Demystifying Help

White paper on the state of the art in user assistance

2000 represents a landmark year for Help. Never before have there been so many options, capabilities, and deployment options available for user assistance. This white paper provides an overview of the capabilities of Help, details the capabilities of the leading Help formats, and provides insights into Help development techniques to maximize usability.

What is Help?

Help is a vital component for your end users and visitors.

What is Help and why is it important? Simply put, Help is the user assistance found within a software application, Web site, intranet or extranet. The term "Help" is sometimes called "online Help," but in this context, "online" simply means that the Help is delivered in an electronic format—it does not mean that it necessarily comes from the Internet, though it can in many cases. Anyone who uses computers has probably used Help before. If you've used Microsoft Word, for example, and selected Microsoft Word Help from the Help menu, you have actually used a Help system.

No matter how intuitive the design of a software application or Web site, the end user or visitor will invariably have questions about its functionality, design and content. A well-designed and comprehensive Help system is a key component of usability. Traditionally, the Help system is the first place users will turn for assistance.

Therefore, the primary goal of Help is to answer users' questions as they encounter them. Another way to put this is that Help aims to "provide users with the help they need—when they need it." A further goal is to provide comprehensive documentation for users to refer to and "drill down" into. The facilities of Help have been fine-tuned over the years to meet these needs. Mechanisms are available in virtually all Help formats to direct users to information that's relevant to their current task, and to provide fast access to additional information inside large documentation sets.

The usefulness of a given Help system, though, will always be based upon how well the information is organized and delivered. Users want their online Help to provide fast answers to specific questions, and they don't want to have to go through a lot of digging to get it. The key to providing users with the assistance they need is to design a Help system that is has logical information design, well-planned content, good connectivity, and good navigational features.

Help Formats: The vehicle for delivering user assistance

What is a Help "format" and what does it provide? Help formats—or "engines"—are the means necessary to provide user assistance. Help can be displayed in a number of different ways and consists of a toolbar, content pane, and navigation pane. They display a specific unit of information—called a topic— in direct response to a user's request for Help. Beyond that, they offer a variety of visual metaphors for navigating through and displaying information, organized into an electronic documentation set. You can also develop context-sensitive Help for your application or Web site, which allows users to access Help specific to the section they are viewing or working with.

A WebHelp System

The topic (shown in the right pane of the window above) uses a combination of text, graphics, hyperlinks, video and audio. All Help formats allow you to insert links as well as indicate headlines, subheads and emphasis, plus create numbered lists, bulleted lists, indented text, tables, and so forth. You can include colorful graphics and even use portions of a graphic as hyperlinks to other topics within the Help system. For example, you could include a screenshot and create hyperlinks corresponding to its buttons and other links. Most Help formats also allow you to insert sounds into the topics you create as well as embed video for use as a training aid. Video can be particularly useful for giving instructions on what to do.

In virtually all Help systems, the navigation pane can contain a table of contents, a hierarchical index, and a full-text search interface (shown in the left pane of the window above). In the case of Web site Help, the Help format provides the user with much more functionality and makes it far easier to locate the information or instructions they need than the typical FAQ page or site map.

The Table of Contents Tab
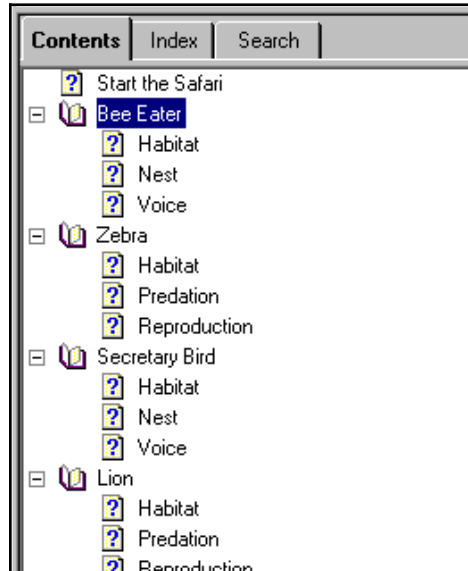
Table of Contents Pane in WebHelp

Global navigation tools allow intuitive, consistent navigation. Virtually all Help formats allow users to find the information they need by providing them with sophisticated navigational features, including a dynamic table of contents, a multi-level index, and full-text search.

The table of contents is a tree outline capable of displaying topics in an expandable/collapsible hierarchy, just like a printed book's table of contents. However, this tree is often referred to as a "dynamic" table of contents because it's expandable and collapsible. The table of contents is made up of *books* and *topics*. Books represent a topic, just like a chapter in a printed book. Topics are individual pages of information in the form of text and graphics. The table of contents is the "front door" to a Help system. It provides users with a broad overview of the Help system and gives them an idea of the scope of the information provided. The table of contents is organized logically, with descriptive book and topic titles, so that users who are looking for Help on a particular subject can easily find it by expanding books and selecting the appropriate topic.

The Index Tab

An Index Tab in WebHelp

Along with the table of contents, the index is used to locate information within a Help system. In fact, studies suggest that users rely on the index more often than the table of contents, particularly when they know what it is they're looking for. Users who open a Help system with a specific question in mind are likely to try to find the answer by typing a keyword into the index and scanning the results. If an index is well designed, it will contain well-chosen keywords logically associated with relevant topics and will easily guide end users to the information they're looking for.

The Search Tab

Full-Text Search Pane in WebHelp

Full-text search is another important tool. It allows users to search for any words that occur within the content of the Help system and lets them access the corresponding topics by double clicking them. In contrast with the index, the full-text search database catalogs every word in a Help system—not just the index entries.

Associative linking provides users with quick access to related information. Cross-referencing information is a key organizational technique in all Help systems. One of the many advantages of Help over FAQ's or printed documentation is the ability to create extensive, dynamic cross-references—often called associative links— that make it easy for end users to explore related concepts and information. Associative linking works just like the links in a Web site, but are associated between topics based on their relevance to that subject. In Help systems, buttons (frequently called See Also and Related Topics buttons) allow users to directly jump to topics that contain information related in some way to the topic they are viewing.
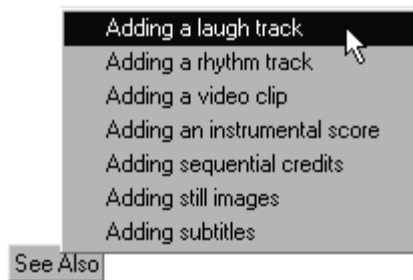

See Also/Related Topics Button

Browse sequences organize information for sequential reading. Browse sequences are a popular secondary navigational aid. Browse sequences allow you to organize and present information in a sequential manner, a technique that is extremely useful for tutorials and "chunking" information into small, easy-to-understand blocks. Instead of combing through lengthy units of information that require scrolling, users can move forward and backward through pages, like on a Web site.

Browse sequences can enhance Help systems in many ways. For example, they can:

- **Invite learning**: Browse sequences enable users to follow information in a prescribed order. Browse sequences make it quicker and easier for users to learn online.
- **Simulate typical reading behavior**: The process of browsing through sequences is similar to the process of turning pages in a book.
- **Provide structure and order**: In large or complex systems, browse sequences give a linear sequence to processes and procedures. Users quickly follow the steps in the recommended order.
- **Encourage users to explore and learn unfamiliar features**: Browse sequences provide users with a road map — a suggested path to follow to accomplish their goals.

Popups extend the Help content. Popup windows allow you to display secondary information—such as a glossary definition—in a small popup window that can be dismissed by users when they have finished reading it. Secondary windows are typically used to display supplemental content that is meant to remain visible while the user explores the rest of the Help system. Both of these facilities provide a means of presenting additional information to the end user, without them losing the context of where they are within their information search.
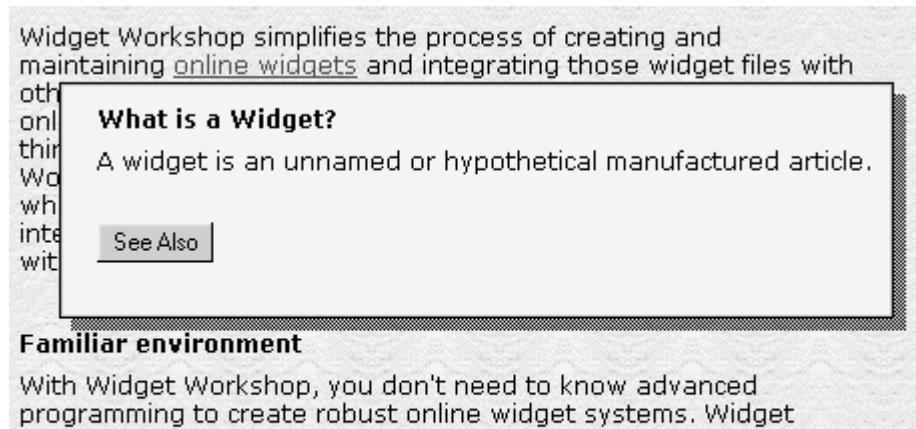
A Popup Window

Dynamic HTML allows you to create interactive Help topics and provide new and innovative solutions to Help system design issues. Dynamic HTML (DHTML) lets you create interactive Help content that is engaging and provides educational value. You can use DHTML for eye-catching transitions and animations. You can even use DHTML to create interactive tutorial topics that respond to user clicks with animations or text and graphics changes.

Expanding and drop-down text through Dynamic HTML. In addition to interactivity, there is an emerging trend toward using Dynamic HTML to implement Help system features that have previously been implemented using popup windows. For example, Dynamic HTML can be used to implement expanding text and drop-down text, which often serves as a compelling alternative to a popup window. Expanding and drop-down text can be used to reveal additional content in a Help system topic whenever the user clicks on a specified hotspot. Expanding text is often used for in-line glossary definitions and explanations. Drop-down text is often used to provide additional levels of detail, tutorial steps, and the like within a Help topic without resorting to a popup window. Unlike a popup window, expanding and drop-down text doesn't shift the user's focus to an unexplained window, nor does it obscure other content in the Help topic. Instead, supplemental information is neatly displayed in context.

Context sensitive Help is the key to providing users with the help they need, when they need it. Context sensitive Help sounds complicated, but it's actually a simple and powerful concept. Context sensitive Help presents the user with assistance relative to the section they are visiting or the task they are currently performing. When the user asks for assistance (by pressing the F1 key, clicking a Help button, etc.), they are presented with information from the Help system that's relevant to the current context. This is like opening a printed document to the correct page, instead of flipping through a book hoping to find relevant information. Providing a context-sensitive Help system saves the users from manually searching through a Help system to find information relevant to their current task. All major Help formats support the creation of context-sensitive Help.

Contemporary Help Formats

There are five major Help formats in use today:

WebHelp: Developed by eHelp Corporation, WebHelp is the leading Help format for Web-based and cross-platform user assistance of all kinds. It can be used for Web sites, intranets, extranets and Web-based applications as well as software applications. WebHelp is an HTML-based solution that runs on any leading browser including Netscape and Explorer as well as on all platforms including Windows, Macintosh, Linux and Unix. It provides all the features required for rich user assistance, including full-text search, index and table of contents. A versatile solution, it can be deployed on the Web, server and desktop.

HTML Help: HTML Help—not to be confused with general HTML-based Help—is Microsoft's current application Help format for Windows. HTML Help is an advanced Help format that provides excellent user assistance for applications running on Windows 98 or Windows 2000, as well as for users of Internet Explorer 4.0 and above, Microsoft Office 2000, or other new Microsoft applications. HTML Help systems can take advantage of extensive HTML and Dynamic HTML capabilities.

WinHelp: WinHelp is the traditional Windows application Help format, in use by hundreds of millions of people worldwide. WinHelp will be supported on Microsoft operating systems for years to come and has been brought up-to-date by eHelp Corporation, with RoboHELP's WinHelp 2000 technology. WinHelp 2000 brings many of the key features of HTML Help to WinHelp.

Oracle Help for Java: Oracle Help for Java is Oracle's standard for user assistance in Java applications. Not Oracle-dependent, it's a 100% pure Java solution with robust functionality that can be deployed anywhere. Oracle Help for Java provides extensive functionality for developer and user. Most notable is OHJ's unique ability to merge table of contents, index and search from other Help projects into your existing Help projects via links – and without adding the actual content to your project.

JavaHelp: JavaHelp is Sun Microsystems' user assistance standard for Java applets and applications. Developers can use JavaHelp for 100% pure Java solutions, when a Web browser is either unavailable or inappropriate for displaying user assistance.

The following sections provide more detail of the features and capabilities of these Help formats.

WebHelp: The industry-leading solution for Web-based and cross-platform user assistance

WebHelp provides cross-browser, cross-platform Help. WebHelp is an exclusive browser-based cross-platform Help format developed by eHelp Corporation. An established solution, now in its fourth generation, WebHelp can be deployed on Web sites, intranets, extranets and Web-based applications as well as on Windows, Macintosh, Unix, and Linux systems. Thousands of developers have already taken advantage of WebHelp's stable, full-featured functionality. WebHelp files can be viewed in both Internet Explorer and Netscape Navigator as well as other popular browsers.

WebHelp supports standard HTML as well as all key Help functionality like table of contents, multi-level indexes, full-text search, context-sensitive Help, related topics controls, expanding text, and more. Like Microsoft HTML Help, WebHelp is based on the SiteMap specification. The latest generation of WebHelp (WebHelp 4, a single-source output from RoboHELP Office 9.0) contains full-text search capabilities, including Boolean operators (such as AND, OR and NOT). WebHelp has been thoroughly tested with Internet Explorer and Netscape Navigator on a wide variety of computing platforms, ensuring that the Help systems created with RoboHELP Office 9.0 run seamlessly on all end-user configurations. WebHelp 4 provides a Java applet for browsers that do not support Dynamic HTML. Because of its configurable HTML and DHTML-based technology, WebHelp 4 is a natural for full-featured Help.

A WebHelp System

Developing and delivering WebHelp. WebHelp is a single-source Help format generated by RoboHELP Office. RoboHELP Office allows you to create WebHelp, as well as Microsoft HTML Help, WinHelp 2000, Oracle Help for Java and JavaHelp—all from the same source project. WebHelp is an uncompiled format, meaning that the HTML files that represent the topics of the Help system, along with the other WebHelp generated files, are provided as individual files contained in the WebHelp output folder[1]. The manner in which WebHelp is delivered to the end user is determined by how WebHelp will be used. In the case of cross-platform application Help (i.e., user assistance for Windows, Mac, and/or UNIX-based applications), the contents of the WebHelp output folder are installed on the end user's computer system along with the application itself. When using WebHelp as user assistance for the Web, intranets or extranets, the WebHelp output folder is placed on a server, and the files are accessed individually from the end user's browser—just like normal Web pages.

HTML Help: The new standard for Windows application Help

HTML Help is a Microsoft Help format. With the release of Windows 98, Microsoft has made a major transition for online Help by using HTML Help format instead of the long-standing WinHelp format[2]. Microsoft now uses HTML Help for all new application releases.

HTML Help integrates HTML and Microsoft's ActiveX technology with the rich feature set of application Help. HTML Help systems can also be deployed on Windows 95 and NT 4 systems[3]. A complete, navigable HTML Help system is compressed into a single small file.

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[1] By contrast, HTML Help and WinHelp projects are compiled into a single file for distribution.
[2] WinHelp—Microsoft's previous Help format—was used in Windows 3.1, 95, and NT 3.51/4. WinHelp is based on the RTF (Rich Text Format) text file format instead of HTML.
[3] The HTML Help run-time component needs to be installed on the viewer's system along with Internet Explorer to display HTML Help on Windows 95 or NT 4.

An HTML Help System

HTML Help will not replace WinHelp for some time. Microsoft has publicly stated that it will provide the current level of WinHelp support for many years in future operating systems for backward compatibility. Many companies continue to produce WinHelp-based Help systems; hence, we are in a transition period where WinHelp and HTML Help systems live side by side.

HTML Help is displayed using the HTML Help display technology built into Windows 98 and Windows 2000. HTML Help systems can also be displayed on other 32-bit Windows platforms—Windows 95 and NT 4. However in this case, the HTML Help Display Engine, Internet Explorer 4.0 or later, or Microsoft Office 2000 must be installed on the user's system. In other words, users with Windows 98 or later, Internet Explorer 4.0 or later, or Microsoft Office 2000 will have no trouble displaying HTML Help. Users with systems that do not meet these requirements have the option to install the HTML Help Display Engine by itself. HTML Help is a compiled HTML format, meaning that all the individual HTML files plus the navigational aids are compressed into a single deliverable file[4]. You can incorporate links from HTML Help to an intranet or to the Web so that "live" content can be displayed inside a compiled HTML Help system.

HTML Help offers significant advantages over the older WinHelp format. HTML Help offers several compelling advantages over the previous Windows Help format, WinHelp. The most noticeable difference is that HTML Help makes it easier for users to find the information they're looking for by putting the global navigational tools—the table of contents, index, and full-text search—in the same

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[4] A compiled HTML Help file is called a CHM file. CHM stands for "compiled HTML" because HTML Help authoring is done in HTML by creating a collection of HTML files that are then compiled and compressed into a single file. A CHM file (pronounced "chum") is similar to WinHelp's combination of a HLP file and a CNT file, but results from the compilation of several HTML files instead of RTF files.

viewer window as the Help system content. WinHelp provided these navigational tools, but it was harder for users to access information because the navigational features were not always visible. In a standard WinHelp file, if a user found a word in the index and clicked it, the index would disappear into the background as soon as the content appeared[5]. To get the index back, the user had to click on button called Help topics—at which point the content disappeared.

HTML Help solves the problem by presenting information in a "tri-pane" window, with a navigation pane on the left, a content pane on the right, and a toolbar pane at the top. If users navigate through a Help system using hyperlinks in the content pane, the table of contents automatically follows links within the Help system content, automatically expanding the relevant book and highlighting the topic being displayed in the content pane. This way, users can always keep track of where they are in the Help system and will never get "lost in cyberspace."

HTML Help supports an advanced full-text search interface. This enhanced interface allows compound Boolean searches and allows users to search the results of previous searches so that they can systematically narrow the focus of their searches until they find what they're looking for. Also, the results of a search are ranked based on the number of "hits" found in each topic, and the individual hits are highlighted within the selected topic.

In addition to its superior window layout, HTML Help also offers advanced interactivity with Help users, better integration with intranet and Web content, and more control over the visual style of Help system topics. Since HTML Help is based upon HTML, you can take full advantage of Dynamic HTML to make your Help content more interactive and dynamic. Also, unlike the older WinHelp format, HTML Help allows you to use multiple cascading style sheets—templates that allow you to define a set of styles that can be applied to text and graphics so you can easily control the look and feel of your Help topics. An HTML document can contain more than one style sheet implemented through linking, embedding, or by placing them "inline," allowing you to apply global and local styles.

HTML Help supports ActiveX controls and Java applets as well as JavaScript and VBScript. Standard WinHelp cannot support Java applets or scripting languages without the use of third-party tools.

Extending HTML Help's capabilities. eHelp Corporation's RoboHELP Office extends the Microsoft HTML Help format by allowing you to create additional navigation and organization features, and then automatically provides them in the Help systems it creates.

> **An electronic glossary helps users understand key terms.** Analogous to a printed glossary, an electronic glossary provides a list of terms and definitions that are related to the subject matter in your project. If users see a term they don't know, it's convenient for them to be able look up its definition within the Help system itself. Since hyperlinked information is non-linear, users may come across a new term in a variety of ways. As a result, it's not possible to assume that everyone will discover a new term in the same topic and introduce it in only one place. Likewise, it would be redundant to provide a definition for the term in every instance where it is used. An electronic glossary can solve the problem by serving as a hub of information that is easily accessible from all topics in a Help system. RoboHELP Office 9.0 extends the HTML Help format by adding an additional tab (in addition to the table of contents, index, and full-text search tabs) that appears in a compiled HTML Help system, working seamlessly with the other tabs and appearing to the end user just as if it were a standard component of HTML Help.

> Another possibility with RoboHELP Office 9.0 is to create self-defining terms via Dynamic HTML. With the development of expanding text technology that is now possible with Dynamic HTML, the user can simply click on an unknown word and see the definition instantly appear in context with the

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[5] eHelp Corporation's WinHelp 2000 technology enhances WinHelp by providing a new Help window layout that represents the best of WinHelp and HTML Help. Like HTML Help, the global navigation controls are provided in a navigation pane to the left of the content pane.

glossary term. RoboHELP Office 9.0 features an automated glossary assistant that can scan an entire Help project for terms and convert them to hotspots that can be expanded to reveal their definitions.

Take browse sequences to a new level of functionality and usability. Browse sequences are a highly useful navigational aid, but until now HTML Help has not provided them. eHelp Corporation has developed a technology that extends HTML Help by providing a radical enhancement of the browse sequence concept. When browse sequences are enabled in an HTML Help system, the user sees a drop-down list of browse sequences that the user can select, as well as the Browse Sequence Bar, a panel that displays small icons representing the sequence of topics. Users can use the Browse Sequence Bar to move forward and backward through a series of topics arranged in a specific order.
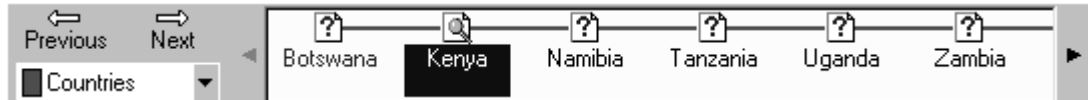

Browse sequences help users to understand information in a number of ways:

- Users are given a visual cue that sequences exist in a given system and further know what sequences are available.
- Users can visualize an entire sequence and see their current location.
- Users can immediately jump to any topic in a sequence.

You define the topic order based on what you want users to accomplish or know after browsing through the topics and reading the content. You can include a topic in as many browse sequences as you wish. The RoboHELP Office 9.0 Browse Sequence Editor allows you to easily create tutorials and sequentially arrange content in HTML Help systems and use drag and drop functionality for rearranging the topic order – the Browse Sequence Editor is available for use with all formats.

**Self-sizing Dynamic HTML Popup Windows are both easier to create and easier to use.** Microsoft provides a simple, text-only popup window capability in the HTML Help format. In addition to supporting Microsoft's popup windows, RoboHELP Office 9.0 from eHelp Corporation provides a compelling new alternative called Smart Popups. Based entirely on Dynamic HTML, Smart Popups automatically resize themselves to fit the content that they display. This means that the user is guaranteed to see an attractive, properly-sized popup window without the author taking the time necessary to resize each individual popup window by hand. Unlike HTML Help's basic popup windows, Smart Popups can contain formatted text, hyperlinks, buttons, graphics, and Dynamic HTML in addition to plain text. And because Smart Popups are implemented using HTML, they load quickly and don't require the redistribution of system extensions to the users of your Help systems.
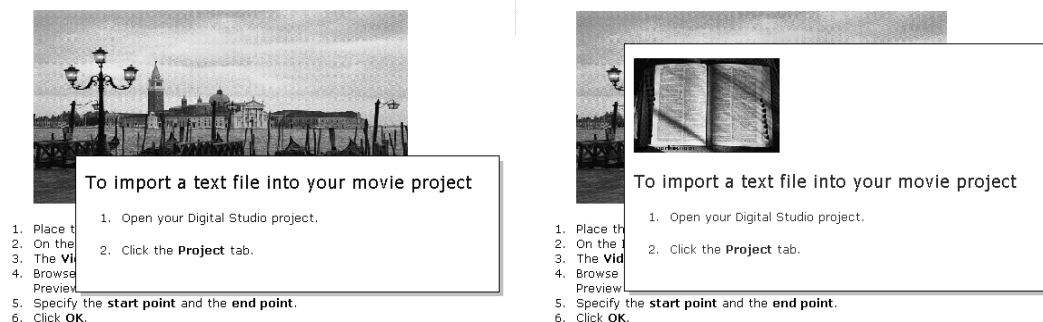
RoboHELP 9.0's Smart Popups resize automatically based on their content.

WinHelp 2000 extends the life of WinHelp

WinHelp is running on more than 100 million PCs. The WinHelp standard is recognized and understood by all Windows Help authors and software developers. Virtually all Fortune 1000 companies and independent Windows software developers have a significant investment in WinHelp systems and their development. Although HTML Help is the Help standard for Windows 98 and Windows 2000, Microsoft has publicly stated that it will continue to ship WinHelp with future versions of its operating systems for compatibility with applications that use WinHelp.
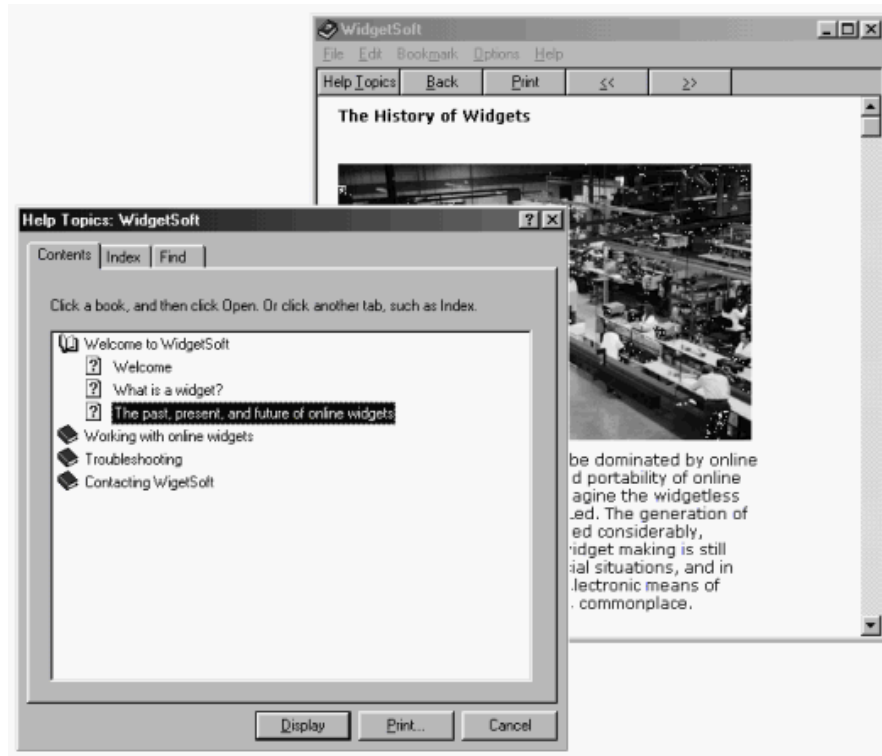
A Standard WinHelp System, without WinHelp 2000

What is WinHelp 2000? eHelp Corporation's WinHelp 2000 technology enhances the veteran WinHelp format by providing the key benefits of Microsoft's HTML Help, plus some exciting features that are exclusive to WinHelp 2000—all without converting to HTML Help. In fact, you can convert existing WinHelp systems to WinHelp 2000 systems without even having access to the Help systems' source files.

WinHelp 2000 systems feature a new Help window layout that represents the best of WinHelp and HTML Help. Like HTML Help, the global navigation controls are provided in a navigation pane to the left of the content pane. The toolbar pane at the top of the window contains buttons that are familiar to anyone who has used WinHelp and occupies less screen "real estate" than HTML Help's toolbar pane.

A WinHelp 2000 System

Mix RTF with static or live HTML. Each topic in a WinHelp 2000 system can be in either Rich Text Format (RTF) or HTML. Any topics already in RTF remain in RTF when they are displayed in the WinHelp 2000 window. WinHelp 2000 also allows you to incorporate HTML topics created in Word 2000, RoboHELP for HTML Help 2000, or other HTML editors. These HTML topics can either be displayed within the Windows 2000 window itself or within a Web browser, and they can either be static (i.e., stored on disk) or delivered live from a Web or intranet server. This capability allows the author to include Dynamic HTML topics for interactivity, refer to Web sites from within a Help system, provide access to online knowledge bases, and more.

Automatically provide associative links between topics. WinHelp 2000 contains eHelp Corporation's exclusive Smart See Also technology. Standard WinHelp allows you to create associative links between topics by defining so-called A-keywords. Each A-keyword is associated with one or more topics within the Help system. Normally, a WinHelp author would then need to create a See Also button in each topic, referencing each appropriate A-keyword. WinHelp 2000 can place a Smart See Also button in the toolbar pane of the Help window. This button automatically detects which A-keywords are associated with the topic being viewed. When the user clicks the Smart See Also button, a popup list of associated topics is displayed, allowing the user to select one. This saves a significant amount of authoring time, while ensuring that the associative links within the Help system are always up-to-date. The end user receives the benefits of a consistent navigation aid included in the toolbar of the Help system.
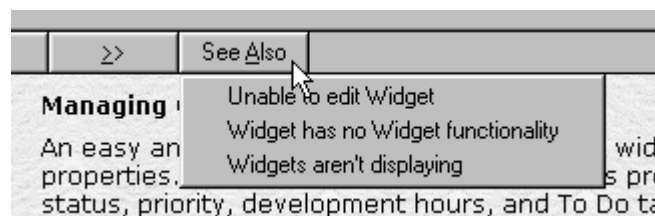
WinHelp 2000's Smart See Also button

Deploying WinHelp 2000 systems. WinHelp 2000 functionality is delivered to the end user through a set of relatively small (approximately 400KB) system extensions, or DLLs. Licensed RoboHELP Office users may distribute these extensions royalty-free. In addition, if HTML topics are to be displayed within the WinHelp 2000 window itself, Internet Explorer—or the HTML Help Display Engine—must be installed on the end users' systems[6]. Displaying WinHelp 2000 HTML topics in an external Web browser does not require Internet Explorer.
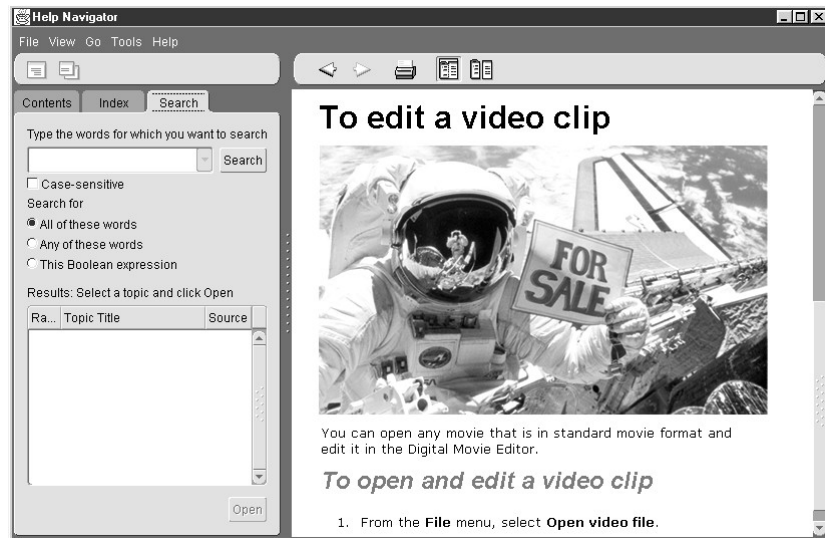
User assistance for Java applications

Java applications require user assistance. As Java applications are deployed, the role of Help becomes increasingly vital. A fundamental objective of any application, of course, is to promote productivity. A well-designed and comprehensive Help system is a key component of usability and productivity. The Help system is the first place that users turn to for assistance as they work with the application. Today's Java and Oracle developers can choose to deploy three user assistance standards – Oracle Help for Java, JavaHelp or WebHelp.

What is Oracle Help for Java? Oracle Help for Java (OHJ) was developed by Oracle Corporation to enable their customers and other Java developers to create the most complete Java-based tools and applications possible, by including full-featured and effective user assistance. It's now Oracle's standard for user assistance in Java apps. Not dependent on Oracle, Oracle Help for Java is a 100% pure Java solution with robust functionality and flexibility.

Based on HTML, Java and XML, OHJ provides all the advanced navigation assistance that end users have come to expect with modern Help systems, support for the creation of context-sensitive Help, and a high degree of flexibility for developers to customize the appearance of the Help system interface.

Customization options include the ability to customize the table of contents, index and search tabs with special labels and graphics as well as the ability to augment OHJ's existing tabs with new fully customized ones. OHJ also allows you to link your TOC, index and search to topics that reside in other project files, and you can merge these links into existing navigational views or create new views with customized labels and images. Oracle Help for Java also provides support for standard Help-specific features like See Also/Related Topics buttons, Oracle's own Keyword Index Navigator, popups windows and more. For more information on OHJ and to download the files necessary for Oracle Help for Java, visit http://technet.oracle.com/tech/java/help/index.htm

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[6]

Oracle Help for Java

What is JavaHelp? JavaHelp is Sun Microsystems' standard for providing user assistance and electronic documentation for Java applets and applications. JavaHelp integrates HTML, XML and 100% Pure Java™ technology to create electronic documentation that can be integrated with Java applications or provided standalone. JavaHelp systems can also be deployed on any format that supports the Java Runtime Environment. Using JavaHelp, you can provide the assistance and documentation your users need in 100% Pure Java™ for a true end-to-end Java solution.
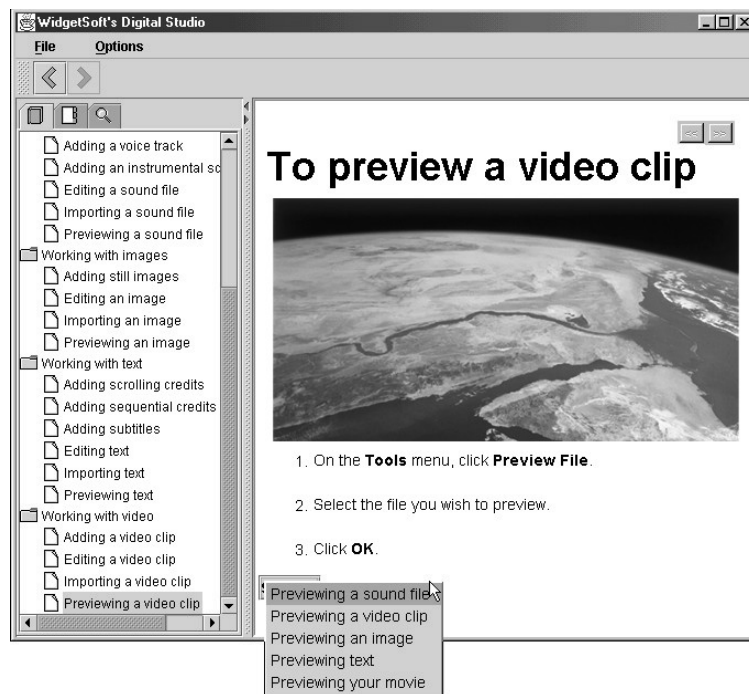
A JavaHelp System

The content pane uses HTML as its format for displaying topics. Java components can be used within the content pane to add additional navigation and display capabilities[7]. Like other Help systems, the navigation pane can contain a table of contents (shown above), a hierarchical index, and a full-text search interface. Both the table of contents and the index are represented internally by XML. The index differs in one significant way from the index found in other Help formats: if an index keyword is found in multiple topics, each topic reference appears as a separate entry in the index. Other Help formats—including HTML Help and WebHelp— provide a popup menu in this situation; the popup menu appears when the user clicks on the keyword. JavaHelp supports full-text search. The results of a search are sorted based on the number of "hits" found in each topic, and the individual hits are highlighted within the selected topic.

JavaHelp also supports popup and secondary windows. Popup windows allow you to display secondary information—such as a glossary definition—in a small window that's dismissed by users when they have finished reading it. Secondary windows are typically used to display supplementary content that is meant to remain visible while the user explores the rest of the Help system.

Extending JavaHelp into a full-featured Help format. Other Help formats have provided additional navigational aids that have proven quite useful for user assistance, such as See Also buttons and browse sequences. eHelp Corporation's RoboHELP Office 9.0 extends the JavaHelp format by providing these important navigational capabilities within the JavaHelp systems it creates. The Help developer is free to create relationships between topics using a variety of techniques, as well as define browse sequences, safe in the knowledge that RoboHELP Office will automatically generate Java and HTML-based implementations of these features that integrate seamlessly with the JavaHelp format's look and feel.

Delivering JavaHelp with Java applications. The Java Runtime Environment (JRE) is needed to run the JavaHelp system. For Java applications, the Java developer will provide the JavaHelp classes along with the proper JRE in the application. JavaHelp systems themselves can be provided in an encapsulated format, meaning that all the individual HTML and XML files are packed into a single deliverable file (a Java ARchive, or JAR file). This file can also be compressed. Help authoring tools automate the generation of the JAR file from the Help project source files.

Providing user assistance for server-based Java applications with multiple clients. Java applications are often deployed in a client/server setting, where a Java application runs on a server, and the client user interface can either be a Java application or an HTML-based application running in a Web browser. In this client/server scenario, the author must be able to provide user assistance for both the Java and HTML-based client applications. RoboHELP Office 9.0 provides a perfect solution for this scenario. The author can create a JavaHelp system for use with the Java client application, and a WebHelp system for the HTML-based application—from the exact same Help project source files. The author can even flag subsets of the Help system that should be made available for one client type but not the other. Both the WebHelp and JavaHelp systems can be delivered on the client computer system or hosted on the Java application's server for viewing across a local area network, or across the Internet.

Overcoming the limitations inherent in JavaHelp. Sun's JavaHelp format contains some limitations that can't be addressed by any authoring tool or third-party enhancements. Initial use of JavaHelp indicates that it has some performance issues, particularly when using graphics inside Help system topics. Until these issues are addressed in a subsequent release of JavaHelp, implementers should carefully consider their end-user requirements. One alternative to use in the meantime, if a browser-based solution is acceptable for a given application, is to develop a Help system using WebHelp or Oracle Help for Java.

For more information on JavaHelp and to download the files necessary for JavaHelp, visit
http://www.javasoft.com/products/javahelp/download_binary.html

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[7] Examples include components for displaying popup and secondary windows and See Also buttons.

Developers may want to consider WebHelp for Java applications, which don't need a 100% pure Java solution.

Help Development Tools
The key to successful Help system design and construction

Focus on Help system design, not arcane implementation details. The organization of a Help system is vital to its usability and its ability to provide the answers your users are seeking. The goal of a Help development tool is to automate the process of creating and organizing the content, allowing the developer to focus on the content, design and usability instead of the mechanics of implementing specific features and functionality. eHelp Corporation has invested over fifty man-years of research and development in creating industry-leading solutions toward this goal.

Visually create your Help system's structure and global navigation. Creating a table of contents for a Help system can be a time-consuming task, but the proper tool can streamline the process. A Help authoring tool can automatically generate a table of contents with books and pages based on the structure of the folders and topics in your project, allowing the developer to create a comprehensive table of contents in seconds. A good Help authoring tool has a table of contents editor that includes drag and drop functionality for rearranging the topic order.

A Help system's index is critical to the system's usability, but creating a comprehensive index is a time-consuming process without automation. This is yet another task where the proper tool can make all the difference. An automated indexing assistant can shave weeks off the time it takes to create comprehensive multi-level indexes. An indexing assistant can also ensure that the index remains up-to-date as new topics and index entries are added for a project. The Smart Index Wizard in RoboHELP Office 9.0 contains advanced linguistic technology developed by eHelp Corporation specifically for automating index creation.

Create new content and integrate content from other sources. Help systems are typically a combination of new and existing content. The RoboHELP Office 9.0 suite allows you to import content right into your Help project. Incorporating existing content that has been developed for other purposes (for example, FAQ pages) or using an existing Help system (a WinHelp system that needs updating) as a

basis for a new Help system is a common method for Help developers. A Help development tool such as RoboHELP Office allows you to easily import content in a number of different formats, including Microsoft Word documents, FrameMaker documents, and HTML content. RoboHELP also gives you the opportunity to choose the editing environment you prefer, either RoboHELP's built-in HTML editor, a leading HTML editor like Dreamweaver, FrontPage or HomeSite or others, or Microsoft Word.

Effectively manage the development process. Creating a useful Help system requires thoughtful project management. Over the course of the project, you will need to track the status of content as it is developed, review content when it's ready to be reviewed, work with to-do lists, and create reports for management. You may want to perform high-level analysis, like examining your Help system's overall structure, or testing the system's functional integrity as well as performing lower-level tasks like looking for broken links or unreferenced content. RoboHELP directly supports these efforts by providing project management features and reporting capabilities that specifically reflect the Help authoring process.

Rely on single-source for the ultimate in re-use and a consistent user experience. RoboHELP Office 9.0 allows a single project to be deployed using any major Help format, including WebHelp, Microsoft WinHelp, Microsoft's HTML Help, Oracle Help for Java and JavaHelp, as well as printed documentation. Beyond this, RoboHELP Office 9.0 ensures that the Help system features it creates will work no matter what Help format the project is deployed on. A true single-source tool, RoboHELP Office extends all leading Help formats to provide a consistent, advanced feature set. Help authors are no longer limited to the confines of a particular Help format. RoboHELP Office automatically generates the appropriate user interface in the resulting Help system. The author doesn't need to worry about this "mapping" of functionality—the development tool ensures that it happens correctly.

Products mentioned:
RoboHELP® Office 9.0
WebHelp®, included in RoboHELP Office
Note: RoboHELP Office 9.0 includes RoboHELP® for WinHelp 9.0, RoboHELP® for HTML Help 9.0, eHelp Corporation's exclusive single-source technology, and companion tools.

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