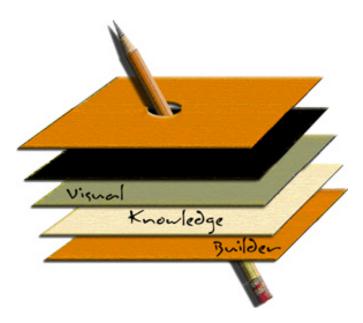
VISUAL KNOWLEDGE BUILDER

Version: 0.70

THE USER'S MANUAL



CENTER FOR THE STUDY OF DIGITAL LIBRARIES

TEXAS A&M UNIVERSITY

VISUAL KNOWLEDGE BUILDER

Version: 0.70

THE USER'S MANUAL

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Foreword

his manual is designed to offer users of differing computer knowledge a tutorial and reference to the Visual Knowledge Builder software. The Visual Knowledge Builder (VKB) uses an interface that is unfamiliar to most computer users. The diversity and "do it however you want" feel of VKB's organization style offers new possibilities to information collectors.

VKB promises to benefit researchers collecting information for analysis, analysts collecting data for information catalogs, students doing term papers, and anyone wanting to organize and save thoughts and ideas. Such a broad base software package requires an equally broad and applicable user's guide.

Conventions used in this manual follow this form:

Bold terms refer to menu items, section titles, or any other label within VKB. i.e. **File** menu, **Add Object** button, etc.

Italic terms refer to specific keystrokes or file names. i.e. *Ctrl-Z*, *filename.vkb*, etc. Numbered lists typically denote a step-by-step procedure for performing a task Graphic images are included to give users a visual correspondence of written features to how they will look in VKB.

This document is organized in the following way:

Chapter 1: About VKB

Describes what VKB is and the reason for its development.

Chapter 2: Installing VKB

Describes how to obtain and install VKB.

Chapter 3: Getting Started

Gives a walk through of some basic VKB features, starting with a new workspace and illustrating how to manipulate objects and collections.

Chapter 4: VKB Feature Definitions

Offers a reference of all VKB features and how to implement them.

It is recommended that:

- New users begin with Chapter 1 on page 1 & Chapter 2 starting on page 3,
- Novice users read Chapter 3 on page 7, and
- Intermediate and expert users reference Chapter 4 on page 15.

Chapter 1: About VKB

Developed to help researchers collect information, the Visual Knowledge Builder (VKB) is designed to benefit users from any level of expertise and to facilitate data collection of any form.

e live in a world of information. With the recent introduction of the World Wide Web, CD-ROMs, online information databases, and now DVD reference, masses of information are accessible with very little footwork. Because of all the available information, organizing the information that interests you is an ominous task. More systems are needed to facilitate large amounts of information, but such systems need to be natural to use, because we care about collecting and sorting information, not how the computer *expects* us to collect and sort information. The Visual Knowledge Builder is a step towards meeting this challenge.

The Visual Knowledge Builder (VKB) is a hypertext information collection system. This means that it allows you to collect and sort information in a very natural, visual environment. Hypertext systems come in two types:

- Reference systems, like Netscape, MS-Encarta, and most educational/reference applications
- > Malleable systems that allow visual manipulation of the data

Several features have been considered in the development of VKB:

System transparency -- When software requires more thought or work to <u>use</u> than the task being performed with the software, a user's thoughts are constrained by the capabilities of the system. The ideal system allows a user to do work without worrying about <u>how</u> the system organizes the data, and thus maintaining focus on the work/research.

Hypertext data collection – Graphical representation of data as objects to be organized allows users to manipulate their data in a realistic way (as opposed to abstract representation). Visual representation of data can increase system transparency, so as to expand a user's access to their information rather than constrain them. There are different classes of hypertext software ranging from Netscape Navigator and Microsoft Encarta to Microsoft Word with its "drag & drop" features. *Emergent structure* -- Software should not prematurely corral a researcher into an organizational style. In VKB, the user is allowed to collect information from many sources and break them into key ideas. Structure and organization can then emerge naturally as the user visually manipulates the arrangement of the information in accordance with their natural thought process. Software applications should not be built around preconceptions of how a typical user "should" use the system.

Synchronous collaboration -- Whether in a meeting room setting or in a virtual meeting, colleagues often need quick ways of organizing their research, goals, and duties. VKB assists in this by allowing graphical manipulability of information by multiple users to keep everyone "on the same page" in regard to what is being discussed. [Some of these features are still in development and will be downloadable upon completion.]

Asynchronous collaboration -- Many researchers work in distributed locations or on disjoint schedules. VKB provides a common data storage ground where users can open the "team workspace" and update it with their new ideas and information. Other users can then see the input done by other users without having to communicate with them in real-time.

Visual Knowledge Builder is a powerful research tool, but users have to release their preconceptions of how they have done research in the past and allow their <u>own</u> thought processes decide the stage of collection, structuring, organization, and writing.

Chapter 2: Installing VKB

Installing the Visual Knowledge Builder (VKB) from the Internet or from a software CD-ROM.

here are two methods of installing the Visual Knowledge Builder on your PC. VKB can be:

- Downloaded from the Center for the Study of Digital Libraries' web page (http://www.csdl.tamu.edu/~haowei/VKB/)
- Obtained on a CD-ROM.

What follow are the installation instructions for both methods.

Installation from the Internet

The Visual Knowledge Builder installation software is available through the Center for the Study of Digital Libraries web site. The software is free for download so everyone can try VKB's data collection features and offer feedback to the developers.

To install the Visual Knowledge Builder from the Internet:

- 1. Go to the **VKB Installation** page at: http://www.csdl.tamu.edu/~haowei/VKB/reg_download.html
- 2. Select the VKB Full Package option.
- 3. Fill in the user registration information.
- 4. Click Submit and Download.
- 5. Save the *vkb_download.zip* file to your hard drive.
- 6. Unzip the *vkb_download.zip* file to any empty directory.
- 7. Run Setup.exe.

Installation from a CD-ROM

If you acquired the Visual Knowledge Builder installation software on an installation CD, Internet access and download will not be necessary. However, all software updates and fixes are made available on the Internet (see *Getting Updates & Upgrades*)

To install the Visual Knowledge Builder from a CD-ROM:

- 1. Insert the VKB Installation CD in your CD-ROM Drive.
- 2. Open My Computer.
- 3. Open the **CD-ROM Drive** icon.
- 4. Run Setup.exe.

Getting Updates & Upgrades

The Visual Knowledge Builder is a "work in progress," so there will be continuous software updates for VKB software. All updates, upgrades, and fixes for the Visual Knowledge Builder are available on the Center for the Study of Digital Libraries web site.

Note

Close VKB before installing updates.

To download Visual Knowledge Builder updates and program fixes from the Internet:

- 1. Go to the **VKB Installation** page at: http://www.csdl.tamu.edu/~haowei/VKB/reg_download.html
- 2. Select the VKB Update/Fix option.
- 3. Fill in your user registration information.
- 4. Click Submit and Download.
- 5. Save the *vkb_download.zip* file to your hard drive.

- 6. Unzip the *vkb_download.zip* file to any empty directory.
- 7. From the Start menu, select Find Files or Folders....
- 8. Search for VKB.jar.
- 9. Select all instances of VKB.jar.
- 10. Click File, and select Open Containing Folder.
- 11. Copy the new VKB.jar file into these folders, replacing any existing VKB.jar file.

Chapter 3: Getting Started

The Visual Knowledge Builder's intuitive interface makes learning and using the system very easy.

he goal in developing the Visual Knowledge Builder is to allow users to input, organize, and access large amounts of information without having to commit to any particular convention of organization or structure. To achieve this, VKB offers a wide variety of adaptable features so that users can focus on projects and not on the limitations of the software. What follow are a brief walk-through of VKB's basic features and a quick reference of how basic operations are performed in VKB.

Walk Through

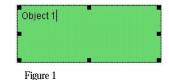
Creating VKB workspaces is easy and fast, so we can make use of our information without having to worry about how to formatting or organization.

Begin by starting VKB:

• Start menu → Programs → VKB

VKB is an object based data collection system, where pieces of text are stored in individual text boxes. These text boxes are called *objects*. Figure 1 offers an example of an object.

Try creating an object:



- 1. Click the **Create Object** button on the tool bar.
- 2. Click anywhere on the canvas to create the object.
- 3. Repeat this for as many objects as desired.



Objects containing related information can be stored together in a *collection*, as in Figure 2. Collections can contain objects and other collections.

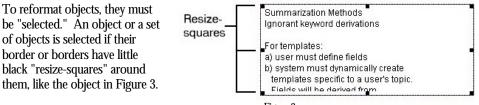
Collections are created in a similar way:

- Collection 2
- 1. Click the **Create Collection** button on the tool bar.

Figure 2

2. Click anywhere on the canvas to create the new collection.

To learn more about advanced object and collection creation options, see page 29.





To select objects and collections, either:

- Click on the border of the one object or collection to be selected.
- OR
- Left drag on the canvas to create a "box" around one or more objects and collections, like in Figure 4. All of the "boxed" objects and collections will be selected.

To learn about more advanced object selection options, see page 32.

Objects and collections can be reformatted by:

- Editing their texts
- Resizing them



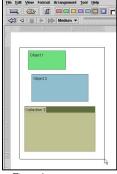


Figure 4

- Rearranging them to meet your needs
- Changing the colors of the objects and their texts
- Changing the size and color of their border

Editing the text in an object allows you to paste information from the Internet and edit information using the same basic editing features of a simple word-processor.

To edit an object's text:

- 1. Click in the text area of an object.
- 2. Edit the text directly.

There are many other editing features available. To read more about these, see page 36.

Collection titles can be edited too, providing headings for object groups.

Collection titles are edited by:

- 1. Clicking in the title bar of the collection.
- 2. Editing the collection name directly.

Try resizing your new object or collection:

- 1. Select the object or collection.
- 2. Left drag the resize-squares (see Figure 3) to resize the object or collection.

To read more about resizing objects and collections, see page 33.

Now change the color and border of objects and collections by:

- 1. Selecting the objects or collections to be edited.
- 2. Clicking on the different color squares on the **Tool Bar** (reference Figure 4) to change the background color.

- 3. Clicking on the different border-color buttons on the **Tool Bar** (reference Figure 5) to change the border color.
- 4. Clicking on the different border-widths buttons on the **Tool Bar** (reference Figure 5) to change the border width.

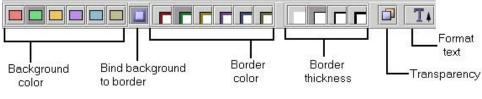


Figure 5

More information about color editing and object formatting can be found on page 41.

To move objects and collections around on a canvas, or in and out of collections:

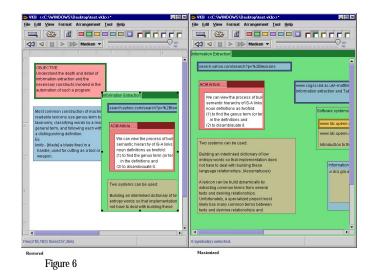
- 1. Select the objects or collections to be moved.
- 2. (Avoiding the resize-squares,) Left drag the border of any one object or collection to move the selected items.

More moving and rearranging options can be found on page 31.

VKB uses "nested" collections to allow a hierarchy of information. This means collections can contain any number of other collections. Moving collections and objects in and out of other collections has already been discussed. VKB allows users to "maximize" a collection to temporarily use its canvas as the primary editing area, like in Figure 6. Then all of the contents of a collection can be viewed.

To use the maximize feature:

- 1. Double-click on the title bar of a collection to maximize it.
- 2. Double-click on the title bar of a maximized collection to "restore" it.



Finally, navigation within any canvas is made really easy in VKB. Canvases can slid around naturally to view any area within them.

To shift the view of a canvas:

- 1. "Grab" the canvas by right dragging on an open region of the canvas (see Figure 7).
- 2. Move the cursor to shift the view of the canvas.

VKB < <c:\windows\desktop\test.vkb>>* File Edit View Format Arrangement Tool Image: Im</c:\windows\desktop\test.vkb>	
Information Editaction Search.yahoo.com/search?p=%2Dlexicons	
ACM Article We can view the process of buil semantic hierarchy of IS-8 links noun definitions as worbid: (1) to find the genus term (or ter in the definitions and (2) to disambioutate it.	www.cogsci.ed.ac.uk/-me Information extraction and Software syste
Two systems can be used: Building an interlinked dictionary of low entropy words so that implementation does	Introduction
Pos(0,0) Size(483,372)	

Figure 7

Feature Quick Reference

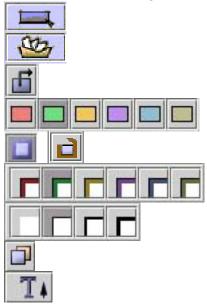
Running VKB:

- Start Run VKB
- Start Programs VKB

Opening, **Creating and Saving Files**

Create a new file	File	New
Open an existing file	File	Open
Save a file	File	Save
Save a file with a particular name	File	Save As
Print a file	File	Print
Export Hierarchy	File	Export Hierarchy
Close the application	File	Exit

Tool Bar & History Bar



Create Objects

Create Collections

Create Navigational Link

Select the Color of the Object/Collection

Attach/Detach the Color of the Object/Collection to the Border Select a Border Color for the Object/ Collection

Specify the thickness for the Border of the Object/Collection

Toggle Object/Collection Background from Transparent to Colored Change Text properties: Set Font, Text Color and Size





Playback of history events.

Time-Line Slider Control Bar for scrolling through the undo history. The Date and Time an event occurred.

Configuration Menu (Tool \rightarrow Configuration...)

Grid Specifies the spacing used with Snap to Grid **Paste Option** Define how Auto Paste works **Show Candidate Collection** Causes a collection's border to flash red if you are trying to move an object into it. The default location where VKB will look for **Data Directory** workspace files. Accessibility Tab Change how the mouse reacts when trying to grab or highlight objects Symbol Size Tab Define the default object and collection sizes. **External Viewer Tab** Specify the location of web browser.

Chapter 4: VKB Feature Definitions

A wide range of options and features makes the Visual Knowledge Builder very adaptable for different users and different applications.

isual Knowledge Builder includes a vast number of features that allow the user to seamlessly portray ideas and information structure in visual form. Many of these features and functions have already been introduced. There are many advanced features yet to be discussed. What follows is a description of each function and feature available within VKB. The functions fall under:

- File Issues
- Navigating in VKB
- VKB Objects & Collections
- Formatting Objects
- Miscellaneous Menus & Features

File Issues

This section covers all interactions VKB might have with files, from saving and opening workspaces to importing and exporting collections from other workspaces. The file menu can be seen in Figure 8.



New Workspace

Figure 8

Creating a new workspace creates a new file with a blank canvas to use for data collection.

To create a new VKB workspace:

- 1. Click the **File** menu.
- 2. Click **New**.

Open a Workspace

Opening a workspace from a previous VKB session for further editing or review.

To open a VKB workspace:

- 1. Click **File** on the menu bar.
- 2. Click **Open**.
- 3. Choose file location and name.
- 4. Click **Open**.

Save As ...

Used for saving a VKB workspace for the first time, or when saving an old workspace with a new name or location.

To save a new VKB workspace:

- 1. Click **File** on the menu bar.
- 2. Click Save As ...
- 3. Choose location.
- 4. Choose file name.
- 5. Click Save.

The file name will appear on the title bar.

An asterisk (*) on the title bar denotes whether a file has been saved or not.

Save a Workspace

Save is used once a file has already been saved. This updates any changes made since the last Save.

To save an old VKB workspace:

- 1. Click **File** on the menu bar.
- 2. Click Save.

An asterisk (*) on the title bar denotes whether a file has been saved or not.

Set Default File Location

VKB will automatically look in the VKB file directory for VKB files. The default location can be changed to the user's preference to store VKB workspaces.

To change the default file location:

- 1. Click **Tool** on the menu bar.
- 2. Click Configuration ...
- 3. Under the **Preference** tab in the **Data Directory** section, adjust the preferred workspace storage location.
- 4. Click **OK** or **Save**.

Export Workspace Hierarchy

Export Hierarchy automatically creates an "outline" format file from a VKB workspace. The Export Hierarchy Window is illustrated in Figure 9.

This allows a user to:

• View or transport a workspace in Text, HTML, or XML format.



- Summarize a workspace by limiting output to a certain number of lines per object and number of characters per line.
- Determine ordering of objects automatically or strictly Z-ordering (based only on collection hierarchies).

To export a workspace hierarchy:

- 1. Click **File** on the menu bar.
- 2. Click Export Hierarchy ...
- 3. Choose export settings and file name.
- 4. Click OK.

Export VKB Collection

Used to export a collection of objects to a "VKB collection exchange file" (*.vxf* file). This collection can then be imported into a different workspace or elsewhere in the same workspace.

To export a VKB collection:

1. Right click on the border of a collection. (A menu will appear, as in Figure 10.)

Figure 10

- 2. Click **Export Collection to ...**
- 3. Choose name and location for the *.vxf* file.
- 4. Click Save.

Import VKB Collection

Used for importing a VKB workspace into the current workspace. This feature allows a user to merge multiple VKB workspaces under one file name.

To import a VKB collection exchange file or VKB workspace:

1. Right click on the border of a collection. (A menu will appear, as in Figure 11.)

We can view semantic hie noun definitio (1) to find the in the defin (2) to disamb	Maximize/Restore Content/Attribute Editor
	Scroll Bars Set As Default Collection Size
	Send to Back Bring to Center
	Import Collection from
	Export Collection to
	Return to The State When 🔶
	Shrink Canvas

Figure 11

2. Click Import Collection from ...

- 3. Choose the name and location of the *.vxf* or *.vkb* file.
- 4. Click Open.

Using File Links

The Internet and the local computer files can both be accessed and executed by VKB. This is done through file links and URL links.

To create a URL Link:

- 1. Create a new text object.
- 2. For the first line of the text, type:

URL: "http://www.location.com/file"

where www.location.com/file is the Internet URL.

To create a FILE Link:

- 1. Create a new Text Object.
- 2. For the first line of the text, type:

FILE: "C:\My Documents\MyFile.ext"

where *C*:*My Documents**MyFile.ext* is the file to be opened or executed.

OR

1. Open the windows folder with the file to be linked to.

2. Drag & drop the file into the VKB work area. This will automatically create the link in a new text object, as in Figure 12.

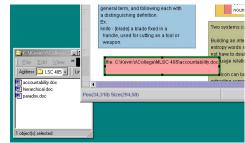


Figure 12

Note:

This can be ANY file type that has an association within Windows. This includes JPG, GIF, & BMP pictures, Word Documents, Executable programs (EXE, COM, BAT), etc.

To execute a URL or FILE link:

- 1. Double-click on the border of an object containing a FILE or URL link.
- 2. The file will automatically open or the site will automatically load.

To set the browser location:

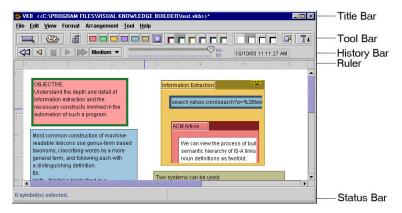
- 1. Click **Tool** on the menu bar.
- 2. Click Configuration ...
- 3. Under the **External Viewer** tab, set the **Browser Location**.
- 4. Click OK.

To start the default browser:

- 1. Click **Tool** on the menu bar.
- 2. Click Browser.

Navigating in VKB

The Visual Knowledge Builder offers numerous techniques for navigating through collections and sub-collections, as well as several status bars to offer information about the workspace being viewed. These methods have all been included to make navigation through workspaces very natural and intuitive. Throughout these definitions, Figure 13 will be referenced as a guide.





Title Bar

This is the Windows bar along the top of the VKB window. The title bar displays the file name of the workspace currently open.

An asterisk (*) appears on the title bar if the workspace has not been saved since the last change made.

Tool Bar

The Tool Bar offers buttons for object and collection creation and formatting. More information about these buttons can be found on page 41.

History

VKB stores every change made in the creation of a workspace, including text changes made in objects (See Figure 14).

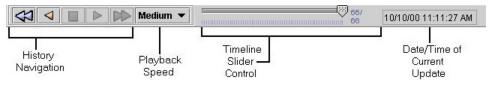


Figure 14

Any number of edits can be "undone" to revert to a previous state of the workspace. Furthermore, users can quickly review the previous states of the workspace. This way data isn't lost when exploring the evolving history of a workspace.

To turn the History bar on/off:

- 1. Click **View** on the menu bar.
- 2. Click Show History Control Bar.

To go back in the history:

• Click the Left-Arrow on the history bar

OR

• Drag the **Timeline Slider Control** to the left.

To play through the History:

- 1. Pick the **Playback Speed** on the history bar.
- 2. Click the **Forward** or **Backward** arrow on the history bar.

Past history events can be viewed also by the date and time they occurred. This means a user can review how a workspace looked after a past work session.

To revert to a past workspace state:

- 1. Double-click on the **Date & Time** 3/29/00 2:27:57 PM display on the **History Bar** to open the **Sessions** window (as in Figure 15).
- 2. Select the session date and time to be viewed.
- 3. << Loading of session yet to be implemented. >>

VKB separates sessions based on how far apart the events occur. By default, events separated by three hours are considered separate editing sessions. This time interval can be changed.

To configure the event gap for session separation:

- 1. Click **Tool** on the menu bar.
- 2. Click **Configuration** ...
- 3. Under the **History** tab, set the event gap size in hours.
- 4. Click on **OK**.

Ruler

The ruler helps orient a user within a canvas. A positioning slide appears on the ruler at the location of the mouse pointer to help align objects within a canvas.

To turn the ruler on or off:

- 1. Select the collection to be changed.
- 2. Click **View** on the menu bar.
- 3. Click **Show Ruler** to toggle the ruler setting.

Status Bar

The Status Bar displays information relating to the state of VKB. The different displays are explained below.

Mode: Shows what mode the cursor is in:

- *Select* Left clicking or Left dragging on the canvas has the effect of selecting, or highlighting, a set of objects.
- Add one Object Left clicking or Left dragging on the canvas will create one text object and then return the mode to Select.
- Add Objects Lets a user create any number of text objects on the canvas by Left clicking or Left dragging on the canvas.
- Add one Collection Left clicking or Left dragging on the canvas will create one collection object, then return the mode to Select.
- *Add Collections* Lets a user create any number of collection objects on the canvas by Left clicking or Left dragging on the canvas.

Position: Displays the current coordinate position of the mouse pointer.

- **Size:** Displays the size of the box created by Left dragging or the size of an object being resized.
- **Backup saved:** VKB automatically backs up the current workspace to prevent data loss in case of power outages or other computer disabling problems. The default backup file is _autosave.vkb.

Automatic resizing of a collection's canvas

When more space is needed for text objects and collections, VKB offers a convenient way of expanding the canvas. Autosizing of a collection allows continued work without being unobstructed by structural details. VKB also allows the automated shrinking of a canvas when a collection's bottom and right margins have become excessively large.

To auto-size a canvas:

- 1. Maximize the collection to be auto sized.
- 2. Click and drag the border of any object in that collection.
- 3. Move the object to the right or bottom edge of the collection.
- 4. The collection will automatically enlarge to compensate for the object's new position.

To shrink a canvas:

- 1. Right-click on the border of the collection to be shrunk
- 2. Click Shrink Canvas.

Canvas Navigation

There are two ways of navigating through a collection:

Scroll Bars:

These are the sliding bars on the right and bottom edges of a collection that will move up, down, left, and right through a collection just like in any windows application.

Scroll Bars appear automatically when a collection is maximized, but can be turned off.

To turn collection's scroll bars on / off:

- 1. Right click on the border of a (non-maximized) collection.
- 2. Click Scroll bars on/off.

Grab canvas:

The second method of navigating through collection is by "grabbing" the canvas and sliding it around like a sheet of paper.

To "Grab" the canvas:

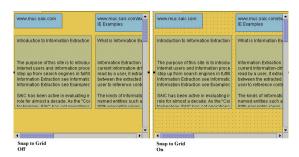
- 1. Position the cursor on the canvas to be repositioned (Not on an object).
- 2. Right drag to move the canvas around.

Snap To Grid

Snap to grid provides a grid to align objects.

This grid allows users verify the alignment/arrangement of objects and object sizes. (see Figure 15)

To turn Snap to grid on / off:



- 1. Click **View** on the menu bar.
- 2. Click Snap to grid.

The gridlines associated with **Snap to grid** can also be turned on or off. This allows the use of **Snap to grid** without the visual grid guides.

Figure 15

To show or hide the grid:

- 1. Click **View** on the menu bar.
- 2. Click **Show Grid.**

To adjust the size of the grid:

- 1. Click **Tool** on the menu bar.
- 2. Click **Configuration** ...
- 3. Under the **Preferences** tab, in the **Grid** section, adjust the grid size number.
- 4. Click OK.

Find

When trying to find certain words or phrases, the **Find** feature will find all occurrences of those words, list the locations of those words, and allow users to view, then navigate to the objects containing those words.

To search a workspace for certain words:

- 1. Click **Edit** on the menu bar.
- 2. Click **Find** ...
- 3. In the **Search** window (see Figure 16), under the **Search for** field, enter the word or phrase being searched for.
- 4. Choose where to search in the **Search in:** field.
- 5. Under **Mode**, choose whether to search:
 - a. For a whole phrase
 - b. For all the words, with AND
 - c. For some words, with OR.
- 6. Click **Search** to search the workspace.
- 7. The object found will be listed in the left window and their contents will be listed in the right window.
- 8. Click **Bring To Center** to navigate to a selected object's location.

Bring To Center

Frequently, an object located within one or two sub-collections can be seen but is difficult to edit or manipulate. That object can be "brought to the center" of the workspace, where VKB will automatically maximize the sub-collection containing that object and then navigate to that object within the canvas so that is as close to "centered" as possible. This is most useful when a workspace has many collections and many levels of sub-collections.

To bring an object to the center:

1. Select the object to be brought to center.

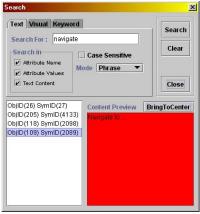


Figure 16

- 2. Right-click on that object's border to view the options menu.
- 3. Click Bring to Center.

Navigational Links

VKB offers internal hyperlinks between objects within a workspace. These navigational links are quick to create and remove, and offer yet another way to quickly navigate between sub-collections and objects.

To create a navigational link:

- 1. Select the object to link from.
- 2. Click the **Create Navigational Link** button on the tool bar (see Figure 17).



Figure 17

- 3. Navigate to the target object or collection.
- 4. Select the target object or collection (where to link to.)
- 5. Click the **Create Navigational Link** button on the tool bar to create link.

A link icon will appear on the source object's border, as in Figure 18.



Figure 18

To open a navigational link:

- 1. Move the cursor over the link icon on the border of a source object.
- 2. Click the link icon to navigate to the target object or collection.

To remove a navigational link:

- 1. Select an object containing a navigational link (the link icon is visible on the object's border).
- 2. Click **Edit** on the menu bar.
- 3. Click **Remove Link**.

VKB Objects & Collections

Objects and collections are the basis of VKB's structure. Objects store text either pasted in from the Internet or other source, or typed in manually. Collections are subspaces storing objects and other collections. Being able to quickly manipulate objects and collections allows users to easily represent their ideas in visual form. The multiple operations available for collections and objects are explained below.

Creating Objects

Text objects are created to store pieces of text.

To create one object:

1. Click the **Create Objects** button on the tool bar (see Figure 19).

 m
THE A

Figure 19

2. Either Click or Drag on the canvas to create an object.

To create <u>multiple</u> objects:

- 1. Click two times on the **Create Objects** button on the tool bar.
- 2. Either Click or Drag on the canvas to create an object.
- 3. Repeat for as many objects as desired.
- 4. Click the **Create Objects** button to return to select mode. (see Status Bar on page 23)

Create Collections

Collection objects can be created to store other collections and text objects.

To create <u>one</u> collection:

- 1. Click the **Create Collections** button on the tool bar (see Figure 19).
- 2. Either Click or Drag on the canvas to create a collection.

To create multiple collections:

- 1. Click two times on the **Create Collections** button on the tool bar.
- 2. Either Click or Drag on the canvas to create a collection.
- 3. Repeat for as many collections as needed.
- 4. Click the Create Collections button to return to select mode. (see Status Bar)

Duplicating Objects & Collections

A duplicate copy of an object or collection can be made using the **Duplicate** option.

To duplicate objects and collections:

- 1. Select the objects and collections to be duplicated.
- 2. Click **Edit**, then **Duplicate**.
- 3. Rearrange the duplicated objects and collections to where they are desired.

Deleting Objects & Collections

Undesired text objects and collections can be deleted.

To delete objects:

- 1. Select the object or objects to be deleted.
- 2. Press Ctrl-Del.

Note:

Maximized collections cannot be deleted.

Moving Objects & Collections

Objects and collections can be moved and rearranged to fit any data structuring needs.

To move or rearrange objects:

- 1. Select the object or objects to be moved.
- 2. Drag the border of the object or objects.
- 3. Release the objects in the desired location.

Note:

See **Advanced Arranging** for more methods for moving and arranging objects and collections.

Show Candidate Collection

When moving a set of objects in or out of a sub-collection, the candidate, or target, collection will be highlighted in red. The highlighting of the candidate collection helps clarify where the objects or collections will be moved.

To turn "Show Candidate Collection" on/off:

- 1. Click **Tool** on the menu bar
- 2. Click **Configuration** ...
- 3. Under the **Preferences** tab, click the **Show Candidate Collection** box to activate or deactivate.
- 4. Click OK.

Selecting Objects & Collections

Object and collection selection signifies which objects or collections a move operation, deletion, and other operation will be performed.

To select one object:

- 1. Click on the border of an object.
- 2. Resize-squares will appear on the edge of the object.

To select one or more objects:

- 1. Make sure the **Mode** on the status bar is set to **Select**.
- 2. Click and Drag a region on the canvas that covers the desired objects.
- 3. Those selected objects will have resize-squares on their borders.

To select related objects:

- 1. Click once on the border of an object to be selected.
- 2. Resize squares will appear on that object's border.
- 3. Click again on the same border, and objects of related size or color close to the original object will also be selected (particularly those stacked in a column).
- 4. Clicking again on the same border will add more related objects to the selected set (particularly horizontally arranged objects of similar properties).

Note:

"Clicking again" and Double-clicking are very different. "Clicking again" means waiting about 1 second between clicks so that two very distinct clicks are made.

To select all objects in a collection:

- 1. Click **Edit** on the menu bar.
- 2. Click Select All.

Resizing Objects & Collections

Objects and collections are resizable to whatever size or shape desired.

Resize-

squares

Figure 20

To resize an object:

- 1. Click on the object to be resized.
- 2. Resize-squares will appear on the edge of the object (see Figure 20).
- Drag a resize-square to resize the object.

To resize an object without using the mouse:

- 1. Verify that an object is selected for editing.
- 2. Hold down *Alt* -*<arrow>* keys to resize the object.
- 3. Release Alt when done resizing.

Using Set Symbol Size ...

Set Symbol Size... allows the quick resizing of several objects or collections at once. Objects of the same size are often more visually appealing and easier to organize. When using **Set Symbol Size...**, a user can either manually set the dimensions of selected objects, or can use an object as a base size by which to resize other objects.

To resize several objects or collections:

arget Size Width 230	Height	80
Get Base Size	🖲 🖲 TopLeft	🔿 Default
lake Change On— () Width Only	Both C	Height Only

Summarization Methods

 a) user must define fields
 b) system must dynamically create templates specific to a user's topic. Fields will be derived from

For templates:

Ignorant keyword derivations

Figure 21

- 1. Click **Format** on the menu bar
- 2. Click Set Symbol Size... to open the Set Size window (see Figure 21).

- 3. Set the Target Size as follows:
 - Manually set the Width and Height values in the Set Size window.

OR

- a. Click on an object or collection to use its dimensions as a base size.
- b. Click Get Base Size to load the selected object's size into the Target Size.
- 4. Select the objects or collections to be resized.
- 5. Select whether to change:
 - Width Only
 - Height Only
 - Both
- 6. Click Set to resize the selected objects or collections.
- 7. When done resizing objects, click **Close** to close the **Set Size** window.

Set Default Object & Collection Sizes

The default object & collection sizes can be reset so that all text objects are created as the same size.

To set the default object or collection size:

- 1. Right-click on the border of the model-object or model-collection.
- 2. Click Set As Default Object Size.

To manually set default size of collections and text objects:

- 1. Click **Tool** on the menu bar.
- 2. Click Configuration ... (see Configuration Menu on page 14).
- 3. Under the **Symbol Size** tab, adjust the default symbol sizes.
- 4. Click OK.

Auto Paste

When collecting data from the Internet, or some other text source, VKB offers a quick way of adding that text to a new object.

To use Auto Paste:

- 1. Highlight a piece of text.
- 2. Copy the text to the "clipboard" (*Ctrl-Ins* or *Ctrl-C*)
- 3. Click the **Create Object** button on the tool bar.
- 4. Click on the canvas to create the new object.

The copied text will be **automatically** pasted in the new text object.

To adjust the Auto Paste settings:

- 1. Click **Tool** on the tool bar.
- 2. Click **Configuration** ... (See Configuration Menu on page 14)
- 3. Under the **Preferences** tab, adjust the **Paste Options** to:
 - Never: Turns off Auto Paste.
 - **Once: Auto Pastes** the new contents of the clipboard only one time for a new text object.
 - Always: Auto Pastes the contents of the clipboard for EVERY new text object.

Maximizing & Restoring Collections

Collections can be maximized to fill the whole visible canvas area. This allows better viewing of what is in a nested collection. For an illustration of maximization, see Figure 22.

To maximize a collection:

- 1. Double-click on the collection's border.
- 2. The collection will then maximize.

To restore a collection:

- 1. Double-click on the maximized collection's border.
- 2. The collection's size will then be restored.

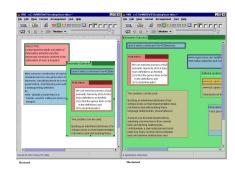


Figure 22

Naming Collections

Collections have a title used to identify its contents, as in Figure 23.

Collection Title	SAIC IE page		
	www.muc.saic.com	www.muc.sait IE Examples	
	Introduction to Information Extraction	What is Inform	



To rename a Collection:

- 1. Click on the collection title (a text cursor will appear).
- 2. Type the new collection name.

Editing Text in Objects

Adding, editing, or deleting the text in an object is quick and easy. VKB uses the same text editing and Cut, Copy, & Paste methods as most word processors.

To edit text in an object:

- 1. Left click in the object to be edited.
- 2. Edit the text.

Explode

Explode is a data management function that will automatically fragment a text into a cluster of objects.

A large piece of text pasted in from the web or some other source can be unmanageable, so VKB will create a new text object for each paragraph in a text object. Through this, **ideas** can be dealt with instead of just **text**.

To Explode an object:

- 1. Select an object to explode.
- 2. Right click on the object's border.
- 3. In the popup menu, click **Explode**.

A new text object will be created for each paragraph in the original object.

Create Next Symbol

Sometimes in creating multiple text objects, it is inconvenient to manually create new objects between thoughts.

For this reason, a quicker way exists.

To create a new object on the go:

(User must already be in a text object.)

- 1. Press Ctrl-Enter.
- 2. A new text object appears below the current one.

Auto Sizing

When taking notes or creating quick additions to small objects, turning on the Auto Sizing option for that object will cause VKB to automatically enlarge or shrink the object size based on the dimensions of the text contained in it.

To turn Auto Sizing on/off:

1. Select the object to be edited.

- 2. Right-click on the object's border to view the options menu.
- 3. Click Auto Sizing.

Fit Text Width

Fit Text Width is a quick and simple utility that readjusts an object's width to fit the width of the text contained in it. Fit Text Width is most useful when dealing with objects containing short notes, comments or titles.

To activate Fit Text Width:

- 1. Select the object to be edited.
- 2. Right-click on the object's border to view the options menu.
- 3. Click Fit Text Width.

Advanced Arranging

Beyond merely moving objects and objects around a canvas or between collections, VKB offers many other advanced methods of moving and arranging symbols within a canvas.

Align X:

A column of objects and collections can be aligned horizontally (relative to the top object) using the **Align X** function.

To use Align X:

- 1. Select a column of objects to be aligned horizontally
- 2. Click Arrangement on the menu bar.
- 3. Click Align X.
- 4. Choose align to the Left, Center, or Right (relative to the top object selected).

Align Y:

A row of objects and collections can be aligned vertically (relative to the left-most object) using the $\boldsymbol{Align}~\boldsymbol{Y}$ function.

To use Align Y:

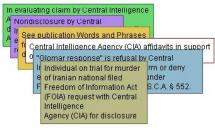
- 1. Select a row of objects to be aligned horizontally
- 2. Click **Arrangement** on the menu bar.
- 3. Click Align Y.
- 4. Choose align to the **Top**, **Middle**, or **Bottom** (relative to the left-most object selected).

Stack

Any selection of objects and collections can be consolidated into a cascaded stack, as illustrated in Figure 24.

To use Stack:

- 1. Select objects to be stacked.
- 2. Click **Arrangement** on the menu bar.





3. Click Stack.

Distribute Vertically

A selection of objects and collections can be evenly spaced vertically using **Distribute Vertically**. VKB distributes the selected objects between the top-most and bottommost selected objects. This needs to be considered when the selected objects are "stacked" or close together.

To use Distribute Vertically:

1. Select objects to be distributed.

- 2. Click Arrangement on the menu bar.
- 3. Click **Distribute Vertically.**

Distribute Horizontally

A selection of objects and collections can be evenly spaced horizontally using **Distribute Horizontally**. VKB distributes the selected objects between the left-most and rightmost selected objects. This needs to be considered when the selected objects are "stacked" or close together.

To use Distribute Horizontally:

- 1. Select objects to be distributed.
- 2. Click Arrangement on the menu bar.
- 3. Click **Distribute Horizontally.**

Send to Back

Sometimes an object or collection will cover or obstruct other objects or collections. **Send to Back** remedies this by moving a selected object behind all other objects within a canvas.

To use Send to Back:

- 1. Select an object or collection to be sent to the back of the canvas.
- 2. Click Arrangement on the menu bar.
- 3. Click Send to Back.

Formatting VKB Objects & Collections

Aside from size and hierarchical structure, VKB offers several other formatting options for objects and collections. Among these are text color, font, object background, border thickness, and border color. Next is a listing of advanced object and collection formatting options. Most of these options lie on the tool bar, illustrated in Figure 25.

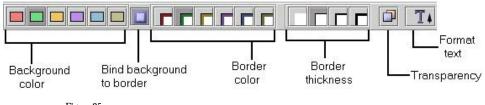


Figure 25

Background Color To change the background color of objects:

- 1. Select the objects or collections.
- 2. Click on the desired color on the tool bar.

OR

- 1. Select the objects or collections.
- 2. Click **Format** on the menu bar.
- 3. Click Edit Background Color ...
- 4. Pick the exact color desired from window.
- 5. Click OK.

Border Size

To edit the border size on an object:

- 1. Select the object or objects to be changed.
- 2. Click on the desired border width on the tool bar.

Border Color & Binding of Colors

By default, the background color and border color are bound together.

For example, choosing a Green background automatically chooses a Dark Green border for that color and vice versa. A Tan background chooses a Brown border.

To break or make binding of border to background colors:

- 1. Select the object or objects to bind or unbind.
- 2. Click the **Bind Background to Border** button on the tool bar.

To change the border color of objects:

- 1. Select the object or objects.
- 2. Click on the desired border color on the tool bar.

OR

- 1. Select the object or objects.
- 2. Click **Format** on the menu bar.
- 3. Click Edit Border Color ...
- 4. Pick the exact color desired from the window.
- 5. Click OK.

Transparent Objects

For formatting reasons, a text object or collection can be made transparent to its parent collection. This frequently used to make notations between objects.

To make objects transparent:

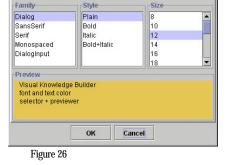
- 1. Select the objects or collections to be affected.
- 2. Click the **Transparency** button on the tool bar.

Formatting Text

The text in text objects and collection names can be formatted as a whole to bring emphasis or meaning to certain objects.

To format the text of objects:

- 1. Select the object or objects to be formatted.
- 2. Click the **Format Text** button on the



black 🗢 Editing : Symbol ID (498...

×

Font/TextColor Selection

Font Color :

tool bar.

- 3. In the **Font/Text Color Selection** window (see Figure 26), the format the following:
 - a. Text color
 - b. Text font
 - c. Text font size
 - d. Bold and/or Italics
- 4. Click OK.

To format the default font/text color of objects:

- 1. Make sure <u>no</u> objects or collections are selected.
- 2. Click the **Format Text** button on the tool bar.



3. Answer **Yes** in the **Editing default font**

and text color box (see Figure 27).

- 4. In the **Font/Text Color Selection** window (see Figure 26), format the following:
 - a. Text color
 - b. Text font
 - c. Text font size
 - d. Bold and/or Italics
- 5. Click OK.

Symbol View

An object can be viewed in several different formats. These formats are:

- **Full text**: Displays all the contents of the text object.
- **Summary**: Creates and displays a summary of the contained text.
- **Keywords**: Creates and displays a keyword summary of the contained text.
- **Image**: Displays a graphical image if the object contains a FILE: link attribute to a valid image file.
- **Thumbnail**: Displays a scaled image thumbnail if the object contains a FILE: link attribute to a valid image file.

To change an object's view:

- 1. Click **View** on the tool bar.
- 2. Click **Switch View on selected symbols to,** and then select the preferred view.
- OR
- 1. Right-click on a selected object's border.
- 2. Click **Switch View to,** and then select the preferred view.

Changing Background & Border Pallet

The color pallet on the Tool Bar can be changed to reflect the colors used most frequently.

To edit the Tool Bar pallet:

- 1. Choose the object or objects to be changed.
- 2. Click **Tool** on the menu bar.
- 3. Click Edit Pallet Background Color ... or Edit Pallet Border Color ...
- 4. Choose the new color.
- 5. Click OK.

Miscellaneous Menus & Features

In addition to the previously mentioned methods and features, VKB has other minor features, including a limited help file and accessibility option. These options will be concluded here.

Adjust Canvas Size

To manually adjust the canvas size of a collection:

- 1. Select the collection to adjust.
- 2. Click **Symbol** on the tool bar.
- 3. Click Collection Canvas Size.
- 4. In the **Set Canvas Size** window, adjust the height and width of the collection canvas.
- 5. Click OK.

Accessibility

VKB allows the border size and sensitivity of the mouse to be adjusted for easier use in touch-screen presentation settings, or simply to facilitate easier use.

To adjust accessibility options:

- 1. Click **Tool** on the tool bar.
- 2. Click Configuration ...
- 3. Under the Accessibility tab, adjust:
 - *Default "clickable" border size* make grabbing symbols easier.
 - *Default click radius* compensates for slight movement of the mouse when double-clicking. Without some adjustment, a double-click could be interpreted as two distinct clicks of the mouse because of any inadvertent movement of the mouse between clicks.

Help Menu System Information:

Lists the VKB system information, including version, user information, etc.

Feed Back / Bug Report ...:

Opens an email script in the default Internet browser so that bugs and suggestions can be forwarded to the VKB developers.

Update / Download ...:

Opens the VKB Download page in the default Internet browser. The VKB Download page contains software updates, and documentation about updates.

Symbol Tree

VKB also allows a workspace to be viewed in a *tree* format based on the hierarchy of objects and the collections that contain them.

To view the workspace in symbol tree format:

- 1. Click **View** on the tool bar.
- 2. Click Symbol Tree ...
- 3. When done viewing the symbol tree, click Close.

Appendix A: Quick Key Summary

File Keys:

New	Ctrl-N
Open	Ctrl-O
Save	Ctrl-S

Utility Keys:

Ctrl-F
F5
Ctrl-H
Ctrl-R
Ctrl-G
Ctrl-Tab

Editing Keys:

Select All	Ctrl-A
<i>While an object is selected:</i> Delete Object or	Ctrl-Delete
Collection Create next symbol Resize a selected object	Ctrl-Enter Alt- <arrow></arrow>
Duplicate symbols	Alt-D
Cut text	Ctrl-X Shift-Del
Copy text	Ctrl-C Ctrl-Ins
Paste text	Ctrl-V Shift-Ins
Delete text Undo Redo	Del Ctrl-Z Ctrl+Shift-Z

Appendix B: Glossary

- **Auto Sizing** The feature where a collection's canvas size will automatically increase to satisfy need for more space.
- **Border** The graphical edge of a collection or object.
- Canvas The space in a collection used for objects and other collections.
- Collection Sub-window containing text objects and other collections.
- **Double-click** Quickly click and release the left mouse button twice. Used to maximize collections, activate links, or edit objects.
- **Duplicate** Create an identical copy of an object or collection, including contents.
- **Left click** Quickly press and release the left mouse button. Usually used to select objects or to relocate the cursor.
- Left drag Press and hold the left mouse button, move the cursor, then release the button.

Usually used to highlight objects or text, or to move objects around a canvas.

- Menu A list of options that appears when clicking the Menu Bar or right clicking.
- **Object** A graphical box containing text.
- **Resize-squares** Highlighted little black squares on the borders of selected objects and collections. *Used for resizing of objects and collections.*
- Right click Quickly press and release the right mouse button. Used open option menus.
- **Right drag** Press and hold the right mouse button, move the cursor, then release the button. *Used for grabbing and navigating through canvases.*
- **URL (Universal Remote Location)** Location address on the world wide used in VKB to create external links.
- Workspace One particular VKB file is considered a workspace.

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