

# Mediawiki installation on an XS

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This tutorial is intended to guide users through the installation of a Mediawiki server on their XS server. I have installed the server using a Windows based laptop using SSH and SCP to move files. It will be possible to use other methods for installation adapting the basic principles in this guide.

## Tools

First you will need to prepare a machine with which you will command the XS. Using a Windows computer you will need to download and install [WinSCP](#) and [PuTTY](#). Use the default settings for installation.

WinSCP is a GUI SecureCopyProtocol program which allows you to visualize and manipulate the file structure on the XS. This program also allows you to copy files from the remote computer to the XS.

PuTTY is a program which allows you to login to the XS and issue commands for the server to perform. Once logged in you will be given the command line interface of the XS

## Connecting

Now that your remote computer is prepared you need to connect to the server. Open both PuTTY and WinSCP. In the "Host name:" box put in the IP of the XS (Default: 172.18.0.1). In both PuTTY and WinSCP click "Login/Open". At the prompts put in your login credentials (Default Username: root Password is set at initial setup).

## Downloading Mediawiki

The easiest way to retrieve the necessary software is by using "yum" a linux package manager that can download and install the requested programs. One problem with this method is that yum thinks that a Mediawiki installation needs much more than we need to retrieve. The biggest bandwidth hog is the LaTeX installation which provides support for displaying complex math equations (Integrals, differentials, etc.).

By issuing the command (in PuTTY) "yum install mediawiki" you are telling the XS to contact the software repository and check what all will be necessary for the installation. The program should return (THIS MAY BE INCORRECT AND NEEDS TO BE VERIFIED BY ANOTHER GROUP):

```

=====
Package          Arch  Version      Repository    Size
=====
Installing:
mediawiki        i386  1.14.0-45.fc9 updates-newkey 153 k
Installing for dependencies:
kpathsea         i386  2007-32.fc9  updates-newkey 115 k
mediawiki-math   i386  1.14.0-45.fc9 updates-newkey 438 k
netpbm-progs     i386  10.35.61-1.fc9 updates-newkey 1.8 M
poppler          i386  0.8.7-2.fc9  updates-newkey 4.5 M
tex-preview      noarch 11.85-7.fc9  fedora         52 k
texlive          i386  2007-32.fc9  updates-newkey 1.9 M
texlive-dvips    i386  2007-32.fc9  updates-newkey 188 k
texlive-latex    i386  2007-32.fc9  updates-newkey 78 k
texlive-texmf    noarch 2007-24.fc9  updates-newkey 3.5 M
texlive-texmf-dvips noarch 2007-24.fc9  updates-newkey 378 k
texlive-texmf-errata noarch 2007-4.fc9  fedora         3.7 k
texlive-texmf-errata-dvips noarch 2007-4.fc9  fedora         3.6 k
texlive-texmf-errata-fonts noarch 2007-4.fc9  fedora         3.7 k
texlive-texmf-errata-latex noarch 2007-4.fc9  fedora         3.6 k
texlive-texmf-fonts noarch 2007-24.fc9  updates-newkey 56 M
texlive-texmf-latex noarch 2007-24.fc9  updates-newkey 6.0 M
texlive-utils    i386  2007-32.fc9  updates-newkey 214 k

```

At the top you can see that it is installing mediawiki and below are the dependencies. You should see a prompt asking if you want to download and install the selected files. If you have a fast connection, go right ahead and download the 100MBs of files and continue to STEP?????????. If you would like to do a minimal installation follow these instructions:

### Slimmed Mediawiki

By removing LaTeX support it is possible to cut over 65MBs of files. Select No for the download and type, "yum install texlive". This will show you the list of files which are required by LaTeX which are as follows:

```

=====
Package           Arch  Version  Repository  Size
=====
Installing:
texlive           i386  2007-32.fc9  updates-newkey  1.9 M

Installing for dependencies:
kpathsea         i386  2007-32.fc9  updates-newkey  115 k
poppler          i386  0.8.7-2.fc9  updates-newkey  4.5 M
texlive-texmf    noarch 2007-24.fc9  updates-newkey  3.5 M
texlive-texmf-dvips noarch 2007-24.fc9  updates-newkey  378 k
texlive-texmf-errata noarch 2007-4.fc9  fedora          3.7 k
texlive-texmf-errata-dvips noarcjh 2007-4.fc9  fedora          3.6 k
texlive-texmf-errata-fonts noarch 2007-4.fc9  fedora          3.7 k
texlive-texmf-fonts noarch 2007-24.fc9  updates-newkey  56 M

```

Now that we know what is needed for LaTeX and what is needed for mediawiki we can subtract the unnecessary files. You will need to issue “yum install \_\_\_\_\_” commands for each individual program that is needed. To install Mediawiki without any dependencies (because the dependencies are wrong as of August 4, 2009) type, “yum install mediawiki-nomath”. This command should install mediawiki without the LaTeX support but instead installs only mediawiki. Install the following:

“mediawiki-nomath” – The Mediawiki software

“netpbm-progs” – No clue.

“mysql” – Database software. You can use PostgreSQL which is already installed but I could not get the default passwords for the account.

“mysql-server” – Database server.

“php-mysql” – Small script to allow mysql to interface with PHP

“ImageMagick” – Needed for image viewing and thumbnail creation

MAYBE MORE...CHECK ON NEW XS

Once all the components are installed you can begin preparing MySQL.

## MySQL Preparation

Before Mediawiki can run the install script MySQL needs to be prepared. Start by creating a password for the root account (this is not your root access to the XS but the root account of MySQL). To set a password, type in the command window:

```
/usr/local/mysql/bin/mysqladmin -u root password yourpassword
```

Now you will need to create the database which Mediawiki will use. To create the database, start by issuing the following command:

```
/usr/local/mysql/bin/mysql -u root -p mysql
```

This command starts the command prompt for MySQL. This command line now looks for MySQL commands and will not respond to the standard commands you have issued before. Type the following command:

```
create database wikidb;
```

```
grant index, create, select, insert, update, delete, alter, lock tables on  
wikidb.* to 'CREATE_WIKI_DB_USERNAME'@'localhost' identified by  
'CREATE_WIKI_DB_USERNAME_PASSWORD';
```

MySQL should now be configured for the Mediawiki installation!

## Mediawiki Locations

First, ensure that Mediawiki has installed to the correct directories. Mediawiki resides in two different locations which perform separate functions. The frontend provides a limited number of accessible files which can be accessed through web browsers on other computers. The frontend is located in:

```
/var/www/html/wiki – DOUBLE CHECK THAT THIS IS THE DEFAULT – I THINK THIS NEEDS TO BE  
CHANGED
```

The backend is designed to have the majority of the files which provide the heavy lifting for the installation while providing an interface to other programs (MySQL, Imagemagick, etc.). The backend also houses the files necessary for interface skins if you are looking to add or change skins. The backend is located in:

```
/usr/share/mediawiki/
```

To begin the initial configuration, navigate in a browser to :  
<http://schoolserver.yourserverdomain.org/wiki/> . You should be prompted to view the configuration page and begin the wiki configuration.

## Mediawiki Initial Web Configuration

I NEED HELP WITH THIS SECTION. I CANNOT VIEW THE PAGE BECAUSE I ALREADY CONFIGURED.

When finished with the web settings, go into WinSCP and move:

```
/var/www/html/w/config/LocalSettings.php
```

To

```
/var/www/html/w/LocalSettings.php
```

The LocalSettings.php file is where you will later be modifying settings similar to what you configured in the web configuration before. Now delete the following for security:

```
/var/www/html/w/config
```

At this point you should be able to access your Mediawiki installation, edit articles and create new ones. You can access the installation by going to <http://schoolserver.yourdomain.org/wiki/>. If you cannot reach this, you have made an error and should double check all the above settings.

## Displaying Images

Mediawiki includes support for uploading files and offers a web interface to do so. You can upload files by clicking, "Upload a file" in the left hand column. Once the upload is complete you should see the page that makes it appear as though the upload was correct but the image is not displaying. If you look in the backend, the image will be found in:

```
/usr/share/mediawiki/images/number/number_letter/image.jpg
```

There is a problem with this because the backend is not web accessible. Images should be uploading to the front end where they can be navigated to by users. First you will need to make the images directory on the front end writable. In WinSCP navigate to:

```
/var/www/html/wiki/
```

Right click on the images folder and select properties. Click the check boxes for W (write) and X (execute) under the Group and Others. Click OK.

Now, open the LocalSetting.php file which should be located in

```
/var/www/html/w/
```

In this file you will need to add two lines of code. First, find the lines that are:

```
## To enable image uploads, make sure the 'images' directory
## is writable, then set this to true:
$wgEnableUploads = true;
$wgUseImageMagick = true;
$wgImageMagickConvertCommand = "/usr/bin/convert";
$wgScriptPath."/img_auth.php";
```

On the lines following you should make it look like this:

```
## To enable image uploads, make sure the 'images' directory
## is writable, then set this to true:
$wgEnableUploads = true;
$wgUseImageMagick = true;
$wgImageMagickConvertCommand = "/usr/bin/convert";
$wgScriptPath."/img_auth.php";
$wgUploadDirectory = "/var/www/html/w/images";
$wgUploadPath = "/w/images";
```

This tells Mediawiki that when you upload a file, send it to the Upload Directory at: `/var/www/html/w/images`. When you want to retrieve a file, it will be found at: `http://schoolserver.yourdomain.org/w/images`. You will need to re-upload any files you would like on your server.

## Editing in LocalSettings.php

If you browse through the LocalSettings.php file you will see many of the same entries which you set upon initial web configuration. If you would like to change any settings you can do it here but use caution and if possible, make a backup copy of the file before you make any changes.

## Disabling the Auto-Redirect when navigating to:

### <http://schoolserver.yourdomain.org>

To remove the auto redirect you will need to modify an apache script that has been enabled. First, navigate in WinSCP to:

```
/etc/httpd/conf.d/
```

In here you will find configuration files for the Apache (httpd) web server enabled on your XS. We are interested in what should be the first entry on the list:

```
010-make-moodle-default.conf
```

This file redirects all traffic from `http://schoolserver.yourdomain.org` and redirects it to `http://schoolserver.yourdomain.org/moodle/`. We no longer want this because there is a second web

service available to the students. Double click on the file and comment out the entry by putting ## before all lines of code. This tells the computer that the line is meant to be a reference to humans looking at the file and the computer pretends like the line gives no instructions. Your file should look like:

```
# Redirect requests from the root to /moodle
# RewriteEngine On
# RewriteRule ^/$ /moodle [R,L]
```

With all of the lines commented out, the server will no longer redirect directly to Moodle when clicking on the “Local School Server” link in Navigate on the XO.

Now we need to create a file which allows users to decide which service to go to. Navigate to the following:

```
/var/www/html
```

We need to now create an index.html file which will serve as the launching point to either Moodle or Mediawiki. The most basic way to do this is to open WordPad and type the following:

```
<ul>
  <li>
    <a href="http://schoolserver.YOUR DOMAIN NAME.org/moodle/">Moodle</a>
  </li>
  <li>
    <a href="http://schoolserver.YOUR DOMAIN NAME.org/wiki/">Wiki</a>
  </li>
</ul>
```

Save the file as index.html (you need to be sure that it saves as an html extension and not index.html.txt). When finished, place the file in the /var/www/html directory. Now test the file by connecting your XO to the server and clicking the “Local School Server” link on the homepage of Navigate.

## Finish

At this point everything should be working. If something is not, double check the appropriate section and be sure to follow all of the steps. If you still are having problems you can search online for a solution or email mrstein2 (at) gmail dawl com and he may be able to help you.