

Designing Embedded User Assistance for an Inductive UI

WritersUA Annual Conference

April 9-12, 2006, Palm Springs, CA

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What we'll cover in this session

- What exactly is an inductive UI?
- What do we mean by embedded user assistance?
- What types of information does the user assistance for an inductive UI need to provide?
- What is the best way to provide this information?
- How can we cater for the diverse needs of a mixed audience?

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What exactly is an inductive UI?



- Inductive: inducing or influencing; leading on
- Inducing: leading or moving, as to a course of action, by influence or persuasion
- Inductive UI design says:
"a screen with a single, clearly stated, explicit purpose is easier to understand than a page without such a purpose".

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Compare to eCommerce web applications

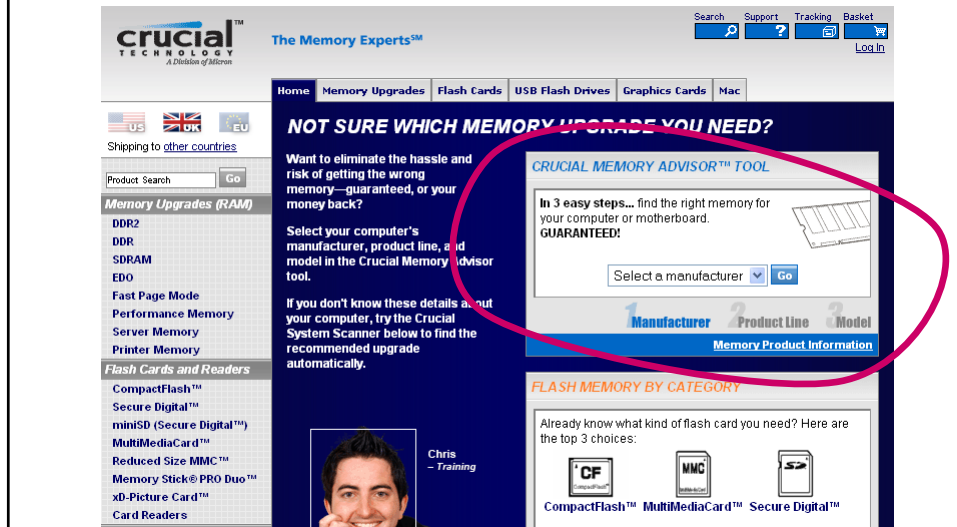
- Goal-oriented
- Task-based
- One task step per screen
- Text-rich
- Application designer has a significant interest in users completing tasks and achieving goals successfully

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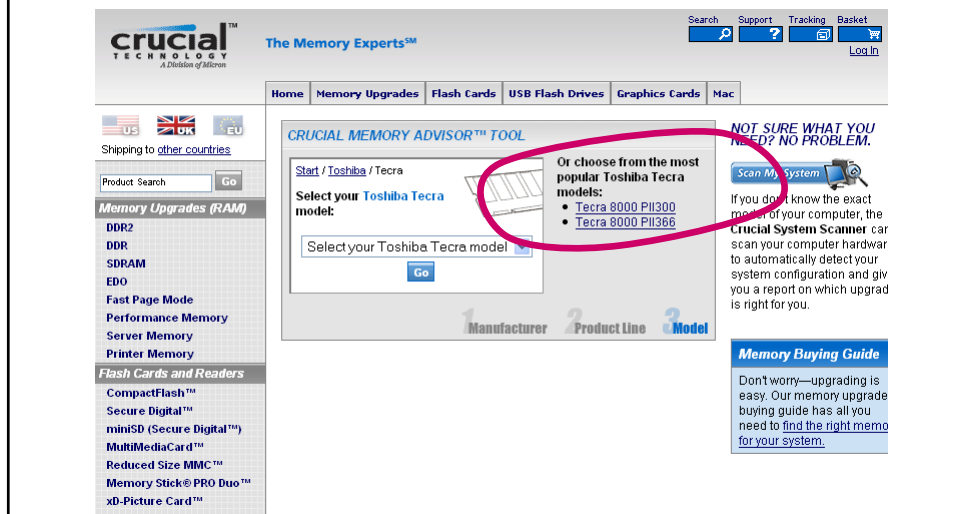
ePurchasing a memory upgrade

- Potentially a technical and difficult task, made simple by an inductive UI



ePurchasing a memory upgrade

- The user is led through a series of simple decisions



ePurchasing a memory upgrade

- Screen contains lots of text and few controls (buttons)

crucial™ The Memory Experts™

Search Support Tracking Basket Log In

Home Memory Upgrades Flash Cards USB Flash Drives Graphics Cards Mac

Shipping to other countries

Product Search Go

System Specs

System Type
Laptop/Notebook

Maximum Memory
2048MB

Standard Memory
256MB removable

Slots/Banks
2 (2 banks of 1)

The information provided above is a standard setup as shipped from the

Out of 110,000 possible upgrades, the Crucial Memory Advisor™ tool lists only the upgrades that are guaranteed compatible with your **Toshiba Tecra M1 Series**.

All Compatible Upgrades Crucial Recommends

Start / Toshiba / Tecra / Tecra M1 Series

Need a Recommendation?

Crucial Recommends

200-pin SODIMM

These 200-pin SODIMM modules are compatible with your system:

Upgrade	Part #	Specifications	Price	Qty/Buy
	CT419227	DDR PC2100 • CL=2.5 • UNBUFFERED • NON-ECC • DDR266 • 2.5V • 1.28Meg x 64	£91.99 ex. VAT £108.09 inc. VAT*	1 Buy
		What does this mean?		
		DDR PC2100 • CL=2.5 •		1

Transition buttons are action-oriented

Embedded user assistance

ePurchasing a memory upgrade

Progress toward objective is clearly signposted

crucial™ CRUCIAL SECURE CHECKOUT

1 My Basket 2 Address 3 Payment / Shipping 4 Submit Order 5 Thank You

SHOPPING BASKET SUMMARY

Delete	Part Description	Price (ea.)	Qty.	Total
X	Part No. CT296807 512MB, 200-pin SODIMM Upgrade for a Toshiba Tecra M1 Series System	£31.99	1	£31.99
Subtotal				£31.99
Shipping Charge				£5.60
VAT calculated at 17.5% for United Kingdom:				£5.60
Estimated Total				£42.19

Update Basket (Click to recalculate basket if changes are made.)

Return to the Crucial Store

Shipping Cost Estimator (optional)

Select the Country for the shipping address and select a shipping method to estimate shipping charges.

Ship to Country: United Kingdom

Shipping Method: Free Shipping within UK £0.00

Estimate Total Cost

Continue Checkout

You can use the optional Shipping Cost Estimator above to approximate your total, or you can continue without an estimate.

Click the Continue Checkout button below to move to Step 2, where you will enter your shipping and/or billing address.

Continue Checkout

ePurchasing a memory upgrade

- All checkout screens contain Helpful Information (FAQs)

City

Region

Postal Code

Country United Kingdom

Phone Number

Fax Number

[information page.](#)

Continue Checkout 

Screen required
scrolling to bring
this into view

HELPFUL INFORMATION

Click on a topic to expand view for full information:

- Can I have my order shipped somewhere other than my credit card billing address?
- Do you ship to PO Boxes?
- Does Crucial deliver outside the UK?
- Is a signature required for delivery of Crucial memory?
- Where are Crucial orders shipped from?

Features of inductive UI

- One task (or activity) per screen – not one control per screen
- Text explanation of task and controls
- Web-like navigation controls to other tasks
- Sequence or flow of screens to achieve an overall objective or super-task

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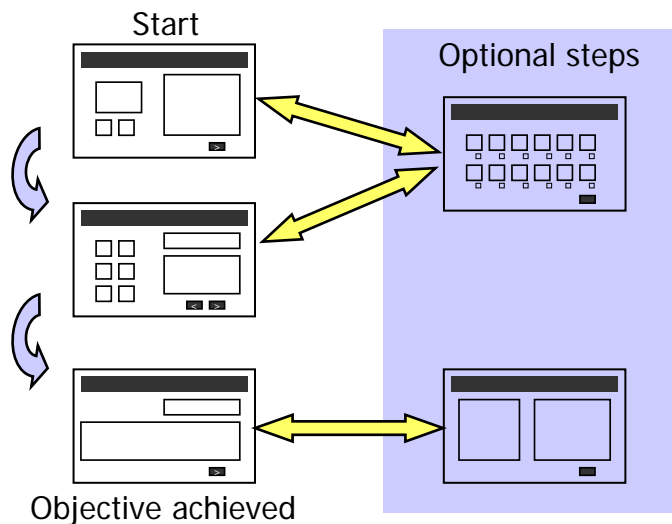
Extract from Microsoft Inductive UI guidelines

- "UI is an extension of the common Web-style interface.
 - In the Web environment, pages have to be simple and task-based because each piece of information has to be sent to a server over a relatively slow connection. The server then responds with the next step, and so on.
- Good Web design means focusing on a single task per page and providing navigation forward and backward through pages.
- Similarly, inductive navigation starts with focusing the activity on each page to a single, primary task."

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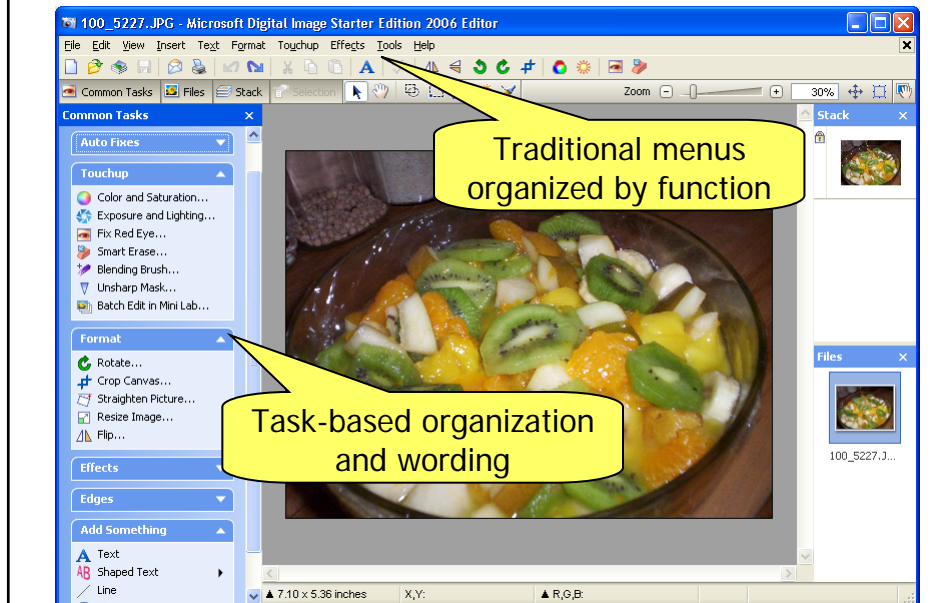
Flow of inductive UI



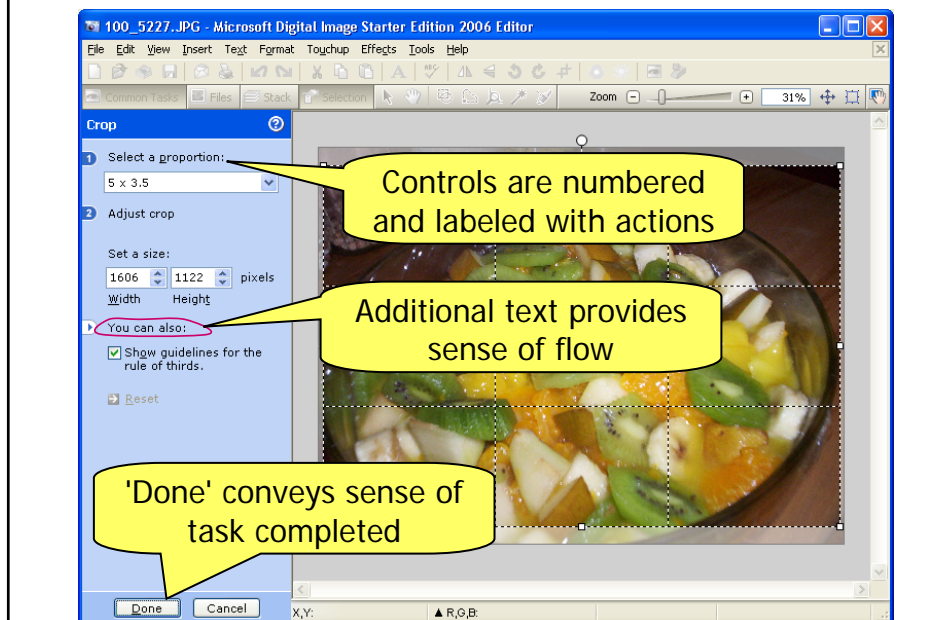
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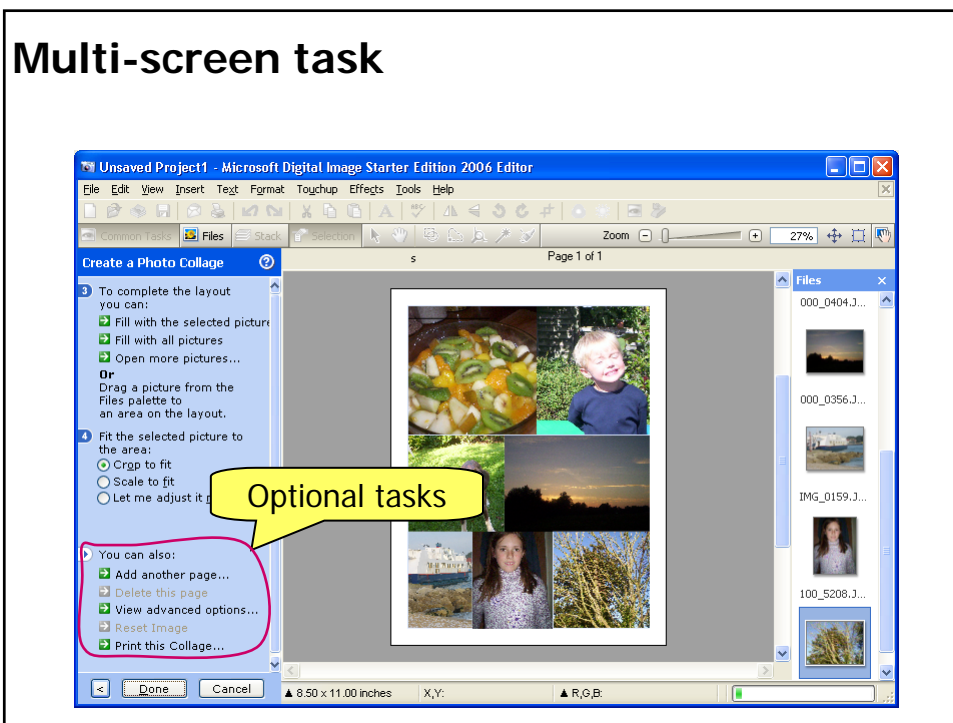
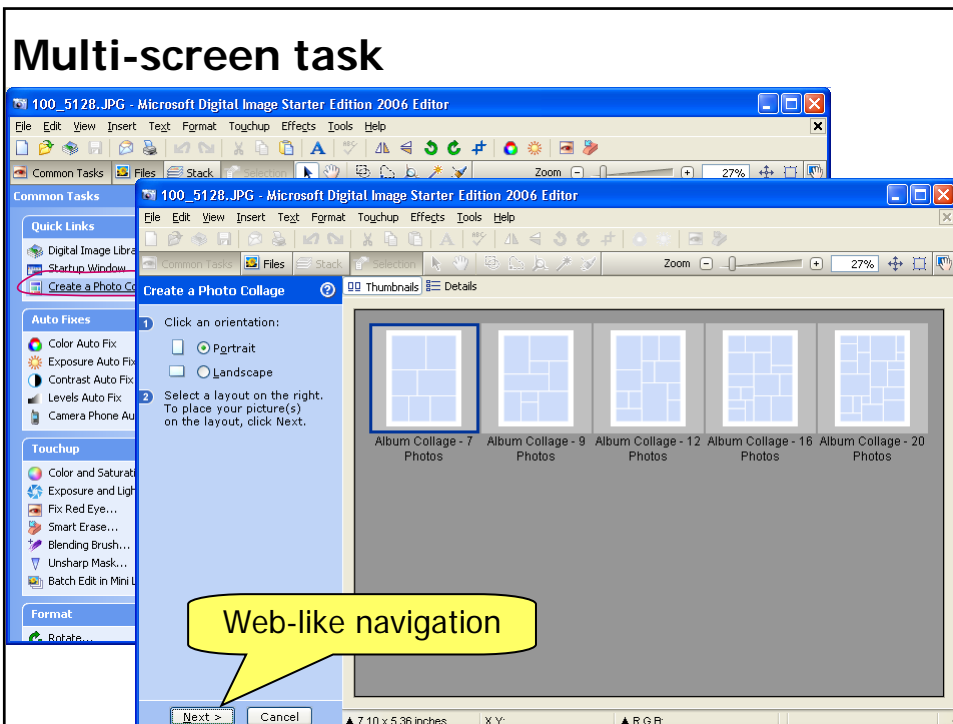
Consumer example: Microsoft Digital Image 2006



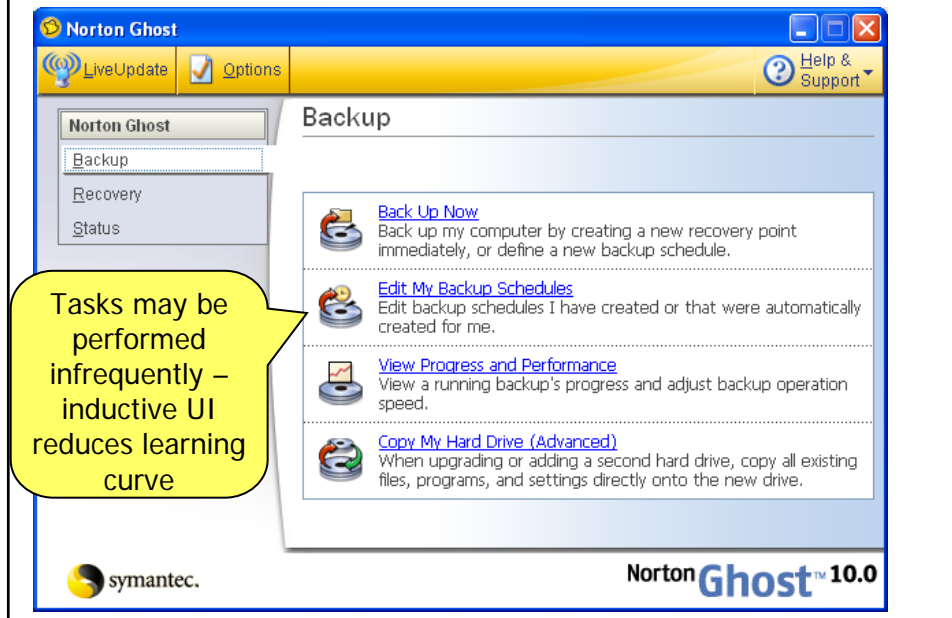
Single-screen task



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Professional example



What do we mean by embedded user assistance?

- Cheryl Lockett Zubak:
 - “User assistance that is part of the real estate and behavior of the software, rather than a separate window that (sometimes) floats above the software”.
 - “Assistance and knowledge in the interface (performance support)”.
 - “not just context-sensitive, but becomes an aspect of the user interface...without user request”

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Advantages of embedded user assistance

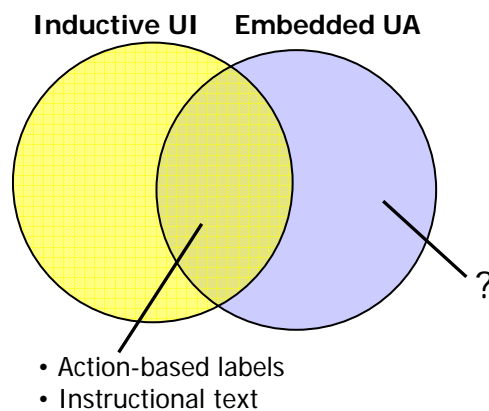
- Offers assistance at the point of need
- Keeps users on task and does not interrupt workflow
- Can provide links to more information
- Users see embedded user assistance as part of the application rather than "Help"

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So there's an overlap...

- By definition, an inductive UI contains embedded user assistance



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Traditional Help information types

Information Type	Included in inductive UI	Additional UA required
■ Field/control descriptions	<input checked="" type="checkbox"/>	(<input checked="" type="checkbox"/> detail)
■ Dialog/screen descriptions	<input checked="" type="checkbox"/>	(<input checked="" type="checkbox"/> detail)
■ Quick ref. (shortcuts, etc.)		<input checked="" type="checkbox"/>
■ Procedures	<input checked="" type="checkbox"/>	
■ Troubleshooting		<input checked="" type="checkbox"/>
■ Concepts	(<input checked="" type="checkbox"/>)	<input checked="" type="checkbox"/>
■ Application overview		<input checked="" type="checkbox"/>
■ Process overview		<input checked="" type="checkbox"/>
■ Orientation/getting started		<input checked="" type="checkbox"/>

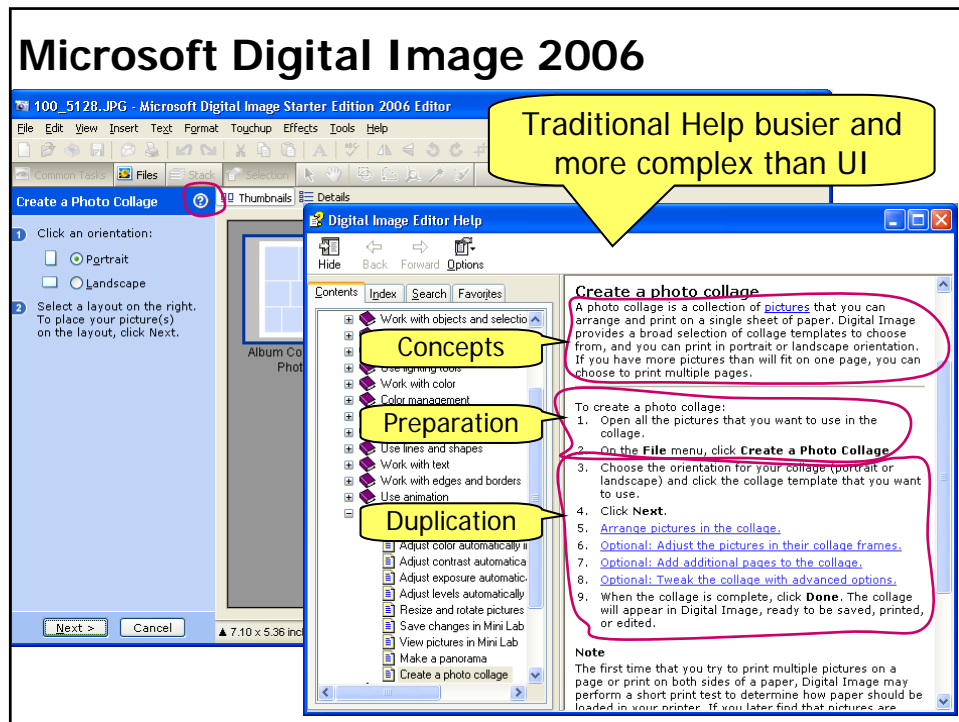
Procedural information

- "How to..."
- Often the core of a traditional Help system
- Provides a sequential layer on top of essentially non-sequential UIs
- Separate step-by-step Help is redundant for inductive UI
- Risk of procedural Help being less intuitive and more complex than the UI itself!

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Designing Embedded User Assistance for an Inductive UI



So what kind of user assistance is appropriate for an inductive UI?

- Any answers to frequently asked questions
 - Discover these by testing wireframes of application
- Answers to:
 - "What if...?"
 - "How do I solve the problem of...?"
 - "Why would I...?"
 - "Tell me more about..."
 - "Why can't I...?"
 - "What are the restrictions on...?"
 - "What does ... mean?"

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Embedded Help components

- Static snippets of user assistance throughout the UI
- Dedicated user assistance pane
- Links to pop-up user assistance
- Links to Help window

Notes:

- All the above need to be designed in from the start
- A user assistance specialist must be involved in the UI design/creation process

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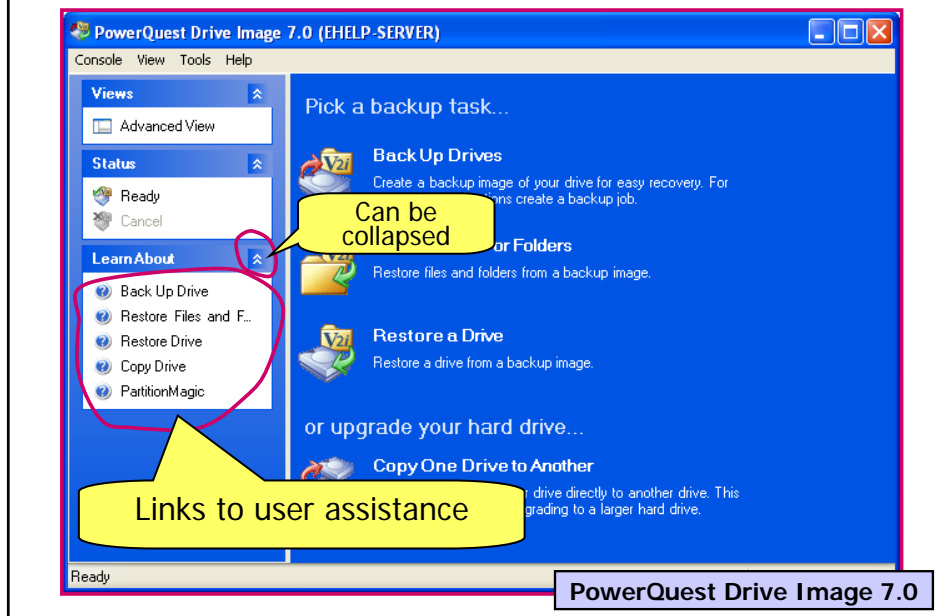
Dedicated user assistance pane

- Useful for providing screen overviews and related concepts
- Takes up valuable screen real estate, therefore benefits need to be compelling
- Ideally optional (user can switch it off)
- May contain:
 - User assistance
 - Links to user assistance
 - Mixture of both
- Vertical or horizontal orientation (fight for left or top position)

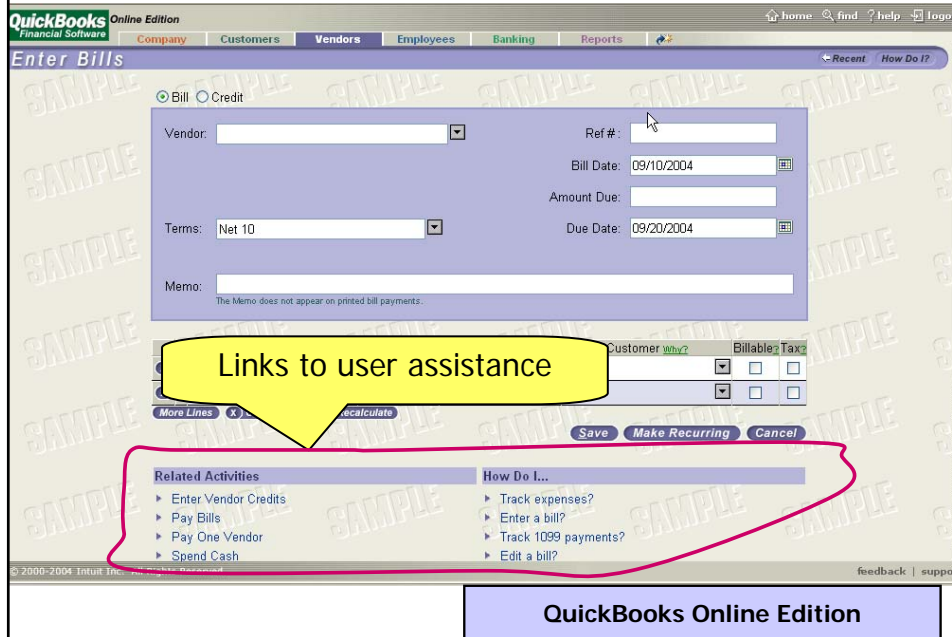
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Vertical user assistance pane



Horizontal user assistance pane



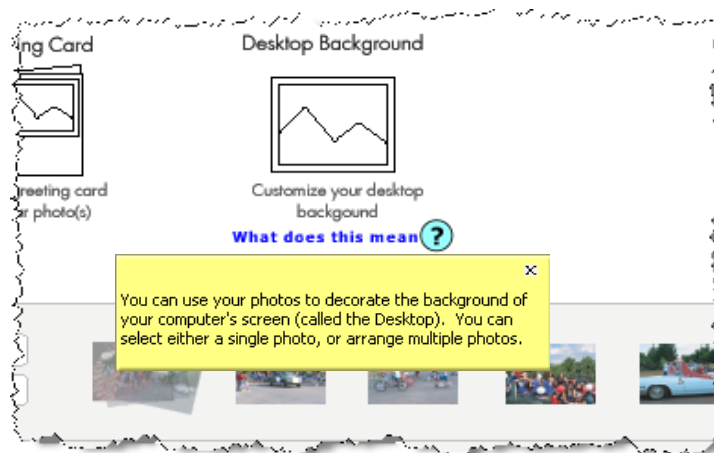
Pop-up user assistance

- Useful for:
 - defining terms
 - explaining concepts
 - describing controls
- Pop-up topic may contain a link to a separate Help window for more detailed information

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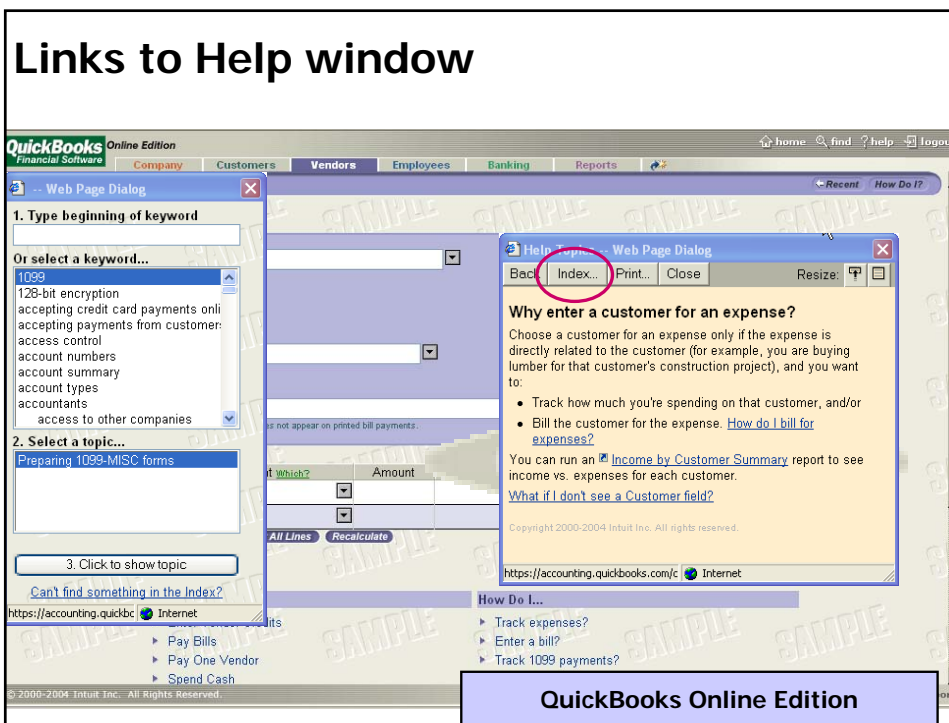
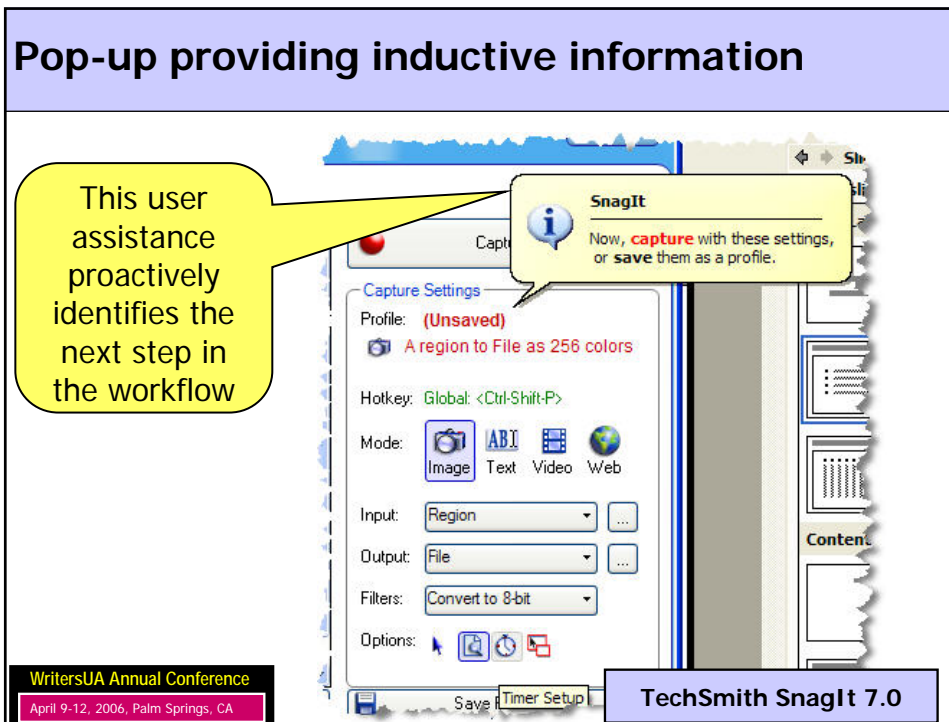
Pop-up providing conceptual information

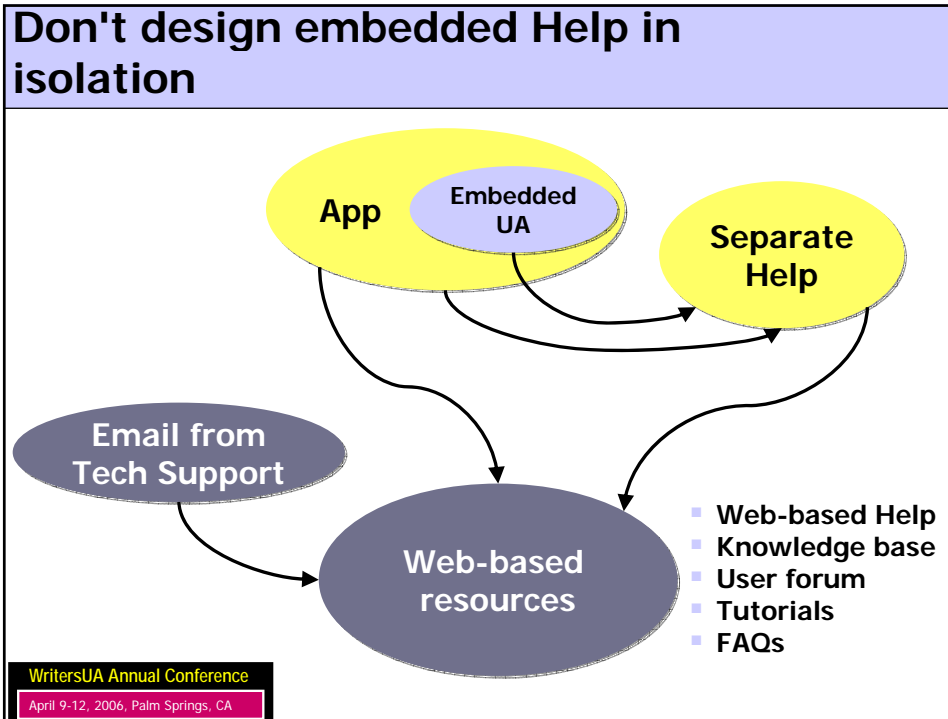


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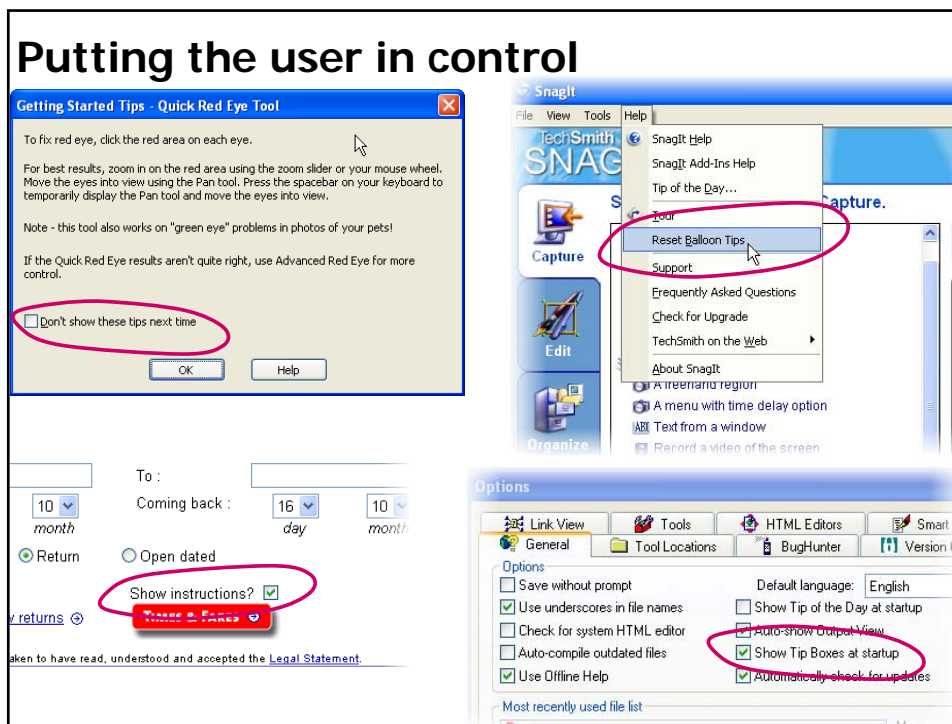
Catering for mixed audiences

- Enable users to choose whether or not they see the user assistance
 - Use hyperlinks to user assistance (in pop-ups or separate Help window)
 - Enable users to close or collapse the Help pane
 - Automatically hide user assistance after a specified level of experience
 - Enable users to express their preference for the level of user assistance

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Key tips and guidelines for designing Help for an inductive UI

- Answer users' real questions
- Reduce the amount of thinking required
- Provide definitions, examples, reasons, tips, shortcuts – where possible, within the UI itself
- Enable the discovery of new features
- Constantly consider the experience of new or infrequent users
- Provide access to a separate Help system as text hyperlinks
- If possible enable users to switch off or customize the embedded user assistance

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