the ‘Steps’ hyperlink of a workflow brings up the following screen that lists all the workflow steps and workflow transitions that comprise the workflow:

Step Name	Transitions	Status #	Operations
Planned <input checked="" type="radio"/> Default	<ul style="list-style-type: none"> <li>Cancel Release <input type="checkbox"/> → Cancelled</li> <li>Defer Release <input type="checkbox"/> → Deferred</li> <li>Start Release <input type="checkbox"/> → In Progress</li> </ul>	1	+ Add Transition
In Progress	<ul style="list-style-type: none"> <li>Cancel Release <input type="checkbox"/> → Cancelled</li> <li>Defer Release <input type="checkbox"/> → Deferred</li> <li>Finish Release <input type="checkbox"/> → Completed</li> </ul>	2	+ Add Transition
Completed	<ul style="list-style-type: none"> <li>Close Release <input type="checkbox"/> → Closed</li> <li>Continue Release <input type="checkbox"/> → In Progress</li> </ul>	3	+ Add Transition
Closed	<ul style="list-style-type: none"> <li>Open Release <input type="checkbox"/> → Completed</li> </ul>	4	+ Add Transition
Deferred	<ul style="list-style-type: none"> <li>Continue Release <input type="checkbox"/> → In Progress</li> </ul>	5	+ Add Transition
Cancelled	<ul style="list-style-type: none"> <li>Uncancel Release <input type="checkbox"/> → Planned</li> </ul>	6	+ Add Transition

This page lists in the left-most column all the various release statuses defined in the system. 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 Planned status, depending on your role (see later) the user can move the release to either Cancelled, Deferred, or In Progress, depending on which transition the user takes.

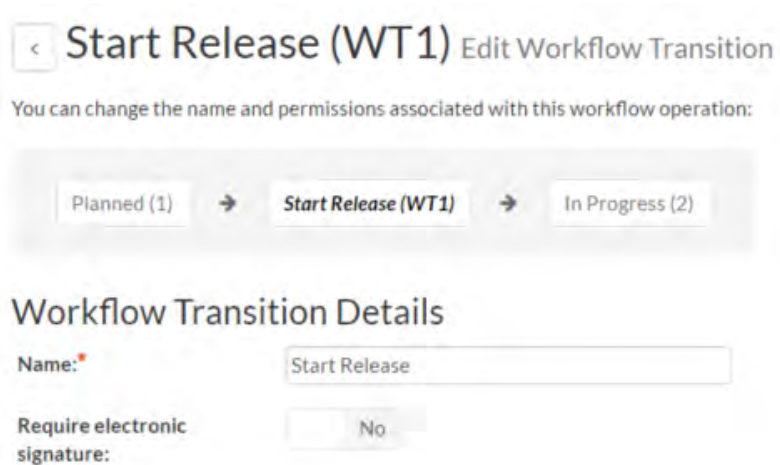
Clicking on the name of a step or transition takes you to the appropriate details page (see below) where you can set the properties of the step or transition respectively. To delete an existing transition, click the



'x' button after the transition name, and to add a new transition, click the 'Add Transition' button in the Operations column.

### 3.6.2.2. Edit Workflow Transition

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



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 task 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.

This part of the screen lets you change the name of the transition. If a digital signature from the user is required to authorize and record the transition, set the toggle to yes for “Require Electronic Signature”.

In addition, each transition has a series of conditions which need to be satisfied for a user to actually execute the transition (i.e. move the release from the originating status to the destination status):



The conditions section allows you to set three types of user role:

- The author of the release can be allowed to execute the transition. For example, when a release is marked as Completed, the author might be allowed to move it to In Progress if there is still work remaining.
- The owner of the release can be allowed to execute the transition. For example, when a release is marked as In Progress, the assigned owner should be the only one who's allowed to move it to Completed.
- A user with a specified role can be allowed to execute the transition regardless of whether they are the author or owner. For example a user with role "Manager" might want the power to defer all releases regardless of ownership status.

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

### 3.6.2.3. Edit Workflow Step

When you click on the release 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 release 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 release fields (i.e. those that are a standard part of SpiraTeam® such as Priority):

## Release Fields

The following release fields are hidden/disabled/required at this step in the workflow:

Field Name	Hidden	Disabled	Required
Comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
# Non Work Days	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
End Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Release Name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Owned By	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
# Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Start Date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Version #	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This page also allows you to define the behavior of the various release custom properties for this particular step in the workflow:

## Release Custom Properties

The following release custom properties are hidden/disabled/required at this step in the workflow:

Name	Type	Hidden	Disabled	Required
Notes	Text	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operating System	MultiList	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

You can set each of the fields/custom properties as being:

- **Hidden** – The field / custom property will not be displayed when the release is in this status
- **Disabled** – The field / custom property will be displayed, but will be greyed-out and read-only
- **Required** – The field / custom property will be required when the release is in this status

Note that you cannot set a field/property as being required and either disabled or hidden since this would prevent a user from ever updating the release. For example, when a release is in the Planned status, you might make the owner field hidden (since the author shouldn't need to know who will ultimately own it), when it gets to the In Progress status, you might make the field enabled and required, and when it gets to the Completed status, you might make it disabled. 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 "Save" button.

### 3.6.3. Task Workflows






Clicking on the "Task Workflows" link under the Planning heading, brings up the list of defined task workflows for the current project. A workflow is a predefined sequence of task statuses linked together by

“workflow transitions” to enable a newly created task to be reviewed, prioritized, assigned, developed and tested, as well as to handle exception cases such as the case of a blocked or deferred task. The workflow list screen for the sample project is illustrated below:

## Task Workflows Library Information System

[Change Project](#)

The following task types exist in the system. You can specify for this project, which workflows will be used for each task type:

Name	Workflow	ID
 Deveioption	Default Workflow <input type="button" value="v"/>	1
 Infrastructure	Default Workflow <input type="button" value="v"/>	4
 Management	Default Workflow <input type="button" value="v"/>	3
 Other	Default Workflow <input type="button" value="v"/>	5
 Testing	Default Workflow <input type="button" value="v"/>	2

There are the various Task workflows available in the project. To add a new workflow, click the Add Workflow link, to edit an existing workflow, click on the Steps hyperlink:

Workflow Name	Default	Active	Workflow #	Operations
Default Workflow	<input checked="" type="radio"/>	Yes	WK1	<a href="#">Steps</a> <a href="#">Clone</a> <a href="#">Delete</a>
<a href="#">+ Add Workflow</a>				
<a href="#">Save</a>		<a href="#">Cancel</a>		

The screen displays a list of all the standard task types in the system. The associated workflow drop-down list allows you to specify which workflow the task type will follow. This is a very powerful feature since it allows you to configure different workflows for different task types; i.e. a Development task may follow a different process than an Infrastructure or Management task.

You can have as many workflows as you like in a project, but only one can be marked as the default. Each task type must be assigned to a workflow. To modify the name, default flag, and/or active flag of an existing workflow, change the values in the appropriate text-box, radio-button, or drop-down list and click the “Save” button. To add a new workflow, click the ‘Add Workflow’ link and a new workflow will be created with the standard SpiraTeam® steps and transitions.

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

### 3.6.3.1. Edit Workflow Details

Clicking on the 'Steps' hyperlink of a workflow brings up the following screen that lists all the workflow steps and workflow transitions that comprise the workflow:

The screenshot shows a web interface titled "Default Workflow" with a sub-link "View/Edit Workflow Steps". Below the title, it states "This displays all the Task status steps for this particular workflow:". The main content is a table with four columns: "Step Name", "Transitions", "Status #", and "Operations".

Step Name	Transitions	Status #	Operations
Not Started <small>Default</small> →	Defer Task × → Deferred Start Task × → In Progress	1	+ Add Transition
In Progress →	Block Task × → Blocked Complete Task × → Completed Defer Task × → Deferred Restart Development × → Not Started	2	+ Add Transition
Completed →	Reopen Task × → In Progress	3	+ Add Transition
Blocked →	Unblock Task × → In Progress	4	+ Add Transition
Deferred →	Resume Task × → In Progress Undefer Task × → Not Started	5	+ Add Transition

This page lists in the left-most column all the various task statuses defined in the system. 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 Not Started status, depending on your role (see later) the user can move the task to either Deferred or In Progress, depending on which transition the user takes.

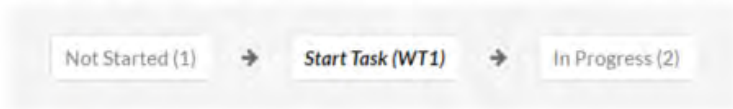
Clicking on the name of a step or transition takes you to the appropriate details page (see below) where you can set the properties of the step or transition respectively. To delete an existing transition, click the 'x' button after the transition name, and to add a new transition, click the 'Add Transition'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

### 3.6.3.2. Edit Workflow Transition

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

## < Start Task (WT1) Edit Workflow Transition

You can change the name and permissions associated with this workflow operation:



### Workflow Transition Details

Name\*

Require electronic signature:  No

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 task 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.

This part of the screen lets you change the name of the transition. If a digital signature from the user is required to authorize and record the transition, set the toggle to yes for “Require Electronic Signature”.

In addition, each transition has a series of conditions which need to be satisfied for a user to actually execute the transition (i.e. move the task from the originating status to the destination status):

### Conditions

The following users / roles are allowed to execute this transition:

Condition Type	Condition Data
The author of this Task can execute::	No
The owner of this Task can execute::	Yes
Users with the specified roles can execute:	Project Owner: <input checked="" type="checkbox"/>
	Manager: <input checked="" type="checkbox"/>
	Developer: <input type="checkbox"/>
	Tester: <input type="checkbox"/>
	Observer: <input type="checkbox"/>
Incident User: <input type="checkbox"/>	

The conditions section allows you to set three types of user role:

- The author of the task can be allowed to execute the transition. For example, when a task is marked as Completed, the author might be allowed to move it to In Progress if there is still work remaining.

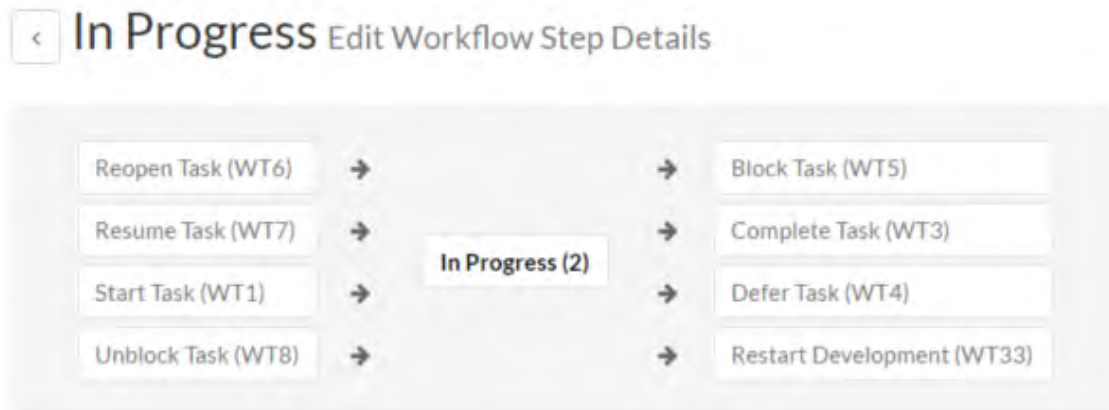


- The owner of the task can be allowed to execute the transition. For example, when a task is marked as In Progress, the assigned owner should be the only one who's allowed to move it to Completed.
- A user with a specified role can be allowed to execute the transition regardless of whether they are the author or owner. For example a user with role "Manager" might want the power to defer all tasks regardless of ownership status.

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

### 3.6.3.3. Edit Workflow Step

When you click on the task 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 task 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 task fields (i.e. those that are a standard part of SpiraTeam® such as Priority):

## Task Fields

The following Task fields are hidden/disabled/required at this step in the workflow:

Field Name	Hidden	Disabled	Required
Actual Effort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Component	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
End Date	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Est. Effort	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Task Name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Owner	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Release	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Remaining	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Requirement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Start Date	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Priority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This page also allows you to define the behavior of the various task custom properties for this particular step in the workflow:

## Task Custom Properties

The following Task custom properties are hidden/disabled/required at this step in the workflow:

Name	Type	Hidden	Disabled	Required
Difficulty	List	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reviewer	User	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

You can set each of the fields/custom properties as being:

- **Hidden** – The field / custom property will not be displayed when the task is in this status
- **Disabled** – The field / custom property will be displayed, but will be greyed-out and read-only
- **Required** – The field / custom property will be required when the task is in this status

Note that you cannot set a field/property as being required and either disabled or hidden since this would prevent a user from ever updating the task. For example, when a task is in the Not Started status, you might make the owner field hidden (since the author shouldn't need to know who will ultimately own it), when it gets to the In Progress status, you might make the field enabled and required, and when it gets to the Completed status, you might make it disabled. 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 “Save” button.

### 3.7. Testing

This section contains administrative options that are specific to the testing functionality in the system.

#### 3.7.1. Test Case Workflows

Clicking on the “Test Case Workflows” link under the Testing heading, brings up the list of defined test case workflows for the current project. A workflow is a predefined sequence of test cases statuses linked together by “workflow transitions” to enable a newly created test case to be reviewed, prioritized, assigned, and tested, as well as to handle exception cases such as the case of a rejected or obsolete test case. The workflow list screen for the sample project is illustrated below:

**Test Case Workflows** Library Information System

[Change Project](#)

The following test case types exist in the system. You can specify for this project, which workflows will be used for each test case type:

Type	Workflow	ID
Acceptance	Default Workflow	1
Compatibility	Default Workflow	2
Functional	Default Workflow	3
Integration	Default Workflow	4
Load/Performance	Default Workflow	5
Network	Default Workflow	6
Regression	Default Workflow	7
Scenario	Default Workflow	8
Security	Default Workflow	9
Unit	Default Workflow	10
Usability	Default Workflow	11

There are the various test case workflows available in the project. To add a new workflow, click the Add Workflow link, to edit an existing workflow, click on the Steps hyperlink:

Workflow Name	Default	Active	Workflow #	Operations
Default Workflow	<input checked="" type="radio"/>	Yes	WK1	<a href="#">Steps</a> <a href="#">Clone</a> <a href="#">Delete</a>
<a href="#">+ Add Workflow</a>				

[Save](#) [Cancel](#)

The screen displays a list of all the standard test case types in the system. The associated workflow drop-down list allows you to specify which workflow the test case type will follow. This is a very powerful feature since it allows you to configure different workflows for different test case types; i.e. a unit test may follow a different process than a regression test.

You can have as many workflows as you like in a project, but only one can be marked as the default. Each test case type must be assigned to a workflow. To modify the name, default flag, and/or active flag of an existing workflow, change the values in the appropriate text-box, radio-button, or drop-down list and click the “Save” button. To add a new workflow, click the ‘Add Workflow’ link and a new workflow will be created with the standard SpiraTeam® steps and transitions.

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

### 3.7.2.1. Edit Workflow Details

Clicking on the ‘Steps’ hyperlink of a workflow brings up the following screen that lists all the workflow steps and workflow transitions that comprise the workflow:

< **Default Workflow** View/Edit Workflow Steps

This displays all the test case status steps for this particular workflow:

Step Name	Transitions	Status #	Operations
Draft <input checked="" type="radio"/> Default →	Reject Test Case ✕ → Rejected Review Test Case ✕ → Ready for Review	1	+ Add Transition
Ready for Review →	Approve Test Case ✕ → Approved Reject Test Case ✕ → Rejected Return to Draft ✕ → Draft	2	+ Add Transition
Rejected →	Return to Review ✕ → Ready for Review	3	+ Add Transition
Approved →	Return to Review ✕ → Ready for Review Start Testing ✕ → Ready for Test	4	+ Add Transition
Ready for Test →	Pause Testing ✕ → Approved Retire Test Case ✕ → Obsolete	5	+ Add Transition
Obsolete →	Return to Review ✕ → Ready for Test	6	+ Add Transition

This page lists in the left-most column all the various test case statuses defined in the system. 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 Draft status, depending on your role (see later) the user can move the test case to either Rejected, or Ready for Review, depending on which transition the user takes.

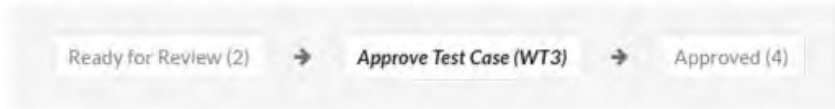
Clicking on the name of a step or transition takes you to the appropriate details page (see below) where you can set the properties of the step or transition respectively. To delete an existing transition, click the ‘x’ button after the transition name, and to add a new transition, click the ‘Add Transition’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

### 3.7.2.2. Edit Workflow Transition

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

#### Approve Test Case (WT3) Edit Workflow Transition

You can change the name and permissions associated with this workflow operation:



#### Workflow Transition Details

Name\*:

Require electronic signature:  No

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 task 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.

This part of the screen lets you change the name of the transition. If a digital signature from the user is required to authorize and record the transition, set the toggle to yes for “Require Electronic Signature”.

In addition, each transition has a series of conditions which need to be satisfied for a user to actually execute the transition (i.e. move the test case ease from the originating status to the destination status):

#### Conditions

The following users / roles are allowed to execute this transition:

Condition Type	Condition Data
The creator of this release can execute::	Yes
The owner of this release can execute::	Yes
Users with the specified roles can execute:	Project Owner: <input checked="" type="checkbox"/>
	Manager: <input checked="" type="checkbox"/>
	Developer: <input type="checkbox"/>
	Tester: <input type="checkbox"/>
	Observer: <input type="checkbox"/>
	Incident User: <input type="checkbox"/>

The conditions section allows you to set three types of user role:

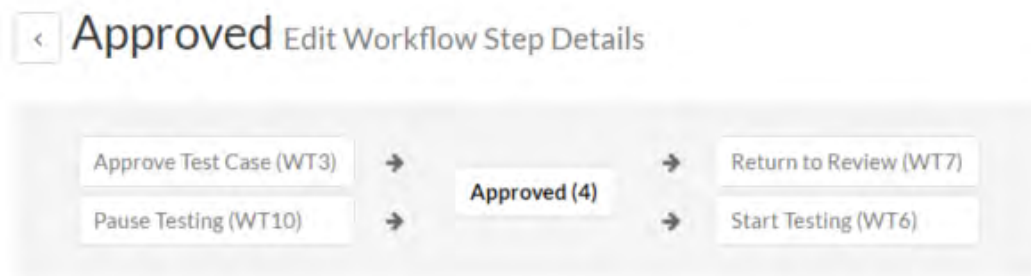
- The author of the test case can be allowed to execute the transition. For example, when a test case is marked as Ready for Review, the author might be allowed to move it to Ready to Test.

- The owner of the test case can be allowed to execute the transition. For example, when a test case is marked as Approved, the assigned owner should be the only one who's allowed to move it to Ready for Test.
- A user with a specified role can be allowed to execute the transition regardless of whether they are the author or owner. For example a user with role "Manager" might want the power to approve all test cases regardless of ownership status.

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

### 3.7.2.3. Edit Workflow Step

When you click on the test case 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 test case 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 test case fields (i.e. those that are a standard part of SpiraTeam® such as Priority):



## Test Case Fields

The following test case fields are hidden/disabled/required at this step in the workflow:

Field Name	Hidden	Disabled	Required
Act. Dur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Author	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automation Engine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Component	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Description	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Est. Dur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Owner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Priority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This page also allows you to define the behavior of the various test case custom properties for this particular step in the workflow:

## Test Case Custom Properties

The following test case custom properties are hidden/disabled/required at this step in the workflow:

Name	Type	Hidden	Disabled	Required
URL	Text	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Test Type	List	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review Owner	User	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

You can set each of the fields/custom properties as being:

- **Hidden** – The field / custom property will not be displayed when the test case is in this status
- **Disabled** – The field / custom property will be displayed, but will be greyed-out and read-only
- **Required** – The field / custom property will be required when the test case is in this status

Note that you cannot set a field/property as being required and either disabled or hidden since this would prevent a user from ever updating the test case. For example, when a test case is in the Draft status, you might make the owner field hidden (since the author shouldn't need to know who will ultimately own it), when it gets to the Ready for Review status, you might make the field enabled and required, and when it gets to the Approve status, you might make it disabled. 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 "Save" button.

### 3.7.2. Testing Settings

Clicking on the “Testing Settings” link under the Testing heading, brings up a list of options that the administrator and project owner can configure regarding testing. Select from the options displayed (as illustrated below) and click “Save” to commit the changes.

## Testing Settings

This page allows you to modify the SpiraTeam testing settings:

Display Build During Test Execution:  Yes

Auto Unassign Tests:  Yes Passing a test case unassigns it from its owner  
 Yes Completing a test set unassigns it from its owner

Create Default Test Step:  Yes Setting this to 'Yes' creates a default test step to all test cases that you create

WorX Integration:  No Setting this to 'Yes' turns on the integration with Autom8 WorX manual testing tool

You can enable or disable the following settings:

- **Display Build During Test Execution** – During test execution the system can display a drop-down list of builds associated with the selected release. If you are using SpiraTeam in conjunction with a build server such as Jenkins/Hudson, you should choose “Yes”, otherwise we recommend hiding the list of builds (to avoid confusing your testers) by choosing “No”.
- **Auto Unassign Tests** – When a tester passes an assigned test case or all the test cases in an assigned test set the system by default will automatically un-assign the test case / test set from the user. To prevent this from happening, change either setting to “No”.
- **Auto create a test step** - Automatically creating a default test step on the creation of any test case
- **Worx Integration** – Integrating with the Worx desktop application

## 3.8. Notifications

This section allows the administrator and project owner to configure email server configuration, email notification content, and when notifications are sent. Server configuration and artifact templates can only be changed by the system Administrator. However, notification events can be configured by the project owner.

### 3.8.1 Email Configuration

The Email Configuration page is split into two sections. The first section covers email notification details, and the second section configures how email from the application is sent.

# Email Configuration

By default, SpiraTeam will use the default IIS SMTP Virtual Server to send outgoing email notifications to users in the system. However, it can also be configured to send emails through an external SMTP server directly.

This page allows you to change these mail server settings:

**E-Mail Notifications Active?\***  Yes  No  
If disabled, SpiraTeam will not send out any messages.

**From E-Mail Address:\***   
The address that emails will be sent from. Replies to this address will not be monitored.

**Reply-To E-Mail Address:**   
The Reply-To field that emails sent will contain. Blank will leave header field blank in messages.

**Send HTML Emails:\***  Yes  No  
If enabled, emails will be sent out in HTML. Otherwise, plain text.

**Allow Users Control of Receiving Emails?\***  Yes  No  
If enabled, users will be given the option to deny receiving emails from the system.

**Emails From User Addresses?\***  Yes  No  
If enabled, any messages sent using the Email button will appear from the user that initiated the Email, and not the System Administrator.

**Send Email Importer Separator?\***  Yes  No  
If enabled, all emails going out will contain the separator needed to clean up replies that are converted into comments.

- **Email Notifications Active?** – Defaults to Yes. If changed to No, the system will not send out any emails, regardless of other settings. Note that this means that new user requests will not get sent either.
- **From Email Address** – This is the email address specified in the ‘From:’ field of email notifications sent from the application.
- **Reply-To Email Address** – This is the address specified in the ‘ReplyTo:’ field for notification emails sent from the application.
- **Send HTML Emails?** – Defaults to Yes. This option specifies whether HTML or Plain-Text emails are sent from the system.
- **Allow Users Control of Receiving Emails?** – Defaults to Yes. This specifies whether or not a user can modify their profile to not receive any emails from the system. If set to no, users’ preference will be enabled and locked out.

## Mail Server

Please leave all the following fields empty if you want to use the default IIS SMTP Virtual Server:

**Host Name:**   
The SMTP host name of your mail server.

**Port Number:**   
The SMTP port number to use. Leave blank to use the default of 25.

**SSL Connection:**

**User Name:**   
If your SMTP server requires authentication, this is your username.

**Password:**   
If your SMTP server requires authentication, this is your password.

Save

To use the internal IIS's default virtual SMTP server, leave all fields blank. The virtual server must then be configured to use proper SMTP server and network configuration. If you want the application to contact an SMTP server directly, use the following fields:

- **Host Name** – This is the SMTP server to connect to.
- **Port Number** – This is the port number to use, blank uses the default port 25.
- **SSL Connection** – Whether or not to use an SSL connection with the server. Be sure that the SMTP server's SSL certificate is trusted on the application server.
- **User Name** – When using an authentication method, this is the username to log in as.
- **Password** – When using an authentication method, this is the password to use.

Example settings for connecting to Gmail/Google Mail for sending notifications:

- ❖ **Host Name:** smtp.gmail.com
- ❖ **Port Number:** 587
- ❖ **SSL Connection:** Yes
- ❖ **User Name:** "account"@gmail.com
- ❖ **Password:** "account password"

### 3.8.2 Notification Templates

Notification templates are used by notification events, and are defined system-wide for each artifact type.

# Notification Templates

Here you can specify the e-mail notification templates sent out for each Artifact type. To edit the template, select the Edit Template link. To send a test e-mail using the template, select the Test Template link. The test e-mail will be sent using the first item in the project.

Artifact Type	Prefix	Operations
Document	DC	<input type="button" value="Edit"/> <input type="button" value="Test"/>
Incident	IN	<input type="button" value="Edit"/> <input type="button" value="Test"/>
Requirement	RQ	<input type="button" value="Edit"/> <input type="button" value="Test"/>
Task	TK	<input type="button" value="Edit"/> <input type="button" value="Test"/>
Test Case	TC	<input type="button" value="Edit"/> <input type="button" value="Test"/>
Test Set	TX	<input type="button" value="Edit"/> <input type="button" value="Test"/>

To edit a template, click the Edit button. To send a test email notification to yourself using the specified template, click the Test button.

Clicking the Edit button will take you to a page similar to the following. Depending on the artifact type you selected, the list of available fields will vary.

## Notification Templates Requirement

[← Return to Template List](#)

The template below will be sent whenever an event is matched for an artifact Requirement. Tokens in the template will be substituted when an e-mail is set. Otherwise, the template will be sent as-is to assigned users and roles.

Format - **B** *I* U *I<sub>x</sub>* | | Source

**`\${Product}`** A Requirement has changed

Requirement: `\${Name}` in project "`\${ProjectName}`"

- ID: `\${ID#}`
- Owner: `\${Owner}`
- Importance: `\${Importance}`
- Type: `\${RequirementType}`
- Status: `\${RequirementStatus}`

[\(Display Email Template Field Tokens\)](#)

On this screen you are presented with the same rich text editor available elsewhere in the application. Displayed in it is the current template (with template tags showing) for the artifact. Template tags start with a \$ (dollar sign) and then a string name enclosed in {} parentheses. When email notifications are sent, tokens will be replaced with specific information from the artifact that the notification is being sent for. Invalid tokens will be stripped from the template text. Clicking the link "(Display Email Template Field Tokens)" to see a list of available tokens to insert into the textbox for easy selecting and editing.

**Email Notification Tokens**

The following are all available tokens for Requirements and their meanings. Tokens not in this list will be taken out of the final message. Click on a token to insert it into the current cursor position in the editor above.

<a href="#">\${Author}</a>	The name of the Author	<a href="#">\${Comments}</a>	The requirement comments
<a href="#">\${Component}</a>	The component the requirement is a part of	<a href="#">\${Description}</a>	Descriptive text
<a href="#">\${EstimatePoints}</a>	The estimate in story/function points	<a href="#">\${Importance}</a>	The current Importance
<a href="#">\${Name}</a>	Name of the Requirement	<a href="#">\${Owner}</a>	The name of the Owner
<a href="#">\${Release}</a>	The Requirement's Assigned Release.	<a href="#">\${RequirementStatus}</a>	The current Status
<a href="#">\${RequirementType}</a>	The requirement type	<a href="#">\${TaskActualEffort}</a>	Assigned Task's actual effort in HH:MM
<a href="#">\${TaskEstimatedEffort}</a>	Assigned Task's planned effort in HH:MM	<a href="#">\${TaskProjectedEffort}</a>	Assigned Task's projected effort
<a href="#">\${TaskRemainingEffort}</a>	Assigned Task's remaining effort	<a href="#">\${URL}</a>	URL to link to artifact.
<a href="#">\${NotifyTo}</a>	The notification receiver's name.	<a href="#">\${Product}</a>	The name of the application.
<a href="#">\${ProjectName}</a>	The name of the project.	<a href="#">\${ID#}</a>	The ID# of the item.

If HTML notifications are disabled, the template will be converted to plain text before sending.

When finished, click the update button to save your new template. The new template will take effect immediately.

### 3.8.3 Notification Events

The Notification Events section is where project managers can set up when and to whom notifications are sent out to users of the system. Clicking on the Notification Event link will present you with a list of all events defined for the current project:

## Notification Events Library Information System

[Change Project](#)

The following notification events have been defined for this project. To activate or deactivate an event or change assigned fields or users, click the 'Edit' link.

[+ Add](#)

Event Name	Artifact	On Creation?	Active?	Operations
Incident: Newly Created	Incident	Yes	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Incident: Owner Assigned	Incident	No	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Requirement: Newly Created	Requirement	Yes	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Requirement: Owner Assigned / Importance	Requirement	No	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Task: Newly Created	Task	Yes	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Task: Owner or Priority Changed	Task	No	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Test Case: Executed	Test Case	No	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Test Set: Execution Changed	Test Set	No	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Test Set: Newly Created	Test Set	Yes	Yes	<a href="#">Edit</a> <a href="#">Delete</a>

Note that these events do not override nor cancel any notifications configured for Incident Workflows. To adjust settings based on Incident Status changes and workflow steps, please go to the View/Edit Workflow page.

[Go to Edit Workflows](#)



**Note:** These events can handle all changes to any of the artifacts except changes handled by Status changes to Incidents. Incident status changes are handled through the Workflow configuration.

When clicking on the Edit or Add buttons, you will be presented with the event details screen:

## Incident: Newly Created Notification Events

[← Back to Notification Event List](#)

Event details are listed below. You can edit the fields and users and whether or not this event is fired on creation, but once created the Artifact Type cannot be changed.

Once finished, click [Save] or [Insert] to save your changes.

Event Name:*	<input type="text" value="Incident: Newly Created"/>
Artifact Type:*	Incident <small>This event will be attached to this artifact type.</small>
On Creation?:*	<input checked="" type="checkbox"/> Yes <small>Whether this event is fired on a new artifact creation.</small>
Subject Line:*	<input type="text" value="\${Product} - A new incident has been opened in \${ProjectName}"/> <small>The subject-line of the e-mail notification. Tokens used in the email template can be used in the subject line.</small> <a href="#">(Display Email Subject Special Tokens)</a>
Configuration:	<input checked="" type="radio"/> Artifact Fields <input type="radio"/> Users and Project Roles

The top section defines general configuration items for the event:

- **Event Name:** used to name the event, only used for administrative purposes.
- **Artifact Type:** The artifact type this event is attached to. Once an event is created, the artifact type cannot be changed.
- **On Creation?** If set to yes, this event will fire when an artifact is created, as well as when any configured fields are changed.
- **Active?** If set to yes, this event is active and will send notifications when configured fields are modified.
- **Subject Line:** The subject line of the notification email.

The Artifact Fields will let you configure which fields will cause this notification to send an email notification:

Artifact Fields

Users and Project Roles

This event will be active if any of the selected fields are changed.

Field	Notify On Change?
Actual Effort	<input type="checkbox"/>
Fixed Build	<input type="checkbox"/>
Closed On	<input type="checkbox"/>
% Complete	<input type="checkbox"/>
Component	<input type="checkbox"/>
Description	<input type="checkbox"/>
Detected Release	<input type="checkbox"/>
Est. Effort	<input type="checkbox"/>
Type	<input type="checkbox"/>
Name	<input type="checkbox"/>
Detected By	<input type="checkbox"/>
Owned By	<input type="checkbox"/>
Priority	<input type="checkbox"/>
Remaining Effort	<input type="checkbox"/>
Comments	<input type="checkbox"/>
Resolved Release	<input type="checkbox"/>
Severity	<input type="checkbox"/>
Started On	<input type="checkbox"/>
Verified Release	<input type="checkbox"/>

Selected fields are treated in an OR-based query, so that if you have two or more fields checked for an event, the event will send a notification if **either** of the two fields are changed. Depending on the artifact type configured above, the available fields will vary.

The last section is the configuration of whom to send the notifications to:

Artifact Fields

Users and Project Roles

When a selected field is changed, the following users or roles will be notified.

User / Project Role	Enabled?
Artifact Opener or Creator:	<input checked="" type="checkbox"/>
Artifact Owner:	<input type="checkbox"/>
<b>Project Roles:</b>	
Project Owner:	<input checked="" type="checkbox"/>
Manager:	<input type="checkbox"/>
Developer:	<input type="checkbox"/>
Tester:	<input type="checkbox"/>
Observer:	<input type="checkbox"/>
Incident User:	<input type="checkbox"/>

If a user belongs to more than one group or they have manually signed up to receive notifications to any changes in the artifact, they will only receive one notification for the artifact change.

### 3.9. Documents

SpiraTeam® includes a built-in web-based document management system that allows you to upload and share documents between project team members. These documents are stored in folders, categorized by a series of user-defined meta-tags and can also be associated with other artifacts in the system (e.g. requirements, incidents, etc.).

The set of administrative options located under the “Documents” heading allow the Project Owner to configure how the documents are organized in their particular project.

#### 3.9.1. Edit Document Types

When users upload documents into a SpiraTeam project, they are required to specify the type of document that is being uploaded. The list of document types is configurable by the Project Owner for each individual project.

When you click on Documents “Edit Types”, you can edit the list of types available:

The screenshot shows the 'Edit Document Types' page for a project named 'Library Information System'. At the top left is a 'Change Project' button. Below it is a message: 'The following document types have been created in this project. Please make any changes and click [Add] or [Save]. To remove an existing document type just make it inactive by setting its Active flag to No.' Below the message is a 'Displaying:' dropdown menu set to 'All Active'. The main part of the page is a table with the following columns: ID, Name, Description, Default, and Active. The table contains five rows of document types. At the bottom of the table are two buttons: 'Save' (in orange) and 'Add'.

ID	Name	Description	Default	Active
DT2	Functional Specification	Functional specification for the system. Can be perf	<input checked="" type="radio"/>	<input type="checkbox"/>
DT6	Screen Layout		<input type="radio"/>	<input type="checkbox"/>
DT3	Screen Shot		<input type="radio"/>	<input type="checkbox"/>
DT4	Stack Trace		<input type="radio"/>	<input type="checkbox"/>
DT5	UML Diagram	UML documents such as sequence diagram, state di	<input type="radio"/>	<input type="checkbox"/>

By default, each project will be created with a single document type called ‘Default’. You can add additional document types and/or change the name of the ones already created. If you decide that you no longer want to use a specific document type, you can set its active flag to “No”.

The only requirement is that each project needs to have at least one active document type available, and that there is one active type designated as the default type. The default type is the option that will be initially selected when a user uploads a file / URL to the project.

#### 3.9.2. Edit Document Folders

In addition to associating the documents in the system with a “document type”, they can also be organized into a hierarchy of folders. Clicking on Documents “Edit Folders” allows the Project Owner to create / modify the folder structure into which users can upload the documents for sharing and collaboration:

## Edit Document Folders Library Information System

[Change Project](#)

The following document folders have been created in this project. Please click on the link to edit an existing folder, or click on the [Add] button to create a new folder in the project:

ID	Name	Operations
DF1	Root Folder	<a href="#">Edit</a> <a href="#">Delete</a>
DF14	CreateNewAuthor	<a href="#">Edit</a> <a href="#">Delete</a>
DF15	CreateNewBook	<a href="#">Edit</a> <a href="#">Delete</a>
DF7	Design Documents	<a href="#">Edit</a> <a href="#">Delete</a>
DF16	EditExistingAuthor	<a href="#">Edit</a> <a href="#">Delete</a>
DF17	EditExistingBook	<a href="#">Edit</a> <a href="#">Delete</a>
DF8	Misc Documents	<a href="#">Edit</a> <a href="#">Delete</a>
DF3	Screen Captures	<a href="#">Edit</a> <a href="#">Delete</a>
DF2	Specifications	<a href="#">Edit</a> <a href="#">Delete</a>
DF4	Test Results	<a href="#">Edit</a> <a href="#">Delete</a>
DF5	Error Messages	<a href="#">Edit</a> <a href="#">Delete</a>
DF6	Web Links	<a href="#">Edit</a> <a href="#">Delete</a>
DF12	Test Scripts	<a href="#">Edit</a> <a href="#">Delete</a>

[Add](#)

Initially, new projects are created with a single folder called “Root Folder”, under this folder, you can click the [Add] button to add additional folders, “Edit” to change the name and/or location of an existing folder, or “Delete” to permanently remove a folder. *Note that deleting a folder will remove all its subfolders and any documents contained in the folder and subfolders.*

When you click on either [Add] or [Edit], you will be taken to the following screen that allows you to edit the details of the new/modified folder:

### Test Scripts Add / Edit Document Folder

Please review the information listed below and make any changes if necessary. Once you have finished, click [Save/Insert] to confirm them.

Folder Name:\*

Parent Folder:

The first field allows you to specify the name of the folder as it will be displayed to users in the system, and the second field allows you to tell the system which parent folder should contain the new folder. You cannot make the root folder a child of an existing folder, and there can only be a single root folder per project.

## 3.10. System

### 3.10.1. General Settings

The general settings page allows you to configure SpiraTeam® to better match your environment and setup. In the current version, you can specify the default language, or configure the folder used to store document attachments:

## General Settings

This page allows you to modify the general SpiraTeam system settings:

Default Culture:	<input type="text" value="--- Server Default ---"/>
	The culture used to determine which number/date formats to use and which language to use.
Default Timezone:	<input type="text" value="--- Server Default ---"/>
	The timezone used to determine how dates and times are displayed in the system.
Web Server URL:*	<input type="text" value="http://localhost/SpiraTest"/>
	Web Server URL SpiraTeam (e.g. http://myserver/SpiraTeam)
Attachments Folder:*	<input type="text" value="C:\Subversion\Projects\SpiraTeam\Trunk\SpiraTest\Attachments"/>
	The folder used to store file attachments (e.g. C:\Program Files\SpiraTeam\Attachments)
Cache Folder:	<input type="text" value="C:\ProgramData\Inflectra\Spira"/>
	The local folder used by the web process to store cache data. By default or in error, the folder is C:\ProgramData
	10 hours
	The number of hours that the cache of source code revisions is kept before being automatically refreshed.
Login Notice:	<input type="text"/>
	A message to permanently display at the bottom of the login screen for all users (for example, a company disclaimer)
Administration Message:	<input type="text"/>
	A temporary notice displayed on the login screen for all users (remember to delete once no longer needed)
Instant Messenger:*	<input checked="" type="checkbox"/> Yes
	Enables use of the integrated instant messenger.
	90 days
	The number of days that read instant messages are retained in the system.
Event Log Retention:*	10 days
	The number of days that error messages are retained in the system event log.
	<input type="button" value="Save"/> <input type="button" value="Cancel"/>

The available settings include:

- **Default Culture** – SpiraTeam can display information in a variety of different languages (assuming that the appropriate language packs have been installed) and number formats. By default, SpiraTeam will use the regional settings (language and number formats) of the operating system it has been installed on. However, you can override this default by choosing the

appropriate culture from the list of options displayed in the drop-down list. *Note: The list of culture options does not reflect the available language packs, so in some cases, the setting will only change the number formats.*

- **Default Timezone** – SpiraTeam stores all dates and times internally in Universal Coordinated Time (UTC) and can therefore display dates/times adjusted for different timezones. By default, SpiraTeam will display dates in the timezone specified in the operating system it has been installed on. However, you can override this default by choosing the appropriate display timezone from the list of options displayed in the drop-down list.
- **Web Server URL** – This is the URL that your users use to access the system. Do not put the /Login.aspx or any other page here, as this URL is used to generate links to pages in the application.
- **Attachments Folder** - By default when SpiraTeam® is installed, the document attachments uploaded in the system get stored inside the C:\Program Files\SpiraTeam\Attachments folder located inside the main SpiraTeam® installation root. However you may want to have the documents stored on a remotely mounted drive or on a different hard disk partition. In which case you can simply change the folder pointed to in the text-box illustrated above and then click [Update] to commit the change.
- **Cache Folder** – By default when SpiraTeam needs to store temporary data (generated reports, the version control cache, etc.) it will store them in the C:\ProgramData\Inflectra\Spira folder. Sometimes this folder is not appropriate (e.g. you want them on a different drive that has more space). You can enter in a different folder for temporary storage and SpiraTeam will use that instead.
- **Login Notice** – this can be used system wide to set a message to permanently display at the bottom of the login screen for all users (for example, a company disclaimer).
- **Administration Message** – this can be used by the administrator to display a temporary notice displayed on the login screen for all users. For example it could be used to remind all users that the server will be down for upgrading over the weekend. The administrator should delete the message once it is no longer needed.
- **Instant Messenger** – SpiraPlan and SpiraTeam come with a built-in instant messenger that allows users to communicate with each other in real-time. This can result in higher levels of network traffic and some system administrators may wish to disable this feature. This option lets you disable the integrated instant messenger. In addition, you can specify how long (in days) instant messages are retained in the system.
- **Event Log Retention** – As described in section 3.10.7, SpiraTeam comes with a built-in diagnostic event log. By default the system will only retain the last 30-days of events to avoid wasting storage space. You can adjust the retention period in this section to match your organization's policies.
- **Enable Free Text Indexes** – This tells SpiraTeam to use SQL Server Free Text Indexing to speed up keyword searches in the Global Search box. You should only have this set to “Yes” if you have the Free Text Indexing featured enabled in SQL Server, otherwise you will cause SpiraTeam to display error messages when users try and use the global search.




### 3.10.2. File Type Icons

The “File Types List” administration page allows you to view all the different filetypes that are recognized by SpiraTeam and add or edit the associated icon, name, description and MIME type:



## File Types List

This is the list of configured filetypes, their icons displayed in the application, and the mimetypes reported for them. Note that any undefined file extensions are still allowed, they will just be shown as 'Unknown' in the application.

Extension	Icon	Description	Mime Type	Operations
		Other File Type	application/octet-stream	
ai		Adobe Illustrator	application/illustrator	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
asp		Active Server Page	text/plain	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
aspx		ASP Page	text/plain	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
bmp		BMP Image	image/bmp	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
c		C Source	text/plain	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
chm		Compiled Help	application/octet-stream	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
cpp		C++ Source	text/plain	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
cs		C# Source	text/plain	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
css		Stylesheet	text/plain	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

If you click on the “Edit” button next to a filetype, or click on the “Add” button at the bottom of the screen, the system will display the page that lets you add or edit a filetype entry:

### Edit / Add File Type

This is the definition for the file type with the given extension. Entering in values here simply helps with displaying correct file information on the Source Control and Documents pages with attachments. All fields are required, blank fields will be set to the default. The icon image must exist on the web server in the active theme directory under "Filetypes".

Filetype ID: 3

File Extension: aspx

File Description: ASP Page

Mime Type: text/plain

File Icon Image:

On this page you can enter/edit the file extension that’s used to recognize the type of file uploaded, the description of the file type (displayed in popup tooltips), the MIME type (used to determine how the browser handles the file type) and the path to the icon image. Once you are satisfied with the values, you can click on the “Save” button to confirm the changes.

#### 3.10.3. Edit Reports

The “Edit Reports” administration page lets you create custom reports in the system that your users can run in the various projects they have access to. Note that the report definitions themselves are global to the system and therefore available in all projects.

## Edit Reports

This page displays the various reports that are available in the system. The reports listed as 'Default' are part of the system and cannot be modified, however you can add a new report or copy an existing report for modification using the options below:

Category	Name	Active	Default	Operations
Requirement Reports	Requirements Detailed	✓	✓	View Clone
Requirement Reports	Requirements Plan	✓	✓	View Clone
Requirement Reports	Requirements Summary	✓	✓	View Clone
Requirement Reports	Requirements Traceability	✓	✓	View Clone
Test Case Reports	Printable Test Scripts	✓	✓	View Clone
Test Case Reports	Test Case Detailed	✓	✓	View Clone
Test Case Reports	Test Case Summary	✓	✓	View Clone
Test Case Reports	Test Case Traceability	✓	✓	View Clone
Test Case Reports	Test Run Detailed	✓	✓	View Clone

The list of report definitions contains both the standard (default) reports that ship with the system and any custom reports that you have defined. However any of the reports listed with the “Default” option checked will not be editable. So, if you want to modify one of the built-in reports to make it better suit your needs, you should instead click on the “Clone” button next to the report and make a copy of the report that you can then modify. You can view any of the default reports by clicking on the associated “View” button.

To edit an existing non-default report, click on the “Edit” button. To add a new report from scratch, click on the “Add New Report” option at the bottom of the list. Either of these will take you to the Report editing screen:

## Report Details Copy of Requirements Detailed

[← Back to Reports List](#)

This page displays the details of a specific report. For user-defined reports you can specify the formats, define the sections and provide a header/footer that should be included:

**Name:** Copy of Requirements Detailed

**Description:** This report displays all of the requirements defined for the current project in the order they appear in the requirements

**Header:**

Format - **B** **I** **U** **I<sub>x</sub>** | **¶** **¶¶** **¶¶¶** | **¶¶¶¶** **¶¶¶¶¶** **¶¶¶¶¶¶** **¶¶¶¶¶¶¶** **¶¶¶¶¶¶¶¶** **¶¶¶¶¶¶¶¶¶** **¶¶¶¶¶¶¶¶¶¶** **Source**

This report displays all of the requirements defined for the current project in the order they appear in the requirements list. The requirement's details and coverage status are displayed, along with sub-tables containing the list of covering test cases, linked incidents/requirements, attached documents, associated tasks, linked artifacts and the change history

**Footer:**

**Active:**  Yes

**Category:** Requirement Reports

The top-half of this screen (illustrated above) lets you specify the name of the report, the long description (displayed in tooltips but not in the report itself) and a rich-text footer and header. The header and footer will be displayed at the top and bottom of the generated report.

In addition, you can specify whether the report is active (and therefore can be used in the SpiraTeam reports center) and which report category heading the report will appear in. This is also used to determine which role(s) are able to run the report (e.g. a user that has permissions to view requirements will be able to run all reports listed under the “Requirement Reports” category).

The lower-half of the screen displays the list of formats, standard sections and custom sections that make up the report:

The screenshot shows a configuration interface with three main sections:

- Formats:** A list of report formats with checkboxes. The checked formats are Adobe Acrobat, HTML, MS-Word 2003+, and MS-Word 2007+. The unchecked formats are MS-Excel 2003+, MS-Excel 2007+, and XML.
- Standard Sections:** A table with columns for Name, Active, and Operations. It lists "Project Overview" and "Requirements Details", both of which are active. Each row has "Customize" and "Delete" buttons. Below the table is a link to "Add New Standard Section".
- Custom Sections:** A table with columns for Name, Active, and Operations. It contains a link to "Add New Custom Section".

At the bottom of the interface are "Save" and "Cancel" buttons.

The list of formats is fixed in the system, you can simply choose which formats this specific report will be available in. The reporting engine will take care of converting your report into the target format, you just need to specify which type(s) are applicable.

#### a) Standard Sections

The list of **standard sections** contains a list of the various pre-defined report sections that are to be included in the report. A standard section consists of a set of nested queries and embedded elements that will return back data. For example, the “Requirements Details” section consists of a list of all the requirements in a project, together with the associated test cases, tasks, custom properties, attachments, discussions, change history, source code revisions and other related items.

With a standard section, you cannot change the underlying data query, but you can change the header, footer and XSLT template used to format the results:



When you either click on “Add New Standard Section” or the “Customize” link next to an existing standard section, the popup dialog illustrated above will be displayed. On this page you can change the following fields:

- **Name** – Choose the name of the standard report section you want to use from the dropdown list. Changing the name of the section will automatically update the Description field below.
- **Description** – This is the description of the report section, it is not displayed in the final report.
- **Header** – This is the header that will be displayed *before* the dynamic data retrieved as part of the report section. You can enter in formatted rich text in this field.
- **Footer** – This is the footer that will be displayed *after* the dynamic data retrieved as part of the report section. You can enter in formatted rich text in this field.
- **Template** – This is the eXtensible Markup Language Stylesheet Transform (XSLT) used to transform the raw XML data from the report query into the final HTML display format. When you choose/change the name dropdown list, clicking on the “Create Default Template” will populate this field with the default template used to render the data.

When you first create a new standard report section, we recommend using the option to “Create Default Template”. This will then allow you to run the report in the main reports center and have all the available data fields displayed in the standard format. If you would like to customize the content of the section, you have several options:

- **Customize Header/Footer** – if you want to keep the data and layout as-is, you can simply add a custom header and footer to add organization specific information into the report.
- **Customize the Data/Layout** – if you want to customize how the data is displayed and formatted, you will need to edit the XSLT Template. You can learn more about XSLT at the W3Schools website (<http://www.w3schools.com/xsl>). However, the recommended approach is to first run the “Raw XML” format report from the main SpiraTeam reports center. An example XML report is partially shown below:

```

"?xml version="1.0" encoding="UTF-8" standalone="yes"?"
"Report"
  "Title"
    Requirements Detailed Report

```

```

"/Title"
"ProjectData"
  "Project"
    "ProjectId"1"/ProjectId"
    "ProjectGroupId"2"/ProjectGroupId"
    "Name"Library Information System"/Name"
    "Description"Sample application that allows users to manage books, authors and lending
records for a typical branch library"/Description"
    "Website"www.libraryinformationsystem.org"/Website"
    "CreationDate"2005-11-30T19:00:00"/CreationDate"
    "ActiveYn"Y"/ActiveYn"
    "WorkingHours"8"/WorkingHours"
    "WorkingDays"5"/WorkingDays"
    "NonWorkingHours"0"/NonWorkingHours"
    "TimeTrackIncidentsYn"Y"/TimeTrackIncidentsYn"
    "TimeTrackTasksYn"Y"/TimeTrackTasksYn"
    "EffortIncidentsYn"Y"/EffortIncidentsYn"
    "EffortTasksYn"Y"/EffortTasksYn"
    "TasksAutoCreateYn"Y"/TasksAutoCreateYn"
    "ReqDefaultEffort"480"/ReqDefaultEffort"
    "TaskDefaultEffort"360"/TaskDefaultEffort"
    "ProjectGroupName"Internal Projects"/ProjectGroupName"
  "/Project"
"/ProjectData"
"RequirementData"
  "Requirement"
    "RequirementId"1"/RequirementId"
    "ProjectId"1"/ProjectId"
    "ScopeLevelId"3"/ScopeLevelId"
    "AuthorId"2"/AuthorId"
    "Name"Functional System Requirements"/Name"
    "CreationDate"2003-11-30T19:00:00"/CreationDate"
    "LastUpdateDate"2003-11-30T19:00:00"/LastUpdateDate"
    "IndentLevel"AAA"/IndentLevel"
    "ExpandedYn"Y"/ExpandedYn"
    "VisibleYn"Y"/VisibleYn"
    "SummaryYn"Y"/SummaryYn"
    "AttachmentsYn"N"/AttachmentsYn"
    "CoverageCountTotal"21"/CoverageCountTotal"
    "CoverageCountPassed"10"/CoverageCountPassed"
    "CoverageCountFailed"3"/CoverageCountFailed"
    "CoverageCountCaution"1"/CoverageCountCaution"
    "CoverageCountBlocked"1"/CoverageCountBlocked"
    "PlannedEffort"8700"/PlannedEffort"
    "TaskEstimatedEffort"11400"/TaskEstimatedEffort"
    "TaskActualEffort"7570"/TaskActualEffort"
    "TaskProjectedEffort"3855"/TaskProjectedEffort"
    "TaskRemainingEffort"11485"/TaskRemainingEffort"
    "TaskCount"42"/TaskCount"
    "TaskPercentOnTime"59"/TaskPercentOnTime"
    "TaskPercentLateFinish"6"/TaskPercentLateFinish"
    "TaskPercentNotStart"7"/TaskPercentNotStart"
    "TaskPercentLateStart"28"/TaskPercentLateStart"
    "ScopeLevelName"In Progress"/ScopeLevelName"
    "AuthorName"Fred Bloggs"/AuthorName"
    "HasDiscussionChanged>false"/HasDiscussionChanged"
    "IsDeleted>false"/IsDeleted"
    "CustomProperties"
      "CustomProperty"
        "Alias"URL"/Alias"
        "Name"Custom_01"/Name"
        "Type"Text"/Type"
      "/CustomProperty"
      "CustomProperty"
        "Alias"Difficulty"/Alias"
        "Name"Custom_02"/Name"
        "Type>List"/Type"
      "/CustomProperty"
      "CustomProperty"
        "Alias"Requirement Type"/Alias"
        "Name"Custom_03"/Name"
        "Type>List"/Type"

```

```

    "/CustomProperty"
  "CustomProperty"
    "Alias"Notes"/Alias"
    "Name"Custom_04"/Name"
    "Type"Text"/Type"
  "/CustomProperty"
  "CustomProperty"
    "Alias"Review Date"/Alias"
    "Name"Custom_05"/Name"
    "Type"Date"/Type"
  "/CustomProperty"
  "CustomProperty"
    "Alias"Decimal"/Alias"
    "Name"Custom_06"/Name"
    "Type"Decimal"/Type"
  "/CustomProperty"
"/CustomProperties"
"Discussions /"
"TestCases /"
"Tasks /"
"Attachments /"
"History"
  "HistoryChangeSetType"
    "ChangeTypeId"1"/ChangeTypeId"
    "ChangeTypeName"Modified"/ChangeTypeName"
  "/HistoryChangeSetType"
  "HistoryChangeSetType"
    "ChangeTypeId"2"/ChangeTypeId"
    "ChangeTypeName"Deleted"/ChangeTypeName"
  "/HistoryChangeSetType"
  "HistoryChangeSetType"
    "ChangeTypeId"3"/ChangeTypeId"
    "ChangeTypeName"Added"/ChangeTypeName"
  "/HistoryChangeSetType"
  "HistoryChangeSetType"
    "ChangeTypeId"4"/ChangeTypeId"
    "ChangeTypeName"Purged"/ChangeTypeName"
  "/HistoryChangeSetType"
  "HistoryChangeSetType"
    "ChangeTypeId"5"/ChangeTypeId"
    "ChangeTypeName"Rollback"/ChangeTypeName"
  "/HistoryChangeSetType"
  "HistoryChangeSetType"
    "ChangeTypeId"6"/ChangeTypeId"
    "ChangeTypeName"Undelete"/ChangeTypeName"
  "/HistoryChangeSetType"
  "HistoryChangeSetType"
    "ChangeTypeId"7"/ChangeTypeId"
    "ChangeTypeName"Imported"/ChangeTypeName"
  "/HistoryChangeSetType"
  "HistoryChangeSetType"
    "ChangeTypeId"8"/ChangeTypeId"
    "ChangeTypeName"Exported"/ChangeTypeName"
  "/HistoryChangeSetType"
"/History"
"Requirements /"
"Incidents /"
"SourceCodeRevisions /"
"/Requirement"
"/RequirementData"
"/Report"

```

This XML data is then converted by the XSLT template into HTML format so that it can be included into the final generated report. An example fragment of the XSLT template looks like:

```

"?xml version="1.0" encoding="utf-8"?"
"xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:msxsl="urn:schemas-microsoft-com:xslt" exclude-result-prefixes="msxsl"
"xsl:template match="/RequirementData"
"xsl:for-each select="Requirement"
"div"

```



```

"xsl:attribute name="style"
  padding-left: "xsl:value-of select="string-length(IndentLevel)*2"/"px;
"/xsl:attribute"
"xsl:if test="SummaryYn='Y'"
  "div class="Title2"
    RQ:"xsl:value-of select="RequirementId"/" - "xsl:value-of select="Name"/"
  "/div"
  "div class="Description"
    "xsl:value-of select="Description" disable-output-escaping="yes"/"
  "/div"
  "br /"
"/xsl:if"
"xsl:if test="SummaryYn='N'"
  "xsl:attribute name="style"
    padding-left: "xsl:value-of select="string-length(IndentLevel)*2"/"px;
  "/xsl:attribute"
  "div class="Title3"
    RQ:"xsl:value-of select="RequirementId"/" - "xsl:value-of select="Name"/"
  "/div"
  "p"
    "xsl:value-of select="Description" disable-output-escaping="yes"/"
  "/p"
"/xsl:if"
"/div"
"/xsl:for-each"
"/xsl:template"

```

So using a combination of XSLT and the Raw XML report format, you can generate a customized view of the standard report section that will be included in the final report.

Sometimes, however you want to be able to create a completely custom report that includes customized data as well as a custom format. In which case you need to use a **custom report section** instead.

#### b) Custom Section

Back on the main report details page, if you click on “Add New Custom Section”, the following dialog box will be displayed:

On this page you can enter / change the following fields:

- **Name** – Enter the name of the new custom report section that you will be adding to the report. This is not displayed in the final report

- **Description** – This is the description of the custom section, it is not displayed in the final report.
- **Header** – This is the header that will be displayed *before* the dynamic data retrieved as part of the report section. You can enter in formatted rich text in this field.
- **Footer** – This is the footer that will be displayed *after* the dynamic data retrieved as part of the report section. You can enter in formatted rich text in this field.
- **Active** – You should make sure this checkbox is checked if you want the custom section to appear in the final report.

Further down on the page you can actually enter the custom query and associated XSLT template:

On this page you need to first choose the appropriate **reportable entity** from the dropdown list. In the example illustrated above, we have selected the “Requirements” reportable entity. This will automatically populate the following query in the **Query** editor:

```
select value R from SpiraTestEntities.R_Requirements as R where R.PROJECT_ID = ${ProjectId}
```

This query tells SpiraTeam to select all of the rows in the R\_Requirements collection that are in the current project and include all of the columns in the final report. This generally will result in more columns than is desirable, so you should click on the “Preview Results” option to view a list of the various columns and the sample data. That will help you decide which columns are important for your report. You can then adjust the query to only include those columns:

```
select R.REQUIREMENT_ID, R.NAME from SpiraTestEntities.R_Requirements as R where R.PROJECT_ID = ${ProjectId}
```

In this modified query, we have replaced the keyword **value** with the specific column names. When you use the “Preview Results” option on this query, you will only see the two desired columns:

REQUIREMENT_ID	AUTHOR_ID	OWNER_ID	RELEASE_ID	PROJECT_ID	IMPORTANCE_ID	NAME	CRE
1	2			1		Functional System Requirements	200 01T
2	2			1		Online Library Management System	200 01T
3	2			1	1	Book Management	200 01T

Once you have verified that the data being returned matches your requirements, click on the “Create Default Template” option and SpiraTeam will automatically generate a new XSLT template that displays just these columns in a nice table format:

Active:

Query: Requirements [Preview Results](#) | [Create Default Template](#)

```
select value R from SpiraTestEntities.R_Requirements as R where R.PROJECT_ID = ${ProjectId}
```

You need to enter the SQL command for retrieving the report data. You can use the special tokens `$(ProjectId)` and `$(ProjectGroupId)` to limit the query to a specific project or project group. WARNING: If you do not specify either of these parameters, the report will retrieve data for all projects in the system, regardless of the user's role or permissions.

Template:

```
<?xml version="1.0" encoding="utf-8"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform" xmlns:msxsl="urn:schemas-microsoft-com:xslt" exclude-result-prefixes="msxsl" >
  <xsl:template match="/RESULTS">
    <table class="DataGrid">
      <tr>
        <th>REQUIREMENT_ID</th>
        <th>AUTHOR_ID</th>
        <th>OWNER_ID</th>
        <th>RELEASE_ID</th>
        <th>
```

You need to enter the XSLT Template for displaying the retrieved data as HTML. When you click the 'Create Default Template' option, the system will automatically generate a default XSLT template that you can edit.

[Save](#) [Cancel](#)

You can now click the [Save] button to save your changes to the report.

You may have noticed that we had a special token in the query `$(ProjectId)`, this token will be evaluated during the generation of the report and ensures that only items in the current project are included. If you want to include all the items in a specific Project Group, you should instead use the token `$(ProjectGroupId)`. If you don't use either token, the report will include all the items in the entire system, across all projects and groups.

For example:

- `select value R from SpiraTestEntities.R_Requirements as R where R.PROJECT_ID = $(ProjectId)`  
**will display all the requirements in the specific project**

- select value R from SpiraTestEntities.R\_Requirements as R where R.PROJECT\_GROUP\_ID = \${ProjectGroupId}  
**will display all the requirements in the specific project group**
- select value R from SpiraTestEntities.R\_Requirements as R  
**will display all the requirements in the entire system**

For more information on creating custom report queries, please refer to the knowledge base articles on the Inflectra customer support website: <http://www.inflectra.com/Support>.

*Warning: If you create a report that doesn't have either \${ProjectId} or \${ProjectGroupId} in the WHERE clause you could end up displaying data to a user that shouldn't have permission to see that data.*

### 3.10.4. License Details

The license details page displays the information about the installed license for the particular instance of SpiraTeam® being used. The information displayed includes: the product name (e.g. SpiraTeam), the license version (e.g. v4.1.0.0), 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:

## License Details

Product Type*	SpiraTeam	▼
License Version #:	v5.0.0.0	
License Type:	Enterprise License	
# Concurrent Users:	1 Active (View Active Sessions)	
Expiration:	n/a	
Organization*	Inflectra Corporation	
License Key*	1767B74523F1A04346870C4C66078502	

**Note:** The license key and organization name must match that found in your [Customer Home Page](#). If you do not already have a license for the software, you can [purchase one](#) online today.

Save

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 SpiraTeam®. 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>) and 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](mailto:support@inflectra.com).

### 3.10.5. LDAP Configuration

As described previously, you can configure SpiraTeam® 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 SpiraTeam®. However you need to first configure the LDAP server settings. To do this, click on the “LDAP Configuration” link the Administration navigation:

#### LDAP Configuration

This page allows you to configure SpiraTeam to authenticate users against an LDAP directory server. This allows you to avoid having to store passwords in a user's SpiraTeam profile. You can have both types of user exist at the same time - SpiraTeam users that store their passwords inside SpiraTeam, and LDAP users that use their existing LDAP passwords.

Please view/edit your LDAP server's configuration details below:

**General Settings**

**LDAP Host:** myldapserver  
Name (and optionally port) of the server running LDAP (e.g. myserver, myserver:389 or myserver.636)

**Use Secure Sockets Layer (SSL):**  No

**Base DN:** CN=Users,OU=Headquarters,DC=MyCompany  
Name of the root node in LDAP from which to search for users (e.g. CN=Users,DC=MyCompany,DC=Com)

**Bind DN:** CN=sysadmin,CN=Users,OU=Headquarters,DC=MyCompany,DC=Com  
The distinguished name of the user to log into the directory server as (e.g. CN=Fred Bloggs,CN=Users,DC=MyCompany,DC=Com) Name of the root node in LDAP from which to search for user(s) (blank for anonymous)

**Bind Password:**  
The password of the user to log into the directory server as, or leave blank for anonymous

**Attributes**

<b>Login:</b>	uid <small>The attribute in LDAP holding the login name (e.g. uid or sAMAccountName for ActiveDirectory)</small>	<b>First Name:</b>	givenName <small>The attribute in LDAP holding the user's first name (e.g. givenName)</small>
<b>Email Address:</b>	mail <small>The attribute in LDAP holding the user's email address (e.g. mail)</small>	<b>Middle Initial:</b>	initials <small>The attribute in LDAP holding the user's middle initials (e.g. initials)</small>
		<b>Last Name:</b>	sn <small>The attribute in LDAP holding the user's last name (e.g. sn)</small>

**Sample User**

You can optionally enter a sample user to authenticate. When you click [Save] SpiraTeam will try authenticating this user before it updates the LDAP configuration.

**Sample User:** administrator  
The distinguished name of a sample user you want to test authenticate (e.g. CN=Fred Bloggs,CN=Users,DC=MyCompany,DC=Com)

**Sample Password:** \*\*\*\*\*

**Save**

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 name of the LDAP server that you want SpiraTeam to connect to together with the port number if it's not the default of 389.
- **Use Secure Sockets Layer (SSL)**  
You should select this check-box if your LDAP server requires use of the LDAPS secure protocol. Leave unchecked for unencrypted LDAP communication.
- **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, SpiraTeam® 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 SpiraTeam® imports users from the LDAP server it needs to know the user attribute inside the LDAP server that it should use to generate the SpiraTeam® 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 SpiraTeam® 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 SpiraTeam® 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 SpiraTeam® 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 SpiraTeam® 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 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. If you choose to enter it, the user’s name should be the fully-distinguished name of the user (e.g. CN=Sample User, CN=Users, OU=Headquarters, DC=MyCompany, DC=Com).

### **3.10.6. Security Settings**

The “Security Settings” administration page lets you specify the various security settings within SpiraTeam to match your organization’s policies and processes:



## Security Settings

This page allows you to modify the SpiraTeam application security settings:

<b>Allow User Registration:</b> *	<input checked="" type="checkbox"/> Yes	Set this to True if you want to allow users to be able to signup for an account themselves.
<b>Maximum # Invalid Password Attempts:</b> *	5	The number of times a user can enter an incorrect password before their account gets locked out.
<b>Minimum Required Password Length:</b> *	6	The minimum length of a user's chosen password
<b>Minimum Required Special Characters:</b> *	0	The minimum number of non-alphanumeric characters required in a user's password
<b>Password Attempt Time Window:</b> *	10 minutes	The time after which a user's account gets automatically unlocked
<b>Authentication Expiration:</b> *	30 minutes	This specifies the amount of time (in minutes) after which a user will be logged out due to inactivity.
<b>Keep Me Logged-In Expiration:</b> *	20160 minutes	This specifies the amount of time (in minutes) after which a user will be logged out due to inactivity if they have chosen to login with the 'Keep Me Logged-In' option.
<b>Allowed Domains:</b>	*	This should contain the list of other web domains that are allowed to make CORS (cross-origin) REST API calls to this instance. You can specify a comma separated list of base URLs (e.g. <a href="https://www.domain1.com">https://www.domain1.com</a> , <a href="http://www.domain2.com">http://www.domain2.com</a> ) or an asterisk (*) to denote all domains are allowed (not recommended).

The following settings can be changed within the system, once you are satisfied, click the "Update" button to commit the changes:

- **Allow User Registration** – Set this to "Yes" if you want to allow users to self-register for SpiraTeam accounts (that you can subsequently approve). If you set this to "No", a system administrator will need to create all user accounts. Also set this to "No" if you plan on using LDAP-based authentication.
- **Maximum # Invalid Password Attempts** – Set this to the number of times a user can enter an incorrect password before their account is temporarily locked out. This is important in preventing 'brute force' password hacking attempts.
- **Minimum Required Password Length** – Set this to the minimum length of passwords in the system. Choosing a longer password will make it harder for an unauthorized user to crack a password and gain entry into the system.
- **Minimum Required Special Characters** - Set this to the minimum number of non-alphanumeric characters that will be required for passwords in the system. Choosing more required special characters will make it harder for an unauthorized user to crack a password and gain entry into the system.
- **Password Attempt Time Window** – Set this to the duration (in minutes) after which a user's account will be automatically unlocked (due to repeated incorrect password attempts).
- **Authentication Expiration** – This specifies the amount of time (in minutes) after which a user will be logged out due to inactivity when they login without choosing the 'Keep Me Logged-In' option.

- **Keep Me Logged-In Expiration** - This specifies the amount of time (in minutes) after which a user will be logged out due to inactivity if they have chosen to login with the 'Keep Me Logged-In' option. This should normally be longer than the previous setting.

### 3.10.7. Event Log

The “System Event Log” administration page lets you view all of the errors, warning and other diagnostic messages that have been logged in the system:

#### System Event Log

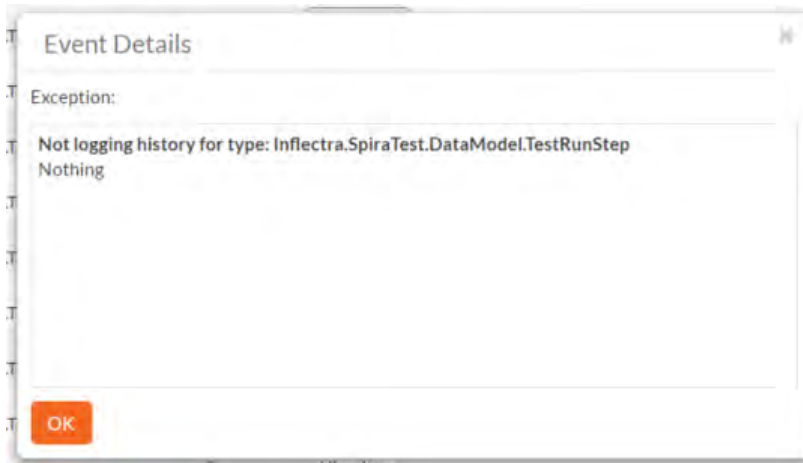
The following system events have been logged in the system:

Refresh Filter Clear Filter Clear Log

Event Time ▲▼	Type ▲▼	Category ▲▼	Message ▲▼	Event Code ▲▼	Operations
5/23/2016 1:22 PM	Error	System.Web.Management.WebErrorEvent	A parser error has occurred.	3006	<a href="#">View Item</a>
5/23/2016 11:10 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunStep	0	<a href="#">View Item</a>
5/23/2016 11:10 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunsPending	0	<a href="#">View Item</a>
5/23/2016 11:10 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunStep	0	<a href="#">View Item</a>
5/23/2016 11:10 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunsPending	0	<a href="#">View Item</a>
5/23/2016 11:08 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunStep	0	<a href="#">View Item</a>
5/23/2016 11:08 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunsPending	0	<a href="#">View Item</a>
5/23/2016 11:08 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunStep	0	<a href="#">View Item</a>
5/23/2016 11:08 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunsPending	0	<a href="#">View Item</a>
5/23/2016 11:07 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunStep	0	<a href="#">View Item</a>
5/23/2016 11:07 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunsPending	0	<a href="#">View Item</a>
5/23/2016 11:07 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunStep	0	<a href="#">View Item</a>
5/23/2016 11:07 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunsPending	0	<a href="#">View Item</a>
5/23/2016 10:54 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunStep	0	<a href="#">View Item</a>
5/23/2016 10:54 AM	Information	Application	Not logging history for type: Inflectra.SpiraTest.DataModel.TestRunsPending	0	<a href="#">View Item</a>

Displaying page 1 of 13

Each event entry is displayed along with the date-time it occurred, the type of event (error, warning, information, success audit, failure audit), category (application, source code provider, data-synchronization) and the short name. To view the full message, click on the “View Item” hyperlink:



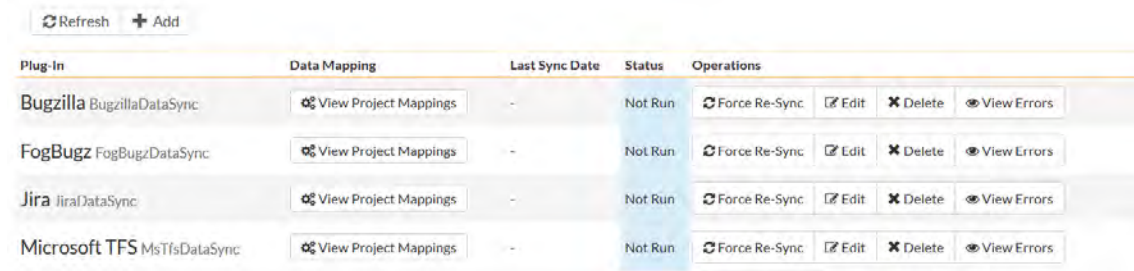
The popup dialog box will display the full error message log and stack trace in a moveable dialog box. This information should be provided to Inflectra customer support if you log a help desk ticket.

## 3.11. Integration

### 3.11.1. Data Synchronization

SpiraTeam® is capable of synchronizing its data with a variety of other systems, including but not limited to requirements management systems and standalone bug-tracking tools. The various integration plug-ins for SpiraTeam® and the steps for configuring the data-synchronization settings are described in the *SpiraTest External Bug-Tracking Integration Guide*.

If you are synchronizing data between SpiraTeam® and one of these other systems, you can click on the 'Data Synchronization' administration page at any time and view a list of all the data-synchronizations taking place, together with the status and date/time of last synchronization:



The screenshot shows a web interface for data synchronization. At the top left, there are 'Refresh' and '+ Add' buttons. Below is a table with the following columns: Plug-In, Data Mapping, Last Sync Date, Status, and Operations. The table lists four plug-ins: Bugzilla, FogBugz, Jira, and Microsoft TFS. Each row has a 'View Project Mappings' button, a 'Last Sync Date' of '-', a 'Status' of 'Not Run', and a set of operation buttons: 'Force Re-Sync', 'Edit', 'Delete', and 'View Errors'.

Plug-In	Data Mapping	Last Sync Date	Status	Operations
Bugzilla BugzillaDataSync	<a href="#">View Project Mappings</a>	-	Not Run	<a href="#">Force Re-Sync</a> <a href="#">Edit</a> <a href="#">Delete</a> <a href="#">View Errors</a>
FogBugz FogBugzDataSync	<a href="#">View Project Mappings</a>	-	Not Run	<a href="#">Force Re-Sync</a> <a href="#">Edit</a> <a href="#">Delete</a> <a href="#">View Errors</a>
Jira JiraDataSync	<a href="#">View Project Mappings</a>	-	Not Run	<a href="#">Force Re-Sync</a> <a href="#">Edit</a> <a href="#">Delete</a> <a href="#">View Errors</a>
Microsoft TFS MsTfsDataSync	<a href="#">View Project Mappings</a>	-	Not Run	<a href="#">Force Re-Sync</a> <a href="#">Edit</a> <a href="#">Delete</a> <a href="#">View Errors</a>

In the example above, we have four plug-ins active, with incidents being exported into JIRA, Bugzilla, FogBugz and Microsoft Team Foundation Server. The data of last sync and the status indicate if there are problems with the plug-in.

The 'Refresh' button allows you to refresh the status of the page to ensure that you are seeing the most up to date information. In certain circumstances you may want to reset the date of last sync and force a particular plug-in to examine all the records in the system to see if any were not synchronized - clicking on the 'Force Complete Re-Sync' button will achieve this. The recommended procedure for forcing a re-sync is to temporarily stop the SpiraTeam Data-Sync background Windows service, click the button to reset the last-sync date, and then start the service. This will ensure that the resetting doesn't happen mid-sync.

### 3.11.2. Version Control Integration (On-Premise Customers Only)

*This section refers to the functionality available to on-premise customers of SpiraTeam. If you are using the cloud / hosted version of SpiraTeam, please refer to section 3.11.4 (TaraVault Configuration) instead.*

SpiraTeam® is capable of integrating with a variety of Version Control (VC) / Software Configuration Management (SCM) tools such as Git, Subversion, CVS and TFS. This allows you to browse the source code repositories using the SpiraTeam web interface, and more importantly link revisions in these tools to artifacts in SpiraTeam. This provides the end-to-end traceability from code commits/check-ins to the tasks, incidents and requirements that necessitated the code change.

The information on using the various version control providers for SpiraTeam® and the steps for configuring the provider-specific settings are described in the *SpiraPlan/Team Version Control Integration Guide*.

To configure a version control provider, you need to click on the Administration > Integration > Version Control link in the Administration navigation to bring up the list of configured version control providers:

## Version Control Integration

SpiraTeam is able to integrate with a variety of external version control systems using its flexible, open architecture and library of available version control providers.

This page allows you to view, add and modify the list of version control providers, make changes to their configuration and also specify any project-specific configuration values:

The Source Code cache is up to date.

Provider	Description	Project Settings	Active	Operations
TestVersionControlProvider2	This provides the dummy version control provider used in testing	Project Settings	Yes	<a href="#">Edit</a> <a href="#">Delete</a>

[Add](#)

By default the only provider listed will be the TestVersionControlProvider which is used for demonstration purposes only, and can be deleted from a production system by clicking on the “Delete” button to the right of it.

To add a new version control provider, click the “Add” button to enter the Plug-in details page. The fields required are as follows:

### New Provider [Edit Version Control Provider](#)

[← Back to Version Control Home](#)

Please enter/edit the following information for the provider. The exact information that needs to be entered is specific to each provider, and you should refer to the documentation for the provider when entering/changing it:

Name:

Description:

Active  Yes

### Default Settings

The following settings are used for any projects that do not define their own settings:

Connection Info:

Login:

Password:  [Test](#)

Domain:

Custom 01:

Custom 02:

Custom 03:

Custom 04:

Custom 05:

[Insert](#) [Cancel](#)

- **Name:** The name of the version control provider that you’re adding. This needs to match the name of the Plug-in DLL file that you’re using (see the *SpiraPlan/Team Version Control Integration Guide* for more details on your specific tool)
- **Description:** The description is for your use only, and does not affect operation of the plug-in.
- **Active:** If checked, the plug-in is active and able to be used for any project.

- **Connection Info:** This field holds the root of the repository for any project accessing the plug-in, unless overridden in the Project Settings. Use the syntax that is described for your tool in the *SpiraPlan/Team Version Control Integration Guide*)
- **Login / Password:** The user id and the password of the user to use while accessing and retrieving information from the version control system.
- **Other Fields:** The other fields (Domain, Custom1 – Custom5) are provider-specific and will be described in the appropriate section of the *SpiraPlan/Team Version Control Integration Guide*.

When finished, click the “Insert” button and you will be taken back to the Version Control integration list page, with new provider listed as an available plug-in:

## Version Control Integration

SpiraTeam is able to integrate with a variety of external version control systems using its flexible, open architecture and library of available version control providers.

This page allows you to view, add and modify the list of version control providers, make changes to their configuration and also specify any project-specific configuration values:

The Source Code cache is up to date. ✕

Provider	Description	Project Settings	Active	Operations
SubversionControl		<a href="#">Project Settings</a>	Yes	<a href="#">✎ Edit</a> <a href="#">✕ Delete</a>
TestVersionControlProvider2	This provides the dummy version control provider used in testing	<a href="#">Project Settings</a>	Yes	<a href="#">✎ Edit</a> <a href="#">✕ Delete</a>

[Add](#)

To edit the settings for an existing version control provider, click on the “Edit” button next to the name of the provider and you will be able to edit the same settings that were shown above when you first created it.

Now, you may want to change some of the settings on a per-project basis. For example you may have different repositories that you want to link to each project. You still enter the base settings for the provider as illustrated above, but then you can override specific settings for each project.

To do this, click on the “Project Settings” button next to the provider in question:

### SubversionControl Project Settings Library Information System

[← Back to Version Control Home](#)
[↻ Change Project](#)

Please edit the following project-specific settings for the ‘SubversionControl’ version control provider. If you leave any fields blank, then the value will be taken from the provider’s default settings. To stop using this provider on the project, just set the Active flag to No below:

**Project Name:**\*

**Active for Project:**\*

[Save](#)
[Clear Cache](#)
[Cancel](#)



The first thing you need to do (regardless of whether you'll be overriding any of the settings) is to make the provider active for the current project. To do this, change the toggle to "Yes" and click [Save]:

## SubversionControl Project Settings Library Information System

[← Back to Version Control Home](#) [↻ Change Project](#)

Please edit the following project-specific settings for the 'SubversionControl' version control provider. If you leave any fields blank, then the value will be taken from the provider's default settings. To stop using this provider on the project, just set the Active flag to No below:

Project settings successfully updated. ✕

Project Name:*	Library Information System
Active for Project:*	<input checked="" type="checkbox"/> Yes
Connection Info:	<input type="text"/>
Login:	<input type="text"/>
Password:	<input type="password"/> <input type="button" value="Test"/>
Domain:	<input type="text"/>
Custom 01:	<input type="text"/>
Custom 02:	<input type="text"/>
Custom 03:	<input type="text"/>
Custom 04:	<input type="text"/>
Custom 05:	<input type="text"/>
<input type="button" value="Save"/> <input type="button" value="Clear Cache"/> <input type="button" value="Cancel"/>	

Now you can decide whether you want to override any of the default settings for this project. Any field left blank will automatically get its settings from the default values entered earlier. In the example above, we have specified a project-specific repository path, login and password. Once you have correctly configured the project, click [Save] to commit the changes.

To improve performance, SpiraTeam will cache some of the data it receives from the version control provider. Normally SpiraTeam will know when to update the cached data based on changes made in the version control system automatically. However sometimes you may wish to flush the cached data completed, to do this, click on the [Clear Cache] button.

You are now ready to use SpiraTeam® in conjunction with the version control tool you selected. For details on how to use the Source Code integration features of SpiraTeam, please refer to the *SpiraTeam® User Manual*.

### 3.11.3. Test Automation

SpiraTeam® can be used to manage the development, scheduling and execution of automated unit, functional and load tests written using a variety of test automation engines (e.g. HP QuickTest Pro, SmarteScript, TestComplete, etc.). This section allows you to configure the different engines that are available in your environment so that the testers know which tools they can use to schedule tests with.

The information on using the various test automation engines for SpiraTeam® and the steps for configuring the engine-specific settings are described in the *SpiraTest/Team RemoteLaunch Automated Testing Integration Guide*.

To configure a test automation engine, you need to click on the Administration > Integration > Test Automation link in the Administration navigation to bring up the list of configured test automation engines:

## Test Automation Engines

SpiraTeam is able to integrate with a variety of external test automation systems using its flexible, open architecture and library of available test automation engines.

This page allows you to view, add and modify the list of test automation engines and make changes to their configuration:

Name	Token	Description	Active	Operations
Bad Boy	BadBoy2	Engine that integrates with Bad Boy	No	<a href="#">Edit</a> <a href="#">Delete</a>
Command-Line	CommandLine	Engine that will execute a generic command-line executable	No	<a href="#">Edit</a> <a href="#">Delete</a>
FitNesse	FitNesse	Engine that integrates with FitNesse framework	No	<a href="#">Edit</a> <a href="#">Delete</a>
IBM RFT	RTFAutomationEngine	Engine that integrates with IBM Rational Functional Tester	No	<a href="#">Edit</a> <a href="#">Delete</a>
JMeter	JMeter2	Engine that integrates with Apache JMeter	No	<a href="#">Edit</a> <a href="#">Delete</a>
LoadRunner	LoadRunner11	Engine that integrates with HP LoadRunner 11.0+	No	<a href="#">Edit</a> <a href="#">Delete</a>
NeoLoad	NeoLoad	Engine that integrates with NeoTys NeoLoad	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Quick Test Pro	QuickTestPro9	Engine that integrates with HP Quick Test Pro 9.0+	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Ranorex	RanorexEngine	Engine that integrates with Ranorex	No	<a href="#">Edit</a> <a href="#">Delete</a>
Rapise	Rapise	Engine that integrates with Inflectra Rapise	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
Selenium WebDriver	Selenium2	Engine that integrates with Selenium 2.0 WebDriver	Yes	<a href="#">Edit</a> <a href="#">Delete</a>
SmarteScript	SmarteScript5	Engine that integrates with SmarteSoft SmarteScript 5.5+	No	<a href="#">Edit</a> <a href="#">Delete</a>
SOAP-UI	SoapUI	Engine that integrates with SmartBear SOAP-UI	No	<a href="#">Edit</a> <a href="#">Delete</a>
TestComplete	TestComplete11	Engine that integrates with SmartBear TestComplete 11.0+	No	<a href="#">Edit</a> <a href="#">Delete</a>
TestPartner	TestPartner	Engine that integrates with MicroFocus TestPartner	No	<a href="#">Edit</a> <a href="#">Delete</a>

Add

To add a new test automation engine, click the “Add” button to enter the Automation Engine details page. The fields required are as follows:

## New Engine Edit Automation Engine

[← Back to Test Automation Engine Home](#)

Please enter/edit the following information for the test automation engine.

Name:

Description:

Token:

Active  Yes

- **Name:** The name of the test automation engine that you're adding. This can be set to any name of your choice that would make sense to your users.
- **Description:** The description is used for any comments or additional information that you need to use to describe the automation engine.
- **Active:** If checked, the automation engine is active and able to be used in any project.
- **Token:** This needs to match the name of the Automation Engine DLL file that you're using (see the *SpiraTest/Team Automated Testing Integration Guide* for more details on your specific tool) for the specific automation engine.

When finished, click the "Insert" button and you will be taken back to the test automation engine list page, with new automation engine listed.

To edit the settings for an existing test automation engine, just click on the "Edit" link next to the name of the engine and you will be able to edit the same settings that were shown above when you first created it.

## Quick Test Pro Edit Automation Engine

[← Back to Test Automation Engine Home](#)

Please enter/edit the following information for the test automation engine.

Name:

Description:

Token:

Active  Yes

Once you have made the appropriate changes, click the [Save] button to commit them.

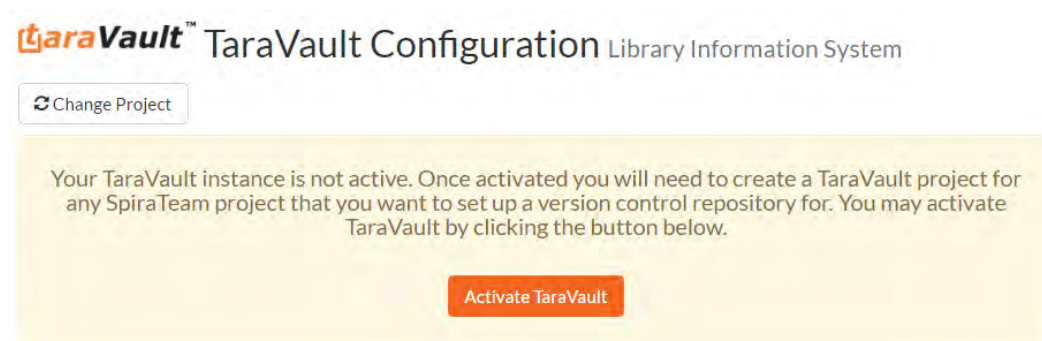
You are now ready to use SpiraTest® / SpiraTeam® in conjunction with the test automation engine you added. For details on how to use the test automation features of SpiraTeam, please refer to the *SpiraTeam® User Manual*.

#### 3.1.0.4. TaraVault™ Integration

*This section refers to the functionality available to hosted/cloud customers of SpiraTeam. If you are using the on-premise version of SpiraTeam, please refer to section 3.11.2 (Version Control Integration) instead.*

TaraVault™ is the hosted source code repository and software configuration management (SCM) system provided by Inflectra. When you signed-up or purchased a subscription to either SpiraPlan or SpiraTeam, it will have come with an entry-level subscription to TaraVault.

When you first click on the Administration > TaraVault administration page, you will see the following screen:



TaraVault is the hosted source code repository and software configuration management (SCM) system provided by Inflectra.

Projects in SpiraTeam can be enabled in TaraVault for storage of project source code files and revisions. TaraVault is provisioned based on a specific number of active users.

You can change which users are active for source code management in the [View / Edit Users](#) screen.

This lets you know that you have not yet activated your TaraVault account with Inflectra. When you click on the [Activate TaraVault] button you will see the following:

[Change Project](#)

TaraVault has not yet been activated for this project. You can activate it by filling in the details below.

### Your TaraVault subscription is active.

TaraVault is the hosted source code repository and software configuration management (SCM) system provided by Inflectra.

Projects in SpiraTeam can be enabled in TaraVault for storage of project source code files and revisions. TaraVault is provisioned based on a specific number of active users.

You can change which users are active for source code management in the [View / Edit Users](#) screen.

#### TaraVault Global Settings

Available TaraVault Users: 1

Active TaraVault Users: 1 ([View List](#))

TaraVault Account Name: localhost ( 1)

#### TaraVault Project Settings

TaraVault Project Active: No

TaraVault Project Name:

TaraVault Project Type:

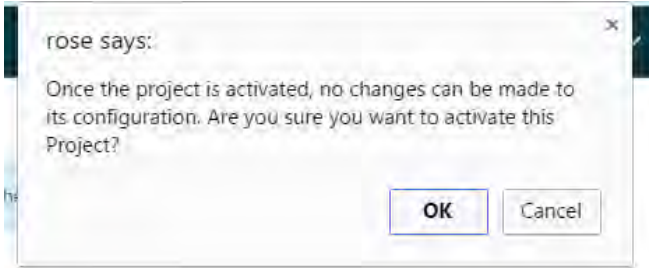
Client Connection:

This will let you see how many TaraVault SCM users your subscription allows and also the name of the TaraVault instance that your SpiraTeam instance is associated with.

Each project in SpiraTeam has its own corresponding TaraVault project, and each TaraVault project can be configured to use one of the two different SCM providers:

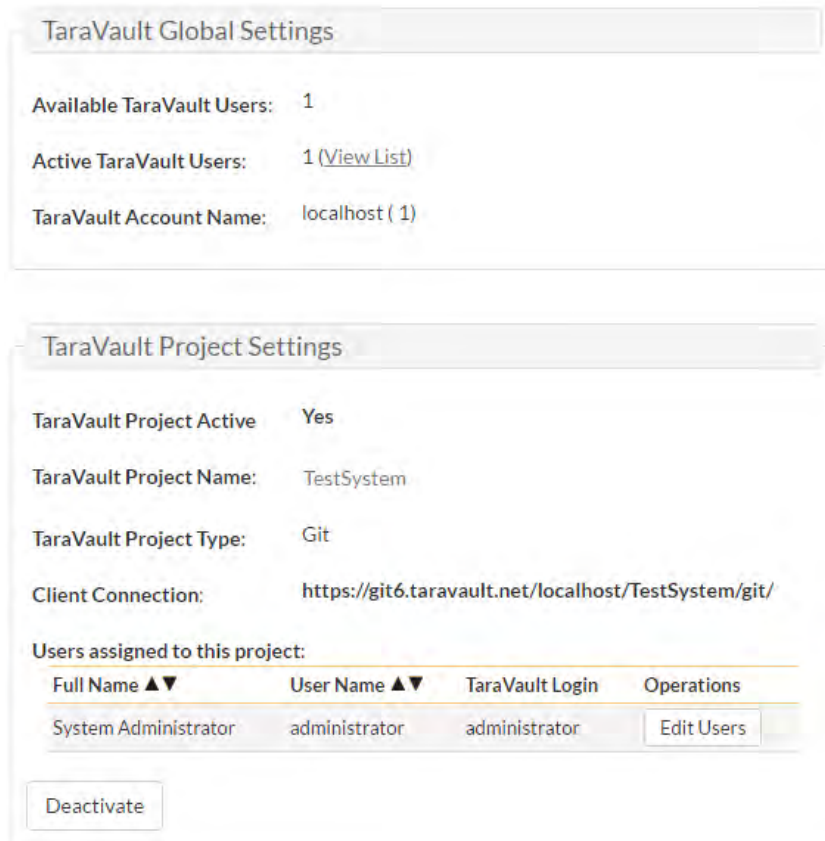
- **Subversion (SVN)** – This is a simple, centralized version control system (VCS) that works best for teams that want to have a centralized SCM environment with only one central instance of the SCM repository. Subversion only allows a single branch to be managed and is generally easier to understand conceptually.
- **Git** – This is a more powerful, distributed version control system (DVCS) that works best for teams that want to have multiple distributed instances of their source code repository. Git offers superior merging and branching functionality to Subversion but is generally more complicated to understand conceptually.

For the current SpiraTeam project you can choose the type of provider you wish to use, enter the name of the TaraVault project and click Activate:



Since you cannot change the type or name of the TaraVault project once activated, please review your entries and click [OK] to confirm the new project activation.

Once the project activation has been completed, the screen will display the following:



The screen will display the name of the linked TaraVault project as well as the list of TaraVault SCM users that are configured to use this TaraVault project – this list will not necessarily be all of the users in the SpiraTeam project, just those that need to connect to TaraVault to commit source code into the repository.

If you want to deactivate this TaraVault project, click the [Deactivate] button and the project will be removed from TaraVault.

To improve performance, SpiraTeam will cache some of the data it receives from TaraVault. Normally SpiraTeam will know when to update the cached data based on changes made in TaraVault



automatically. However sometimes you may wish to flush the cached data completed, to do this, click on the [Clear Cache] button.

To add new SCM users to the TaraVault project, click on the 'Add Users' link to add new SCM users to the project.

### **3.11.5. Add-Ons and Downloads**

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

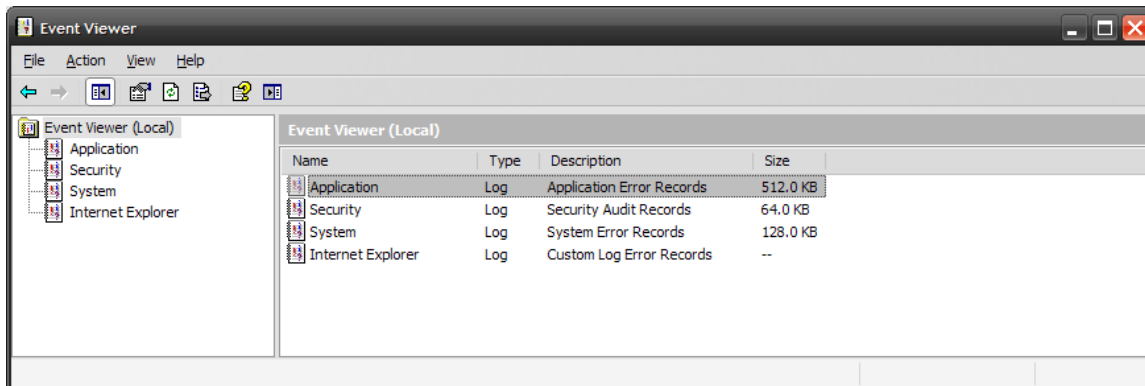
To view the list of available add-ons and downloads, click the “Add-Ons and Downloads” link in the Administration navigation sidebar and you will be taken to the page on the Inflectra® website that lists the various add-ins for the system, together with links to the appropriate documentation.

## 4. Appendices

### 4.1. Appendix A – Troubleshooting

If you receive the dreaded “IIS 500 Internal Error” or the “Server Application Not Available” webpage when you try and access SpiraTeam® for the first time, 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”, “SpiraTest DataSync Service”, “DCOM”, “ASPNET” or “IIS”. Click on the error message, and copy the text of the message into a text editor (e.g. Notepad).

Before contacting Inflectra® customer support with the specific error message, here are a couple of common causes for the above errors together with the appropriate resolutions:

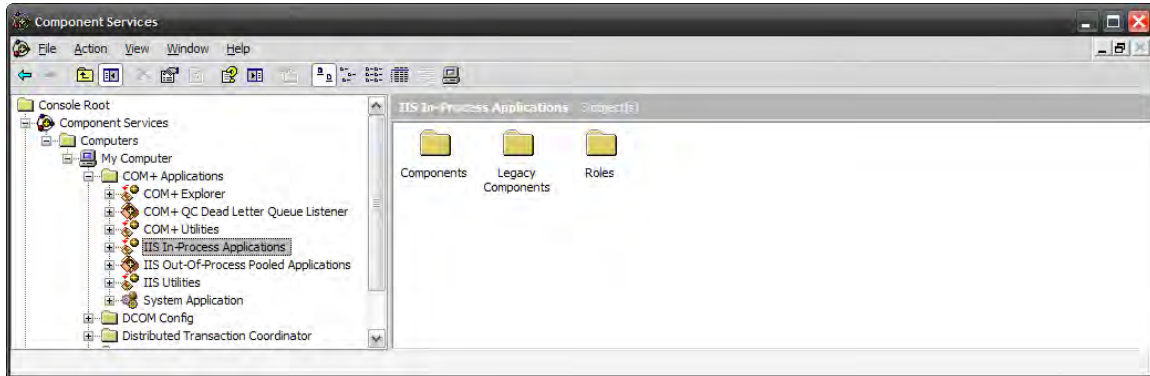
- **The ASP.NET process account has been disabled (Windows XP only)**  
Go to Start > Control Panel > Administrative Tools > Computer Management and launch the Windows computer management console. Expand Local Users and Groups > Users and then double-click on the 'ASPNET' account. Make sure that the ASPNET user is not disabled. This only applies to installing SpiraTeam on Windows XP. For other versions of Windows, the ASPNET user is set per-application pool and typically is set to the built-in NETWORKSERVICE account, so this won't apply.
- **The ASP.NET process account does not have sufficient permissions**  
Right-click on the C:\WINDOWS\Microsoft.NET\Framework\v4.0.30319 folder (and any other versions of .NET that are listed) and make sure that the ASPNET, NETWORKSERVICE and LOCALSERVICE accounts are all listed with Full Control. If that doesn't fit the issue and you are using Windows Server, open up the IIS manager and right-click on the Application Pool that SpiraTeam® is running under and make sure that the identity listed has Full Control permissions on the same folders.
- **The Windows Event Log is full**  
Open up the Application and System event logs, right-click on the log name and choose Properties. Make sure that both are set to “overwrite events as needed”. If they are not set to overwrite as needed, change the setting then manually clear both logs.

If the resolutions above were not able to resolve the issue, please send an email to [support@inflectra.com](mailto:support@inflectra.com) and include the error message from both the web page and the Windows Event Logs.

#### 4.1.1. Missing MSDTC Issue

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

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

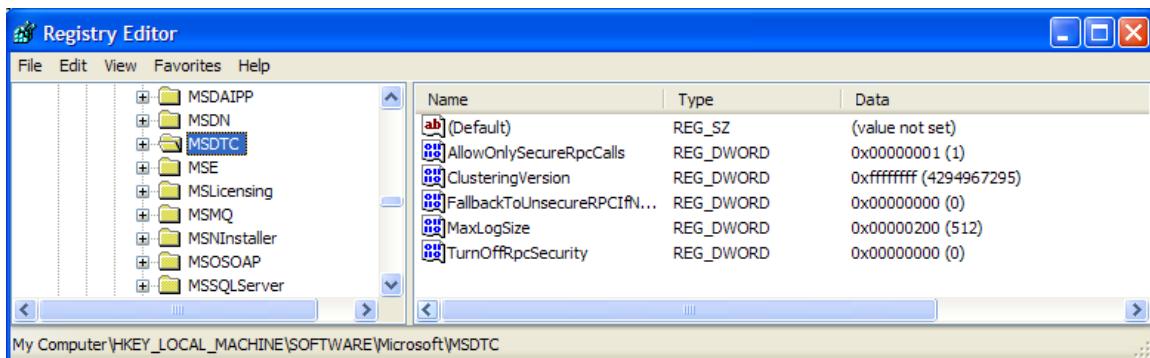


Once the window has opened, expand the folders marked “Component Services”, “Computers”, “My Computer” and “COM+ Applications” in turn. If the window opens correctly and displays the information illustrated above, then your IIS 500 error is being caused by something else.

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

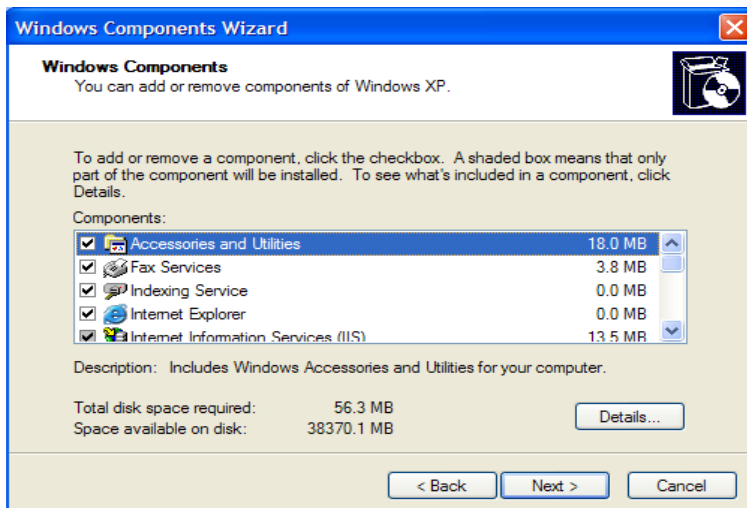
To fix the issue, you need to make changes to the Windows System Registry (hereafter referred to as “the registry”). This is a process that should **not** be attempted by novice users, since any incorrect changes can completely wreck the Windows installation, requiring a complete reinstallation of the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



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.

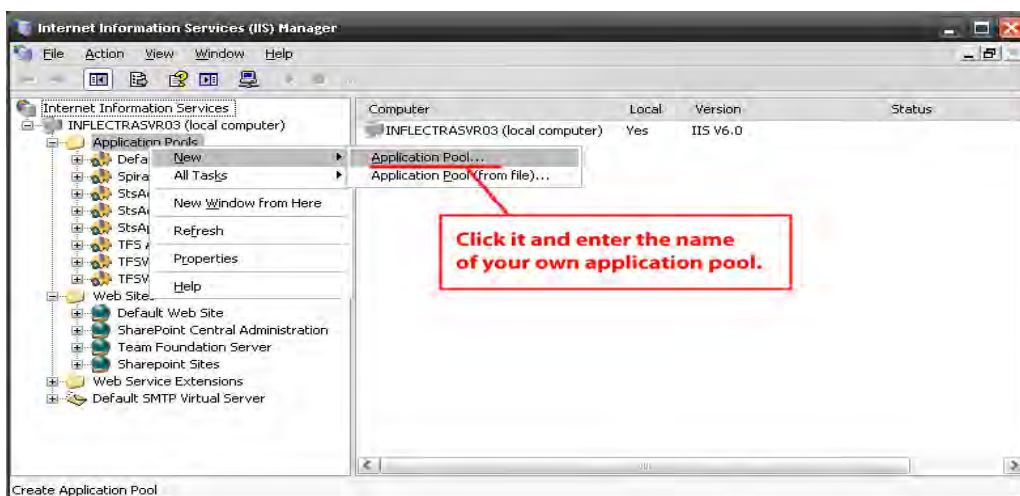
#### 4.1.2. Application Session Pooling Issues (IIS 6.0)

This issue can affect Windows Server 2003 using IIS 6.0. Since the 6.0 release of IIS, there is the ability to separate the web-server into different "Application Pools". Sometimes, web hosting companies will host multiple websites in the same application pool (which we do not recommend). 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. *By default, SpiraTeam installs on these operating systems in its own application pool.*

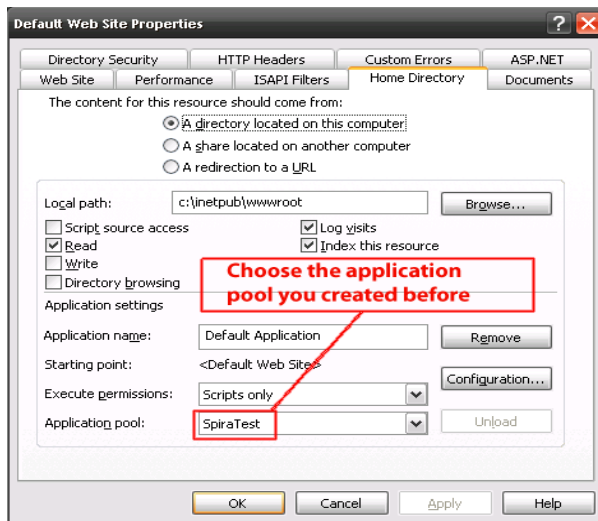
***If you are experiencing application/session loss symptoms*** then we recommend asking your web hosting company to verify that your instance of SpiraTeam is running in its own application pool with all recycling options disabled and the recycle worker process set to recycle only once during the day at a set time.

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

- 1) Add new application pool for "SpiraTeam" if one does not already exist:



- 2) Next, choose your own application pool in the SpiraTeam web site properties:



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

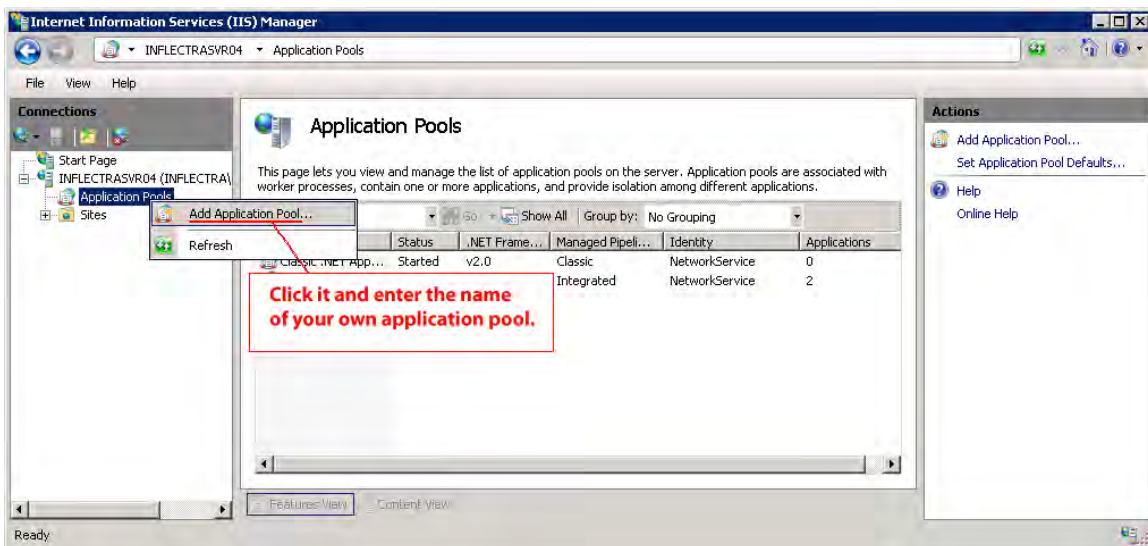
#### 4.1.3. Application Session Pooling Issues (IIS 7.0+)

This issue can affect Windows Vista, 7, 8 or Server 2008, 2012 using IIS 7+. In IIS 7.0+, there is the ability to separate the web-server into different “Application Pools”. Sometimes, web hosting companies will host multiple websites in the same application pool (which we do not recommend). When resources are maxed out for an application pool IIS 7 starts to recycle these sites causing application variables to be lost for those recycled sites. *By default, SpiraTeam installs on these operating systems in its own application pool.*

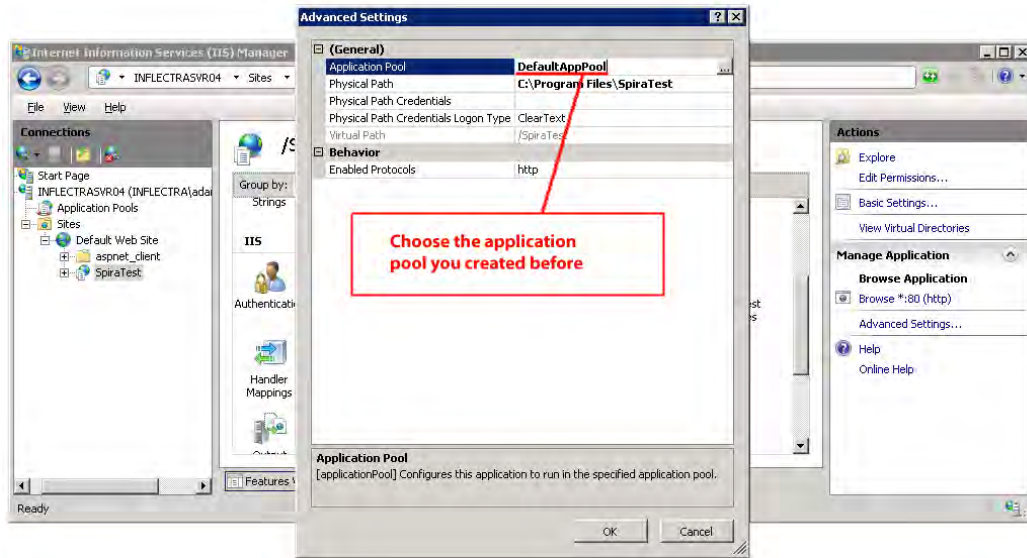
***If you are experiencing application/session loss symptoms*** then we recommend asking your web hosting company to verify that your instance of SpiraTeam is running in its own application pool with all recycling options disabled and the recycle worker process set to recycle only once during the day at a set time.

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

Add new application pool for “SpiraTeam” (if one does not already exist) and make sure it is set to use the .NET Framework v4.0 and the “Integrated Pipeline”:



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





## Legal Notices

This publication is provided as is without warranty of any kind, either express or implied, including, but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement.

This publication could include technical inaccuracies or typographical errors. Changes are periodically added to the information contained herein; these changes will be incorporated in new editions of the publication. Inflectra® Corporation may make improvements and/or changes in the product(s) and/or program(s) and/or service(s) described in this publication at any time.

The sections in this guide that discuss internet web security are provided as suggestions and guidelines. Internet security is constantly evolving field, and our suggestions are no substitute for an up-to-date understanding of the vulnerabilities inherent in deploying internet or web applications, and Inflectra® cannot be held liable for any losses due to breaches of security, compromise of data or other cyber-attacks that may result from following our recommendations.

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.

SpiraTest®, SpiraPlan®, SpiraTeam® and Inflectra® are registered trademarks of Inflectra Corporation in the United States of America and other countries. Microsoft®, Windows®, Explorer® and Microsoft Project® are registered trademarks of Microsoft Corporation. All other trademarks and product names are property of their respective holders.

Please send comments and questions to:

Technical Publications  
Inflectra Corporation  
8121 Georgia Ave  
Suite 504  
Silver Spring, MD 20910  
U.S.A.  
[support@inflectra.com](mailto:support@inflectra.com)