



# Witango Application Server 6

## Installation Guide for Windows

December 2010

Tronics Software LLC  
503 Mountain Ave.  
Gillette, NJ 07933  
USA

Telephone: (570) 647 4370

Email: [support@witango.com](mailto:support@witango.com)

Web: [www.witango.com](http://www.witango.com)



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# Introduction

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## *Basic Installation of Witango Application Server 6*

This manual provides a detailed explanation of the Witango installation process. It is intended for users who are not familiar with the Witango Installation process.

Conventions used in this manual

WITANGO\_PATH is used throughout this document to indicate the filepath to where the Witango Application Server executable is located on the machine. eg:

For Windows (32-bit):

```
C:\Program Files\Tronics Software\Witango Application  
Server 6
```

For Windows (64-bit):

```
C:\Program Files (x86)\Tronics Software\Witango  
Application Server 6
```

## About Witango

Witango consists of a number of components, which are designed to allow you to easily develop, deploy, and maintain your dynamic Web site.

The two main components of Witango are:

- **Witango Development Studio** is used to create Web applications. It is available for Windows, Mac OS X and Linux platforms.
- **Witango Application Server** is used in conjunction with a web server to execute the web applications developed with Witango Development Studio. It is available for Windows, Mac OS X and Linux platforms.

A typical installation of Witango consists of a Witango Development Studio for each developer and one or more Witango Application Server instances for deployment. The number of Witango Application Server instances you need depends on the capacity of your server hardware, traffic to your website and the complexity of your applications.

## Understanding Witango Installation

In order to install Witango Application Server 6 on your system, you will need to be able to:

- Download and launch the installer
- Grant the installer Administrative rights
- Obtain and install a Witango Application Server 6 license
- Install and configure a web server
- Install ODBC and/or JDBC drivers (optional)
- Configure ODBC and JDBC data sources (optional)
- Install JAVA SE 6 (optional)

## Getting Ready to Install Witango

### Checking Your Witango Package

You should ensure that you have downloaded the latest installer which contains all the files necessary to run Witango Application Server. This information will be available at <http://www.witango.com/downloads>

### Java Runtime Environment (JRE)

You must have Java SE 6 installed on your machine if you want the Witango Server to execute JavaBeans or initialize the JDBC interface. You can get the latest release of Java from the following Web site:

<http://www.java.com>

### What's New

To find information on the latest updates and changes to Witango, please review the What's New page at [www.witango.com/whatsnew](http://www.witango.com/whatsnew).



# *Witango Application Server 6*

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## *Installation instructions for Witango Application Server 6 for Windows*

### **Minimum System Specifications**

Tronics Software strongly recommends the following as minimum setup standards for Witango Application Server 6:

#### **Operating System**

- Windows Server 2008 (recommended)
- Windows Server 2003
- Windows 7
- Windows Vista
- Windows XP Service Pack 3

#### **Web Server**

- Apache – version 2.2, 32-bit
- Microsoft IIS (Internet Information Services) – version 6 or above
- Any web server supporting CGI.

#### **Other Requirements**

The Witango software is supplied to you via download from Witango's web site found at <http://www.witango.com>.

It is strongly recommended that you close all programs or applications on the machine on which you are installing Witango prior to starting the Witango installer. This reduces the risk of software conflicts and frees system memory for the installation process.

You must be logged into Windows with an account that has Administrator level privileges to successfully install Witango software.

## Installing the Witango Application Server 6 Software

This section will guide you through the Witango Application Server 6 installation setup process.



**Caution** You can cancel the installation process at any point by clicking 'Cancel' in the installer window.

---

### Starting the Witango Installer

Double click the `WitangoApplicationServerWIN6xx.exe` file. A security warning dialog box may appear -click '**Run**' to launch the installer. The InstallAnywhere launcher will start extracting the files required for Witango Application Server installation:



Once it completes, the Witango Application Server Software Installer will start operation.

## The Introduction screen



Click **Next** to continue.

## The License Agreement screen



Read the Witango Application Server License Agreement carefully and then either:

- Click **I accept the terms of the License Agreement** to accept the terms of the agreement and continue installation.
- Click **I do NOT accept the terms of the License Agreement** to reject the terms of the agreement and cancel installation.

Click **Next** to continue.

## The Choose Install Folder screen



The default install location will be shown initially. It is recommended that you use the default installation location. If you do change the installation location several paths in the Witango configuration files will need to be updated before the server will operate.

- To change this location click **Choose...** and browse to your desired location in the dialog box that appears.
- To accept this location, click **Next**.

## The Choose Shortcut Folder screen



The installer will place a shortcut to uninstall Witango Application Server 6 in the location you select on this screen.

Choose the location of the uninstall icon, then click **Next** to continue.

## The Installation Summary screen



Review the summary of the installation options you have selected. Click **Install** to start the installation of Witango Application Server.



**Caution** If you want to change any installation settings this is your last chance to do so before the installation of the software takes place. Click **Previous** to change install options on previous screens.

## The Software Install Process

During the software installation process the installer performs a number of tasks, shown at the bottom of the installation screen.

### Starting the Witango Application Server

The Witango Installer will start the newly installed Witango Application Server.

### The Install Completion screen

The installer will display a message indicating that installation is complete.

Click **Finish** to exit the installer. The installer will clear any temporary files from your hard disk that it has created and then close down.

Witango Application Server has been successfully installed onto your system.

## Providing your License Information

Witango Application Server 6 will not run without a valid two-part server license. You can retrieve licenses you already own, purchase new licenses, and request trial or Free Edition licenses at [www.witango.com](http://www.witango.com).

To retrieve your license:

- 1 Log in to your account at [www.witango.com/account](http://www.witango.com/account)
- 2 Click on **View and Upgrade Licenses**
- 3 Click the link below your license key to email the full two-part license to yourself.

To install your license key:

- 1 Locate the `witango.ini` file in the configuration folder at `WITANGO_PATH/Configuration/witango.ini`
- 2 Open the file using a plain text editor. Some versions of Windows may require that you run your text editor using the **Run As Administrator** option in the contextual menu in order to make changes to this file.
- 3 Copy your license key from the license email.
- 4 Locate the `Witango_Server_6` stanza in the `witango.ini` file and paste your license key on the line `LICENSE=`
- 5 Save the `witango.ini` file.

To install your license text:

- 1 Locate the `license.ini` file in the configuration folder at `WITANGO_PATH/Configuration/license.ini`
- 2 Open the file using a plain text editor. Some versions of Windows may require that you run your text editor using the **Run As Administrator** option in the contextual menu in order to make changes to this file.
- 3 Copy your license text block from the license email.
- 4 Paste your license text into the file.

5 Save the `license.ini` file.



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**Caution** Do not include any extra spaces, returns or punctuation when copying and pasting either the license key or license text from the license email. You will not be alerted to an error in your code until you attempt to access your web site after setup. If you have entered an invalid license you will receive a message stating that your server is unlicensed.

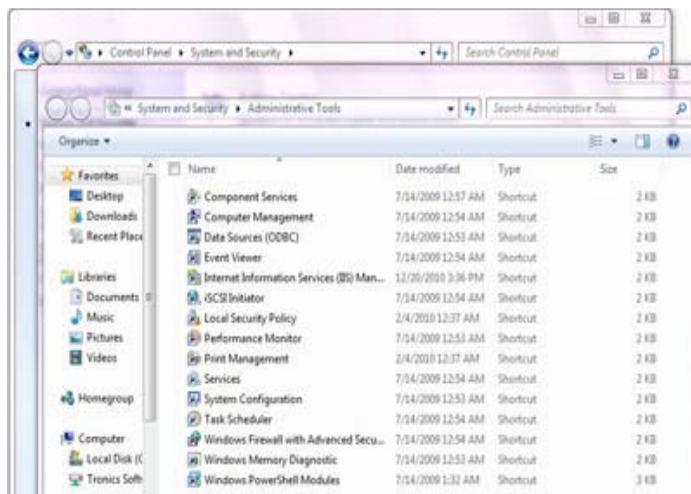
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Restart Witango Application Server 6 to load your license. See **Starting and Stopping Witango Application Server 6** for more information.

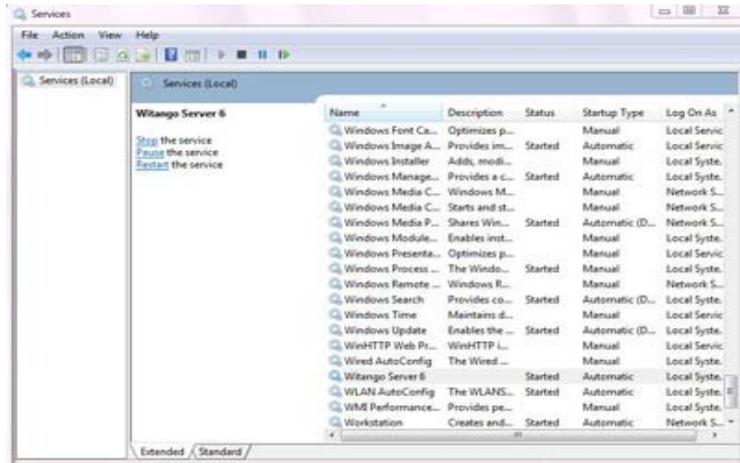
## Starting and Stopping Witango Application Server 6

Witango Application Server 6 runs as a Windows Service. By default, the Witango Application Server 6 service will start when the computer boots. You will need to stop and start the service in order for any license or configuration changes to take effect. If you are running multiple instances of Witango Application Server 6 (a feature of the Advanced Server license) you can stop and start services independently in order to prevent application downtime.

To control the Witango Application Server 6 service(s), go to **Control Panel > System and Security > Administrative Tools > Services**



To stop or start the Witango Application Server 6 service(s) select the service and click **Start** or **Stop** in the contextual menu, the Services toolbar, or the left hand side of the Services Pane.



## Uninstalling Witango Application Server

To uninstall Witango Application Server 6, locate the **Change Witango Application Server 6 Installation** shortcut or icon in one of the following locations:

- In the location you specified on **The Choose Shortcut Folder screen** of the installer
- In the **Add/Remove Programs** or **Uninstall or Change a Program Windows Control Panel**
- WITANGO\_PATH/\_Witango Application Server 6\_installation/Change Witango Application Server 6 Installation.exe

Double click the shortcut or icon to launch the uninstaller.

### Removing Witango Application Server

The Introduction Screen:



Click **Uninstall** to uninstall all the components of the current Witango Application Server installation.



**Note** This will remove the application software but will leave configuration and log files behind. These will need to be removed manually if required. They are located at WITANGO\_PATH.

## The Uninstalling... screen

A screen showing the progress of the software uninstall will be displayed while the Witango Application Server software is being removed.





This screen will show the location of any configuration and log files that the uninstaller did not remove. These will need to be removed manually if required.

Click **Done** to exit the installer. The installer will clear any temporary files from your hard disk that it has created and then close down.

Witango Application Server has been successfully removed.

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## Manually Configuring Apache Web Server

Before your Apache web server will serve Witango files, you must configure your Apache Web server to use it with the Witango Server module (`witango60_apache22.dll`). By default, this module is located in `WITANGO_PATH\Plugins`.

### Configuring Apache 2.2.x

#### ***To set up the Apache2.2.x Web server to use the Witango Server module***

To configure Apache 2.2.x to use the Witango module, and therefore be able to serve Witango applications, you must make a few changes to the Apache configuration file.

By default, the Apache configuration file is located in the `conf` folder in the Apache 2.2 install directory. The name of the file is `httpd.conf`.

Open `httpd.conf` in a text editor.

Scroll to the very bottom and after all other text in the file add these 2 lines:

#### On 32-bit Windows

```
LoadModule WitangoModule "C:\Program Files\Tronics
Software\Witango Application Server
6\Plugins\witango60_apache22.dll"
WitangoModule witango60_apache22.dll
```

#### On 64-bit Windows

```
LoadModule WitangoModule "C:\Program Files
(x86)\Tronics Software\Witango Application Server
6\Plugins\witango60_apache22.dll"
WitangoModule witango60_apache22.dll
```



**Note** It may be necessary to update the path to the DLL if you have installed Witango in a non-default location. Optionally, you can first move the DLL to the modules folder in the Apache install directory.

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Close and save the `httpd.conf` file and start or restart the Apache Web Server. Your server should now be serving Witango Applications.



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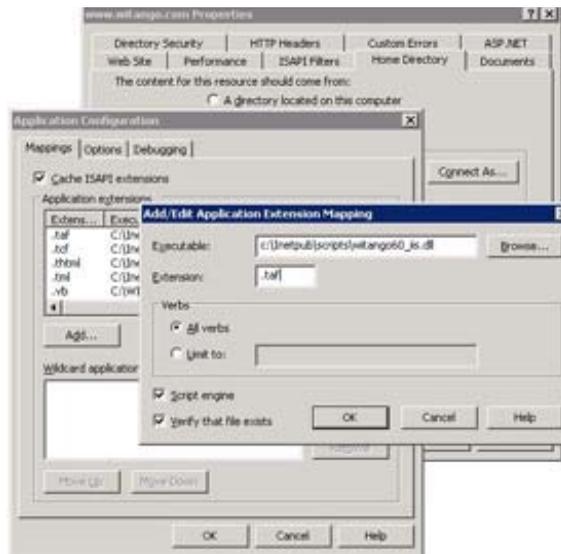
**Note** The `mod_mime_magic` module may interfere with the mime type that the Witango Client module registers with the server. The `mod_mime_magic` looks at the contents of the `taf` and overrides the Witango Client module settings which will send the XML of the `taf` back to the browser. To overcome this issue you can disable the `mod_mime_magic` module.

---

## Manually Configuring IIS 6

Before your IIS 6 web server can serve Witango application files, IIS must have the file mappings added to the web instance that has the witango file.

### Configuring IIS *To build the Witango Server plug-in mappings*



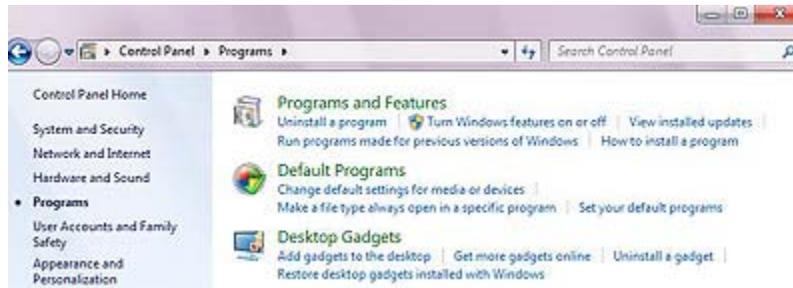
- 1 Open the **Internet Services Manager**
- 2 Right click on the web instance you wish to modify and choose **Properties**.
- 3 Click on the **Home Directory** tab.
- 4 Click on the **Configuration** Button.
- 5 Add the application mappings you require, and, add the path to the location of the witango60\_iis.dll file.

eg: .taf    c:\inetpub\Scripts\witango60\_iis.dll

## Manually Configuring IIS 7 and 7.5

### Enabling ISAPI

- 1 Using **Control Panel > Programs > Turn Windows features on or off**



- 2 Open the items labeled:

Internet Information Services  
World Wide Web Services  
Application Development Features

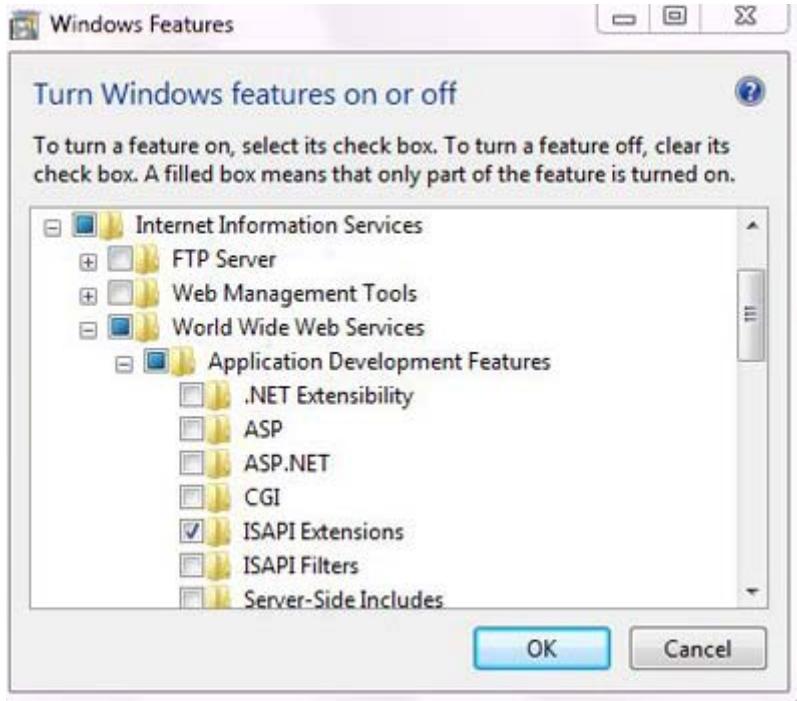
And check the **ISAPI Extensions** checkbox



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**Caution** Before enabling ISAPI, please ensure that you have IIS installed by checking the checkbox next to Internet Information Services.

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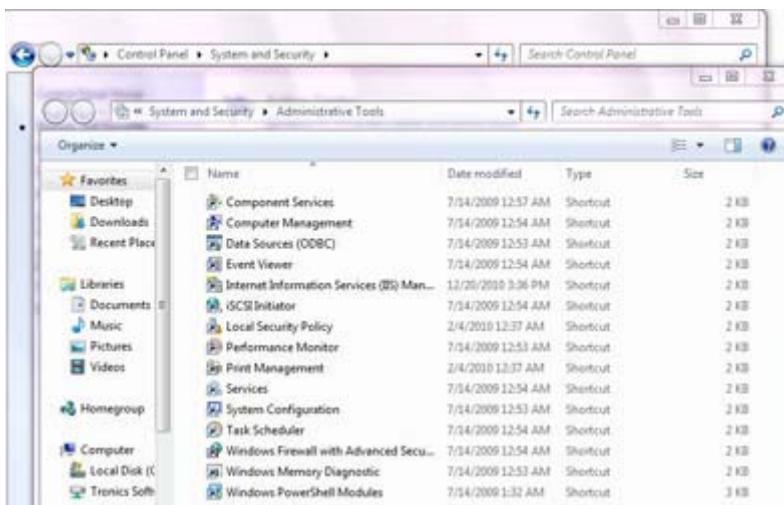


3 Click **OK** to install the ISAPI functionality.



Registering the  
Witango Client  
plug-in

**1 Using Control Panel > System and Security > Administrative Tools > Internet Information Services (IIS) Manager**



The first screen represents the settings of the entire system (all web sites), typically this is the same name as the computer.



Double-click the **Modules** item and verify that the "ISAPIModule" is listed. Go back.

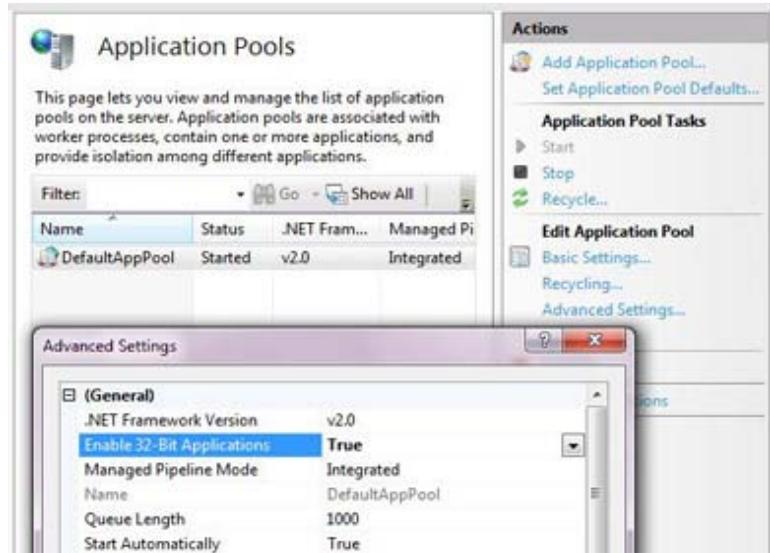
- 2 Double-click the **ISAPI and CGI Registrations** item.
- 3 Under the **Actions** heading, click **Add...**
- 4 In the dialog that appears, use the browse button "..." to locate the ISAPI plug-in at `WITANGO_PATH\Plugins`. It will be named "witango60\_iis.dll"

Give the Registration a Description, eg. "Witango 6", check the "Allow extension path to execute" option and "OK".



## Application Pools (64-bit systems only)

- 1 Under the **Connections** heading, click on **Application Pools**
- 2 Click on the **DefaultAppPool** then select **Advanced Settings** from **Actions > Edit Application Pool**
- 3 Locate the item labeled "**Enable 32-Bit Applications**" and change its value to "**True**"



#### 4 Click "OK"



**Note** You will have to do this step for each Application Pool that you wish to run Witango under

## Configuring IIS

Before your IIS 7 or 7.5 web server can serve Witango application files, IIS must have the file mappings added to the web instance that has the witango file.

### ***To build the Witango Client plug-in mappings***

- 1 Under the **Connections** heading, click on **Sites** and select the website that you wish to run Witango on.
- 2 Double-click the **Handler Mapping Item**  
On this screen you will want to add at least one mapping (for .taf). Other mappings may be needed for your application such as: .tml, .wws, .thtml.
- 3 Under the **Actions** heading, select **Add Module Mapping...**
- 4 Enter the extension you wish to map, e.g. `"*.taf"`

- 5 Select the Module "IsapiModule"
- 6 In the **Executable** field, use the browse "... " button to locate the "witango60\_iis.dll" ISAPI plugin at  
WITANGO\_PATH\Plugins
- 7 Name the Mapping, e.g. "Witango TAF" and click "OK".



- 8 A dialog box may appear asking if you want to allow the Isapi extension. Click **yes**.

Your website should now be able to process Witango Files with Witango Application Server 6.

## Configuring Witango Server with Java Integration

The Witango Server is able to use a Java Virtual Machine (JVM) to extend the Server capabilities with JDBC and Java Beans.

The Java implementation must be version 1.6.0 (Java 6) for the Server to be able to load the JVM.

### **JAVA VIRTUAL MACHINE parameter in witango.ini**

The `witango.ini` file located in the configuration directory of the Server will also need to be modified so the server can locate the correct JVM to load. Locate the `JAVA VIRTUAL MACHINE` parameter and set it to the path where the JVM has been installed. This is typically as follows:

On 32-bit systems:

```
C:\Program Files\Java\jre6\bin\client\jvm.dll
```

On 64-bit systems:

```
C:\Program Files  
(x86)\Java\jre6\bin\client\jvm.dll
```

Restart the Witango Server. For more information, see **Starting and Stopping Witango Application Server 6**.

### **Configuring Witango Server for JDBC**

The JVM interface is loaded when the server starts up. If the JVM functionality fails to load an error message will be written to the `witangoevents.log` file in the configuration directory.

If the JVM loads successfully, you will see the following message:

```
Java Virtual Machine: Enabled.
```

If the JVM fails to load you will see the following message:

```
Java Virtual Machine: Disabled.
```

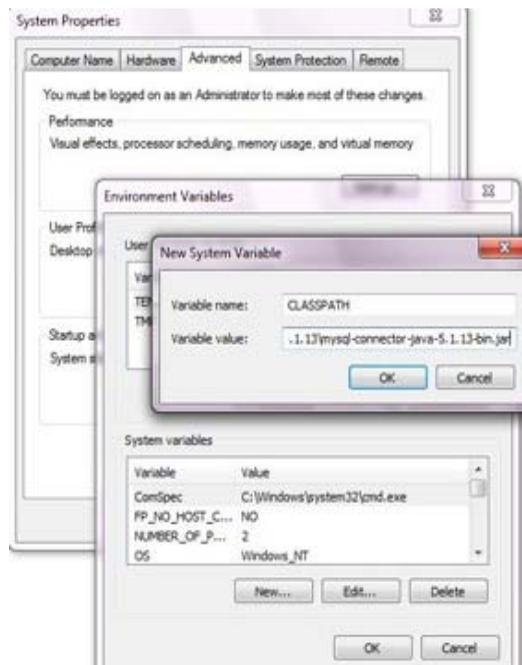
## Setting up a JDBC driver

JDBC drivers may only be used once the JVM has been loaded by the Witango Server. If the JVM fails to load so too will the JDBC interfaces fail to load.

### Configure the Classpath

The Witango Server can only use a JDBC driver once the system variable CLASSPATH containing the path to the driver file has been added to the Windows Environment Variables.

- 1 Open the **System Properties dialog** by right-clicking on **Computer** or **My Computer** in the Start Menu.
- 2 On the **Advanced** tab, click the **Environment Variables** button.
- 3 In the **System Variables** section of the **Environment Variables dialog**, click **New...**
- 4 Type **CLASSPATH** in the **Variable name: field** and the path to the .jar file for your JDBC driver in the **Variable value: field**.
- 5 Click **OK** to add the variable.



## JDBC Driver Information

Before you attempt to setup a JDBC connection you should consult the documentation that came from the supplier of the JDBC driver. It should provide you with the driver class and connection string information. The connection string information should be used to form the URL to access the JDBC connection to the database.

e.g. A connection to a database using MySQL's Connector/J may have the following parameters:

DriverClass	com.mysql.jdbc.Driver
Connection Type	jdbc:mysql
Host	127.0.0.1
Port	3306
Database Name	Testdb

This information would translate to the following `jdbc.ini` settings:

```
<DriverClass>com.mysql.jdbc.Driver</DriverClass>
<URL>jdbc:mysql://127.0.0.1:3306/Testdb</URL>
```

These settings are then added to the Server's `jdbc.ini` file which is located in `WITANGO_PATH/configuration`.

## The jdbc.ini file

The `jdbc.ini` file is a simple XML structure. It is saved as a ANSI text file with Latin-1 encoding.

The structure for the `jdbc.ini` file looks like this:

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<JDBCINI Version="0x00010000">
  <DataSources>
    <DataSource ID="">
      <DSN></DSN>
      <DriverClass></DriverClass>
      <URL></URL>
      <Properties>
        <Property ID="">
```

Note: The Datasource ID is the same as the DSN name.

## Setting up a JDBC driver

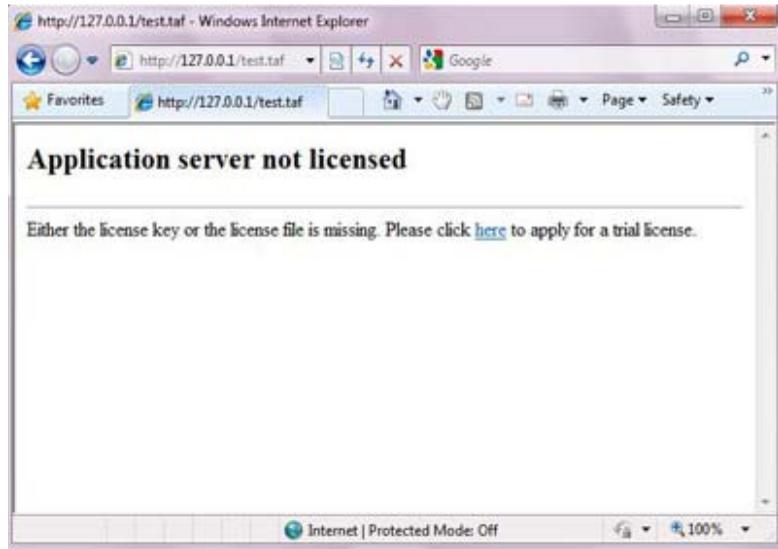
Note: The Property ID is the same as the Name value.

```
<Name></Name>  
<Value></Value>  
</Property>  
</Properties>  
</DataSource>  
</DataSources>  
</JDBCINI>
```

---

## Troubleshooting

### The Unlicensed Server Message



Your web browser may return this message when you attempt to access your web site. This means that either:

- The 30 day evaluation period for the installation has expired.
  - You must purchase a valid license to continue operation of the software. Witango software licenses can be purchased on-line at <http://www.witango.com>
- An invalid license has been entered, or no license has been entered.

Please see **Providing your License Information** for information on how to input your Witango Application Server 6 license.

## The Web Server plug-in does not connect to the Server



This error is caused by the witango client not being able to read the `clients.ini` file. There are two causes for this error:

- 1 The `clients.ini` file is missing or incorrectly formatted.

A typical `clients.ini` file looks like this and must be saved as a text file with ANSI formatting.

```
[Witango Client Definitions]
witango60_cgi.exe=
witango60_iis.dll=
witango60_apache.dll=
witango60_apache22.dll=

[witango60_cgi.exe]
WITANGO_SERVER=127.0.0.1,18160
ERROR_HTML=C:\\Program Files\\Tronics Software\\Witango
Application Server 6\\MiscFiles\\clienterror.html
REPORTCLIENTERROR=TRUE
SENDERFULLHEADER=FALSE
REGISTER_EXTNS=taf;tcf;tml;thtml;wvs

[witango60_iis.dll]
WITANGO_SERVER=127.0.0.1,18160
ERROR_HTML=C:\\Program Files\\Tronics Software\\Witango
Application Server 6\\MiscFiles\\clienterror.html
REPORTCLIENTERROR=TRUE
SENDERFULLHEADER=FALSE

[witango60_apache.dll]
```

```

WITANGO_SERVER=127.0.0.1,18160
ERROR_HTML=C:\\Program Files\\Tronics Software\\Witango
Application Server 6\\MiscFiles\\clienterror.html
REPORTCLIENTERROR=TRUE
SENFULLHEADER=FALSE
REGISTER_EXTNS=taf;taf;tcf;tml;thtml;wvs

```

```

[witango60_apache22.dll]
WITANGO_SERVER=127.0.0.1,18160
ERROR_HTML=C:\\Program Files\\Tronics Software\\Witango
Application Server 6\\MiscFiles\\clienterror.html
REPORTCLIENTERROR=TRUE
SENFULLHEADER=FALSE
REGISTER_EXTNS=taf;taf;tcf;tml;thtml;wvs

```

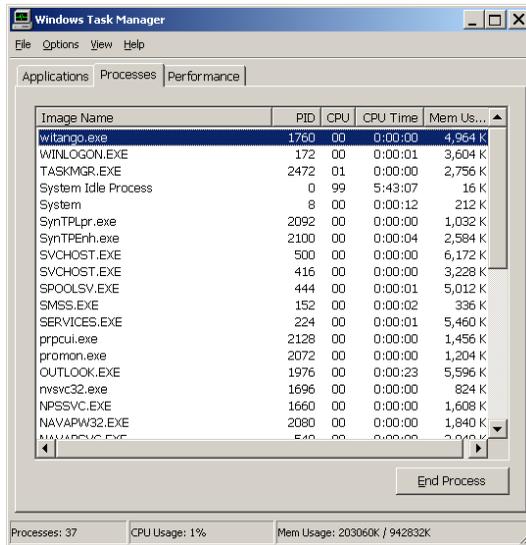
- 2 The permissions of the `clients.ini` file or of a directory leading to the `clients.ini` file is preventing the web server process from reading the file.

## The server is not started

If the server has been configured to listen on a different port to a client, or the server process is not running, the above error message will be generated.



The administrator should first check that the Witango Server process is running in the Task Manager as shown below.



If the Witango Server process is not visible in the list the administrator should start the server process in the Services Control Panel. For more information, see **Starting and Stopping Witango Application Server 6**.

If the process is running the administrator should check that the WITANGO\_SERVER in the clients.ini file matches the values in LISTENERPORT and LISTENERADDRESS in the witango.ini file.

```
[witango60_iis.dll]
WITANGO_SERVER=127.0.0.1,18160
ERROR_HTML=C:\\Program Files (x86)\\Tronics
Software\\Witango Application Server
6\\MiscFiles\\clienterror.html
REPORTCLIENTERROR=TRUE
SENFULLHEADER=FALSE

LISTENERADDRESS=
LISTENERPORT=18160
```

The server is starting up message

While the witango server is starting up it moves through several phases of operation. While the server is loading its support libraries and initializing its subsystems it will not accept requests from the

Witango Clients. To allow the client to display a message to the end user the server sends back the following message. This is normal and as soon as the server has finished its initialization phase it will start accepting user requests.

```
Error
An error occurred while processing your request:
File:
Position:
Class: Internal
Main Error Number: -1070
The server is starting up and can not process regular
requests.
```

### The XML of the taf file is returned

If you receive the XML content of your taf file when requesting a URL this is an indication that the web server plugin is not functioning. This will most likely be due to a misconfiguration. You should check your web server documentation on how to configure plugins.



---

**Caution** The display of the XML content of a taf file can present a serious security concern. If you are experiencing this issue, please stop your web server until the problem has been corrected.

---

