Windows Azure Storage Plugin for WordPress

Introduction

This WordPress plugin allows you to use Windows Azure Storage Service to host your media for your WordPress powered blog. Windows Azure Storage is an effective way to scale storage of your site without having to go through the expense of setting up the infrastructure for content delivery.

Features

Key features of this plug-in are listed below.

Transparent Storage for End User
Actual storage location details are transparent to the end user.

Automatic File Upload to Windows Azure Storage
Uploaded media files are automatically saved into your Windows Azure Storage Blob Container without any extra steps. Media files will be served by Windows Azure Storage, instead of your own web host.

Highly Configurable
This plugin provides several options for configuration of the underlying Windows Azure Storage service.

Search Media Files
Provides ability to search media files based on criteria (like tag, file type, creation date etc.) provided by user. The plugin performs search using the Windows Azure Storage Services APIs available in the Windows Azure SDK for PHP.

Target Users

Personal blogging websites
You can use the Windows Azure Storage Plugin with your personal WordPress website. By using this plugin, you can avoid the time and money necessary to set up your own storage solution. Global account settings with a single Blob Container will allow you to store all your media (image files, music files, etc.) in Windows Azure Storage.

WordPress blog hosters
WordPress hosters, such as www.wordpress.com and http://www.bluehost.com/track/wp/one can use the Windows Azure Storage Plugin to reduce storage costs by storing millions of blog post media files in Windows Azure.

Architecture

WordPress Plugin APIs allow for easy modification, customization, and enhancement to a WordPress blog. The high level architecture for this plugin is shown in the diagram below.
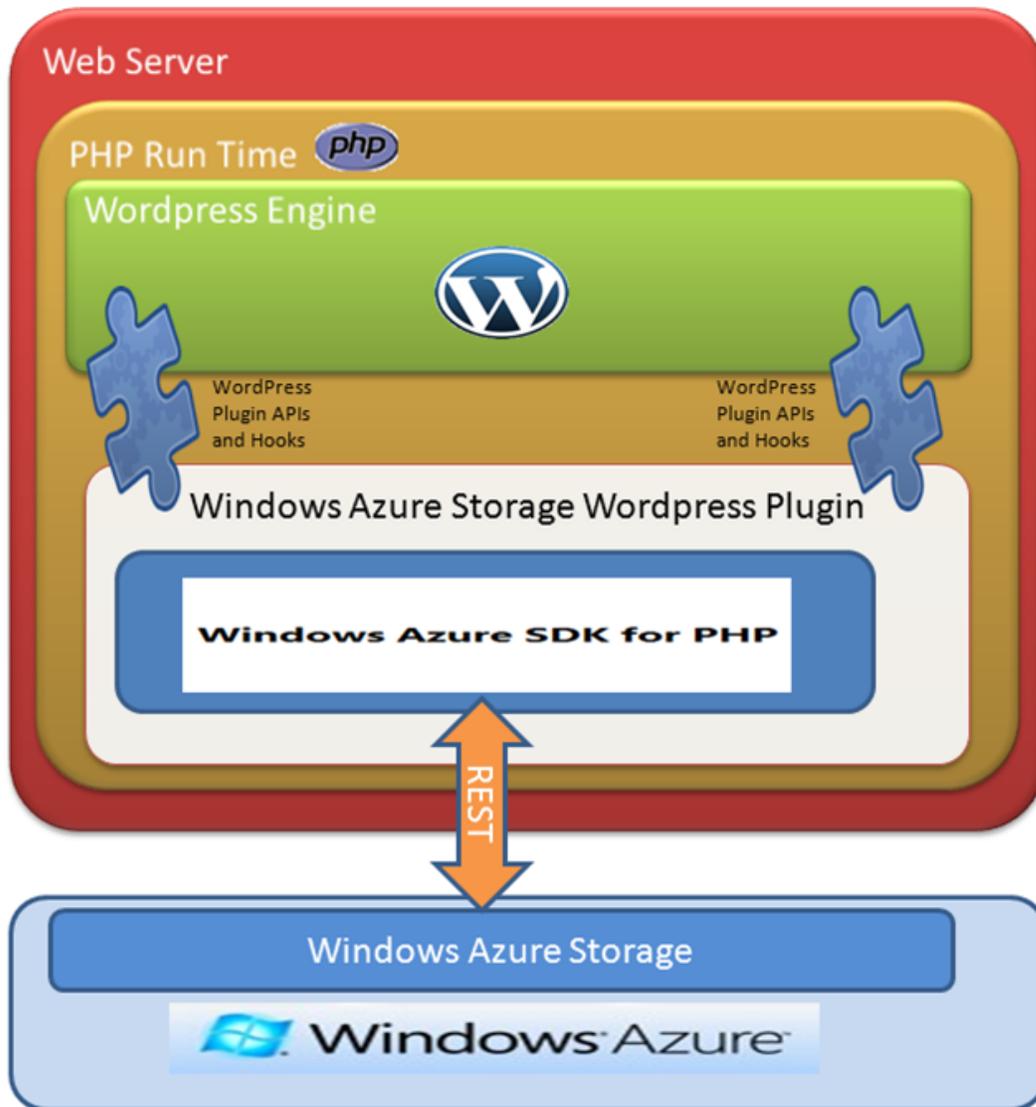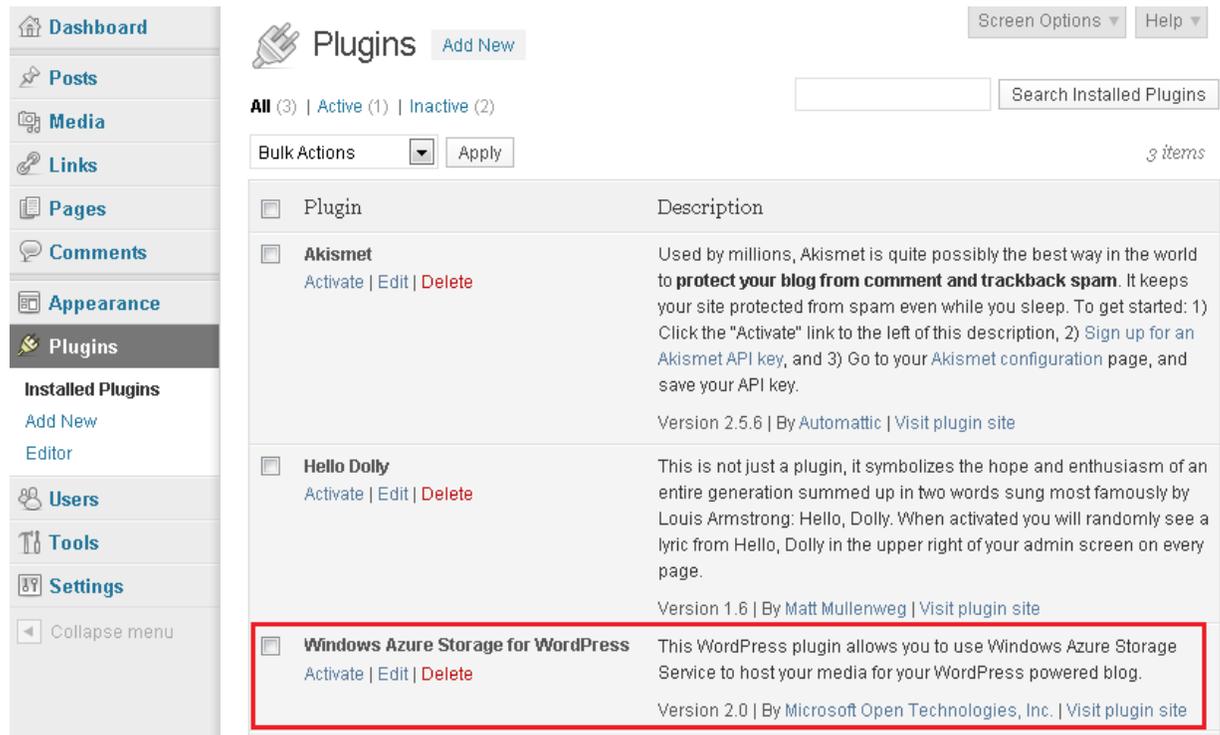

Installation Instructions

- Extract the Windows Azure Storage Plugin (**windows-azure-storage**) from the **windows-azure-storage.zip** archive and put it in the plugins directory of the WordPress installation.

e.g. With a default install of WordPress in "**/var/www/html/wordpress**", extract the **windows-azure-storage** folder from the **windows-azure-storage.zip** archive into the "**/var/www/html/wordpress/wp-content/plugins**" directory.

- To activate the plugin, log in into your WordPress site as an administrator and navigate to list of plugins. Check the associated checkbox for the plugin and click "**Activate**".

Configure Windows Azure Storage Account

After activating the plugin, you need to configure it by providing your Windows Azure Storage Account credentials:

- Login into your WordPress site as an administrator and navigate to the "**Windows Azure**" sub-tab (under the "**Settings**" tab).
- Enter your Windows Azure Storage account name in the "**Storage Account Name**" text box and enter your Windows Azure Storage primary access key in the **"Primary Access Key**" text box, then click "**Save Changes**". If the underlying Web Server uses an HTTP proxy for connecting to the Internet, please provide the HTTP proxy server details in the "**HTTP Proxy Host Name**", "**HTTP Proxy Port Name**", "**HTTP Proxy User Name**" and "**HTTP Proxy Password**" fields. After specifying **"Storage Account Name"**, **"Primary Access Key"** and proxy details you can create a container by entering the container name in the **"Create New Container"** text box and clicking **"Create"**.

- Once your Windows Azure Storage account details are set correctly, the page will be refreshed and the "**Default Storage Container**" drop down will be populated with all available blob containers associated with the storage account. Select the one container for storing your media files and click "**Save Changes**".
- If are no blob containers exist in your Windows Azure Storage account, then you will still see the **"Create New Container"** text box where you can enter container name and click on **"Create"** to create a container.

- If there are blob container(s) in the configured Windows Azure Storage account then you will not see the text box to create a new container. To create a new container select *<Create New Container>* option from the "**Default Storage Container**" drop down.

- All media files stored in Windows Azure Storage will have a URL like "http://<AccountName>.blob.core.windows.net/<ContainerName>/<MediaFileName>". You can hide usage of the underlying Windows Azure Storage account by defining a CNAME entry in the "**CNAME**" text box and then clicking "**Save Changes**". This CNAME must start with http(s) and you will have to update DNS entries appropriately to route requests back to blob.core.windows.net.
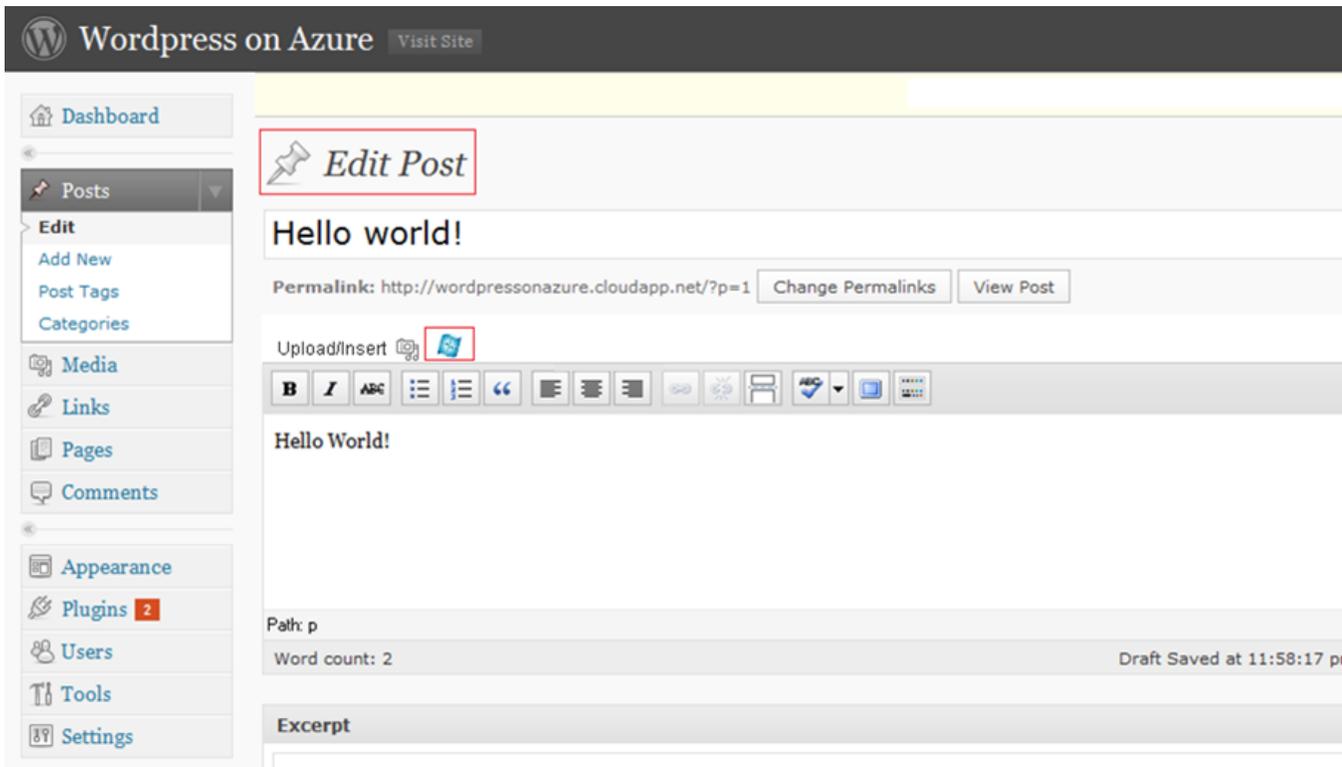

- You can set Windows Azure Storage as the default location for storing all media file uploaded via "WordPress upload tab". File uploads will be automatically saved into your

Windows Azure storage account. Just check the "**Use Windows Azure Storage as default upload**" checkbox and click "**Save Changes**".

Using the Plugin

- Once this plugin is configured, you will be able to view a new toolbar button on the "**Edit Post**" page. This button has the Windows Azure logo as shown in following diagram.

- Clicking on the Windows Azure icon displays the "**Windows Azure Storage**" dialog.
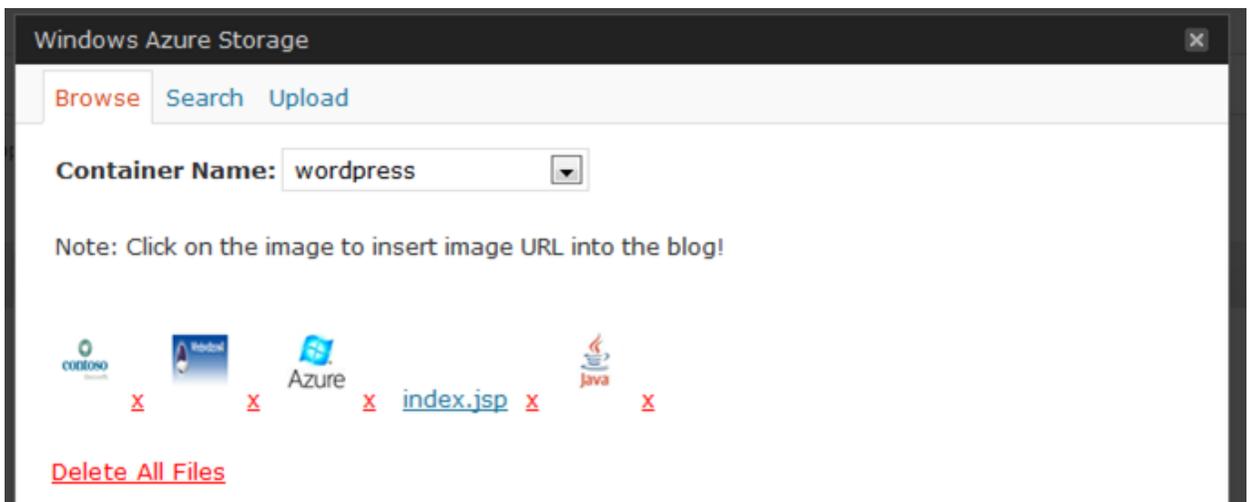
- This dialog has 3 tabs: Browse, Search and Upload.
- The Browse tab is the default tab and shows all files available in the default container. For image files, it shows small thumbnails of the images.
- You can change the container by selecting a different name in the "**Container Name**" dropdown. The page will be refreshed and files in the new container will be displayed.
- To insert the media file in a blog post, click on the image in the list of files displayed on screen. Once you click on an image, the dialog is closed and an image link is added into the text area of the post. The HTML view of the post is shown below. Note that the URL for the image points to the Windows Azure storage host for blobs (i.e. blob.core.windows.net).

- You can define a custom CNAME as follows,
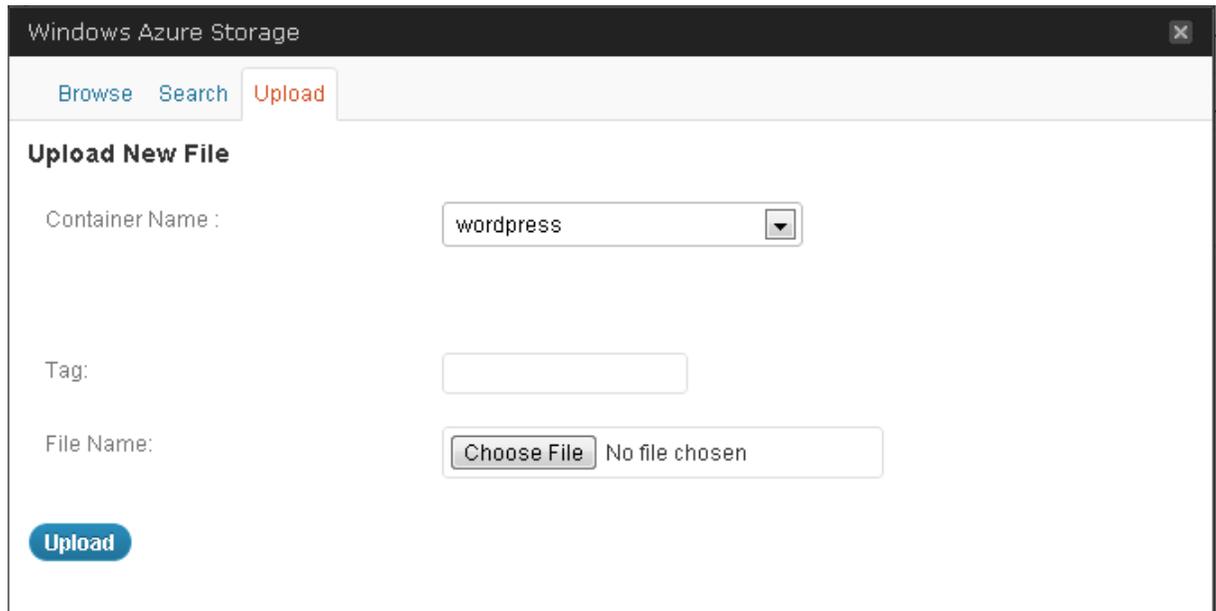

Then the added image URL will look as follows:

- If you add something other than an image, then a hyperlink is added to the edit post text area as shown below:

- To upload a new file, click on the "**Upload**" Tab. The following controls are shown in the Upload tab.

- New files are uploaded to the default container; however you can change the container by selecting a different container from the drop down.
- You can provide custom tags for a file when it is uploaded. Use comma-separated list for multiple tags.
- Click the "**Browse…**" button and select the file to be uploaded using File Open Dialog.
- You can create new container from the **Upload** tab, by selecting *<Create New Container>* from the **"Container Name"** drop down. The page will display a text box to enter name of new container to create.
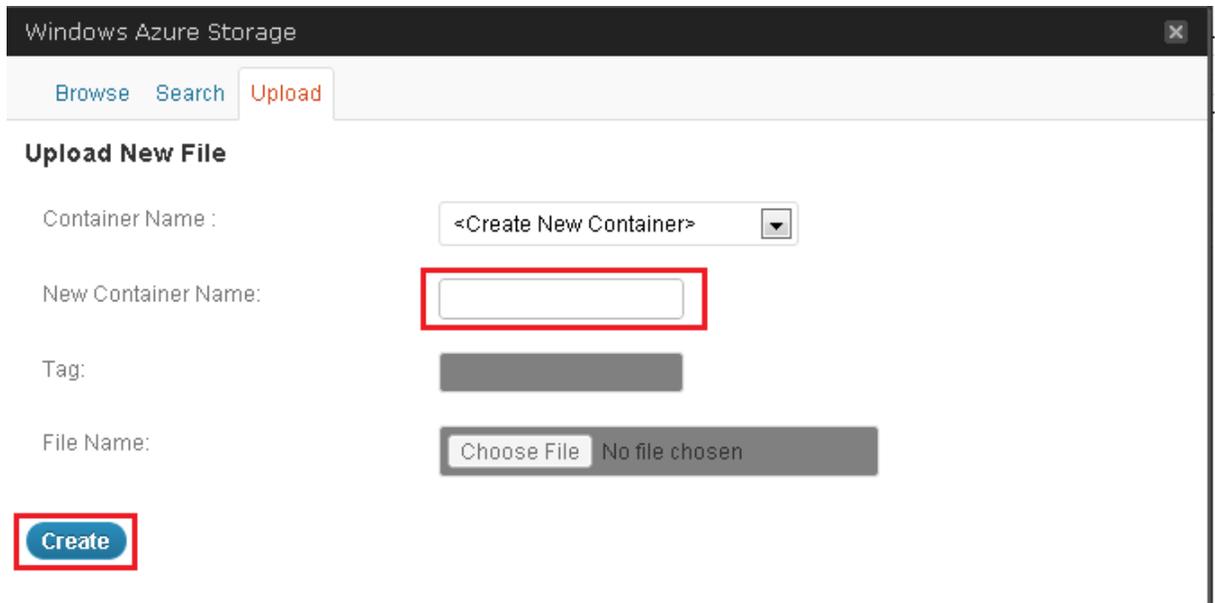
- If Windows Azure Storage is used as the default storage location for media (which can be enabled by clicking the "**Use Windows Azure Storage when uploading via WordPress' upload tab**"), then all file uploads happening via default media upload dialogs are routed to your Windows Azure Storage account. The same files will be displayed in the Browse tab in the Windows Azure Storage popup dialog.

- If the XML-RPC option is set in "**Writing Settings->Remote Publishing**", as shown below, and Windows Azure Storage is set as the default for file uploads, then all file uploads happening via XML-RPC will be routed to your Windows Azure Storage account.

- The Search tab shows the following controls:

- The default container is selected for search. You can change the container to be searched or you can search in all containers.

- You can search files based on Tag, File Name and File Type. The logical AND operation is performed on multiple criteria.
- Click "**Search**" after specifying various criteria. The result will be displayed in the "**Browse**" tab as follows:
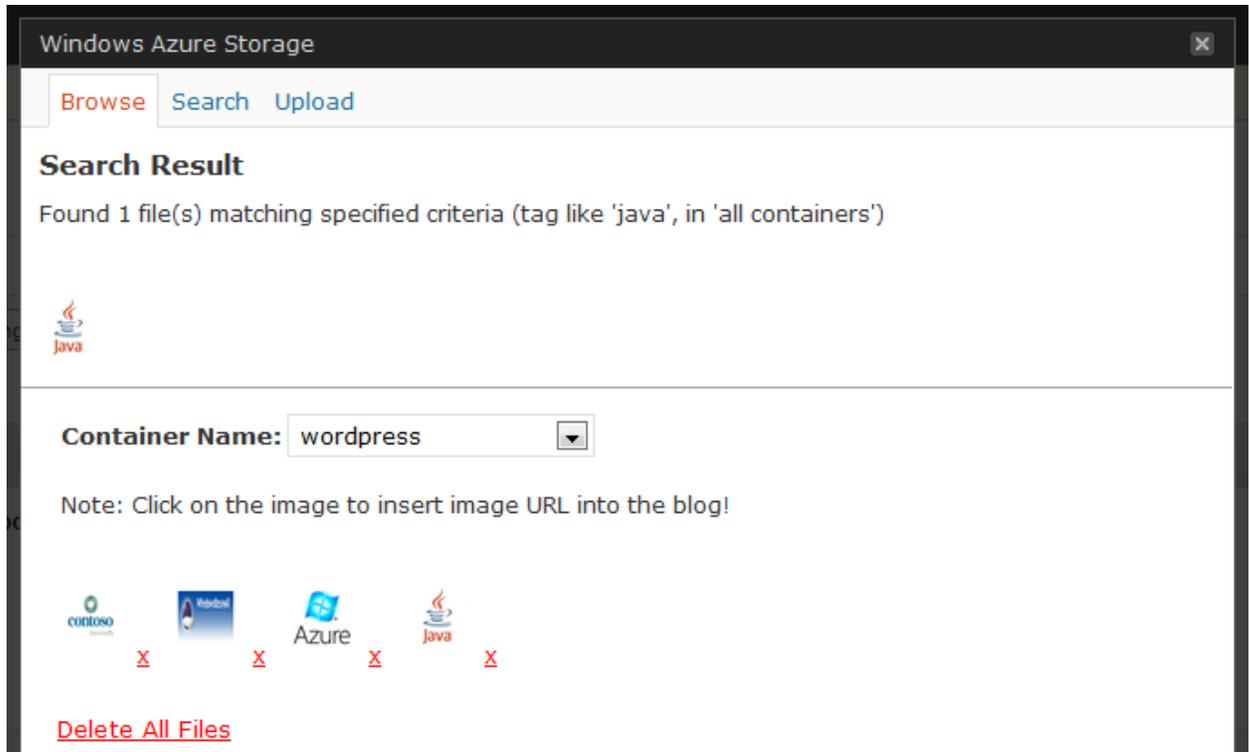
Known Issues WordPress MU edition (prior to WordPress 3.0)

This plugin does not work out-of-box with the WordPress MU (Multi User) edition. The only workaround is to edit the **\wp-admin\options.php** file within the WordPress MU installation. Perform following changes in this file:

- Open **\wp-admin\options.php** file and search for the function called "check_admin_referer". This call is inside one **if** condition and looks as follows:

- The WordPress MU edition does not contain any **else** block in this **if** statement. Add the following **else** block to this **if** statement and save the **options.php** file.

```php
switch($action) {

case 'update':
    if ( isset($_POST[ 'option_page' ]) ) {
        $option_page = $_POST[ 'option_page' ];
        check_admin_referer( $option_page . '-options' );
    } else {
        // Needed by Windows Azure Storage Plugin For WordPress MU edition
        $option_page = 'options';
        check_admin_referer( 'update-options' );
    }
```

For details, please refer the article: http://mu.wordpress.org/forums/topic/12474.

Resources

- For more details on Windows Azure Storage Services, please visit the Windows Azure Platform web-site.
- Windows Azure SDK for PHP is at the core of this plugin. This SDK is available at https://github.com/WindowsAzure/azure-sdk-for-php
- Official PHP on Windows Azure website: http://azurephp.interopbridges.com