Max Planck Electronic Information Desk

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1. Introduction

The Max Planck Electronic Information Desk (MEID) is a new source of general information to the members of the Max Planck Institute for Psycholinguistics. Topics found on this system include scientific project descriptions, talk schedules, new books in the library and the complete guide of the technical group (TG) on technical facilities. It is implemented as a Hypertext system that is restricted to the computers inside the institute. We call this an Institute Wide Web (IWW).

It was recognized that currently information about many aspects of the work especially about computer usage in local and wide area networks is very dynamic. We are confronted with a continuous migration of some subparts which asks new skills and procedures. It was also recognized that in modern research institutions the desktop computer is more and more receiving the status of the central place where information is presented and generated. Therefore, we were convinced that we should start building MEID to be the principle source of all relevant internal information for all institute members.

One large part of MEID is the information about technical facilities, how to work with them, and about the service of the Technical Group (TG). This information was formerly provided by a book called the TG-Guide and regular update notes. The goals of the new system were:
- To provide more up-to date, consistent, and accurate information to users.
- To reduce TG time spent in frequently asked simple questions.
- To apply modern technology for new ways of transferring information to users in an attractive way as a step towards the ideal: The right information at the right spot at the right time.

2. Information structure in MEID

A critical condition for user-acceptance of the MEID is ease of navigation: the user must be able to locate the wanted information fast and without much effort. The editorial board for MEID therefore devised two structurally different access paths to the contents of the new service. Both access paths are accessible from the entry document of MEID.

The first access path reflects the structure of the TG. It presents a traditional, hierarchical view the users are familiar with. In this scheme, the user first sees a menu with links to general information on the TG and a menu of links to all subgroups of the TG (e.g. UNIX, Networking, Publishing and Presentations group). Each group has a document with links to documents on the facilities the group offers to the members of the institute.

The second scheme is topic-oriented. It is a hierarchy of menus taking the user from a general topic (e.g. electronic mail, word processing, Unix) to a specific topic (e.g. Pine mail programme, Word). Both hierarchies provide links to the same set of final Hypertext documents. While the hierarchical scheme tends to have more menus between the user and the information, the topic scheme is flatter, but consequently leads to longer menus.

3. Creation and maintenance aspects

It was understood at an early moment that information in MEID would be presented in a style very different from a traditional book. Therefore, for most information providers, writing documents for the MEID was a new experience. The writer must structure and write documents such that small pieces are meaningful on their own. Other writers can then cross-reference this information. The writer must ask which information might already be present elsewhere in the system, and provide references instead of repeating the information to avoid inconsistencies. Besides graphics, the writer can include sample commands and code fragments which the user can immediately try on the workstation using cut and paste. This can be a stimulant for users to use the MEID for "getting the hang of it" without extensive typing. Still, the document must be suitable to read from top to bottom.

Inaccurate and outdated data would mean the death of MEID. The individual authors are responsible for reviewing and updating their documents regularly. For this purpose they have write access to their own documents. The MEID editors have access to all documents. The editors check that no hypertext link points to a non-existent document exist. The author of a document receives mail if a faulty link was found. We recognized that a scheme of control has to be established to guarantee the quality.

Compared to the old system with book and updates, MEID has the big advantage that the user always finds a consistent and updated document. However, there is no inherent way to signal modifications. Therefore, the users still must periodically receive conveniently arranged information on changes and new functionality. Ideally, the MEID system would supply this. Authors should write a summary in addition to performing any non-trivial update, for inclusion in this latest-news page. This is not realized yet. It is still necessary to gather changes manually, edit them and distribute a newsletter manually.

Another important aspect, of course, is to provide a document with a consistent layout. Therefore, all authors received a guide with rules concerning MEID documents before they started to write. Authors could submit their documents MEID-ready in HTML or in plain ASCII. In the latter case, the editors converted the document. All documents were checked afterwards in this respect. An HTML editor was available and improved document correctness and speed of writing.

4. Hard and software

The information server is a HP 9000/735-125. The MEID documents are on a NFS mounted 2GB SCSI disk. Both server and disk are shared with other users. The server is connected to the institutes 10Mbit/s ethernet. The server software is the HTTP server from the National Center for Supercomputing Applications of the University of Illinois (NCSA), version 1.4. On

the client side, we use both Netscape Navigator version 1.2N on MS-Windows and Mac-OS, and NCSA Mosaic version 2.7b1 on HP-UX. The TG has written additional programs for dedicated tasks, such as monitoring print jobs and periodically checking the consistency of the hyperlinks in MEID. The contents of MEID are Hyper Text Markup Language (HTML) files and non HTML files referenced from the HTML files: pictures, postscript documents, sound files and movies. As of October 17th 1995 , these files take 6Mb.

5. Experiences

The MEID system became operative on May 24th, 1995. Up to October 17th, 9655 Hypertext documents have been served by the MEID system. In addition, 28500 pictures have been served. There have not been serious troubles with the server software or client software. Fast access to the information was critical to the success. Fortunately, LAN and server capacity have proven to be sufficient.

Many institute members are actively playing with the IWW. They find the information provided more up to date and presented more attractively than before. The pleasant presentation and readily available examples stimulates them to experiment more with new tools. The success of the electronic TG-Guide in MEID were such that the institute library and one of the research group have started their own branch inside the MEID system since its start in May. More participants are expected.

Writing the documents needed for a complete system, and continuously updating the system to document new services and reflect changes is much work. The largest problem for the users is still to find information efficiently.

6. Future plans

We must provide additional navigation tools for more efficient and effective access. It is vital that users can find the information they are looking for fast. An index of keywords together with a keyword search facility will be added. Also, we want to give the user continuous feedback on her position in MEID by means of a graphical display of the information tree. Ideally, the user would be able to click on nodes in the tree to address documents. The advent of a new generation of server and client software can help us reach these goals.

The Technical Group (TG) continues to work on improving the correctness, presentation and completeness of the information in MEID. The TG also thinks about the Integration of movies in MEID, since it is understood that certain installation procedures can best be explained by offering them with the help of dynamic presentation tools. The MPI has a large video archive that could be disclosed using the MEID.

Summarizing, we can state that, despite all shortcomings which still exist, MEID was an excellent initiative. However, one has to keep in mind that producing and maintaining such on-line documents is a time-consuming task and that the design has to be done carefully.