

Creating Cross-browser Help Systems

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This session focuses on the challenges of creating cross-browser Help systems. We will discuss which technologies work in which browsers, how to decide which browser(s) to design for, and tips and tricks for creating cutting-edge cross-browser Help. In addition, we will present a comparison of two different cross-browser Help systems: eHelp's WebHelp and ForeFront's InterHelp.

Overview of HTML-based Help

HTML-based Help is any online Help system created using HTML files. HTML-based Help systems are composed of HTML content files (as opposed to WinHelp's RTF files). Graphics are included using GIF and/or JPG files (WinHelp usually uses BMP files). Although HTML-based Help systems still lack a few of WinHelp's features, they can run from the Web. In addition, HTML-based Help systems can be extended with Web-based technologies such as Active X, Java, JavaScript, and/or VBScript.

Which Technologies Can I Use?

The following table shows how each major browser supports various Web technologies. ^{1, 2, 3, 4}

Feature	IE 3	IE 4	IE 5	Netscape 2	Netscape 3	Netscape 4	Netscape 6	Opera	WebTV
Frames	✓	✓	✓	✓ (partial)	✓	✓	✓	✓	✓ (partial)
Images and sound	✓	✓	✓	✓	✓	✓	✓	✓	✓
ASP	✓	✓	✓	✓	✓	✓	✓	✓	✓
XML			✓				✓	✓	
Style sheets (CSS)	✓ (partial)	✓	✓			✓ (partial)	✓	✓	✓ (partial)
DHTML		✓	✓			✓ (partial)	✓	✓	✓
JavaScript	1.1 (partial)	1.2	1.2		1.1	1.2	1.2	1.2	1.2
Active X	✓	✓	✓						
Java	✓ (partial)	✓	✓		✓ (partial)	✓	✓	✓	
Flash	✓ (w/plugin-in)	✓	✓	✓ (w/plugin-in)	✓ (w/plugin-in)	✓	✓	✓	✓

Selecting Target Browsers

Unless you are using plain HTML text without graphics or tables, you will not be compatible with all browsers. Many of the features offered by WebHelp and InterHelp use JavaScript, CSS, and DHTML, so they require a version 4 browser. But is it safe to target version 4 browsers? And, what about Internet appliances and hand-held devices?

Version 3 browsers

Research from StatMarket, a browser usage research firm, shows that in early 1999 only 5% of web users were using IE3 and less than 5% were using Netscape 3.⁵ Another browser research company, BrowserWatch, reports that as of October 1, 2000, only 1% of Internet Explorer users and only 1% of Netscape users are using a version 3 or earlier version.^{6, 7} Usability expert Jakob Nielsen says that version 3 browsers only need to be supported until early 2001.⁸

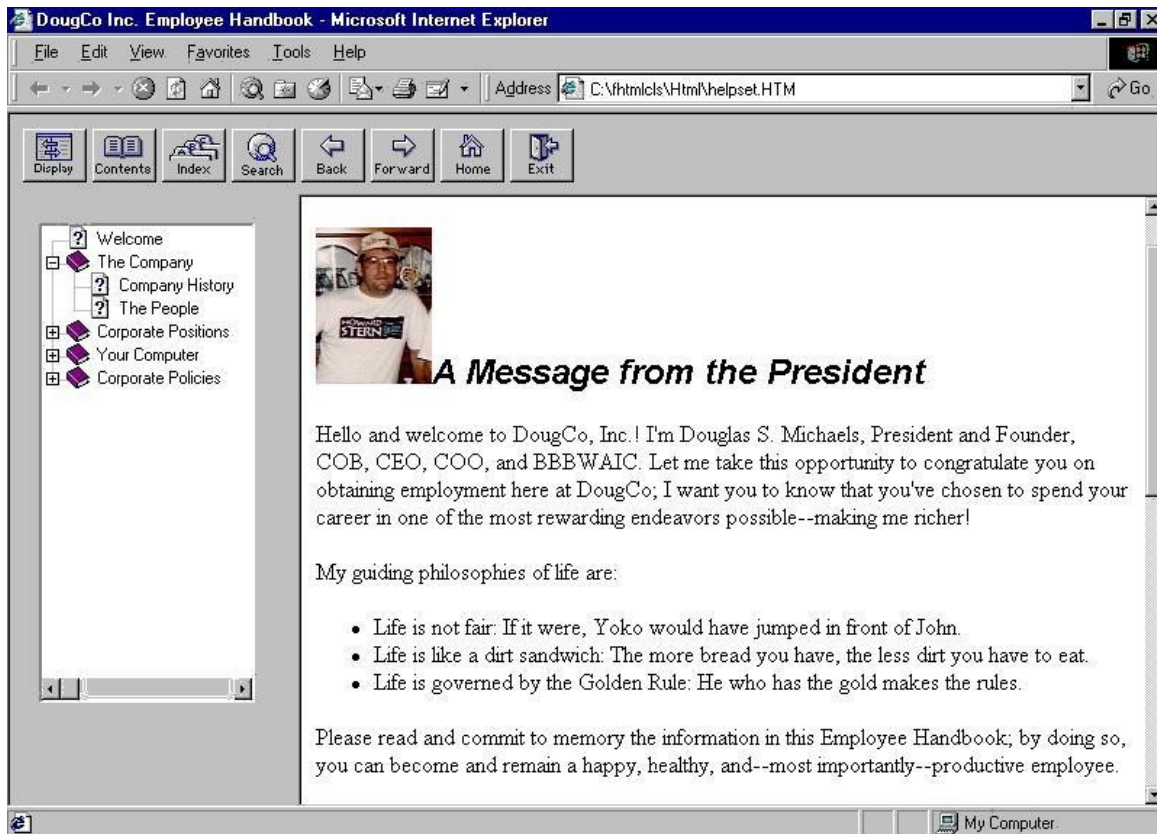
Internet appliances and hand-held devices

Internet appliances and hand-held devices are getting a lot of publicity, and many people are starting to see them as "the next big thing." However, BrowserWatch reports that Internet appliances such as I-Opener have only .01% of the current browser market.⁹ It seems premature to design around limitations required by .01% of the market, especially considering that these "innovators" have other ways to access the Web.¹⁰

Palm Pilots and telephones provide extremely small screens. For this reason, most usability experts and Web interface designers recommend developing multiple interfaces, where the small screen interface does not show all of the information. Ideally, the small screen version of your application should offer embedded Help information rather than a full Help system.

Using InterHelp

InterHelp is ForeFront Inc.'s proprietary, cross-platform, browser-independent Help solution. It appears inside a frameset with the navigation on the left and the content on the right. The navigation controls can use Java applets or a user-specified topic as their source.



Sample InterHelp system (Employee Handbook project)

Creating and Distributing InterHelp

When you create InterHelp, ForeHTML Pro creates an "HTML" folder beneath your project folder that contains all of the files you need to distribute. The HTML folder includes:

- all of your HTML, multimedia, and image files
- a frameset file (helpset.htm, or a name of your choice)

- TOC (hhc) and index (hhk) files
- required JavaScript files
- the TOC/index/search applets as a ZIP (Netscape), and CAB (Internet Explorer) file
- any baggage files

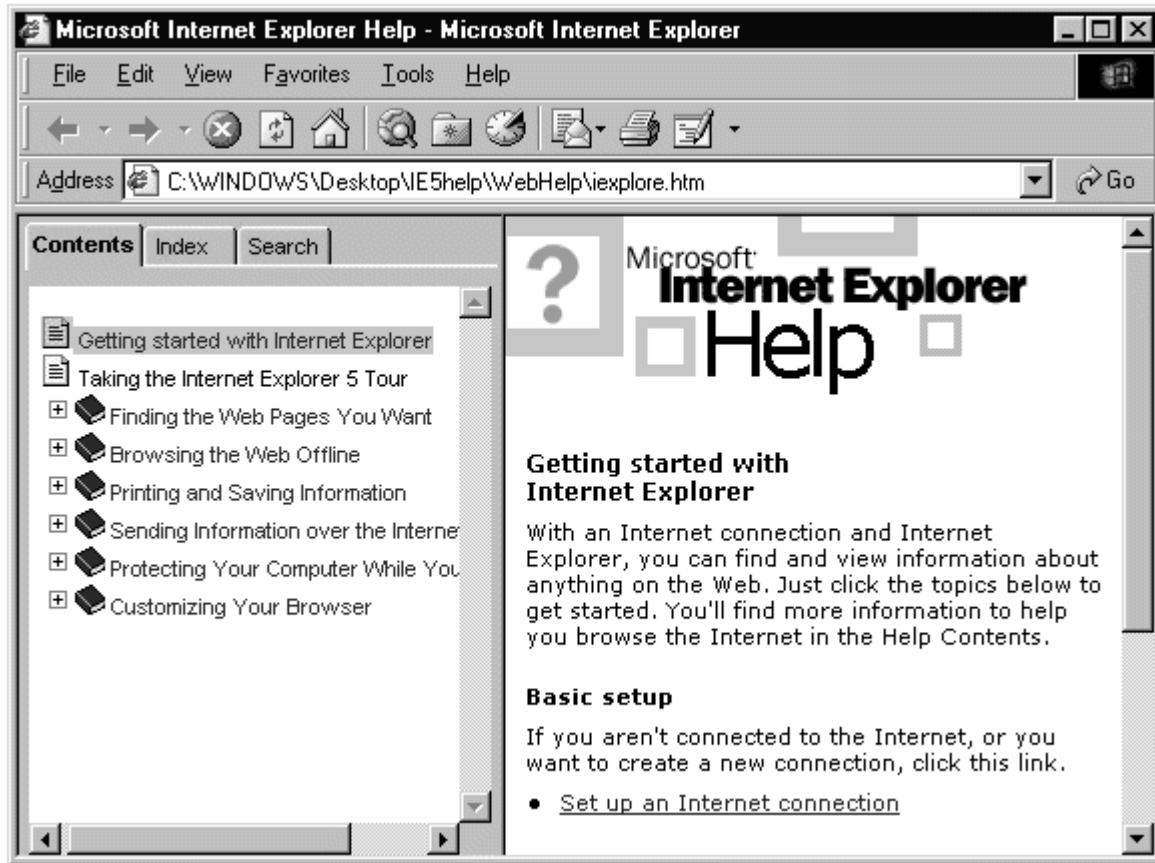
You may also create a master ZIP file, containing all of the above files, for ease of distribution. (Of course, it must be unzipped before the system can be used.)

The table below lists the primary InterHelp files and provides brief descriptions.

File	Description
*.htm	Project topic files
helpset.htm	Starting navigation frameset (senses browser, populates frames accordingly)
*.gif, *.jpg	Project graphics files and InterHelp button images
*.js	InterHelp JavaScript routines
*.css	Project cascading style sheet(s)
*.xml, *.dtd, *.jhm, *.fhd	JavaHelp support files
interhlp.cab	InterHelp Java applets in Internet Explorer-compatible cabinet file
interhlp.zip	InterHelp Java applets in Netscape Navigator-compatible ZIP file
navbar.htm	Navigation (button) bar setup
<i>projectname.zip</i>	ZIP file containing entire InterHelp output

Using WebHelp

WebHelp is eHelp's (formerly Blue Sky Software Corporation) proprietary, cross-platform, browser-independent Help solution. It appears inside a frameset with the navigation on the left and the content on the right. The navigation controls can use Dynamic HTML or a Java applet.



Sample WebHelp system (Internet Explorer 5 Help system converted to WebHelp)

Creating and Distributing WebHelp

When you create WebHelp, RoboHELP creates a "WebHelp" folder that contains all of the files you need to distribute. The WebHelp folder includes:

- all of your HTML, multimedia, and image files
- a frameset file (yourprojectname.htm)
- TOC (hhc) and index (hhk) files
- the eHelp JavaScript file (ehlpdhtm.js)
- the WebHelp TOC/index/search applet as a ZIP (Netscape), CAB (Internet Explorer), and JAR (Java) file
- any baggage files

The tables below list all of the WebHelp files and provide brief descriptions.

General Navigation Frame and setup files

File	DHTML or Java?	Description
project.htm	both	WebHelp frameset
navframe.htm	both	Navigation frame JavaScript file (senses browser and adjusts accordingly)
navpane1.htm	DHTML	Navigation frameset
navpane2.htm	Java	Navigation frameset
tabframe.htm	DHTML	Navigation frame that contains tab images

File	DHTML or Java?	Description
webhelp.cab	Java	WebHelp applet in Internet Explorer-compatible cabinet file
webhelp0.cab	Java	WebHelp applet in Internet Explorer-compatible cabinet file (compressed version)
webhelp.jar	Java	WebHelp applet in Java-compatible JAR file
webhelp.zip	Java	WebHelp applet in Netscape Navigator-compatible ZIP file
webhelp0.zip	Java	WebHelp applet in Netscape Navigator-compatible ZIP file (compressed version)
webhelp4.js	DHTML	JavaScript file that controls the TOC, index, and search

TOC tab files

File	DHTML or Java?	Description
tocdhtml.htm	DHTML	TOC in DHTML for Internet Explorer 4+
toclist.htm	DHTML	TOC in HTML for older browsers
project.hhc	Java	TOC in HTML Help's site map format
project.hhc.zip	Java	TOC in HTML Help's site map format (compressed)

Note: WebHelp's DHTML format option will use DHTML for Internet Explorer, but it will use the Java applet for Netscape.

Index tab files

File	DHTML or Java?	Description
idxdhtml.htm	DHTML	Index frameset
idxform.htm	DHTML	Index frame where user enters keywords
idxbody.htm	DHTML	Index in DHTML format for Internet Explorer 4+
idxlist.htm	DHTML	Index in HTML for older browsers
project.hhk	Java	Index in HTML Help's site map format
project.hhk.zip	Java	Index in HTML Help's site map format (compressed)
project.hhs	Java	Storage file for stop keywords, keywords, and number of topics

Note: WebHelp's DHTML format option will use DHTML for Internet Explorer, but it will use the Java applet for Netscape.

Search tab files

File	DHTML or Java?	Description
ftshtml.htm	DHTML	Full-text search frameset
ftxform.htm	DHTML	Full-text search frame where user enters search terms
ftsbody.htm	DHTML	Full-text search frame that displays the search results

Topic-related files

File	DHTML or Java?	Description
bsscnbar.js	both	JavaScript file that controls the Hide/Show Navpane and Sync TOC buttons in topics
eHelp.xml	both	XML file that is used to control the WebSearch button
ehlpdht1.js ehlpdht2.js	both	JavaScript files that control Related Topics popups, Smart popups, and other Dynamic HTML effects (split to support Windows 3.1 file size limitation)
ehlpdhtm.js	both	JavaScript file that controls Related Topics popups, Smart popups, and other Dynamic HTML effects

WebHelp and InterHelp Feature Comparison

The following table compares the main features of WebHelp and InterHelp.^{7,8}

	WebHelp	InterHelp
operating systems supported	Windows, UNIX, Linux, Sun Solaris and Macintosh	Windows, UNIX, Linux, Sun Solaris and Macintosh
browser(s) supported	Browser-independent, but works much better with version 4+ browsers	Browser-independent, but works much better with version 4+ browsers
TOC and index	Yes	Yes
search	Yes	Yes
DHTML-based navigation option	Yes	No
custom button bar	No	Yes
auto-sync TOC	Yes	Yes
hide/show navigation button	Yes	Yes
popups	Yes	Yes
glossary popups	Yes	Yes
browse sequences	Yes	Yes
related topics buttons	Yes	Yes
links to secondary windows	No	Yes
design templates	No	Yes
headers, footers, conditional text	No	Yes

Tips and Tricks

Below are some common questions about HTML-based Help and their answers. Time permitting, we will provide more tips and tricks in the presentation.

"How do I open links in my Help system to secondary windows?"

ForeHelp/ForeHTML Pro allows you to define secondary windows, and open them from any jump simply by choosing the window on the Make Jump dialog.

RoboHELP HTML does not provide a way to open links in secondary windows. However, you can use the following JavaScript to use secondary windows. This script will open a secondary window that is 520 pixels wide and 350 pixels tall. The window size can be changed, but there is a browser-dependent minimum (usually around 100x100). Also, some older browsers will crash if there is a space, linefeed, or carriage return in the third parameter (boldfaced text below).

```
<HTML>
<HEAD>
<TITLE>Sample link to a secondary window</TITLE>
<SCRIPT>
function open_window(url) {
window.open(url, 'helpwin2', 'toolbar=0,location=0,directories=0, ↵
status=0,menubar=0,scrollbars=0,resizable=0,width=520,height=350');
}
</SCRIPT>
</HEAD>
```

```
<BODY>
<A HREF = "javascript:open_window('secondarytopic.htm')">Link text</A>
</BODY>
</HTML>
```

"How do I open the Help system when the user presses F1?"

Internet Explorer supports the "onHelp" event. Any scripts assigned to this event will be run when the user presses F1. Netscape 4 does not support the onHelp event, so any scripts associated with the onHelp event are ignored.

The example below uses the onHelp event to open the "samplehelp" Help system when the user presses F1. Normally, the IE help system opens when you press F1. The "return false" command tells IE to not open its own Help system.

```
<HTML>
<HEAD>
<TITLE>Sample F1 Help application page</TITLE>
<SCRIPT>
function openhelp() {
window.open("samplehelp.htm","helpwin",'toolbar=0,location=0,directories=0,↵
status=0,menubar=0,scrollbars=0,resizable=1,width=700,height=500');
}
</SCRIPT>
</HEAD>

<BODY onhelp="openhelp();return false">
This is a sample page.
</BODY>
</HTML>
```

Recommended Resources

The following Web sites provide information about HTML-based Help:

www.cpub.com/archives/winhelp-l/winhelp-l.htm

The WinHelp e-mail discussion group archive. If you have a question about online Help, this should be your first stop.

www.egroups.com/group/HATT

The new Help Authoring Tools and Technologies email discussion group. This group replaces the WinHelp list. If you don't find an answer in the archives, post your question here.

www.helpcommunity.com

eHelp's web-based RoboHELP discussion group. It's a great place to post RoboHELP questions.

www.hypertrain.com

The Hypertrain dot com website is a great example of WebHelp. It offers descriptions of Dave's classes, links to books and websites about HTML-based Help, downloads from Dave's presentations, and a fun trivia quiz.

www.userfirst.net

The User First Services website includes information about HTML-based Help, past presentations, sample Help systems, and a "links" page with links to Web sites about online help development, Help authoring tools, usability, GUI design, instructional design, and rhetoric.

http://www.ff.com/Support/Pro_IHQ.htm

ForeFron'ts InterHelp FAQ page offers answers to common InterHelp questions. It's a great place to start if you are having trouble with your InterHelp Help system.

robohelp-resources.helpcommunity.com/resources/wh3_information_pack.htm

eHelp's WebHelp 3 Information Pack. This WinHelp system provides in-depth information about WebHelp-- and it's a great example of a WebHelp Help system.

References

¹ Internet Explorer technology information:

<http://support.microsoft.com/support/default.asp?PR=ie&FR=0&SD=GN&LN=EN-US>

² Netscape Navigator technology information:

http://www.netscape.com/download/prodinfonfs_1.html

³ Opera technology information:

<http://www.opera.com/features.html>

⁴ WebTV technology information:

<http://developer.webtv.net/authoring/faq/Default.htm>

⁵ StatMarket's browser statistics: April 3, 1999:

http://statmarket.com/html/sample_browsers.html

⁶ Browser Watch's Internet Explorer statistics for October 1, 2000:

<http://browserwatch.internet.com/stats/ua-microsoft.html>

⁷ Browser Watch's Netscape statistics for October 1, 2000:

<http://browserwatch.internet.com/stats/ua-netscape.html>

⁸ Jakob Nielsen's Alertbox, April 18, 1999: Stuck With Old Browsers Until 2003

<http://www.useit.com/alertbox/990418.html>

⁹ Browser Watch's Browser's A-M statistics for October 1, 2000:

<http://browserwatch.internet.com/stats/ua-1.html>

¹⁰ E. M. Rogers (1995). *Diffusion of Innovations*, 4th edition. New York: The Free Press.

About the Speakers

Scott DeLoach is a founding partner of User First Services, Inc, an Atlanta-based consulting company that specializes in designing and creating user assistance. Scott has received two STC International Online Competition Awards for interactive user assistance systems, and he currently serves as the STC International Online SIG Manager. He holds a Master's degree in Technical and Scientific Communication from Miami University.

Dave Gash is the owner of HyperTrain dot Com, a Dallas firm specializing in hypertext training. A veteran software professional, Dave is a Certified Trainer for both Blue Sky and ForeFront, and is well known as an interesting and animated technical instructor, with a unique "enter-training" style. When he's not on the road training or chained to his office PC, Dave is a frequent speaker and presenter at WinHelp-related seminars and conferences.