SIMIAN systems

Setting up a Sitellite development
environment on Windows

Sitellite Content Management System

Introduction

For live deployment, it is strongly recommended that Sitellite be installed on a Unix-based operating system such as Linux, Mac OS X, Solaris or BSD. Sitellite and its underlying technologies work best on these operating systems, and undergo more stability and security testing on these platforms than on Windows.

For development, while there are some advantages to developing on a desktop running a Unix-based operating system, this is not always possible and there are other advantages to Windows as well. This document will outline the process of setting up a complete Sitellite development environment on a Windows desktop.

Installing the Apache web server

You can find Apache 2 for download on the Apache Foundation's HTTP Server website here:

```
http://httpd.apache.org/
```

Click on the download link in the site menu then look for the Win32 Binary download which should be an MSI installer file (.msi). Save this to your desktop and double-click it to run the Apache installer. As of this writing, the latest version is Apache 2.2.

Follow the prompts in the installer to complete the installation. The default values for each option should work fine.

When the Apache installer has finished, it will start the web server automatically and you will see an Apache icon in the Windows task bar. You can use this task bar menu to start and stop the Apache server as well as to open the Apache Monitor tool. You will also see an Apache HTTP Server entry in the Start > All Programs menu, from which you can also start/stop Apache as well as access the Apache configuration file.

Installing the MySQL database server

You can find MySQL for download on the MySQL website here:

```
http://www.mysql.com/
```

Go to the Developer Zone to find the Community Edition of the MySQL server and find the download link for the latest stable version of the MySQL Server. At the time of writing, the latest stable version is 5.0. Make sure to choose the Windows ZIP/Setup.EXE download, which will provide an installer to get up and running faster.

Once you have saved this to your desktop, double-click the download to extract and run the installer. The default options should mostly work fine, with the following recommended changes:

1. Since this is only a local development copy, leave the firewall setting next to the "Enable TCP/IP Networking" unchecked. This prevents external computers from potentially accessing the MySQL server on your desktop.

2. On the same screen, uncheck the "Enable Strict Mode", which may help prevent some SQL errors from the use of non-standard MySQL syntax.

3. On the character set screen, I recommend leaving the character set to Latin1 even on multilingual sites. Sitellite's multilingual capabilities do not depend on the database for encoding/decoding, simply for storage, and this prevents several potential issues related to key lengths in MySQL.

4. If you want to use the command-line (DOS) MySQL executable to test and run queries on the database, then check the "Include Bin Directory in Windows PATH" option, which will make the MySQL executables more easily accessible from the DOS prompt.

When you have finished the installer, MySQL will be running in the background on your desktop computer. You will also see a MySQL entry in the Start > All Programs menu, from which you can access the MySQL command line client as well as the MySQL manual and reconfiguration tool.

Installing the PHP programming language

You can find the PHP download on the PHP website here:

```
http://www.php.net/
```

Simply go to the downloads page and select the latest PHP installer package for Windows. As of this writing, the latest version is 5.2.

Once the PHP installer is saved to your desktop, double-click the download to run the installer. Most of the default options are fine, with these specific choices:

1. For the "Web Server Setup", choose "Apache 2.2.x Module"

2. For the "Apache Configuration Directory, enter "C:\Program Files\Apache Software Foundation\Apache2.2\conf\"

3. For "Choose Items to Install", expand the Extensions list, select the MySQL extension and set it to "Will be installed on local hard drive". Some other recommended but optional extensions are Curl, GD2, and SQLite.

As of PHP 5, the MySQL extension is no longer enabled by default, so the following steps may need to be taken:

1. Go to Control Panel and open the System icon (Start > Control Panel > System)

2. Go to the Advanced tab

3. Click on the "Environment Variables" button

4. Look into the "System Variables" pane

5. Find the Path entry (you may need to scroll to find it)

6. Double-click on the Path entry

7. Enter your PHP directory at the end, including ";" before (e.g. ";C:\Program Files\PHP")

8. Press OK and restart your computer

Alternative Apache/MySQL/PHP installation options

There are a few "AMP" installation packages that are made available by third parties which will install and configure all three of these for you at once, and possibly some additional tools as well such as phpMyAdmin for managing your MySQL databases. These may put things in different places than the default installations of these three tools individually, but they may also make it quicker and easier to get up and running.

Here are links to a few such packages:

```
http://www.wampserver.com/en/
```

```
http://www.apachefriends.org/en/xampp.html
```

```
http://www.appservnetwork.com/
```

Editing your hosts file

By default, Apache runs a single website on your desktop, which is fine for developing one website, but if you will be developing multiple websites or new versions of the same website, it is often helpful to be able to run multiple virtual sites from the same machine. To get set up to do this, we'll first need to edit the operating system's hosts file.

The location of the hosts file on Windows XP is in the "C:\WINDOWS\system32\drivers\etc\" folder. I would recommend creating a shortcut to the hosts file and placing it on your desktop or in your My Documents folder for easier access later on, since each time you will be creating a new website on your desktop, you will begin by adding an entry for it to this file.

The format of the hosts file is very simple. Any line that begins with a # character is ignored by Windows and the other lines have the following format:

```
127.0.0.1     localhost
```

The first part is the IP address followed by the host name. Each entry should be kept on its own line. To add a new entry for your first development site, add a new line as follows:

```
127.0.0.1     www.mydevsite.lo
```

The 127.0.0.1 IP address is your computer's personal number for itself. It is always 127.0.0.1, even though the IP address of your machine as seen by other machines is different.

The name "www.mydevsite.lo" is a made-up domain name. It can be any name you wish, however I recommend using the ".lo" top-level name to signify that the site is on your own "local" machine and not a real site on the web. Any name at this extension is safe because ".lo" is not a real top-level domain.

After you've created several sites on your desktop, your hosts file will look something like this:

```
127.0.0.1     localhost
127.0.0.1     www.personalsite.lo
127.0.0.1     www.companysite.lo
127.0.0.1     www.clienta.lo
127.0.0.1     www.clientb.lo
127.0.0.1     www.clientc.lo
```

One thing to note, you shouldn't erase the original "localhost" entry as it may be expected by other programs on your computer.

Configuring Apache

You should now be able to open a web browser and go to "http://localhost/" and see the text "It works!" This means that Apache is running and installed correctly. Now we're going to set it up to allow you to run multiple development sites.

The Apache root folder for new websites is "C:\Program Files\Apache Software Foundation\Apache2.2\htdocs". It's a good idea to save time later to create a shortcut to this folder on your desktop or in your My Documents folder, since this is where all of your development is going to happen.

The first step is to create a new folder inside the "htdocs" folder for your first virtual host (a.k.a. website in Apache-speak). To keep the names consistent, let's call the new folder "mydevsite".

Next, go to the Start > All Programs menu then to Apache HTTP Server > Configure Apache Server > Edit the Apache httpd.conf Configuration File. This will open the file in Notepad. For information on what the various configuration options mean, please refer to the Apache manual. For our purposes, everything we need to add is cut-and-paste friendly.

Scroll to the bottom of this file and at the very end, add the following:

Creating a MySQL database

```
<Directory "C:/Program Files/Apache Software
Foundation/Apache2.2/htdocs">
    AllowOverride All
</Directory>


NameVirtualHost www.mydevsite.lo


<VirtualHost www.mydevsite.lo>
    DocumentRoot "C:/Program Files/Apache Software
Foundation/Apache2.2/htdocs/mydevsite"
    ServerName www.mydevsite.lo
</VirtualHost>
```

Note that the longer lines are wrapping here but shouldn't be wrapped in the httpd.conf file itself. You may need to correct this after you copy and paste.

For future websites, you can skip the first part and only include everything from "NameVirtualHost" on. You will also need to change the website name and document root values for each site to point to the new domain and folder that you create.

To be sure your configuration is correct, you can run the Test Configuration tool from the Start > All Programs > Apache HTTP Server menu. If it exits without warnings, then your configuration is correct.

Before Apache will notice the changes, you will need to restart it first. This can be done from the Apache task bar menu. After you restart Apache you should be able to load a web browser and go to your new website (http://www.mydevsite.lo/) and see the text "Index of /". If you are seeing that, then Apache is now ready to run your new website.

Creating a MySQL database

To create a new database for your website, go to Start > All Programs > MySQL > MySQL Server 5.0 and run the MySQL Command Line Client. This will ask for your MySQL root password from the installation process, then present you with a "mysql>" prompt. Here you can type SQL commands directly into the MySQL database server.

To create a new database for your website, run the following commands:

```
create database mydevsite;
grant all on mydevsite.* to mydevsite@localhost identified
by 'PASS';
flush privileges;
quit;
```

This will create a new database named "mydevsite" with a username "mydevsite" who can connect to it and a password "PASS". Feel free to change the password, but make sure to remember it for the Sitellite installation, which is next.

Installing Sitellite on your virtual host

To download Sitellite, go to the Sitellite community website here:

```
http://www.sitellite.org/
```

Note: For professional edition users, you will have been sent a separate download link.

On the Sitellite community website, go to Downloads then follow the link under Standard Installation. The Quick Installation requires a Unix command line. The Standard Installation link will take you to the Sitellite project page on the Sitellite Forge development website. Here you will see a list of current downloads in the right column of the page. Choose the version of Sitellite you wish to install from this list.

When your browser prompts to you save the Sitellite download, save it to the "mydevsite" folder you made for your new website. Please note that you will need a zip program that can unzip GZIP-formatted files. WinAce, WinZip, WinImp and the Stuffit Expander will all do this.

With the files expanded there should be a new folder in the mydevsite folder with a name like "sitellite-5.0.x-stable". Copy all of the files from this folder into the mydevsite folder. You can then delete the "sitellite-5.0.x-stable" folder as well as the original .tar.gz download file.

Since Windows doesn't have the same file permissions as Unix systems, you can skip that step in the regular Sitellite installation instructions and go straight to running the web installer by going to the following address:

```
http://www.mydevsite.lo/install
```

Follow the steps of the Sitellite installer, entering the database info for the database created earlier and choosing a default password for your Sitellite "admin" user. When the installer finishes, it will take you to the Sitellite login screen, however one Sitellite setting will need to be changed for your site to function correctly on Windows. In the file "inc/conf/config.ini.php" find the setting named "remove_index" and set it to 0 instead of 1. You should now have a working copy of Sitellite up and running and ready for development!

Please note that some features such as the Sitellite Task Scheduler, which also enables the publish/archive-ahead feature and allows the SiteSearch indexer to run, will not work on Windows.

Installing additional add-ons

You can find all of the Sitellite add-ons available for download from the following website:

```
http://www.sitelliteforge.com/
```

For instructions on installing a particular add-on, look in its "install" folder for instructions. They are typically in a file named "INSTALL" and typically follow these steps:

1. Unzip the add-on into Sitellite's "inc/app" folder

2. Rename the folder to just its base name (e.g., "sitesearch" instead of "sitesearch-2.0.0-stable")

3. Open Sitellite and copy and paste any SQL in the add-on's "install/install-mysql.sql" file into the SQL Shell in Sitellite's DB Manager

4. Copy any .php files in the add-on's "install" folder into Sitellite's "inc/app/cms/conf/collections" folder

You should then be able to find the new add-on in one of the following three places:

1. By going to Control Panel > Content you might see new content types provided by the add-on

2. By going to Control Panel > Tools you might see an administrative interface for the add-on

3. By going to "http://www.mydevsite.lo/sitesearch-app" where "sitesearch" is the name of the new add-on, any public interface to the add-on will display

4. In the Xed wysiwyg editor, you might find new options for the add-on in the Box Chooser dialog window

Troubleshooting and support

For troubleshooting information, please refer to the Troubleshooting documentation on the Sitellite community website, or write to the community for support in the Sitellite community forum, both at http://www.sitellite.org/