

Replied: Wed, 23 Jun 93 12:01:30 MDT  
Replied: "Michael D. Doyle" <Michael.Doyle> "  
Return-Path: Michael.Doyle  
Received: from [128.218.15.53] by library.ucsf.edu with SMTP id AA13864  
(5.67a8/IDA-1.5 for <David.Martin@mail.library.ucsf.edu>); Tue, 22 Jun  
1993 14:13:03 -0700  
X-Nupop-Charset: English  
Date: Tue, 22 Jun 1993 14:14:40 -0600 (CST)  
From: "Michael D. Doyle" <Michael.Doyle>  
Sender: Michael.Doyle  
Message-Id: <51281.doyle@mail.library.ucsf.edu>  
To: David.Martin  
Subject: RE: first cut

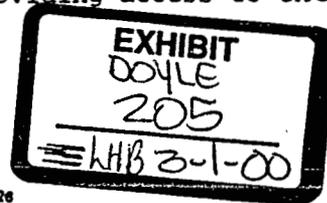
This is fine. Can you do a rough plan (Gantt chart) of when the various tasks would be done over a 3 yr period?

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In message Tue, 22 Jun 93 13:54:38 MDT, David.Martin (David C. Martin) writes:

>Knowledge Base and Knowledge Browser  
>  
>1. Semantic knowledge network reflecting anatomical structure hierarchy,  
>neural pathways, and neural function data. All knowledge-base  
>integration will be based on this semantic network.  
>  
>Utilizing the Unified Medical Language System (UMLS) to provide a basic  
>medical semantic network, extensions will be made for specific concepts  
>related to neuroanatomy as required, including neural pathways and  
>functions.  
>  
>Additional geographic information related to the physical properties  
>will be incorporated, providing linkage between the logical semantic  
>network and the physical corpus.  
>  
>Object-oriented/extended relational DB will be utilized to store said  
>information and a class hierarchy to support such information will be  
>implemented (i.e. semantic network captured in a persistent  
>object-oriented structure with additional object-oriented classes to  
>support geographical information related to semantic information).  
>  
>Collateral information (i.e. case files and collection-based  
literature)  
>will be organized into the same knowledge network, utilizing an  
>object-oriented structure to classify and categorize the information on  
>both semantic and physical indicies.  
>  
>2. RedSage implementation of case files and collection-based  
literature.  
>  
>Back-end, Z39.50 compliant, server providing support for the  
>searching, browsing and filing of information, including digitized  
>images of documents, full-text (in SGML if we can produce it  
>automatically), and catalog/index information allowing such text(s) to  
>be accessed via the knowledge network (i.e. classify information based  
>on the full-text and/or author, title, keyword, etc..)  
>  
>3. NCSA Mosaic-based knowledge navigator, providing access to the  
system  
>through the Internet via World-Wide-Web.

Plaintiffs' Trial  
Exhibit 178



Confidential - Subject to  
Protective Order  
Eolas v. Microsoft CV99-C0628

DM 000306

>  
>A World-Wide-Web (WWW) server, with support for Hierarchical Data  
Format  
>for the exchange of scientific data and the visualization of said data  
>via applications developed both at NCSA (e.g. Mosaic - the WWW browser  
-  
>and Collage - a cooperative work system) and at UCSF (e.g. VIS).  
>  
>Access to collateral literature and source data via a Z39.50 compliant  
>server, supporting indexing via the knowledge/semantic network and  
>browsing of same via WWW client (demonstrable via Chris McRae's work on  
>the current RedSage content).  
>  
>3. Real-time visualization of brain models using distributed  
>computational servers.  
>  
>Visualization of source data utilizing networked workstations and  
>supercomputers located at various sites (DEC Cambridge, NASA Ames,  
>Lockheed, NCSA). Ability to rotate, section and perform volumetric  
>rendering of source data. [I have asked Cheong to add something here].  
>  
>4. Tools to allow display of queries based on the 3D morphology  
>template.  
>  
>Develop client applications that communicate to knowledge, semantic  
>network, source data repositories and collateral literature databases  
>to assist user in selecting information pertinent to specific regions  
or  
>sections of neuroanatomical structure.  
>  
>Knowledge/semantic network assistance in the identification of search  
>terms for bibliographic queries (e.g. MEDLINE) and access to the  
>collateral literature. User indicating specific area of interest and  
>utilizing topological mapping against a reference brain, identify  
actual  
>components of brain and determine key words and concepts from semantic  
>network that correspond.  
>  
>Additional support for strict geographical queries, i.e. selection  
>region or section of brain and retrieving collateral information and/or  
>annotations specific to that specimen or some reference specimen.

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From David.Martin Wed Jun 23 08:44:47 1993  
Received: from brasil.library.ucsf.edu by library.ucsf.edu with SMTP id AA23883  
(5.67a8/IDA-1.5 for <doyle>); Wed, 23 Jun 1993 08:44:46 -0700  
Message-Id: <199306231544.AA23883@library.ucsf.edu>  
From: David.Martin (David C. Martin)  
Organization: UCSF Center for Knowledge Management  
Email: dcmartin@ckm.ucsf.edu or uunet!dcmartin  
Phone: 415/476-6111  
Fax: 415/476-4653  
To: doyle  
Precedence: special-delivery  
Subject: multimedia aspects  
Date: Wed, 23 Jun 93 08:41:32 MDT  
Sender: David.Martin

I should probably include some description of the multimedia aspects of Mosaic and the presumed interface we would provide; for example, combining the MPEG/JPEG viewing, output from VIS, output from RightPages, examples of the Hierarchical Data Format (HDF) from NCSA being utilized in Mosaic.

So.. the question: will you be reading email while in Chicago and would you like me to prepare some additional material.

Is yes, let me know what areas you want expanded, what additional items you would like included, what aspects of the system need to be more fully detailed.

dcm

**Plaintiffs' Trial  
Exhibit 325**