"...rich functionality for creating and sharing information..., brainstorming and creativity, and increasing productivity."
*—Jerry Michalski, Edventure Holdings, Inc.*



Caucus creates shared workspaces on the Web based on interactive discussion conferences. These workspaces provide a framework for teamwork, learning, and community-building applications.

Caucus combines a feature-rich computer-conferencing API, an HTML-compatible scripting language (used to customize and tailor conference workspaces), and facilities to include in conference workspaces the Web-compatible information and applications people need to work and learn together effectively.

Caucus requires no new infrastructure; it runs with standard Internet hardware and software and is compatible with most Web server authentication and security methods. Workspaces can be turned into templates and deployed on other servers, and they can be easily evolved as needs change. A standard Web browser is all you need for full access to Caucus workspaces.

**Product Information**
Detailed descriptions of the Caucus server, scripting language, templates, system requirements, documentation and more—it's all here.

**A Guided Tour of Caucus [COMING SOON]**
The best way to discover what Caucus can do for you is to try it. Our guided tour steps you through participating in and administering a typical Caucus conference.

**Demonstration and Support Conferences**
If you'd like more freedom to experiment and explore, visit our demonstration conferences, where you can experience a wide range of different Caucus applications and interact with other Caucus users. You can also drop in on our support conferences for answers to your questions about Caucus.

**Trial Download**
Caucus is available in a fully functional 30-day trial version. Find out how well Caucus works in your environment.

**Customer Download**
Current Caucus licensees can download the latest version of Caucus (3.1.1) here.

**Caucus Success Stories**
Organizations around the world are using Caucus to support a rich variety of activities. These are some of their stories.

**Licensing and Sales**
Interested in purchasing Caucus or becoming a Caucus reseller?

# Caucus Product Information

Caucus comes with everything you need to create workspaces on the Web. Caucus includes server software, workspace templates, extensive customizability, and complete HTML compatibility.



## The Caucus Server

The Caucus server is an engine for collaboration, managing all Caucus information, handling the structure of workspaces (called conferences), and managing user lists and permissions. The server provides each user with exactly the information he or she has permission to access. All information is saved in Caucus; there is no need to purchase additional software. Administration is via an easy Web browser interface.

## The Caucus Center

The Caucus Center is created automatically when you install Caucus—it is ready to use. You can put your Center to work immediately by creating conference workspaces, adding users, and integrating Web-accessible materials. You can customize many attributes of the Caucus center using browser-based forms; for more control, you can tailor your Caucus Center templates by editing the HTML on which they're based or modifying the Caucus Markup Language (CML), the HTML-compatible scripting language included with Caucus.

## Caucus Markup Language

The Caucus Center consists of HTML pages, output by Caucus from CML templates. These templates can be customized in many ways using standard HTML tools. Our engineers and other Caucus developers frequently post useful new CML templates at the Screen Porch Web site.

CML offers facilities for custom development, enabling you to add new CML templates to your Caucus Center and create new Caucus conference applications for teamwork and learning. A developer familiar with Basic or PERL will find CML simple to learn. Your CML scripts can include any HTML, allowing you to integrate video, audio, database entry points, Java, ActiveX, or other HTML in your new Caucus workspaces.

## Caucus Documentation

Caucus comes with full documentation for users and administrators, dynamically online and also in printable format. This collection of FAQs, technical documents, user guides, and white papers provides the information to give you an in-depth understanding of the Caucus environment.

# The Caucus Server

## What is the Caucus Server?

The Caucus server is an open, powerful engine that creates virtual workspaces where people can work together on the Web. Built for the net, the Caucus server runs under Microsoft Windows NT and on most popular UNIX platforms, and works with any CGI-compatible Web server software and with the other infrastructure components of an Internet or intranet site.

The Caucus server manages all the collaborative information you create in Caucus conference workspaces. It also handles the structure of your workspace conferences, managing user lists, permissions, and appropriate views of information for each user, as well as any other resources you've attached to a Caucus workspace.

Caucus includes its own conference database; there's no need to purchase additional software. On the other hand, if you have developed browser front ends to applications on other databases, these HTML access points may be integrated within a Caucus workspace.

## Who should employ the Caucus Server?

The Caucus server provides a collaborative applications platform for organizations on the Web, including:

- Enterprises that wish to support virtual teams and workplace or customer communities in scalable, flexible collaborative environments on the Web that integrate heterogeneous Web information and tools.
- Educational organizations seeking a platform to develop virtual courses and campuses.
- Webmasters creating interactive Web sites which combine conversation and emerging community with information distribution and back-end business functions.
- Organization Consultants creating Internet/intranet platforms for business needs in teamwork and organizational learning.

## Open for Business[SM]

The Caucus Server is built on industry standards. It delivers all HTML, including any compatible information in any HTML-compatible format. It also is compatible with Javascript, Java applets, and ActiveX controls as well as Internet-standard email. The Caucus server can be integrated with Web server security (including SSL 3.0 and RSA encryption when installed). Caucus user authentication works directly with the Web server, or can be supplied by an external program.

## Multiple Resources

Product Information

- **The Caucus Server**
  The Caucus Center
  Caucus Markup Language

Documentation

A Guided Tour of Caucus

Demonstration and Support Conferences

Trial Download

The Caucus server can integrate a variety of heterogeneous Web-compatible information and applications within a Caucus workspace; these resources allow you to provide users with a flexible and extensible set of Web-based capabilities in a collaborative workspace setting, where participants have access to all the information their application requires.

## Web-based Administration

Caucus workspace conferences can be created and configured via a Web browser and require minimal administration and no network configuration. No client software need be installed, as participants use only a standard Web browser. Return on your Caucus investment can begin immediately.

## Caucus Server Requirements

To use Caucus, you need only install it under a compatible OS and run nearly any CGI-compatible Web server.

## Try It Now

You can get started now: download a free thirty day trial of Caucus today.

# The Caucus Center

Product Information

The Caucus Server
• **The Caucus Center**
Caucus Markup Language Documentation

A Guided Tour of Caucus

Demonstration and Support Conferences

Trial Download

The Caucus Center is created automatically when you install Caucus. It is complete and ready to use. You can put your center to work immediately by creating conference workspaces, adding users, and integrating Web-accessible materials. You can customize many aspects of the Caucus Center using the supplied browser-based forms. For more extensive customizations, you can tailor Caucus Center templates by modifying the HTML on which they're based, or by using the Caucus Markup Language (CML), the HTML-compatible scripting language included with Caucus.

The Caucus Center templates are simply CML scripts. You can customize these templates or create new scripts of your own for all kinds of collaboration, learning, and community-building applications in Caucus, and evolve them as needs change. Useful new templates, created by our engineers or our customers, are often available to the Caucus community at the Screen Porch Web site.

**Caucus Template Requirements**
To use CML templates, you need only install Caucus under a compatible OS and run nearly any CGI-compatible Web server.

**Try It Now**
You can get started now: download a free thirty day trial of Caucus today.

# Caucus Operating Systems

The Caucus server works with most common web servers running on any of the following operating systems:

Microsoft Windows NT 4.0

UNIX:
- AIX 4.1
- BSDI 2.1
- DEC UNIX (OSF/1 v4.0)
- HP-UX A.09.04
- IRIX 5.3
- Linux 1.2.13
- Solaris 2.4 & 2.5
- SunOS 4.1

Note: Caucus is upward-compatible with newer versions of these platforms and operating systems.

If you are interested in using Caucus on a different platform, please tell us about it.

Product Information

A Guided Tour of Caucus

Demonstration and Support Conferences

Trial Download

- **OS & Server Requirements**

Caucus License

# Caucus Trial Version

The Caucus evaluation program allows you to download a fully-functional trial version of Caucus, including all features and documentation of our shipping software. Your trial version will cease functioning 30 days after installation.

Before registering to download this trial version of Caucus, please read the Operating System and HTTP Server list, to familiarize yourself with the Web server environment required for Caucus to run.

Your evaluation software expires 30 days after installation. After this time, you must purchase Caucus to continue using it on your Web server. Each organization or individual is allowed only one evaluation download, and using the evaluation version requires that you assent to the same Software License Agreement that covers the commercial version.

Now that you've read and understood all these important issues, you can continue on to the **Registration Form.**

# Caucus Markup Language

Product Information

The Caucus Server
The Caucus Center
• **Caucus Markup Language**

Documentation

A Guided Tour of Caucus

Demonstration and Support Conferences

Trial Download

## What is CML?

The Caucus Markup Language (CML) is a powerful scripting language for creating conference workspaces on intranet and Internet Web sites. Its control logic is comparable to Perl or Visual Basic, and it includes functions for easy CGI programming and Caucus database access. CML is thoroughly HTML-compatible, accommodating any kind of Web-compatible access to information on the Web—including information on legacy systems as well as current Web-compatible multiple media information, applications, and tools.

## Who should employ CML?

CML is for people and organizations that need interactive, collaborative applications on the Web, including:

- Enterprise developers designing easy-to-use shared workspaces on the Web, which integrate heterogeneous Web information and tools.
- Educational organizations developing virtual courses and campuses.
- Webmasters creating interactive Web sites which combine conversation and emerging community with information distribution and back-end business functions.
- Organization Consultants creating Internet/intranet solutions for business needs in teamwork and organizational learning.

## CML—Features & Benefits

### Open for Business$^{SM}$
Because Caucus is standards-based and Web-compatible, the workspaces you create in CML can involve disparate information and many kinds of Web applications. They can be deployed on virtually any HTTP server and accessed by virtually any Web browser. CML scripts can be re-used as templates to run on multiple Caucus servers in your organization.

### Make it Fast, Make it Better
CML is totally HTML-compatible. CML scripts easily integrate ActiveX controls and Java applets as well as any other HTML-compatible user interface elements you choose.

### Install & Use
A complete set of CML templates for a Caucus conference center is included with Caucus. The center is ready to use off-the-shelf, or you can customize it to meet specific requirements for look, feel and functionality.

## Caucus Application Development Capabilities

- Develop HTML for Caucus—much Caucus customization can be done using your favorite HTML environment. Any HTML (forms, tables, multiple media, etc.) can be included.
- Create customized, dynamic workspaces—integrate CML source from templates included with Caucus into your custom scripts. Add CML to modify or extend functionality.
- Extend the workspace with new kinds of information objects by linking to additional Conference resources on other HTML or CML pages.
- Include graphics, links, Java, JavaScript, and other browser-accessible information in any Caucus conference space.
- Create HTML dynamically as the user navigates through a Caucus space.
- Upload any existing file to add a library or information resource to Caucus.
- Support for most browsers—Netscape 2.0 or MS Internet Explorer 3.0 or greater are required.

## Standards-based security Support

- Integrates user authentication with NT account information, UNIX password files, HTTP authentication, DCE tickets, etc.
- Access control lets you define who can see, read or write to conferences, and what the user interface and resource set are for any user or group.
- Supports Web-server security (SSL, etc.)

## Build custom shared workspaces on the Web—quickly & easily

- Server-side scripting lets you automate processes, e.g. the system can create a new weekly discussion item based on regional sales results.
- Full API for access to Caucus functionality via CML scripts.
- Full scripting language—CML is powerful and easy to learn for a developer familiar with PERL, Basic, or a similar language.
- Shared conferences appear in numerous workspaces with different user interfaces and attached resources.
- Scalable, high-performance server takes advantage of hardware capabilities.
- Conference center templates included for immediate use.
- Customize templates to your specifications using forms, HTML, and CML.

## Easy maintenance

- Use a Web front-end to add new users, control user access, set system-wide defaults, initiate new conference workspaces, etc.
- Set permissions for organizers and other participants via a Web front end.
- Set custom interfaces—Caucus automatically recognizes users and presents them with the appropriate interface and privileges.

## Adheres to open standards

- Integrates Java applets & ActiveX controls in Caucus workspaces, as well as images, audio/video or anything else HTML-compatible.
- Includes access to standard email protocols using browser-called email client.
- Integrates any browser access point to any Web-accessible database application (Lotus Notes, MS SQL Server, Oracle, Informix, etc).
- Supports any Web HTTP server, through CGI.
- Allows user authentication via NT account information, UNIX password files, HTTP authentication, DCE tickets, etc.
- Supports leading security standards such as SSL 3.0 and RSA encryption when installed on server.
- Operates in a wide variety of server environments including MS BackOffice, Netscape SuiteSpot, Apache http server, etc.

## Caucus Template Requirements

To use CML, you need only install Caucus under a compatible OS and run nearly any CGI-compatible Web server.

## Try It Now

You can get started now: download a free thirty day trial of Caucus today.

# Caucus Documentation

The following documents will help you understand Caucus. Please feel free to download any or all of them. To experience Caucus yourself, please visit our Conference Center.

**Caucus FAQ**
A collection of "Frequently Asked Questions" about Caucus.

**Caucus Installation Guide (Unix)**
Full details on how to install the Premier Conferencing System on the Web.

**Caucus Installation Guide (Windows/NT)**

**Caucus Installation "readme.txt" file**
The quick-start "read me" file for installing Caucus. Included with each Caucus kit.

**CML Reference Guide [Rich Text Format]**
The Caucus interface is written in CML, the Caucus Markup Language. Here are the nuts and bolts of how CML works.

**Caucus Architecture Description**
A detailed description of how Caucus actually works with your web server.

**Conference Organizer's How To**
The person in charge of a Caucus conference is called the **organizer**. This guide details how to start and run a conference.

**Guide for Conference Organizers**
This guide talks more about the **why** of organizing the conference, and the human issues involved.

**Caucus & Virtual Hosting**
This page describes how to implement different Caucus interfaces for different "virtual hosts".

**Caucus E-Mail Interface**
This page describes how add e-mail only participants to an on-going Caucus conference.

*Caucus 2.7* **(Text Interface) Documents**
An earlier version of Caucus supports several text-based interfaces. You can now get the guides for the text interface software:

- *Caucus 2.7* User's Guide (HTML).
- *Caucus 2.7* User's Guide (RTF).
- *Caucus 2.7* Menu User's Guide (RTF).
- *Caucus 2.7* Installation Guide (RTF).
- *Caucus 2.7* Customization Guide (RTF).

Product Information

The Caucus Server
The Caucus Center
Caucus Markup Language
- **Documentation**

A Guided Tour of Caucus

Demonstration and Support Conferences

Trial Download

# *Caucus* FAQ

This is the *Caucus* **FAQ** (Frequently Asked Questions) document.

*Caucus* is Web-based conferencing software for teamwork, learning and community from Screen Porch LLC.

Follow the links in this document to find the answers to your questions about *Caucus*. If you have a specific question that is not covered, please click on the Ask Screen Porch link on any page.

# What is *Caucus*

[TOP] [Next] [Ask Screen Porch]

*Caucus* FAQ => What is Caucus?

## *Frequently Asked Questions (FAQ)*

About Screen Porch, *Caucus* and New Ways to Work & Learn on the Web



-

1. **Who is Screen Porch?**
   Screen Porch is a software company with a mission to create innovative environments for social computing – learning, teamwork, and community. We develop and market effective new models, technologies and products for people who work together online.

   Screen Porch was founded in 1996 by an experienced team of software, networking, and organizational design professionals. Our proprietary technologies reflect the group's many decades of experience helping people work together using computers.

   Out of aggregations of individuals, Screen Porch products create effective groups. Out of information possessed by individuals, Screen Porch products create shared knowledge. Our software is accessed via a browser and can include and integrate any other browser-accessible software.

2. **What is *Caucus*™?**
   Screen Porch's first product, *Caucus*, is software for teamwork, group-learning, and community activity. *Caucus* workspaces on the Web allow people to work together at their convenience – across buildings, time-zones, or continents.

   People work together in meetings and conversations – in short, in discussions. When we talk about *Caucus* we are simply talking about the world's best discussion software, software which models the ways work actually gets done in real-world discussions.

*Caucus* creates persistant online workspaces called conferences; they are available any time and offer rich contexts for information-sharing. *Caucus* workspaces are not dependent on marshalling resources and people for a "realtime" session, yet they create the sense that the team, learning community, committee, or other group using the space is actually present whenever an individual arrives to participate.

3. **How does *Caucus* work?**
   *Caucus* combines a feature-rich computer-conferencing API, a workspace-scripting language which is thoroughly HTML-compatible, and facilities to capture and present literally any kind of information in the workspace. *Caucus* workspaces can be tailored to meet any need people have to work together.

   Visually, *Caucus* workspaces can take on any Web-compatible form. *Caucus* pages can be redesigned as easily as any other Web page. Workspace visual identity can easily be made to reflect and extend corporate identity, and a visual identity can be tailored for the application's participants and purpose.

   The templates included with *Caucus* offer immediate productivity, automatically installing an organizational workspace center. But, *Caucus* also includes facilities to develop custom discussion-centered applications, using CML (*Caucus* Markup Language), our HTML-compatible scripting language. These *Caucus* applications can extend from a single *Caucus* Discussion Object™ to a full-blown enterprise-wide conference center.

   *Caucus* workspaces may include any specialized capability (presentation, multimedia, database, etc.) a customer requires. Not just Web *information* but any browser-accessible application – literally a*nything* which can appear on a Web page – can be included seamlessly in the discussion.

   Workspace resources may include files and documents from users' PCs, applets, diagrams, video, database applications, links to other resources, a Chat room, etc. These resources simply become material parts of the discussion – sources people draw on and information they use to create knowledge while working together.

   Visual customization, programmability, and the power to integrate any Web information or application are the keys to the extraordinarily rich contexts for work created by *Caucus*. Yet, *Caucus* is also easy to afford, simple to integrate, and offers immediate benefits. It adds no infrastructure and no new software to learn. And *Caucus* is compatible with all Web security methods. If an organization's intranet or Internet sites implement security methods that work in a Web environment, they will work with *Caucus*.

4. **What markets does Screen Porch target for *Caucus*?**
   Screen Porch has developed *Caucus* to address three core needs of organizations:

   - Learning
   - Teamwork
   - Community

   *Learning*: Screen Porch focuses on distance-learning in the education market as well as applications for corporate-university and corporate-training markets. *Caucus* is used by numerous colleges, universities and other educational institutions around the world to create virtual campuses.

   *Teamwork*: Screen Porch aims *Caucus* at Fortune 1000 and government organizations that need support for distributed, virtual teams. *Caucus* has been chosen for these kinds of applications by some of the largest government and commercial entities in the world.

   *Community*: *Caucus* is used to support virtual communities around the world. Increasingly, it is being used to create organizational communities of skill and practice intranet/extranets in support of enterprises and products/services.

   On a longer view, virtually every Web site will benefit when its constituencies can create and share knowledge and community at the site, rather than simply viewing interactive billboards or querying static information. Every Web site is a *Caucus* conversation waiting to happen.

5. **What support issues should an organization anticipate when considering *Caucus*?**

*Caucus* features the affordability, ease of use, simplicity of deployment and low training cost associated with a browser-based environment. Software maintenance is of a single server application only.

*Caucus* can be installed and a full conference center created in a single day, allowing an organization to begin to recapture quickly the cost not only of the software but of much of their Web infrastructure. Moreover, the business benefits of *Caucus* are available immediately upon creation of conferences.

*Caucus* offers exceptionally rich functionality for creating and sharing information, building team and group unity and effectiveness, and turning information in organizational knowledge. Along with increased productivity and accuracy through shortened information-sharing cycles, some key benefits of *Caucus* include enhanced collaboration, a heightened sense of team and enterprise participation, and the opportunity to create branded constituencies and communities.

6. **What Operating Systems does *Caucus* support?**
   *Caucus* runs on Microsoft NT 4.0 (Intel) and a wide variety of Unix servers, on an intranet or the Internet. See below:

| | |
|---|---|
| AIX 4.1 (IBM RS/6000 series) | IRIX 5.3 (Silicon Graphics) |
| BSDI 2.1 (Intel) | Linux 1.2.13 (Intel) |
| DEC UNIX OSF/1 4.0 (Alpha) | Solaris 2.4 (Sun) |
| HP-UX A.09.04 | SunOS 4.1 (Sun) |

   *Caucus* is accessed from any standard Web browser, such as Netscape Navigator (2.0 or higher) or Microsoft Internet Explorer (3.0 or higher), on any browser-supported client platform. (viz. any Windows version, Macintosh, UNIX).

7. **How is *Caucus* configured?**
   *Caucus* software is installed on a standard Web server. It includes the *Caucus* server and database, the HTML-compatible interpreted language CML (*Caucus* Markup Language), and *Caucus* workspace templates.

8. **Who should install *Caucus* at your site?**
   The Webmaster, network administrator, or systems operator who manages your Web server should install and configure *Caucus*. It may be managed by your Webmaster. Users throughout your organization will be able to organize and administer *Caucus* workspaces.

9. **Who should do customization and application development using CML?**
   Any HTML developer, using any HTML tools, can create custom designs for *Caucus* and *Caucus* workspaces and can also integrate any HTML software (viz. video, audio, chat services, etc.) into your *Caucus* environment. Anyone with experience in programming concepts and logic – including people who have used Perl, Visual Basic, or any other scripting or programming language – will find CML easy to use to create a wide variety of discussion-based applications.

10. **How does *Caucus* differ from Lotus Notes?**
    Despite increased Web services and browser accessibility, Notes is a soup-to-nuts integrated environment based on proprietary network protocols, servers and client software. Notes requires an organization to "bet the company" on the software.

    *Caucus* is an incremental application on an intranet, extranet, or Internet Web-server. *Caucus* workspaces can include literally anything that can appear on a Web page – including any Notes application that can be accessed from a Web browser, or any other browser-accessible database application. It is designed to interoperate smoothly with all other Web-compatible software. These and other resources are transformed by being brought into the *Caucus* context.

    *Caucus* is also much easier to install, configure and maintain than Notes, and it is much less expensive than Notes.

11. **How does *Caucus* differ from integrated Web groupware environments or "Notes-clones?"**
    It's a matter of architecture, and even more of a design philosophy.

The Web is a rapidly developing environment, a world in which creative people of high intelligence introduce new tools and technologies regularly, presenting important opportunities for organizations to gain productivity and effectiveness by continuing to enhance their intranets and Internet sites. This kind of power and flexibility will simply never be available from within "soup-to-nuts" integrated systems.

Hence, we designed *Caucus* not as a closed system or "integrated" package, but rather as a high-performance application for discussion-centered workspaces that can *include and integrate* any Web-standard software – software that exists now and software to come. We also gave *Caucus* a powerful application-development scripting system to allow customers to extend their workspace applications.

*Caucus* is, and will continue to be, compatible with and friendly to new Web technologies as they are developed. *Caucus* allows an organization to gain advantage by integrating these new tools and technologies in discussion-centered environments where information can be created and shared. *Caucus* is also compatible with any kind of intranet or other Web-compatible security technologies or measures.

12. **How does *Caucus* differ from Web BBS software, newsgroups and "threaded" forum products?**
In BBS, newsgroup, or threaded forum software, the individual message – not the meeting, discussion, project or team – is the most significant object. This software relies on a metaphor taken from a real-world bulletin board, as the name implies. The metaphor is of an individual posting a message in order to receive a reply from another individual.

    Essentially such software creates a database of individual messages. As with any other database, the goal is either to quickly retrieve information and remove it from context or to quickly add specific information to the database. When a user selects a message, the screen blanks and is taken over by that individual message.

    There is no context, no persistent sense of place, and no room to structure an application. It would not be easy, for example, to support a strategic team or create an online training course in a BBS. Such software provides no foundation for creating discussion-centered workspaces or applications to support teamwork, learning groups, or organizational communities.

    Moreover, because these products rely on the basic metaphor of thumbtacking a query to a bulletin board in hope of an individual reply, they all rely on threading and subthreading as a way to organize their message databases. The goal is to create a way to match reply to query individually.

    Threading and subthreading are antithetical to the creation of a team and team knowledge. Instead of focusing contributions to add to a rich shared space, they disperse replies in multiplying threads which get thinner and thinner.

    *Caucus* has been designed based on decades of experience in discussion-centered application development. *Caucus* workspaces are rich networks of people, resources, applications, interests, identities, databases, and multimedia information – all designed to support and enhance group commitment and achievement.

13. **How does *Caucus* differ from "Web conferencing" products?**
*Caucus* has been designed to allow an organization to build custom discussion-based applications. Any such set of workspaces can have its own look, feel, and custom-designed interface. No Web conferencing product allows this kind of advanced customization or application development.

    Particular *Caucus* discussions – and even items within these discussions – can be attached as objects to anything whatever on a Web page, referenced as normal URLs. No Web conferencing product was conceived with this immensely useful facility in mind.

14. **How does *Caucus* differ from Netscape Collabra?**
Collabra essentially offers an interface to NNTP servers, an outdated technology which implements BBSes on the Internet. Moreover Collabra requires that an organization use Netscape's server products and a Netscape browser environment. Like Lotus Notes, it locks an organization into a proprietary and single-branded server choice, even though other Web server software may offer benefits in price, performance,

or flexibility. *Caucus* will work well with Netscape Web servers and browsers, but will also work equally well with any other Web server. Unlike Collabra, *Caucus* is also browser-independent.

15. **How does *Caucus* differ from Microsoft's offerings?**
*Caucus* is available in a version for Microsoft NT. *Caucus* is 100%-compatible with Microsoft's Web development standards and tools, including ActiveX. These facilities can only enhance the kinds of functionality available within *Caucus* workspaces.

16. **How does *Caucus* differ from Java? Other Web development tools?**
*Caucus* applications are compatible with Java-driven Web pages, and Java applets can be included in *Caucus* discussions and even in user's responses if a site wishes to allow this inclusion. Web development tools, whether for publishing, database access or other programming purposes, do not provide facilities for creating rich discussion-centered workspaces. They offer complementary functionality, rather than competition, for *Caucus*.

17. **Will VARs and Web site developers create *Caucus* applications and *Caucus*-enabled Web sites for their clients?**
Yes, they are already doing so. We will be happy to share solutions stories with interested people.

18. **How does Screen Porch distribute *Caucus*?**
*Caucus* is sold through direct sales, via the Internet, and through VARs and consultants/developers.

19. **Is *Caucus* currently available? On the Web?**
*Caucus* is currently available. A 30-day trial version of *Caucus* is available for download from Screen Porch's public Web site at http://screenporch.com. Product information and a demonstration *Caucus* workspace are also at the Web site.

20. **What future developments are in store for *Caucus*?**
*Caucus* will continue to be enhanced. A new version of *Caucus* will be released by early 1998. New CML templates and sample applications are often available in our technical support conferences, created either by us or by *Caucus* developers worldwide.

21. **How can I learn more about *Caucus*?**
For more information, visit our Web site at http://screenporch.com, send email to the Screen Porch sales department at sales@screenporch.com, or call Screen Porch sales at 703-243-3001.

---

# Installing Caucus on Unix

[TOP] [Next] [Previous] [Ask Screen Porch]

*Caucus* FAQ => Installing Caucus (Unix)



---

# Caucus System Requirements



Caucus FAQ => Installing Caucus => Caucus System Requirements

This page describes the technical and system requirements necessary to run Caucus on a host server.

Caucus must be installed on the same host that is running a compatible web server. Caucus must have its own userid, which owns and contains all of the Caucus data files and programs. Caucus uses the "setuid" bit (under Unix) or a "login-as" service (under Windows NT) to control and protect access to its conference data files. (Caucus does **not** run as setuid 'root'.)

The rest of this page describes specific system requirements and resource usage.

**Platforms:**
Caucus runs on the following platforms:

- AIX 4.1
- BSDI 2.1
- DEC UNIX (OSF/1 v3.2)
- HP-UX A.09.04
- IRIX 5.3
- Linux 1.2.13
- Solaris 2.4
- SunOS 4.1
- Windows NT 4.0 (Intel)

**Web Server Requirements:**
Caucus is compatible with most full-featured Web servers. (See "What Web Servers Does Caucus Work With?".)

**Disk Space Requirements:**
The Caucus kit requires approximately 20 megabytes to install. (That is the maximum size, some systems may need less.) We recommend, however, starting with 100MB of space to allow room for growth of the conferences.

**Memory Requirements:**
Caucus can run on systems as small as an Intel 486 with 16MB of memory, although in practice we recommend 32 MB at least. Caucus uses approximately (N + 1) * 0.6 MB of memory, where N is the number of simultaneous Caucus users.

**Process Requirements:**
Each simultaneous Caucus user gets one dedicated "daemon" or server process for the duration of their session. In addition, the request for each Caucus page involves two other processes: an httpd (web server) process, and a temporary lightweight process called "swebsock".

Thus, the process load for N simultaneous Caucus users varies from N to 3 * N, depending on how rapidly Caucus requests are being served. A typical number is about 1.5 * N.

---

# Installing Software





## Before You Begin

Normally, *the system manager must install Caucus.* Ordinary users do not have the proper permissions to install Caucus and integrate it with the primary web server.

(It *is* possible to install Caucus and a web server in a single, regular userid on a Unix platform -- for example, as a way to evaluate a trial Caucus kit. But a production Caucus system should always be installed by a system manager.)

If you are **upgrading** a Caucus site, we recommend that you have or make an adequate backup of the Caucus home directory. Then skip directly to Install the Caucus Software. Your Caucus software will be updated without harming any of your existing conferences. If you are installing Caucus for the first time, follow all of steps shown below.

The installation procedure installs the Caucus database, the World Wide Web interface, and the text interface. The normal Caucus 3.1 kit is licensed for unlimited number Web users, but limits the text-interface users to one at a time. If you have purchased the text-interface license option, you will also be allowed an unlimited number of text interface users.

(If you find that you need assistance with installing Caucus, start by joining our technical support conferences.)

---

# Installing Software





## Create the Caucus Userid

Create a new userid, called "caucus", with its own home directory, such as **/home/caucus**. (You may use a different name or home directory if you prefer. The installation procedure will adapt to whichever name you choose.)

The home directory for Caucus must have enough free disk space to contain all of the Caucus programs and data files, and all of the anticipated conference data. A minimum of 100 megabytes is recommended. (The software itself is about 20 megabytes, maximum.)

Only the system manager, or a designated Caucus manager, should know the password to the Caucus userid.

---

# Installing Software





## The Caucus Management Menu

Most of the common Caucus administration functions are provided in a menu in the shell script **manager_script**. To see this menu immediately on login to the caucus userid, run it directly from your .profile or .login file, as described below:

If you are running the Bourne, Bash, or Korn shell (sh, bash, or ksh), you will usually see a "$" as your Unix command prompt. Edit the file .profile, and at the very end, add the lines:

```
$HOME/manager_script
code=$?
if test "$code" = "1"; then
   exit
fi
```

Alternately, if you are running the C shell (csh or tcsh), you will usually see a "%" as your Unix command prompt. In that case, edit the file .login, and at the very end, add the lines:

```
$HOME/manager_script
if ( $status == 1 ) then
   logout
endif

trap 2
```

In either case, logout and then log back in again, and you should immediately see the Caucus management menu.

---

# Installing Software





## Install the Caucus Software

The software installation is the same whether you are:

- installing Caucus for the first time
- upgrading your existing Caucus software

The installation procedure automatically determines if this is a new installation of Caucus or an upgrade to an existing Caucus site. If you are upgrading Caucus, your existing conferences will not be affected by the upgrade. (This includes upgrading from a Caucus Trial Kit.)

1. **Login to the Caucus userid**.

   **Important Note: The instructions in this guide assume that the Caucus home directory is in /home/caucus. In this guide, whenever you see the path /home/caucus, replace it with the actual pathname of the Caucus home directory on your system.**

   **Important Note**: **unless otherwise stated, all commands must be typed while logged in as Caucus, and in the Caucus home directory.**

2. **Cease using Caucus and shut it down**.
   If you are upgrading Caucus, *all* Caucus users should exit or quit the program while you are performing the upgrade, and the program should be shut down. To make absolutely certain of this, type the following two commands:

   ```
   mv BIN2/caucus_x BIN2/caucus_x.old
   ./swebstop
   ```

3. **Unpackage the software**
   The Caucus software is delivered in a file called **caucus31.t.Z**. In the Caucus home directory, type the following command to unpackage this file.

   ```
   zcat caucus31.t.Z | tar xvf -
   ```

4. **Run the installation script**
   The software includes an installation script that will automatically create the proper script files, set the proper file permissions, and so on.

   The script will ask for the hostname (and port number, if needed) of your web server. Be prepared to provide these. To run the script, type:

   ```
   ./cinstall
   ```

5. **Messages & Warnings**
   The cinstall script will produce some warnings and informative messages on your screen. A copy of these warnings is also placed in the file **caucus.warn**. These warnings should be self-explanatory. They fall into three categories:

   - Information about specific files, paths, or URLs. For example, cinstall tells you the full URL for accessing Caucus.

- Warnings about new versions of old files (in case you are uggrading from a previous version of Caucus. For example, cinstall creates a new SWEB/swebd.conf file, and renames your old swebd.conf file.

- Warnings about upward compatibility. For example, if you have conferences created in an old text-interface version of Caucus (prior to version 2.6), you will be warned to run the "fixdate" script on your conferences.

You should examine these warnings carefully and determine if any of them apply to your Caucus installation.

6. **CV2 script for text interface**
   The cinstall script also creates two scripts called **cv2** and **cv2check**. Cv2 is the script used to run the text interface to Caucus. Cv2check provides a quick summary of how much new information there is in the conferences that you belong to.

   If you have purchased the unlimited text-interface license option for Caucus, and are providing access to the text interface to your users, you probably want to copy these scripts to a public directory, such as /usr/local or /usr/local/bin. If you have not purchased a license to the text interface, you may not copy these scripts to a public directory. You may also wish to rename the scripts to something more mnemonic, perhaps **caucus** and **caucuscheck**.

7. **Check hostname and port number**
   When you ran the cinstall script, it asked for a hostname and port number (such as "www.xyz.com" or "host.mycompany.com:8001"). If you need to change this information, now or at any future time, edit the files listed below, and change the hostname or port number appropriately.

   - WEB/swebd.conf
   - WEB/start.cgi
   - public_html/caucus.html

11. **Public HTML directory**
    Caucus requires that certain files be placed in the Caucus userid's public HTML directory. The standard name for this directory is **public_html**. The Caucus distribution includes a public_html directory with the necessary files already in it. If your httpd server uses a different name, rename public_html to that directory name now.

    For example, if your httpd server uses "WWW" as a user's public HTML directory, from the Caucus home directory type:

    ```
    mv public_html WWW
    ```

    You may also need to change the definition of the Caucus parameter "Caucus_Lib". See your SWEB/swebd.conf configuration file for details.

---

# Installing Software





## Starting and Using Caucus

### Start the Caucus server

To start the Caucus server, choose the appropriate selection from the Caucus Management Menu.

You should also add the lines shown below to your system start-up file (such as /etc/rc.d/rc.local, or whatever it is called on your host) so that the Caucus server will start when your system reboots.

```
rm -f /home/caucus/SOCKET/sweb
/home/caucus/SWEB/swebd /home/caucus/SWEB/swebd.conf
```

### Using Caucus

The Caucus installation script creates a default HTML page for accessing the Caucus conferences on your host. It is located in **/home/caucus**/public_html/caucus.html. The URL for this file is:

http://**yourhost**/~**caucus**/caucus.html

This file is just a template for how to access Caucus from the Web. If your organization already has a set of web pages, you will probably want to integrate this file with your existing pages. You might choose to copy the links in this file to the appropriate places on your existing web pages; or you might decide to edit the caucus.html file and simply make it look more like your other web pages.

At this point you can look at this file in a browser, but the links from it will not become properly active until you finish configuring your web server, as described in the next section.

---

# Web Server





## General Web Server Configuration Instructions

This section describes, in the abstract, the changes that must be made to your web server configuration to make it work properly with Caucus. Subsequent sections describe the precise details of these changes for the servers listed above.

Read this section to learn **what** you need to change; then skip to the section for your web server to learn **how** to make those changes.

### A. Define CGI directories

Caucus uses several different CGI programs in the directories **SWEB** and **REG** to communicate with the web server. The best way to identify these programs to the web server is to declare SWEB and REG as CGI directories.

Specifically, declare the following mappings of URLs to CGI directories:

```
      http://yourhost.com/sweb/  to /home/caucus/SWEB/
and   http://yourhost.com/reg/   to /home/caucus/REG/
```

If for some reason you cannot declare a CGI directory, enable your server in some other way to treat the files:

- **/home/caucus**/SWEB/swebsock and
- **/home/caucus**/REG/swebsock

as CGI programs.

**Note: in all of the above examples, replace /home/caucus with the full pathname of the Caucus home directory.**

### B. Define special "/caucus" URL

Caucus users who have already registered a userid may go directly to specific conferences, items, or responses through the special URLs shown below:

| | |
|---|---|
| http://yourhost.com/caucus | ("Caucus Center" page) |
| http://yourhost.com/caucus/conference_name | (conference home page) |
| http://yourhost.com/caucus/conference_name/item | (go to that item) |
| http://yourhost.com/caucus/conference_name/item/response | (go to that response) |

In order to make these special URLs work, the web server must be configured to map URLs that begin "http://yourhost.com/caucus" to the CGI file **/home/caucus**/SWEB/start.cgi. If this is not possible for your web server, your users may still access Caucus through the regular caucus.html page.)

### C. Restrict Access with userids and passwords

Caucus' security requires that each user be identified by a unique userid and password. Caucus uses the standard web "access authorization" protocol to implement userid and password checking.

To enable access authorization for Caucus, you must declare that the directory /home/caucus/SWEB is protected by a userid and password database file. For some web servers, this is done automatically by the

Caucus installation script. See the section for your web server to learn whether this is done automatically for the web server you are using.

---

# Installing Software





## NCSA or Apache Web Server Instructions

This section describes the precise details of configuring the NCSA or Apache web server to work with Caucus. It assumes that you have already installed your web server and are generally familiar with the server configuration files.

### Define CGI directories

Find the httpd configuration file **srm.conf**. Edit it, and add the lines:

```
ScriptAlias /sweb/ /home/caucus/SWEB/
ScriptAlias /reg/ /home/caucus/REG/
```

(replacing **/home/caucus** with the home directory of the Caucus userid on your system).

### Define special "/caucus" URLs

Also in srm.conf, add the lines:

```
ScriptAlias /caucus/ /home/caucus/SWEB/start.cgi/
ScriptAlias /caucus /home/caucus/SWEB/start.cgi
```

### Restrict Access with userids and passwords

Access authorization for NCSA and Apache servers is set up automatically by the Caucus installation script. It creates the file **/home/caucus**/SWEB/.htaccess, which declares that the directory is password-protected. That file points in turn to the userid and password database file **/home/caucus**/caucus_passwd, which is also set up by the Caucus installation script.

To add userids to the database file, use the shell script manager_script. Or your users may self-register a userid and password from the link in the caucus.html page.

# Installing Software





# Netscape Enterprise Server 2.x Instructions

This section describes the precise details of configuring the Netscape Enterprise Server, version 2.x, to work with Caucus. It assumes that you have already installed your web server and are generally familiar with server configuration.

### Define CGI directories

From the server configuration page, choose "Programs", sub-selection "CGI directory". Add entries for:

sweb/ to map to **/home/caucus**/SWEB/
reg/ to map to **/home/caucus**/REG/

(replacing **/home/caucus** with the home directory of the Caucus userid on your system).

### Define special "/caucus" URLs

(It is not known at this writing if this is possible with the Netscape Enterprise Server.)

### Restrict Access with userids and passwords

In the directory /home/caucus/SWEB, create a world-readable file called **.nsconfig**, containing the lines:

```
<Files *> RequireAuth userfile=/home/caucus/caucus_passwd realm=Caucus userpat=* </Files>
```

From the server configuration page, chose "System Settings", sub-selection "Dynamic Configuration Files". In the "file name" field, type ".nsconfig".

To add userids to the database file, use the shell script manager_script. (Do **not** use the Netscape server user database functions.) Or your users may self-register a userid and password from the link in the caucus.html page (see section 2.5.2).

# Installing Software





# Netscape Communications Server 1.x Instructions

This section describes the precise details of configuring the Netscape Communications Server, version 2.x, to work with Caucus. (This server is now obsolete, but may still be in use in many locations.) It assumes that you have already installed your web server and are generally familiar with server configuration.

### Define CGI directories

From the Netscape server manager, under the section **CGI and Server Parsed HTML**, choose Specify a directory that will contain CGI programs only.

In the **URL prefix** box, enter "sweb". In the **CGI directory** box, enter "**/home/caucus**/SWEB" (replacing **/home/caucus** with the home directory of the Caucus userid on your system). Make those changes.

Repeat the same process for the **URL prefix** "reg", **CGI directory** "**/home/caucus**/REG".

### Define special "/caucus" URLs

Repeat the process for the **URL prefix** "caucus", **CGI directory "/home/caucus**/SWEB/start.cgi".

### Restrict Access with userids and passwords

To ensure full compatibility with Caucus, you must manually create a Netscape user database sub-directory that is owned by the Caucus userid. Assuming that your Netscape server is installed in **/var/ns-home**, and that the Caucus userid is called **caucus**, type the commands below. (Note that you must know the "root" password in order to do this.)

```
su -
cd /var/ns-home/userdb
mkdir caucus
cp /home/caucus/caucus_passwd caucus/passwd.pwf
chown -R caucus caucus
exit
```

If you wish to allow your users to change their own passwords or self-register their own userids, you must also manually edit the files passprog, webreg, and manager_script in the Caucus home directory. In those files, replace

**/home/caucus**/caucus_passwd
with `/var/ns-home/userdb/caucus/passwd.pwf`

From the Netscape server manager, under the section **Access Control and Dynamic Configuration**, choose Restrict access to part of your server through authentication.

The **Restrict Access** page should say "You are currently modifying the directory **/home/caucus**/SWEB/*". If

it says "You are currently modifying the entire server", then choose Browse Files. In the **Choose a directory to list from** box, enter "**/home/caucus**/SWEB". Select the radio buttons for **Only list directories**, and **Follow sym-links**. Make those changes. If there is a link for **Choose this directory**, select it.

Return to the **Restrict Access** page. It should say that "You are currently modifying the directory **/home/caucus**/SWEB/*".

In the **Which Database?** box, select or type "caucus/passwd". Leave the **Which users?** box blank (unless you have a reason to restrict Caucus to specific set of users).

In the **Realm** box, type "Caucus". Make these changes.

Back at the server manager page, under **Server Control**, choose Start up, restart, or shutdown your server, and press the **Restart!** button.

To add userids to the database file, use the shell script manager_script, or the **Database user manipulation** section of the Netscape server manager pager. Or your users may self-register a userid and password from the link in the caucus.html page.

# Userids and Passwords





## Introduction

Each person who accesses Caucus from the Web needs a userid and a password. These userid and password pairs are stored, encrypted, in a special password database file that is used by the httpd server. (Note that this database file is *not* the same as the regular Unix password files /etc/passwd or /etc/shadow file, although it does have a similar format.)

There are many different ways to set up and control the password database. The Caucus installation procedure sets up the password database in one particular way that is believed to be the most common and most useful.

Depending on the purpose of your site, and how your users access your host, you may wish to change how userids and passwords are controlled and stored. The rest of this chapter describes some of the other methods for handling userids and passwords, and their implications.

## Default Method: Pure Web Access

The default method (as set up by the Caucus installation procedure) is called "pure web access". This model assumes that your host is used only for providing Web services. The only access your users have is (a) reading pages that are published on your server, and (b) using Caucus conferences. This is the typical situation for an existing Web server that is simply adding conferencing capabilities.

### caucus_passwd file

In this method, your users' access to Caucus is controlled by the NCSA (or "flat") style password file **/home/caucus**/caucus_passwd. The contents of this file are modified by three different tools or features:

1. New "would-be" Caucus users may self-register a new userid and password.
2. Individual Caucus users may change their own passwords (by clicking on their own name and filling in the appropriate form).
3. The Caucus Management Menu (in the shell script manager_script) may be used to add userids to the file, or change any user's password.

### Configurable options

In the default method, there are also three configurable options:

1. You may disable the self-registration of new Caucus userids (in which case the Caucus Manager must create them). To disable self-registration, backup the file **/home/caucus**/public_html/caucus.html, and then edit it and remove the "self-register" link.

   Then rename the directory **/home/caucus**/REG to **/home/caucus**/REG.off.

2. You may disable the ability of individual users to change their own passwords, by editing **/home/caucus**/CML/SP31/Local/switch.i, and setting "change_password" to 0.
3. You may require that all users confirm their password **each** time they enter Caucus. This is a good idea if

your users will be accessing Caucus from public workstations. Most Web browsers remember ("cache") userids and passwords, which makes it entirely too easy for a user at a public station to impersonate the immediately preceeding user at the same station.

To require password confirmation, edit **/home/caucus**/CML/SP31/Local/switch.i, and set "confirm_password" to 1.

# Mixed Method: Web and Unix Access

Another common model is "mixed" access to both Web and Unix userids. In this model, the same group of users have both Unix login access and Web access to your host. They may use the Unix access for e-mail, or to run the Caucus text-interface, or for a variety of other purposes, but in any case the point is the same. They should have (and will expect) to use the same userid and password, whether they are logging in to Unix or accessing Caucus conferences from the Web.

This scenario is more likely to apply to an organization (such as a university) that is already providing services (such as e-mail) to its users, and is now adding conferencing capabilities.

In this case, the Web userid and password file must derive from (be copied from) the Unix system password file(s). Caucus includes a utility to perform this function, called wpwcopy. You may use this utility as provided, or modify the source code (provided in the file wpwcopy.c) as needed for your own site.

The simplest way to do this password copying is to make it happen automatically every day. Then as new users are added to the Unix system password file(s), they will also get added to the Web password file.

The directions below show how to make this occur automatically every day at 3 a.m. They assume that all of your user passwords are kept in /etc/shadow or /etc/passwd, and that you are familiar with the managment of your Unix system. (If you are using a different password database, you must adapt the wpwcopy program to read from that database, or find some other way to export your userids to an NCSA-style password file.)

If your site stores encrypted user passwords in /etc/shadow, you can either

(a) permit wpwcopy as setuid 'root', and run it from crontab as Caucus, or
(b) run wpwcopy directly from root's crontab.

In either case the crontab entry looks like:

```
0 3 * * * /home/caucus/SWEB/wpwcopy   \
          /home/caucus/caucus_passwd  \
                      /etc/passwd /etc/shadow
```

Some systems may only use /etc/passwd (and not /etc/shadow). This is pretty insecure (and mildly dangerous), but if that's what you're using, the crontab entry should be:

```
0 3 * * * /home/caucus/SWEB/wpwcopy   \
          /home/caucus/caucus_passwd  \
                      /etc/passwd
```

If you are running the Netscape Communications Server version 1.x, change the above crontab entry(ies) to reference:

```
            /var/ns-home/userdb/caucus/passwd.pwf
(instead of) /home/caucus/caucus_passwd
```

The wpwcopy program provides additional options, such as the capability to copy only a restricted range of userids. See the comments in wpwcopy.c for more information.

Because userids and passwords derive from the Unix system password file(s), Web users in this scenario cannot self-register, or change their passwords. You should disable these features to prevent confusion.

If you are using /etc/shadow password protection, and are concerned about the possibility of someone reading

the encrypted user passwords from the Web password file, you can add a level of protection to the standard Web security. (A detailed description of this process is beyond the scope of this guide, but the system manager should be able to implement it from the description below.)

This protection involves making the Caucus web password file readable by your httpd server, and no-one else. The simplest approach is to define a new group, and make your httpd server setgid to that group. Then change the group ownership of the web password file to the new group. Do not use the new group for any other purpose.

# Other Methods

Many other methods are possible. Several are described below, to spark your thinking. Screen Porch does not directly provide or support these scenarios as of this writing, but there is also no reason why they would not work.

1. **Combined pool of Unix users and Web-only users**. This is a hybrid of the first two methods. It requires defining a file that contains userids and passwords of Web-only users. This file could be modifiable by the Caucus webreg and passprog programs, i.e. Web users could self-register and change their own passwords. Then, on a regular basis (such as provided by crontab), combine the Unix system password file(s) with this new file, to produce the "real" Web password file.

2. **Allow Web users to change their Unix and Web passwords**. This requires writing a CGI script that can run the Unix 'passwd' (or equivalent) utility. It opens a number of possible security concerns, but in theory it could be done safely.

3. **Use DBM files for Unix and Web access control**. The instructions for the first two methods use text or "flat" password files. Both scenarios could use DBM files instead, which are faster for large numbers of userids. The wpwcopy program would have to be modified to handle DBM files instead of flat files, or a new program written to replace it.

4. **Use "captive" Caucus for Unix access.** The text interface for Caucus provides an option for a special mode, called "captive", where only a single Unix userid is needed. This userid runs Caucus (and only Caucus -- hence the "captive" name.). In this mode, Caucus manages a set of psuedo-userids and passwords for all the different users sharing this single Unix userid.

To run Caucus in this mode, change the options file "captive.opt" to enable the "captive" and "webpasswd" options. (See the text interface guide Customizing the Caucus User Interface for more information on options files.) The text and the web interfaces will share the same set of userids and passwords, taken from the web password file.

The advantage of this approach is simplicity. The disadvantage is that is that it really has nothing to do with Unix userids; it just provides a way to use the text interface. "Captive" users have no e-mail or other Unix access.

---

# If Something Goes Wrong...





The instructions in the previous sections should guide you through a successful installation of Caucus. If, however, you find that Caucus does not appear to be working, here are some common possible problems and their solutions.

(In checking these possibilities, be very careful about spelling and capitalization. In the Unix world, upper and lower case file names refer to **different** files.)

**Note**: if you make a change to correct a problem, you may also need to restart your httpd server before the changes take effect.

1. **Browser cannot find http://yourhost/~caucus/caucus.html**

2. **The Caucus Center Page link produces a server error.**

   Make sure your Caucus server ("swebd") is running.

   Check the ScriptAlias (NCSA httpd srm.conf), Exec (CERN httpd configuration file), or CGI directory (Netscape CGI and Server Parsed HTML) settings for your httpd server. **Restart** your httpd server. If the problem continues, it is likely that you have not properly configured your CGI directories.

   Check the files that contain the hostname and port number. Make sure they have the proper values.

   Check the ownership and permissions on the programs in **/home/caucus**/SWEB. The files swebd and swebsock should be owned by the caucus userid, and should have permission masks of 4711 ("-rws- -x- -x"). The CML files in **/home/caucus**/CML/SP31 should be owned by and readable by the caucus userid. Verify that the CML file named in the URL in your browser's location window actually exists.

3. **Caucus does not know who you are**

   If Caucus does not know who you are, does not appear to know your userid, or thinks that everyone is the same userid, then your web password file is probably not in place.

   Start by exiting your browser and starting it again. When you try to go to the Caucus Welcome page, you should be prompted (by your browser) for a userid and password.

   For NCSA httpd, check the caucus_password and SWEB/.htaccess files. Make sure they exist and are readable by httpd. (If, for example, you see an httpd password file called "caucus_passwd.OLD", but no corresponding file "caucus_passwd", copy the "OLD" file to the original file.) Restart your httpd server.

   For the Netscape Communications server, make sure that **/home/caucus**/SWEB/* has "restricted access through user authentication", and that it is using the database "caucus/passwd.pwf".

   For the Netscape Enterprise server, make sure that access control has been enabled.

4. **Other Problems?**

   If you have other problems, please send e-mail to support@screenporch.com. Updated releases of this installation guide are available directly from our web site. If you have an interesting or unusual problem, we want to hear about it and include it in our documentation.

# Caucus 3.1 Architecture Description

## 1. Introduction

This document describes the overall architecture of Caucus 3.1. This includes the mechanics of how the web interface actually works, and the location, names, and formats of the most important files.

While it is not necessary to read or understand this document in order to *use* or even to *install* Caucus, it is very helpful if you intend to modify the web interface, or to connect other applications or programs to Caucus.

This document assumes a general familiarity with HTML, Web server management, Unix or Windows NT commands and processes, and the use of Caucus.

## 2. Caucus 3.x Design Goals

There were seven main design goals that shaped the architecture of Caucus 3.x. Previous versions of Caucus provided a text and menu interface to the conferencing environment; version 3 is a completely new product, which adds web capabilities. Its design goals included:

1. Allow the use of *any* Web browser to provide a graphical user interface to Caucus conferences. (In practice, this has come to mean Netscape 2 or Internet Explorer 3 or higher.)

2. Provide the tools for Webmasters to build a completely customizable Caucus interface. Caucus 3.1 uses "CML" (Caucus Mark-up Language) scripts, which are analogous to individual HTML pages.

   Caucus includes a default set of such scripts (pages), but they may be completely customized by the local site. This is in keeping with the long-standing Caucus tradition of complete customizability.

3. The Caucus 3.1 server was built on top of the existing Caucus API (applications programmer interface) function library, minimizing development time and guaranteeing data compatibility.

4. Caucus 3.1 works side by side with existing Caucus ("text interface") software. A Caucus user may access conferences through the Web *or* the text interface, without conflict.

5. Caucus 3.1 works with existing Unix and Windows NT HTTP servers, through the CGI interface. The Caucus server could also be adapted to work with a custom HTTP server to provide for higher efficiency.

6. The Web "access authorization" userid and password scheme is used to provide secure access to Caucus. When a userid has been verified by the Web server, that same userid is used to identify the particular Caucus user. All normal Caucus security (access to specific conferences, etc.) applies.

7. Transactions between the browser and the Caucus server must be as efficient as possible. The main effect of this on the design is the creation of a dedicated "sub-server" process for each user's Caucus session.

## 3. Caucus Web Interface: Transactions

This section describes what actually happens when a person uses a Web browser to access Caucus. In the steps listed below, "swebd" refers to the master Caucus server process. "Swebs" is the dedicated user

"subserver" process. "Swebsock" is a light-weight program that passes data to and from swebd. "Httpd" is the standard name for the HTTP server process.

### 3.1 Initial connection to Caucus

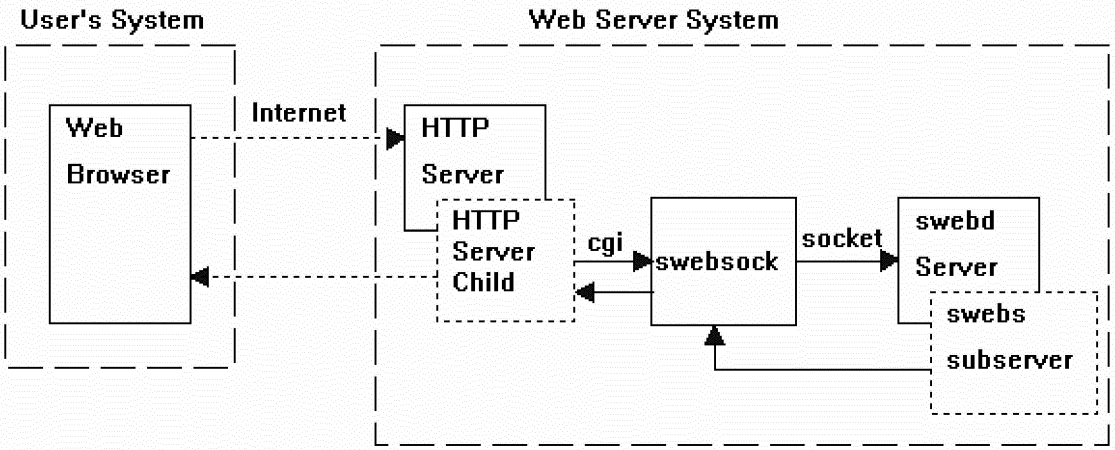
1. The user's browser sends a connection request (over the Internet, or a local intranet) to the host's HTTP server.

2. The HTTP server immediately spawns (or connects to a pre-existing) child httpd process to handle the request.

3. The initial "connection to the Caucus server" is actually an access-authorization (i.e., userid and password) protected URL that runs a CGI program called swebsock. Swebsock opens a socket to Swebd (the master Caucus server).

4. Swebd spawns a child, called the swebs subserver, which gets the userid from the browser. The subserver is now "dedicated" to this userid, and continues running on its own. The subserver constructs the initial HTML page, and passes it (along with its process id and a unique security code) back to swebsock. Swebsock passes everything back through the HTTP server child to the browser.

This process is illustrated in the following diagram:




### 3.2 Subsequent requests

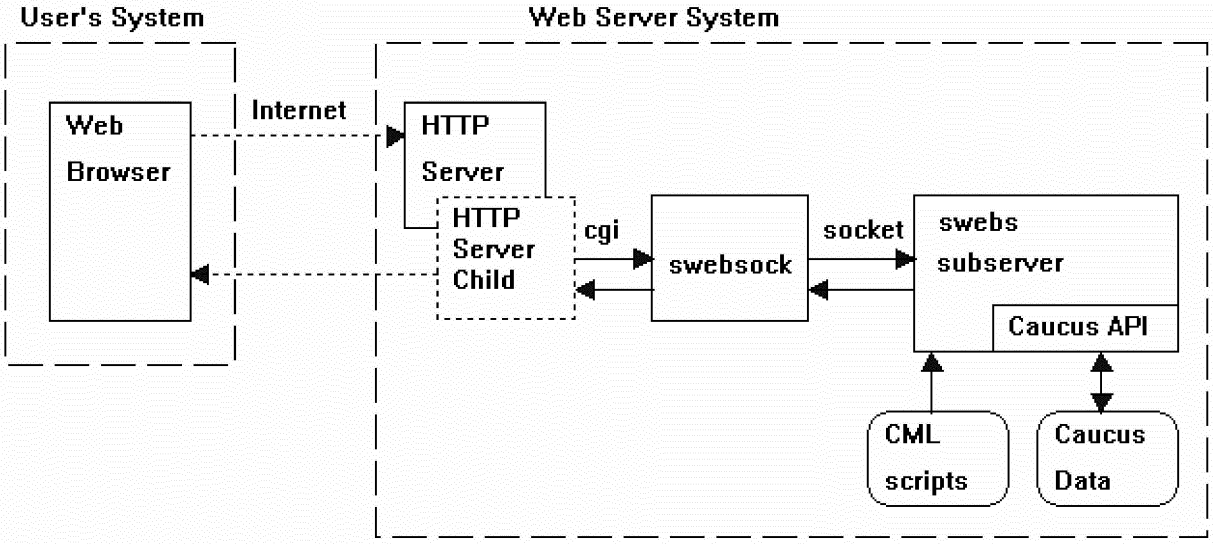
Once the initial connection is made, all subsequent Caucus requests by the browser are passed through to the dedicated swebs subserver. Each such request uses a particular CML script as part of the URL. Such a request will produce the following sequence of events:

1. The browser sends the new request to the HTTP server.

2. The HTTP server immediately spawns (or reuses) a child httpd to handle the request.

3. The httpd child starts a new instance of swebsock, which passes the request on to the dedicated subserver. The subserver reads (or writes) the requested information to the Caucus database, through the Caucus API. The subserver then formats the information according to the codes in the requested CML page, and passes the resulting dynamically created HTML page back through the HTTP server child to the browser.

This process is illustrated in the following diagram:




### 3.3 Notes

1. In the diagrams, the large dashed boxes are computer systems. The small boxes are processes, and the rounded boxes are disk files. Lines indicate communication paths, either HTTP, CGI (stdin/stdout), sockets, or file reading and writing.

2. Note that *each* browser request involves one or two new processes: the HTTP child, and the CGI swebsock. These processes are kept as lightweight as possible.

3. In contrast, since there is one swebs subserver per user, and each subserver persists across the entire user's browser session, the subservers cache all sorts of information. The subserver also has a timeout period -- i.e., after a certain period with no requests, it exits. Otherwise the system might fill up with inactive subservers.

# 4. CML: The Caucus Markup Language

### 4.1 CML Description

The entire Caucus user interface is built out of CML ("Caucus Markup Language") scripts or pages. CML can be thought of as a superset of HTML, with an embedded scripting programming language that is interpreted (by the "swebs" process) *on the server*. Thus, CML pages can not only generate dynamic HTML, but also access the Caucus database on the server, and other files or even programs on the server.

CML as a language contains most of the standard control directives that one would find in any programming language (if/else, loops, etc.), plus a rich set of functions for manipulating web data, Caucus database data, and connections to other programs or files. It is not strictly speaking a superset of HTML (in that it does not understand or parse HTML), but in practice most CML pages contain a large amount of embedded HTML, plus some CML control statements and functions.

CML pages contain 4 kinds of text:

1. **Comments**. In the Unix tradition, all lines beginning with "#" are comments and are ignored. Entirely blank lines are also ignored.

2. **HTML code**. All lines beginning with a single quote (') are parsed for CML functions, but are otherwise passed on (as HTML) to the browser. (The quote is removed.)

3. **CML functions**. Strings of the form "$xyz()", "$xyz(value)", or "$(value)" are parsed and replaced by the appropriate Caucus values. The CML functions are described in the CML Reference Guide.

4. **CML directives**. Directives are like C program code: they describe actions to be taken. Directives include conditional statements ("if" and "else") and loop controls ("for" and "count").

A single logical line may be broken across several physical lines; a "\" as the last character means "continued on next (physical) line". This is generally unneeded, except for HTML <PRE> text that is being built out of mixed text and CML functions.

### 4.2 CML directives

The CML directives provide some simple control structures recognizable from other programming languages, including:

```
for variable in list

count variable first_val last_val

if condition

else

set variable value
```

For more information, see the CML Reference Guide.

### 4.3 CML functions

All CML functions evaluate to strings of characters. There is no other data type. The same holds true for CML variables. The CML functions provide access to Caucus data, browser and server control, string manipulation, and logic functions. Again, see the reference guide.

# 5. Layout of Caucus files

This section describes the layout of the Caucus files -- their location and purpose. All of the files live in or under the Caucus home directory, and (unless explicitly noted elsewhere) should always be owned by the Caucus userid.

**Important:** If you are editing these files for any purpose, you must do it while logged in as the Caucus userid. In particular, do *not* modify the Caucus files, or run the conference management programs, while logged in as "root" or "administrator".

### 5.1 CML pages

The CML pages control the precise look and feel of the Caucus 3.1 web interface. They are all located under the CML directory. As a site may have multiple (distinct) interfaces, each interface gets its own sub-directory under CML. The default set of CML pages is contained in the directory **CML/SP31** (SP for "Screen Porch").

The CML pages are ordinary ascii text files, usually called something.cml, or something.i (for "include" -- files included in other .cml files). Each CML interface (such as **CML/SP31**) also has a special subdirectory called **"Local"**. This contains files that are intended to be changed for your local site, and that will not be touched or replaced the next time you install a Caucus upgrade.

Two particularly important files in the Local subdirectory:

- **switch.i** contains common "switches" that may be set for your site to change how Caucus behaves.
- **l_confs.i** is a list of conference names that will appear under "Popular Conferences" on the Caucus Welcome page.

See the header comments in these files for more information.

In addition to the conferencing interface in **CML/SP31**, there is also a separate (and small) interface in **CML/REG31**. This set of CML pages is entirely dedicated to registering a userid and password for a new user. (It must be a separate interface, because it will be used by people who have not yet gotten or been assigned a userid and password!)

### 5.2 The SWEB CGI directory

The SWEB directory contains CGI programs and related files that are used to start up the regular Web interface to Caucus.

- **swebd** is the Caucus master server program
- **swebs** is the Caucus "subserver" program
- **swebd.conf** is the configuration file for swebd
- **swebsock** is the CGI program that communicates between httpd and swebd
- **.htaccess** is a file that makes **SWEB** an access-controlled directory (NCSA httpd)
- **cpw1** is a program to modify the httpd password file
- **start.cgi** is a CGI script used to interpret "special" Caucus URLs, such as "http://hostname/caucus/conference_name/item_number.

### 5.3 The REG CGI directory

The REG directory contains CGI programs and related files that are used to start up the "register a userid" interface. This includes:

- **swebsock** is a copy of or link to the SWEB/swebsock program

### 5.4 The SOCKET directory

The various Caucus 3.1 programs (swebd, swebs, swebsock) communicate with each other via a data path called "sockets". The sockets must have a name and a location; therefore they are placed in this directory.

- **sweb** is a socket to master swebd server
- sweb**nnnnnn** is a socket for a particular swebs subserver, process number **nnnnnn**
- **debug**: if this file exists, debugging logs are created for **swebd, swebs,** and **swebsock.**

### 5.4 The public_html directory

A URL of the form "http://yourhost/~caucus/xyz.html" looks for the file **xyz.html** in the **public_html** directory. (Depending on your httpd server, you may have renamed **public_html** to something else.) Caucus keeps some specific files in this directory:

- **caucus.html** is a simple HTML page to link to Caucus interface (via **SWEB/caucus.cgi**) and to the "register a userid" interface (via **REG/register.cgi**).
- **GIF31** is a directory containing gif and jpeg images used by Caucus interface.

### 5.5 The BIN2 program directory

BIN2 contains all of the programs used by the Caucus text interface.

- **caucus_x** is the main Caucus 2.7 text interface program (run from the "**cv2**" script)
- **cauchk_x** is the Caucus "check" program, run from the **cv2check** script.
- **caumnt_x** is the Caucus maintenance program, run by the various management scripts (**cv2start**, **cv2remov**, **cv2kill**, etc.)

### 5.6 The DIC2 dictionary directory

**DIC2** contains the source files for the Caucus text interface "dictionary". The text interface is completely customizable, and one site may host many different such interfaces. See Customizing the Caucus 2.7 Interface Guide for more information.

### 5.7 The GROUPS group permissions directory

Users may be given permission to access specific conferences by individual userid, or by groups of userids. These groups are defined in files in the GROUPS directory. For more information, see the Conference Organizer's "How To" guide.

### 5.8 The Cnnn conference directories

The conference data for a particular conference is stored in a single directory. Each conference has a unique three digit number; thus, the data for conference number 1 is stored in the directory C001.

Conference data is always stored in "flat" ascii text files. In theory this means that the Caucus manager may edit these files directory. In practice you should never do this without specific instructions from Screen Porch technical support staff. This information is provided purely for reference; Screen Porch is not responsible for the results of unauthorized tinkering with these files.

Important files:

- **userlist** contains the permissions list of who may or may not access this conference
- **masteres** is the master list of items and number of responses to each item
- **0010000000** is the text of item 1 (and some responses)
- **0050210000** is the text of item 5, response 21 (and some following responses)
- **introduc** is the conference "introduction"
- **greet** is the conference "greeting"
- **membr001** is the list of conference members
- **variable** contains conference variables (from CML $set_conf_var() function)

### 5.9 The MISC (miscellaneous) Caucus-wide data directory

MISC contains files that relate to the entire Caucus site, not just a specific conference. As in section 5.8, these files should not be tampered with without specific instruction from Screen Porch. Important files:

- **confs001** is a list of conference names and their equivalent three digit numbers
- **dicti000** is the compiled version of text-interface "dictionary" number 0
- names**nnn** is a list of words in names of registered users, with mapping to their userid
- **bugslist** is a log of possible Caucus "bug" conditions encountered on this host

### 5.10 USER001, Caucus user files

In addition to the conference-specific files, and the Caucus-wide data files, there is also data stored about each user. Data files for a userid **alpha** are stored under **USER001/alpha**. (Some systems enforce so-called "sanity limits" on the number of sub-directories in a directory; if your system is one of them, Caucus may automatically create directories USER002, USER003, and so forth as needed.)

Important files in each user directory:

- **register** contains "registration" information about this person, including their name, telephone number, brief self-description (introduction), and so forth.
- **p0010000** is the participation record in conference 1
- **variable** contains user variables (from the CML function $set_user_var().)

### 5.11 TEXT001, temporary user files

Temporary files created for each user (for example, during the entry or editing of items and responses) are stored here. It has the same structure as **USER001** (one sub-directory per userid). **Note:** The permissions for this directory and its sub-directories should be write-all.

### 5.12 Files in the Caucus home directory

There are some Caucus files which do not fit in the purposes described for the previously listed sub-directories. These files are kept in top level of the Caucus home directory.

- **caucus_passwd** is the password file used by NCSA httpd
- **cmi_*** are scripts used by the text-interface to integrate e-mail
- **credit** is a full-screen visual editor supplied with the Caucus text interface
- **credit.doc** contains installation instructions for credit
- **csetperm** is a script to set (or correct) file permissions for most Caucus files
- **cv2** is a standard script to run the Caucus text interface
- **cv2cap** is a script to run the Caucus text interface in "captive" mode
- **cv2check** is a script to check for new information in Caucus conferences
- **cv2kill** is a script to delete Caucus users
- **cv2mkmd** is a script to compile Caucus text-interface "dictionaries"
- **cv2pass** is a script to manage "captive" mode users
- **cv2remov** is a script to delete Caucus conferences
- **cv2start** is a script to create a new Caucus conference
- **expuser** is a script to delete "expired" users
- **fixdate** is a script to update date or "SINCE" information about old conferences
- **fixmaster** is a script to automatically corrected corrupted C**nnn**/masteres files

**fixnames** is a script to rebuild corrupted MISC/names**nnn** files

- **fixtext** is a script to recreate missing TEXT001 sub-directories
- **listuser** is a script to list potentially "expired" users
- **master.opt** is the master options file for Caucus text interface
- **passprog** is a script to run the cpw1 program to modify caucus_passwd or other httpd password file
- **manager_script** contains the Caucus Management Menu
- **register** is a script to pre-register one or more users
- **swebstop** is a script to stop all running Caucus web-interface processes (swebd, swebs, etc.)
- **testconf** is a script to test consistency of conference item & response data
- **vvtermcap** is a file used by "credit" editor
- **webreg** is a script used to register new web interface userids and passwords

---

**Caucus**

**Conference Organizer**

**"How To"**

Last revised: 4 April 1996

## 1. Introduction

This "How To" guide describes the details of **how** a Caucus conference organizer administers a conference. For more general information about the **whys** of conference management, see the companion Guide for Conference Organizers.

Note that Caucus has both a World Wide Web interface, and a "text" or command line interface. The instructions in this guide usually refer to the Web interface, although instructions for the text interface are shown in parenthesis at the end of each section.

When the Caucus administrator creates a conference, he or she also assigns someone to be the primary organizer -- the person in charge of the conference. Caucus gives this person special abilities.

The primary organizer may in turn give other people these special abilities in order to share the power and responsibility of managing the conference.

## 2. Starting a Conference

To create a new Caucus conference you (or the Caucus administrator for your site) must run a companion program called **cv2start**. Login to the "caucus" userid on the Caucus server host, and type "cv2start". The program will ask several questions about the new conference. These include:

* what is the name of the conference?

* what is the userid of the primary organizer?

* should this conference be open to everyone?

* permit this conference like another one?

* make this conference LISTED or UNLISTED?

* should this be a CONFERENCE or a LIBRARY?

* who are the other organizers (if any)?

* which groups should be allowed to use this conference (if any)?

Once you have answered all the questions, you also are given the opportunity to edit the conference user list that controls who may join the conference.

Conference names may be up to 20 characters long but cannot contain any blanks. You may use underscores to link words, as in "MY_CONFERENCE". (Conferences may not be named CHECK, HELP, STOP, or LIST, because these are key commands for the text interface.)

The "CONFERENCE or LIBRARY" question determines the type of the conference. A CONFERENCE is a traditional discussion conference with items and responses. A LIBRARY is a conference that is organized as a

file library. File libraries are not currently available for use with the Web interface to Caucus.

**Cv2start** creates an empty conference with no items, no participants, and a default INTRODUCTION and GREETING. (These terms are defined below.) The organizer should join the new conference as soon as is convenient to prepare the conference for its participants.

### 3. Customizing a Conference

Caucus gives the organizer of a conference special abilities to assist with setting up and maintaining a conference. Many of these abilities, such as controlling who can join a conference, are provided by the **customize** link in the conference home page (or the CUSTOMIZE command in the text interface.) Only the organizer can use this feature.

Pressing the customize link brings up a form (a page with various check boxes and text boxes) that the organizer uses to modify the conference. This form includes boxes for:

* "**Allow users to add new items?**" This lets the organizer control whether or not members can add new items to the conference. Checked (or "yes") is the default value and means anyone can add an item. Cleared (or "no") means only the organizer can add new items. ("Customize ADD" in the text interface.)

* "**Allow users to edit their own responses?**" lets the organizer control whether or not participants can change the text of their own items or responses. Checked (or "yes") is the default value and means anyone can change an item or response that they entered. Cleared (or "no") means only the organizer can change items or responses. ("Customize CHANGE" in the text interface.)

* "**Make the conference visible to non-members?**" controls whether your conference is "listed" or "unlisted". If your conference is **listed**, its name will appear with the other visible conferences on the Caucus Welcome Page. If your conference is **unlisted**, its name will not appear unless the user is already a member of the conference, or can become a member of the conference. ("Customize VISIBILITY" in the text interface.)

* "**Edit the userlist...**" lets the organizer control who may join the conference. A conference is created with an initial user list; typically one that allows anyone to join the conference. The organizer can edit this list to specifically include people, exclude people, permit read-only members, or add other organizers to the conference.

The user list has a special format which must be followed precisely. Each line in the list contains only one word, either a userid, a group file name, or a control word. The control words are **:include**, **:exclude**, **:readonly**, and **:organizer**. The control words affect the userids or group files immediately following them until the next control word or the end of the list is reached. Here is a simple example:

```
:include
harpo
chico
:readonly
zeppo
:organizer
groucho
```

The userids "harpo", "chico", "zeppo", and "groucho" are included in this conference. This means that they may join the conference. No one else is allowed to join the conference unless the organizer adds their name to the list. Zeppo can only read the material in the conference. Harpo and chico can both read the material and add their own items and responses. Groucho can do anything that the primary organizer can do.

The user list Caucus displays is numbered in paragraphs and subparagraphs. Caucus numbers this list automatically. The subparagraph number is always 0 for "organizer", 1 for "include", 2 for "readonly", 3 is "exclude". For example if you type in the above user list, the next time you click on the customize link you will see:

```
:1.1 include
harpo
chico
:1.2 readonly
zeppo
:2.0 organizer
```

```
groucho
```

A userid in the user list may contain a terminating asterisk(*) as a wild card. A wild card can replace entering a long list of individual userids. For example:

```
:include
smith
csc*
:exclude
csc101
```

means that userid "smith" and any userid starting with the letters "csc" may join the conference. The only exception is userid "csc101" who is specifically excluded from joining the conference.

The third kind of word that may be placed in a conference user list is a group file name. A group file is just a file that contains a list of userids. (See section 4 for more information about group files.) To use a group file in a user list, preface the name of the group file with the character "<". For example:

```
:include
<faculty
:readonly
<students
```

means that all userids in the group file "faculty" may join this conference, but userids in the group file "students" may only read this conference.

(The equivalent command in the text interface is "Customize USERLIST". It starts a text editor with the contents of the userlist.)

* "**Edit the HTML text of the greeting...**" lets the organizer edit the text of the greeting that appears **each** time a person joins the conference. Note that the greeting can include HTML and CML ("Caucus Markup Language") text. ("Customize GREETING" in the text interface.)

* "**Edit the HTML text of the introduction**" lets the organizer edit the text of the conference introduction. This is the text that appears the **first** time a person tries to join the conference. The introduction should briefly describe the purpose and content of the conference, and who should join it. ("Customize INTRODUCTION" in the text interface.)

### 4. Group Files

When many people are using Caucus on your computer system, you may find that they fall into distinct groups. For example, at a university you will have students, faculty, administrators, support personnel, and so on. These groups may in turn be divided into sub-groups: engineering faculty, liberal arts faculty, law faculty, etc.

Caucus can help you use these groupings to better control who has access to a conference. That is the purpose of the Caucus "group files". A group file is an ordinary text file that contains a list of userids, one per line. Users listed in a group file are members of that group. The name of the group is the name of the group file.

Group files are useful when a specific group of people need access to several conferences. Without group files, the organizer of each conference would have to edit the user list for that conference and add the userid of each member of the group. With group files, each organizer need add only one line to their user list: a "<" followed by the name of the group.

Group files are created and edited by the Caucus administrator (or anyone who can login as the Caucus administrator). All group files must be contained in the directory called **GROUPS** under the main Caucus directory.

Each line of a group file must contain either a single userid, a wildcard match, or a reference to another group file. A wildcard match must end with an asterisk ("*"). The wildcard match "xyz*", for example, means "any userid that begins with the letters 'xyz'." The third case, a reference to another group file, consists of a "<" followed immediately by the name of a group file. The contents of that file are included as though they were part of the original group file.

This last feature means that you can mimic the groupings and sub-groupings of your organization with Caucus group files. To continue the university example, the Caucus administrator might create a group file called **faculty**, which contains the lines:

```
<faculty.eng
<faculty.lib
<faculty.law
```

The group files **faculty.eng**, **faculty.lib**, and **faculty.law** contain the userids for the faculty members in engineering, liberal arts, and law. Or those groups could be subdivided further. For example, **faculty.eng** might contain:

```
<faculty.mec
<faculty.ee
```

These in turn would contain the userids for the mechanical and electrical engineering departments.

Group files may reference other group files, "nesting" indefinitely without limit. Be careful to keep your group files arranged in a hierarchy and not allow any loops. That is, if group file **a** contains "<b", then group file **b** must not contain "<a".

### 5. Other Functions of the Organizer

The primary responsibility of an organizer is to keep the conference running smoothly. The conference participants expect the organizer to answer questions, monitor the progress of the conference, assist in any communications difficulties, and in general help keep the conference well structured.

As organizer, you may want to structure the first few items of the conference. For example, Item 1 could explain the intents and purposes of the conference, Item 2 could be a place to discuss questions about Caucus, and Item 3 could be reserved for special bulletins or other timely announcements, such as "Class registration begins tomorrow, June 17, at 8:30 am".

The organizer also has the ability to change the text of any item or response in the conference, regardless of who entered it. This ability, however, should be used sparingly. A typical example would be helping a user make the text of his or her item more readable. If an interpersonal problem occurs in a discussion on the conference, as organizer you can intervene or even censor parts of the discussion. Fortunately, such problems are rare.

To change the text of an item or response, simply click on the **edit** button next to that text. Normally this button only appears next to responses that you wrote; but since you are an organizer, it appears next to all items and responses. (Text interface users can CHANGE ITEM or CHANGE RESPONSE.)

If your computer system hosts many different conferences with several organizers, you may want to start a conference specifically for organizers. This is a good way to share information and ideas about how to best set up and maintain a conference.

---

# Caucus E-mail Interface
# Installation and Usage Guide


## Last Revised: 16 December 1996

## 1. INTRODUCTION AND PURPOSE

The Caucus e-mail interface package adds a "listserv" or mailing-list like capability to the existing Caucus conferencing system.

With this optional package, you can extend the use of your Caucus conferencing system to people who have only e-mail access to the Internet.

When this package is installed and enabled, each Caucus conference organizer can specify a list of e-mail addresses that may participate in that conference. New material (items and responses) are automatically sent to those participants, via e-mail, on a regular basis.

Those users may in turn contribute to the conference by simply replying to those messages. The replies are automatically placed in the proper conference and item.

## 2. INSTALLATION

### 2.1 E-mail Kit Contents.

The Caucus E-mail link kit is contained in a file called "email.tar" that may be downloaded directly from the Screen Porch web site, at http://screenporch.com/MODULES/email.tar.

The email.tar file contains this README file, the 'einstall' installation script, and a compressed kit file, kit.t.Z.

### 2.2 Create the Caucus Mailer userid ("caumail").

Create a Unix userid that is dedicated to handling the e-mail for this interface. (The 'root' user or system administrator must do this.) A good name for this userid is "caumail", although any userid will work. (Do not use the regular "caucus" userid for this account. This must be a separate userid that is only used for this purpose.)

This userid must be able to use the Unix 'crontab' utility.

### 2.3 Install the software.

Login to the id you created in step 2.2. Do NOT install the software as root! Download or copy the email.tar file to the home directory of that id. Type:

```
tar xvf email.tar
./einstall
```

Follow the instructions that are displayed.

Initially the e-mail updates will be sent out once per day. This may be changed by examining and modifying the contents of the "crontab" listing for this userid.

### 2.4 Connect the e-mail link to Caucus.

To finish the installation, you must "connect" the Caucus e-mail link software with your regular Caucus installation.

Login to the "caucus" userid. From this id, run the script called "copysweb" that is located in the Caucus Mailer userid's home directory. (For example, if the Caucus Mailer userid's home directory is /home/caumail, then type "/home/caumail/copysweb".)

Now edit the file CML/SP31/Local/switch.i, and change the definition of the "mail_out" variable to be the Caucus Mailer userid (for example, "caumail").

## 3. CONFERENCE ORGANIZER INSTRUCTIONS

To allow e-mail users to participate in a conference, the conference organizer must do two things from the "customize" page:

### 3.1 Include the Caucus Mailer userid in your conference.

Add the Caucus Mailer userid from step 2.2 to the list of users included in your conference. This only needs to be done once.

### 3.2 Add individual e-mail users.

For each e-mail user that is participating, add their e-mail address to the "Section IV: E-mail participants" box at the bottom of the customize page.

Note that this must be the address that appears on mail sent **from** the user. Caucus uses the entries in the E-mail participants box for two purposes: to determine who to send mail **to**, and to control who mail will be accepted **from**.

This is somewhat subtle point. A person with simple "mail to" address may actually have a longer "from" address. You **must** use the "from" address. (Some people may also have multiple e-mail aliases that all point to their "real" e-mail address. In either case, you must always use the "from" address that appears in their replies.)

To remove an e-mail participant, simply delete their address from the box. (There is no way to "rename" an e-mail participant to another e-mail address.)

## 4. E-MAIL PARTICIPANT INSTRUCTIONS

When an e-mail participant is added to a conference (in step 3.2), they will receive the entire contents of the conference as e-mail. Each item will appear (with all of its responses) as one message. The subject heading of the message begins with "::Caucus", and then shows the conference name, item number, response numbers, and item title.

Thereafter, as new items and responses are added to the conference, e-mail participants will receive regular updates (typically daily). All new responses to an item will be delivered as one message. Each new item (with its responses so far) will be delivered as one message.

An e-mail participant may add a response by simply replying to the appropriate message. A reply to a particular message will be posted as a response to that item.

E-mail participants may post HTML responses, by making the first word of their response be "<HTML>". (It must be followed by a space or a return.)

E-mail participants may post new items by replying to any message (from the relevant conference), and changing the subject field to remove the item and response numbers. (I.e., the subject field should just contain the "::Caucus" and the conference name.) On most mailers, this can easily be accomplished by simply backspacing over the subject until the conference name is reached.

The first line of the message will be used as the item title. If the first word of the title is "<HTML>", then the entire item text will be treated as HTML.

## 5. APPEARANCE OF E-MAIL POSTINGS IN A CONFERENCE

Items and responses posted by e-mail participants look just the same as entries made by regular Caucus users.

The only exception is the name of the participant. The name will appear as plain text, typically followed by their e-mail address, shown "blued" as a link. (Since Caucus doesn't know anything else about them, only the e-mail address is active.)

Conference organizers can delete or edit the participants' items or responses in the usual way.

## 6. POTENTIAL PROBLEMS

There is one known problem, having to do with e-mail replies.

For many mailers, when a user replies to an e-mail message, the content of the original message is made part of the reply, with a "> " before each line (to distinguish it from the reply proper).

The Caucus e-mail package understands this syntax, and strips all such lines from the text before adding it as a response.

However, some mailers use other methods of marking the lines from the "original text". As these methods are identified, those lines should also be stripped out! (Otherwise a potentially exponential growth may apply, as replies to replies to replies etc. get posted in the conference.)

See the section in the file import.cml in the Caucus e-mail package for more information about how to accomplish this stripping.

---