Mac OS X Server
Wiki Server Administration

For Version 10.6 Snow Leopard

Apple

1 Infinite Loop
Cupertino, CA 95014-2084
408-996-1010
www.apple.com

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Contents

About This Guide

This guide explains how to set up, customize, and extend wiki services.

Mac OS X Server includes wiki services, which allow you to set up personal and group wikis, blogs, and web calendars.

The default wiki services configuration makes it easy for groups to collaborate and communicate. Users can create and edit wiki pages, tag and cross-reference material, upload files and images, add comments, and search content.

In addition to showing you how to set up wiki services, this guide shows you how to customize and extend them to suit your needs. For example, you'll learn how to:

- Create custom themes
- Enable JavaScript, YouTube, and Flash
- Enable Quick Look for more file types
- Automate migration from other sources, such as wikis and non-wiki websites

Customizing and extending wiki services requires administrator access and in some cases programming skill. You must be able to edit files on the server, which aren't accessible to most users. Be careful when editing these files. An incorrect or untested change could cause problems.

What's New in Wiki Server

- **Users create and administrate their own wikis and blogs.** After enabling wiki services, users can create wikis and blogs. They can choose which wiki services to enable, such as just the wiki and calendar, and they can choose who can access their wiki services. Users can do these tasks within the wiki tools, so server administrators don't need to be involved.

  Server administrators can restrict who is allowed to create wikis and blogs.

  For more information, see Wiki Help or *Wiki Tools Deployment Guide*.

- **Quick Look support.** Users can use Quick Look to preview attached files without downloading the files. By default, users can use Quick Look to preview any file types that can be previewed in Finder, such as Keynote, Pages, and PDF files. You can enable Quick Look for more file types.

  For more information, see Chapter 5, "Allowing Specific File Types for Quick Look."

- **Improved iPhone support.** Wiki tools look and work better than ever on iPhone.

  For more information, see Wiki Help on iPhone.

What's in This Guide

This guide includes the following chapters:

- Chapter 1, "About Wikis, Blogs, Web Calendars, and Mailing Lists," highlights important collaboration concepts and introduces wiki tools.
- Chapter 2, "Enabling and Configuring Wikis, Blogs, Web Calendars, and Mailing Lists," shows you how to use Server Admin to set up wiki services.
- Chapter 3, "Customizing How the Wiki Looks," describes how to create custom themes and edit CSS, property list, JavaScript, and XSL files.
- Chapter 4, "Allowing Specific Protocols, CSS Styles, and HTML Tags and Attributes," describes how to allow users to use specific protocols, CSS styles, and HTML tags and attributes.
- Chapter 5, "Allowing Specific File Types for Quick Look," shows you how to enable Quick Look for additional file types.
- Chapter 6, "Managing Wiki Content," describes how to migrate, back up, and edit raw wiki content.

Note: Because Apple periodically releases new versions and updates to its software, images shown in this book may be different from what you see on your screen.

Using Onscreen Help

You can get user help while using the wiki tools on your computer or iPhone, or administration task instructions in the Help Viewer application while you're managing Snow Leopard Server. You can view administration help on a server or an administrator computer. (An administrator computer is a Mac OS X computer with Mac OS X Server administration software installed on it.)

To get user help while using wiki tools on your computer:

- Click the "help" link.

To get user help while using wiki tools on iPhone:

- Click the "help" link.

This link is located at the bottom of the page.

To get administration help:

- Open Server Admin and then:
  - Use the Help menu to search for a task you want to perform.
  - Choose Help > Server Admin Help to browse and search help topics.

The onscreen help contains instructions taken from *Advanced Server Administration* and other administration guides.

To see the most recent server help topics:

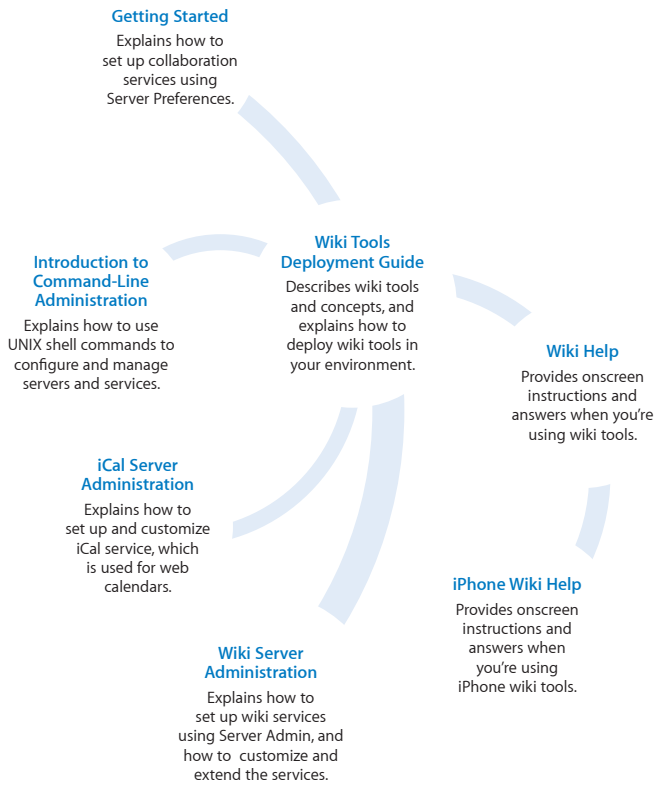
- Make sure the server or administrator computer is connected to the Internet while you're getting help.

  Help Viewer retrieves and caches the most recent server help topics from the Internet. When not connected to the Internet, Help Viewer displays cached help topics.

Documentation Map

Mac OS X Server has a suite of guides that cover management of individual services. Each service may depend on other services for maximum utility. The documentation map below shows some related guides you may need to fully configure Wiki Server to your specifications. You can get these guides in PDF format from the Mac OS X Server resources website:

www.apple.com/server/macosx/resources/



Viewing PDF Guides Onscreen

While reading the PDF version of a guide onscreen:

- Show bookmarks to see the guide's outline, and click a bookmark to jump to the corresponding section.
- Search for a word or phrase to see a list of places where it appears in the guide. Click a listed place to see the page where it occurs.
- Click a cross-reference to jump to the referenced section. Click a web link to visit the website in your browser.

Printing PDF Guides

If you want to print a guide, you can take these steps to save paper and ink:

- Save ink or toner by not printing the cover page.

- Save color ink on a color printer by looking in the panes of the Print dialog for an option to print in grays or black and white.
- Reduce the bulk of the printed document and save paper by printing more than one page per sheet of paper. In the Print dialog, change Scale to 115% (155% for *Getting Started*). Then choose Layout from the untitled pop-up menu. If your printer supports two-sided (duplex) printing, select one of the Two-Sided options. Otherwise, choose 2 from the Pages per Sheet pop-up menu, and optionally choose Single Hairline from the Border menu. (If you're using Mac OS X v10.4 or earlier, the Scale setting is in the Page Setup dialog and the Layout settings are in the Print dialog.)

You may want to enlarge the printed pages even if you don't print double sided, because the PDF page size is smaller than standard printer paper. In the Print dialog or Page Setup dialog, try changing Scale to 115% (155% for *Getting Started,* which has CD-size pages).

Getting Documentation Updates

Periodically, Apple posts revised help pages and new editions of guides. Some revised help pages update the latest editions of the guides.

- To view new onscreen help topics for a server application, make sure your server or administrator computer is connected to the Internet and click "Latest help topics" or "Staying current" in the main help page for the application.
- To download the latest guides in PDF format, go to the Mac OS X Server Resources website at:

  www.apple.com/server/resources/.
- An RSS feed listing the latest updates to Mac OS X Server documentation and onscreen help is available. To view the feed, use an RSS reader application such as Safari or Mail and go to:

  feed://helposx.apple.com/rss/snowleopard/serverdocupdates.xml

Getting Additional Information

For more information, consult these resources:

- *Read Me documents*—get important updates and special information. Look for them on the server discs.
- *Mac OS X Server website* (www.apple.com/server/macosx/)—enter the gateway to extensive product and technology information.
- *Mac OS X Server Support website* (www.apple.com/support/macosxserver/)—access hundreds of articles from Apple's support organization.

- *Apple Discussions website* (discussions.apple.com/)—share questions, knowledge, and advice with other administrators.
- *Apple Mailing Lists website* (www.lists.apple.com/)—subscribe to mailing lists so you can communicate with other administrators using email.
- *Apple Training and Certification website* (www.apple.com/training/)—hone your server administration skills with instructor-led or self-paced training, and differentiate yourself with certification.

About Wikis, Blogs, Web Calendars, and Mailing Lists

1

Learn about the tools provided by Wiki Server.

Wiki Server provides several web-based wiki tools that allows users to express themselves or to easily form, coordinate, and organize teams.

About Wikis

A wiki is a web-based collaborative editing environment for groups. Depending on how the wiki administrator sets permissions, anyone who can view wiki content can also add or edit content.

Wikis have several advantages over other tools:

Advantage	Description
Fast and easy	To edit wiki pages, click the Edit (pencil) button on a page you want to edit. Add content and use a simple toolbar to apply styles, add links to other sites, attach files, or insert media. You don't need to learn additional tools.
Streamlined	If you see a page you'd like to correct or add content to, you can change it yourself. With other tools, you must find the owner, describe the issue to the owner, and then the owner would have to change the content.
Customizable	It's easy to change how users navigate to information, whether through a broad or deep navigational hierarchy, or through tags.
Dynamic	Because wiki content can be updated by a large group of people, it is much more dynamic than a static medium like PDF.
Parallel content creation	Multiple people can edit wiki content on different pages simultaneously.
Cross-reference information	It's easy to link together information within and outside of the wiki.

About Blogs

A blog is like an online journal. Entries are arraned chronologically with the newest entries listed first.

The blog and the wiki share the same simple editing toolbar and thus share a lot of the same advantages. The biggest difference between a blog and a wiki is that the blog has a sense of time but the wiki doesn't. In a blog, new content is found more easily than older content. In a wiki, content is found by need or by navigation, rather than by time.

Blogs are available for users and groups. Users can edit the group blogs they have access to.

About Web Calendars

Users and groups can have web calendars:

- User web calendars let you schedule private events, or send event invitations to other users. Other users can't see your web calendar.
- A group web calendar is like a hallway calendar—its a very visible calendar that everyone in a group can edit. It's very good for highlighting important dates. However, you can't send invitations through group calendars.

Because the web calendar uses iCal server, all users who have set up their server account in iCal will have synced calendars. Event changes made in the web calendar are reflected in iCal, and event changes in iCal are reflected in the web calendar. If you sync group web calendars, the local iCal version of the calendars are read-only. Changes you make to the group web calendars are synced with iCal but you can't edit the calendars in iCal.

The web calendar is designed to simplify creating events and sending invitations. Web calendars don't allow dependencies, so its not good for project management where milestones often depend on each other. It also doesn't allow delegates, so you should use iCal if you want to use delegates.

About Mailing Lists

Every wiki can have a logged mailing list. Email sent to the wiki's email address is archived in the mailing list. Unlike the wiki and blog, content in logged mailing lists can't be changed or commented on. However, logged emails can be tagged, and because they each have a URL, you can link to them.

The group email address is *wikiname*-wiki@*serverurl*.

For example, if your wiki's name is Aardvark and the URL of your wiki server is www.example.com, the wiki email address is aardvark-wiki@example.com.

2 Enabling and Configuring Wikis, Blogs, Web Calendars, and Mailing Lists

Learn how to use Server Admin to enable and configure websites with wiki tools.

You use Server Admin to enable and configure websites with wiki tools. Websites with wiki tools have My Page, which is a portal page that allows users to create wikis, blogs, web calendars, and mailing lists.

Setting Up Wiki Server

Here is an overview of the basic steps for setting up wiki server.

Step 1: Set up and start iCal service. To host web calendars, you must set up and start iCal service.

Step 2: Configure web service. Web service configuration applies to all websites, which includes all wikis. You can change the data store location, maximum attachment size, and default wiki theme.

Step 3: Set up a website. Set up a website so it enables wikis and blogs, and possibly a web calendar and a mailing list. You can also restrict wiki creation to a few users. If you set up multiple websites, you can set different settings and permissions per website.

Step 4: Start web service. After setting up web service and a website, start the service.

Step 5: Create a wiki and test web service and wiki configurations. Wikis can be created by anyone you allow. Users have access to My Page, which allows them to create wikis and blogs. Users do not need server access or server tools.

Setting Up and Starting iCal Service on the Wiki Server

You can enable web calendars if you run iCal service on the same server that is hosting wiki server. You can use the default iCal service settings. If you want to enable iCal service on a different server, see "Setting Up iCal Service on a Different Server than the Wiki Server" on page 14.

The default settings are:

Setting	Default
Data Store	/Library/CalendarServer/Documents/
Maximum Attachment Size	1 MB
User Quota	100 MB
Authentication	Any Method
Host Name	*The host name of the Wiki server*
Secure Sockets Layer (SSL)	Don't Use
HTTP Port Number	8008
Log Level	Warning
Push Notification Server	None

For information about changing these settings, see *iCal Service Administration*.

To start iCal service:

1. Open Server Admin and connect to the server.
2. Click the triangle at the left of the server.

   The list of services appears.
3. If iCal is not listed, select the server and click Settings; then click Services, select iCal, and then click Save.
4. From the expanded Servers list, select iCal.

   The status icon at the left of iCal turns green if web service is running.
5. If iCal is not running, click Start iCal.

Setting Up iCal Service on a Different Server than the Wiki Server

You can host iCal service on a different server than the one running wiki service and automatically redirect users to the iCal server when they access web calendars.

To use a different server for iCal service:

1. Open Server Admin and connect to the web server.
2. Click the triangle at the left of the web server.

   The list of services appears.
3. If Web is not listed, select the server and click Settings, then click Services, select Web, and then click Save.
4. From the expanded Servers list, select Web.
5. Click Settings, then click Wiki.
6. Click Configure next to External Web Services.

7 In the Calendar Server field, enter the address of the iCal server.

8 If SSL is enabled, select SSL.

9 Click Done.

To use a different server for iCal service from the command line:

1 On the server running wiki services, in Terminal, open /etc/apache2/httpd_webcalendar.conf in a text editor.

To open this file in a command-line text editor, enter:

```
$ sudo nano /etc/apache2/httpd_webcalendar.conf
```

If prompted, enter your administrator account password.

You can use any command-line text editor as long as you precede the command to run the text editor with `sudo`.

2 Change all calendar-oriented proxy lines from 127.0.0.1 to your calendar server's host name.

3 On the server hosting iCal service, in Terminal, open /etc/caldavd/caldavd.plist in a text editor.

To open this file in a command-line text editor, enter:

```
$ sudo nano /etc/caldavd/caldavd.plist
```

If prompted, enter your administrator account password.

You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.

You can also use Property List Editor to edit this file. For more information, see "About Property List Editor" on page 33.

4 Under the Authentication:Wiki section, add the following lines:

```
<key>URL</key>
<string>http://wiki.server.address/RPC2</string>
```

Configuring Wiki Settings for All Websites

Wiki settings apply to all websites and thus all wikis hosted on a server. The default settings should work for most users.

Wiki settings include:

Setting	Default	Description
Data Store	/Library/Collaboration/	Wiki, blog, web calendar, and mailing list pages are stored in this location. To change this location, copy the contents of /Library/Collaboration/ to the new location with permissions intact. To do this, enter this in Terminal: `sudo ditto /Library/Collaboration/ newlocation`
Maximum Attachment Size	50 MB	This is the maximum attachment size for any single file (including media such as images, podcasts, and videos) uploaded to the wiki or blog, or attached to email. Users can upload several files below this maximum and have more than this size on a page.
Default Theme	Apple Theme	This is the default theme for wikis. Wiki adminstrators (the person who created the wiki, or a server administrator) can change the theme in the wiki.
Wiki Creators	Empty (anyone can create wikis)	This lists who can create wikis. You can include users or groups in this list. If you leave this list empty, anyone with access to the wiki server can create wikis.
SMTP Relay	None	If you're not hosting mail service on the same server as the wiki server, click Configure and enter configuration information for a SMTP server. This is used to forward mail sent to group mailing lists, and for mail notifications.
External Web Services	None	If you're not hosting iCal or mail service on the same server as the wiki server, click Configure and enter configuration information for iCal or Mail servers.

To view web service settings for wikis:

1. Open Server Admin and connect to the server.
2. Click the triangle at the left of the server.

   The list of services appears.
3. If Web is not listed, select the server and click Settings; then click Services, select Web, and then click Save.
4. From the expanded Servers list, select Web.
5. Click Settings, then click Wiki.

Configuring Other Servers for Web Calendars and Mail Rules

You can host wiki service on a server and enable iCal service and mail service on other servers. iCal service is required for web calendars and mail service is required for setting up mail rules.

When you configure another server for mail rules, a user can configure mail rules in his or her account settings page of a website hosted on the web server, even though another server runs mail service.

You can enable Secure Sockets Layer (SSL) to increase security. SSL is optional for a calendar server, but it is required for a mail server.

To configure external servers for web calendar and mail rules:

1. Open Server Admin and connect to the web server.
2. Click the triangle at the left of the server.

   The list of services appears.
3. If Web is not listed, select the server and click Settings; then click Services, select Web, and then click Save.
4. From the expanded Servers list, select Web.
5. Click Settings, then click Wiki.
6. Click Configure next to External Web Services.
7. Enter the host name of calendar or mail servers.

   If you're using the web server you're configuring for calendar or mail service, you don't need to enter host names in these fields.
8. If you're configuring a calendar server that uses SSL, select SSL.

   Because SSL is required for server-side mail rules, SSL is already selected.
9. Click Done.

After configuring other servers for web calendars and mail rules, enable them for specific websites. For more information, see "Setting Up a Website for Wikis" on page 20.

Configuring Other Servers for Hosting Wikis

You can host wikis on other servers, which can be accessed through a single host name. So for example, if you have 2000 wikis, you can use four servers to host 500 wikis each. Users can access these wikis through the same host name (such as wikis.example.com).

You need the following:

- Main web server—This server runs web service but doesn't need to run wiki service. Users connect to wikis by using the host name of a website on this server.
- At least one other server—These servers run web service and wiki service.

The main web server should be able to connect to ports 8086 and 8087 on the other servers.

The following tasks include an example scenario where Biology and Algebra wikis are hosted on other servers (science.example.com and math.example.com). After performing these steps, users can access the Biology wiki from wikis.example.com/groups/biology/ and the Algebra wiki from wikis.example.com/groups/algebra/.

To configure external servers for hosting wikis:

1. Copy wikis from the main web server to another server.

   Wikis are stored in /Library/Collaboration/Groups/. For more information about the wiki file structure, see "Wiki File Structure Overview" on page 68.

2. Edit the /etc/apache2/httpd_groups.conf file on the main web server:

   a. To edit this file in Terminal, enter:

   ```
   sudo nano /etc/apache2/httpd_groups.conf
   ```

   If prompted, enter your administrator account password.

   You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.

   b. For every wiki you host on other servers, add these lines:

   ```
   <Location /groups/group_name>
     ProxyPassReverse http://external_fqdn:8087/groups/group_name
     ProxyPass http://external_fqdn:8087/groups/group_name retry=5
   </Location>
   ```

Replace *group_name* with the name of the wiki you're hosting. This is the same as the name of the folder with all wiki files. Replace *external_fqdn* with the fully qualified domain name of the external server. Add these lines when you move a wiki to an external server.

In the example scenario, you'd enter the following lines:

```
<Location /groups/biology>
  ProxyPassReverse http://science.example.com:8087/groups/biology
  ProxyPass http://science.example.com:8087/groups/biology retry=5
</Location>
<Location /groups/algebra>
  ProxyPassReverse http://math.example.com:8087/groups/algebra
  ProxyPass http://math.example.com:8087/groups/algebra retry=5
</Location>
```

3 Edit the /etc/apache2/httpd_teams_required.conf file on the main web server:

a To edit this file in Terminal, enter:

```
sudo nano /etc/apache2/httpd_teams_required.conf
```

b For every other server, add these lines:

```
<Location /RPC2/server_name>
  ProxyPass /RPC2 http://external_fqdn:8086/RPC2 retry=5
</Location>
```

Replace *server_name* with a name for the server. This is used in the next task and doesn't need to be a formal name.

In the example scenario, you'd enter the following lines:

```
<Location /RPC2/science>
  ProxyPass /RPC2 http://science.example.com:8086/RPC2 retry=5
</Location>
<Location /RPC2/math>
  ProxyPass /RPC2 http://math.example.com:8086/RPC2 retry=5
</Location>
```

4 Edit the /etc/wikid/wikid.conf file on every external web server:

a To edit this file in Terminal, enter:

```
sudo nano /etc/wikid/wikid.conf
```

b Add these lines:

```
<key>serverRPCRedirect</key>
<string>/RPC2/server_name</string>
```

Replace *server_name* with the name of the other server you entered in the previous task.

In the example scenario, you'd enter the following lines in the the /etc/wikid/wikid.conf in the server hosting science.example.com:

```
<key>serverRPCRedirect</key>
<string>/RPC2/science</string>
```

In the example scenario, you'd enter the following lines in the the /etc/wikid/wikid.conf in the server hosting math.example.com:

```
<key>serverRPCRedirect</key>
<string>/RPC2/math</string>
```

Setting Up a Website for Wikis

Web service can host several websites. Each website can have its own access permissions and web services and can host multiples wikis.

When setting up a website, you can enable SSL to increase security, enable server-side mail rules, and enable online password changing. If you enable SSL, you must create a duplicate non-SSL site that redirects requests for podcasts or RSS feeds to the SSL site.

Additionally, the URL of the server homepage changes from http://*homepage.example.com*/ to https://*homepage.example.com*/.

If server-side mail rules or online password changing are enabled, the user can access these from the server homepage or from their account settings.

To set up a website for wiki services:

1. Open Server Admin and connect to the server.
2. Click the triangle at the left of the server.

   The list of services appears.
3. If Web is not listed, select the server and click Settings; then click Services, select Web, and then click Save.
4. From the expanded Servers list, select Web.
5. Click Sites, then select a site in the list.
6. To enable SSL, click Security, select Enable Secure Sockets Layers (SSL), and choose a certificate.

   For more information about enabling SSL, see *Web Technologies Administration*.
7. Click Web Services.
8. To enable group wikis, select "Wikis."
9. To enable user blogs, click "Blogs."
10. To enable group and user web calendars, select "Calendars."
11. To enable webmail, select "Mail."

    For more information about Webmail, see *Mail Service Administration*.
12. To enable configuration of server-side mail rules on the website, select "Allow users to configure server-side mail rules."

If you enable server-side mail rules, users can also set up vacation notices to notify anyone who sends mail to them that the user is not available to respond.

13 To allow users to change their password on the website, select "Allow users to change their password."

14 To allow users to access the wiki through shortened DNS names, click Aliases and add website DNS aliases.

If you have a site named www.example.com, you could add an alias of example.com. Users could then access your site from both URLs.

For more information about aliases, see *Web Technologies Administration*.

After saving website settings and restarting the web service, you can click the right-arrow buttons next to the settings to visit the blogs, wikis, calendars or webmail pages hosted on the website.

Starting Up Web Service

When you change web service settings, restart web service for the settings to take effect.

Restarting the server and restarting web service can disrupt users, so send out a notification that the server will be temporarily down before doing this.

To restart web service in Server Admin:

1 In Server Admin, click the triangle at the left of the server name hosting the web service and select Web.

The status icon to the left of Web turns green if web service is running.

2 If web service is running, shown by a green status icon at the left of "Web," click Stop Web, then click Start Web; otherwise, click Start Web.

To restart web service in Server Preferences:

- In Server Preferences, click Web, move the slider to Off, and then to On.

To restart web service at the command line:

- Enter the following in Terminal:

```
$ sudo serveradmin stop teams; sudo serveradmin start teams;
```

If prompted, enter your administrator account password.

Connecting to Wikis

If wiki server is set up, connect to it by entering the URL of your wiki server in your web browser.

At the server's base level, you'll reach the default page:

Name	URL	Description
Default home page	/	This is the default page that appears when you enter your sites base URL and you don't set up an automatic redirect. You can change this page in

The default page links to My Page—a set of portal pages that links accessible updated pages, wikis, blogs, personal calendar, and settings. There are several My Page pages:

Name	URL	Description
Updates page	/mypage/	This page lists content updates and comments on all pages the user can access, showing the most recently updated pages first.
Wikis home page	/groups/	This page lists all of the wikis available on your web server. This page also allows the user to create and configure new wikis.
Blogs home page	/users/	This page lists all of the user blogs available on your web server. This page also allows the user to enable their own blog.
Calendar page	/ical/	This page is a personal calendar for the user. The user can send and receive invitations on this calendar.
Settings page	/settings/	This page includes all personal settings, such as account preferences, password, and mail rules.

Every wiki links to several pages:

Name	URL	Description
Wiki pages	/groups/*wikiname*/wiki/*uid*/*pagename*.html	Any member of a wiki can create or edit wiki pages.
Blog pages	/groups/*wikiname*/blog/*uid*/*pagename*.html	Any member of a wiki can create or edit blog pages.
Web calendar page	/groups/*wikiname*/calendar/	Any member of a wiki can create calendar events. Calendar events are stored in the web calendar page.
Mailing list entries	/groups/*wikiname*/mailinglist/*uid*/*pagename*.html	When someone sends an email to *wikiname*-wiki@*server.example.com*, a copy of the email is created as an entry in the mailing list.

Every user blog links to the following pages:

Name	URL	Description
Blog home page	/users/*username*/	This page lists blog entries in reverse chronological order.
Blog pages	/users/*username*/weblog/*uid*/*pagename*.html	Only the user or a wiki server administrator can add or edit blog page entries.

Configuring Individual Wikis

A wiki administrator can change wiki settings. Wiki settings are grouped into several categories:

Category	Settings
General	• Change the wiki icon (displayed at the top left) • Rename the wiki • Describe the wiki • Set a contact email • Change the wiki theme
Services	• Change which services are available • Enable blog podcasts
Permissions	• Choose who has access to the wiki and what level of access they have • Choose who can comment and which comments are moderated

Category	Settings
Sidebar	• Add a sidebar to the home page
Advanced	• Choose which server addresses the wiki appears under

Advanced wiki settings are only available for server administrators.

For more information, see *Wiki Tools Deployment Guide*.

About Wiki Security

The level of website security determines the level of wiki security. Wiki security is established when the website that the wiki is configured on is secure.

Methods you can use to help secure data moving to and from your wiki include the following:

- Set up SSL for the website your wiki is running on. SSL provides security for a site and its users by authenticating the server, encrypting information, and maintaining message integrity.
- Specify users and groups who can create wiki pages on your website by adding users and groups to the Wiki Admins list. For more information, see "Configuring Wiki Settings for All Websites" on page 15.

Customizing How the Wiki Looks

3

Learn how to customize a wiki's appearance.

You can use a wiki's admin settings to do the following:

- Change the wiki's title, description, contact email, and icon
- Change the wiki's theme
- Choose which group services are available
- Create a podcast and integrate it with iTunes
- Choose who can read, write, or administer the wiki
- Choose who can make comments and which comments are moderated
- Add a custom tag-search sidebar to the main page

These settings are sufficient for most wikis. However, if you have special needs—for example, if you want to use a specific organization's style, or if you want to change the appearance and names of the default sidebars on the front page—you must edit files located on the server.

The settings you customize affect wikis when you view them in a desktop Internet browser or on a mobile device, such as iPhone.

Theme File Structure Overview

A theme is composed of Cascading Style Sheet (.css) files, property list (.plist) files, image files (usually .png and .jpg), and sometimes JavaScript (.js) and Extensible Stylesheet Language (.xsl) files.

All themes use the CSS files located at:

/usr/share/collaboration/css/required/

However, CSS files located in individual theme folders take precedence and override the settings in this folder.

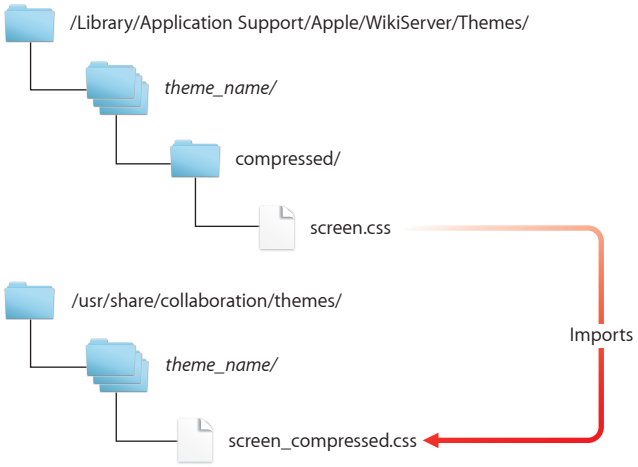
Individual theme folders are subfolders with a .wikitheme extension that are located within this folder:

/Library/Application Support/Apple/WikiServer/Themes/

If the theme has a /compressed subfolder, it imports the CSS files located at:

/usr/share/collaboration/themes/*theme_name*/screen_compressed.css

The following shows how the /compressed folder imports screen_compressed.css.

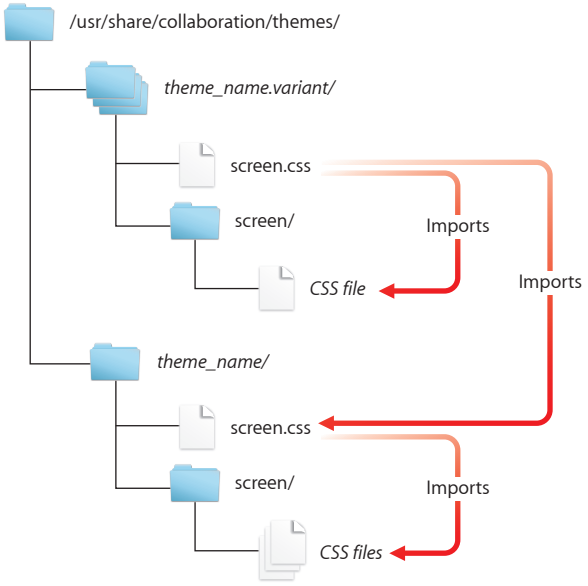


The screen_compressed.css file combines the many individual CSS files in the *theme_name*/screen/ folder. These are provided in prebuilt themes to improve performance. The screen_compressed.css file isn't created automatically or dynamically, so changes to .css files in the *theme_name*/screen/ folder don't affect the screen_compressed.css file.

Variant Theme File Structure Overview

Prebuilt themes have several variants, which share the same layout but might have different banners or color schemes. Shared CSS files are in the main theme's folder, while variants have separate CSS files located in other folders.

The following shows how theme variants import the main theme's CSS and CSS files located in the main theme and theme variant's /screen folder.



For example, the block theme has its shared CSS files located in:

/usr/share/collaboration/themes/block/screen/

Variants of the block theme use these shared CSS files. Each variant also uses CSS files located in other folders such the following:

/usr/share/collaboration/themes/block.green.banner/screen/

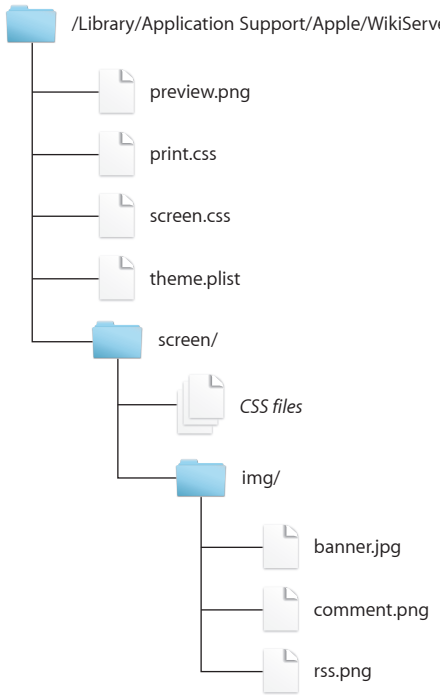
/usr/share/collaboration/themes/block.red/screen/

/usr/share/collaboration/themes/block.red.banner/screen/

These CSS files serve as examples, because prebuilt themes use the screen_compressed.css file instead of these files.

Wireframe Theme File Structure Overview

The wireframe theme is a good example theme to customize, because unlike other built-in themes, its CSS files are located in its main theme folder (in the /Library location and not in the /usr location).



It is a bare-bones theme, which you can easily add to without removing unwanted elements.

The wireframe theme's folder includes the following files and folders:

File or Folder Name	Purpose
preview.png	Displayed when users are choosing which theme to use. Its dimensions are 128 x 128 pixels.
print.css	Applied when wiki pages are printed. If you don't remove the import line from this file, printing uses the print.css file located at: /usr/share/collaboration/default/print.css
screen.css	Applied when wiki pages appear on screen. This file simplifies organization and file structure by using the CSS files in /screen instead of containing all CSS code in one file.

File or Folder Name	Purpose
theme.plist	Affects general settings (such as the theme's name), and sidebar attributes (such as the maximum number of entries and types of sidebars shown).
screen/	Includes all CSS files used when displaying the wiki on screen.
screen/calendar.css	Sets the colors for the web calendar.
screen/comments.css	Sets appearance attributes (such as padding, borders, and positioning) for comment entry and display.
screen/footer.css	Sets footer attributes, such as the margin, padding, color, and font size.
screen/forms.css	Sets the margin for the search field.
screen/general.css	Sets general blog and wiki display attributes, such as the font size and color, background colors, heading margins, and list styles.
screen/grouphome.css	Sets display attributes for the sidebar located on the main wiki page, such as size, margins, and font size.
screen/header.css	Sets display attributes (such as the font size, margin, and padding) for the wiki, blog, calendar, and mail links located at the top of each page.
screen/layout.css	Sets display attributes (such as the margin and size) for the wiki and blog editing interface. Customizing the editing interface is an advanced task; depending on what you're trying to do, you may need to write JavaScript.
screen/metadata.css	Sets display attributes for fields in page histories, such as the margin and font size.
screen/tables.css	Sets display attributes for tables and table headers, such as the color, border styles, and font size.
screen/tags.css	Sets display attributes for the tag list shown on each page, such as the margins, padding, and separators.
screen/thumbnail.css	Sets display attributes for image thumbnails, such as border styles, color, padding, and the magnification graphic.
screen/toc.css	Disabled. Don't edit.

File or Folder Name	Purpose
screen/toolbar.css	Sets the editing toolbar's color, background color, and margin.
screen/weblog.css	Sets blog display attributes, such as which elements are displayed.
screen/img/	Contains graphics used in the theme.
screen/img/banner.jpg	Default banner for the theme. Its dimensions are 950 x 140 pixels.
screen/img/comment.png	Displayed in the upper right of every comment. Its dimensions are 16 x 15 pixels.
screen/img/rss.png	Displayed in the upper right of the What's Hot and Recent Changes sidebars on the main page. Its dimensions are 12 x 12 pixels.

Creating a Theme

The easiest way to create a theme is to take the existing wireframe theme, make a copy of it with permissions intact, and then customize the copy.

If you edit the included themes instead of copying them to new themes, your edits may be overwritten later by a software update.

To create a copy of the wireframe theme with permissions intact:

1. In Terminal, enter the following commands:

```
$ cd /Library/Application\ Support/Apple/WikiServer/Themes/
$ sudo ditto wireframe.wikitheme/ theme_name.wikitheme/
```

Replace *theme_name* with the name of the theme you're creating.

If prompted, enter your administrator account password.

2. If you're going to use Property List Editor or a non–command-line tool, copy the theme.plist file to your Documents folder.

To copy this file, enter:

```
$ cp theme_name.wikitheme/theme.plist /Users/user_name/Documents/
```

Replace *user_name* with the short name of the user you're logged in as.

For information about Property List Editor, see "About Property List Editor" on page 33.

3. Open theme.plist in Property List Editor or a text editor.

To open this file in a command-line text editor, enter:

```
$ sudo nano theme_name.wikitheme/theme.plist
```

If prompted, enter your administrator account password.

You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.

If you're using Property List Editor or a non–command-line tool, open the theme.plist located in your Documents folder.

4 Remove the selectable key and its value and then save the plist.

To remove the key using Property List Editor, select the selectable key and then click Delete.

To remove the key using a text editor, remove the following lines:

```
<!-- remove this selectable key from your theme -->
<key>selectable</key>
<false/>
```

5 If you copied theme.plist to your Documents folder, copy it back to the theme folder.

To copy this file, enter:

```
$ cp /Users/user_name/Documents/theme.plist theme_name.wikitheme/
```

6 Restart web service.

For more information, see "Starting Up Web Service" on page 21.

Editing CSS Files

Cascading Style Sheet (.css) files control how a wiki looks. By editing CSS files, you can change display attributes for specific page elements. For example, you can change:

- Color
- Background color
- Margin
- Padding
- Font size

If you're skilled at editing CSS files, you can completely overhaul the look of the wiki by changing its layout, removing unwanted visual elements, and adding visual elements.

When you edit a CSS file, your changes occur immediately; you don't restart the server or web service after editing. Because you might disrupt users by changing CSS files, create, edit, and test them with a theme that isn't in use.

There are many online sources of information about Cascading Style Sheets. These websites should help you get started:

Website	URL
World Wide Web Consortium	w3.org
CSS3	css3.info
QuirksMode	quirksmode.org
Position is Everything	positioniseverything.net
The WebKit OpenSource Project	webkit.org
A List Apart	alistapart.com
CSS Zen Garden	csszengarden.com

Here are some published CSS guides:

- *CSS: The Definitive Guide, 3rd Edition,* by Eric Meyer. O'Reilly Media, Inc. 2006.
- *CSS Mastery: Advanced Web Standards Solutions,* by Andy Budd, Simon Collison, and Cameron Moll. Friends of ED. 2006.

Editing Property List Files

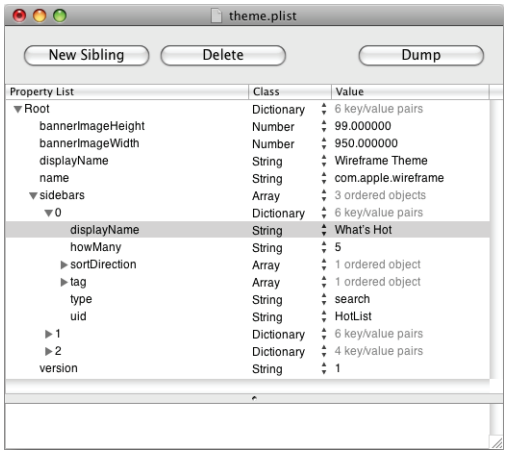
Every theme has a theme.plist file, which controls:

- The name of the theme
- Whether the theme is publicly available
- The height and width of the banner
- Sidebar properties, such as the name, type, and number of links, and sort order

After making changes to the theme.plist file, restart the web service or the server. Because this can disrupt users, create, edit, and test themes on a test computer and then copy them over to the server.

About Property List Editor

Property List Editor (shown below) is a specialized editor for property list files.



To edit a theme.plist file using Property List Editor, copy it to your Documents folder. When you finish editing theme.plist, copy it back to /Library/Application Support/Apple/WikiServer/Themes/*theme_name*.wikitheme/.

Property List Editor is located on the *Mac OS X Server v10.5 Administration Tools CD,* in /Utilities/. You can run it from the CD or copy it to another location.

Property List Editor doesn't show comments, so to see the example sidebars provided in the wireframe's theme.plist file, open the theme.plist file in a text editor and remove the comment markers surrounding the example sidebars.

About Property List Files

The theme.plist file is structured like an XML file. If you understand XML, editing theme.plist is straightforward. If not, read the following sections for basic editing information.

About Property List Keys and Values

Every setting controlled by theme.plist has a key and an associated value or an array (a collection) of associated values. To change the setting, you change the value or values, not the key.

For example, to halve the height of the banner image in Property List Editor, double-click the value 99 next to bannerImageHeight and replace it with 50.

To halve the height of the banner image in a text editor, change the following lines in theme.plist:

```
<key>bannerImageHeight</key>
<real>99</real>
```

to:

```
<key>bannerImageHeight</key>
<real>50</real>
```

About Strings

Most of the values in theme.plist are character sequences called *strings*.

About Dictionaries

A *dictionary*, or *dict* when viewed in a text editor, is an assortment of values of different classes. In theme.plist, a sidebar is represented by a dictionary.

Because a dictionary can contain several values, Property List Editor provides a disclosure triangle that allows you to view or hide the contents of the dictionary.

About Arrays

Arrays are collections or lists of similar classes. The theme.plist file includes two types of arrays: a list of dictionaries and a list of strings.

The sidebars array is an example of a dictionary array. Because the sidebars array is commented out by default, you can't see it in Property List Editor without first removing the comment markers in a text editor.

Because an array can contain several values, Property List Editor provides a disclosure triangle that allows you to view or hide the contents of the array.

Here is the sidebars array in a plain text editor:

```
<key>sidebars</key>
<array>
    <dict>
        sidebar keys and values
    </dict>
    <dict>
        sidebar keys and values
    </dict>
</array>
```

Here is an example of an array with a single string:

```
<array>
    <string>value</string>
</array>
```

Here is an example of an array with multiple strings:

```
<array>
    <string>value</string>
    <string>value 2</string>
</array>
```

About Comments

The theme.plist file includes comments to help provide editing instructions and example keys and values. Comments are ignored when theme.plist is read by the wiki server.

Comments start with "<!--" and end with "-->." Everything in between is ignored, even if the comment contains many lines of keys and values.

For example, the wireframe theme's theme.plist file includes the following comment to indicate where the example sidebars section starts:

```
<!-- example (non-default) sidebars -->
```

The sidebars array is preceded by a <!-- comment marker. The end comment marker doesn't appear until after the array. Because the comment markers surround the array, the code for these sidebars in the array is ignored unless the comment markers are removed.

About Errors

Make sure all required values are present. If you don't include required keys and values in theme.plist (for example, a displayName or a uid for a sidebar), loading the wiki's main page will display an "Internal Server Error" page. Wiki pages that don't have sidebars won't display this error.

Changing General Theme Settings

The wireframe theme's theme.plist file includes keys and values for the following general settings:

Key	Default Value	Possible Values	Optional or Required	Description
bannerImageHeight	99	Any number, 0 or more	Optional	The amount in pixels alloted to the height of the banner image. Images you upload are scaled to this size. If you define bannerImageHeight but not bannerImageWidth, the width scales proportionally. This value affects the banner image's height, not the banner's height. To change the banner's height, edit the wireframe theme's layout.css file.
bannerImageWidth	950	Any number, 0 or more	Optional	The amount in pixels allotted to the width of the banner image. Images you upload are scaled to this size. If you define bannerImageWidth but not bannerImageHeight, the height scales proportionally. This value affects the banner image's width, not the banner's width. To change the banner's width, edit the wireframe theme's layout.css file.
displayName	Wireframe Theme	Any string (such as a word or phrase)	Required	The name of the theme as shown in the theme chooser accessed from a wiki's admin settings.

Key	Default Value	Possible Values	Optional or Required	Description
mobileHeaderColor	#848c64	# followed by a hexadecimal color code	Optional	The background color shown behind the name of the wiki and navigation bar when you view the wiki on iPhone.
name	com.apple.wireframe	Any string with no spaces	Required	Uniquely identifies the theme.
selectable	<false/>	<false/>	Optional	Displays a theme in the theme chooser, if the selectable key and <false/> value are removed.
version	2	A number	Required	Don't change this value.

Creating Sidebars

If you haven't created a sidebar before, it might be easier to customize an example sidebar to suit your needs.

In the wireframe theme's theme.plist file, a sidebars section contains an array of sidebars you can customize:

```
<key>sidebars</key>
<array>
    <dict>
        sidebar keys and values
    </dict>
    <dict>
        sidebar keys and values
    </dict>
</array>
```

Understanding the Types of Sidebars

There are several types of sidebars, each with a specific purpose and set of keys:

Sidebar Type	Description	Related Section
static	A list of URLs.	"Static Unique Keys" on page 38
search	A list of search results using tag-based or text-based searching.	"Search Unique Keys" on page 40
calendar	A list of upcoming events.	"Calendar Unique Keys" on page 41

Sidebar Type	Description	Related Section
tag	A list of search results using tag-based searching.	"Tag Unique Keys" on page 42
recentActivity	A list of pages sorted by recent viewing frequency. Based on the last 100 page views in a wiki, this list displays the most-viewed page first, followed by the next most-viewed, and so on.	"Recent Activity Unique Keys" on page 42
admin	A sidebar that appears if someone logs in as an admin. This sidebar isn't customizable.	Not applicable

Shared Keys

All sidebars require the following keys:

Key	Example Values	Possible Values	Optional or Required	Description
displayName	What's Hot, What's New, Useful Links, Upcoming Events	Any string	Required	Name of the sidebar.
type	search, static, calendar	static, search, calendar, tag, recentActivity, admin	Required	Type of sidebar used.
uid	HotList, RecentAddsList, UsefulLinks	Any string	Required	Identifier for the sidebar. This value must be unique.

Static Unique Keys

Static sidebars list predefined URLs. "Useful Links" is an example static sidebar.

Static sidebars have the following keys:

Key	Example Value	Possible Values	Optional or Required	Description
urls	Not applicable	An array of dictionary entries, each representing a single link	Required	Because links include several values, such as the name of the link and the URL, every link is represented by a dictionary entry.
headerURL	http://example.com/groups/*groupname*/search/?sort=modifiedDate&kind=wiki&kind=weblog&kind=mailinglist&sortDirection=reverse&excludePages=wiki/welcome	Fully qualified URL	Optional	A URL that is linked to from the sidebar's header.
feedURL	feed://example.com/groups/*groupname*/search/index.rss?sort=modifiedDate&kind=wiki&kind=weblog&kind=mailinglist&sortDirection=reverse&excludePages=wiki/welcome	Fully qualified URL	Optional	An RSS or Atom feed that is associated with the sidebar.

Each dictionary entry has the following keys:

Key	Example Value	Possible Values	Optional or Required	Description
kind	url	url, wiki, weblog, mailinglist, calendar	Required	Not used in any themes. Use this to assign a class to a sidebar. You can then use the class selector in CSS to customize sidebars, such as by adding small calendar icons next to calendar sidebar links or small Safari icons next to URL links.
subtitle	Your server's homepage, List of groups with wikis on this server	Any string	Required	Appears under the name of the link.
title	Server Home, Groups	Any string	Required	Name of the link.

Key	Example Value	Possible Values	Optional or Required	Description
uid	serverhome, groups	Any string	Required	Identifier for the URL. This value must be unique.
url	/, /groups/	A relative or absolute path to a web page	Required	Contents of the link.
snippet	Click here to see your server's homepage.	Any string	Optional	Used for the link's tool tip. To enable tool tips, comment out the following block in the theme's grouphome.css file: `.grouphome .snippet{ display:none; }`

Search Unique Keys

Search sidebars list search results using tag-based or text-based searching. "What's Hot" and "What's New" are examples of search sidebars.

Search sidebars have the following unique keys:

Key	Example Value	Possible Values	Optional or Required	Description
howMany	5	Any number, 1 or more	Required	Maximum number of entries in the sidebar.
tag	hot	One or more strings in the same array	Optional	The tags associated with this sidebar. Pages using all of these tags are added to this sidebar.
kind	wiki, weblog, mailinglist	One or more of the following in the same array: • all • wiki • weblog • mailinglist • calendar	Optional	The kinds of pages associated with this sidebar. A search only lists pages of these types. If this key isn't provided, all types of pages can be shown in the sidebar.

Key	Example Value	Possible Values	Optional or Required	Description
q	annejohnson, wiki, 2008-03-17	One or more strings in the same array	Optional	The text query used to search for entries.
fields	title, content, author	One or more of the following in the same array: • title • author • authorLongName • lastModifiedAuthor	Optional	The fields the text query is applied to. If the query matches any of these fields, the entry appears in the sidebar.
sort	modifiedDate, createdDate, title, author	One or more of the following in the same array: • title • author • authorLongName • lastModifiedAuthor	Optional	Entries are sorted based on these fields. The first field listed is sorted first, then the entries are resorted by subsequent fields. The last field listed takes precedence over previously listed fields.
sortDirection	reverse	forward or reverse	Optional	Sorting order of entries. reverse—most recently modified page is listed first. forward—least recently modified page is listed first.
emptyListString	There are no matches.	Any string	Optional	Shown when there are no matching search results.

Calendar Unique Keys

Calendar sidebars list upcoming events. "Upcoming Events" is an example calendar sidebar.

Calendar sidebars have the following unique keys:

Key	Example Value	Possible Values	Optional or Required	Description
howManyDays	5	Any number, 1 or more	Required	Maximum number of days until an event for it to be listed in the sidebar. Events occurring after this number of days aren't shown in the sidebar.
emptyListString	There are no matches.	Any string	Optional	Shown when there are no matching calendar events.

Tag Unique Keys

Tag sidebars list wiki, blog, and mailing list entries that use a specific tag or set of tags. The most recently modified entries are listed first.

Tag sidebars have the following unique keys:

Key	Example Value	Possible Values	Optional or Required	Description
tag	hot	A single string or several strings in the same array	Required	Tags associated with the sidebar. Pages using all of these tags are added to the sidebar.
howMany	5	Any number, 1 or more	Required	Maximum number of entries in the sidebar.
emptyListString	There are no matches.	Any string	Optional	Shown when there are no matching search results.

Recent Activity Unique Keys

Recent activity sidebars list pages that had the most readers recently.

Recent activity sidebars have the following unique keys:

Key	Example Value	Possible Values	Optional or Required	Description
howMany	5	Any number, 1 or more	Required	Maximum number of entries in the sidebar.
emptyListString	There are no matches.	Any string	Optional	Shown when there are no matching search results.

Overview of the Example Sidebars

The wireframe theme's theme.plist file provides several example sidebars:

Sidebar Name	Description
What's Hot	Lists the five most recently modified pages tagged with "hot."
What's New	Lists the five most recently created pages. This includes wiki, weblog, and mailing list pages.
Useful Links	Lists several predefined links.
Upcoming Events	Lists events occurring within the next five days.

Using the Example Sidebars

The wireframe theme's theme.plist file includes several sidebar examples. All of these examples are commented out by default. You must remove the comments marks if you want to use the example sidebars as custom sidebars. If you don't add custom sidebars, the default sidebars are used. If you use at least one custom sidebar, the default sidebars don't appear.

Consider commenting out all sidebars you don't want to use, and leaving uncommented all sidebars you want to use. Doing this allows you to choose which sidebars you want and allows you to easily change sidebar settings later on.

To do this, start a comment before the <dict> tag for a sidebar, and end the comment after the </dict> tag for that sidebar.

To view specific sidebars:

1. In Terminal, enter the following command:

   ```
   $ cd /Library/Application\ Support/Apple/WikiServer/Themes/
   ```

2. If you want to use a non–command-line tool, copy the theme.plist file to your Documents folder.

   To copy this file, enter:

   ```
   $ cp theme_name.wikitheme/theme.plist /Users/user_name/Documents/
   ```

   Replace *theme_name* with the name of the theme. Replace *user_name* with the short name of the user you're logged in as.

3. Open theme.plist in a text editor.

   To open this file in a command-line text editor, enter:

   ```
   $ sudo nano theme_name.wikitheme/theme.plist
   ```

   If prompted, enter your administrator account password.

   You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.

   If you're using a non–command-line tool, open the theme.plist file located in your Documents folder.

4 If there is a <!-- comment marker before <keys>sidebars</key>, remove it and the --> comment marker before <key>version</key>.

5 For each sidebar that you want to comment out, do the following:

   a Add <!-- before the <dict> tag of the sidebar you want to comment out.

   For sidebars, <dict> tags are followed by the displayName key.

   For example, to comment out the "What's Hot" sidebar, you'd change this:

```
<dict>
<key>displayName</key>
<string>What's Hot</string>
```

   to this:

```
<!--
<dict>
<key>displayName</key>
<string>What's Hot</string>
```

   b Add --> after the </dict> tag of the sidebar you want to comment out.

   The corresponding </dict> tag is the first one found at the same indentation level of the sidebar's <dict> tag.

   For example, to finish commenting out the "What's Hot" sidebar, you'd look for the first </dict> tag at the same indentation level as the What's Hot <dict> tag level, and then you'd change this:

```
</dict>
```

   to this:

```
</dict>
-->
```

6 If you copied theme.plist to your Documents folder, copy it back to the theme folder.

   To copy this file, enter:

```
$ cp /Users/user_name/Documents/theme.plist theme_name.wikitheme/
```

7 Restart web service.

   For more information, see "Starting Up Web Service" on page 21.

Adding JavaScript and XSL Files

The wiki server supports the use of custom JavaScript and Extensible Stylesheet Language (XSL) files. JavaScript and XSL change the content you're displaying, whereas CSS controls the presentation of content. For example, you use could use JavaScript or XSL to add a "digg it" link to your blog entries, which would then tie the blog entries to digg.com.

Carefully choose whether you want to use JavaScript, XSL, or both.

JavaScript has these advantages:

- Unlike custom XSL files, JavaScript files continue to work after doing a software update. The wiki server includes XSL files, which can be changed during a software update. If these files change, an error occurs because the file versions of included files no longer match the file versions of custom XSL files.
- JavaScript can allow you more control over a document than XSL if you have access to information on the server that isn't provided in the XSL context.

XSL has this advantage:

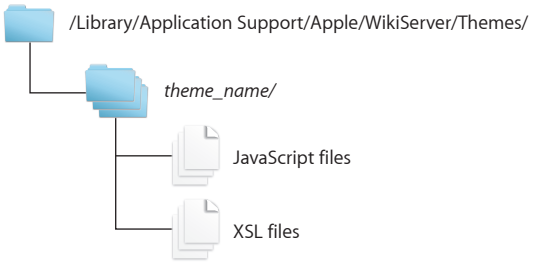
- XSL transformations are performed on the wiki server, so the user's browser isn't required to support and run it.

To add JavaScript files or XSL files to a theme:

1 Put JavaScript (.js) files or XSL (.xsl) files in this folder (shown below):

/Library/Application Support/Apple/WikiServer/Themes/*theme_name*/

Replace *theme_name* with the name of the theme.



2 Restart web service.

For more information, see "Starting Up Web Service" on page 21.

About JavaScript

JavaScript is a lightweight, object-oriented, cross-platform scripting language.

Wiki server pages include the prototype.js and script.aculo.us frameworks, which enhance and streamline the use of JavaScript.

For more information, see the following:

Topic	URL
JavaScript	developer.mozilla.org/en/docs/JavaScript quirksmode.org/js/contents.html crockford.com/javascript/javascript.html
prototype.js	prototypejs.org/api
script.aculo.us	wiki.script.aculo.us

Here are some published JavaScript guides:

- *JavaScript: The Definitive Guide, 5th Edition,* by David Flanagan. O'Reilly Media, Inc. 2006.
- *Beginning JavaScript with DOM Scripting and Ajax: From Novice to Professional,* by Christian Heilmann. Apress. 2006.

JavaScript Example

The following example JavaScript function adds a header link next to the magnifier button that points to www.apple.com and changes the "Other Wikis" link to point to www.apple.com:

```
Event.observe(window, 'load', function() {
    // add another header link (to apple.com) by manipulating the DOM
    // using script.aculo.us Builder
    // we'll just insert it before the search button
    if ($('linkSearch')) {
        $('linkSearch').parentNode.insertBefore(Builder.node('li',
     {id:'linkApple'}, [
            Builder.node('a', {href:'http://www.apple.com'}, 'apple')
        ]), $('linkSearch'));
    }
    // change the Other Wikis link to something else
    if ($('groups_users_button')) {
        $('groups_users_button').down('a').href = 'http://www.apple.
     com/';
    }
});
```

To use this example JavaScript code, save it as a .js file in this folder:

/Library/Application Support/Apple/WikiServer/Themes/*theme_name*/

About XSL

XSL defines XML document transformation and presentation. For information about XSL, see www.w3.org/Style/XSL/.

The wiki server uses a set of XSL files located at:

/usr/share/wikid/lib/apple_templates/

Because a software update can overwrite files in /usr/share/wikid/lib/apple_templates/, edit the copies of these XSL files located in:

/Library/Application Support/Apple/WikiServer/Themes/*theme_name*/

XSL files in this location override XSL files in /usr/share/wikid/lib/apple_templates/.

If a software update overwrites the files in /usr/share/wikid/lib/apple_templates/, you must manually merge the changed contents of your customized XSL files with the updated XSL files. If you don't merge the contents, the versions won't match and an error will occur.

If you edit a copy of the default.xsl file, you must also make copies of all XSL files that include the original default.xsl file and then change them to include the edited default.xsl file.

Viewing Dynamic XML

The wiki server dynamically generates XML content, which is called *context*. Context is transformed by XSL files into HTML.

Before you view context, familiarize yourself with the XSL files located in:

/usr/share/wikid/lib/apple_templates/

The XSL files correspond to specific pages in the wiki. For example, a group's wiki homepage uses grouphome.xsl, while a typical wiki page uses content_entry.xsl. To view context, create an XSL file that displays context and put it in your theme's folder. This overrides the XSL files in /usr/share/wikid/lib/apple_templates/ and changes the output for the pages that they correspond to.

To view context:

1. Create a plain text file with the following content:

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsl:stylesheet version="1.0"
            xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
    <xsl:output
        method="html"
        version="1.0"
        encoding="UTF-8"
        indent="yes"
        doctype-public="-//W3C//DTD HTML 4.01//EN"
        doctype-system="http://www.w3.org/TR/html4/strict.dtd"/>
    <xsl:template match="page">
        <xsl:copy-of select="context"/>
    </xsl:template>
</xsl:stylesheet>
```

2. Save the file in this location:

   /Library/Application Support/Apple/WikiServer/Themes/*theme_name*/

   Use the same filename as any of the XSL files located in:

   /usr/share/wikid/lib/apple_templates/

Choose a filename based on the page with the context you want to view. For example, to view the context for the group's wiki homepage, change the filename to grouphome.xsl.

3 Restart web service.

For more information, see "Starting Up Web Service" on page 21.

4 In a web browser, load a page that uses the XSL file, and then view the page's source.

To view a page's source in Safari, load the page and choose View > View Source.

Customizing My Page

Similar to customizing wikis by applying themes, you can customize the theme for My Page or change text on My Page without applying a theme.

Changing Text Shown in Wikis and Blogs Lists

You can change text found in the wikis and blogs lists on My Page without editing a theme. This text appears in the sidebar at the right of the lists.

To change text shown in the wikis list:

1 In Terminal, enter the following command:

```
$ cd /Library/Application\ Support/Apple/WikiServer/
```

2 Create a file named wikiListExplanation.html in a text editor.

To create this file in a command-line text editor, enter:

```
$ sudo nano wikiListExplanation.html
```

If prompted, enter your administrator account password.

You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.

3 Enter the content that you want to appear in HTML format and save it.

For example, here's some HTML:

```
<p>These are private wikis for <a href="http://www.example.com">Example
    Co.</a></p><p>If you can't create wikis but you'd like to, contact
    the <a href="mailto:svradmin@example.com">Server Administrator</
    a>.</p>
```

4 Change the permissions of wikiListExplanation.html by entering the following command:

```
$ sudo chown 94:94 wikiListExplanation.html
```

To change the text shown in the blogs list:

1 In Terminal, enter the following command:

```
$ cd /Library/Application\ Support/Apple/WikiServer/
```

2 Create a file named userListExplanation.html in a text editor.

To create this file in a command-line text editor, enter:

```
$ sudo nano userListExplanation.html
```

If prompted, enter your administrator account password.

You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.

3 Enter the content that you want to appear in HTML format and save it.

For example, here's some HTML:

```
<p>These are personal blogs for <a href="http://www.example.com">Example
    Co.</a></p><p>If you can't create a personal blog but you'd like
    to, contact the <a href="mailto:svradmin@example.com">Server
    Administrator</a>.</p>
```

4 Change the permissions of userListExplanation.html by entering the following command:

```
$ sudo chown 94:94 userListExplanation.html
```

Changing the My Page Theme

You can create your own theme for My Page or edit the provided example My Page theme.

When you create a custom theme, your theme overrides the default My Page theme. For example, if you change the background color and the body text font in the custom theme CSS, My Page will use the custom theme's background color and body text font but it will use the default My Page theme for everything else. Similarly, custom JavaScript functions override default My Page functions of the same name.

The provided example theme changes the background color of My Page.

To create a copy of the example My Page theme with permissions intact:

1 In Terminal, enter the following commands:

```
$ cd /Library/Application\ Support/Apple/WikiServer/Themes/
$ sudo ditto toplevel.wikitheme/ theme_name.wikitheme/
```

Replace *theme_name* with the name of the theme you're creating.

If prompted, enter your administrator account password.

2 Restart web service.

For more information, see "Starting Up Web Service" on page 21.

To edit a My Page theme from the command line:

1 In Terminal, enter the following commands:

```
$ cd /Library/Application\ Support/Apple/WikiServer/Themes/theme_name.
    wikitheme/
```

Replace *theme_name* with the name of the My Page theme you're editing.

If prompted, enter your administrator account password.

2. To change how My Page looks, edit the screen.css file:

```
sudo nano screen.css
```

If prompted, enter your administrator account password.

You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.

3. To add JavaScript functions, edit the example.js file:

```
sudo nano example.js
```

If prompted, enter your administrator account password.

You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.

4. Restart web service.

For more information, see "Starting Up Web Service" on page 21.

To edit a My Page theme in a non-command-line tool:

1. In Terminal, enter the following:

```
cd /Library/Application\ Support/Apple/WikiServer/Themes/
```

2. Copy the My Page theme to your Documents folder by entering:

```
$ cp -r theme_name.wikitheme/ /Users/user_name/Documents/theme_name.
    wikitheme/
```

Replace *theme_name* with the name of the My Page theme you're editing.

3. Edit the contents of the *theme_name*.wikitheme folder in your Documents folder.

To change how My Page looks, edit screen.css. To change JavaScript functions, edit example.js.

4. Copy the folder back into the main Themes folder.

To copy, enter:

```
$ cp -r /Users/user_name/Documents/theme_name.wikitheme/ theme_name.
    wikitheme/
```

5. Restart web service.

For more information, see "Starting Up Web Service" on page 21.

To choose which My Page theme is shown:

1. In Terminal, enter the following command:

```
sudo nano /etc/wikid/wikid.conf
```

If prompted, enter your administrator account password.

You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.

2 Edit the following lines and save the file:

```
<key>topLevelTheme</key>
<string>theme_name</string>
```

Replace the *theme_name* value with the name key's value in the custom theme's theme.plist. The example theme's name is com.example.toplevel.

If there is no topLevelTheme key and value pair, add them.

3 Restart web service.

For more information, see "Starting Up Web Service" on page 21.

Testing Wiki Code Changes

You can test CSS, XSL, and JavaScript files by entering debug mode in the wiki and then using the Inspector in Safari or the Firebug plugin for FireFox.

Debug mode uses uncompressed scripts and allows the code to be viewed in debugging applications. Entering debug mode only applies to you and doesn't affect anyone else using the wiki.

For information about Firebug, see the Firebug home page at https://addons.mozilla.org/en-US/firefox/addon/1843.

To run the wiki in debug mode:

1 Enter this URL in your web browser:

http://*wikiserverurl*/collaboration/debugMode.html

2 Click Use Debug Mode.

To enable and use the Inspector in Safari:

1 If the Develop menu is not shown, choose Safari > Preferences; then, in Advanced, select "Show Develop menu in menu bar."

2 Browse to a page that has code you'd like to test.

3 Choose Develop > Show Web Inspector.

Click the disclosure triangles next to the types of files you'd like to view, then select the files to view them.

4 Allowing Specific Protocols, CSS Styles, and HTML Tags and Attributes

Learn how to enable specific protocols, CSS styles, and HTML tags and attributes.

The default wiki server setup simplifies administration by removing potentially harmful protocols, CSS styles, and HTML tags and attributes. The wiki server can allow all protocols, CSS styles, and HTML tags and attributes.

The wiki server uses two whitelist files (a built-in whitelist and a custom whitelist) to determine allowed protocols, CSS styles, and HTML tags and attributes. Elements that appear in either whitelist are allowed, and all other elements are disallowed.

The built-in whitelist includes common, usually harmless, elements. It doesn't include potentially harmful tags like embed, param, object, and script. To embed Flash or YouTube in your site, you must include some of these tags. If you create a custom whitelist, you can allow these elements, along with new styles (such as font-size) and protocols (such as irc and scp).

These whitelists affect all wikis on the server.

> ***WARNING:*** Some protocols, HTML tags, and attributes can compromise your server's security and integrity, or harm users who connect to your server. Make sure you understand the implications of whatever you enable. For example, allowing JavaScript introduces security vulnerabilities such as cross-site scripting. For information about cross-site scripting, see http://en.wikipedia.org/wiki/Cross-site_scripting.

Creating a Custom Whitelist

To create a custom whitelist, create a plain text file named whitelist.plist in:

/Library/Application Support/Apple/WikiServer/

The following sections describe this example whitelist.plist file in detail:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.
     com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
    <key>protocols</key>
    <array>
        <string>irc</string>
        <string>scp</string>
    </array>
    <key>styles</key>
    <array>
        <string>font-size</string>
    </array>
    <key>tags</key>
    <dict>
        <key>object</key>
    <array>
        <string>width</string>
        <string>height</string>
    </array>
    <key>param</key>
    <array>
        <string>name</string>
        <string>value</string>
    </array>
    <key>embed</key>
    <array>
        <string>src</string>
        <string>type</string>
        <string>width</string>
        <string>height</string>
    </array>
    </dict>
</dict>
</plist>
```

About the Custom Whitelist's Structure

The following lines are required in the custom whitelist:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.
     com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
```

```
    <key>protocols</key>
    <array>
        allowed protocols
    </array>
    <key>styles</key>
    <array>
        allowed CSS styles
    </array>
    <key>tags</key>
    <dict>
        allowed HTML tags and attributes
    </dict>
</dict>
</plist>
```

Replace *allowed protocols*, *allowed CSS styles*, and *allowed HTML tags and attributes* with values described in the following sections.

The dict contains several key/value blocks that allow specific protocols, styles, tags, or attributes.

Allowing Specific URL Protocols

To allow specific URL protocols, add strings with the protocols' names to the protocols block.

For example, to allow entry of URLs that start with "irc://" and "scp://", create the following block:

```
<key>protocols</key>
<array>
    <string>irc</string>
    <string>scp</string>
</array>
```

Allowing Specific CSS Styles

To allow specific CSS style attributes, add strings with the style attributes' names to the styles block.

For example, to allow the use of the font-size style attribute, create the following block:

```
<key>styles</key>
<array>
    <string>font-size</string>
</array>
```

To allow the HTML "style" attribute, add the "style" attribute to the "_all_" tag, which is described in the following section.

Allowing Specific HTML Tags and Attributes

YouTube, Flash, and other advanced web formats usually require HTML tags and attributes that aren't allowed by default. For example, YouTube requires the following tags and attributes:

Tag	Attributes
object	width, height
param	name, value
embed	src, type, width, height

Because these HTML tags or attributes aren't included in the built-in whitelist, you must add them to the custom whitelist.

To allow specific HTML tags and attributes:

1. Create a tags key and follow it with a dict.
2. In the dict, create keys named after the HTML tags.

   To allow a specific attribute for all HTML tags, create a key named "_all_".
3. After each key, create string arrays listing allowed tag attributes.

For example, to support YouTube, create the following block:

```
<key>tags</key>
<dict>
    <key>object</key>
    <array>
        <string>width</string>
        <string>height</string>
    </array>
    <key>param</key>
    <array>
        <string>name</string>
        <string>value</string>
    </array>
    <key>embed</key>
    <array>
        <string>src</string>
        <string>type</string>
        <string>width</string>
        <string>height</string>
    </array>
</dict>
```

About the Built-in Whitelist

You can't change the built-in whitelist. However, a software update could change the allowed elements in the built-in whitelist.

Protocols Allowed in the Built-in Whitelist

The built-in whitelist allows these protocols:

Protocol
afp
feed
feeds
fax
ftp
gopher
http
https
itms
itpc
ldap
mailto
news
nfs
nntp
rdar
rtsp
sip
sips
sftp
smb
ssh
svn
svn+ssh
tel

Protocol
telnet
vnc
webcal
xmpp

CSS Styles Allowed in the Built-in Whitelist

The built-in whitelist allows these CSS styles:

Style
text-decoration
font-weight
font-style

HTML Tags and Attributes Allowed in the Built-in Whitelist

The built-in whitelist allows these HTML tags and attributes:

Tag	Attributes
all	class, title
a	href, name, ref
b	
blockquote	cite
body	
br	
caption	
dd	
div	
dl	
dt	
em	
h1	
h2	
h3	

Tag	Attributes
h4	
h5	
h6	
html	
i	
img	src, alt, name, width, height, longdesc
li	
node	
ol	
p	
pre	
q	cite
span	
strong	
table	
tbody	
tfoot	
th	colspan, rowspan
thead	
td	colspan, rowspan
tr	
u	
ul	

Allowing Specific File Types for Quick Look

5

Learn how to enable Quick Look for specific file types.

Quick Look allows users to preview a file without downloading the file. To use Quick Look, click the eye button next to attachments.

When a file is attached to a wiki or blog page, the wiki server checks to see if the file type is in the allowed whitelist for Quick Look files. If the file type is allowed and is something that can be represented as a series of images (such as a Pages document, a PDF, or a Keynote presentation), the wiki server creates an image for each page in the file. When the user uses Quick Look, he or she views the series of images created by the wiki server, not the file.

The built-in whitelist includes all file types that have Quick Look support by default in Mac OS X. It doesn't include potentially harmful file types. To add file types that are not included in the white list, such as third-party application file types, add them to the white list.

WARNING: Some file types can compromise your server's security and integrity, or harm users who preview files. Make sure you thoroughly test the file types you enable and review potential security issues.

About the Whitelist

The Quick Look whitelist is located at /etc/wikid/quicklook.conf.

By default, it supports the following file extensions:

File Extension
bmp
doc
docx

File Extension
gif
html
icns
ics
jpeg
jpg
key
mov
mpeg
mpg
mp3
mp4
m4a
m4v
3gp
numbers
pages
pdf
png
ppt
pptx
psd
rtf
tif
tiff
txt
xhtml
xls
xlsx

Adding Quick Look Support for File Types

To support additional file types in Quick Look, install the application's Quick Look generator and add the file type to the Quick Look whitelist. An application's Quick Look generator is usually installed when you install the application.

To add Quick Look support for more file types:

1. Install the application associated with the file type.
2. If you want to remove the application but keep its Quick Look generator, back up the contents of /Library/QuickLook/, uninstall the application, and then restore /Library/QuickLook/.
3. In Terminal, enter the following command:

   ```
   $ sudo cp /etc/wikid/quicklook.conf.default /etc/wikid/quicklook.conf
   ```

   If prompted, enter your administrator account password.
4. Open /etc/wikid/quicklook.conf in a text editor.

   To open this file in a command-line editor, enter:

   ```
   sudo nano /etc/wikid/quicklook.conf
   ```

   If prompted, enter your administrator account password.

   You can use any command-line text editor, as long as you precede the command to run the text editor with `sudo`.
5. Add the file type's extension as a string in the array for the supportedExtensions key.

   For example, if your file type's extension is "xyz," the supportedExtensions array should look similar to this:

   ```
   <key>supportedExtensions</key>
   <array>
     <string>xyz</string>
     <string>bmp</string>
     ...
   </array>
   ```
6. If your file type is a bundle, add the extension as a string in the array for the bundles key.

   For example, if your file type's extension is "xyz" and is a bundle, the bundles array should look similar to this:

   ```
   <key>bundles</key>
   <array>
     <string>xyz</string>
     <string>pages</string>
     ...
   </array>
   ```
7. Save /etc/wikid/quicklook.conf.

8 Restart web service.

For more information, see "Starting Up Web Service" on page 21.

Managing Wiki Content

6

Learn how to manage wiki content using tools and the command line.

Using tools and the command line allows you to migrate, back up, and edit raw wiki content.

Migrating Wiki Content from Other Websites

AppleWikiImporter is a tool that can traverse a website that has a page listing all other pages on the site and create wiki pages based on the website contents. If the website uses tags, AppleWikiImporter can import those tags.

To use this tool, you need some knowledge of CSS selectors and, depending on the website you're importing, some knowledge of JavaScript.

AppleWikiImporter is located at:

https://connect.apple.com/cgi-bin/WebObjects/MemberSite.woa/wa/getSoftware?bundleID=19994

For information about using AppleWikiImporter, see its readme file.

Backing Up the Wiki Server

If you installed Mac OS X Server using a standard or workgroup configuration, you can use Time Machine to automatically back up the wiki server. If you installed Mac OS X Server using an advanced configuration and haven't changed the default wiki and calendar data store locations, Time Machine also automatically backs up your wiki server.

If you don't use Time Machine, the following information describes how you can manually back up the wiki server.

Wiki content is stored in a data store. The default location is /Library/Collaboration/. You can change this location using Server Admin (in web service).

To manually back up the wiki, copy the wiki data store with its permissions intact. For example, to copy the wiki data store to a folder on another volume, enter the following in Terminal and authenticate as an administrator when requested:

```
sudo ditto /Library/Collaboration/ /Volumes/volumename/foldername/
```

If you created or edited themes, copy the theme folder with its permissions intact. To copy the themes folder to a folder on another volume, enter the following in Terminal and authenticate as an administrator when requested:

```
sudo ditto /Library/Application\ Support/Apple/WikiServer/ /Volumes/
     volumename/foldername/
```

If you're using the web calendar, you must back up the calendar data store. The default location is /Library/CalendarServer/Documents/. You can change this location using Server Admin (in iCal service).

To manually back up the calendar, copy the calendar data store with its permissions intact. For example, to copy the calendar data store to a folder on another volume, enter the following in Terminal and authenticate as an administrator when requested:

```
sudo ditto /Library/CalendarServer/Documents/ /Volumes/volumename/
     foldername/
```

Moving Wiki Content

There are a few ways to move wiki content depending on if you're moving wiki content between drives on the same server, or if the new and original servers have the same hardware configuration.

Moving the Wiki Server Volume from One Drive to Another

If you're moving the wiki server volume from one drive to another on the same server, the server must meet the following requirements:

- Wiki service must be offline while moving content.
- The server must have an additional volume with Mac OS X or Mac OS X Server running.
- The server must have a volume that can be erased and have more space available than the size of the original volume.

To move wiki server volume from one drive to another on the same computer:

1. Load Mac OS X or Mac OS X Server on a volume that is not running wiki service.

   You can change your startup volume using Startup Disk System Preferences or by pressing and holding Option while your server is starting up.
2. Open Disk Utility located in /Applications/Utilities/.
3. Select a drive in the list on the left.

4 In the Restore pane, drag the wiki server volume to the Source field, and then drag the new volume that will host the wiki server to the Destination field.

5 Select "Erase destination" and click Restore.

While Disk Utility is restoring volumes, don't modify the new or old volumes.

6 Restart the server by opening Startup Disk System Preferences, selecting the new volume hosting the wiki server, and then clicking Restart, or by restarting the server and pressing and holding Option and selecting the new wiki server volume.

Moving a Wiki Server Volume from One Server to Another with the Same Hardware Configuration

If two servers have the same hardware configuration, you can use Disk Utility to duplicate the original wiki server volume to a volume on the new server.

If you're moving the wiki server volume from one server to another, the servers must meet the following requirements:

- The wiki server must be offline while moving content.
- The original or new server must have an additional volume with Mac OS X or Mac OS X Server running.
- The new server must have a volume that can be erased and have more space available than the size of the original wiki server volume.
- The servers must connect using a FireWire cable.

If the new and original servers have the same hardware configuration:

1 On the original or new server, load Mac OS X or Mac OS X Server on a volume that is not running wiki server.

2 Start the other server in target disk mode by pressing and holding T while the server is starting up.

You can also open Startup Disk System Preferences, click Target Disk Mode, and then click Restart.

3 Use a FireWire cable to connect the servers.

4 Open Disk Utility located in /Applications/Utilities/.

5 Select a drive in the list on the left.

6 In the Restore pane, drag the wiki server volume to the Source field and then drag the new volume that will host the wiki server to the Destination field.

7 Select "Erase destination" and click Restore.

While Disk Utility is restoring volumes, don't modify the new or old volumes.

8 Restart the new server.

Moving Wiki Content from One Server to Another with a Different Hardware Configuration

If you're moving the wiki server volume from one server to another, the servers must meet the following requirements:

- The wiki server must be offline while moving content.
- The original or new server must have a volume with Mac OS X Server running.
- The servers must connect using a FireWire cable.
- If you're moving the wiki server volume to an Xserve with a RAID card, you'll also need an external hard drive.

To move content, do the following:

- Prepare the original server for moving content.
- On the new server, re-create the local directory domain with the same short names as the old server.
- Connect the servers with a FireWire cable and start the original server in target disk mode. If you're moving the wiki server volume to an Xserve with a RAID card, connect an external hard drive to the original Xserve.
- For every group wiki, copy the wiki content and modify group wiki files to fit the new volume.
- Start wiki server on the new server.

To prepare the original server for moving content:

1. Stop web service if it is running.

   In Server Admin, under the original server, select Web, and then click Stop Web.

2. Copy the contents of the original wiki server files to a backup location.

   For more information, see "Backing Up the Wiki Server" on page 63.

To re-create the local directory directory domain:

1. In Workgroup Manager on the original server, click the small globe icon at the top left and choose Local.
2. To export all users, click the single silhouette button, choose Edit > Select All, choose Server > Export, enter a name for the export file, and click Export.
3. To export all groups, click the multiple silhouette button, choose Edit > Select All, choose Server > Export, enter a name for the export file, and click Export.
4. In Workgroup Manager on the new server, click the small globe icon at the top left and choose Local.
5. Choose Server > Import, select an exported file and click Import; then repeat this and choose the other exported file.

Passwords are removed when exporting and importing users. Tell users that they must change their passwords.

To start the original server in target disk mode:
If you're moving the wiki server volume to an Xserve with a RAID card, connect an external hard drive to the original server instead of doing this.

1. Use a FireWire cable to connect the servers.
2. Do one of the following:
   - Restart the original server and press and hold T while it is starting up.
   - On the original server, open System Preferences, click Startup Disk, click Target Disk Mode, and then click Restart.

For every group, do the following in Terminal:

1. Copy group wiki content. Do one of the following:
   - If the two servers are connected by a FireWire cable, enter this:

     ```
     sudo ditto /Volumes/original_server_volume/Library/Collaboration/
       Groups/group_name/ /Library/Collaboration/Groups/group_name/
     ```

   - If you connected an external hard drive to the original server, enter this:

     ```
     sudo ditto /Volumes/original_server_volume/Library/Collaboration/
       Groups/group_name/ /Volumes/external_volume/Library/Collaboration/
       Groups/group_name/
     ```

     Connect the external hard drive to the new server, and enter this:

     ```
     sudo ditto /Volumes/external_volume/Library/Collaboration/Groups/
       group_name/ /Volumes/new_server_volume/Library/Collaboration/Groups/
       group_name/
     ```

2. Find the new group GUID:

   ```
   dscl /Search -read /Groups/group_name dsAttrTypeNative:apple-generateduid
   ```

3. Open /Library/Collaboration/Groups/group_name/metadata.plist in a text editor and replace the string listed after the GUID key with the new group GUID.
4. Delete the index.db file:

   ```
   sudo rm /Library/Collaboration/Groups/group_name/index.db
   ```

To start the wiki server:

1. On the new server, do one of the following:
   - In Server Preferences, click Web and move the slider to On.
   - In Server Admin, open the disclosure triangle for your server, select Web, and click Start Web.
   - Enter the following in Terminal:

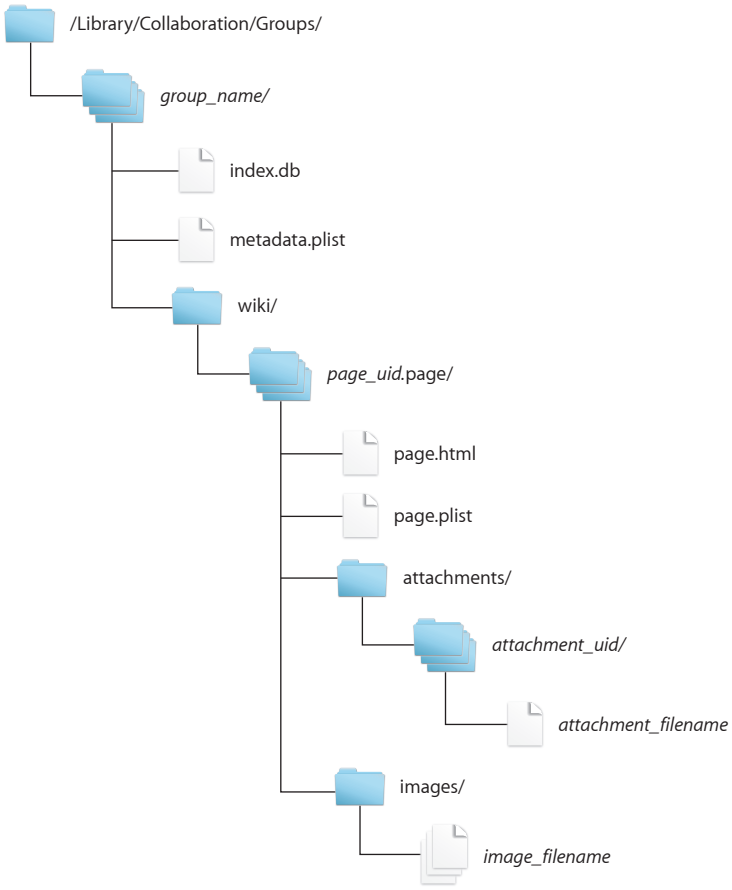
     ```
     $ sudo serveradmin start teams;
     ```

     If prompted, enter your administrator account password.

Wiki File Structure Overview

By default, the wiki server stores group wikis in /Library/Collaboration/Groups/.

The illustration below shows group wiki files and folders.



The Groups folder in the wiki data store includes the following critical wiki files and folders:

File or Folder Name	Purpose
group_name/	Creating a wiki creates a folder with the group's short name.
group_name/index.db	Changes when you edit wiki content. If you manually edit raw content, erase this file so it regenerates based on raw content.
group_name/metadata.plist	Contains wiki administration settings.

File or Folder Name	Purpose
group_name/wiki/	Stores all pages in the wiki. The blog uses a similar file structure. The blog stores its pages in
group_name/wiki/*page_uid*.page/	This is created when you create a wiki page. The name of the folder is a unique identifier that appears in the page's URL: http://*domain_name*/groups/*group_name*/wiki/*page_uid*/*page_name*
group_name/wiki/*page_uid*.page/page.html	Contains the page's HTML content.
group_name/wiki/*page_uid*.page/page.plist	Contains meta-information for a page.
group_name/wiki/*page_uid*.page/attachments/	Stores subfolders for every attachment.
group_name/wiki/*page_uid*.page/attachments/*attachment_uid*/	This is created when a file is attached to a page. Every folder stores one attachment. The name of the folder is a unique identifier that appears in the attachment's URL: http://*domain_name*/groups/*groupname*/wiki/*pageuid*/attachments/*attachment_uid*/*attachment_filename*
group_name/wiki/*page_uid*.page/attachments/*attachment_uid*/*attachment_filename*	This is an attachment.
group_name/wiki/*page_uid*.page/images/	Stores all images for a page.
group_name/wiki/*page_uid*.page/images/*image_filename*	This is an image.

Manually Editing Raw Content

When you use the wiki to edit wiki pages, the wiki server indexes your content. If you manually edit raw content, the wiki server doesn't index content. You must delete the index.db file so the file regenerates based on the changed raw content; otherwise, an error occurs.

To avoid this problem, use the Atom Publishing Protocol, also known as *AtomPub*, or the MetaWeblog application programmer's interface (API). You can use an AtomPub-enabled client or the MetaWeblog API to log in, publish, update, or delete wiki and blog entries.

Configure AtomPub clients to use this service address:

http://*domain_name*/groups/*group_name*/atompub

For more information about AtomPub, see:

Website	URL
RFC 4287: The Atom Syndication Format	atompub.org/rfc4287.html
RFC 5023: The Atom Publishing Protocol	tools.ietf.org/html/rfc5023

For more information about MetaWeblog API, see:

Website	URL
RFC: MetaWeblog API	http://www.xmlrpc.com/metaWeblogApi

To regenerate the index after editing raw wiki content:

1. Delete /Library/Collaboration/Groups/*group_name*/index.db by entering:

   ```
   sudo rm /Library/Collaboration/Groups/group_name/index.db
   ```

   Replace *group_name* with the group's short name.

2. Restart web service.

   For more information, see "Starting Up Web Service" on page 21.

Viewing a Wiki's Administration Settings

The wiki's admin settings are stored in:

/Library/Collaboration/Groups/*group_name*/metadata.plist

Replace *group_name* with the group's short name.

For information about viewing or editing property list files, see "Editing Property List Files" on page 32.

The metadata.plist file includes the following keys:

Key	Example Value	Description
GUID	28CC6BE9-11C1-456C-A3B2-8FCF5520A1DB	Uniquely identifies the wiki. This value must correspond to the group record's GUID in the directory domain. To view a group record's GUID, use Workgroup Manager. For more information, see *User Management* at www.apple.com/server/macosx/resources/.
LongName	Wiki Name	Name of the wiki. By default, this name appears in the top left of every wiki page.
allowComments	<true/>, <false/>	Set to true if comments are allowed.

Key	Example Value	Description
	<true/>, <false/>	Set to true if comments from anyone are allowed. Set to false if only comments from authenticated users are allowed.
allowUnmoderatedComments	<true/>, <false/>	Set to true if comments from authenticated users are unmoderated.
	<true/>, <false/>	Set to true if comments from unauthenticated users are unmoderated
bannerImage	/groups/*group_name*/public/*image_filename*	Path to the banner image.
indexVersion	2	Don't change this value.
name	*group_name*	Short name of the group.
podcastCategory	Sports, Music	Name of the podcast category.
podcastEnabled	<true/>, <false/>	Set to true if podcasts are enabled.
sidebars	An array	Contains custom sidebar settings. For more information about setting up sidebars, see "Creating Sidebars" on page 37.
themeName	com.apple.block.green.banner	Set to the unique identifier of the theme.

Use the Admin Settings page to change these settings instead of manually editing the metadata.plist file. If you manually edit the file, you must stop web service or your changed settings are overwritten.

To manually edit wiki administration settings:

1 Stop the web service by doing one of the following:

- In Server Preferences, click Web and move the slider to Off.
- In Server Admin, open the disclosure triangle for your server, select Web, and click Stop Web.
- Enter the following in Terminal:

  ```
  $ sudo serveradmin stop teams;
  ```

  If prompted, enter your administrator account password.

Stopping web service can disrupt users, so send out a notification that the server will be temporarily down before doing this.

2 If you're going to use Property List Editor or a non–command-line tool, copy the theme.plist file to your Documents folder.

To copy this file, enter:

```
$ sudo cp /Library/Collaboration/Groups/group_name/metadata.plist /Users/
    user_name/Documents/
```

Replace *group_name* with the group's short name. Replace *user_name* with the short name of the user you're logged in as.

If prompted, enter your administrator account password.

3 Open theme.plist in Property List Editor or in a text editor.

To open this file in a command-line text editor (in this example, nano), enter:

```
$ sudo nano theme_name.wikitheme/theme.plist
```

If prompted, enter your administrator account password.

You can use any text editor, as long as you precede the command to run the text editor with `sudo`.

If you're using Property List Editor or a non–command-line tool, open the theme.plist file located in your Documents folder.

For information about Property List Editor, see "About Property List Editor" on page 33.

4 Edit theme.plist and save your changes.

5 If you copied theme.plist to your Documents folder, copy it back to the theme folder.

To copy this file, enter:

```
$ sudo cp /Users/user_name/Documents/theme.plist theme_name.wikitheme/
```

If prompted, enter your administrator account password.

6 Start the web service by doing one of the following:

- In Server Preferences, click Web and move the slider to On.
- In Server Admin, open the disclosure triangle for your server, select Web, and click Start Web.
- Enter the following in Terminal:

  ```
  $ sudo serveradmin start teams;
  ```

  If prompted, enter your administrator account password.

Viewing a Page's Metainformation

A page's metainformation, such as its title, last author, and last modification date, are stored in:

/Library/Collaboration/Groups/*group_name*/wiki/*page_uid*.page/page.plist

Replace *group_name* with the group's short name. Replace *page_uid* with the unique identifier of your page.

Blog and mailing list archive pages have their own page.plist file.

For information about viewing or editing property list files, see "Editing Property List Files" on page 32.

The page.plist file includes the following keys:

Key	Example Value	Description
author	annejohnson	Short user name of the original author.
commentUID	groups/*group_name*/discussion/*page_uid*	Unique identifier for the comments page and its location.
createdDate	2008-02-19T18:58:47Z	Original page creation date and time.
edited	<true/>, <false/>	Originally set to false, this is set to true the first time the page is saved.
kind	wiki, weblog, mailinglist	Type of page.
lastModifiedAuthor	ravipatel	Short user name of the last person to edit the page.
modifiedDate	2008-03-20T23:49:19Z	Last page modification date and time.
title	Welcome	Title of the page.
tombstoned	<true/>, <false/>	Originally set to false, this is set to true when a page is temporarily deleted. If a page is permanently deleted, the entire *page_uid*.page/ folder is removed.
uid	groups/*group_name*/wiki/*page_uid*/	Unique identifier for the wiki page and its location.
versioned	<true/>, <false/>	Wiki pages are versioned; blog and mailing list entries aren't.

After manually editing this file, delete the group's index.db file and restart the server. For more information, see "Manually Editing Raw Content" on page 69.

Managing Attachments

When a user attaches a file to a wiki page, that file is stored in:

/Library/Collaboration/Groups/*group_name*/wiki/*page_uid*.page/attachments/*attachment_uid*/

Group_name is the group's short name. *Page_uid* is the unique identifier of the page that the file is attached to and *attachment_uid* is the unique identifier of the file. Both unique identifiers are included in the attachment's URL:

http://*domain_name*/groups/*group_name*/wiki/*page_uid*/attachments/*attachment_uid*/*filename*

If someone deletes or replaces an attachment in the wiki, the old attachment remains on the server. This allows use of the wiki's history feature to restore old versions of attached files.

If you delete the folder containing the attachment on the server, users can't restore the attachment.

Configuring Wiki Server Settings From the Command Line

Wiki Server settings are stored in /etc/wikid/wikid.conf.

These settings affect all wikis and blogs hosted on the server.

> ***WARNING:*** The wikid.conf file contains many critical keys, with values that must be entered correctly. Back up the wikid.conf file and any other critical Wiki Server files before editing wikid.conf.

The wikid.conf file includes many keys, some of which you should not edit. You can edit the following keys, but be careful when doing so:

Key	Default Value	Description
repositoryPath	/Library/Collaboration	Path to the wiki server data storage.
loggingPath	/Library/Logs/wikid	Path to wiki server log files.
maxAttachmentSize	52428800	Maximum size for an attachment in bytes.

Key	Default Value	Description
logLevel	info	Set to how much information you want logged. Can be one of the following: • err • warn • msg • info • debug
defaultTheme	com.apple.snowleopard	Set to the unique identifier of the default theme.
enableClearTextAuth	<false/>	Set to true to enable clear text authentication. Use this if your directory system doesn't support MD5 hash pasword authentication.
mailServer	host.example.com	URL of the mail server that the wiki server manages.
hostnameForMailingLists	example.com	Set this to the server address appended to mailing list email addresses.
serverTitle	Mac OS X Server	Title of the root page and all pages in My Page.

Key	Default Value	Description
longSessionTimeout	1209600	Number of seconds of inactivity allowed before a user must log in again.
accessLogEnabled	<true/>	Set to true to enable the access log.
accessLogFormat	%(remoteHost)s - %(username)s [%(timeStamp)s] "%(httpMethod)s %(uri)s HTTP/%(clientProtocolVersion)s" %(httpCode)d %(bytesSent)s "%(referrer)s" "%(userAgent)s"	Format for each entry in the access log. Allowed values include: • %(queryingHost)s • %(remoteHost)s • %(requestHost)s • %(sessionID)s • %(username)s • %(timeStamp)s • %(timeTaken)s • %(userAgent)s • %(referrer)s • %(bytesSent)d • %(httpCode)d • %(httpMethod)s • %(uri)s • %(clientProtocolVersion)s
serverRPCRedirect	/RPC2	Enter the hostname for RPC communication. This allows you to hide multiple wiki-servers behind one master web host.
topLevelTheme	com.example.my_theme	Enter the unique identifier of the theme for My Page.
mailFlushInterval	600	Number of seconds between intervals of when mailing list members are written out to the mail server.

Key	Default Value	Description
listingsPerPage	20	Maximum number of items listed per page of any listing.
listingsPerFeed	20	Maximum number of items that are included in rss or atom feeds.
listingsPerMobilePage	20	Maximum number of items that are listed per page on iPhone.
wikiCreators	a dictionary of arrays	Lists which users or groups are wiki administrators. This can also be set in Server Admin. For more information on editing this dictionary, see the following topic.

Choosing Who Can Administer Wiki Server

You can choose who can administer Wiki Server in Server Admin or by editing /etc/wikid/wikid.conf. For information about setting Wiki Server administrators in Server Admin, see "Setting Up a Website for Wikis" on page 20.

In the wikid.conf file, there is a wikiCreators section that contains an array of wiki administrators you can customize:

```
<key>wikiCreators</key>
<dict>
<key>hostname</key>
    <array>
        <dict>
            wiki administrator keys and values
        </dict>
        <dict>
            wiki administrator keys and values
        </dict>
    </array>
/<dict>
```

Key	Possible Values	Description
shortName	Lower case string with no spaces	Short user name or group name. This person or group becomes a Wiki Server administrator.
longName	Any string	Long user name or group name. This person or group becomes a Wiki Server administrator.
group	<true/>, <false/>	Set this to true if you entered a group's names. Set this to false if you entered a user's names.
moderate	<true/>, <false/>	Set this to true to allow this user or group to create wikis and give wiki administrator access to all wikis. Set this to false to allow this user or group to create wikis but not give wiki administrator access to all wikis.