A TOOL FOR GRAPHICAL ORGANIZATION OF WEB BOOKMARKS

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ABSTRACT

The development of tools for the organization of large quantities of Web bookmarks is an increasingly challenging task since more and more Web information becomes available and has to be managed by Web users. When organizing Web bookmarks usually tools are applied provided by Web browsers like Netscape or Internet Explorer. The bookmarks are stored as a list or in a hierarchical structure. It is possible to create folders and subfolders; bookmarks are stored as (ordered) lists in folders. In this article a tool is presented for organization of bookmarks in a 2 dimensional plane. Bookmarks may be moved in this plane in order to be able to create a personal 'image' of a set of bookmarks that reflects relationships between bookmarks, e.g. groups and group distances.

1. INTRODUCTION

Different methods and systems have been presented in the literature for the organization of bookmarks. In (Li 1999) the *PowerBookmarks* system is presented, which supports query, classification and navigation functionalities on collections of bookmarks. In (Chakrabarti 2000) the browsing assistant *Memex* is presented, which exploits browsing history information in order to construct e.g. topic directories customized to communities.

In the presented bookmark management system, two properties are laid emphasis on: A first aspect is the strategy to arrange bookmarks. Usually bookmarks are organized in a hierarchical structure. We propose a different approach, the organization of bookmarks in a 2 dimensional plane, which is a first step to arranging information in a virtual landscape (similar to the Hyper-G project (Dalitz 1996)). A user may assign a bookmark a 'position' in the respective plane and thus arrange bookmarks according to his needs and his opinion of the information space. A second aspect that is laid emphasis on is the easiness of editing bookmarks. We believe that a main drawback of common bookmark organization features provided by most browsers is the uncomfortable editing of bookmarks. Presentation and editing of bookmarks should be possible in the same window.

2. DESCRIPTION OF THE BOOKMARK TOOL

The bookmark tool consists of a Web browser process and a Java applet, running on the client side, and the bookmark server that runs on a different computer, accessible by the client through the Internet.

At first, a new user has to provide the system with an identity string (login) and a password in a registration step. The identity string, which is provided by the applet whenever it communicates with the server, is necessary to identify a specific user in order to provide him with user specific information, usually his bookmark file. After registration of a new user, a default bookmark file is presented to the user and visualized
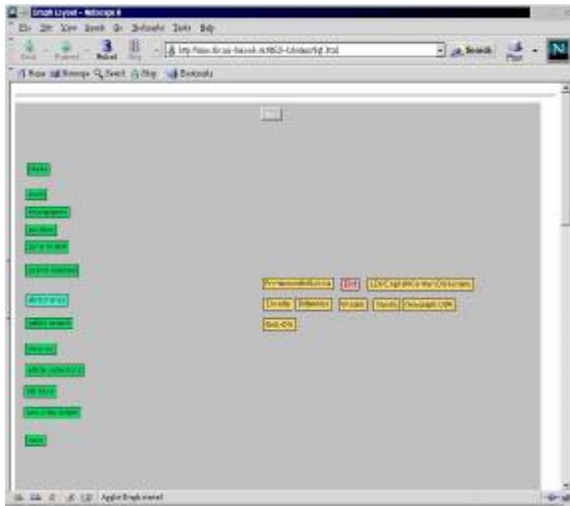
Figure 1 The applet window of the bookmark tool.

in an applet window. Bookmarks are represented by rectangles containing a name string in this window (see figure 1). They may be moved in the plane just by clicking on a respective rectangle with the left mouse button and by dragging it to a preferred location. A double click (on the left mouse button) loads the Web object (usually a HTML page) into a second browser frame window. Therefore a client has usually at least two browser windows, one window for the bookmark tool in order to organize bookmarks and at least a second window to present Web data. Activating the right mouse button creates a bookmark creation- or modification window the type of which depends on the position of the mouse pointer where the mouse button is pressed. If the right mouse button is activated over the rectangle of a bookmark, a window shows the bookmark data (name string and URL) that may be modified. Activation of the right mouse button over empty space makes it possible to create a new bookmark. The coordinates of the new bookmark are the coordinates where the mouse button was pressed. The name string of the new bookmark has to be provided by the user. The URL has to be inserted into a textfield. Usually it may be copied from the address field of another browser window, that is used for navigation in the Web. Bookmarks may be assigned to 'super-nodes', similar to directories in a directory tree structure. Super-nodes are created by activating a 'Super-Node' checkbox. In this case no URL string has to be provided. When the number of bookmarks assigned to a super-node reaches a certain degree, a user may organize bookmarks visually in order to find relevant bookmarks easily.

3. CONCLUSION

The article presents a very simple and intuitive tool for graphical organization of Web bookmarks. In contrast to similar systems, e.g. *Baboo* or *Backflip*, the tool provides more refined techniques to visualize sets of bookmarks. Bookmarks are not organized in a hierarchical structure like a list or a directory tree (as it is the case for the common IE or Netscape bookmark organization tools). The bookmarks, represented by rectangles containing a name string, are organized in a 2-dimensional 'virtual space'. Bookmarks may be moved in this plane and may thus be arranged visually. We believe that, assigning a virtual location to each bookmark, a user may remember locations of bookmark information easier than in a hierarchical structure and has thus a faster access to a large number of bookmarks. The visual arrangement in groups is one example how bookmark sets may be organized easily in a short time compared to conventional bookmark organization tools that require an assignment of a bookmark to a certain folder with copy and paste.

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