Visual Knowledge Builder
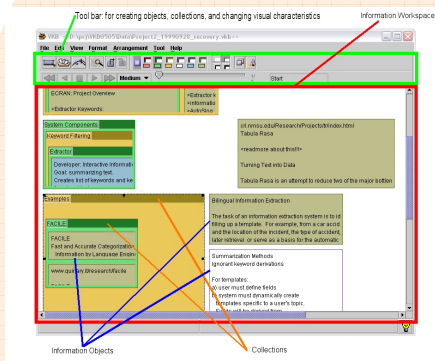
Information Workspace for Digital Library Patrons and Providers

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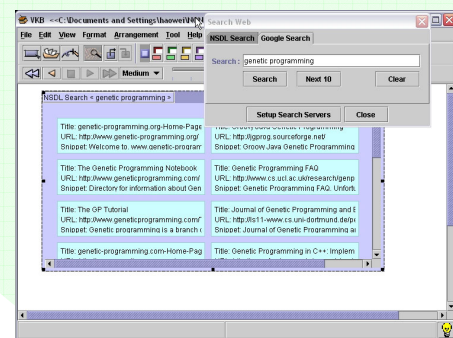Texas A & M University

Overview

Visual cues for symbols and collections: background color, border color, border width, font, font size, font style, font color, symbol height, and symbol width.
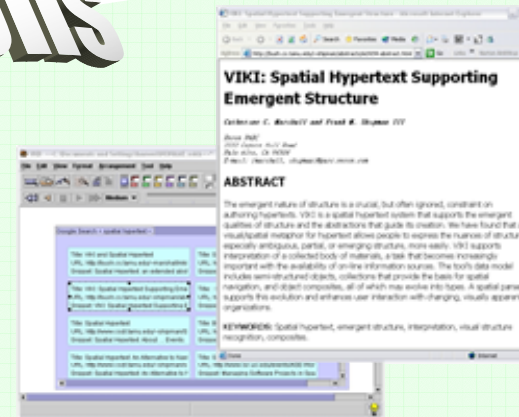
Spatial cues: proximity and groupings such as lists and stacks.
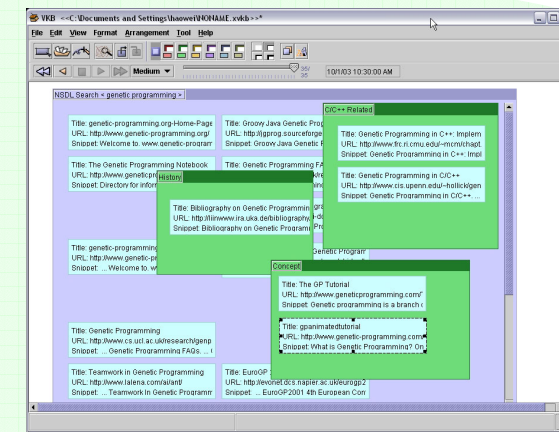
Spatial Hypertext

Spatial hypertext is a class of information workspace in which users collect source materials as information objects in a set of two-dimensional spaces and imply attributes of and relationships between the materials via visual and spatial cues. The ease of expressing evolving interpretations makes spatial hypertext well suited for tasks where the task and materials (or the user's understanding of these) change over time.

Patrons

The source material can be brought up in a browser simply by double-clicking on the resulting information objects.
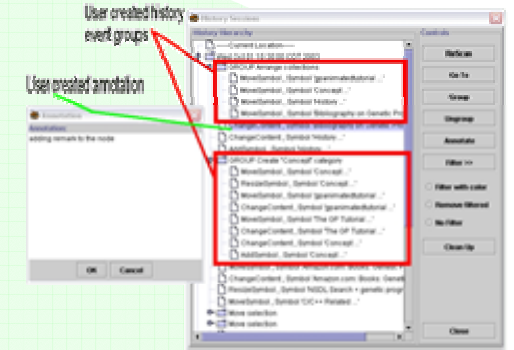
NSDL patrons can collect information in VKB with its built-in NSDL search function. Search results are presented as information objects in a new collection.

Information can be categorized and arranged into lists, stacks, clusters, or put into collections as desired.

All user edits in the workspace are preserved in the history. History events can be grouped, annotated, and filtered in a hierarchical tree view.
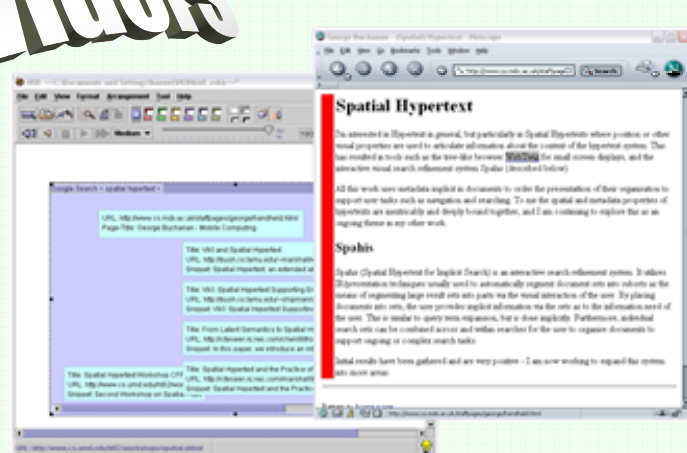
VKB is freely available. Go to http://www.csdl.tamu.edu/VKB/

Providers

New information can be obtained from Google search, or via drag-and-drop from web browsers and local file systems.

Information objects can be incrementally augmented with meta data.

Workspace can be saved in XML format, making information exchange with other application straightforward. The XML file shown above is viewed in Internet Explorer.
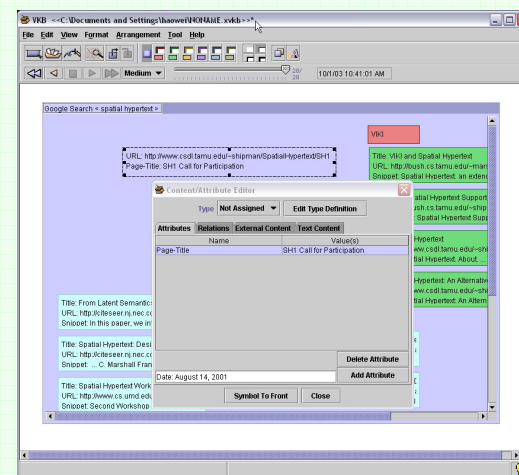
Research Threads

Meta-data creation is supported through a suggestion system. The workspace is analyzed and meta-data suggestions are presented to providers. Providers can accept, reject, or modify the suggestions.

History annotation, filtering, and editing provide a means for exploring how collections change over time. VKB maintains a persistent history of all events throughout the life of a collection. This allows users to review the evolution of the space over time. Filtering helps users to access a potentially large volume of history more easily. Users can also augment other user's understanding of the history through annotation and grouping of history events.
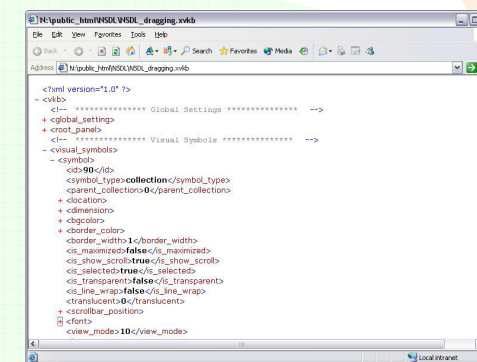
By expanding the means to create personal digital information spaces beyond textual modes into visual ones, this investigation promises to broaden the impact of NSDL.

NSDL
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