General Information

- Introduction
- Services
- Account Form
- Education
- E-mail Routing
- IP Address Form
- Networking
- Network Monitoring Task Force
- Printers (locations)
- Shared Equipment
- Vendors
- WWW Support

Platforms

- Desktop Computing
- UNIX
- VMS

Policy

- General
- Futures
- Security
- Web Policies

Physics Software

- CERNLIB
- FreeHEP
- Physics Tools

Organization

Divisions

- Director's Office (org chart)
- Business Services (org chart)
- Environment, Safety, & Health (org chart)
- PEP-II (org chart)
- Research (org chart)
- Stanford Synchrotron Radiation Laboratory (org chart)
- Technical Division (org chart)

Task Forces and Committees

- ADCC
- ILC-TRC

Groups, Departments, Programs

- Accelerator
- Accelerator Research A
- Accelerator Research B
- Controls
- Experimental Facilities
- Klystron
- Library
- Mechanical Design
- Plant Engineering
- Power Conversion
- Public Affairs
- SCS
- Technical Publications
- Technology Transfer
- Telecommunications
- Theoretical Physics
About the SLAC Home Page(s)

- About the New SLAC Home Page(s)
- About the previous Home Page(s)
- History of the SLAC Home Page
- How to suggest changes or additions to the SLAC Home Page

New to the SLAC Web (not yet categorized)

- CAP '98 conference

Moving Off the SLAC Home Pages

- "Useful Information Elsewhere"
- VM Migration
- SLAC X.500 White Pages
- slacannounce.important
- More USENET News
- Public Information (stays on SLAC Welcome)
  - Welcome
  - Media Info
  - Awards
  - Tours
  - WWW Conference.
- Accelerator Operations ("Yesterday" stays)
  - Today*
  - This Week*
  - This Year*

Moving Off the SLAC Home Page (continued)

- Recent E-Prints (search page stays)
  - Today
  - Yesterday
  - Last Seven Days
  - Week before That
- Conference Database ("This Week" stays)
  - This Month
  - Next Month
  - Next Summer
  - Next Year
- Bay Area Seminars Database ("This Week" stays)
  - Today
  - Tomorrow
  - All Future
  - More Seminars.
- Organization Charts
  - NLCTA
  - SCS
  - Technical Publications
- Anything else that we are considering removing

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Research Program

- Particle Physics Experiments
- Synchrotron Radiation (SSRL)
- Other Research
- Accelerator Research & Development
- Accelerator Operations
- Faculty
- User Information

Scientific Information

- Scientific Publications
- Newsletters and Periodicals
- HEP Databases
- Programs

Working at SLAC

- About SLAC
Administrative Information
Business Information Services (BIS)
Communications and Directories
Internal Databases
Internal Newsletters and Periodicals
Web Forms

Computing

General Information
Platforms
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Physics Software

Organization

Divisions
Task Forces and Committees
Groups, Departments, Programs

SLAC Home Page in Transition

About the SLAC Home Page(s)
New to the SLAC Web (not yet categorized)
Moving Off the SLAC Home Pages

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Particle Physics Experiments

- BaBar
- BES
- E143
- E144
- E154
- E155
- mQ
- SLD

Accelerator Research & Development

- NLC
- NLCTA
- PEP-II
- Polarized Photocathodes
- More Accelerator Research

Accelerator Operations

- Today's Program
- Yesterday's Report*
- PEP-II Program*

Synchrotron Radiation (SSRL)

- Accelerator Physics
- Research Highlights
- SPEAR Status

Other Research

- Particle Astrophysics (GLAST)
- Theoretical Physics
Faculty

- SLAC
- SSRL

User Information

- SLAC Users Organization
- SSRL Users Organization

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Scientific Information

Research Program ◆ Scientific Information ◆ Working at SLAC ◆ Computing ◆ Organization ◆ SLAC Home

Page in Transition

Scientific Publications

- BaBar/PEP-II
- BES
- SLD
- SLAC Pubs
- SLAC Reports

Newsletters and Periodicals

- Beam Line
- ICFA Instrumentation Bulletin

HEP Databases

- Bay-Area Seminars
- Conferences
- Current Preprints at SLAC
- E-mail addresses
- Experiments
- Institutions
- LANL E-prints
- SPIRES-HEP
- More (SPIRES) Databases

Programs

- Education
- Summer Institute

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New to SLAC? See Getting Started.
New to the SLAC Web? See Introduction to WWW.

Research Program

- Particle Physics Experiments
- Synchrotron Radiation (SSRL)
- Other Research
- Accelerator Research & Development
- Accelerator Operations
- Faculty
- User Information

Scientific Information

- Scientific Publications
- Newsletters and Periodicals
- HEP Databases
- Programs

Working at SLAC

- About SLAC

SLAC Home Page in Transition

- About the SLAC Home Page(s)
- New to the SLAC Web (not yet categorized)
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Accelerator Research & Development

- NLC
- NLCTA
- PEP-II
- Polarized Photocathodes
- More Accelerator Research

Accelerator Operations

- Today’s Program
- Yesterday’s Report*
- PEP-II Program*

Faculty

- SLAC
- SSRL

User Information

- SLAC Users Organization
- SSRL User Information

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Owner
Tom - Here's what I've come up with. If I had more time, I'm sure there'd be some iterations. When I talk about the SLAC Home Page, I mean in whichever format. Otherwise, I'm explicit.

1) The SLAC Home Page is a primarily a workplace for all SLAC workers that presents a reference compendium of information to those who spend most of their time being familiar with the layout and contents (that they use).

a) Secondarily, and only if it doesn't interfere with point 1, the SLAC Home Page should be used for passive education.

b) The SLAC Home Page is not for visitors, for those needing discursive introductory info.

Focusing on the rich, reference, workplace nature of the space can clarify content and style decisions.

2) There are problems with the taxonomy of the contents of the current production and draft SHPs. These should be resolved by careful thought, cheerful collaboration, and research.

3) The metalanguage needs to be carefully thought out and consistently implemented. One example is that titles should not be links, e.g., see the current production SHP. This is important to help people find what they need quickly, for the most part without reading, and get on to their target pages. The index column of links has potential but probably needs a bit more work.

4) As long as we don't have alternatives like the Smart SHP, we need to maintain the two formats of SHP to address the needs of those who prefer hierarchies and those who prefer unified, flat spaces.

5) SLAC needs to put some institutional might behind the design, implementation, and maintenance of the SHP. We need a common direction with commitment across the Lab to that direction. Right now there is too much pulling and pushing in contradictory directions, partly by people who don't work together regularly. We need to minimize political pressures on the design of the Web. This probably includes simplified support structures.

Speaking personally, I think we need to bring back elements of Information Elsewhere, perhaps for things like ESnet NMTF and ILC-TRC. Losing things like What's New and PACS are likely to hurt. But these, along with separating Computing and Communications, are part of the taxonomy issue.
Report of the Ad-Hoc Committee on the SLAC Home Page(s)

December 16, 1997

Introduction

The SLAC WWW Coordinating Committee established an ad-hoc committee in January 1997 to review the present SLAC Home Pages and recommend revisions if appropriate. The membership is Lisa Dunn, Kathryn Henniss, Tony Johnson, Ruth McDunn, Christine Quinn (Stanford), David Steele, Yolanda Wackerman, Joan Winters, and Tom Mattison (chair).

At present, SLAC has three "Home Pages": the Welcome page <http://www.slac.stanford.edu>, the Detailed page <http://www.slac.stanford.edu/detailed.html>, and the Highlighted page <http://www.slac.stanford.edu/highlighted.html>. The Welcome page is intended for the general public. The "working" pages are intended for SLAC's scientific community (on-site and off-site) and the SLAC staff.

The contents and arrangement of items on the working Home Pages are at present the joint responsibility of the page maintainer (Joan Winters of SCS) and the WWW Coordinating Committee (WWWCC) chaired by Pat Kreitz of Technical Information Services. The present policies are posted on the Web. The Welcome page is maintained by Kathryn Henniss of Technical Publications with its own advisory committee. Content of the SLAC Announcements page is approved by P. A. Moore of the Director's Office and the page is maintained by Kathryn Henniss.

The charge of the committee was to

1. Review the distinction between the Welcome page and the two working Home Pages,
2. Review the selection and organization of the information on the working pages,
3. Review the criteria for selecting links on the Highlighted page,
4. Review the ownership issues related to the working pages, and
5. Make recommendations for future home-page review committees.

This report and the accompanying prototype new Detailed and new Highlighted pages is submitted to the WWWCC for approval, and subsequent submission to the Associate Director's Committee on Computing, and the SLAC management.

Methodology

Survey

P.A. Moore of the Director's Office designed a survey to evaluate the working pages, which was circulated via email and on the Web at the top of the working Home Pages as a SLAC Announcement.

- Which home page do you use most often and why? (Choose one and comment.)
  - Detailed because...
  - Highlighted because...
  - Neither because...
  - Other because...
- What changes would you like to see on the home page you use?
  - For example, what can't you find?
  - Is there something mislabeled or located in a user-UNfriendly location?
- What link do you use frequently that you feel should have a different location?
- What is missing from the SLAC Detailed or Highlighted Home Page that you think should be present?
- Please add other comments which you think will help the Committee in its review of the SLAC Home
Pages.

There 72 replies to the survey, 63 by email and 9 by the Web form. However, the email replies often did not answer the questions very directly and were thus sometimes difficult to evaluate.

The Detailed home page was favored over the Highlighted page by about 2 to 1. Responders often strongly disliked the page that they did not use. Some found the Detailed page to be too long, dense, and difficult to read. Others liked being able to see everything on one page rather than searching up and down the hierarchy of sub-pages. There were more users of Other/Neither than of Highlighted, indicating that users are becoming more sophisticated about changing their default home page.

A frequent request was for faster access to the SLAC phone directory (in fact many responders have set that as their browser's default). There is already a phone directory graphical button at the top of the Home Pages, but many users were unaware of it. Users also wanted to just type in the name and hit carriage return rather than having to hit the submit button with the mouse.

The stores catalog, purchasing and requisitions databases were frequently mentioned as being important but hard to find.

**Committee discussions**

The ad-hoc Committee was constructed to be roughly representative of the SLAC community as well as the SLAC Web support community. We discussed the results of the Survey and our own opinions of the SLAC Web and how it might be managed and improved. On some of the issues in the charge we were able to reach a consensus quickly. The second part of the charge, regarding selection and organization of the information on the working Home Pages, took most of the time, and unanimity was of course not possible.

Much of the ad-hoc Committee's time was spent in the development and evaluation of prototype pages, both for selection and categorization of links, and for layout and usability issues. The focus was on the Detailed page, for the practical reason that it contains all the links in question, and also because the survey results showed that it is more frequently used. Most Committee members made several versions of the Detailed page with their own ideas on categorization and layout.

**Card Experiment**

At the WWW6 conference, some committee members learned about a method used by Jacob Nielsen to help revise the information categories for the Sun Microsystems internal web-site. Users are given a set of cards each containing one link from the page and are asked to group the cards and name the groups.

We did this card experiment with 10 subjects (many from within the committee). In addition to the information categorization aspect, we also asked the subjects to rank the importance of each link on a scale from 5 (vital) to 1 (don't need) or zero (don't know what it is). The detailed results are available on the Web.

The experiment largely validated the proposed categorization (which is rather similar to the existing categorization), although the subjects naturally chose a variety of different labels.

The ranking of links was interesting. The top 5 links were phone directory, Announcements, Search, Stanford, and WWW Support. Organizational Charts, Site Maps, Telephone Services, Windows NT, Administrative Handbook and Getting Started at SLAC were also highly ranked. Many of the physics experiments that are presently at the top of the working Home Pages were ranked very low. However, it should be noted that the instructions specified that the ranking should be by importance to the subjects' own job, not by perceived importance to SLAC as a laboratory, and that most subjects were from the Web development community rather than the scientific community. This may also contribute to the high rank of WWW Support.

**Findings**
Welcome Page vs Working Page(s)

We quickly reached concensus that the Welcome page vs. Working page(s) distinction was sound. We also concluded from the survey results that we could not justify elimination of either the Detailed working page or the Highlighted working page in favor of the other. While this is an extra burden on the page maintainer, the present maintainer (Winters) is a committee member and agrees that it is justified.

Page Layout and Technology

The links on the present Detailed page are done with text and very elementary HTML formatting. This has the advantage of fast loading, compatibility with very primitive browsers, and produces a usable layout even in small or oddly-shaped windows. The Committee agreed that while these are virtues for such a utilitarian page, the resulting long horizontal strings of links can be hard to scan by eye.

We note that nearly all users now have browsers that support tables. The "SLAC Announcements" box on the present page is implemented as a nested table and we are aware of no complaints from users about it. Tables allow a multi-column bullet-list format for the links on the Detailed page, which improves readability without greatly increasing the page length. With a bit of attention to the construction of the table HTML, this even works for browsers that do not support tables, and is usable in oddly-shaped windows. We have constructed and evaluated many prototype Detailed pages, and decided that two columns of links, with main category labels spanning the full page width, worked best.

The survey results indicated that the SLAC Phonebook is a very important use of the Web, and that users are not completely satisfied with the present arrangement. We propose adding a text-input box to allow last-name-only phonebook searches directly from the working Home Pages. Since it is a single box, a carriage return will start the search.

We did not feel that the present red button-bar arrangement is a particularly successful navigation feature. It uses a lot of screen space and bandwidth but is not very readable, and according to the survey is frequently not even recognized as being a navigation feature. A column of text links, or a row a text links separated by vertical lines or square brackets works better. We propose to navigate between the pages with a vertical text list in the upper right corner of each page.

We propose to change the list of top-level pages that are accessible from this column of text links and that should share a common style. We add the SLAC Announcements page as clearly being an important top-level page. We also add SPIRES as being among the most frequently-accessed SLAC web services, particularly from off-site. We drop the "What's New" page as not being of central importance. Of course we retain the Welcome and two working Home Pages and the Search page.

We propose to add a navigation feature to each sub-page below the Highlighted page in the form of text links to the other sub-pages. This allows users to jump from directly from sub-page to sub-page, rather than going back up to the main highlighted page, scrolling to the link to the next sub-page, and following it to the sub-page.

While frame-aware browsers are becoming common, we feel that frames are not a positive development in HTML and should be avoided for the SLAC Home Pages. Frames fragment the user's window and make it more difficult to design a page that is usable at an arbitrary window size. They also complicate bookmarking and printing. Nearly any positive feature of frames can be adequately simulated by careful design of non-frame pages.

While Javascript and Java-aware browsers are becoming more common, not all users have the feature activated, and SLAC discourages this for security reasons at present. There are also performance issues with Java and Javascript. We feel that the Home Pages should not rely on them for any essential features.

We discussed the customizable "Smart Home Page" concept, which allows the user to expand or compress
some sections of the page. There is an unmaintained prototype available. Such an approach would address some layout and clutter issues with the Detailed page, possibly making the Highlighted page obsolete. Further development would be required for a complete evaluation. It is rather likely that future developments in HTML or server technology will deliver comparable features in an industry-standard fashion. While the concept is promising, we felt that it was important to produce improved SLAC home pages with existing technology.

Information Categorization

The "Research" category and its placement at the top of the list was not controversial, but the sub-categories and their labels have been changed after much discussion. The links to SSRL have been clustered together to increase their visibility.

We propose that the "SLAC Institutional Information" category be re-named "Working at SLAC" and "Information from SLAC (including SPIRES Databases)" be renamed "Scientific Information", with transfer of some links between the categories and changes in the subcategories. The committee recognizes that neither the previous labels nor the present labels are strictly mutually exclusive, so some links could logically belong under the both labels. But we feel that the new category labels express the existing distinction better.

We believe that much more of the scientific output of SLAC should be visible on the Web. To this end we propose an explicit "Scientific Publications" sub-category under the re-labelled "Scientific Information" category.

The computing category is problematic. The Web is much less synonymous with computing than it was a few years ago, and many feel that computing is now just part of "Working at SLAC". There is a great deal of computer documentation and policy information on the SLAC Web, but we feel that it is not now organized in an accessible way. When a better user-oriented SLAC Computing home page exists, the right solution is probably a high-level link to that page. But in the meantime, a separate "Computing" category on the SLAC Home Pages provides a place for selected links to serve this purpose. However, we propose to drop the "and Communications" part of the category label and move the communications links to "Working at SLAC".

"Divisions, Groups and Programs" has been re-labelled "Organization" with few other changes. We note that there are many organizational units within SLAC that do not yet have web pages but probably should, so this category is likely to grow.

One common maintenance problem is for someone to request a link on the Home Pages to a newly-created web page that does not fit well into any existing category, or fits into several, or perhaps should catalyze a significant reorganization of the categories or subcategories. It is also difficult for the page maintainer to remove any links from the Home Pages, because users may have become dependent on them.

We propose the addition of a new category "SLAC Home Page in Transition" to help solve these problems. The "New to the SLAC Web" subcategory allows any new link to be added immediately without agonizing over the category structure. The "Moving Off the SLAC Home Page" category allows links to be removed from the category structure but still be findable so users can make their own bookmarks to them before they vanish.

The links in the "Transition" category should be carefully tracked by server statistics. The statistics can demonstrate whether a new link is actually being used and thus merits being on the Home Page, or whether a link that was thought to be little-used and proposed for removal is actually used often.

We agreed that given the present state of Web indexing and search engines, and the sophistication of users, there is little need for the category "Useful Information Elsewhere" to be on the SLAC home pages. These links can be temporarily placed in the "Moving off the SLAC Home Page" sub-category.

It is increasingly frequent for additions to the SLAC Web to be not merely single pages, but larger sites with significant internal structure. While such efforts are to be encouraged, they present some problems for the
organization of the working Home Pages.

The new Business Information Systems site is a good example of these problems and a possible solution. This site is a significant addition to the SLAC Web, and has many sub-pages which will be frequently accessed. For the working Home Pages to continue as a central index of important pages, these sub-pages should be linked directly from the working Home Pages. It is also necessary to have a link to the BIS home page itself to allow access to other sub-pages.

Our proposed solution is to make BIS a sub-category under "Working at SLAC," have a list of direct links to the most important sub-pages, and make the BIS sub-category title itself be a link to the BIS Home Page. We think that this makes the BIS site more visible, and also allows quicker access to the most important BIS pages. By linking directly to these pages, we also circumvent some problems caused by the use of HTML frames in the BIS site.

Highlighted Page Links

The present Highlighted page uses the category labels from the Detailed page as links to a sub-page per category, along with very brief descriptions of the sub-page contents, and a handful of selected direct links from the sub-page. It is impossible to choose a set of direct links that is both small and perfect, and it creates a political problem for the page maintainers. We feel that the best approach is simply to list on the Highlighted page the subcategories under each category and eliminate the concept of direct links from the Highlighted page.

Ownership and Management

Our committee agreed that the basic model of page ownership shared by a coordinator and a broadly-based advisory committee is a sound one. It is impractical for a committee to write the actual HTML code or to maintain it on a daily basis. But an individual coordinator is unlikely to understand the many different facets and needs of the SLAC community, while a broadly representative committee can. The present working Home Page maintainer is a member of the ad-hoc committee, and the committee proceedings have been an extended example of this model.

In a computer- and technology-intensive environment like SLAC, users increasingly expect to find important information on the Web. But there are obvious gaps in the coverage of the SLAC Web: important organizational units with no page, reference information or databases that could have Web interfaces that do not, etc.

While there are many Web committees at SLAC, with overlapping jurisdiction, the emphasis is on regulation of what appears on the Web, or at best assistance to those who have decided on their own to create pages. There is at present no well-defined mechanism to solicit content for a coherent SLAC Web.

Recommendations

1. Adopt the new working Home Pages

The key changes are the new categorization, and the concept of a table-based layout of the Detailed page. It is recognized that the Home Page Coordinator (see below) should review the details of the design, like color scheme, graphics, fonts, and that there is an effort to produce a more official SLAC logo. However, the selection of a final logo should not be allowed to delay the transition schedule.

Transition schedule

- Final approval period
  - Approval by WWWCC and ADCC of the general categorization and table-based layout concept
2. Allocate one FTE for SLAC Web Site Coordinator

We feel that it is important to acknowledge that the redesign / adjustment process represents an evolutionary process, as the WWW permeates the SLAC, and more material becomes available. The dynamic and evolutionary nature of the project, as well as the increasing scope of the site and the burden of its maintenance and functionality directly impacts the amount of FTE required.

SHP Coordinator responsibilities:

- Where possible and appropriate, promote and maintain informational integrity / consistency in the SLAC Web, using existing resources and channels as appropriate and researching / proposing new ones as needed.
- Maintain existing design, incorporate new submissions
- Manage URL name space related to core site, top-level directories
- Work with WSCs in the management/maintenance of AFS space below the top level as well as the promotion of required page elements on new and existing pages.
- Working with the WWWCC and the WSCs, help identify where informational gaps exist within the SLAC Web, and solicit help develop new content in such cases
- Coordinate / develop / schedule / implement plans for redesign as necessary
- Assume primary responsibility for answering / archiving webmaster email; develop a plan for sharing webmaster email with interested and / or responsible parties.
- Provide / manage coherent migration strategies with all redesign efforts
- Develop / maintain/promote a consistent SLAC look-and-feel, using existing site resources and approval processes as appropriate.

A subset of the necessary responsibilities could perhaps be carried out with as little as .5 FTE on a short-term or interim basis, but our feeling is that if SLAC plans to take the Web seriously as a tool for information sharing -- both within and beyond the SLAC community -- a full FTE devoted to content management and development and site design and maintenance is essential.

3. Designate a standing SLAC Web Site Advisory Group

The Advisory Group should be representative of SLAC as a whole and should include people active in the use and development of the Web at SLAC who have an interest in and/or demonstrated expertise with Web authoring. This group could be WWWCC, a subset of WWWCC, WSCs, or another group designated or approved by WWWCC and the Coordinator.

Responsibilities of Advisory Group

- Define the goals and the audience of the Home Page
4. Future Directions

- Better integration of design and management of Welcome page and working Pages
- Reconsider the Smart Home Page or similar customization technologies to replace the two-working-page model.
- Develop a strategy for researching and implementing a comprehensive and maintainable search utility for the SLAC Web
- Develop a strategy to integrate significant internal sites (e.g., BIS) into the Home Pages
- Improve the Computing web-space internal organization

5. Related Issues

The following issues, though not the responsibility of the Coordinator or the Advisory Committee, are closely related to their ongoing work, and as such bear mention in this report.

An up-to-date server

Much functionality and ease of maintenance is possible if SLAC takes advantage of developments in server software development.

Better server logs

The ongoing design and development of a large website is facilitated by information about which links on the central pages are most accessed and whether the hits on a particular page are from a link on a central page or elsewhere (e.g., another page, someone's bookmark list). In particular, having log files which include the "HTTP-REFERER" field will provide the SHP Coordinator and Advisory Group with information extremely relevant to future redesign efforts.

Access to server logs

The SHP Coordinator and the Advisory Group will require access to the server logs in order to take advantage of the information contained therein.
Research Program

Particle Physics Experiments
- BaBar
- BES
- E143
- E144
- E154
- E155
- mQ
- SLD

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- Conferences
- Current Preprints at SLAC
- E-mail addresses
- Experiments
- Institutions
- LANL E-prints
- SPIRES-HEP
- More (SPIRES) Databases

Programs
- Education
- Summer Institute
Working at SLAC

About SLAC

- Getting Started
- Maps
- Life at SLAC (a Users Handbook)

Administrative Information

- SLAC Admin Handbook
- Stanford Admin Web
- Stanford Admin Guide

Business Information Services (BIS)

- BIS Training
- Buildings
- Download forms (MS Word 6)
- Property Control
- Requisitions
- Stores Catalog

Communications and Directories

- Emergency
- Channels (sitewide)
- E-Mail
- Meeting Rooms
- SLAC Phonebook
- Telephone Services
- Videoconferencing
- More Directories

Internal Databases

- Books
- Buildings*
- Cable Plant (CAPTAR)
- Drawings
- Purchasing (PURCH)*
- Requisitions (ELDREQ)*
- Stores Catalog
- SLACspeak Glossary

Internal Newsletters and Periodicals

- Business Briefs
- Interaction Point*
- Library News
- New Options for Wellness
- Training Opportunities*

Web Forms

- Employment Opportunities
- Property Transfer Form
- ES&H Training Form
- Announcement Form
Computing

General Information
- Introduction
- Services
- Account Form
- Education
- E-mail Routing
- IP Address Form
- Networking
- Network Monitoring Task Force
- Printers (locations)
- Shared Equipment
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Organization

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- PEP-II (org chart)
- Research (org chart)
- Stanford Synchrotron Radiation Laboratory (org chart)
- Technical Division (org chart)

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- CAP '98 conference

Moving Off the SLAC Home Pages

- "Useful Information Elsewhere"
- VM Migration
- SLAC X.500 White Pages
- slac.announce.important
- More USENET News
- Public Information (stays on SLAC Welcome)
  - Welcome
  - Media Info
  - Awards
  - Tours
  - WWW Conference.
- Accelerator Operations ("Yesterday" stays)
  - Today*
  - This Week*
  - This Year*

Moving Off the SLAC Home Page (continued)

- Recent E-Prints (search page stays)
  - Today
  - Yesterday
  - Last Seven Days
  - Week before That
- Conference Database ("This Week" stays)
  - This Month
  - Next Month
  - Next Summer
  - Next Year
- Bay Area Seminars Database ("This Week" stays)
  - Today
  - Tomorrow
  - All Future
  - More Seminars.
- Organization Charts
  - NLCTA
  - SCS
  - Technical Publications
- Anything else that we are considering removing

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* Access to this link is restricted to SLAC users.

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Owner
New to SLAC? See Getting Started.
New to the SLAC Web? See Introduction to WWW.

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Research Program
Scientific Information
Working at SLAC
Computing
Organization
SLAC Home Page in Transition

Research Program

Particle Physics Experiments
Synchrotron Radiation (SSRL)
Other Research
Accelerator Research & Development
Accelerator Operations
Faculty
User Information

Scientific Information

Scientific Publications
Newsletters and Periodicals
HEP Databases
Programs

Working at SLAC

About SLAC
Administrative Information
Business Information Services (BIS)
Communications and Directories
Internal Databases
Internal Newsletters and Periodicals
Web Forms

Computing

General Information
Platforms
Policy
Physics Software

Organization

Divisions
Task Forces and Committees
Groups, Departments, Programs

SLAC Home Page in Transition

About the SLAC Home Page(s)
New to the SLAC Web (not yet categorized)
Moving Off the SLAC Home Pages

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Owner
Scientific Publications

- BaBar/PEP-II
- SLD
- SLAC Pubs & Reports

Newsletters and Periodicals

- Beam Line
- ICFA Instrumentation Bulletin

HEP Databases

- Bay-Area Seminars
- Conferences
- Current Preprints at SLAC
- E-mail addresses
- Experiments
- Institutions
- LANL E-prints
- SPIRES-HEP
- More (SPIRES) Databases

Programs

- Education
- Summer Institute

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Owner
A national laboratory funded by the US Department of Energy.

This page provides a public-oriented introduction to SLAC
(home of the first U.S. WWW site).

Welcome to SLAC

The Stanford Linear Accelerator Center (SLAC) is a national basic research laboratory, probing the structure of matter at the atomic scale with x rays and at much smaller scales with electron and positron beams. The laboratory is operated by Stanford University under a contract from the United States Department of Energy (DOE).

The combined staff is currently about 1300, 150 of whom are Ph.D. physicists. Typically 800 physicists from universities and laboratories around the world participate in the high energy physics program and 800 scientists from universities and industrial laboratories are active in the synchrotron radiation program.
Points of Interest

What We Do

- About SLAC’s Research Programs
- About SLAC’s Experimental Facilities
- A Bit of SLAC History

Learn About Science at SLAC

- Tours of the Site
- Education Programs
- The Virtual Visitor Center
- More on Science at SLAC

More on High-Energy Physics

- Beam Line, a quarterly journal of particle physics
- SPIRES-HEP Databases, including access to scientific papers by SLAC authors and others in the high-energy physics community

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B. C. H. Quark
Highlighted

SLAC Announcements

11 Dec 97 QuickNews for December 12, 1997
11 Dec 97 SLAC Blood Drives: Next on Wednesday, December 17, 1997
4 Dec 97 BaBar Coil Arrives at Moffett
24 Nov 97 Micom Switch Shutdown Reminder (Target Date 12/31/97)

Research Program  Scientific Information  Working at SLAC  Computing  Organization  SLAC Home

Page in Transition
Research Program

- Particle Physics Experiments
- Synchrotron Radiation (SSRL)
- Other Research
- Accelerator Research & Development
- Accelerator Operations
- Faculty
- User Information

Scientific Information

- Scientific Publications
- Newsletters and Periodicals
- HEP Databases
- Programs

Working at SLAC

- About SLAC
- Administrative Information
- Business Information Services (BIS)
- Communications and Directories
- Internal Databases
- Internal Newsletters and Periodicals
- Web Forms

Computing

- General Information
- Platforms
- Policy
- Physics Software

Organization

- Divisions
- Task Forces and Committees
- Groups, Departments, Programs

SLAC Home Page in Transition

- About the SLAC Home Page(s)
- New to the SLAC Web (not yet categorized)
- Moving Off the SLAC Home Pages

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Owner
Working at SLAC

About SLAC
- Getting Started
- Maps
- Life at SLAC (a Users Handbook)

Administrative Information
- SLAC Admin Handbook
- Stanford Admin Web
- Stanford Admin Guide

Business Information Services (BIS)
- BIS Training
- Buildings
- Download forms (MS Word 6)
- Property Control
- Requisitions
- Stores Catalog

Communications and Directories
- Emergency
- Channels (sitewide)
- E-Mail
- Meeting Rooms
- SLAC Phonebook
- Telephone Services
- Videoconferencing
- More Directories

Internal Databases
- Books
- Buildings*
- Cable Plant (CAPTAR)
- Drawings
- Purchasing (PURCH)*
- Requisitions (ELDREQ)*
- Stores Catalog
- SLACspeak Glossary

Internal Newsletters and Periodicals
- Business Briefs
- Interaction Point*
- Library News
- New Options for Wellness
- Training Opportunities*

Web Forms
- Employment Opportunities
- Property Transfer Form
- ES&H Training Form
- Announcement Form

* Access to this link is restricted to SLAC users.
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Appendix to WWW Ad Hoc Report on the SLAC Home Page

Joan M. Winters

15 Dec 1997

Page Contents

Credentials
Time
SLAC Home Page Design Goals
Some Rules and Practices
Perceived Problems and Suggestions for Improvement

Credentials

From 1976 till the present I have been interested and involved in learning about the human factors of the human-computer interface. These activities include chairing committees that investigated how people actually used online documentation to solve their own specific problems and their satisfaction levels with the various methods they tried. This research held up so well that it was published by the ACM Special Interest Group on Computer & Human Interaction\(^1\) eight years later. I served as Deputy and Manager of the SHARE Human Factors Project for nine years and attended hundreds of hours of talks by human factors researchers. I helped design the external form to allow system modifications and implemented the consequent local documentation changes throughout VM HELP, maintaining the updates over versions of the operating system using the same management system as Systems did for code. This effort entailed modifying at least a hundred files and installing them with thousands of unmodified IBM HELP files. The experience taught me to think about large systems of online documentation over time. Since 1993 I have been the owner of the SLAC Home Page and a number of related ones, though with increasingly shared authority since the central redesign installed in December 1995.

People have told me that this long-term involvement in on-line documentation doesn’t count because the Web has changed everything.

People haven’t changed. As before, sometimes they are learning, sometimes problem-solving, and sometimes refreshing their knowledge. Only the online applications to help them have significantly improved since the creation of the World Wide Web in 1990 and its subsequent evolution.

But at this point I also have significant experience in designing and evolving the central information space of the SLAC Web. I designed the first official SLAC Home Page and about thirty related pages including the precursor of the SLAC Welcome Page. I was complimented for the lack of perturbation that installation caused users (November 1993), an installation process I designed and implemented. I came up with the first common page elements. All but one are in the current set. I actively solicited additional content from across the Lab via personal contact and an online suggestion page. I was the primary designer and implementer of the live prototype in August 1995 to gain user feedback on that redesign of the central space. I am also the author of many of the early SLAC Web overview documents, e.g., ones on privacy.

URL naming, and the concept of production Web space. I have designed and implemented the central AFS production file structure from the beginning.

**Time**

The almost final version of the report of the WWWCC's WWW Ad Hoc Committee on the SLAC Home Page was distributed December 11th. The final report is scheduled to be given to the WWWCC December 16th. In the time available, here are some comments on aspects of that report as well as a summary of my views on important factors in the design and maintenance of the SLAC Home Page and its closely related pages.

**SLAC Home Page Design Goals**

The SLAC Home Page is intended to be a powerful, robust, and comfortable place for regular members of the globally distributed, SLAC working community to traverse again and again and again. The SLAC Home Page is not primarily a place for people learning about SLAC, whether they be virtual visitors passing through the site or people new to the working community. The SLAC Welcome Page has been designed for them and is the default page SLAC presents to the world at http://www.slac.stanford.edu. In addition, Getting Started, SLAC Introduction to WWW, and other pages are intended to help new members of the community get up to speed quickly.

Members of the SLAC working community have different backgrounds and purposes. They prefer different cognitive styles. Some prefer a hierarchy of information with limited information per page. Others prefer as much information as possible organized intelligibly in one flat space. They are in different cognitive states. They may be learning, problem-solving, or refreshing their knowledge. They are situated in different environments. They use different platforms and browsers and access SLAC across a wide range of network bandwidths.

Designing one general workplace for audiences with all these different characteristics is particularly challenging. SLAC has addressed this goal by designing a carefully layered information architecture into which are designed several forms of access. These include the structure of the links on the SLAC Home and other pages, the design of the URL name space, an index of local links that may be searched, and two different formats for the SLAC Home Page.

Achieving this goal includes designing consistently across pages, not just within them. Not only are content and presentation design important for usability, but also interaction design.

**Assumptions**

The basic design assumptions for the SLAC Home Page include:

This page is a workplace for users, a space where most people spend most of their time being familiar with the general layout and contents.

This page contains reference information and may make use of SLAC jargon.

Major goals include:

- Speed of recognition and transit.
- Comprehensive perspective on SLAC work.
- Links to the most heavily used material.
- Links to summary pages for major collections of subject matter.
Secondarily, this page may passively teach concepts important to some major set of SLAC users, such as that PPWC stands for Polarized Photocathode Research Collaboration, ADCC for Associate Directors' Committee on Computing, and ILR-TRC for International Linear Collider Technical Review Committee, when this material does not interfere with the primary focus.

**SLAC Home Page in Two Formats**

Since December 1995, the SLAC Home Page has come in both a Highlighted and Detailed format. The Highlighted one is the top of a two-level hierarchy where the second level pages, one per major category on the SLAC Home Page, are called Secondary SLAC Home Pages. The Detailed one has the same information in the same order in one flat page. One caveat: Because of the greater real estate in the Highlighted hierarchy link text is usually spelled out to reflect closely the visual page title; on the Detailed page with its tight real estate, acronyms and two or three-word title subsets are usually used instead. For example, in the current SLAC Divisions, Groups, & Programs category, it is "SLAC Computing Services (SCS) Group" on the Secondary SLAC Home Page but "SCS" on the Detailed SLAC Home Page.

Providing these two formats is an attempt to meet two distinct cognitive styles of users. One format does not fit all. As one user Edgar Whipple said about why he prefers the Highlighted version, "...it fits on one screen. I don't have to scroll to see all the major headings. I prefer my hierarchies hierarchical and not flattened." On the other hand, another user Lois White was equally articulate about why she prefers the Detailed version, "...I find paths to the things I want very quickly, because they are all there on one page."

These people are not unique. Usage statistics for the week of December 6-13, 1997, indicate approximately 35% used the Highlighted and 65% used the Detailed SLAC Home Page (of 3038 non-cached hits total). Of those in the edu.stanford.edu reversed domain, that is, those users pretty clearly in the SLAC working community, the usage shifts to around 25% Highlighted and 75% Detailed. The Highlighted page is hit from more different domains. These trends have been clear since a few months after the installation, though the preference for Detailed is more pronounced this time than times previously summarized.

Some have concluded that these preferences are due to links being in unexpected categories. Although this problem probably has some bearing, e.g., on where to look for Seminars, I am sure it is not the only significant factor from user comments over the years like those above from Whipple and White. Whether one prefers hierarchies or flat spaces seems deeply embedded in the way one thinks.

The pros and cons of hierarchies also bring to mind an ACM SIGCHI panel at the annual conference in the mid-eighties in San Francisco. As I remember, about two thirds of the audience were already using GUI interfaces. There was extended discussion about the difficulty GUI users had figuring out where they were. As a user of VM, a primarily line mode interface, I was surprised by the problem. Now that I use GUI interfaces, I have a much better understanding. When information is cut into small chunks and viewed sequentially, it is easy to get lost.

Although the Ad Hoc Committee decided to continue the two SLAC Home Page formats for the moment, in its deliberations there have been continuing efforts, some successful, to reduce the number of links on the Detailed SLAC Home Page, thus making it a less rich, flat space. Even last week some thought that the goal is to "roll up" links within sections like Computing and BIS to make the SLAC space more "Web-like", where "Web-like" is viewed as non-scrolling and, hence, more hierarchical. Users of the SLAC Home Page would be increasingly forced to go through a topic's top-level link to get to any of the lower-level ones. Another member of the committee spoke of objections from colleagues elsewhere about having two formats.

The two formats are not for visitors to the SLAC site. They are for active working members of the SLAC community. Migrating to one format with fewer links seems counter-indicated by the usage data we have, some strongly felt direct user feedback, and by concerns among the professional computer-human interaction community about fragmentation. Scrolling can be part of a very effective strategy for finding information one uses regularly.
Some Rules and Practices

The SLAC Home Page is a complex, carefully layered place with a deceptively simple-seeming center. It is a nexus of competition.

To create a powerful, robust, and comfortable space, many design rules and practices must be followed. The procedure is not usually a cookbook but must carefully balance different aspects in light of particular circumstances.

URL naming is one important element I have not yet addressed. If names are carefully thought out with an eye towards likely additions to specific subdirectories and naming conventions consistently followed, the result can be powerful. As one experienced author Ilse Vinson said:

Joan, Today I was working with the WWW telecommunications pages, and I noticed that once again I really appreciated certain conventions that you established and that we all follow quite consistently now, such as directory names in lower case and singular. It really takes a lot of the guesswork out of generating and remembering names like: should it be singular or should it be plural? Beyond that, I also appreciate the clarity of organization: grp and functional page names make a lot of sense to me. If I know what I'm looking for but not necessarily that exact name, I can usually find it.

Given the constraints of time, for more information contact me for a copy of the slides from a talk at SHARE 2. If there is interest, I would be happy to write up the rules and guidelines I've evolved over the years developing the SLAC Home Page.

Perceived Problems and Suggestions for Improvement

Some of the problems I see with the current draft of the SLAC Home Page and suggestions for reducing their impact follow. In some cases these problems affect the current production SLAC Home Page as well. There are a number of features of the draft that I think will reduce problems with the current production SLAC Home Page, or are likely to.

To be a smooth, effective workplace, the SLAC Home Page has to reflect a broad understanding of the diverse needs of the Lab.

Specific Comments

This list is non-exhaustive.

The main information categories have insufficient dispersion. Most task-oriented links tend to fall into either the Research Program or Working at SLAC. There are proposals to fold Scientific Information and Computing into the first two categories, reducing the number of links on the SLAC Home Page and leaving only two "functional" categories. (In addition there are, of course, the Organization and the new SLAC Home Page in Transition categories that view the Lab from those different perspectives.) Some subcategories could be improved also, e.g., Web Forms in Working at SLAC and General Information in Computing.

Titles are no longer kept distinct from links. See the Business Information Services (BIS) subsection. This mixing of roles makes the page harder to parse; hence it is less comfortable to use.

Items appear in surprising categories. For example, as the subjects of Computing and Communications grow ever closer together in the world beyond SLAC, as well as at SLAC, the draft

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SLAC Home Page splits the current top-level Computing and Communications section. This information now appears in a shrunken Computing section and a new subsection named Communications and Directories in Working at SLAC. “Accelerator Physics” appears in Synchrotron Radiation (SSRL) rather than Accelerator Research & Development; “SPEAR Status” likewise, rather than in Accelerator Operations. Some find the Faculty and User Information subcategories surprising in the Research Program. The ESNet multi-institutional “Network Monitoring Task Force” appears in the task-oriented General Information subsection in what is otherwise a SLAC Computing section. Putting another multi-institutional link “ILC-TRC” in the Task Forces and Committees subsection in the middle of the otherwise SLAC Organization section seems inappropriate at best.

**Expanded titles are no longer used on the Secondary SLAC Home Pages.** See, for example, “SLAC Admin Handbook” and “Stanford Admin Web” on the Working at SLAC Secondary SLAC Home Page. Using the visual page titles “SLAC Administrative Services Handbook” and “Stanford University Administrative Resources” would be clearer, and the space is available. Even more disconcerting are “Property Transfer Form”, which goes to a page titled “Property Transfer Notification” and “ES&H Training Form”, which goes to a page titled “ES&H Training at SLAC: Training Schedule Through December, 1997 and On-line Registration Form.” Similarly, “SLAC Computing Services (SCS) Group” would be clearer on the Organization Secondary SLAC Home Page than the current “SCS”.

“Link from” text does not match “link to” text. For example, “Particle Astrophysics (GLAST)” in Research Program goes to a page titled “GLAST: the Gamma-ray Large Area Space Telescope.” Users are likely to look for subtle differences because of the difference in terms and wonder if the link is as intended. The SLAC Home Page is for working members of the community who mostly have become familiar with the material.

I would recommend changing the link text to “GLAST” on the Detailed SLAC Home Page and “Gamma-Ray Large Area Space Telescope (GLAST)” on the Research Program Secondary SLAC Home Page as well as the page title to “Gamma-Ray Large Area Space Telescope (GLAST): an orbiting telescope for high-energy gamma rays”.

The effectiveness of the Highlighted SLAC Home Page seems seriously diminished. It is certainly politically easier not to select the specific “nominated” links, but only having links to the Secondary SLAC Home Pages left forces people always to traverse the second level of the hierarchy. I wonder if this loss in functionality will increase people’s use of bookmarks rather than the SLAC Home Page at all, with the consequent loss in organizational familiarity.

The major Information Elsewhere section has been removed. This means SLAC context is harder to determine. It also means the quick reference material that has been very quickly accessible will now be slower to obtain. The passive educational function it has served will also be lost.

To the extent that the “More” links have been removed, e.g., “More Platforms” in Computing, there will be no easy room for expansion. This lack will force functional information into Group and Department pages, counter to current recommendations in the trade to organize information by users’ perspectives on their work, not by the institution’s structure.

The inconsistent contents of the top right menu column of general-access links is confusing. The title and link column are intermixed. As one moves across the pages, it helps to position oneself if the column remains the same.

No selection criteria (other than usage) articulated for inclusion in the column as it needs to evolve over time. I have suggested the following:

Breadth of use by the working community.

---

Amount of use. Easy access by some particularly significant audience (e.g., SLAC Web visitors or SPIRES-HEP users).

Other importance to SLAC (e.g., as specified by the Director).

Comprehensiveness of material (e.g., SPIRES Home Page rather than HEP Database)

Distance of the column link from the link in the body of the SLAC Home Page.

To some extent, these criteria also may also apply to inclusion of a link in the body of the SLAC Home Page. To which I add the criterion that a given link appear only once in the body of links on the SLAC Home Page (the taxonomy). A link may also appear up to once in the “metalanguage” links, those “navigational” links like those in the top right menu column.

Using a tailored form of the list of links to the Secondary SLAC Home Pages near the top of each one is maintenance-heavy and occasionally can interfere with usefulness

The top of the SLAC Home Page appears cluttered. ??

Use of italics that supported immediate recognition of newsletter titles has been dropped. Italics display poorly on low-end systems, especially old Macs. But in any complex information space like the SLAC Home Page, the benefits of using people’s pre-existing knowledge (document titles appear as italics) are strong, too. One needs as many reasonable ways as possible to distinguish information categories. Taking advantage of standard conventions supports almost automatic transmission of information (a document title in this case). Before we give up this easy method of discrimination, we should size the italics problem. Is it a serious one for a significant number of users today? Italics are also currently used for SLACSpeak terms to distinguish them from links to pages of information at user request.

Procedural Recommendations

The basic taxonomy (main and secondary information categories) should be tested by research. There are some inexpensive techniques for gaining insight into the underlying structure of information.  

The SLAC Home Page will be an endless source of time-wasting behavior and user frustration to the extent Lab politics are an overriding design criterion.

The SLAC Home Page Coordinator needs design authority. For the past couple of years there has been a tendency for single individuals and committees who look at the SLAC Home Page cursorily to work to have it modified to address their immediate interests. This has led in part to an unbalanced, inconsistent design. An advisory committee broadly representative of the Lab and with willingness to learn in depth about Web workplace design would be an essential element of this approach.

The SLAC Home Page Coordinator needs to be on the WWWCC ex officio at a minimum. This propinquity is important for mutual education about design issues and user needs. Often specific terms and layout elements can affect the usability of the design positively or negatively.

The SLAC Home Page Coordinator needs authority to resolve terminology differences across link transitions. Working with the page owners there needs to be an institutional commitment to come to common terminology and recognizable formats across link transitions.

The central URL and file name design should stay with the Web Support Group. It’s too tightly bound to certain aspects of server administration to move to an unrelated group.

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4 See, for example, paired comparisons in “Varieties of knowledge elicitation techniques” by Nancy Cooke in the International Journal of Human-Computer Studies (1994) 41. 801—849
This page is primarily for SLAC researchers, collaborators, and staff. A shorter version, the top of a more hierarchical structure, is available by selecting the "Highlighted Home" button in the menu bar above. For help, see the "SLAC Introduction to WWW." For a more general introduction to the Lab, select the "SLAC Welcome" button.

**Contents**

- SLAC Research
- Information from SLAC (including SPIRES Databases)
- SLAC Computing and Communications
- SLAC Institutional Information
- SLAC Divisions, Groups, & Programs
- Useful Information Elsewhere

**SLAC Research**

Particle Physics Experiments:
- \( B \Delta B AR \), BES, E143, E144, E154, E155, mQ, SLD.
Particle Astrophysics Experiments:
- Group K.
Synchrotron Radiation Experiments:
- SSRL
Accelerator Research & Development:
- NLC, NLCTA, PEP-II, PPRC, SSRL, More Accelerator Research.
Accelerator Operations:
HEP Shift Reports*, HEP Whiteboard, SPEAR Status.

Theoretical Physics:
Interests.

Information from SLAC (including SPIRES Databases)

Public Information:
Welcome, Media Info, Awards, Employment Opportunities, Maps, Tours.

Directories:
SLAC Phonebook, HEP Phonebook, HEP Institutions, SLAC X.500 White Pages, More
Directories.

Databases:
SPIRES-HEP, Current PPF List, More Databases.

Recent E-Prints:
Today, Yesterday, Last Seven Days, Week before That, Let Me Search.

Conferences:
This Month, Next Month, Next Summer, Next Year, Let Me Search.

Newsletters and Periodicals:
Beam Line, ICFA Instrumentation Bulletin.

Software:
FreeHEP.

SLAC Computing and Communications

Computing:
Platforms:
Desktop Computing (including Mac and Windows NT), UNIX, VMS, VM Migration, More
Platforms.

WWW:
Intro, Browsers, System Changes, More Support.

Topics:
ADCC, BIS, Computer Education, Futures, Notebook Pool, Physics Tools, SCS Services,
Security, SLACwide, Vendors.

Communications:
Computer Networking, Emergency, Telephone Services, Videoconferencing.

SLAC Institutional Information

Site Information:
Getting Started.

Seminars:
Today, Tomorrow, All Future, Let Me Search, More Seminars.

Administrative Tools:
Admin Handbook, ELDREQ*, Property Transfer*, PURCH*, Stores Catalog; Stanford Admin
Guide.

Organization-Wide Databases:
Buildings*, CAPTAR, DRAW.

Library:

Newsletters and Periodicals:
Announcements, Business Briefs, The Interaction Point*, New Options for Wellness, Training
Opportunities*.

USENET News:
slac.announce.important, More USENET News.
SLAC Divisions, Groups, & Programs+

Director's Office & Divisions:
- Director's Office: Business Services; Environment, Safety, & Health; PEP-II Asymmetric B Factory; Stanford Synchrotron Radiation Laboratory.

Groups, Departments, Etc.:

Programs:
- Education, Summer Institute, SLUO.

Organization Charts:
- SLAC; Business Services and ES&H Divisions, Research, SSRL and PEP-II Divisions, Technical Division; NLCTA, SCS, Technical Publications.

Useful Information Elsewhere

Physics:
- HEP Experiments:
  - ALEPH, DELPHI, L3, OPAL; CLEO II; H1, ZEUS; CDF, D0; More Experiments Online.
- HEP Institutions:
  - Brown (including The Virtual Review ), CERN, Cornell, DESY, Fermilab, IHEP/China, LANL (including E-Prints), LBL (including PDG), LLNL, More HEP Institutions.

Professional Societies and Associations:
- Scientific:
  - AAS, AIP, APS (including PACS and What's New), NAS and More.
- Computing:
  - ACM, BayCHI, BayLISA, HEPiX, UniForum, USENIX & SAGE.

Federal Resources:

Local Area Resources:
- Stanford University and its Libraries and Medical Center, More Local Area Resources.

Network Resources:
- BBN, Computer-Mediated Communication, CREN, ESnet (including X.500 White Pages), HEPIC, JANET, References.

Other Information Sources:
- Colleges and Universities, GopherSpace, Grab Bag, Hacker's Jargon, LISTSERV Lists, USENET FAQs, the WWW Virtual Library (including Accelerator Physics).

* Access to this link is restricted to SLAC users.

+ Due to the dynamic nature of the Web, links may move around on pages, migrate to others, or be removed entirely. For example, when the "SLAC Divisions, Groups, & Programs" section gets large, we intend to move parts of it, e.g., "Groups, Departments, Etc.", off to another page.

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Winters
Date: Thu, 16 Jan 1997 10:06 -0800 (PST)
From: "Patricia Kreitz (415) 926-4385" <pkreitz@SLAC.Stanford.EDU>
To: liryg@SLAC.Stanford.EDU, liadre@SLAC.Stanford.EDU, ligm@SLAC.Stanford.EDU, chloe@SLAC.Stanford.EDU, araceli@SLAC.Stanford.EDU, galic@SLAC.Stanford.EDU, PKREITZ@SLACVM.SLAC.Stanford.EDU, pkreitz@SLAC.Stanford.EDU, addis@SLAC.Stanford.EDU, nwmcniel@SLAC.Stanford.EDU, jmdeken@SLAC.Stanford.EDU, redfield@SLAC.Stanford.EDU, henniss@SLAC.Stanford.EDU, dougkr@SLAC.Stanford.EDU
Subject: Record SPIRES-HEP search day!

tooting our horn (and in particular, Dick Guertin, Louise, Harv, and Chuck Boehm's horns!!)......

-- Forwarded Text --

Date: Thu, 16 Jan 1997 09:57 -0800 (PST)
From: "Patricia Kreitz (415) 926-4385" <PKREITZ@SLACVM>
To: sjbth@slac.stanford.edu, siemann@slac.stanford.edu, jmp@slac.stanford.edu, leith@slac.stanford.edu, john@slac.stanford.edu, rafe@slac.stanford.edu, sharon@slac.stanford.edu, rzbth@slac.stanford.edu, steve@slac.stanford.edu, wbj@slac.stanford.edu, pkreitz@slac.stanford.edu, ggeorge@slac.stanford.edu, brighten@slac.stanford.edu
Subject: Record SPIRES-HEP search day!

January 14th saw a record 9,584 user searches of the SPIRES-HEP database. Fortuitously, this is also the week that David Leith has approved the purchase of a very fast UNIX server for the Library to migrate to. Chuck Boehm and his staff have been helping the Library test servers/speeds and we anticipate, with this new server and the improvements in USPIRES, that we will be within a hair of VM response times. With such use levels, it looks as if we'll need all the power we can get!!
Report of the Ad-Hoc Committee on the SLAC Home Page(s)

December 11, 1997

Introduction

The SLAC WWW Coordinating Committee established an ad-hoc committee in January 1997 to review the present SLAC Home Pages and recommend revisions if appropriate. The membership is Lisa Dunn, Kathryn Henniss, Tony Johnson, Ruth McDunn, Christine Quinn (Stanford), David Steele, Yolanda Wackerman, Joan Winters, and Tom Mattison (chair).

At present, SLAC has three "Home Pages": the Welcome page <http://www.slac.stanford.edu>, the Detailed page <http://www.slac.stanford.edu/detailed.html>, and the Highlighted page <http://www.slac.stanford.edu/highlighted.html>. The Welcome page is intended for the general public. The "working" pages are intended for SLAC's scientific community (on-site and off-site) and the SLAC staff.

The contents and arrangement of items on the working Home Pages are at present the joint responsibility of the page maintainer (Joan Winters of SCS) and the WWW Coordinating Committee (WWWCC) chaired by Pat Kreitz of Technical Information Services. The present policies are posted on the Web. The Welcome page is maintained by Kathryn Henniss of Technical Publications with its own advisory committee. Content of the SLAC Announcements page is approved by P. A. Moore of the Director's Office and the page is maintained by Kathryn Henniss.

The charge of the committee was to

1. Review the distinction between the Welcome page and the two working Home Pages,
2. Review the selection and organization of the information on the working pages,
3. Review the criteria for selecting links on the Highlighted page,
4. Review the ownership issues related to the working pages, and
5. Make recommendations for future home-page review committees.

This report and the accompanying prototype new Detailed and new Highlighted pages is submitted to the WWWCC for approval, and subsequent submission to the Associate Director's Committee on Computing and the SLAC management.

Methodology

Survey

P.A. Moore of the Director's Office designed a survey to evaluate the working pages, which was circulated via email and on the Web at the top of the working Home Pages as a SLAC Announcement.

- Which home page do you use most often and why? (Choose one and comment.)
  - Detailed because...
  - Highlighted because...
Neither because...

Other because...

- What changes would you like to see on the home page you use?
  - For example, what can’t you find?
  - Is there something mislabeled or located in a user-unfriendly location?
- What link do you use frequently that you feel should have a different location?
- What is missing from the SLAC Detailed or Highlighted Home Page that you think should be present?
- Please add other comments which you think will help the Committee in its review of the SLAC Home Pages.

There 72 replies to the survey, 63 by email and 9 by the Web form. However, the email replies often did not answer the questions very directly and were thus sometimes difficult to evaluate.

The Detailed home page was favored over the Highlighted page by about 2 to 1. Responders often strongly disliked the page that they did not use. Some found the Detailed page to be too long, dense, and difficult to read. Others liked being able to see everything on one page rather than searching up and down the hierarchy of sub-pages. There were more users of Other/Neither than of Highlighted, indicating that users are becoming more sophisticated about changing their default home page.

A frequent request was for faster access to the SLAC phone directory (in fact many responders have set that as their browser’s default). There is already a phone directory graphical button at the top of the Home Pages, but many users were unaware of it. Users also wanted to just type in the name and hit carriage return rather than having to hit the submit button with the mouse.

The stores catalog, purchasing and requisitions databases were frequently mentioned as being important but hard to find.

Committee discussions

The ad-hoc Committee was constructed to be roughly representative of the SLAC community as well as the SLAC Web support community. We discussed the results of the Survey and our own opinions of the SLAC Web and how it might be managed and improved. On some of the issues in the charge we were able to reach a consensus quickly. The second part of the charge, regarding selection and organization of the information on the working Home Pages, took most of the time, and unanimity was of course not possible.

Much of the ad-hoc Committee’s time was spent in the development and evaluation of prototype pages, both for selection and categorization of links, and for layout and usability issues. The focus was on the Detailed page, for the practical reason that it contains all the links in question, and also because the survey results showed that it is more frequently used. Most Committee members made several versions of the Detailed page with their own ideas on categorization and layout.

Card Experiment

At the WWW6 conference, some committee members learned about a method used by Jacob Nielsen to help revise the information categories for the Sun Microsystems internal web-site. Users are given a set of cards each containing one link from the page and are asked to group the cards and name the groups.
We did this card experiment with 10 subjects (many from within the committee). In addition to the information categorization aspect, we also asked the subjects to rank the importance of each link on a scale from 5 (vital) to 1 (don’t need) or zero (don’t know what it is). The detailed results are available on the Web.

The experiment largely validated the proposed categorization (which is rather similar to the existing categorization), although the subjects naturally chose a variety of different labels.

The ranking of links was interesting. The top 5 links were phone directory, Announcements, Search, Stanford, and WWW Support. Organizational Charts, Site Maps, Telephone Services, Windows NT, Administrative Handbook and Getting Started at SLAC were also highly ranked. Many of the physics experiments that are presently at the top of the working Home Pages were ranked very low. However, it should be noted that the instructions specified that the ranking should be by importance to the subjects’ own job, not by perceived importance to SLAC as a laboratory, and that most subjects were from the Web development community rather than the scientific community. This may also contribute to the high rank of WWW Support.

Findings

Welcome Page vs Working Page(s)

We quickly reached consensus that the Welcome page vs. Working page(s) distinction was sound. We also concluded from the survey results that we could not justify elimination of either the Detailed working page or the Highlighted working page in favor of the other. While this is an extra burden on the page maintainer, the present maintainer (Winters) is a committee member and agrees that it is justified.

Page Layout and Technology

The links on the present Detailed page are done with text and very elementary HTML formatting. This has the advantage of fast loading, compatibility with very primitive browsers, and produces a usable layout even in small or oddly-shaped windows. The Committee agreed that while these are virtues for such a utilitarian page, the resulting long horizontal strings of links can be hard to scan by eye.

We note that nearly all users now have browsers that support tables. The "SLAC Announcements" box on the present page is implemented as a nested table and we are aware of no complaints from users about it. Tables allow a multi-column bullet-list format for the links on the Detailed page, which improves readability without greatly increasing the page length. With a bit of attention to the construction of the table HTML, this even works for browsers that do not support tables, and is usable in oddly-shaped windows. We have constructed and evaluated many prototype Detailed pages, and decided that two columns of links, with main category labels spanning the full page width, worked best.

The survey results indicated that the SLAC Phonebook is a very important use of the Web, and that users are not completely satisfied with the present arrangement. We propose adding a text-input box to allow last-name-only phonebook searches directly from the working Home Pages. Since it is a single box, a carriage return will start the search.

We did not feel that the present red button-bar arrangement is a particularly successful navigation
feature. It uses a lot of screen space and bandwidth but is not very readable, and according to the survey is frequently not even recognized as being a navigation feature. A column of text links, or a row a text links separated by vertical lines or square brackets works better. We propose to navigate between the pages with a vertical text list in the upper right corner of each page.

We propose to change the list of top-level pages that are accessible from this column of text links and that should share a common style. We add the SLAC Announcements page as clearly being an important top-level page. We also add SPIRES as being among the most frequently-accessed SLAC web services, particularly from off-site. We drop the "What's New" page as not being of central importance. Of course we retain the Welcome and two working Home Pages and the Search page.

We propose to add a navigation feature to each sub-page below the Highlighted page in the form of text links to the other sub-pages. This allows users to jump from directly from sub-page to sub-page, rather than going back up to the main Highlighted page, scrolling to the link to the next sub-page, and following it to the sub-page.

While frame-aware browsers are becoming common, we feel that frames are not a positive development in HTML and should be avoided for the SLAC Home Pages. Frames fragment the user's window and make it more difficult to design a page that is usable at an arbitrary window size. They also complicate bookmarking and printing. Nearly any positive feature of frames can be adequately simulated by careful design of non-frame pages.

While Javascript and Java-aware browsers are becoming more common, not all users have the feature activated, and SLAC discourages this for security reasons at present. There are also performance issues with Java and Javascript. We feel that the Home Pages should not rely on them for any essential features.

We discussed the customizable "Smart Home Page" concept, which allows the user to expand or compress some sections of the page. There is an unmaintained prototype available. Such an approach would address some layout and clutter issues with the Detailed page, possibly making the Highlighted page obsolete. Further development would be required for a complete evaluation. It is rather likely that future developments in HTML or server technology will deliver comparable features in an industry-standard fashion. While the concept is promising, we felt that it was important to produce improved SLAC home pages with existing technology.

**Information Categorization**

The "Research" category and its placement at the top of the list was not controversial, but the sub-categories and their labels have been changed after much discussion. The links to SSRL have been clustered together to increase their visibility.

We propose that the "SLAC Institutional Information" category be re-named "Working at SLAC" and "Information from SLAC (including SPIRES Databases)" be renamed "Scientific Information", with transfer of some links between the categories and changes in the subcategories. The committee recognizes that neither the previous labels nor the present labels are strictly mutually exclusive, so some links could logically belong under the both labels. But we feel that the new category labels express the existing distinction better.
We believe that much more of the scientific output of SLAC should be visible on the Web. To this end we propose an explicit "Scientific Publications" sub-category under the re-labelled "Scientific Information" category.

The computing category is problematic. The Web is much less synonymous with computing than it was a few years ago, and many feel that computing is now just part of "Working at SLAC". There is a great deal of computer documentation and policy information on the SLAC Web, but we feel that it is not now organized in an accessible way. When a better user-oriented SLAC Computing home page exists, the right solution is probably a high-level link to that page. But in the meantime, a separate "Computing" category on the SLAC Home Pages provides a place for selected links to serve this purpose. However, we propose to drop the "and Communications" part of the category label and move the communications links to "Working at SLAC".

"Divisions, Groups and Programs" has been re-labelled "Organization" with few other changes. We note that there are many organizational units within SLAC that do not yet have web pages but probably should, so this category is likely to grow.

One common maintenance problem is for someone to request a link on the Home Pages to a newly-created web page that does not fit well into any existing category, or fits into several, or perhaps should catalyze a significant reorganization of the categories or subcategories. It is also difficult for the page maintainer to remove any links from the Home Pages, because users may have become dependent on them.

We propose the addition of a new category "SLAC Home Page in Transition" to help solve these problems. The "New to the SLAC Web" subcategory allows any new link to be added immediately without agonizing over the category structure. The "Moving Off the SLAC Home Page" category allows links to be removed from the category structure but still be findable so users can make their own bookmarks to them before they vanish.

The links in the "Transition" category should be carefully tracked by server statistics. The statistics can demonstrate whether a new link is actually being used and thus merits being on the Home Page, or whether a link that was thought to be little-used and proposed for removal is actually used often.

We agreed that given the present state of Web indexing and search engines, and the sophistication of users, there is little need for the category "Useful Information Elsewhere" to be on the SLAC home pages. These links can be temporarily placed in the "Moving off the SLAC Home Page" sub-category.

Highlighted Page Links

The present Highlighted page uses the category labels from the Detailed page as links to a sub-page per category, along with very brief descriptions of the sub-page contents, and a handful of selected direct links from the sub-page. It is impossible to choose a set of direct links that is both small and perfect, and it creates a political problem for the page maintainer(s). We feel that the best approach is simply to list on the Highlighted page the subcategories under each category and eliminate the concept of direct links from the Highlighted page.

Ownership and Management
Our committee agreed that the basic model of page ownership shared by a coordinator and a broadly-based advisory committee is a sound one. It is impractical for a committee to write the actual HTML code or to maintain it on a daily basis. But an individual coordinator is unlikely to understand the many different facets and needs of the SLAC community, while a broadly representative committee can. The present working Home Page maintainer is a member of the ad-hoc committee, and the committee proceedings have been an extended example of this model.

In a computer- and technology-intensive environment like SLAC, users increasingly expect to find important information on the Web. But there are obvious gaps in the coverage of the SLAC Web: important organizational units with no page, reference information or databases that could have Web interfaces that do not, etc.

While there are many Web committees at SLAC, with overlapping jurisdiction, the emphasis is on regulation of what appears on the Web, or at best assistance to those who have decided on their own to create pages. There is at present no well-defined mechanism to solicit content for a coherent SLAC Web.

**Recommendations**

1. **Adopt the new working Home Pages**

The key changes are the new categorization, and the concept of a table-based layout of the Detailed page. It is recognized that the Home Page Coordinator (see below) should review the details of the design, like color scheme, graphics, fonts, and that there is an effort to produce a more official SLAC logo. However, the selection of a final logo should not be allowed to delay the transition schedule.

**Transition schedule**

- Coordinator produces final layout, checks integrity
- Two week pre-evaluation period
  - new pages appear at different URLs
  - dual maintenance of old and new pages (Announcements, etc)
  - realistically, few users will try the pages, fewer will comment
- Two month public-evaluation period
  - new pages appear at existing URLs
  - old pages move to different URLs, and are not maintained
  - this is when most comments will be received
  - track server statistics on old pages and links on them
- Normal maintenance of new pages
  - Coordinator and Advisory Committee evaluate comments
  - make appropriate changes in new pages
  - move old pages to archive

2. **Allocate one FTE for SLAC Web Site Coordinator**

We feel that it is important to acknowledge that the redesign/adjustment process represents an evolutionary process, as the WWW permeates the SLAC, and more material becomes available. The
dynamic and evolutionary nature of the project, as well as the increasing scope of the site and the burden of its maintenance and functionality directly impacts the amount of FTE required.

SHP Coordinator responsibilities:

- Where possible and appropriate, promote and maintain informational integrity / consistency in the SLAC Web, using existing resources and channels as appropriate and researching / proposing new ones as needed.
- Maintain existing design, incorporate new submissions
- Manage URL name space related to core site, top-level directories
- Work with WSCs in the management/maintenance of AFS space below the top level as well as the promotion of required page elements on new and existing pages.
- Working with the WWWCC and the WCS, help identify where informational gaps exist within the SLAC Web, and solicit help develop new content in such cases
- Coordinate / develop / schedule / implement plans for redesign as necessary
- Assume primary responsibility for answering / archiving webmaster email; develop a plan for sharing webmaster email with interested and / or responsible parties.
- Provide / manage coherent migration strategies with all redesign efforts
- Develop / maintain/promote a consistent SLAC look-and-feel, using existing site resources and approval processes as appropriate.

A subset of the necessary responsibilities could perhaps be carried out with as little as .5 FTE on a short-term or interim basis, but our feeling is that if SLAC plans to take the Web seriously as a tool for information sharing -- both within and beyond the SLAC community -- a full FTE devoted to content management and development and site design and maintenance is essential.

3. Designate a standing SLAC Web Site Advisory Group

The Advisory Group should be representative of SLAC as a whole and should include people active in the use and development of the Web at SLAC who have an interest in and/or demonstrated expertise with Web authoring. This group could be WWWCC, a subset of WWWCC, WSCs, or another group designated or approved by WWWCC and the Coordinator.

Responsibilities of Advisory Group

- Define the goals and the audience of the Home Page
- Define the categorization of information
- Set the level of tradeoff between esthetics and utility in the page design
- Convene for regular (annual?) review / evaluation of the SLAC Website
- Be available to Coordinator as necessary to consult on redesign projects
- Resolve disputes between coordinator and others, as needed.

4. Future Directions

- Better integration of design and management of Welcome page and working Pages
- Reconsider Smart Home Page or similar customization technologies to replace the two-working-page model.
- Develop strategy for researching and implementing a comprehensive and maintainable search
utility for the SLAC Web

- Develop protocol and procedure for tracking/archiving webmaster email making archive accessible to the site or at least the WWWCC
- Develop a policy to integrate significant internal sites (e.g., BIS) into the Home Pages
- Improve the Computing web-space internal organization

5. Related Issues

The following issues, though not the responsibility of the Coordinator or the Advisory Committee, are closely related to their ongoing work, and as such bear mention in this report.

An up-to-date server

Much functionality and ease of maintenance is possible if SLAC takes advantage of developments in server software development.

Better server logs

The ongoing design and development of a large website is facilitated by information about which links on the central pages are most accessed and whether the hits on a particular page are from a link on a central page or elsewhere (e.g., another page, someone’s bookmark list). In particular, having log files which include the "HTTP-REFERER" field will provide the SHP Coordinator and Advisory Group with information extremely relevant to future redesign efforts.

Access to server logs

The SHP Coordinator and the Advisory Group will require access to the server logs in order to take advantage of the information contained therein.