Open Hypermedia

Object-Oriented Analysis and Design CSCI 6448 - Fall 1998 Kenneth M. Anderson

Open Hypermedia is...

- External relationship management
 - Anchors and Links stored separate from application content
- Support for hypermedia in all applications
 - Not just Web browsers, help systems, etc.
 - Which are typically monolithic or hardwired to work with only a specific set of applications

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Open Hypermedia Systems (OHSs)

- MicroCosm, MultiCosm, WebCosm
 - Southampton University
- Devise Hypermedia (DHM)
 - Århus University, Denmark
- Hyperform, HyperDISCO
 - Aalborg University Esbjerg

Open Hypermedia Systems

- SPx/HBx, HOSS
 - Texas A&M
- Sepia, Dolphin
 - GMD/IPSE in Darmstadt
- Sun Link Service
 - Sun Microsystems (First link server, 1989)
- And...

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Chimera & Chimera 2

- University of California, Irvine
 - Ken Anderson (me)
 - Richard N. Taylor (my advisor),
 - Jim Whitehead (WebDAV lead)
- Now at University of Colorado, Boulder
- Will be used as an example throughout this class

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Basic Idea Now Up·to·Date™ LICENSE AGREEMENT TMPORTANT - YOU SHOULD CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS OF THE ICENSE AGREEMENT TO DETERMINE WHETHER YOU AGREE TO BE BOUND BY ITS PROVISIONS. THIS SOFTWARE PROGRAM ("SOFTWARE") IS PROPRIETARY PRODUCT OF NOW SOFTWARE, EMOFRIETARY PRODUCT OF NOW SOFTWARE, ("NOW SOFTWARE") AND ITS SUPPLIERS AND IS PROTECTED BY COPPRIGHT LAWS, TRADE SECRET LANS AND INTERNATIONAL TREATY. SOFTWARE IS GOVERNED BY THIS LICENSE AGREEMENT AND APPLICABLE LAW INCLUDING Now Contact THIS AGREEMENT IS A LEGAL CONTRACT BETWEEN THE USER OF THIS SOFTWARE AND NOW SOFTWARE. AGREE TO BE BOUND BY THE TERMS OF THIS LICENSE AGREEMENT. The fastest and easiest way for yo and your associates to manage and share your Contacts. IF YOU DO NOT AGREE TO BE BOUND BY THE TERMS OF THIS LICENSE AGREEMENT, PROMPTLY RETURN THE COMPLETE SOFTWARE PACKAGE TO NOW SOFTWARE, OR THE PLACE WHERE YOU OBTAINED IT, FOR A FULL REFUND. Grant of License. Now Software grants you a non-exclusive license for the **CSCI 6448** Kenneth M. Anderson

Chimera OHS

- Open Hypermedia support for Software Engineering
- Applies multiple techniques to support heterogeneity
 - Information, processes, people, platforms
- Applies multiple integration techniques to provide services to wide range of clients

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- FrameMaker
- XEmacs
- Netscape
- JPEG and GIF Viewer
- MPEG Viewer (needs to be upgraded)
- Sound Player
- B-2 Bomber Flight Simulator (!)

Chimera APIs

- Application Program Interface
 - The services provided by Chimera
 - Chimera 1
 - · Ada, C, and Java
 - Chimera 2
 - · C and Java
 - In the future,
 - HTTP/XML, Ada, C++

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Chimera Concepts

- Viewers
 - Applications that display/edit information
- Objects
 - Information for a particular viewer
- Views
 - The representation of the object by the viewer to a user (user does not have to be human)

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Chimera Concepts, continued

- Anchors
 - A specific region of interest within a view
 - Note: views act as an anchor for the entire view
 - Can be view-independent (anchor appears in all views of an object)
- Links
 - Sets of anchors (& views)

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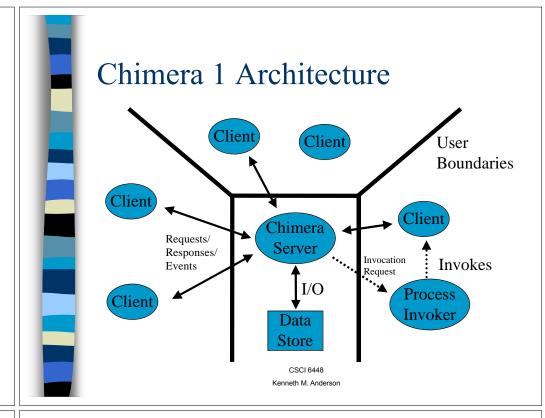


- Attribute-Value Pairs
 - All previous concepts can have attributes associated with them
- Hyperwebs
 - A set of Anchors and Links
 - Can contain hyperwebs
 - Inherit anchors / links from parents
 - Views, Objects, Views stored separate

Return to Chimera API

- API contains operations to manipulate concepts
 - i.e., Create_Viewer, Add_Anchor_To_Link
- It also contains operations to register interest in events as well as event handlers
 - i.e., Handle_Link_Traversal

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Chimera 2 Architecture **User Environments** Web Environments **WWW** HTML Client **CGIs Applet** Hyperweb **Applets** Manager Hyperwebs Client Web Hyperweb Browser Server Chimera **Applet** Client Server Server

