In this chapter:
- *Client Features*
- *PINE and PC PINE*
- *Star Mail*
- *Netscape Messenger*
- *Outlook Express*
- *Mulberry*
- *Eudora*
- *Other Clients*

4

IMAP Clients

Having an IMAP server is all fine and good, but it does you little good if you can't actually *read* your mail. That, of course, is where the client comes in.

A microscopic examination of the strengths and weaknesses of each IMAP client on the market is somewhat beyond the scope of this book and beyond the capacity of a book publishing cycle, anyway. We're currently on the threshold of an IMAP explosion in the Internet messaging industry. The features and bugs in any given IMAP client change with the phase of the moon. All that notwithstanding, here's our version of a whirlwind tour of the best freely available (or at least freely demo-able) clients.

Client Features

This section begins by listing and describing a set of features that might be found in the ideal IMAP client. The features are cross-referenced with popular IMAP clients.

Features Reviewed

We cover Windows, Mac, and Unix clients separately; the results of the evaluations are shown in Table 4-1. We looked for the following features in each of the clients. We reviewed only whether the feature exists and actually works or not—not how well it works.

Free
: Is the client available completely free of charge?

LDAP
: Does the client support remote directory lookups via LDAP?

ACAP
: Does the client support storage and retrieval of client options via ACAP?

IMSP
: Does the client support storage and retrieval of client options via IMSP?

NNTP
: Does the client support reading Usenet news via NNTP?

MIME
: Does the client handle MIME attachments? In other words, does a MIME attachment show up as a legitimate attachment with some indication of its MIME subtype (*text/plain*, *application/postscript*, or *audio/basic*, for example)?

SSL
: Does the client support SSL IMAP sessions? This of course is only useful if you've built SSL support into your IMAP server.

Kerberos v4
: Does the client support Kerberos authentication?

CRAM MD5
: Does the client support CRAM message digests?

Disconnected
: Does the client support disconnected mode? This item should be taken with a grain of salt. Some clients claim to support disconnected mode simply based on allowing a user to read mail while disconnected from the server. They do not, however, allow other basic actions (e.g., deleting messages) to be performed while the user is offline. In these cases, we gave the client a "no" on this point. The criteria that determine whether or not a client truly supports disconnected mode include:

  — The user can read messages while disconnected from the IMAP server.

  — Changes automatically synchronize when the user goes back online.

  — The user can make changes, such as deleting messages or creating folders, while offline.

  — The client keeps track of messages that have been replied to or forwarded when it goes offline.

Client-side filtering
: Does the client support delivery of incoming mail to folders based on filtering parameters defined within the client?

Local address books
: Can the client store email addresses locally?

Remote address books
: Can the client store email addresses on a remote server?

Subscribe and unsubscribe
: Can the client display or hide a folder by allowing the user to subscribe to or unsubscribe to the folder?

Nested folders
: Can the client create folders within folders on the server?

Message threading
: Can the client display messages by subject?

Shared folders
: Is it possible for the client to create folders on the server and share them to other users, provided that the server supports shared folders?

ACL
: Does the client include an ACL viewer and/or editor? This is primarily of interest to sites that use the Cyrus IMAP server.

Alerts
: Does the client support RFC 2060–style ALERT response codes, which permit the system admins, through IMAP ALERTs, to notify system users of conditions liked planned outages or other changes in service condition?

Quota report tool
: Does the client have a built-in mechanism for checking quota usage? This is primarily of interest to sites that use the Cyrus IMAP server.

Save outgoing mail
: Is it possible to configure the client to save a copy of each outgoing message *on the IMAP server* automatically? Some clients save copies of outgoing messages only on the local machine.

Search on message header
: Does the client support searching mail headers for a given text string?

Search on folder name
: Does the client support searching for a folder name that matches a given text string?

Remote configuration storage
: Can client configuration be stored on a remote server?

Table 4-1. Features Supported by IMAP Clients

Features	PINE 4.21	StarMail 5.1	Outlook Express 5.0	Netscape Messenger 4.61	Mulberry 2.0	Eudora 4.3
Windows	✓	✓	✓	✓	✓	✓
Macintosh	✗	✗	✓	✓	✓	✓
Unix	✓	✓	✓	✓	✗	✗
Free	✓	✓	✓	✓	✗	✓
LDAP	✓	✓	✓	✓	✓	✓
ACAP	✗	✗	✗	✗	✓	✓
IMSP	✗	✗	✗	✗	✓	✗
NNTP	✓	✓	✓	✓	✗	✗
MIME	✓	✓	✓	✓	✓	✓
SSL	✗[a]	✓	✓	✓	✗	✗
Kerberos v4	✓	✗	✗	✗	✓	✓
CRAM MD5	✓	✗	✗	✗	✓	✓
Disconnected	✗	✓	✓	✗	✓	✓
Client-side filtering	✓	✓	✓	✓	✓	✓
Local address books	✓	✓	✓	✓	✓	✓
Remote address books	✓	✓	✓	✓	✓	✓
Subscribe and unsubscribe mail folders	✗	✓	✓	✓	✓	✗
Nested folders	✓	✓	✓	✓	✓	✓
Message threading	✓	✓	✓	✓	✓	✓
Shared folders	✓	✗	✗	✗[b]	✓	✗
ACL	✗	✗	✗	✗[c]	✓	✗
Alerts	✓	✗	✓	✓	✓	✗
Quota report tool	✗	✗	✗	✗	✓	✗
Save outgoing mail	✓	✓	✗	✓	✓	✓
Search on message header	✓	✓	✓	✓	✓	✓
Search on folder/mailbox name	✓	✗	✗	✗	✓	✓
Remote configuration storage	✗[d]	✗	✗	✓	✓	✓

[a] SSL is supported in PC PINE only, but will be supported in PINE 4.30 for Unix.
[b] Netscape Messenger allows users to share IMAP folders by setting ACLs on a per folder basis, but the ACL mechanism is proprietary and only works with Netscape's mail server.
[c] ACL viewer only.
[d] Remote configuration storage will be supported in PINE 4.30.

PINE and PC PINE

PINE (Program for Internet News and Email) is a popular character-based IMAP client. PINE was developed at the University of Washington, home of IMAP itself. PINE is available for nearly all Unix platforms. It is also available for Windows machines in a version called PC PINE. PINE was designed to be easy to use. While it has retained its simplicity of operation over many years of development, it has also grown into a very highly configurable, robust client equally suited to both novices and power users. It's worth mentioning that there are other character-based IMAP clients for Unix, but they are not covered here because none even comes close to matching PINE's feature-richness. The Elm mailer was once widely preferred over PINE for its simple interface. Although it supports IMAP, it has come to be considered a holdover from the good old days of "old-school Unix."

The Windows version of PINE, PC PINE, has all the features of Unix PINE, but runs under Windows or DOS. PC PINE has the added benefit of allowing you to attach files that reside on your computer's local disk to email messages without the need to first upload those files to another host. PC PINE, although it doesn't appear to on a first look, does support drag-and-drop attachments (try dragging a document into a Compose window).

The PINE home page is located at *http://www.washington.edu/PINE/*.

Features

PINE supports the following Internet protocols and specifications: IMAP4, SMTP (Simple Mail Transport Protocol), NNTP (Network News Transport Protocol) for reading Usenet news within PINE, and MIME (Multipurpose Internet Mail Extensions). PINE has the option of supporting LDAP and Kerberos, if it's built to include the appropriate libraries. Instructions for integrating LDAP and Kerberos are provided in the PINE online documentation.

PINE offers many features, including:

- Personal address books.
- Context-specific online help.
- A command to grab an address from a message and add it to the address book.
- A message composer with easy-to-use default editor and built-in spell checker. The composer expands addresses as they are entered and provides direct access to the address book.
- Support for both remote and local folders.
- Robust facility for search and selection of messages.
- The ability to perform operations on sets of selected messages at one time.

Version 4.20 and up support client-side mail filtering. PINE does not support "vacation" messages.

Supported Platforms

PC PINE is available for Windows NT, Windows 95, Windows 98, and Windows 2000.

Unix PINE is available in both a binary distribution and source distribution. The binary distribution is available for many flavors of Unix, including AIX, HPUX, Digital Unix, Linux, NeXT, SGI, Solaris, Sun OS, and Ultrix.

In addition to the platforms for which the PINE binary distribution is available, PINE has been ported, built, and tested on many other Unix platforms. Some of those platforms include FreeBSD, NetBSD, SCO, Ultrix, DG/UX, and SVR4. The full list is available at *http://www.washington.edu/PINE/overview/ports.html*.

Configuring PINE for IMAP

PINE's syntax for defining IMAP options is more difficult to handle than most other clients. Examples are provided in this section to make it less confusing.

PINE for Unix

Unix PINE allows the system administrator to exert some control over client options by setting global default options. Any global option can be protected, preventing the option from being overridden by a user's personal options settings.

PINE for Unix has three configuration files:

/usr/local/lib/pine.conf
: The *pine.conf* file contains the system-wide global configuration options (location is configurable). Options in *pine.conf* are overridden by the options in the user's personal *~/.pinerc* file.

/usr/local/lib/pine.conf.fixed
: The *pine.conf.fixed* file contains system-wide options that are essentially "read-only" and cannot be overridden.

~/.pinerc
: *~/.pinerc* is the user's personal configuration file. Options defined in that file override the options set in the system *pine.conf*.

Users can configure PINE either with a menu system through the Setup command, or directly by editing the personal resource file, *~/.pinerc*.

Large sites using PINE and IMAP may want to set site options in the *pine.conf* file to reduce the amount of work their users must go through to configure PINE

individually. It's also recommended that large sites "lock down" certain options, such as the outgoing SMTP server, domain name, path to the user's INBOX, and the user's full name.* This procedure not only will make PINE easier to use for the end user, but also will prevent possible problems that could occur if the SMTP server is incorrectly specified or if the user spoofs his personal name. Example 4-1 is a *pine.conf* file that might be used at a large site using IMAP with PINE. Example 4-2 shows the *pine.conf.fixed* file used at that same site.

Example 4-1. pine.conf

```
#      /usr/local/lib/pine.conf -- system-wide PINE configuration

# The following options are set read-only in pine.conf.fixed.

personal-name=
user-domain=
smtp-server=
inbox-path=

# The following options are set but may be overridden by options in .pinerc

nntp-server=newserv.unt.edu
incoming-folders=Announcements {imapserv.unt.edu}user.announce.Internet_News
folder-collections=Folders {imapserv.unt.edu}inbox.[],~/mail/[]
editor=/usr/ucb/vi
speller=/usr/local/bin/ispell
image-viewer=/usr/local/bin/X11/xv
bugs-fullname=Helpdesk
bugs-address=helpdesk@helpserv.unt.edu
suggest-fullname=Helpdesk
suggest-address=helpdesk@helpserv.unt.edu
local-fullname=Helpdesk
local-address=helpdesk@helpserv.unt.edu
forced-abook-entry=help|Helpdesk|helpdesk@helpserv.unt.edu

global-address-book=/data/abook/pine.abook,
    /data/mercury/pine.abook.A-C,
    /data/mercury/pine.abook.D-F,
    /data/mercury/pine.abook.G-I,
    /data/mercury/pine.abook.J-L,
    /data/mercury/pine.abook.M-O,
    /data/mercury/pine.abook.P-R,
    /data/mercury/pine.abook.S-U,
    /data/mercury/pine.abook.V-X,
    /data/mercury/pine.abook.Y-Z

feature-list=enable-8bit-esmtp-negotiation,
    enable-8bit-nntp-posting,
    enable-aggregate-command-set,
```

* Locking down the user's full name disables the use of "roles," which some users find useful.

Example 4-1. pine.conf (continued)

```
    enable-alternate-editor-cmd,
    enable-bounce-cmd,
    enable-flag-cmd,
    enable-full-header-cmd,
    enable-goto-in-file-browser,
    enable-jump-shortcut,
    enable-lame-list-mode,
    enable-mail-check-cue,
    enable-tab-completion,
    print-formfeed-between-messages,
    quell-dead-letter-on-cancel,
    save-will-quote-leading-froms,
    signature-at-bottom,
    use-sender-not-X-sender

# Accept PINE's defaults for all options below this line

news-collections=
incoming-archive-folders=
pruned-folders=
default-fcc=
default-saved-msg-folder=
postponed-folder=
mail-directory=
read-message-folder=saved-messages
signature-file=
address-book=
initial-keystroke-list=
default-composer-hdrs=
customized-hdrs=
viewer-hdrs=
saved-msg-name-rule=
fcc-name-rule=
sort-key=
addrbook-sort-rule=
goto-default-rule=
character-set=
composer-wrap-column=
reply-indent-string=
empty-header-message=
use-only-domain-name=no
printer=lp
personal-print-command=
standard-printer=lp
bugs-additional-data=
kblock-passwd-count=
sendmail-path=
operating-dir=
display-filters=
sending-filters=
```

Example 4-1. pine.conf (continued)

```
alt-addresses=
addressbook-formats=
index-format=
viewer-overlap=
scroll-margin=
status-message-delay=
mail-check-interval=
newsrc-path=
news-active-file-path=
news-spool-directory=
upload-command=
upload-command-prefix=
download-command=
download-command-prefix=
mailcap-search-path=
mimetype-search-path=
tcp-open-timeout=
rsh-open-timeout=
new-version-threshold=
```

Options that are not explicitly set, such as `news-collection=`, will take PINE's default value unless a value is defined in *pine.conf.fixed*.

Example 4-2. pine.conf.fixed

```
personal-name=
user-domain=
inbox-path={imapserv.unt.edu}INBOX
smtp-server=smtpserv.unt.edu
use-only-domain-name=
feature-list=enable-lame-list-mode,
    no-use-sender-not-x-sender
```

In the previous example, `personal-name`, `user-domain`, and `use-only-domain-name` are not set—PINE will look up those options and set them at run-time. Forcing those options to be set by PINE helps prevent email spoofing. To enable a feature, include it in the `feature-list`. To disable a feature, prefix it by "no-" (for example, `no-use-sender-not-x-sender`) and include it in the feature list. Features are comma-delimited.

It's worth noting that the syntax for defining IMAP options is identical in the two global configuration files and in the personal PINE configuration file.

A user is free to set options by directly editing her *~/.pinerc* file, but may also set any allowable option from within PINE's configuration menu. Settings that pertain to IMAP incoming mailboxes and folders are set in PINE's Setup Configuration menu. Start up PINE and, from the Main menu, select "Setup" and "Config." You will see a menu that begins something like the one shown in Example 4-3.

Example 4-3. PINE Setup Configuration Menu

```
PINE 4.20   SETUP CONFIGURATION       Folder: INBOX  192 Messages

personal-name            = <Value is Fixed: using "John Doe">
user-domain              = <Value is Fixed>
smtp-server              = <Value is Fixed>
nntp-server              = <No Value Set: using "newserv.unt.edu">
inbox-path               = {imapserv.unt.edu}INBOX
incoming-archive-folders = <No Value Set>
pruned-folders           = <No Value Set>
default-fcc              = <No Value Set: using "sent-mail">
default-saved-msg-folder = <No Value Set: using "saved-messages">
postponed-folder         = <No Value Set: using "postponed-msgs">
read-message-folder      = <No Value Set: using "saved-messages">
form-letter-folder       = <No Value Set>
signature-file           = <No Value Set: using ".signature">
feature-list             =
            Set    Feature Name
            ---  ----------------------
            [ ]  allow-talk
            [ ]  assume-slow-link
            [ ]  auto-move-read-msgs

? Help  E Exit Setup   P Prev   - PrevPage A Add Value  % Print
        C [Change Val] N Next spc NextPage D Delete Val W WhereIs
```

Options that list "Value is Fixed" are read-only options set in the *pine.conf.fixed* file by the system administrator and cannot be changed by the user. In the example, the `personal-name`, `user-domain`, and `smtp-server` are fixed. The `inbox-path` setting tells PINE to look for the IMAP INBOX on the server *imap.unt.edu*. To change the `inbox-path` or any other option that is not fixed, press C to Change Value, enter the new value, and press Return to make the change. Press E to exit the Setup Configuration menu—you will be prompted by PINE as to whether or not you want to save your changes. Answering Yes will save your changes permanently.

PINE supports multiple IMAP accounts. Setting up multiple accounts is somewhat cumbersome to do via PINE's menu interface, and for that reason we'll show you how to configure multiple accounts by editing the *~/.pinerc*. In the next example, user *johndoe* wants to set up three IMAP accounts. Here is information on the accounts that will be used to configure *johndoe*'s *~/.pinerc*:

Work
: The Work account is a collection of IMAP folders that reside in *johndoe*'s IMAP account on the official company IMAP server where he works. The name of that IMAP server is *imap.someplace.org*.

Personal

The Personal folder collection is a collection of folders that reside in *johndoe*'s account on his personal IMAP server, running on his Linux box in his garage at home. That IMAP server's name is *imap.johndoe.net.*

Cyrus archive

johndoe wishes to read mail in CMU's Cyrus mailing list archive, logging in anonymously. The mailing list archive is located on the IMAP server called *cyrus.andrew.cmu.edu*, lives in the *archive* user's mailbox hierarchy, and belongs to the *cyrus* user on that server.

Example 4-4 shows how the `folder-collections` option should be set in *johndoe*'s *~/.pinerc* to meet his requirements for the three IMAP accounts.

Example 4-4. pinerc folder-collections Settings

```
folder-collections=Work {imap.someplace.org}inbox.[],
                   Personal {imap.johndoe.net}inbox.[],
                   CyrusArchive {cyrus.andrew.cmu.edu/anonymous}archive.[]
```

PC PINE

PC PINE's configuration is identical to that of PINE for Unix. The only difference lies in the filename and location of the user's personal configuration file on the client machine. The name of the user's configuration is either *PINERC* or the value of the environment variable PINERC. PC PINE searches for *PINERC* in the following places, in order of preference:

- $PINERC
- $HOME\PINE\PINERC ($HOME, if not set, defaults to the root of the current drive)
- A file named *PINERC* in the same directory as the PC PINE executable (the file *PINE.EXE*)

The address book is stored in a file named *ADDRBOOK*, and the signature is in a file called *PINE.SIG*. PC PINE expects to find both files in the same directory as the *PINERC* file.

Star Mail

Star Office is a freeware gem. It is an "office suite" of productivity applications, with file formats compatible with Microsoft Office applications. Star Office includes an email client, Star Mail, which supports IMAP. Star Office is free to private, non-commercial users and students. In addition to its native Windows 95/98/NT operating environment, Star Office is also available for other operating systems, including OS/2, Linux, and Solaris.

Star Mail is a component of the Star Office Suite and cannot be installed separately—if you want to use Star Mail, you have to install the whole Star Office Suite. That could be problematic if you're low in disk space—the Star Office download for Windows is 80 MB; installed, it requires around 160 MB of disk.

The interface is somewhat non-intuitive to those who are regular users of Microsoft products. While this is not necessarily a liability, expect some users to encounter a slight learning curve over the first few times they use the interface.

For more information or to download a free copy of Star Office, visit *http://www.sun.com/products/staroffice/*.

Features

Client-side filtering

Star Mail is one of the few IMAP clients that, at the time of this writing, provides client-side filtering.

Import filters

Star Office has tools for importing data from Messenger and Outlook Express.

Remote LDAP searching

Remote address book feature allows you to search Bigfoot, WhoWhere, and Switchboard, but not your own site's LDAP directory.

Advanced searching

In addition to standard searching of message headers, Star Mail permits searches through levels of nested folders.

Performance enhancements for slow connections

To avoid wasting time downloading large messages, Star Mail allows the user to set a threshold on the size of messages and attachments. If the user attempts to open a message exceeding that threshold, he will be warned and asked whether to cancel the action or continue.

Configuring Star Mail for IMAP

If you are running Star Office for the first time, it may come up in full-screen mode. If you prefer to run Star Office in a window, then press Alt-V to bring up the View menu and unselect "Full Screen."

Star Mail works great with both Cyrus and UW servers and does not require any special configuration, such as specifying the folder path, to support the server namespace.

The configuration required to set up new IMAP accounts is somewhat more complicated than it should be. More steps are required to configure it than are needed to configure the other clients evaluated in this chapter. When we attempted to send mail for the first time after configuring the client, the send failed with an error message that was less than informative. We eventually found out that, in order to send mail out, you must first create an "outbox"—it's not automatically created for you.

Configuring the IMAP options

Follow these steps to set up your IMAP options in Star Mail:

1. Pull down the Tools menu and select the Options. On the Options menu, select Internet (click on the + sign to expand the list of Internet options).
2. Click on Mail/News. You'll see the Mail/News configuration window, shown in Figure 4-1.
3. Enter the full address of your outgoing SMTP host in the Outgoing Mail field.
4. Enter the full address of your IMAP server in the Incoming Mail field.
5. Enter your IMAP username and password in the User ID and Password fields.

The other information is optional to configure for IMAP. Click OK when you're done entering the information.

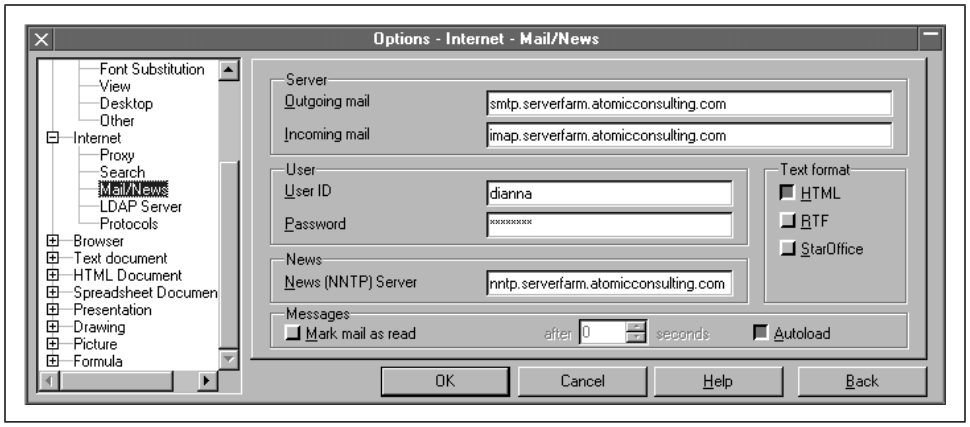

Figure 4-1. Entering IMAP options in Star Office

Reading IMAP mail with Star Mail

At this point, you've done the preliminary configuration, but there's still a bit of configuration to do before you can read your mail. Follow these steps to complete the configuration and read your IMAP mail:

1. Bring up the Star Mail client, which is located in the Star Explorer menu window. To bring up the Star Explorer menu window, pull down the View menu and select "Explorer." If it is already selected (i.e., if it has a check mark next to it on the View menu) but you can't see the Explorer menu window, then the window is minimized. To expand the window, click on the small bar near the top lefthand side of the Star Office window.
2. Next, bring up the Star Mail client by clicking on the E-mail & News bar, as shown in Figure 4-2. The client's menu will be blank if you've never used it before.

Figure 4-2. Star Explorer E-mail & News

3. You will need to create a new IMAP Account. Begin by right-clicking on the blank background under E-mail & News to bring up the menu.
4. Under the New menu, select IMAP Account… to bring up a window titled Properties of IMAP Account.
5. Click on the Receive tab. You will see a window that looks like Figure 4-3. If you configured your mail options as described in the beginning of this section, then the values should already be filled in. You shouldn't have to change any of the values—just click the OK button to create the IMAP account.

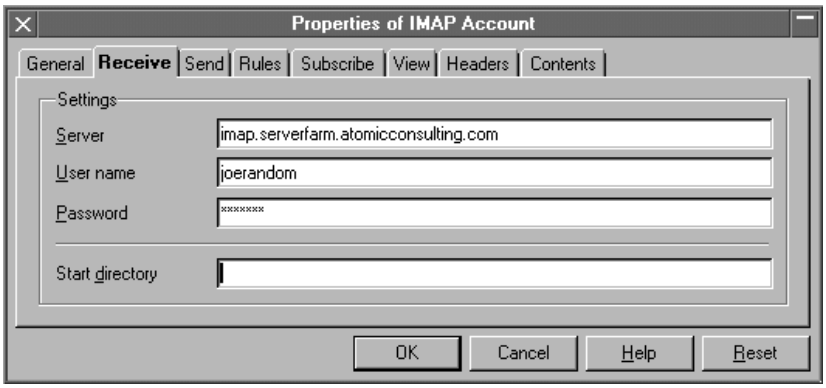

Figure 4-3. Properties of IMAP Account

6. The new IMAP account will appear in the Star Explorer window, as in Figure 4-4. Click on the + sign to connect to your IMAP server and retrieve your messages.

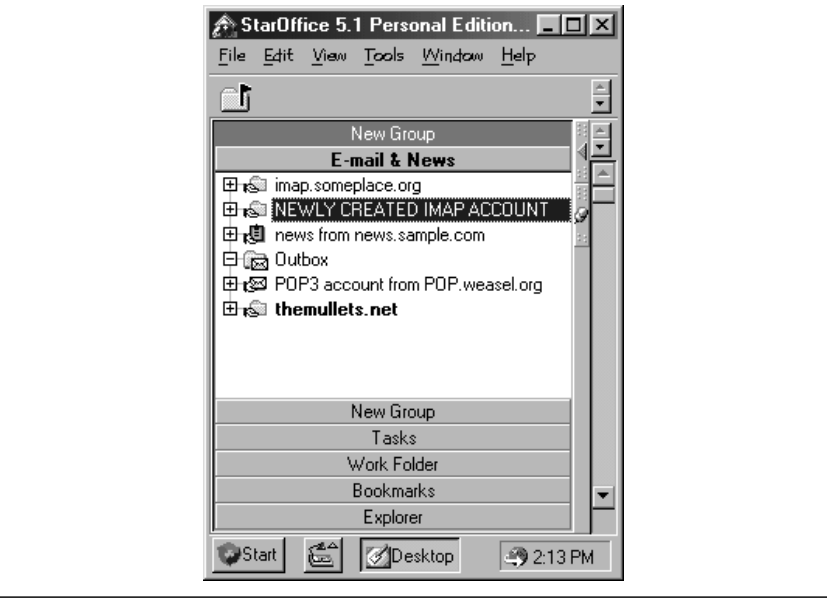

Figure 4-4. New IMAP account

Sending mail out requires that you create an Outbox first. Right-click on the white background as you did to create a new Email group and select Outbox from the menu.

Netscape Messenger

Netscape Messenger is the mail client component of the popular Netscape Communicator package. Messenger's popularity is due in large part to the fact that it's part of the Communicator package—many Netscape users use it out of convenience, rather than for its merits. In any case, it's a widely used client, and for that reason is mentioned here. All in all, Netscape Messenger is adequate for the majority of users who want a quick, easy, and free way to read their email and manage addresses. It lacks the functionality that power IMAP users look for in a mail client.

Netscape is available for a variety of platforms, including Windows 95/98/NT, Macintosh, and several flavors of Unix. Complete information and the latest version of the Communicator package are available at Netscape's download site: *http://download.netscape.com/*.

Features

Supports SSL

One of the most desirable features of Messenger is that it supports SSL. If your IMAP server is enhanced to support SSL, Netscape Messenger can be used to avoid sending passwords in cleartext over your network.

Folders are stored on the IMAP server

Unlike its primary competitor, Outlook Express, Netscape stores all folders on the IMAP server, including outgoing mail that is automatically saved into a "sent mail" folder and, also, drafts.

Performs well over slow connections

To improve performance over slow connections, Messenger allows the user to choose to download only messages that are below a certain message size threshold. Additionally, attachments are downloaded on demand, allowing a message with a large attachment to be downloaded quickly.

Superior LDAP support

LDAP support is excellent in Messenger. Messenger has a single interface for searching both personal and remote LDAP address books. The address book interface supports search not only by name, but by city, organization, phone number, and, believe it or not, by soundex.* The client also supports integration of custom LDAP schema for searching. The user can drag and drop the results of an LDAP search into her local address book. LDAP directories can be replicated and used in offline mode, and Netscape claims that the local LDAP address book scales to over 200,000 names.

Site customization

The Netscape Communicator Client Customization Kit (CCK) allows sites to customize components of Communicator, including Messenger, and build an installer for distributing Messenger to their users.

Almost-there ACL support

Netscape claims to support ACL modifications and shared folders, but we were not able to make it work with the Cyrus server. It's possible to view the ACL setting on a folder, but modification of the ACL only works with Netscape's mail server.

Configuring Netscape Messenger for IMAP

Netscape is easy to configure and works well with most of its default settings. The only required settings are for your IMAP server, your outgoing SMTP mail server, and your username.

Configuring your preferences

If you're a first-time Messenger user, start up Netscape Communicator, then pull down the Communicator menu and select Messenger. The Mail and Discussion Wizard will guide you through setting your mail preferences.

If you've used Messenger before, or if the Wizard does not pop up to help you, then follow these instructions to configure Messenger:

1. Start Communicator.
2. Pull down the Edit menu and select Preferences….

---

* Soundex is a way of encoding a name (usually surname) that is based on the way the name sounds, rather than the way it's spelled. This is a valuable feature for names that are difficult to spell and are often entered incorrectly into databases. To find the soundex coding of a surname, visit the National Archives and Records Administration's *The Soundex Machine* at *http://www.nara.gov/genealogy/soundex/soundex.html*.

3. Expand the Mail & Newsgroups category.
4. Click on Identity and fill in the information on the Identity form. Don't click OK yet—if you do, you'll close the Preferences window, and you don't want to do that just yet.
5. Click on Mail Servers. Add the fully qualified domain name (FQDN) of your IMAP server under Incoming Mail Servers.
6. Click on your IMAP server under Incoming Mail Servers to highlight it, then click on the Edit button to bring up your IMAP server preferences. There are several options you may want to set, such as whether or not to connect to your IMAP server via SSL (if your server supports SSL), save your password, or empty your Trash folder when you close Messenger.
7. Before you leave the Mail Servers preferences, enter the FQDN of your outgoing SMTP mail host (often the same as your IMAP server) under Outgoing Mail Server. There are other options under Outgoing Mail Server—set them if they're applicable to your site.
8. You now have the bare minimum configuration to allow you to connect to your IMAP server and read and send mail. Click OK to save your preferences.

Reading your mail

To log in to your IMAP server with Messenger, pull down the Communicator menu and select Messenger. Messenger has three panes. The leftmost pane lists your IMAP server and mail folders. The top-right pane lists your mailbox message index, and the lower-right pane lists the contents of each message you select.

Click once on your server name to display your message index. To read a message, click once on the message listing in the index.

Subscribing to folders

Only the mail folders you're subscribed to appear in your mail folder listing. To manage your folder subscriptions, pull down the File menu and select Subscriptions…. Click once on the name of a folder, then click on the Subscribe or Unsubscribe button to subscribe to or unsubscribe from the folder.

Expunging your deleted mail

Messenger's implementation of the IMAP two phase "delete-expunge" model is counterintuitive—you would expect to find two separate buttons or menu items to "delete" and "expunge." Messenger has you "delete" messages as you would in other clients, but to expunge them, you pull down the File menu and select Compact This Folder.

Outlook Express

Outlook Express (OE) comes bundled with Microsoft's Internet Explorer browser. Like Netscape Messenger, OE is popular by virtue of being free.

One drawback is that, in order to install Outlook Express, you'll have to install the entire Internet Explorer (IE) package. That may be daunting to those who don't have copious hard drive space to spare. The "standard" installation, which is the most basic installation you can use and still install OE, requires 72 MB of disk. The disk space required to run IE/OE once it's installed is 47 MB.

Although many people prefer Netscape Messenger over OE, OE generally behaves better with IMAP servers. Overall, OE works well for users who are looking for a bare-bones IMAP client that is quick, intuitive, easy to set up for the first time, and easy to use. Internet Explorer and OE are available for Windows 95/98/NT, Macintosh, and Unix. To download a free copy of Outlook Express, visit *http://www.microsoft.com/ie/*.

Features

Ease of use

Outlook Express is incredibly easy to install, set up, switch to from other email clients, and use. In fact, OE has a facility for importing mail client configurations and address books from other mail clients (the next section, "Configuration," shows you how).

Supports SSL

A great benefit of using Outlook Express is that it supports SSL. You may be concerned about sending passwords in cleartext over your network. Your users can use OE and connect via SSL to your SSL-enabled IMAP server—and passwords will cross the net encrypted.

Advanced searching

OE offers more than just simple searches on message headers. OE allows you to search for a message in a folder and all of its sub-folders. In addition to standard searching by message header fields (sender, recipient, subject line, date), you can also search the message body and certain types of message attachments for a text string.

Performance over slow connections

To improve performance, OE downloads mail in the background, leaving you free to do other tasks while your INBOX is being populated. You also have the option

of setting a size threshold on messages to prevent long downloads if you're on a slow connection.

Configuration

If you're running Outlook Express for the first time…

When you launch OE for the first time, a Wizard will automatically appear and prompt you for the information it needs to set up your configuration. If you have not run OE before, then getting started is easy. Simply launch Outlook Express, answer the questions the Wizard asks you—and that's all there is to it!

If you're switching from another client to OE, OE will allow you to import your data from that client to OE. OE will import mail, address books, and configuration settings from the following clients:

- Eudora Light (through Version 3.0)
- Eudora Pro (through Version 3.0)
- Netscape Mail (Version 2.0 or 3.0)
- Netscape Messenger (Communicator)
- Microsoft Exchange Client
- Microsoft Windows Messaging
- Microsoft Internet Mail and News

To import existing data from one of those clients:

1. Select File/Import.
2. Select either address book or messages.
3. Select the application you are importing the mail messages or address book entries from.
4. A Wizard will appear to assist you through the rest of the process.

If you can't conjure up the Wizard…

If you've run OE before with POP and now wish to begin using it to read your IMAP mail, or if the Wizard does not appear when you start it up for the first time for whatever reason:

1. Select Tools/Accounts.
2. Click on the Mail tab.
3. Click on the Add button and select Mail….

The Wizard will appear and ask you for your name, the name of your IMAP server, and the name of your outgoing SMTP server.

Mulberry

Mulberry is a powerful IMAP client for Windows and Macintosh that fully implements the feature set of IMAP and the IMAP extensions. Mulberry is a product of Cyrusoft, Inc., the company co-founded by the former project manager of CMU's Project Cyrus, Matt Wall, and Cyrus Daboo, the original developer of Mulberry. Cyrusoft's philosophy focuses on true adherence to open standards. Cyrusoft seeks to provide a client that provides a full set of features that help the user read mail more productively and efficiently.

Mulberry is popular in the IMAP world, especially at educational institutions. It's been in use at over 1,000 sites since 1995, in 22 countries, with over 300,000 users.

Cyrusoft has been very diligent in providing regular updates for both the Windows and Mac versions of their software simultaneously. They state their commitment to both versions up front, and they have historically stuck with it. You don't have to worry that the Mac client will go away next year. Having both your Mac and Windows users on the same release of the software will make life easier for your end user support staff. Some of the future development plans for Mulberry include Unix clients (Solaris and Linux, initially), Palm OS clients, and Windows CE clients.

Mulberry is a hidden treasure. Mulberry performs well, is stable, and fully implements IMAP. Mulberry's ACL editor is unmatched and is a valuable resource to Cyrus users. Once we got used to Mulberry's interface, we were hooked.

Features

Mulberry's user interface has a different look and feel from your average Windows application, but it's powerful, friendly, and easy to configure. Detailed information on Mulberry is available at Cyrusoft's web site: *http://www.cyrusoft.com/*. Information at that site includes feature lists, free demo for download, FAQ, general information on IMAP, and Mulberry documentation for download.

Performance

Mulberry was designed not only to provide a pleasing user interface, but also to provide high performance. In fact, the folks at Cyrusoft claim that Mulberry is the "fastest IMAP client around," with the fastest connect time, fastest download of MIME attachments, and fastest message display time of any client available. We didn't do any quantitative benchmarks to confirm that claim, but from a strictly qualitative standpoint, Mulberry is definitely the fastest GUI client evaluated in this chapter. Mulberry minimizes memory and disk space requirements by implementing a "plug-in" architecture—users are given the option of discarding features they don't use, thereby claiming back some disk space and memory overhead.

Mulberry does not include a web browser, a news reader, or any other program that has nothing to do with email, which makes Mulberry smaller still in terms of disk space and memory requirements. To avoid wasting time downloading large messages, Mulberry allows the user to set a threshold on the size of messages and attachments. If the user attempts to open a message exceeding that threshold, she will be warned and asked whether to cancel the action or continue.

Support for site customization

A feature of Mulberry that sets it apart from other IMAP clients is its configurable installer. Sites can use the installer to distribute Mulberry preconfigured with customized preferences to their users. Cyrusoft also offers Mulberry Administrator's Toolkit, which can be used to lock down preference settings. The obvious advantage of locking down preferences is to prevent changes to the configuration when Mulberry is used in a multiuser setting, such as in a general access computer lab ACL tool.

Mulberry provides an elegant, outstanding, and very useful Access Control List (ACL) Viewer and Editor to support the IMAP ACL Extension (RFC 2086). Mulberry's ACL Editor is particularly intuitive and easy to use. Each ACL right can be toggled on and off for each user on the ACL list. The ACL editor has a pull-down list of commonly used ACL combinations, such as "read-only bulletin board" and "shared folder." Those predefined ACLs make it easy for users to share folders in the way they intended without making mistakes that could make their mail insecure. The ACL editor is shown in Figure 4-5.

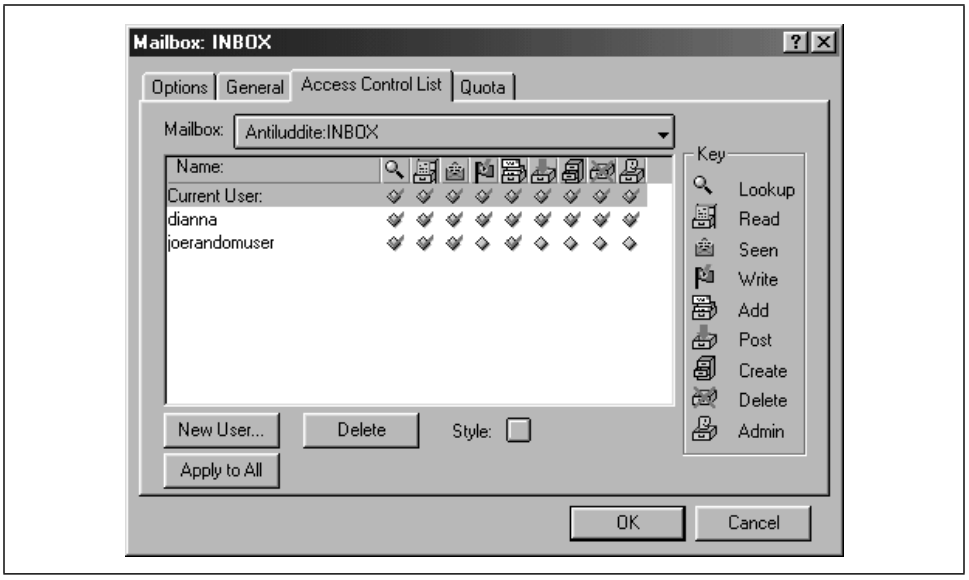

Figure 4-5. Mulberry's ACL editor

Quota viewer

Included in Mulberry is an IMAP quota viewer, which fully supports the IMAP Quota Extension (RFC 2087).

IMSP and ACAP support

Mulberry supports remote storage and retrieval of user options via both IMSP and ACAP.

Encrypted authentication

Mulberry supports two alternatives to cleartext Unix password authentication: Kerberos and CRAM MD5.

Full IMAP support

Mulberry goes beyond the base IMAP protocol and includes full support for IMAP alerts and support for the IMAP Namespace Extension (RFC 2342).

Configuring Mulberry

Mulberry is easy for the end user to configure. The Mulberry documentation includes a one-page QuickStart guide. The interface is intuitive enough to get by without it, but we think it would be the perfect piece of documentation to hand out to users if we were distributing Mulberry at our site.

If you wish to lock down certain preferences at your site, the Mulberry Administrator's Toolkit comes with a program for configuring either the Mulberry installer or the Mulberry itself. The Administrator's Toolkit is packaged separately and is freely available for download, no registration codes required, from *http://www.cyrusoft.com/mulberry/mulbadmins.html*.

Individual user configuration

To configure Mulberry for IMAP, pull down the File menu and select Preferences. You'll see a window like the one in Figure 4-6. Enter your information, and click OK. The preferences take effect immediately.

Site-wide configuration

The Mulberry Administrator's configuration editor allows a system administrator to customize the Mulberry installer or to configure Mulberry itself. An advantage of configuring the installer is that you can distribute the installer without having to unpack the Mulberry distribution, configure Mulberry, and repackage the whole thing.

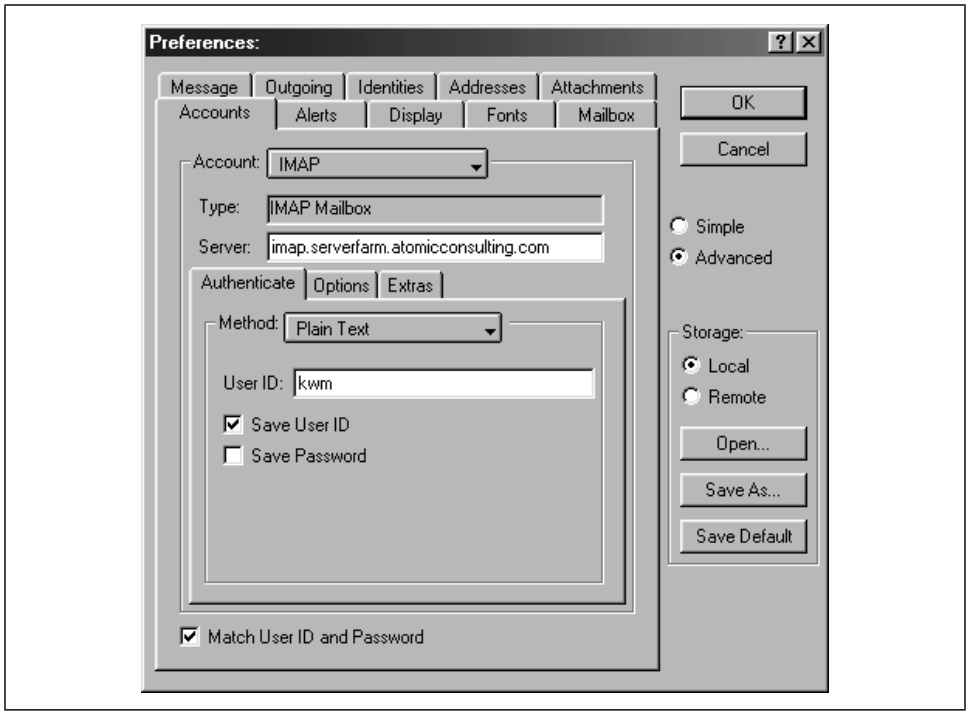

Figure 4-6. Mulberry Preferences

Setting up a site-wide Mulberry configuration is a two-step process: the first step is to set up a configuration file, then run the file through the configuration program to create the configuration. The Administrator's Toolkit comes with a blank configuration file to start with. To get a feel for the types of values that go with the options in the configuration file, you can simply save a local preference file from within Mulberry.

Once you have your blank configuration file, the next step is to run the configuration program. The program will ask you whether you want to configure the Mulberry program or the installer, then will proceed to ask you a series of configuration questions, some of which include questions like:

Do you want to allow users to save their own preferences?
Do you want to lock down server addresses and server domains?
Do you want to lock down the return address?
Do you want to disallow saving the password in the preferences?
Do you allow extra header lines?

There are a dozen or so other configuration questions that the configuration program asks, all of which are listed and explained in the Mulberry Administrator's Guide. The format of the configuration file and all possible preferences and values are also listed in the Administrator's Guide.

Once you're done answering the questions, the configuration program will process the answers and carry out the customized configuration.

Eudora

Eudora was originally developed by Steve Dorner at the University of Illinois and began its life as a freeware POP client for the Macintosh. Qualcomm bought the rights to Eudora in 1991 for internal use and developed a version for Windows. Dorner joined the company the same year and is still with Qualcomm today. Eudora was released as a commercial product shortly after Dorner joined Qualcomm. Eudora is popular—there are over 20 million Eudora users worldwide.

There is, as you can imagine, a history behind Eudora's name. The original name, UIUCMail, was something of a tongue-twister. Dorner remembered a story by Eudora Welty about a woman who decides to live at the post office, titled "Why I Live at the P.O." As the story goes, Dorner was processing so much email that he felt as though he lived in the post office. Add to that the fact that the program uses the POP (Post Office Protocol) to fetch mail, and Dorner saw a metaphorical connection. Eudora Welty is flattered by the allusion to her work.

The Eudora 4.3 release offers three user-selectable modes, including a new sponsor-supported mode that provides the full-featured program to consumers free of charge. We evaluated the Sponsored mode version of Eudora. The Sponsored mode of Eudora includes all of the capabilities that were previously available only in the retail version of Eudora. Ads are not keyed to the content of the user's email, nor is personal information sent to advertisers without prior permission from the user. The user has the option of filling out a profile to control the types of ads he'd like to see.

Eudora is also available in Paid mode and Light mode. The Paid mode version is identical in features and capabilities to the Sponsored mode version, but has no ads. Light mode has no advertising, but it does have sponsor logos and is missing some of the features of Paid and Sponsored modes.

Eudora is available for download at *http://www.eudora.com/*.

Features

Enhanced filters

Eudora allows more than just filtering into mail folders. Filter actions include playing sounds, opening the message, printing the message, automatically forwarding the message, bouncing the message, automatically replying to the message, labeling the message with a color, or playing a "speak" message.

Advanced searching

Eudora allows searching on both messages and folder or mailbox names.

Personalities

Eudora handles multiple email accounts very nicely. Personalities can be defined for different IMAP accounts, allowing the user to tie a set of preferences to an account. For example, a user can tie a signature to a particular personality.

Import option

Eudora for Windows allows the user to import settings, mail, and address books from Microsoft Outlook Express or Netscape.

Multitasking

Mail can be composed, received, and sent simultaneously. The user can check and send mail as a background operation.

Message viewing bells and whistles

Graphics, including animated GIF images, and styled text can be displayed inline without opening a separate browser. Eudora's interface has a separate pane below the mailbox window for previewing messages.

Compose options

During composing a message, Eudora automatically completes the name when the user types the first few letters of an address in his address book. The Compose window also includes a spell checker that highlights misspelled words with the click of a button. For fans of HTML mail, Eudora's compose window allows the user to perform HTML formatting, including inserting hyperlinks and embedded graphics.

Other features

Eudora supports vacation-style auto-reply. It has nice, simple documentation and complete online help.

Configuring Eudora

Eudora is very simple to configure. To edit basic options, go to the menu bar, pull down Tools, and select Options. The Options menu is shown in Figure 4-7. Click on the type of options in the left pane. Changes take effect immediately when you

click the OK button. The IMAP account you specify will show up as your "Dominant" mailbox or persona. When setting up your IMAP account, leave the "Inbox Prefix" blank—Eudora will query the server and find your Inbox for you.

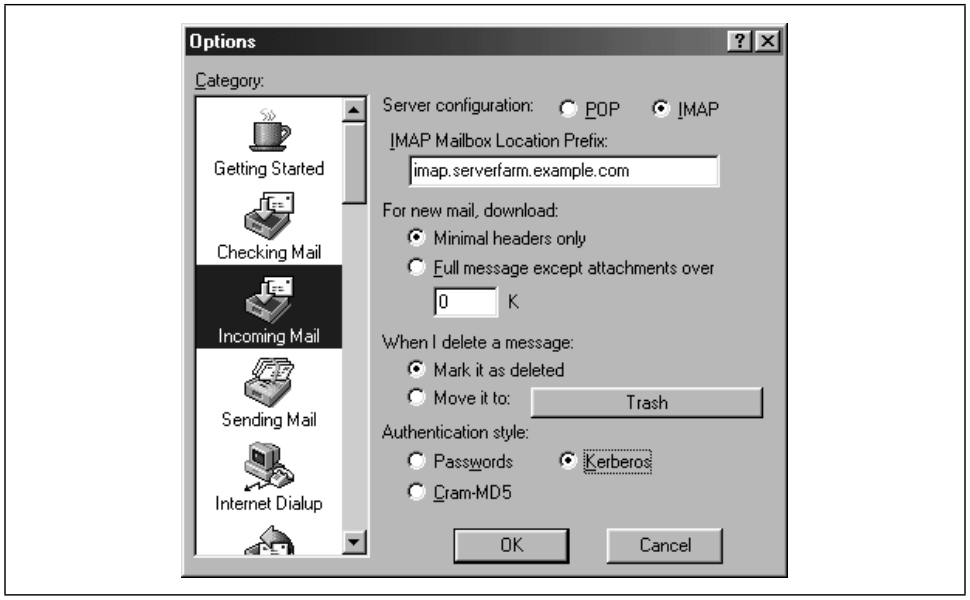

Figure 4-7. Eudora Options menu

To add an another IMAP account, pull down the Tools menu and select Personalities. Click on the Personalities tab. Right-click on the background in the window above the tabs to pop up a menu. Select New from the menu and enter the information about your IMAP account. See Figure 4-8 for an illustration. After you click on the background and select New from the pop-up menu, Eudora will use a Wizard to guide you through the process of adding the new account.

Other Clients

There are dozens of free, shareware, and commercial IMAP clients available for every platform imaginable. A complete and well-maintained list of IMAP client software can be found at *http://www.imap.org/*. Although we evaluated many of the clients on that list, we chose not to mention them here for one or more reasons: incomplete IMAP support, unusually complex installation, support for a single platform only, or a lack of basic features. The list of clients is dynamic—clients are constantly under development and constantly improving, and new clients are being added. It's worth browsing that list for updates from time to time.

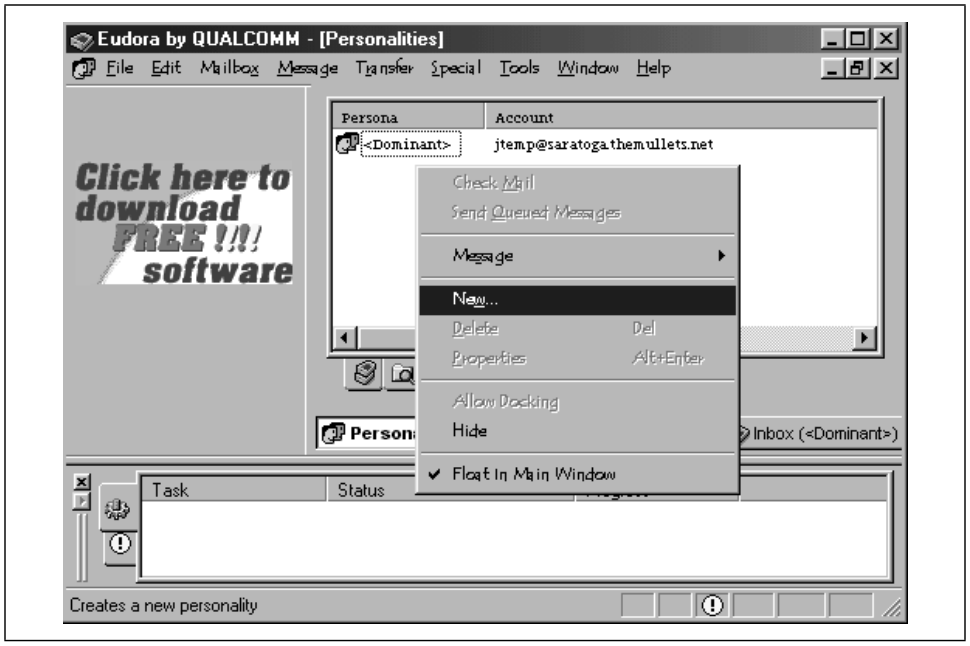

Figure 4-8. Adding another IMAP account to Eudora