

# TIBCO Spotfire<sup>®</sup> Automation Services 4.5

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## Installation and Deployment Manual

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Revision date: 8 May 2012



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# 1 Installing Automation Services

## 1.1 Overview

Installing Automation Services requires knowledge in how to install and administer Internet Information Services and its add-ons. This manual does not specify in detail how to install and administer these programs. For more information on how to do this, please refer to the documentation of the respective programs, or Microsoft support.

## 1.2 Prerequisites

Before you install the Automation Services web service, the following software must be installed on your server:

- Windows Server 2008.

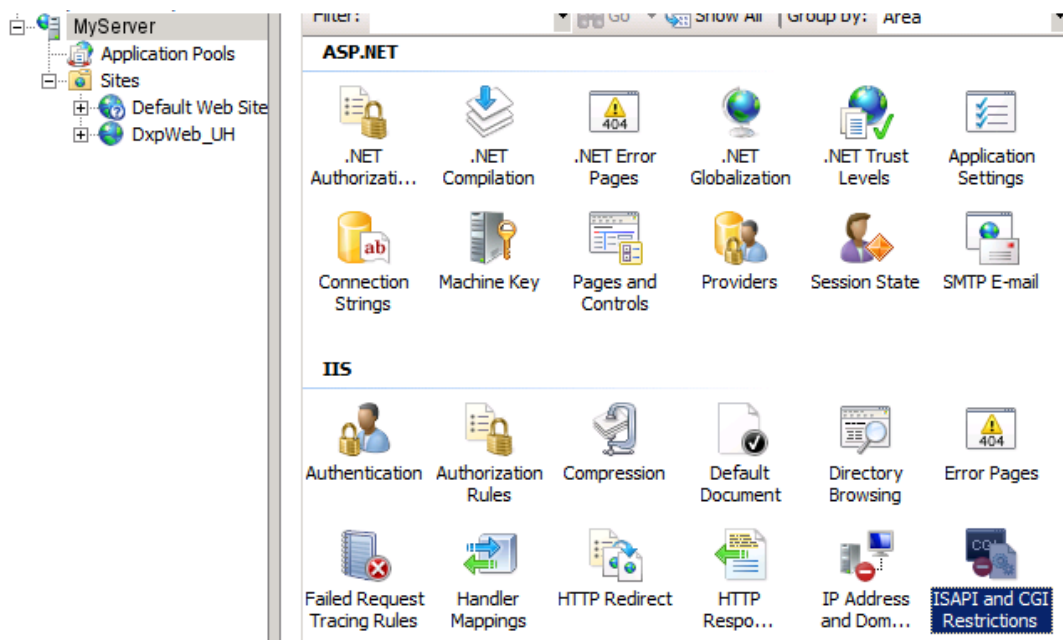
**Note:** TIBCO Spotfire Automation Services 4.5 does not support Windows Server 2003.

- Microsoft .NET Framework version 4.0.
- Internet Information Services version 7.0.

Make sure that **ASP.NET 4.030319** is **Allowed** in **Internet Information Services**:

► **To allow ASP.NET 4.030319 in Internet Internet Information Services**

- 1 In the **Internet Information Services Manager**, select the server level in the left hand list and select **ISAPI and CGI Restrictions**.



- 2 Make sure that **ASP.NET 4.0.30319** is present in the list and set it to **Allowed**.

**Note:** If **ASP.NET 4.0.30319** is not present, open the command line and run the following command:

```
C:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_regiis.exe /i
```

and return to step 1.

**Note:** Make sure to use the correct versions of each application. Newer versions, if available, will not necessarily work.

For comprehensive system requirements, refer to the web page <http://support.spotfire.com/sr.asp>. You should always check here for updated information before you install.

## 1.3 Running the Automation Services Web Service Installer

### ► To Install the Automation Services Web Service:

- 1 Copy all files in the installer kit to the server where you will install Automation Services.
- 1 Run the installer **setup.exe**.
- 2 The *Welcome* dialog is displayed. Click **Next**.
- 3 The *License Agreement* dialog is displayed. Read the license agreement and select the appropriate radio button. Click **Next**.
- 4 The *Destination Folder* dialog is displayed. Specify where you want to install. Click **Next**.
- 5 The *IIS Web Application Settings* dialog is displayed. Specify a name for the Automation Services Application, and on which port Microsoft IIS listens. Click **Next**.
- 6 The *Configuration for TIBCO Spotfire Server* dialog is displayed. Specify the URL to your Spotfire Server and the username and password needed to log into it. If you are using Windows Integrated Login, leave username and password blank.
- 7 The *Configuration for mail* dialog is displayed. Specify a valid SMTP host that can be used to send automatic emails, and a From address to be used in these emails. Click **Next**.

**Comment:** These settings are necessary for the Send Mail task to function. If you need to change them after installation, they can be set in the configuration file `Spotfire.Dxp.Automation.Launcher.exe.config` located in the `<installation directory>\webroot\bin` folder.

- 8 The *Ready to Install the Program* dialog is displayed. Click **Install**.

Response: The installation starts.

- 9 The *Install Complete* dialog is displayed. If you wish, you may select to open the installer log file. Click **Finish**.

Comment: If something went wrong during installation, you may wish to review the installer log file for information. Typically, an installation will fail if the system requirements are not met. This will be reflected in the log file.

## 1.4 Enabling Active Scripting

For the Automation Services export tasks to work properly with Text Areas, you need to enable Active Scripting on the machine running Automation Services.

### ► To Enable Active Scripting

- 1 Open the Local Group Policy Editor, for example by typing **gpedit.msc** in the Start search box and pressing enter.
- 2 Select **Local Computer Policy > Computer Configuration > Administrative Templates > Windows Components > Internet Explorer > Internet Control Panel > Security Page > Internet Zone**.
- 3 Right-click on **Allow active scripting** and select **Properties**.
- 4 Select **Enabled**.

**Note:** If this is done after setting up the IIS you need to restart the IIS for the changes to take effect.

## 1.5 Deploying the Automation Services Job Builder

In order for users to be able to use Automation Services Job Builder, you must deploy it to the Spotfire Server.

### ► To deploy the job builder package to the server:

- 1 Open the Administration Console located at <http://spotserver/spotfire/administration> (where spotserver is the name of one of your spotfire servers) in a web browser.
- 2 Log in as a Spotfire Administrator.
- 3 Select the tab **Deployment**.
- 4 Select a **Deployment Area** that contains a valid Spotfire deployment from the View drop-down list.

Comment: You must select a **Deployment Area** that contains **Spotfire Dxp.sdn**.

- 5 Click the **Add** button.

Response: An **Add to Deployment** dialog appears.

- 6 Click the **Browse** button.

Response: A **File Upload** dialog appears.

- 7 Browse to the package file **AutomationServices.spk**.

- 8 Click **OK** in the **Add to Deployment** dialog to upload and add the file to the distribution.

Response: The list of packages is updated with the contents of the file.

- 9 Click the **Validate** button in the lower left corner to make sure the deployment is not damaged or corrupted in any way.

- 10 Click the **Save** button in the lower left corner to save and publish the deployment.

Response: The **Save Deployment dialog** appears.

- 11 Enter a version number and a description for the deployment and click the **OK** button.

See the online help of the Administration Console.

- 12 Restart TIBCO Spotfire and log in as usual.

Response: The new client package will be downloaded to your TIBCO Spotfire client.

► **To verify the Job Builder License:**

- 1 Start TIBCO Spotfire.

- 2 Log in with an administrator account.

- 3 If prompted, download all updates from the server.

- 4 Once the update has been downloaded and installed, and TIBCO Spotfire opens, select **Tools > Administration Manager...** from the menu.

- 5 Select the **Groups and Licenses** tab.

- 6 Select a group from the **Available groups** list.

- 7 In the right-hand pane, click on the **Licenses** tab.

Response: The "Licenses" interface is displayed.

- 8 Click on the + sign to expand the "**TIBCO Spotfire Extensions**" license to find the "**Automation Services Job Builder Tool**" license.

## Installing Automation Services

- 9 Make sure that both **Access to Extensions** and the **Automation Services Job Builder Tool** are marked with green checkmarks, as seen in the image below.

<input type="checkbox"/>	TIBCO Spotfire Extensions	✓	Everyone
	Access to Extensions	✓	Everyone
	Automation Services Job Builder Tool	✓	Everyone

- 10 If not, click the **Edit** button.  
Response: The "Licenses for group" dialog is displayed.
- 11 Click on the + sign to expand the "**TIBCO Spotfire Extensions**" license.
- 12 Select the check boxes for both **Access to Extensions** and the **Automation Services Job Builder Tool**.
- 13 Click **OK**.
- 14 Repeat steps 6 through 13 for every group of users permitted to use Automation Services.
- 15 When you have verified the licenses for all the groups, close the Administration Manager.

For more information on using the Groups and Licenses tab, please refer to TIBCO Spotfire – Deployment and Administration Manual. You can also read more about how to use the Administration Manager in its online help.

## 1.6 Making the User's Manual Available to Users

In order for the end users to get access to the **Automation Services User's Manual** when they select **Help > PDF Manuals** from the TIBCO Spotfire client, you must copy it to the Spotfire Server.

### ► To copy the Automation Services Manual:

- 1 From the folder where the PDF manuals are located, copy **TIB\_AutomationServices\_4.5.0\_UserManual.pdf**
- 2 Paste it into the following folder on the TIBCO Spotfire Server machine:  
<installation directory>/tomcat/webapps/spotfire/support/manuals

**Note:** In a cluster of more than one Spotfire Server, the PDF manual must be deployed to all Spotfire Servers.



## 1.7 The Client Job Sender

Distributed with the Automation Services is a tool called `Spotfire.Dxp.Automation.ClientJobSender.exe`, and its configuration file `Spotfire.Dxp.Automation.ClientJobSender.exe.config`. This tool is used to automate jobs created by the job builder. It can be installed onto any machine that has HTTP (or HTTPS, if you have set this up) to the Automation Services web server. The executable file and the config file must reside in the same directory.

For information about how to use the Client Job Sender, see the **TIBCO Spotfire Automation Services - User's Manual**.

## 2 Configuring Automation Services

### 2.1 Overview

To improve security, and to access a Spotfire Server with certain authentication set up, there are some settings you may want or need to tweek.

### 2.2 Securing the Automation Services Web Service

#### Encrypting Traffic between Clients and Automation Services

By default, the Automation Services Web Service is set up to use the non-encrypted HTTP protocol for communication between clients (web browsers) and the Web Service. If you wish to encryption traffic between clients and Automation Services, you can enable an SSL binding on the IIS **Web Site** that the Automation Services Web Service is configured in. If you do this, however, you must ensure that the SSL certificate used to encrypt the traffic, or its certification authority, is trusted by the clients.

**Important:** If the SSL certificate is not trusted by the clients, the Automation Services Web Service will not function.

For more information about how to enable SSL in Internet Information Services and how to make clients trust SSL certificates, refer to the documentation for Internet Information Services.

#### Setting Up Authentication

By default, any user accessing the Automation Services Web Service with a web browser is able to run the web service. For security reasons, however, you may want to allow for only a limited number of users to access Automation Services.

This is done in two steps. First, you must disable Anonymous Authentication and enable Windows Authentication to the Automation Services Web Service using Internet Information Services Manager.

#### ► To Set Up Web Service Authentication

- 1 Open the Internet Information Services Manager and find the Authentication settings  
Select the **SpotfireAutomation Application** and double click the Authentication icon.
- 2 Disable **Anonymous Authentication** and enable **Windows Authentication**.

Next, you must configure Automation Services to grant access to certain users.

## ► To grant access to certain users

- 1 Open the Automation Services web configuration file

```
<installation dir>\webroot\Web.config.
```

- 2 Add the following text within the `<system.web>` element:

```
<identity impersonate="false"/>
  <authentication mode="Windows" />
  <authorization>
    <allow users="domain\user1" />
    <allow users="domain\user2" />
    <deny users="*" />
  </authorization>
```

Replace `domain\user1` etc., with the domain and users applicable in your organization. You can add however many users you would like.

Example with one user in the domain `serenity` allowed:

```
<identity impersonate="false"/>
  <authentication mode="Windows" />
  <authorization>
    <allow users="serenity\malcolm" />
    <deny users="*" />
  </authorization>
```

## Encrypt Sections of the Spotfire.Dxp.Automation.Launcher.exe.config File

If you have added authentication information to the `Spotfire.Dxp.Automation.Launcher.exe.config` file, either to the Spotfire Server or to an SMTP server, you may want to encrypt this section of the file. This can be done by executing the tool `Spotfire.Dxp.Automation.Launcher.exe` tool located in `<installation folder>\webroot\bin` with the `/encryptSection` argument followed by the name of the section.

### Examples:

(This will encrypt the section containing the login information used to authenticate with the Spotfire Server)

```
Spotfire.Dxp.Automation.Launcher.exe /encryptSection:"Spotfire.Dxp.Automation/
authentication"
```

(This will encrypt the section containing login information for an SMTP server)

```
Spotfire.Dxp.Automation.Launcher.exe /encryptSection:"spotfire.dxp.automation.tasks/
smtp"
```

To decrypt an encrypted section, use the same tool with the `/decryptSection` argument followed by the name of the section.

### Examples:

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```
Spotfire.Dxp.Automation.Launcher.exe /decryptSection:"Spotfire.Dxp.Automation/ authentication"
```

```
Spotfire.Dxp.Automation.Launcher.exe /decryptSection:"spotfire.dxp.automation.tasks/ smtp"
```

## 2.3 Authenticating to Spotfire Server using Windows Integrated Login

If your Spotfire Server is set up to use Windows Integrated Login, you must configure the Automation Services Web Service to run as a user with login and library permissions to the Spotfire Server.

▶ **To set the user who will run the Automation Services Web Service:**

- 1 In the **Internet Information Services Manager**, locate and select Application Pools in the tree in the leftmost pane.
- 2 In the Application Pools pane, right-click the *TIBCO Spotfire Automation Services Application Pool*.

Select **Advanced Settings** and edit the field **Identity**.

- 3 Change the identity to a domain user that has login and library permissions to the Spotfire Server.

Now that the Automation Services Web Service is running as a non-standard user, you must also grant this user Full Control over files in the Automation Services installation folder.

▶ **To set correct file permissions to the Automation Services installation folder:**

- 1 In the Internet Information Services Manager, locate the Automation Services Web Application in the tree in the left most pane. Expand its contents by clicking the plus symbol next to it.
- 2 Right-click on the subfolder bin and select *Edit Permissions...*
- 3 On the Security tab, click Edit...
- 4 Add the user who was designated to run the Automation Services Application pool, if it is not present.
- 5 Make sure that the this user has the permissions Full control.

If you entered a username and password when you installed Automation Services, you must also remove these from the configuration file.

▶ **To remove username and password from Automation Services configuration**

## 1 Open the file

```
<installation dir>\webroot\bin\Spotfire.Dxp.Automation.Launcher.exe.config
```

in a text editor. Find the section `authentication serverUrl` and remove the username and password specifications. When you are done, the line should look like this:

```
<authentication serverUrl="http://spotfireserver/" username="" password="">
```

## 2.4 Authenticating to Spotfire Server Using Client Certificates

If your Spotfire Server is set up to use Client Certificates, you must install the certificate used for authentication on the Automation Services server and configure Automation Services to use it when authenticating to the Spotfire Server. Refer to the **TIBCO Spotfire Server Installation and Configuration Manual** for more information about Client Certificates.

### ► To install a client certificate

- 1 Open Microsoft Management Console (MMC) and add the **Certificates** snap-in. Select to manage certificates for Local Computer.
- 2 Install the certificate in the **Personal** container.
- 3 Change the access rights to the certificate so that the *NETWORK SERVICE* account can access it:

In the Microsoft Management Console, right click the installed certificate and select **All Tasks\Manage Private Keys**. Grant the user *NETWORK SERVICE* access rights to the certificate.

### ► To configure Automation Services to use a client certificate

- 1 Open the configuration file

```
<installation dir>\webroot\bin\Spotfire.Dxp.Automation.Launcher.exe.config
```

in a text editor. Find the certificate section. If it is commented out, remove the comment markers around it.

- 2 Set `useCertificates` to “true”, and `storeName`, `storeLocation`, and `serialNumber` to match the installed certificate.

Example:

```
<Spotfire.Dxp.Automation>
  <authentication serverUrl="https://spotfireserver.yourorganization.com">
    <!-- <proxy username="" password="" /> -->
    <certificates useCertificates="true" storeName="MyStore"
storeLocation="LocalMachine" serialNumber="00AABB11CCDD2233DD" />
  </authentication>
</Spotfire.Dxp.Automation>
```

## 3 Upgrading to Automation Services 4.5

This section describes what you need to do in order to upgrade from Automation Services 2.2, 3.0, 3.1, 3.2 or 4.0 to Automation Services 4.5. If you are running Automation 2.2, you will no longer be able to connect to an Analytics Server 10.1 or older after the upgrade.

▶ **To Upgrade the Web Service:**

- 1 Navigate to the folder <installation directory>\webroot\bin.
- 2 Make a copy of the **Spotfire.Dxp.Automation.Launcher.exe.config** file.

**Note:** By making a copy of this file you can use it as a reference in step 7 when configuring the new version of the config file.

**Note:** If you have any custom extensions deployed, make a copy of these and the **AddIns.xml** file as well.

- 3 Uninstall the old Automation Services web service.
- 4 Install the Automation Services 4.5 web service by running **setup.exe** on the machine that hosts the web server and follow the instructions in the installation wizard.
- 5 Follow the instructions in the section “Securing the Automation Services Web Service” on page 10.

**Tip:** Open the old **Spotfire.Dxp.Automation.Launcher.exe.config** next to the new version. This way you can copy the necessary settings from the old file and paste them into the new one.

▶ **To Upgrade the Job Builder:**

The old job builder package will automatically be replaced by the new one when upgrading Automation Services.

▶ **To Upgrade the Command-Line Client:**

The Automation Services 4.5 command-line client should be used instead of the old version.

## 4 Troubleshooting

If Automation Services is not set up correctly, the users will not be able to run jobs on the server. An error message will appear asking the user to contact the Spotfire Administrator.

To find out what went wrong, you need to review the `Spotfire.Dxp.Automation.log` file, located in the folder `<installation directory>\LogFiles`.

The file `Spotfire.Dxp.Automation.Launcher.exe.config` located in the folder `<installation directory>\webroot\bin` directory holds all configuration. If you need to change the URL to the Spotfire Server, for instance, or the hostname of your SMTP server, you can do this by opening the file in a text editor.

### Configuration File Extract

```
<!--
  If username and password are empty or doesn't exist, then we login using
  the current Windows account (using Windows Authentication).

  serverUrl (Required): The url to the Spotfire Analytics Server "http[s]://
<server>[:port]/"
  username: The spotfire user to authenticate with.
  password: The password to authenticate with.

  proxy (you need to set the system.net/defaultProxy/proxy: proxyaddress to use it if
  you run under a system account (from web sites etc.)):
    username: Proxy username for communication between web server and Spotfire
  Analytics Server.
    password: Proxy password for communication between web server and Spotfire
  Analytics Server.

  certificates (Certificates to use when authenticating with Analytics Server):
    useCertificates (false): Should we use certificates
    storeName (TrustedPeople): The store name to get the certificates from.

  [AddressBook|AuthRoot|CertificateAuthority|Disallowed|My|Root|TrustedPeople|TrustedPubl
  isher]
    storeLocation (LocalMachine): [CurrentUser|LocalMachine] The location to take
  the certificates from.
    serialNumber: The serial number of the certificate to use.
  -->
<authentication serverUrl="http://spotserver/" username="" password="">
```

## 5 Removing Automation Services

To uninstall Automation Services, use the Program and Features feature found in the Control Panel of your Server. Locate TIBCO Spotfire Automation Services and launch it. Automation Services will be removed from the server and the added Internet Information Services configuration will be removed.

**Note:** Some files may remain in the installation folder after uninstall. You can remove them by simply deleting the installation folder.