



Witango Application Server 6

Installation Guide for OS X

January 2011

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

Telephone: (570) 647 4370
Email: support@witango.com
Web: www.witango.com

Table of Contents

1 Introduction 3

About Witango 4

Understanding Witango Installation 4

Getting Ready to Install Witango 5

Checking Your Witango Package 5

Java Runtime Environment (JRE) 5

What's New 5

2 Witango Application Server 6 for OS X 10.6 7

Minimum System Specifications 7

Operating System 7

Web Server 7

Other Requirements 8

Installing the Witango Application Server 6 Software 9

Starting the Witango Installer 9

The Introduction screen 9

The License Agreement screen 10

The Choose Shortcut Folder screen 11

The Pre-Installation Summary Screen 12

The Software Install Process 13

The Install Completion screen 13

The InstallWitango script 14

Providing your License Information 17

Starting and Stopping Witango Application Server 6 19

Uninstalling Witango Application Server 20

Removing Witango Application Server 20

Configuring Witango Server with Java Integration 22

Configuring Witango Server for JDBC 22

OS X Java Documentation 22

Setting up a JDBC driver 23

Configure the Classpath 23

The jdbc.ini file 24

Configuring Witango Server for ODBC 25

iODBC 25

Manually Configuring Apache Web Server 26

Troubleshooting 27

The Unlicensed Server Message 27
The Web Server plug-in does not connect to the Server
27
The server is starting up message 28
The XML of the taf file is returned 29
The server is not started 30

Introduction

1

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.

For OS X:

`/Applications/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
- Enter the administrative password
- Obtain and install a Witango Application Server 6 license
- Install JDBC drivers and/or an ODBC driver administrator and ODBC drivers (optional)
- Configure ODBC and JDBC data sources (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. Apple provides Java by default. You should install all available updates to your system to ensure that you are running the latest version of Java.

What's New

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

Witango Application Server 6 for OS X 10.6

2

Installation instructions for Witango Application Server 6 for OS X

Minimum System Specifications

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

Operating System

Mac OS X 10.6

Web Server

Apache 2.2, 64-bit



Note Witango Application Server 6 may install and run on systems of lesser specifications than set out above however support from Tronics Software will not be available for these systems.

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 install application. This reduces the risk of software conflicts and frees system memory for the installation process.

You must have access to the administrative account on your system 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

- 1 Double click the `WitangoApplicationServerOSX6xx.zip` file to extract the installer application. (This may be done for you in the download process.) Double click the extracted application file to launch the installer. The Witango Application Server 6 for OS X installer will start extracting the files required for Witango Application Server installation.



Note The Witango service will be configured to run as the user account that installs Witango. Please be sure that you are logged in to the appropriate user account when you launch the installer.

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 Alias 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 Pre-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.

The Install Completion screen

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



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.

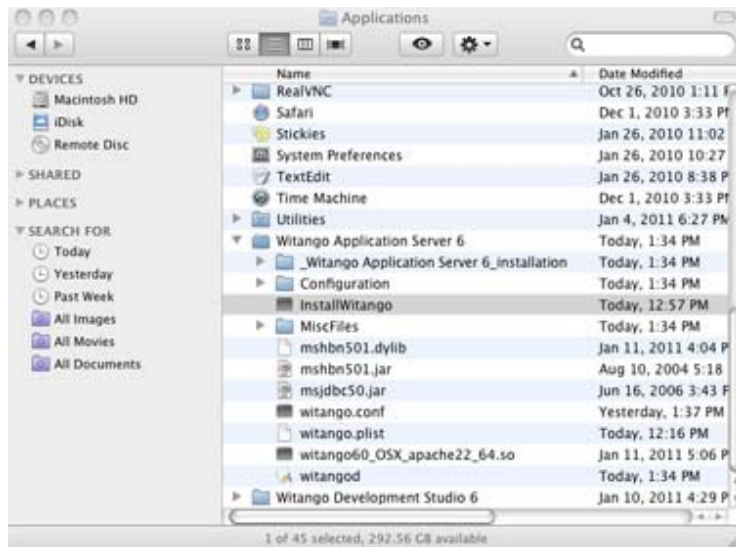
Witango Application Server has been successfully installed onto your system.

The InstallWitango script

An installation script is available to automatically configure your new Witango Application Server 6 installation. This script will configure Witango to work with the Apache Web Server and run automatically at system start-up, and it will start the Witango Application Server process.

To run the installation script:

- 1 Locate the `InstallWitango` file in the Witango Application Server 6 installation directory.



- 2 Double click the file to run the script.



```
Terminal — bash — 79x17

This script will install Witango Application Server on OS X 10.6

This script must be run by a user with Administrator rights
This script will ask for the Administrator password

Step 1. Installing LaunchDaemon
Password:
Done.

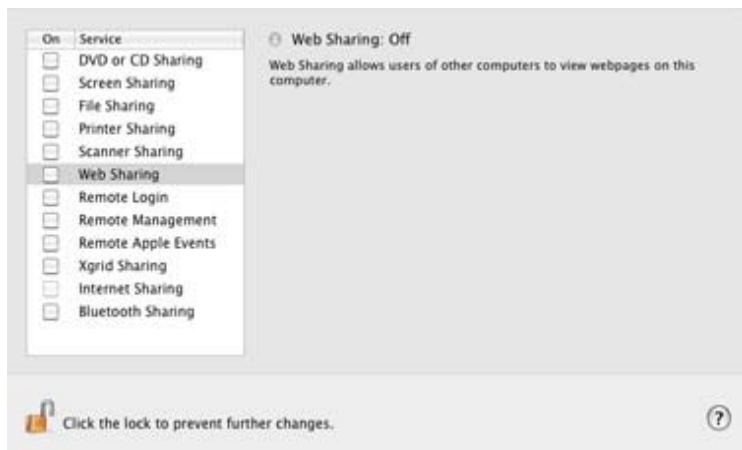
Step 2. Launching Witango Application Server
Done.

Step 3. Configuring Web Sharing (Apache)
Open System Preferences, go to the Sharing panel, and turn off 'Web Sharing'
Press Enter to Continue?
█
```

- 3 When prompted, enter your system's administrative password.
- 4 When prompted to turn off web sharing, navigate to System Preferences in your Applications directory and double click the Sharing icon.



- 5 Un-check the Web Sharing checkbox to turn off Web Sharing.



- 6 Press 'Enter' in the Terminal window to finish the installation script.



This completes the configuration and starts the Witango Application Server.

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.

To retrieve your license:

- 1 Log in to your account at <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.
- 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.
- 3 Copy your license text block from the license email.
- 4 Paste your license text into the file.
- 5 Save the `license.ini` file.



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.

Restart your computer 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 background service. By default, the Witango Application Server 6 service is configured by the InstallWitango script to 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. The recommended way to start and stop the Witango service on Mac OS X is to reboot your computer.

If you need to start and stop the Witango service without restarting your computer, you can do so in the Terminal with the following commands:

To stop the Witango service:

```
sudo launchctl unload /Library/LaunchDaemons/  
witango.plist
```

To start the Witango service:

```
sudo launchctl load /Library/LaunchDaemons/  
witango.plist
```



Note To execute these commands you will require the administrative password.

Uninstalling Witango Application Server

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

- In the location you specified on The Choose Shortcut Folder screen of the installer
- WITANGO_PATH/_Witango Application Server 6_installation/Change Witango Application Server 6 Installation

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.

Configuring Witango Server with Java Integration

The Witango Server is able to use the Java Virtual Machine (JVM) to extend the Server capabilities with JDBC and Java Beans. By default, Witango Application Server 6 is configured to use the JVM supplied by Apple. No further configuration changes are necessary for Java integration.

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.
```

OS X Java Documentation

For full Java for OS X documentation please consult the following site:

```
http://developer.apple.com/java
```


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 JDBC Driver

The Witango Server can only use a JDBC driver once the driver files have been downloaded to the `/Library/Java/Extensions` directory.

Before you attempt to setup a JDBC connection you should consult the documentation that came from the supplier of the JDBC driver. It should, at a minimum, 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 the server's configuration directory.

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



Caution If the file is saved as an OS 9 text file with Mac Roman encoding the server will fail to parse the datasources.

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

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<!DOCTYPE JDBCINI SYSTEM "jdbcini.dtd" >
<JDBCINI Version="0x00010000">
  <DataSources>
    <DataSource ID=" ">
      <DSN></DSN>
      <DriverClass></DriverClass>
      <URL></URL>
      <Properties>
        <Property ID=" ">
          <Name></Name>
          <Value></Value>
        </Property>
      </Properties>
    </DataSource>
  </DataSources>
</JDBCINI>
```

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

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

Configuring Witango Server for ODBC

iODBC

The server dynamically loads the odbc driver manager specified in the ODBCMLIBRARY= parameter of the witango.ini file. The default setting for this parameter is the location of the iodbc driver manager that ships with OS X 10.6. This driver manager is located at `/usr/lib/libiodbc.dylib`. It is not recommended to use a symbolic link in this parameter as unpredictable results may occur.

If the specified driver manager is loaded the event is recorded in the `witangoevents.log` file.

```
ODBC Interface: Enabled.
```

You may also need to install the iODBC administrative tool:

```
http://support.apple.com/kb/DL895
```

Manually Configuring Apache Web Server

The InstallWitango script automatically configures Web Sharing (Apache) to use the Witango client module. This configuration is done with the file `/private/etc/apache2/other/witango.conf`

This file can be moved or edited if you need to modify the default configuration of Apache.



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.

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 2 causes for this error:

The clients.ini file may be missing, incorrectly formatted or has not been saved as a Mac OS X unix text file.

A typical clients.ini file looks like this and must be saved a text file with unix style line breaks. If it is saved with Macintosh line breaks the client will not be able to parse the file.

```
[Witango Client Definitions]
witango60_OSX_apache22_64.so=

[witango60_OSX_apache22_64.so=]
WITANGO_SERVER=127.0.0.1,18160
ERROR_HTML=/Library/WebServer/Documents/
clienterror.html
REPORTCLIENTERROR=TRUE
SENDERFULLHEADER=FALSE
```

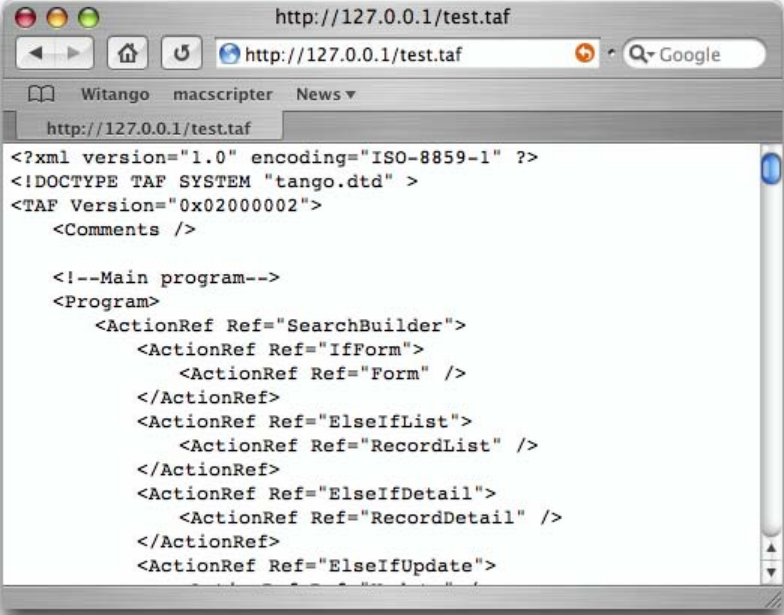
The server is starting up message

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 or loaded. This will most likely be caused by an incomplete configuration resulting from the **The InstallWitango script** not being completed, but can also be due to a misconfiguration of Apache. You should check your Apache documentation on how to configure modules. A screenshot of the XML content of a taf file is shown below:

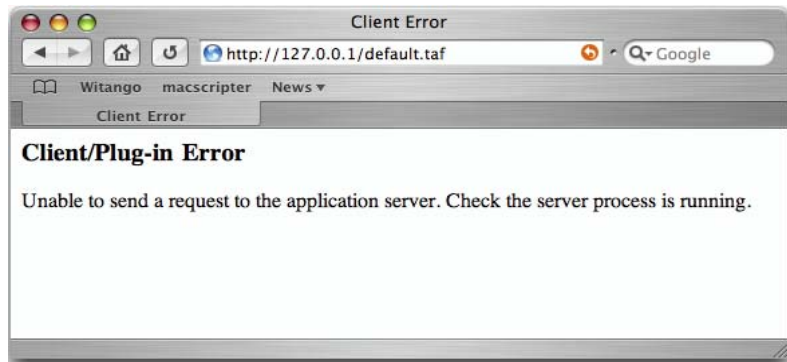
A screenshot of a web browser window showing the XML content of a taf file. The browser's address bar displays 'http://127.0.0.1/test.taf'. The page content is XML code, including a DOCTYPE declaration, a version string, and a main program section with several nested ActionRef elements.

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<!DOCTYPE TAF SYSTEM "tango.dtd" >
<TAF Version="0x02000002">
  <Comments />

  <!--Main program-->
  <Program>
    <ActionRef Ref="SearchBuilder">
      <ActionRef Ref="IfForm">
        <ActionRef Ref="Form" />
      </ActionRef>
    <ActionRef Ref="ElseIfList">
      <ActionRef Ref="RecordList" />
    </ActionRef>
    <ActionRef Ref="ElseIfDetail">
      <ActionRef Ref="RecordDetail" />
    </ActionRef>
    <ActionRef Ref="ElseIfUpdate">
```

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 following error message will be generated.



The administrator should first check that the Witango Server service is running by executing the following command in Terminal:

```
ps x | grep witangod
```

and verifying a line in the output containing `witangod.app`.

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. An empty `LISTENERADDRESS=` listens on all available IPs, of which `127.0.0.1` always is.

```
[witango60_OSX_apache22_64.so=]  
WITANGO_SERVER=127.0.0.1,18160  
ERROR_HTML=/Library/WebServer/Documents/  
clienterror.html  
REPORTCLIENTERROR=TRUE  
SENDERFULLHEADER=FALSE  
  
LISTENERADDRESS=  
LISTENERPORT=18160
```