

Bookends and the World Wide Web...

...Allow web users to access a Bookends database on your computer and retrieve formatted references

BOOKENDS AND THE WORLD WIDE WEB

INTRODUCTION

The Web is an Internet-based communications system with a standardized "language" known as Hypertext Markup Language (HTML). An HTML document consists of ASCII characters (unstyled text) and embedded commands that specify how the text (and graphics that are available as separate files) should be displayed. Programs that read HTML, such as Netscape Navigator or Mosaic, are known as "browsers", and can interpret the embedded instructions to display styled text (bold, italic, underline, super- and subscript), pictures, sounds, etc.

Examples of some simple HTML text commands are:

HTML	Style	Interpreted as
Hello		Hello Bold
<I>Hello</I>		Hello Italic
<U>Hello</U>		Hello
	Underline	
Howdy^{Hello}		Hello
Howdy		
	Superscript	

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Browsers may differ in the way that HTML-encoded information is displayed. For example, Netscape Navigator 2.0 will not display text as underlined when it encounters the <U> and </U> codes.

Some applications can respond to HTML commands, sent by a browser, to perform useful tasks and send the results back to the browser. This is often achieved by using a Common Gateway Interface (or CGI) that interprets the request and communicates the reply. Bookends has a built-in CGI, and when it receives a properly formulated request it can retrieve, format, and send back reference information in HTML-encoded form. This makes it possible to "publish" Bookends' databases on the Web so that others, in remote locations, can retrieve formatted references and bibliographies without themselves having a copy of Bookends.

It is beyond the scope of this manual to delve further into the particulars of HTML. There are several detailed examples at the end of this documentation on how to access Bookends from the Web, as well as an html-encoded example, ready for viewing with a browser, called `Examplepage.html` that is supplied with Bookends.

What follows are the details of the capabilities of Bookends and a description of the syntax you must use to allow communication between a browser and Bookends.

Suggested references

Books:

Jon Wiederspan and Chuck Shotton: *Planning and Managing Web Sites On The Macintosh*, Addison-Wesley Developer's Press, 1996. ISBN 0-201-47957-5.

Eric Tilton, Carl Steadman, and Tyler Jones: *Web Weaving*, Addison-Wesley Developer's Press, 1996. ISBN 0-201-48959-7.

On-line:

<http://www.starnine.com/development/tutorials.html>

FORMAT REFERENCES AS HTML

Bookends can automatically embed the proper HTML commands in a formatted reference. These buttons appear in the lower left hand corner of the Bibliography Formatter window.

hen “as HTML” is checked, Bookends will generate a formatted bibliography that is preceded by the `<HTML>` command and followed by the `</HTML>` command. This tells a browser that the information in between contains HTML-style information. Furthermore, Bookends will add the appropriate HTML commands to the bibliography so that the references are displayed as you specify. The behavior of this feature is different depending upon which of the other two options, Without Styles or With Styles, you have selected.

Creating a bibliography Without Styles as HTML

With this option, Bookends will add HTML codes for the following types of text:

1. Carriage returns
2. Extended ASCII (e.g., é, ü, etc.)
3. Super- and subscript

Tip: With a little bit of familiarity with HTML, you can directly embed commands for styled text in the format definition itself. For example, when a reference is created with the following format and displayed by a browser, the Title will appear in bold:

a. (d) `$$t$$ v:p-`.

The `` and the `` codes delimit the text to be displayed in bold. Note that you MUST enclose HTML codes in \$ symbols. This tells Bookends to output these characters as is, and not to output, in this example, the Abstract when it encounters a B.

Creating a bibliography With Styles as HTML

With this option, Bookends will add HTML codes for the following types of text:

1. Carriage returns
2. Extended ASCII (e.g., é, ü, and other non-English characters)
3. Super- and subscript
- 4.

Styled text (bold, italic, underlined)

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Bookends will substitute the HTML (emphasis) command for shadowed text.

Most browsers display emphasized text in italics. The HTML command will be substituted for outlined text. Most browsers display STRONG text in bold.

When to use Without Styles and when to use With Styles

Which of these options is better for you depends upon the particular circumstances. Creating an HTML bibliography With Styles will retain a word's styled text information (for example, if a Latin word in the Title is italicized, it will retain the italic style when converted to HTML) and requires absolutely no knowledge of HTML on your part. It is, however, relatively slow. Formatting Without Styles is much, much faster, although less flexible.

In general, you will want to use With Styles if you are inserting HTML-encoded references into an HTML document yourself, or if someone accessing your Web page will receive only a few references in reply. You should use Without Styles if you have Bookends set up on your Web site and expect that it might have to return many references to a user. This issue is dealt with below in the section MAKING BOOKENDS RESPOND TO AS WEB REQUEST AS QUICKLY AS POSSIBLE.

Create an HTML-encoded Formatted Reference with Bookends

Bookends can be used to generate HTML-encoded references that can be pasted directly into an HTML document. This would be useful if, for example, you are creating a Web page and want to insert a formatted reference, especially if it contains styled text. To do this, select the format you want and check the "as HTML" check box. Go to the reference you want to format and select Copy Formatted Reference from the Edit menu. You can then switch to the application in which you are creating the HTML document and paste it in (the switch is automatic if you are linked to the application).

If you want to insert more than one formatted reference at a time, put the desired references in the Hits List and then go to the Bibliography Formatter and Make Bib (make sure "as HTML" is checked and you are sending the formatted references to the Bibliography Window). Copy the references from Bibliography Window, switch to the application in which you are creating your document, and paste in the HTML-encoded references.

Tip:

If you link Bookends to the application in which you are creating the HTML document, Bookends will automatically switch to it after you select Copy

Formatted Reference. You can then paste the HTML-encoded reference into your Web page.

Tip:

Creating the formatted With Styles is the simplest and most convenient way of creating HTML-encoded reference citations for insertion into a Web page.

ALLOW WEB USERS TO ACCESS A BOOKENDS DATABASE ON YOUR COMPUTER AND RETRIEVE FORMATTED REFERENCES

If you have Bookends running on a Web server, others can use a browser to obtain reference information from your databases. To allow this, you must be running server software on your Macintosh such as MacHTTP or WebStar (StarNine). There are two ways to let users access your databases: 1) provide a “form” on your Web page that the user fills out and submits to Bookends, or 2) provide a hypertext link on your Web page that directly submits a request, defined by you, to Bookends. Regardless of how the request is submitted, Bookends will find the references, format them as specified, and return the resulting “bibliography” to the user. In other words, Bookends will let remote users retrieve references as if they had Bookends and your databases on their computer.

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Remote users cannot delete information from your databases or change settings in Preferences.

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The maximal number of characters that Bookends can return in a single access is 30,000.

Setting up Bookends to reply to a Web access

1.

Create an alias of Bookends (in the Finder, click once on the Bookends Plus icon and select Make Alias from the File menu).

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If you are upgrading from one version of Bookends Web to another, you must replace the old alias with an alias of the new Bookends application.

2.

Place the alias in the same folder as the server application, MacHTTP or WebStar (the alias should be at the same level as MacHTTP or WebStar, not in a subfolder). The actual name of the alias is unimportant, but we suggest naming it “Bookends.cgi” to emphasize its function as a Common Gateway Interface for Web access.

3.

Launch MacHTTP or WebStar.

4.

Launch Bookends (Bookends must be running to reply to a Web access). A reference database must be open (or have been previously opened in the current session) for Web access—this is very important. If no reference database has been opened and the Web request does not supply the name of a database to search, Bookends will return the error message: Bookends can't understand this request.

5.

Select Bibliography Formatter from the Biblio menu. Create (or import from the Format Bank) one or more formats, select whether you want bibliographies generated with or without styles (Note: Bookends always formats references “as HTML” when replying to a Web request, so it doesn't matter whether this box is checked or not if Bookends is creating a bibliography in response to a Web access).

6.

You're ready! All a user needs to retrieve references from Bookends is the URL of your Web page (you can, of course, link users to this page from any other Web site).

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A sample HTML Web page, called ExamplePage.html, is included on the Bookends disk. You can view it with a browser to see how it would appear to a user and/or open it with your word processor to see what HTML codes were used to create the page.

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Preferences has the following options:

If Bookends is running in the background, it will become the frontmost application when a Web access is detected if Bookends to front on web access is checked (nothing happens if it is already the frontmost application). This is highly recommended, because Bookends is much faster when it is the frontmost application.

When Hide when in background is checked, Bookends will become invisible when it is running in the background. It will become visible when it comes to the front.

If Allow remote entry of references is checked, users who access your Bookends databases over the Web can enter reference information if you provide the appropriate forms on your Web pages. This option is discussed in detail below.

A. Accessing Bookends via a Form

An HTML “form” consists of one or more variables a user defines and then “submits” to a Web site. A form designed for use with Bookends should begin with the following HTML code:

```
<form method=POST action="Bookends.cgi$search_form">
```

This assumes that the Bookends alias you created is named “Bookends.cgi” and that your Macintosh is the primary server. If Bookends is being accessed from another server, the form must include the URL of the computer on which Bookends is running, such as

```
action="jda.sonny.com/Bookends.cgi$search_form">
```

The words search form (that is the underscore character that separates the two words) tell Bookends what to do with the instructions that follow.

Bookends allows up to nine different form elements, all but one of which is optional and/or can be “hardcoded” by you, the form's creator.

The nine elements and their keywords are:

Element
Keyword

- the word or phrase to search for (mandatory): Find
- the field in which to search, or All (optional):
Field
- the name of the database to search (optional):
DB

- the type of search (optional):
How
- the name of the format (optional):
Format
- the maximal number of references to return (optional):
HitLimit
- the header above the references (optional):
Head
- the footer that follows the references (optional):
Foot
- the appearance of the text (styled or plain) (optional):

Styles

To use one of these options in a form, you (or the user) must provide the value of a keyword that Bookends understands. When the form is submitted, Bookends will obtain the value and proceed accordingly. The elements and their corresponding keywords are described below. Examples of how these instructions appear in Netscape Navigator 2.0 are shown.

Word or phrase to search for

Keyword: Find (this must be supplied)

HTML example (editable text field):

Word or phrase to search for:

```
<INPUT SIZE=50 NAME="Find">
```

Typically, the word or phrase to search for will be entered by the user in an editable text field (or perhaps selected from a pop-up menu). The search is not case sensitive. If Find is left undefined, Bookends will return an error: You didn't provide a word to search for!

If Bookends finds one or more references that meet the search criteria, it will return a formatted bibliography preceded by the words X matches found., where X equals the number of hits. If there are no hits, Bookends will return the result: No matches found.

Name of the database to search

Keyword: DB (optional)

HTML example (pop-up menu):

Choose a database to search:

```
<SELECT NAME="DB">  
<OPTION>First database  
<OPTION>Second database  
<OPTION>Third database  
</SELECT>
```

You can allow the user to select the database to be searched (but only one can be searched at a time!). Since users usually can't be expected to know the names of your databases, the names would typically be supplied by you in a pop-up menu. If DB is defined and Bookends cannot find a database of that name, an error will be returned: Can't find database:, followed by the name of the database that was requested.

If DB is undefined, Bookends will use the database that is currently open. If no database is open, Bookends will use the last opened database. If no database was opened in the current session, Bookends returns: No database was specified.

Name of the field to search

Keyword: Field (optional)

HTML example (pop-up menu):

Find in category:

```
<SELECT NAME="Field">  
<OPTION>All  
<OPTION>Authors  
<OPTION>Title  
<OPTION>Editors  
<OPTION>Journal  
<OPTION>Volume  
<OPTION>Pages  
<OPTION>Date  
<OPTION>Publisher  
<OPTION>Location  
<OPTION>Type
```

```
<OPTION>Keywords
<OPTION>Abstract
<OPTION>Notes
</SELECT>
```

his is the name of the field in which to search for the information. The name of the field(s) must be the same as in an unmodified Bookends database (that is, even if you have Changed Labels, the field names in the form must be those provided with the original Bookends). If Field = All, Bookends will look through all of the fields for a match.

If Field is undefined, Bookends will perform an “All” search.

Type of search

Keyword: How (optional)

HTML example (pop-up menu):

```
Find the:
<SELECT NAME="How">
<OPTION>Word beginning with
<OPTION>Characters
<OPTION>Word
</SELECT>
```

Bookends offers the same searches as the Find command:

word beginning with
word
characters
whole word
string

Refer to the section of the Bookends manual on the Find feature for the complete definition of each type of search. The type of search will usually be selected from a pop-up menu. If no hits are found, Bookends returns the message: No matches found.

If How is undefined, Bookends will search for words beginning with (the fastest search).

Name of the format

Keyword: Format (optional)

HTML example (pop-up menu):

Format the references in the style of:
<SELECT NAME="Format">
<OPTION>Chicago
<OPTION>APA
<OPTION>Medline
</SELECT>

The user may select the name of the format in which to display the reference information. Bookends will revert to the default format (the one selected in the Bibliography Formatter window) after the request is processed. If a format is requested but is not available, Bookends will use the format selected in the Bibliography Formatter window, but will add the following words to the returned references: Requested format not found.

If Format is undefined, the format selected in the Bibliography Formatter window will be used.

Maximum numbers of hits

Keyword: HitLimit (optional)

HTML example (pop-up menu):

Maximum number of references to return:

```
<SELECT NAME="HitLimit">  
<OPTION>1  
<OPTION>2  
<OPTION>5  
<OPTION>10  
<OPTION>Unlimited  
</SELECT>
```

You may want to limit the number of references returned. Bookends will check the value of HitLimit, and if it is a number Bookends will limit the number of references it can return accordingly. If the number of hits is greater than HitLimit, Bookends will return the number of references specified in HitLimit with the following words: X matches found. Y matches returned. (where X equals the number of hits and Y equals HitLimit). If the number of hits is less than the value of HitLimit, all of the hits will be returned.

If HitLimit is undefined or is not a number ("Unlimited" in the example above), Bookends will return all the hits.

Header for the bibliography

Keyword: Head (optional)

HTML example (hidden text field, defined by you):

```
<INPUT TYPE="Hidden" NAME="Head" VALUE=  
"%3Ch1%3ESearch Results%3C/h1%3E">
```

You can specify the header (title) that will appear above the bibliography returned by Bookends.

In the example above, the header would be “Search Results” (without the quote marks).

The “%3Ch1%3E” and “%3C/h1%3E” HTML instructions are the equivalent of “<h1>” and “</h1>” (the %3C and %3E must be used instead of the angled brackets within the quote; see below). These instructions tell the browser to display the text as the largest header type.

If Head is undefined, Bookends does not return a header.

Footer for the bibliography

Keyword: Foot (optional)

HTML example (hidden text field, defined by you):

```
<INPUT TYPE="Hidden" NAME="Foot" VALUE="%3CA  
HREF=http://yourURL/yourHomePage.html%3EReturn to home page%3C/A%3E">
```

You can specify the footer (text or hypertext links) that will appear after the bibliography returned by Bookends. In the example above, the footer would be a hypertext link that would display the words “Return to home page” (without the quote marks). Clicking on this would return the user to your home page (you would, of course, supply the URL and name of your home page in place of “yourURL” and “yourHomePage.html”).

The %3C and %3E are the HTML codes for the < and > symbols, respectively. They must be represented in that way when they occur between the quote marks (see below).

If Foot is undefined, Bookends does not return a footer.

Format with or without styles

Keyword: Styles (optional)

HTML example (hidden text field, defined by you):

```
<INPUT TYPE="Hidden" NAME="Styles" VALUE="true">
```

or

```
<INPUT TYPE="Hidden" NAME="Styles" VALUE="yes">
```

You can tell Bookends whether to format references With or Without Styles—this is equivalent to selecting the corresponding buttons in the Bibliography Formatter. If Styles=true or Styles=yes, Bookends will output the bibliography with styled text. If Styles=false (or anything other than true or yes), Bookends will output the bibliography without styled text.

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You can still return styled text information in an HTML-encoded bibliography by placing the HTML codes in the format definition, as discussed above. This is recommended when possible because it greatly enhances the speed with which a formatted bibliography is returned.

If Styles is undefined, Bookends will use the setting in the Bibliography Formatter.

HTML Sample Forms

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Forms begin with

```
<form method=POST action="Bookends.cgi$search_for">
```

conclude with two buttons, such as "Submit" and "Start Over"

```
<INPUT TYPE=Submit VALUE="Submit Search">
```

```
<INPUT TYPE=Reset VALUE="Start Over">
```

and end with

```
</form>
```

1)

This is the simplest form, asking only for the word or phrase to search for; all other keywords are undefined:

```
<INPUT NAME="Find">
```

2)

This is a form in which you define Find, but allow the user to specify the database to search and the header for the results:

```
<INPUT TYPE="Hidden" NAME="Find" VALUE="Hoover">
```

```
<SELECT NAME="DB">
```

```
<OPTION>American Presidents
```

```
<OPTION>Appliance Vendors
```

```
</SELECT>
```

```
<INPUT NAME="Head" VALUE="What I Found">
```

3)

See the ExamplePage.html form that accompanies this documentation for an example of a Web page form.

B. Accessing Bookends Via A Hypertext Link

You can embed a hypertext link to Bookends in your Web page—the link typically appears as underlined and colored text. When the user clicks on this text a request, specified by you, will be sent to Bookends. Bookends will attempt to find the requested references and return them. This is different from the “form” access described above because the user has no control over the search. You might use a hypertext link, for example, in the following way:

To see a list of the works of Sir Francis Bacon, click here [Francis Bacon](#).

To create this hypertext link, you might use the following HTML code:

```
<A REF="Bookends.cgi$Lookup?Bacon">Francis Bacon</A>
```

Note that you must supply the name of the Bookends alias (Bookends.cgi in this case). If Bookends is not running on the computer that is the primary server, the name of the alias must be preceded with the URL of the Macintosh on which it resides, e.g.,

```
<A REF="jda.sonny.com/Bookends.cgi$Lookup?Bacon">Francis Bacon</A>
```

The name of the alias is followed by a dollar sign, the word Lookup, and a question mark. Just as with search form above, Lookup is a specific instruction to Bookends that tells Bookends a request for information follows. The words and characters that follow Lookup tell Bookends exactly how to retrieve and display the information. The instructions are terminated by a quote mark.

There are two ways to specify the information that you want to retrieve:

Look up by number:

If a number follows the question mark, Bookends will simply retrieve the reference with that number in the database. For example,

\$Lookup?5

will return the fifth reference of the database.

You can request multiple references at a time, each separated by a semicolon:

\$Lookup?5;20;200;153;29;398

will return six references.

Look up by content:

If the entry after the question mark is not a number, Bookends will perform a Find to locate the reference(s) containing that information. The Find searches all fields, and looks for “words beginning with”. The Find is not case sensitive. Bookends will return all the hits (unless you define HitLimit, see above). For example,

\$Lookup?Lewis,CS

will return all references with the words Lewis and CS. You can specify more than one search at a time by separating the items with a semicolon:

\$Lookup?Lewis,CS;Johnson,PP;fantasy

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You can mix look up by number and look up by content in the same hypertext link:

\$Lookup?Lewis,CS;19;fantasy

This will find all references by Lewis, all references containing the word fantasy, and reference number 19 of the database.

Keywords in Lookup:

You may use up to six different keywords in a hypertext link:

- DB
- Format

- HitLimit
- Head
- Foot
- Styles

The meaning and behavior of these keywords is identical to that described above for forms.

To use a keyword in Lookup, it must follow the question mark and be terminated with an ampersand (&):

```
$Lookup?Format=Turabian&Head=Citations&
```

You can string together these keywords and hypertext link words in one long line (the + sign indicates a space—this is mandatory!):

```
<A REF="Bookends.cgi$Lookup?  
DB=Music+History&HitLimit=5&90;54;Purcell+AM+1996">The flight of the bumblebee  
</A>
```

The user will see

The flight of the bumblebee

Clicking on this hypertext link will retrieve the indicated references from the database named “Music History”. In this case, Bookends will return references 90 and 54 of the database, plus any references containing words beginning with “Purcell” and “AM” and “1996” (in other words, references by AM Purcell from 1996). Bookends will return a maximum of 5 references, because HitLimit equals 5.

[...Bookends and the World Wide Web continued-->](#)