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## Tips and Tricks to Make Your Life Easier in the Sakai Wiki

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Some advice to gain full advantage of the wiki technology for teaching and learning.

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## Introduction

Even though it might seem difficult to a new user to understand what a wiki is and how to use one, it is actually pretty easy once you get the hang of it. This paper is intended to help you get started in managing your Sakai wiki efficiently.

Note: Before reading this paper, you should understand the [basic Sakai wiki markup language](#).

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# 1. Create Subsections

By default, a wiki isn't organized following a clear hierarchy. All wiki pages are created at the root level, meaning that every page has to have a unique name to avoid confusion.

The Sakai wiki offers a convenient way to create subsections or, in other words, to create a page hierarchy. In addition to solving some page naming confusion, using subsections will give instructors the opportunity to use a specific default template for each subsection.

## Technical How-To

To create a subsection, add a forward slash (/) in the name of a page when creating a link.

Markup Syntax	[Page Name SubsectionName/PageName]
Rendering on wiki page	<a href="#">Page Name?</a>

## Use Cases

Subsections are ideal to help you create student-, team-, or assignment-specific pages.

**Student-specific:** you could ask all your students to create a personal profile. In such a case, you could pre-populate a page with a series of links to individual student pages:

Markup Syntax	* [Student 1 Name Student/Student1Name] * [Student 2 Name Student/Student2Name]
Rendering on wiki page	<ul style="list-style-type: none"> <li>• <a href="#">Student1Name?</a></li> <li>• <a href="#">Student2Name?</a></li> </ul>

For teams, you could follow the same pattern as with students, but replace the subsection name by *Team/* instead.

**Assignment-specific:** You could create subsections for assignments to avoid having students delete each other's work. You could define subsections and ask students to put their name or team number after the */*.

Markup Syntax	* [Assignment 1 - Team 1 Assignment1/1] * [Assignment 1 - Team 2 Assignment1/2]
Rendering on wiki page	<ul style="list-style-type: none"> <li>• <a href="#">Assignment 1 - Team 1?</a></li> <li>• <a href="#">Assignment 1 - Team 2?</a></li> </ul>

As you will see in the next section, creating subsections can help you organize student submissions in a standardized way.

## 2. Modify the Default Templates

The Sakai wiki tool comes with a default template for all new pages, but instructors can modify this template to better suit their needs. This template is an excellent way to provide instructions to your students regarding the way they should use the wiki.

When you create subsections (see Section 1), you also create a unique template page for that subsection. You can customize this page without altering any of the other templates in other subsections and at the root level of the wiki.

### Technical How-To

If it is the first time you are using the wiki tool in a site, the first page shows a list of [Recent Changes](#) at the bottom. Locate the page called [Default\\_template](#) and click its link. This template is the root level template. To change it, click the [Edit](#) button in the toolbar.

When you create a new subsection page and access it, you will see a link to the [default template](#) at the bottom of the page. Clicking on this link will modify the subsection default template.

You can also use the [Index](#) macro to access a specific template—more details will be given on this macro in section 3.

### Use Cases

Customizing your default template is an excellent way to provide intrinsic support to your students, as they are about to modify a page.<sup>1</sup> This support can be of multiple natures:

- **Direct instruction:** If you are assessing your students' work in the wiki or if you are expecting something specific of them, the default template is a perfect place to provide some instructions. For instance, you could indicate where students should write their names, what question they have to answer, how many words are expected, etc.
- **Fill in the blank:** For a specific task, where students are asked to provide data, for instance, you could build a template where students would fill in placeholders. It could be something simple like a line to replace, or a complex page organization using tables or mathematical formulas.
- **Advanced code samples:** If you are expecting students to use complex code and macros, you could give them code samples that they could copy and paste as needed.
- **Usability tips:** Usability is always a concern in a wiki. Giving students instructions in a template on how to keep the information usable is a great way to avoid a potential mess. Section 6 will focus on one strategy to keep a wiki usable: creating anchors.

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<sup>1</sup> Rossett, A. and L. Schaffer, Job Aids and Performance Support, San Francisco, Pfeiffer, 2007. ISBN 0-7879-7621-0 Page 37.

### 3. Look at the Wiki Site Map

It is always interesting to have an overview of all the pages of a wiki. Though it is possible to have such a view in the Sakai wiki tool, knowing how to view it is not intuitive.

Using the [Index](#) macro, it is possible to access every page in your wiki, including the ones that have no incoming links (like default templates).

#### Technical How-To

To show the wiki site map, you need to use the [Index](#) macro.

- Choose any wiki page and click [Edit](#).
- Type the following code on a new line: `{index}`
- Click [Save](#).

You will now see the wiki site map, including all subsections. Note that you can collapse and expand subsections.

#### Use Cases

Showing the wiki site map might be a good way to provide one-click navigation for any page in your wiki. This is particularly useful for large sites that require a lot of clicks to access content.

The wiki site map is also a good way to access subsection default templates, as described in section 2.

## 4. Use the Built-in Navigation Patterns

When a lot of people work collaboratively on a wiki web site, you are bound to be lost from time to time. As long as you know how to use the two navigation patterns below, you should be fine.

1. **The Reset Button:** At the top left of the wiki tool bar, next to the name of the tool, there is a little icon with two arrows. This is the **Reset** button. It allows you to go back to the main page of the wiki tool. It also resets the history breadcrumb (see next item).
2. **The History Breadcrumb:** Located under the wiki tool bar, this series of links is a trace of the recent pages you have viewed. It somewhat replaces the **Back** button of your browser. Note: It is not the usual breadcrumb that shows you a path from the Home page.

## 5. Use the Recent Changes

Want to keep an eye on the wiki activity? “Recent changes” lists all page creation and edition activity on your wiki site. There are three ways to view the recent changes:

1. **The Wiki Home:** By default, recent changes are listed on your wiki home, at the bottom of the page.
2. **Visit the Recent Changes page:** If you have used the **index** macro (see section 2), there is a link to a page called “Recent Changes.” You can subscribe to get email notifications on that page by clicking the **Watch** icon in the tool bar.
3. **Use the `recent-changes` macro:** Just like the **index** macro, you can type `{recent-changes}` on a new line anywhere in a wiki page and then click **Save** to view the list.

## 6. Promote Usability with Headings, Links, and Anchors

Being an open and unstructured system, a wiki doesn't do well at providing shortcuts and a navigation bar by itself. Users have to be made aware of the consequences of not providing a clear structure to their content. A messy wiki can be a serious barrier to adoption. Here are some guidelines to help you keep your wiki usable by using headings, links and anchors.

- Using **headings** helps users find the information in a page by providing clear visual cues on how the information is organized, following a hierarchy.
- A **link** is a clickable section of a page that triggers an action. Usually, a link will take a user to another section of a site or to an external resource. A link is the basic way to navigate web sites.
- An **anchor** identifies a specific location within a page. It is possible to link to an anchor so that users can find specific information, especially within a long page (more than one screen long).

### Technical How-To

**Headings:** Headings are easy to use in the Sakai wiki tool. All you have to do is to start a new line with `hn`, where *n* represents the level of the heading.

Markup Syntax	<code>h1 Heading 1</code> <code>h2 Heading 2</code>
Rendering on wiki page	<b>HEADING 1</b> <hr/> <b>HEADING 2</b>

**Links:** To create a link, put words between square brackets `[ ]` and save your page. To use an alias (a name for your link), you need to type the alias followed by a vertical line `|` then type the link. The following example shows the same destination page without and with an alias.

Markup Syntax	<code>[simplelink]</code> <code>[Simple Link With Alias simplelink]</code>
Rendering on wiki page	<a href="#">simplelink?</a> <a href="#">Simple Link With Alias?</a>

**Anchor:** To create a link to an anchor, you use the same syntax as to create a link, but you have to add a pound sign # in front of the destination. In addition, you need to use the `anchor` macro in your page.

Markup Syntax	<pre>[Link To Anchor 1 #anchor1]  {anchor:anchor1} H2 Name of Section {anchor}</pre>
Rendering on wiki page	<p><a href="#">Link to Anchor 1</a></p> <p><b>HEADING 2</b></p>

## Use Cases

If your content is sequential (minutes from meetings for instance), it would be smart to insert a navigation area at the top of your page. Simply put a link to the previous and next page. This way, users will not have to go back one level to drill down again.

Markup Syntax	<pre>[&lt; Previous Meeting 6-4Meeting] - [Next Meeting &gt; 6-18Meeting] ----- Content here</pre>
Rendering on wiki page	<p><a href="#">&lt; Previous Meeting</a> - <a href="#">Next Meeting &gt;</a></p> <hr/> <p>Content here</p>



If you have a long page with a lot of content, you can put a bulleted list of the topics that are covered on this page at the top. Then it is fairly easy to add anchors to that list to direct users to the content they are looking for. This serves a dual purpose:

1. Helps users see what is on this page at a glance without having to scroll down.
2. Gives access to specific content in one click.

When using anchors, it is also good practice to put a link back to the top of the page (the page navigation area).

Markup Syntax	<pre> {anchor:top} On this page: {anchor} # [Topic 1 #topic1] # [Topic 2 #topic2] # [Topic 3 #topic3] ---- {anchor:topic1} h2 Topic 1 {anchor} Content of Topic 1  [&lt; Back to top #top]</pre>
Rendering on wiki page	<p>On this page:</p> <ol style="list-style-type: none"> <li>1. <a href="#">Topic 1</a></li> <li>2. <a href="#">Topic 2</a></li> <li>3. <a href="#">Topic 3</a></li> </ol> <hr/> <p><b>TOPIC 1</b>  Content of Topic 1  <a href="#">&lt; Back to top</a></p>

## 7. Copy and Paste Often

This advice may seem different from the others in this document, but it is very useful to adopt when using wikis in general.

When you see something you like, and you are not sure how it has been done, open up the hood and look at it from the inside (by clicking the [Edit](#) button, of course). You can then copy and paste the source code into a text file on your computer to reuse it later. It is always easier and usually faster to start from a model rather than to start from scratch.

## 8. Freeze Pages Using Permissions

The Sakai wiki tool offers a wide range of settings to open up or lock down the entire wiki site or single pages.

### Technical How-To

To change the default permissions of a specific page, click **Info** in the tool bar. The first section of the Info page is dedicated to changing the permissions for different type of users. Uncheck any user action that seems inappropriate for this page, and click **Save** at the bottom of the page.

### Use Cases

If you have spent a considerable amount of time getting your wiki home page ready and then you want to be the only person who is allowed to edit it for various reasons (because you want students to know that any information on this page comes from you, to avoid having students remove links to key pages by accident, etc.), removing the editing permission for students might is a good idea.

Another case where it would be appropriate is if an assignment is over and you want content from a specific page to be frozen. This way, late students will not be able to modify the page when the assignment is over, but everyone will be able to read its content.

## 9. Mathematical Language

The Sakai wiki tool offers some interesting features regarding mathematics, sciences, and engineering. It is possible to use standard TeX language and have it show up as a formula instead of plain text. Tables also have some limited spreadsheet functions.

### Technical How-To

**Superscripts and Subscripts:** You can use superscripts or subscripts by using the following markup language:

- *Superscript:* Use two circumflex signs ^^ (usually **SHIFT 6** on a US keyboard) before and after your target content.
- *Subscript:* Use two percent signs %% (usually **SHIFT 5** on a US keyboard) before and after your target content.

Markup Syntax	10^^2^^ CO%%2%%
Rendering on wiki page	10 <sup>2</sup> CO <sub>2</sub>

**TeX Language through jsMath:** The Sakai wiki tool supports the jsMath Javascript library which generates mathematic formulas in web pages through your browser. You can find useful information on jsMath at the following URL (you might find the most useful information in the Samples section):

- <http://www.math.union.edu/~dpvc/jsMath/welcome.html>

To use mathematical notation, you have to use the `math` macro. If you click the `jsmath` box at the lower right of your screen (you might have to scroll down), you can choose `Options` and set the math font display to be larger.

Markup Syntax	<pre>{math} f(x) = \frac{1}{2x} \sin(\pi x^2)^{2/3} \lim \Gamma \Pi \sum^{\infty}_{n=0} {math}</pre>
Rendering on wiki page	$f(x) = \frac{1}{2x} \sin(\pi x^2)^{2/3}$ $\lim \Gamma \Pi \sum_{n=0}^{\infty}$

**Spreadsheet Functions in Tables:** Two simple operations are available in tables. You can do a sum or an average of numeric data. Within the `table` macro, you have to use the `sum`, `avg`, `min`, or `max` macros, as follows:

Markup Syntax	<pre>{table} A   B   C   Total/Maximum   Average/Minimum 1   2   3   =SUM(A2:C2)   =AVG(A2:C2) 7   8   9   =MAX(A4:C4)   =MIN(A4:C4) {table}</pre>															
Rendering on wiki page	<table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>Total/Maximum</th> <th>Average/Minimum</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> <td>3</td> <td>6</td> <td>2.0</td> </tr> <tr> <td>7</td> <td>8</td> <td>9</td> <td>9</td> <td>7</td> </tr> </tbody> </table>	A	B	C	Total/Maximum	Average/Minimum	1	2	3	6	2.0	7	8	9	9	7
A	B	C	Total/Maximum	Average/Minimum												
1	2	3	6	2.0												
7	8	9	9	7												

## 10. List Features

**List Rendering:** There are multiple ways to render lists in the wiki tool. All you have to do is to start a new line with the list character of your choice and leave a space after it. The following table lists some of the list styles.

- text	a list item (with -)
* text	a list item (with *)
# text	an enumerated list
a. text	alphabetical enumerated list
A. text	uppercase alphabetical enumerated list
i. text	roman enumerated list
I. text	uppercase roman enumerated list
g. text	greek enumerated list
h. text	hiragana (japanese) enumerated list
k. text	katakana (japanese) enumerated list
j. text	hebrew enumerated list

You can also indent lists to create sub-points. It only works with single-character list triggers (-, \*, and #). To do so, add another trigger character before your text.

Markup Syntax	<pre>* First Item ** Sub-level *** Sub-sub-level * Second Item</pre>
Rendering on wiki page	<ul style="list-style-type: none"> <li>• First Item             <ul style="list-style-type: none"> <li>◦ Sub-level                     <ul style="list-style-type: none"> <li>▪ Sub-sub-level</li> </ul> </li> </ul> </li> <li>• Second Item</li> </ul>

## Appendix A. Wiki Macro List

This section is a reproduction of the default wiki macro list which is generated by Sakai 2.5.0. It is solely intended for advanced users and troubleshooting. The macros which are most likely to be used are in **bold**.

Macro	Description	Parameters
<b>anchor</b>	Creates an anchor around a section of rwiki rendered content.	1: A name to assign to this anchor.
<b>api</b>	Generates links to Java or Ruby API documentation.	1: class name, e.g. java.lang.Object or java.lang.Object@Java131 2: mode, e.g. Java12, Ruby, defaults to Java (optional)
<b>api-docs</b>	Displays a list of known online API documentation and mappings.	none
<b>asin</b>	Generates links to DVD/CD dealers or comparison services. Configuration is read from conf/asinservices.txt	1: asin number
<b>bgcolor</b>	Change the background color of some text	0,color: Change the background color of the contents.
<b>block</b>	Places a div around a block of rwiki rendered content.	1,class: The class to assign to this block. id: An id to assign to this block. anchor: An anchor to assign to this block.
<b>code</b>	Displays a chunk of code with syntax highlighting, for example Java, XML and SQL. The none type will do nothing and is useful for unknown code types.	1: syntax highlighter to use, defaults to java (optional).
<b>color</b>	Change the color of some text	0,color: Change the foreground color of the contents. 1,bgcolor: Change the background color of the contents.
<b>file-path</b>	Displays a file system path. The file path should use slashes. Defaults to windows.	1: file path
<b>hello</b>	Say hello example macro.	1: name to print
<b>image</b>	Places an Image in the page.	1,img: URL to the image, image URL must be relative, or absolute but cannot be external. It may also start with worksite:/ or sakai:/ if referencing resources in the worksite or the whole of sakai. When referencing resources in other worksites (eg sakai:/) you must include the site id 2,alt: (optional) Alt text

Macro	Description	Parameters
		3,ext: (optional) ignored at the moment
		4,class: (optional) css class applied to the image
		5,target: (optional) Target window
		6,title: (optional) Title the image, (will default to the same value as alt)
		Remember if you are using positional parameters, you must include dummies for the optional parameters
<b>index</b>		1:space, The space to index; defaults to the space of the current page.
		2:nohead, if nohead, the header line will not be produced
<b>inter-wiki</b>	Displays a list of known InterWiki mappings.	none
<b>isbn</b>	Generates links to book dealers or comparison services. Configuration is read from conf/bookservices.txt.	1: isbn number
<b>link</b>	Generated a link	1,text: Text of the link
		2,url: URL of the link, if this is external and no target is specified, a new window will open
		3,img: (optional) if 'none' then no small URL image will be used.
		4,target: (optional) Target window, if 'none' is specified, the URL will use the current window.
		Remember if using positional parameters, you must include dummies for the optional parameters.
<b>list-of-macros</b>	Displays a list of available macros.	
<b>mailto</b>	Displays an e-mail address.	1: mail address
<b>math</b>	This is a basic macro that places span/div tags with an appropriate class around the math text. The contents of this macro are pre-escaped; however you cannot put null in the contents of this macro Place <code>{{math}}</code> instead.	1: put "display" here for the math to be placed in a div
<b>quote</b>	Display quotations.	1: source (optional)
		2: displayed description, default is Source (optional)
<b>recent-changes</b>	Expands to a list of recently changed pages	1: Optional, If format is yyyy-MM-dd. Changes since date if format is 30d number of days; If format is 12h, number of hours, defaults to last 30 days,
<b>rfc</b>	Generates links to RFCs.	

Macro	Description	Parameters
<code>sakai-sections</code>	Generate a list of links that point to section subsites	1,useids: (optional) if true will generate with ID's; otherwise, will use names, names is the default Remember if using positional parameters, you must include dummies for the optional parameters.
<code>span</code>	Places a span around a section of rwiki rendered content.	1,class: The class to assign to this block. id: An id to assign to this block. anchor: An anchor to assign to this block.
<code>table</code>	Displays a table.	none
<code>worksiteinfo</code>	Generates worksite information	1,info: The type of info to provide, worksiteinfo:title gives Title (default), worksiteinfo:description, worksiteinfo:shortdescription, worksiteinfo:wikispace Remember if using positional parameters, you must include dummies for the optional parameters.
<code>xref</code>	Generates links to Java Xref source code.	1: class name, e.g. java.lang.Object or java.lang.Object@Nanning 2: line number (optional)

## How to use macros

There are some differences in how to use macros, but the general rules are the following:

Simple macro	<code>{<i>macroname</i>}</code> Example: <code>{index}</code>
Simple macro with attribute	<code>{<i>macroname:attribute</i>}</code> Example: <code>{link:worksite:/file}</code>
Content formatting macro	<code>{<i>macroname</i>}Content{<i>macroname</i>}</code> Example: <code>{anchor:Anchor1}</code> H2 Title of Anchor <code>{anchor}</code>