CanvasWiki

Welcome to CanvasWiki, a ColdFusion-based Wiki application. Wiktionary (www.wiktionary.com) defines a Wiki as: "Any website based on any kind of Wiki software which enables users to quickly edit and add to the site's content." The basic premise of CanvasWiki is to allow users to contribute to the content of a site. Although this can be something of a double-edged sword, CanvasWiki provides automatic versioning to allow for rollbacks and corrections to be made. CanvasWiki can also inform you via email of any and all changes.

Credits

CanvasWiki was created by Raymond Camden. Many people have helped improve it. I'd like to give special mention to Mark Mazelin. Version 2 is a direct result of his work and all credit goes to him.

Installing CanvasWiki

To install CanvasWiki follow these steps:

1. CanvasWiki was built using the 1.0 release of Model-Glue, so you must install the Model-Glue framework, available from http://www.model-glue.com. If you already have installed the Model-Glue 1.0 (or later) framework, you do not need to reinstall it. However, if you have an earlier version of Model-Glue, CanvasWiki will not run.

2. Extract canvaswiki.zip to a new folder under your web server's document root, for example, /canvaswiki.

3. Create a mapping in your ColdFusion administrator, give it the name /canvaswiki and point it to the folder you created in Step 2.

4. If you are using CanvasWiki on a database other than MySQL, you must modify the Canvas configuration. Open the config/beans/CanvasConfig.xml file and modify the DatabaseType to match what you have. Valid values are mssql, mysql or oracle. *Note that Oracle remains untested at this point.* MySQL users **must** use a custom driver to connect to their database unless ColdFusion 8 (or higher) is being used. Details on how to set this up may be found here: http://www.adobe.com/go/tn_19170 Note that you must Enable CLOB in the advanced settings of the DSN.

5. CanvasWiki makes use of "Search Engine Safe" URLs. In order for these to work, you must edit a file on your ColdFusion Server. Details may be found here: http://www.adobe.com/go/2addd247

6. If you are using multiple instances of CanvasWiki in the same datasource, you must open the config/beans/CanvasConfig.xml file and modify the DatabaseTablePrefix to something unique. The CanvasWiki table(s) will be prefixed with whtatever value you enter in the config. Suggested values would be a two character identifier followed by an underscore. Note that you must modify the sql install script (see step 6) to prepend the table name(s) with this prefix before running the sql install script.

7. Create a data source, "CanvasWiki". CanvasWiki was tested on SQL Server and MySQL 4.x.There are SQL files to setup the Canvas Wiki table(s) in the install folder. After you have created your database, set up a new DSN connection named CanvasWiki that points to it. Be

sure to verify the DSN connection before continuing.

8. If you want to allow file uploads, you must verify the that uploads folder exists and can be written to by the ColdFusion server.

9. Open your browser and point to the location where you installed CanvasWiki (for example, http://localhost/CanvasWiki). If you use another DSN name, you must edit the config file. This file is found at config/ModelGlue.xml.

Using CanvasWiki

At this point, the Wiki is ready for you to begin editing a page. Wikis have a very open structure. By default, anyone can edit pages by simply clicking the edit this page link. However, all edits are stored in a version history for the page, which can be found by clicking page history. When you edit a page, a list of instructions is provided that describes how to generate different types of layout. For example, bold text is created by using the + sign (for example, +bold+). The list of possible layout styles is always displayed so you do not need to learn the styles all at once.

You should know two critical things, however. If you want to link to another page, you simply create a link to it, click the link, then click "Edit this page". CanvasWiki supports two types of text links. The first type of link is generated using brackets. Any text within [[ ]] characters is converted into a link. For example:

```
This is a link [[http://www.cnn.com]]
```

creates:

```
This is a link <a href="http://www.cnn.com">
```

To use a label, append the value after the | character:

```
This is a link to [[http://www.cnn.com|CNN]]
```

So far so good? To create a new page, simply use a non-URL location. In other words, to link to a page called Jedi Pasta, you would use this format:

```
I like to eat [[Jedi Pasta]].
```

Links can have spaces embedded in them if desired. When a user clicks the link, they will see the default text for a blank page and will be able to edit it. With this method, you can create any number of pages. Although you can organize your Wiki anyway you want, it is common to use a Parent.Child type format. For example, the default page in Canvas is known as Main. If I wanted to create a page under it called JediDisco, I could use this link:

```
I like to dance to [[Main.JediDisco|Jedi Disco Music]].
```

Notice how I appended a label this time. Since anyone can make any page at any time, it is possible for pages to get lost in the mix. If you click Page index in the right-hand menu, you will get a list of all active pages.

As I mentioned, there are two ways to create a link in CanvasWiki. You can create explicit links using bracket notation or you can use what is called WikiTerms. A WikiTerm is any word that is: One capital. One or more lower case. One capital. One or more capital or lower case. (Thanks to Sean Corfield for this description.) So for example, the word WikiTerm itself is a WikiTerm. Any word that matches this

pattern will automatically become a link to another Wiki page.

Notifications

Due to the open nature of Wikis, it is possible for an attacker to "abuse" your site and enter incorrect, or simply abusive, text. In order to be informed of any change to your Wiki, edit the "emailonchange" setting in the CanvasConfig.xml file. Once set you will be notified of any changes made to pages.

Extending CanvasWiki

CanvasWiki provides two options to extend and enhance the application: rendering rules and variable components. Rendering rules apply basic translations on text, like +Foo+ to Foo. Variable components enable you to translate tokens, marked with { and } characters, with custom code.

Rendering Rules

All rendering rules are defined in the ColdFusion component (CFC), PageRender.cfc, located in the model folder. Render rules are run automatically based on their names. All rules named with render_ are run when a page is rendered. For example, the rule that converts +string+ to a bold string is called render_bold. Each method has a hint attribute. This attribute is what you see when you edit a page. Along with a hint attribute, you also have a priority value. The priority value determines when a rendering rule is run. If you need a rule to run first, give it a low value. If you need a rule to run last, give it a high value. If you don't care, simply use 1 or some other simple value. There are many rendering rules already in the CFC. You may use these for examples. Do not forget that the CFC will be cached. To turn off caching, see the Model-Glue documentation for the changes that must be applied to the ModelGlue.xml file.

Variable Components

Variable components are a bit more complex than rendering rules. Any time a string with {...} is encountered, CanvasWiki assumes it is a call to a variable component. Variable components are CFCs that exist within the model/variablecomponents folder. They have the same name as the value within the { and } characters. For example, if you use {lastupdated} in your page, CanvasWiki will look for the lastupdated.cfc file in the model/variablecomponents folder. If it finds it, it calls the render method and passes in the instance of the current page bean. This may sound rather complicated, but if you look at the lastupdated.cfc component that ships with CanvasWiki, it will make more sense. The documentation that is provided when editing pages uses the hint attribute of the cfcomponent tag, not the render method.

The basic idea behind variable components is to allow for more complex actions than simple string substitutions. CanvasWiki comes with one simple component; more components as well as support for arguments will be included in a future release.

Templates

Template pages are snippets of wiki code that can easily be included in other wiki pages. To create a template page snippet, simply create a new page and start the name with "Special.Templates.". So to create a "My Snippet" template, create a page named "Special.Templates.My Snippet". To use that template, edit another wiki page and inclue the Template page name in double squiggly brackets, like this:

    {{My Snippet}}

When that page is rendered, whatever content is in the Special.Templates.My Snippet page will be automatically included in the other page.

Two templates are included in the sql install files: NoContentYet and Stub. The "NoContentYet" template displays when there is no page that exists. You can easily change what is displayed by editing that template page. The "Stub" template can be included on a page that you want to create but do not yet have content for.

Google Sitemap Support

Canvas supports Google's sitemap format. This is an XML display of your site that helps Google index your site. The sitemap can be displayed by going to: (install url)?event=googlesitemap. This is the URL you would provide to Google.

Categories

Canvas supports the idea of categorizing a page. To add a page to a category, simply include a category link anywhere on the page. A category link is just like a regular link, except it begins with "Category:". For example, to add a page to the Policies category, simply include this text:

```
[[Category:Policies]]
```

Note that each page can belong to more than one category. To have more than one category, create more than one category link, like this:

```
[[Category:Policies]] [[Category:Wordy Documents]]
```

When a page is saved, the categories you used will automatically show up on the special Categories List page.

Page History/Version Comparison

List the all changes to a page, with the most recent revisions at the top. When security is enabled, the edit and view links will be enabled or disabled depending on the security roles of the user. As revisions are added, you can use the page history view to select two pages to compare. Simply click the bullets beside each page you want to compare and click the "Compare selected versions" button. Many thanks to Rick Osborne for use of his cfdiff component: http://rickosborne.org/blog/?p=103

Bullet and Numbered Lists

You can embed bullet and numbered lists up to three levels deep. For example, this code:

```
* level one
** level two
* level one again
```

Would produce:

- level one
    o level two
- level one again

The third level would typically use a square box for the bullet.

Similarly, numbered lists will use a numeral at the first level, a lower-case letter at the second level, and a lower-case roman numeral at the third level, each indented as appropriate.

Redirects

Sometimes you may want a wiki page to automatically redirect to another wiki page. To do that, simply include the redirect code as the first link of the wiki page:

```
#Redirect [[other wiki page]]
```

Once a redirect is in place, it is more difficult to edit it (since it is always redirecting), but when a redirect happens, a message will appear just under the page title stating that a redirect happened. This message will contain a link to the redirected page with a "redirect=no" option so that you can view or edit the page.

When a page is moved, a redirect is automatically created for the original page name.

Security

Canvas comes configured with security turned off. To enable logins and the ability to add page-level security, see the Configuring Canvas section below. The current user login system uses hard-coded users in the [canvaswiki]/model/UserRecord.cfc file and controlled with the UserController.cfc in the controller folder. You can either use those simple built-in users or write additional code that will authenticate the user against your own database or LDAP server. Just override the login() and load() methods. The Login, Logout and UserInfo links will only show in the right-side navigation when one of the LoginRequired options is true.

The default users are sysop, admin, and user. The passwords for these users are the same as their user name. Sysop has rights to view and edit all files, no matter what the explicit or default roles are. Admin is the role typically used for editing, while a User has view rights but nothing else.

Printing

You can print a PDF, FlashPaper or a stripped-down HTML version of each wiki page. The blueheavenprint.css stylesheet is used in addition to the blueheaven.css stylesheet when printing.

Table of Contents

A table of contents section is automatically created using the h1-h6 headers on a wiki page. The TOC is only created when there are 4 or more headers on a page. To force the TOC on pages with fewer headers, include "__FORCETOC__" anywhere in your wiki page. To put the TOC in a specific place on the page, rather than directly under the page title, include "__TOC__" anywhere in your wiki page. To prevent the TOC from being output, include "__NOTOC__" anywhere in your wiki page.

File Upload

You can upload files such as images, pdfs, etc. All files are served by coldfusion pages rather than through direct access in order to give you the option of implementing security on them. If you have security enabled, once you upload a file, go to the file page and click on the normal "Edit this page" link to add View or Edit security to it. Allowed file extensions is maintained in the CanvasConfig.xml file, with corresponding entries in the MimeTypes.xml file.

To link to an uploaded file, use the following syntax:

```
[[Media:uploadedfilename.ext]]
```

If the uploaded file is an image, you can include the image inline within your wiki page by using the following syntax:

```
[[Image:uploadedfilename.ext]]
```

In addition, you can specify the alternate text and title attributes for the image by placing a vertical pipe after the filename and including other text, like this:

```
[[Image:uploadedfilename.ext| This is my alternate text]]
```

Special Page Navigation Pages

Delete Page

To remove a page from the system, choose the "Delete this page" link from the navigation menu. The page and all revisions are permanently removed from the database.

Move Page

To move/rename a page, choose the "Move this page" link from the navigation menu. The original page title will automatically have a new page created, at version 1, with a "#REDIRECT" content to the new page title. This allows pages that point to the original name to be automatically redirected to the new page name.

What Links Here

This shows a list of all pages that have a link to the current page. *Note: This currently does not detect WikiText links.*

Special Pages

Category List

List of all categories in use in the system. Clicking on a category will list all the pages that use that category. Pages are added to a category using the Category link syntax (see the Category section for more details). You can edit individual category pages just like you would a normal wiki page to add a unique description about that category.

File List

List of all uploaded files in the system.

Orphaned Pages

List of all pages that no longer are linked to. In the course of modifying content, you sometimes leave pages in the system without any links to them.

Recent Updates

List of the most-recently updated pages in the system. When view security is enabled, the list is filtered so that only those pages the user is allowed to see will be listed.

Site Index

List of all the pages in the system, ordered alphabetically by title.

Template List

List of all the template pages in the system.

Configuring Canvas

Nearly all the individual configuration options for Canvas can be found in the [canvaswiki]/config/ beans/CanvasConfig.xml file. Here are the current items that can be changed:

AppTitle

This value shows in the HTML title of each pages, the header bar in the layout, and in the subject line of the notification e-mail.

EmailOnChange

Enter a valid e-mail address as the value to be sent an e-mail whenever a page is committed. Leave it blank to the turn the feature off.

DatabaseType

One of mssql, mysql, or oracle.

DatabaseTablePrefix

This optional value is used to prefix the Canvas Wiki table(s). This allows multiple Canvas Wiki installs to share the same datasource.

RoleList

When logins are enabled, this is the list of available roles that users can belong to and pages can have for security purposes. This list also shows on the edit page when either AllowRolesForEditing or AllowRolesForViewing is true.

LoginRequiredForEditing

If true, you must be logged in to edit any page. After logging in, your user roles are compared with the page security (or DefaultAuthRolesToEdit) to verify access to edit a page. If this option is true, the Edit link in the navigation will not appear unless the user is logged in and has rights to edit the page. Canvas ships with this option set to "false".

LoginRequiredForViewing

If true, you must be logged in to view any page. After logging in, your user roles are compared with the page security (or DefaultAuthRolesToView) to verify access to view a page. This also limits what users see in the Recent Updates, Site Index, and Search results. Canvas ships with this option set to "false".

AllowRolesForEditing / AllowRolesForViewing

When true, enables text boxes on the edit page to enter page level security. The boxes can be left blank to use the DefaultAuthRolesToEdit or View. Canvas ships with both of these options set to "false".

DefaultAuthRolesToEdit / DefaultAuthRolesToView

A comma-separate list of user roles (from the RoleList) that are allowed to edit / view pages. Page-specific roles override this default. The "all" role is a special role that can be used as the default for viewing so that all users can view pages that don't have page-level security on them. Canvas ships with "admin" as the default role for editing and "all" as the default role for viewing.

UploadEnabled

When true, files can be uploaded and referenced within the wiki. Set the UploadAllowedExtensions option to limit what files can be uploaded.

UploadPath

Set this to the path you want uploaded files to be stored. If it does not begin with a slash, it is relative to the canvas wiki base folder. The default is "uploads".

UploadAllowedExtensions

A comma-delimited list of allowed extensions for uploading. If this value is blank, any file can be uploaded. When you add a new extension, you must add a corresponding entry to the [canvaswiki]/config/beans/MimeTypes.xml file with the appropriate mime-type. This allows the file uploads to be filter controlled by mime-type.

WikiTermsEnabled

When true, WikiTerm case words in a wiki page will be automatically linked. Set to false to disable this feature.

WikiTOCMinItems

Species the minimum number of header items required before PageRender generates a Table of Contents section on a wiki page. Defaults to 4. Set to some arbitrarily high number to effectively disable the Table of Contents feature.