Teaching Tip

A Web Browsing Tool for a Shared Computer Environment

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ABSTRACT

This paper provides a Microsoft .NET framework application that makes browsing the Internet in a shared computer environment convenient and secure. One simply opens the program, then points and clicks to both open Internet Explorer and have it move directly to the selected address. Addresses do not need to be manually entered or copied and pasted into the browser. Addresses are secure as they brought to the shared computer on an external storage device.

Keywords: Web Browser, Multimedia Classroom, Internet Addresses, .NET framework, Xcopy Deployment

1. INTRODUCTION

Contemporary multimedia classrooms are equipped with a computer that has a high-speed Internet connection. A web browser such as Internet Explorer is a primary means of using the Internet in the classroom. The many parties that use the classroom will also use the browser. They enter addresses that are saved in the browser' history and perhaps add addresses to the favorites list. Several problems may result from this shared usage.

1.1 Entering Addresses
It is somewhat tedious and error-prone to manually enter lengthy addresses into the browser. One might bring addresses into the room on a personal storage device such as a memory stick. First the browser is opened. Then the address file is opened, perhaps in Notepad or Word. Then the desired address is copied from the file into the address bar.

1.2 Using Browser History or Favorites
If one has previously entered an address on the shared computer, it is possibly in the browser history and can be selected from this list. However, this list gets lengthy as different people share the computer and use the browser. Depending on settings, the address will eventually be deleted unless it is used periodically. Saving addresses as favorites is possible, but as different users do so the favorites list gets lengthy and harder to use.

1.3 Security
Addresses saved as Favorites or in browser history can be cleared or deleted, accidentally or on purpose. One might come to class expecting to use browser history or Favorites, only to find that the desired address is no longer stored in the browser.

2. USING WEBTOOL

This paper provides a software resource titled WebTool that mitigates the usage problems described above. One brings WebTool to the shared computer on a personal storage device such as a memory stick. The program is opened directly from the memory stick. It displays a list box of Internet addresses and a button. One selects an address and then clicks the button. The program opens a new instance of Internet Explorer that immediately accesses the selected address. Each address selected will open a new instance of Internet Explorer.

2.1 Advantages
WebTool is convenient and easy to use. One simply opens the program, then points and clicks to both open Internet Explorer and have it move directly to the selected address. Addresses do not need to be manually entered or copied and pasted into the browser. Addresses are secure as they are brought to the shared computer on an external storage device. Thus, other users cannot accidentally or purposely delete them.

2.2 .NET Framework Required
The only prerequisite for using WebTool as described on a shared computer is that this computer provides a version of Microsoft's .NET Framework environment. It is almost certain that this prerequisite will be satisfied on any computer that has Microsoft application software such as

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Office installed. The .NET Framework makes it possible to run a program such as WebTool directly from a personal storage device on demand. There is no need to have the program, WebTool in this case, previously authorized or installed by an administrative function on the shared computer. The .NET Framework handles the details of locating and loading the components an application needs. This is known as xcopy deployment. One simply copies files to a target machine and applications can be deployed without registry entries or dependencies.

To check for the existence of the .Net framework on the shared computer, open the Control panel and select Add or Remove programs. Check the list of installed programs for either Microsoft .Net Framework 1.1 or Microsoft .Net Framework 2.0. Two versions of WebTool are available for download. They are identical in function and appearance, but one operates in the NET 1.1 Framework, and the other in the NET 2.0 Framework.

2.3 Download of WebTool
I am the author of WebTool and have the authority to distribute it. Download one of the following ZIP files as appropriate or desired.
.NET Framework 1.1 download
http://mysite.verizon.net/vzeu0s9j/WebTool_1.zip
.NET Framework 2.0 download
http://mysite.verizon.net/vzeu0s9j/WebTool_2.zip

When unzipped (extracted), each download contains three files.
- WebTool.exe
- Interop.SHDocVw.dll
- Webtool.txt

WebTool.exe is the program that one opens to use the WebTool. Interop.SHDocVw.dll is a resource that is required by WebTool.exe. It should be kept in the same directory as WebTool.exe. Webtool.txt is also required and should also be kept in the same directory. This text file contains the addresses that are displayed by WebTool when it runs. Customizing this file is described in the next section.

3. CUSTOMIZING USAGE

You customize usage of WebTool by editing the text file webtext.txt. This file is read into the list box when the program initializes to provide the addresses available for selection. The initial file is as follows:

http://www.JISE.org
*** Category 1 ***
http://www.washingtonpost.com/wp-dyn/content/article/2005/11/21/AR2005112101787.html
http://www.rider.edu/suler/psycyber/psyav.html
*** Category 2 ***
http://www.microsoft.com

There are four addresses, separated by text markers (e.g., *** Category 1 ***). The list box displays the entries in the order that they appear in the text file. To add an address, simply place it into the list where you want it to appear. Use any text editor, such as Notepad. End the address line with a return to make each address a separate entry in the list box. The text markers are not addresses, but they illustrate how one can customize the file by including descriptive headers to separate addresses into useful groupings or to describe each address, as desired. Note that the first entry under category 1 is quite lengthy. It is convenient to have lengthy addresses available with a single click.

AUTHOR BIOGRAPHY

George H. Bodnar is an Associate Professor in the School of Business Administration of Duquesne University, Pittsburgh, PA. He earned his Ph.D. in 1975 from the Wharton School, University of Pennsylvania with an Accounting major and a minor in Operations Research. He authored a textbook **Accounting Information Systems** in 1980. It has been in continuous publication since then, and is now in a 9th Edition with Prentice Hall. He has integrated computer technology in his teaching efforts for several decades and has been programming in Microsoft Visual Basic for more than 10 years.

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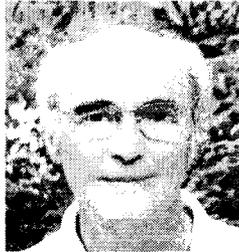
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