

Improving Software Usability with Embedded User Assistance

Nicky Bleiel
Lead Information Developer,
Doc-To-Help
ComponentOne
tcworld conference
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Biography — Nicky Bleiel

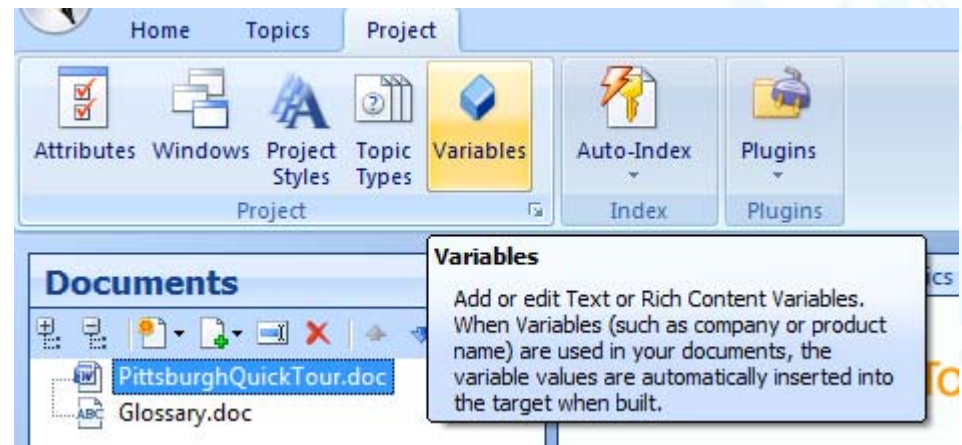
- 15 + years of experience as a technical communicator.
- Director, Society for Technical Communication
- Written and designed documentation for software products in the documentation, media, industrial automation, simulation, and pharmaceutical industries.
- Spoken at tcworld, STC, WritersUA, DocTrain, and LavaCon on a variety of topics, including: embedded help, tools and technologies, user assistance design, single sourcing, wikis, Web 2.0, and convergence technical communication.
- Articles published in tcworld magazine, STC Intercom, TechCom Manager, and the Content Wrangler.
- B.A. in Journalism from the Pennsylvania State University, member: Kappa Tau Alpha and the University Scholars Program.

What we'll discuss

- How Embedded Help Improves Usability
- Traditional Barriers to Embedded Help
- Demonstration of Dynamic, Embedded Help
- Designing and Implementing Embedded Help
- Convergence with other User Assistance Deliverables

There are many User Assistance Options

- Help/Manuals
- **Embedded Help**
- Websites
- Blogs
- Forums
- Wikis
- Job Aids (or Quick Reference Guides)
- Videos/podcasts
- Knowledgebases



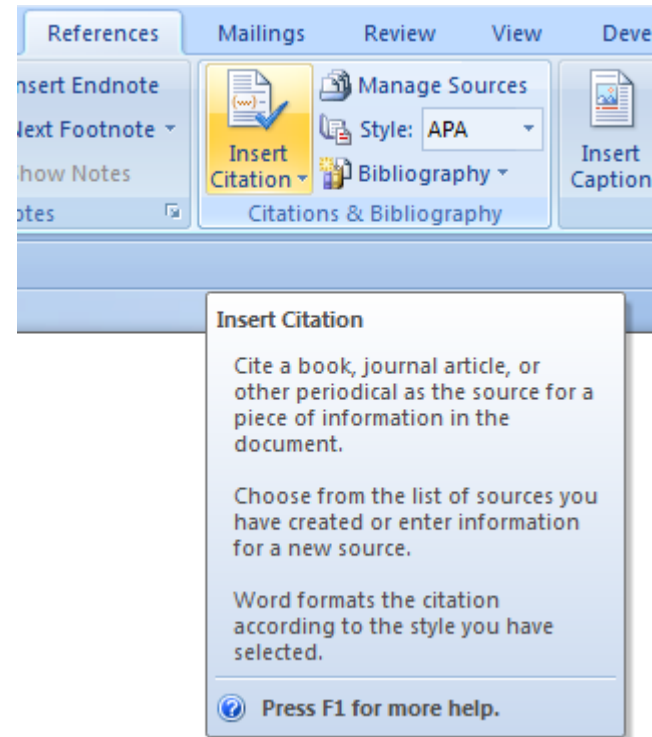
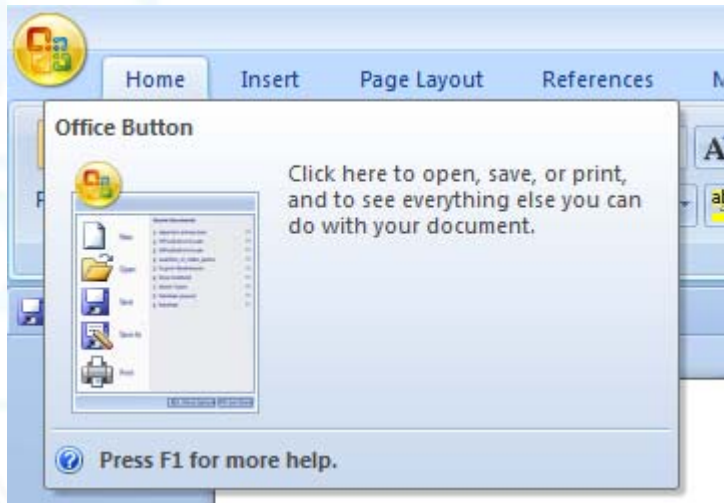
Examples of Embedded Help ...

Descriptive Overviews/Links



Expanded ... or "Super" Tooltips

On hover ...



From Microsoft® Word

Static Information Within the User Interface

Or enter a new shipping address

Be sure to click "Ship to this address" when done.

Full Name:

Address Line1:



Street address, P.O. box, company name, c/o

Address Line2:



Apartment, suite, unit, building, floor, etc.

City:

State/Province/Region:

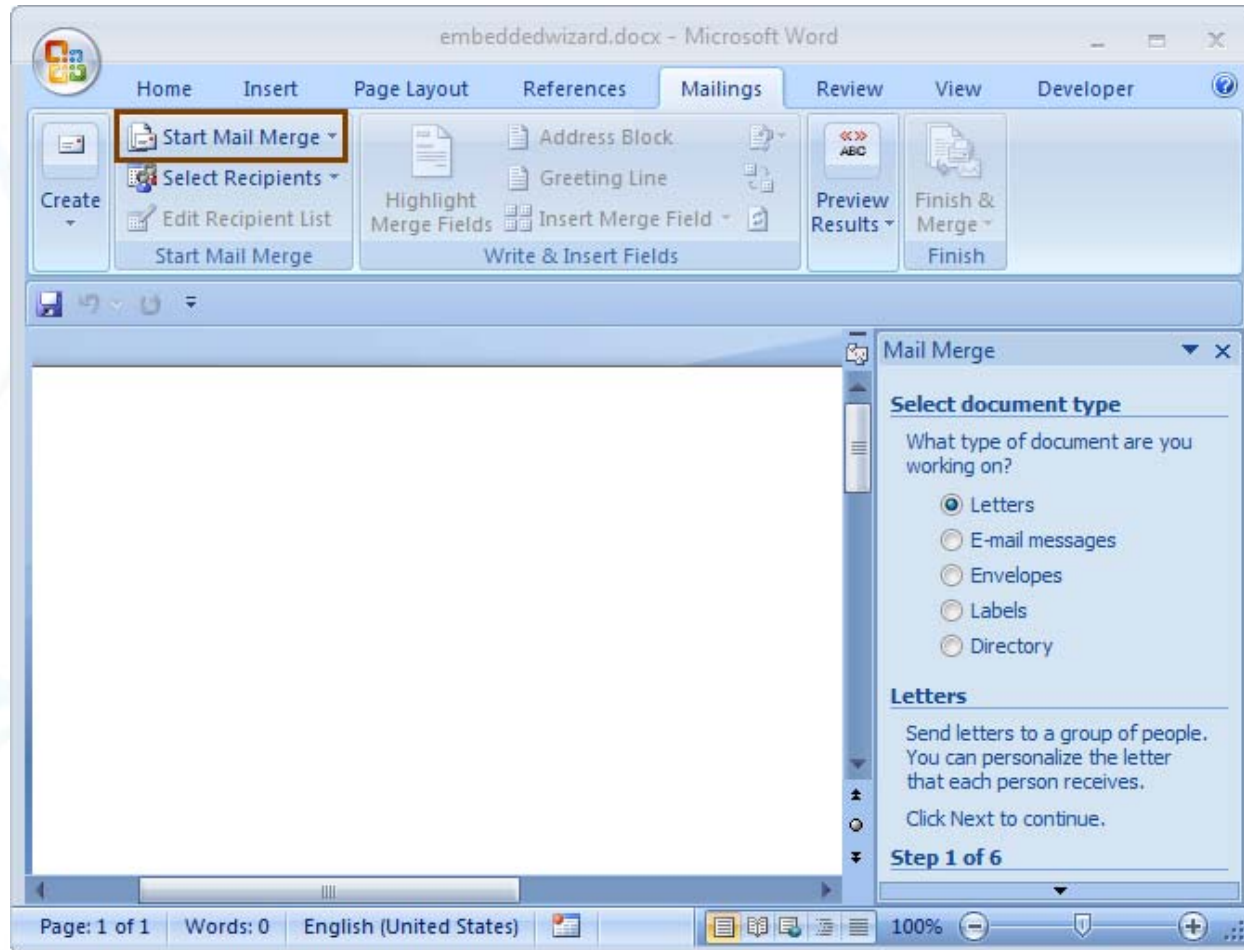
ZIP/Postal Code:

Country:

Phone Number:

Ship to this address

Embedded Wizards



From Microsoft® Word

Embedded Help Panes



From ComponentOne Doc-To-Help®



How does Embedded Help improve Usability?

- Users don't need to "ask the right question" (...find the Help, understand it, apply that understanding to the task at hand) (Wilbert Galitz)
- Embedded Help is nonintrusive and does not require the user to take the initiative (i.e., find and click a **Help** button or menu) (Lynne Hall)
- Users don't see embedded help as "Help." (Scott DeLoach)
- It's task-specific ... users stay in their workflow and don't have to split their focus between two different windows. (Cheri Zubak)
- Encourages exploration and learning. (Mike Hughes)
- It's optimized for "Perpetual Intermediates" (Alan Cooper)

Complete reference information in the *Intercom* article listed on the Q&A slide at end.

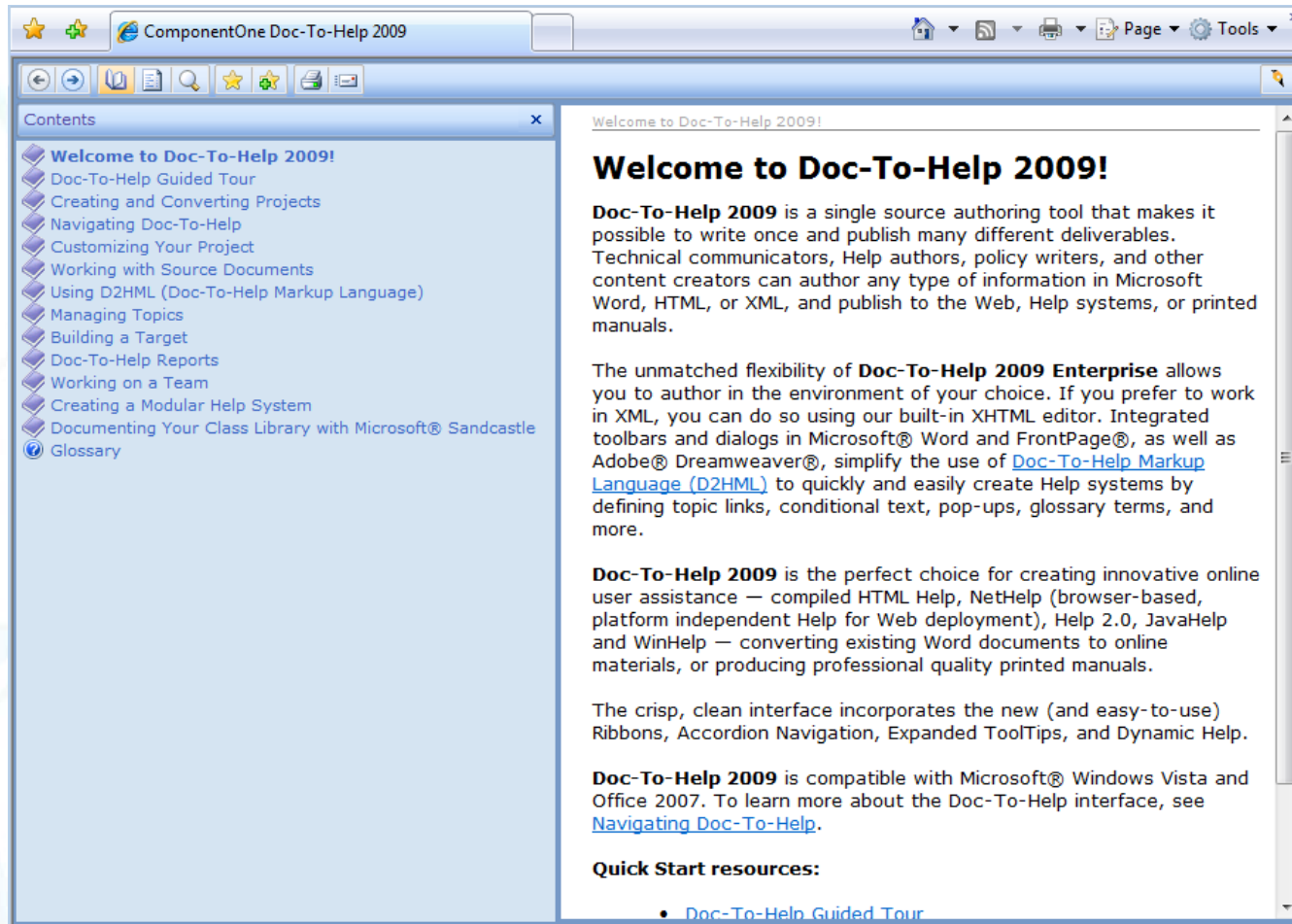
Barriers to Embedded Help

- It has traditionally been hard to implement, since it required a great deal of Software Development and Information Development time.
- Changes/updates were time consuming.
- Traditional online Help still necessary, so two Help systems were needed:
 - A traditional Help file
 - A system that contained only “embedded” topics

Case Study of an Embedded Help Pane

One solution ...

Develop a Standalone Help file



The screenshot shows the ComponentOne Doc-To-Help 2009 application window. The title bar reads "ComponentOne Doc-To-Help 2009". The window contains a "Contents" pane on the left and a main content area on the right. The "Contents" pane lists various topics, with "Welcome to Doc-To-Help 2009!" selected. The main content area displays the "Welcome to Doc-To-Help 2009!" page, which includes a title, a paragraph describing the tool's capabilities, a paragraph about the flexibility of the Enterprise version, a paragraph about the perfect choice for creating online user assistance, a paragraph about the interface, a paragraph about compatibility, and a "Quick Start resources" section with a link to the "Doc-To-Help Guided Tour".

ComponentOne Doc-To-Help 2009

Welcome to Doc-To-Help 2009!

Welcome to Doc-To-Help 2009!

Doc-To-Help 2009 is a single source authoring tool that makes it possible to write once and publish many different deliverables. Technical communicators, Help authors, policy writers, and other content creators can author any type of information in Microsoft Word, HTML, or XML, and publish to the Web, Help systems, or printed manuals.

The unmatched flexibility of **Doc-To-Help 2009 Enterprise** allows you to author in the environment of your choice. If you prefer to work in XML, you can do so using our built-in XHTML editor. Integrated toolbars and dialogs in Microsoft® Word and FrontPage®, as well as Adobe® Dreamweaver®, simplify the use of [Doc-To-Help Markup Language \(D2HML\)](#) to quickly and easily create Help systems by defining topic links, conditional text, pop-ups, glossary terms, and more.

Doc-To-Help 2009 is the perfect choice for creating innovative online user assistance — compiled HTML Help, NetHelp (browser-based, platform independent Help for Web deployment), Help 2.0, JavaHelp and WinHelp — converting existing Word documents to online materials, or producing professional quality printed manuals.

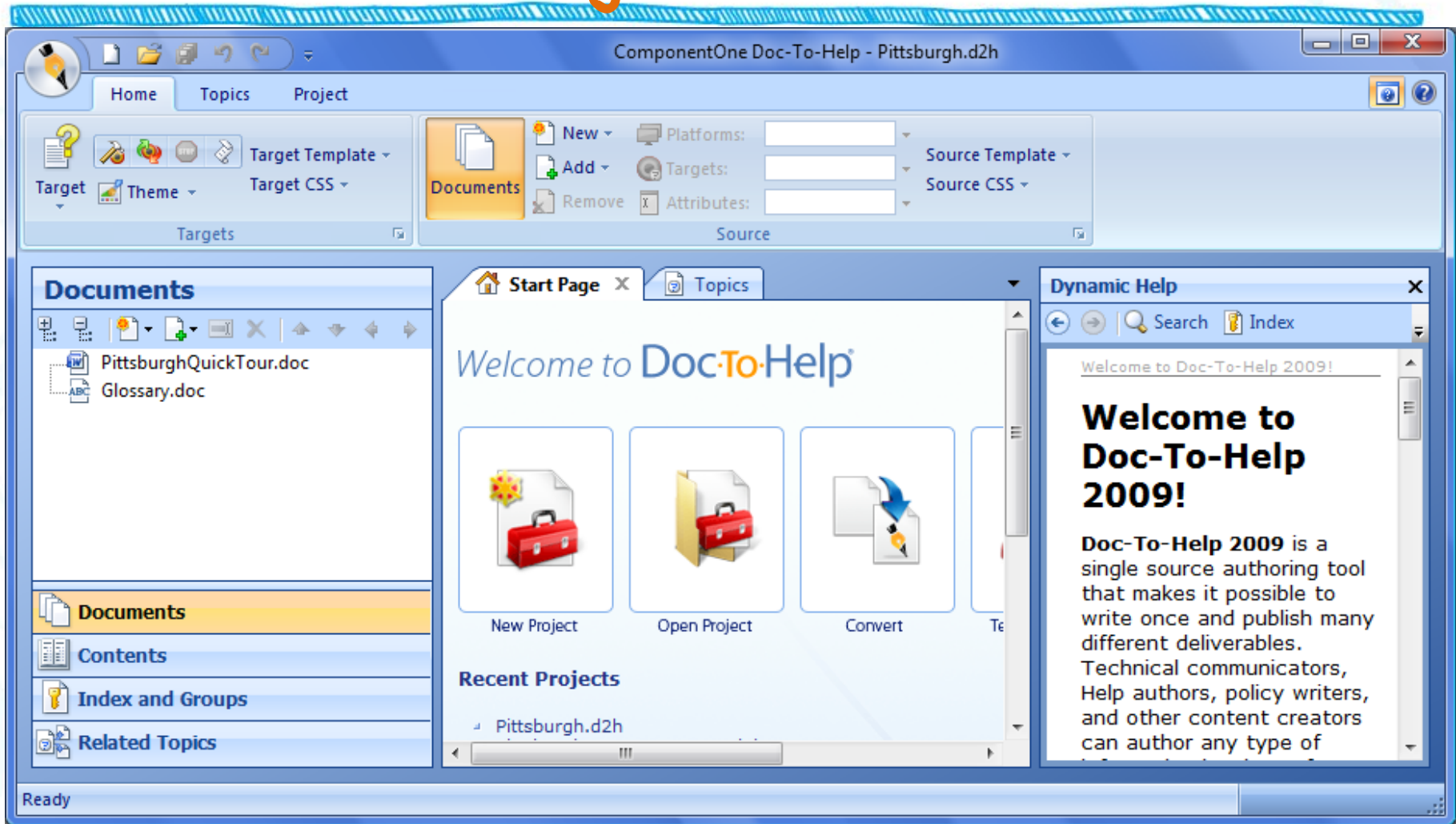
The crisp, clean interface incorporates the new (and easy-to-use) Ribbons, Accordion Navigation, Expanded ToolTips, and Dynamic Help.

Doc-To-Help 2009 is compatible with Microsoft® Windows Vista and Office 2007. To learn more about the Doc-To-Help interface, see [Navigating Doc-To-Help](#).

Quick Start resources:

- [Doc-To-Help Guided Tour](#)

And use it as Embedded, Dynamic User Assistance



In the Main User Interface . . .  Doc-To-Help®

... and in dialog boxes also

The image shows a 'Link' dialog box with the following fields and options:

- Text:** 250th anniversary
- Target:** (Link defined by Text)
- Topics:** Baseball (PittsburghQuickTour.doc), Famous Pittsburghers (PittsburghQuickTour.doc), Football (PittsburghQuickTour.doc)
- Topic link options:** Document, Bookmark, Window (with Popup and (Default) selected)
- Options:** Hide properties in document, Show as button

The 'Dynamic Help' window is titled 'Creating Links' and contains the following text:

Working with Source Documents > Using D2HML (Doc-To-Help Markup Language) > Creating Links

Creating Links

The **Link dialog box** is used to create links to topics, keywords, groups, and glossary entries.

Right-click in the **Topics** tab to change the topic display — choose **By Document** (default), **Alphabetical**, or **(TOC) Hierarchy**.

Where to find the Link

OK Cancel

Demonstration: Dynamic Help

The screenshot displays the Doc-To-Help software interface. The main window, titled "ComponentOne Doc-To-Help - Pittsburgh250XMLSource.d2h", shows a "Dynamic Help" pane on the right with a search bar and navigation icons. The central area displays a "Welcome to Doc-To-Help" page with "Common Tasks" (New Project, Open Project, Convert, Team Authoring, Help) and "Recent Projects" (Pittsburgh250XMLSource.d2h). A "Link" dialog box is open in the foreground, showing "Text: 250th anniversary" and "Target: [Link defined by Text]". The dialog has tabs for "Topics", "Keywords", "Groups", and "Glossary". Under "Topics", "Baseball (PittsburghQuickTour.doc)" is selected. The "Dynamic Help" pane on the right shows a "Dynamic Help" article titled "Dynamic Help" with the text: "The Dynamic Help window displays relevant Help automatically as you use your mouse to click or hover over the Doc-To-Help interface. For the complete Help file, click on the Help icon located on the upper right." Below this, another "Dynamic Help" pane shows a "Welcome to Doc-To-Help 2009!" article with the text: "Doc-To-Help 2009 is a single authoring tool that makes it possible to create help for a wide range of applications." The "Creating Links" article in the foreground explains: "The Link dialog box is used to create links to topics, keywords, groups, and glossary entries. Right-click in the Topics tab to change the topic display — choose By Document (default), Alphabetical, or (TOC) Hierarchy. Where to find the Link" and includes "OK" and "Cancel" buttons.

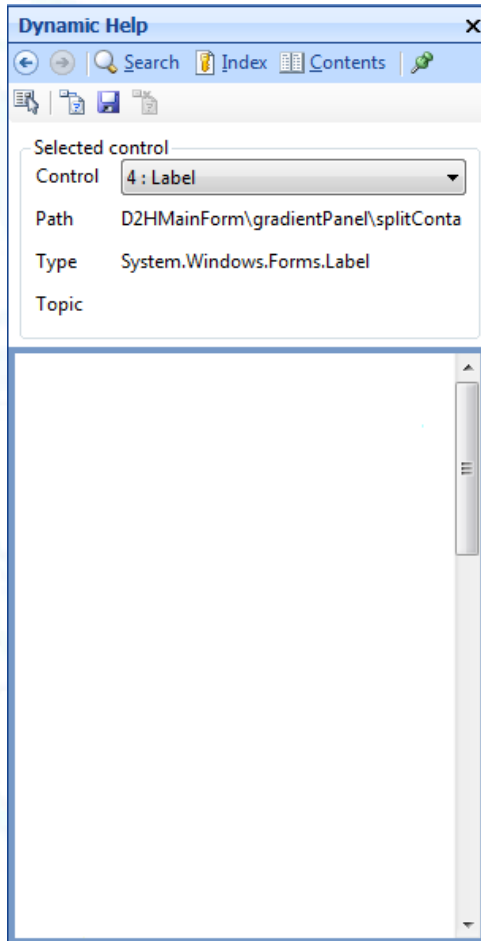
How was this done?

- Dynamic Help control
 - Can be integrated in Visual Studio.NET applications
 - Information Development creates Help/does mapping
 - Help file(s) and one XML mapping file returned to Software Development.
 - Help file can be HTML Help (.chm) or uncompiled browser-based Help (NetHelp)

More information:

<http://www.componentone.com/SuperProducts/DynamicHelpWinForms/>

Demonstration: Mapping Help to the UI



Dynamic Help

Search Index Contents

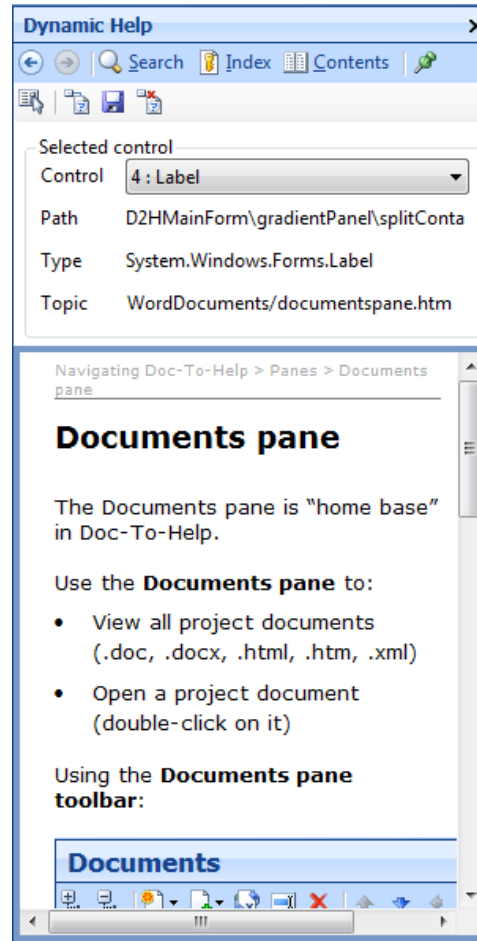
Selected control

Control 4 : Label

Path D2HMainForm\gradientPanel\splitConta

Type System.Windows.Forms.Label

Topic



Dynamic Help

Search Index Contents

Selected control

Control 4 : Label

Path D2HMainForm\gradientPanel\splitConta

Type System.Windows.Forms.Label

Topic WordDocuments/documentspane.htm

Navigating Doc-To-Help > Panes > Documents pane

Documents pane

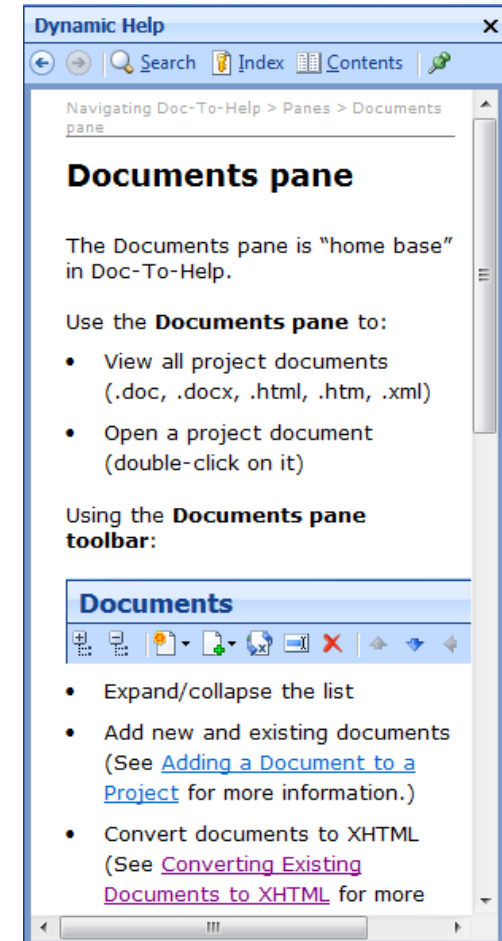

The Documents pane is "home base" in Doc-To-Help.

Use the **Documents pane** to:

- View all project documents (.doc, .docx, .html, .htm, .xml)
- Open a project document (double-click on it)

Using the **Documents pane toolbar**:

Documents



Dynamic Help

Search Index Contents

Navigating Doc-To-Help > Panes > Documents pane

Documents pane


The Documents pane is "home base" in Doc-To-Help.

Use the **Documents pane** to:

- View all project documents (.doc, .docx, .html, .htm, .xml)
- Open a project document (double-click on it)

Using the **Documents pane toolbar**:

Documents



- Expand/collapse the list
- Add new and existing documents (See [Adding a Document to a Project](#) for more information.)
- Convert documents to XHTML (See [Converting Existing Documents to XHTML](#) for more)

Designing Your Help File

- One Help file can be used for both Embedded and “standalone” Help
 - Saves information development time
 - Saves space in install
- Why do you need both?
 - Online Help still a necessary deliverable
 - Table of Contents, Index, and Search are necessary navigation aids for customers

Step 1: Determine Mapping Strategy

Decide what user interface controls you will map:

- Map Help to individual toolbar buttons or ribbon groups? Or both?
- Map dialog boxes to field-level information or the entire dialog?

Step 2: Design Help

Next:

- List each user interface element that requires a Help topic (ribbons, panes, windows, dialog boxes, etc)
- List major functionality of product
- List 'housekeeping' and reference topics.

Then:

- Create a sample TOC. Note planned mappings.

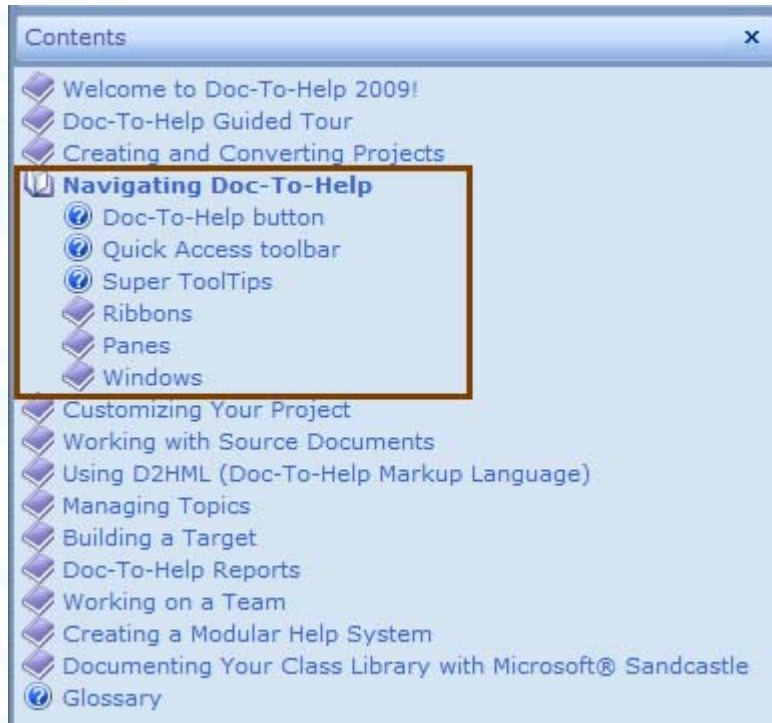
- Inserting Tables *Table properties db*
- Viewing and Modifying Table Cells, Rows, and Columns *Cell Properties*
- Editing Word and HTML Documents *Column Properties*
- Setting Document Properties *Document Properties db*
- Using D2HML (Doc-To-Help Markup Language) *Font Properties*
- Utilizing D2HML Styles
 - Creating Links *Link db No DH*
 - Creating Inline, Dropdown, or Popup Text *Inline text db*
 - Inserting an Index Entry *keyword db*
 - Adding a Topic to a Group *Group db*
 - Adding a Link Tag *Link Tag db*
 - Setting Topic Properties *D2HML Topic Properties db*
 - Creating Conditional Text *Conditional text db*
 - Inserting a Variable *variable db*

□ *Cleaning and Applying Styles*

↑ *add to TOC*

entering text as conditional topic conditions
ment page

Table of Contents Structure

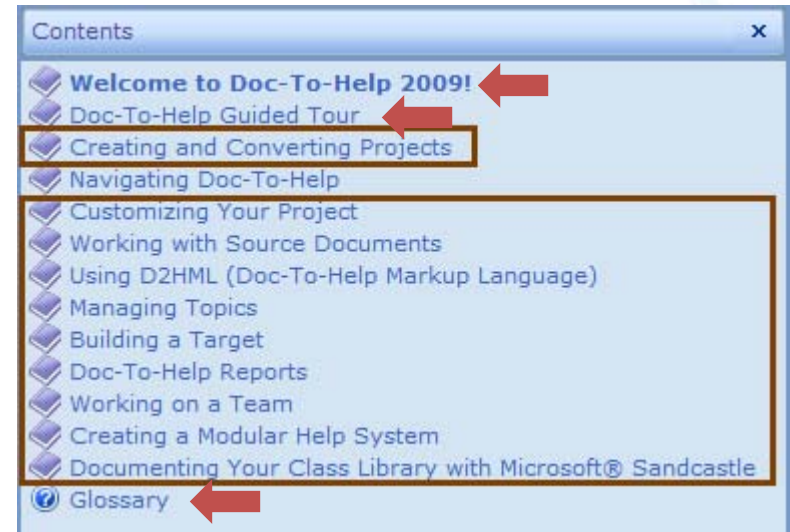


Contents

- Welcome to Doc-To-Help 2009!
- Doc-To-Help Guided Tour
- Creating and Converting Projects
- Navigating Doc-To-Help**
 - Doc-To-Help button
 - Quick Access toolbar
 - Super ToolTips
 - Ribbons
 - Panes
 - Windows
- Customizing Your Project
- Working with Source Documents
- Using D2HML (Doc-To-Help Markup Language)
- Managing Topics
- Building a Target
- Doc-To-Help Reports
- Working on a Team
- Creating a Modular Help System
- Documenting Your Class Library with Microsoft® Sandcastle
- Glossary

UI Buckets

Topics mapped to the main user interface



Contents

- Welcome to Doc-To-Help 2009!**
- Doc-To-Help Guided Tour**
- Creating and Converting Projects
- Navigating Doc-To-Help
- Customizing Your Project
- Working with Source Documents
- Using D2HML (Doc-To-Help Markup Language)
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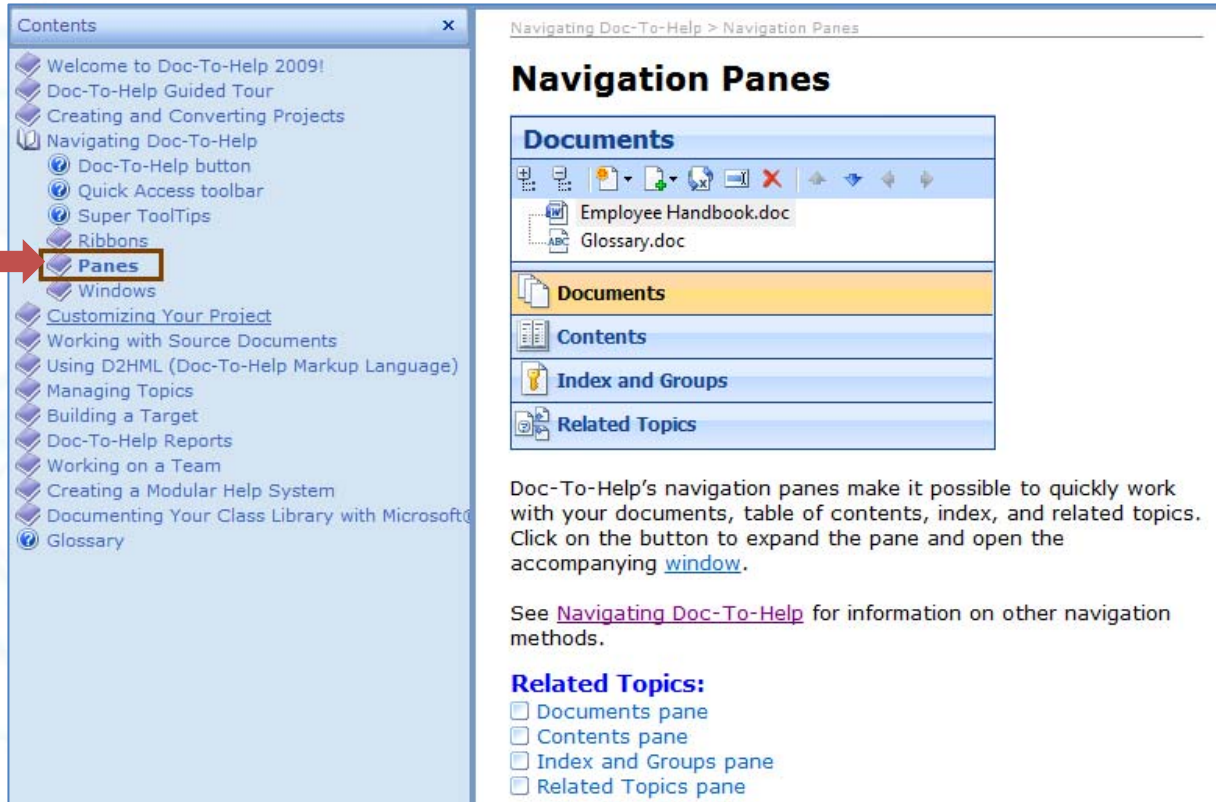
“Functionality” Buckets

Topics covering product functionality
(Dialog box topics included here also)

“Welcome” includes all the
‘Housekeeping’ topics.

“Guided Tour” and “Glossary” are
‘Reference’ topics.

Sample Structure — Overview Topic



Contents

- Welcome to Doc-To-Help 2009!
- Doc-To-Help Guided Tour
- Creating and Converting Projects
- Navigating Doc-To-Help
 - Doc-To-Help button
 - Quick Access toolbar
 - Super ToolTips
 - Ribbons
 - Panes**
 - Windows
- Customizing Your Project
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- Using D2HML (Doc-To-Help Markup Language)
- Managing Topics
- Building a Target
- Doc-To-Help Reports
- Working on a Team
- Creating a Modular Help System
- Documenting Your Class Library with Microsoft
- Glossary

Navigation Panes

Documents

Employee Handbook.doc
Glossary.doc

Documents

Contents

Index and Groups

Related Topics

Doc-To-Help's navigation panes make it possible to quickly work with your documents, table of contents, index, and related topics. Click on the button to expand the pane and open the accompanying [window](#).

See [Navigating Doc-To-Help](#) for information on other navigation methods.

Related Topics:

- Documents pane
- Contents pane
- Index and Groups pane
- Related Topics pane

Overview UI topic for Help

Requirements:

- Breadcrumbs
- Title
- Image
- Conceptual overview
- Additional reference info
- Related Topics


Generated

Overview topics will be the ones displayed in the Dynamic Help pane as users navigate the interface.

The topics in the “Related Topics” list appear in the Table of Contents also, under the appropriate “book.”

Sample Structure — Dialog Box Topic

The screenshot shows a help topic window titled 'Using D2HML (Doc-To-Help Markup Language) > Creating Links'. On the left is a 'Contents' pane with a tree view. The 'Creating Links' item is selected and highlighted with a red box. The main content area has the following structure:

- Creating Links**
- The **Link dialog box** is used to create links to topics, keywords, groups, and glossary entries.
- Right-click in the **Topics** tab to change the topic display — choose **By Document** (default), **Alphabetical**, or (TOC) **Hierarchy**.
- Where to find the Link button** 
- Doc-To-Help's Editor: the [D2HML tab](#)
- Microsoft® Word: the [Doc-To-Help toolbar or ribbon](#)
- Microsoft® FrontPage®, and Adobe® Dreamweaver®: the [Doc-To-Help D2HML Styles toolbar or ribbon](#).
- To create a link**
- 1. Select text in the **Editor** window.
- 2. Click the **Link** button. The **Link** dialog box will open. By default, the Target will be the same as the selected text. The phrase **(Link defined by Text)** will be displayed in the **Target** field. If you would prefer to link to a specific topic, keyword, group, or glossary item, choose the **Topics**, **Keywords**, **Groups**, or **Glossary** tab.
- 3. Select the appropriate topic, keyword, group, or glossary entry. (In the **Keywords** and **Groups** tabs, you may select

Keyword/Group link options

Topic list in: When a hotspot is linked to keywords or a group, clicking on the hotspot will display the list of topics in a dialog box or popup menu. Use this drop-down list to specify your preference.

Window: By default, the window type of the topic(s) chosen. If you would prefer the destination topic(s) display in another window type, choose one from the drop-down list. The (Default) topic window types are set using Topic Types, which are one component of a Paragraph Style. These are set for the project in the **Project Styles** dialog box. See [Defining Character/Paragraph Styles and Topic Types](#).

Related Topics:

- Using D2HML (Doc-To-Help Markup Language)
- Drag-and-Drop Linking

A red arrow points to the 'Related Topics' section.

Dialog box topic for Help & Dynamic Help

Requirements:

- Breadcrumbs
- Title
- Conceptual overview
- Optional: Important Fact
- “How to get there”
- Task (s)
- Dialog Box Field Definitions
- Related Topics

Generated

To eliminate information “dead ends” in Help and Dynamic Help, always include “related topics.”

Step 3: Create Help

ComponentOne Doc-To-Help 2009 - Internet Explorer provided by Dell

file:///C:/Program%20Files/ComponentOne/DocToHelp/Help/default.htm?tab=0

ComponentOne Doc-To-Help 2009

Welcome to Doc-To-Help 2009!

Welcome to Doc-To-Help 2009!

Doc-To-Help 2009 is a single source authoring tool that makes it possible to write once and publish many different deliverables. Technical communicators, Help authors, policy writers, and other content creators can author any type of information in Microsoft Word, HTML, or XML, and publish to the Web, Help systems, or printed manuals.

The unmatched flexibility of **Doc-To-Help 2009 Enterprise** allows you to author in the environment of your choice. Integrated toolbars and dialogs in Microsoft® Word and FrontPage®, as well as Adobe® Dreamweaver®, simplify the use of **Doc-To-Help Markup Language (D2HML)** to quickly and easily create Help systems by defining topic links, conditional text, pop-ups, glossary terms, and more. If you prefer to work in XML, you can do so in our built-in XHTML editor.

Doc-To-Help 2009 is the perfect choice for creating innovative online user assistance — compiled HTML Help, NetHelp (browser-based, platform independent Help for Web deployment), Help 2.0, JavaHelp and WinHelp — converting existing Word documents to online materials, or producing professional quality printed manuals.

The crisp, clean interface incorporates the new (and easy-to-use) Ribbons, Accordion Navigation, Expanded ToolTips, and Dynamic Help.

Doc-To-Help 2009 is compatible with Microsoft® Windows Vista and Office 2007. To learn more about the Doc-To-Help interface, see [Navigating Doc-To-Help](#).

For more on single sourcing and customizing your documentation, see:

- [Introduction to Single Sourcing](#)
- [Guide to Templates and Styles](#)

Computer | Protected Mode: Off 100%

Step 4: Map/Deliver Help

- Use provided mapping interface
- Deliver proper files (Help and XML mapping file) to Software Development

Additional Suggestions

- Understand single-source authoring and concepts. Use conditional text, variable text, expandable or collapsible text, and other options your help-authoring tool (HAT) has to offer.
- When designing your help, choose colors, fonts, and styles that work with the user interface.
- Work with software development to determine the best position in your application's user interface for the embedded help pane.
- Once users are comfortable with the software, they may want to turn embedded help off. There should be a mechanism to allow this.
- No topic should be a dead end. Always include a "Related Topics" list.

Convergence

- Help and Embedded, Dynamic Help should complement your other deliverables
- Avoid contradiction
- Strike a balance
- Plan how other deliverables will be integrated in user interface

Convergence User Assistance

Satisfies:

- Different preferences for information
- Different types of learners
 - Visual
 - Auditory
 - Kinesthetic

Demo: Other User Assistance in the UI

The image displays the ComponentOne Doc-To-Help software interface, illustrating various user assistance features. The main window shows a "Start Page" with a "Welcome to Doc-To-Help" message and navigation options like "Home", "Topics", and "Project". A "Dynamic Help" window is open, displaying relevant help content for the "Dynamic Help" window itself. A "Link" dialog box is also visible, showing options for creating links to topics, keywords, groups, and glossary entries. A "Variables" dialog box is also present, explaining how variables are used in documents.

Dynamic Help

The **Dynamic Help** window displays relevant Help automatically as you use your mouse to click or hover over the Doc-To-Help interface. For the complete Help file, click on the Help icon located on the upper right.

Creating Links

The **Link** dialog box is used to create links to topics, keywords, groups, and glossary entries.

Right-click in the **Topics** tab to change the topic display — choose **By Document** (default), **Alphabetical**, or **(TOC) Hierarchy**.

Where to find the Link

Variables

Add or edit Text or Rich Content Variables. When Variables (such as company or product name) are used in your documents, the variable values are automatically inserted into the target when built.

Doc-To-Help

Further Reading

- Cooper, Alan. *The Inmates Are Running the Asylum*. Indianapolis, IN: Sams Publishing, 2004.
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- DeLoach, Scott. *Best Practices for Embedded User Assistance*. WritersUA Conference, 2007, www.clickstart.net/presentations/embeddedua_writersua07.pdf.
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- Hall, Lynne. "Performance Support: Online Help and Advisors." *International Encyclopedia of Ergonomics and Human Factors*. Boca Raton, FL, and London, UK: CRC Press, 2006.
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- Mueller, Paul. *Exploring and Implementing Embedded Help*. STC Austin Meeting, 2007.
- Nielsen, Jakob. *Usability Engineering*. San Diego, CA: Academic Press, 1993.
- Zubak, Cheryl Lockett. "What Is Embedded Help?" STC Intercom (March 2000).

Q & A

Contact information:

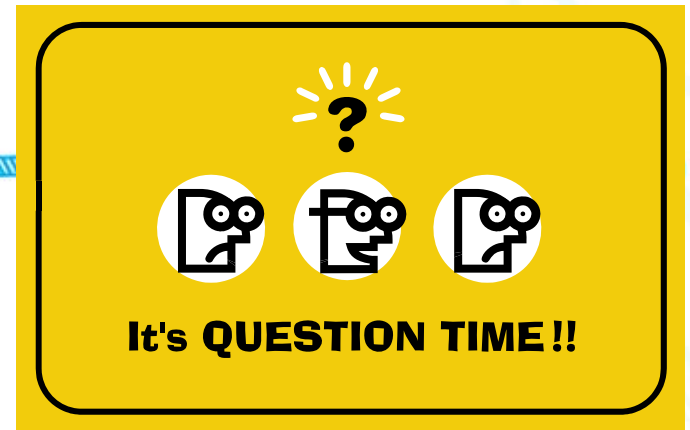
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STC *Intercom* Article June 2009: “Bringing Help to the Forefront: Strategies to Increase the Usability of Your Software User Assistance and Your Product”

http://www.componentone.com/newimages/Newsletter/0609/Bleiel_June_Intercom_2009.pdf

tcworld article October 2009: “Improving software usability through embedded user assistance”

<http://www.tcworld.info/index.php?id=111>

Blog “Technical Communication Camp”

<http://blogs.componentone.com/CS/blogs/techcamp/default.aspx>

Twitter: nickybleiel

More on Dynamic Help control at:

<http://www.componentone.com/SuperProducts/DynamichelpWinForms/>

