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A HIERARCHICAL TREE STRUCTURE FOR NATIONAL ARCHIVES OF MALAYSIA WEB SITE

MOHAMAD TAHA IJAB

Perpustakaan Universiti Malaya



A509089589

Faculty
Of
Computer Science and Information Technology

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HAMSIH BT. MOHAMAD ZAHARI
UNIT REPROGRAFI
PERPUSTAKAAN UTAMA
UNIVERSITI MALAYA

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**A HIERARCHICAL TREE STRUCTURE FOR
NATIONAL ARCHIVES OF MALAYSIA WEB SITE**

MOHAMAD TAHA IJAB

A dissertation submitted
in partial fulfillment of the requirements for the degree
of Master of Computer Science

**Faculty of
Computer Science and Information Technology**

UNIVERSITI MALAYA

June 1999

Declaration

I certify that this thesis submitted for the degree of Masters is the result of my own research, except where otherwise acknowledged, and that this thesis (or any part of the same) has not been submitted for higher degree to any other university or institution.

Signed: 

Mohamad Taha Ijab

Date: 12th August 1999

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Heartfelt Thanks,

Mohamad Taha Ijab
Faculty of Computer Science and Information Technology
Universiti Malaya
50609 Kuala Lumpur
MALAYSIA

ABSTRACT

This thesis studies and implements the content visualization for National Archives of Malaysia web site. This web site can be categorized into a content-rich type as it stores large number of documents on its site. The two major problems currently faced by Internet users are disorientation and cognitive overload. Prior to the implementation phase, the research is centered on information visualization, user interface design principles, and hierarchical tree structure. Several examples of visualization interfaces such as TileBars, WebTOC, and LifeLines are reviewed. Related concepts and tools used in this thesis are studied. They include Internet, World Wide Web (WWW), web browsers, Java, applets, and Java Virtual Machine (JVM). The development process of the new interface called CRIVE (**C**ontent-**R**ich Website **V**isualizer) is done using two Java integrated software environments: Symantec Visual Café and MS-Visual J++. Two applets are developed which are the TreeApp Navigator and the Control applet. The TreeApp Navigator applet is used for navigating the site's content and it is implemented as a hierarchical tree structure. Another applet called Control is written for controlling the way users view the site's contents. A new web site called CRIVE web site is created and uploaded onto an independent, free web hosting server available from Tripod.com. Another copy of the CRIVE web site is uploaded onto a MS-Internet Information Server (IIS) running on Windows NT machine. The usability testing is conducted with fourteen Internet users. They were asked to compare the CRIVE web site with the existing National Archives web site in terms of its usability and subjective satisfaction. From the findings, it is found that all subjects were satisfied with the new interface and responded affirmatively. This indicates that interface such as CRIVE is in demand by users, and is motivated for further research in the area.

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