L-Soft international, Inc.

General User's Guide
for
LISTSERV®, version 1.8c

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URL: http://www.lsoft.com/manuals/index.html

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Reference Number 9611-UD-06

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Quick Start

If you want to get started without having to read everything,

- Skip directly to the Introduction in Chapter 1 and read the section about LISTSERV, then the overview of mailing list s.
- Then skip to the Chapter 2 for tips on Getting Started or
- Skip to Chapter 3 for Advanced Users

Use the Index and Table of Contents for help on specific topics when you don't have time to read through the chapters.

What to read in Chapter 1

If you are new to LISTSERV, you will want to read the descriptions of LISTSERV and Mailing lists before you move to the next chapter. If you are already familiar with LISTSERV lists, you can skip these definitions and just come back to them as you encounter things you do not understand.

What to read in Chapter 2

If you are new to LISTSERV, you will want to read this chapter for details on how to find, join and mail to lists. If, however, you are already familiar with LISTSERV lists you can jump to Chapter 3.

Chapter 1: Introduction

What Is LISTSERV?

Before we get started in Chapter 2, it is necessary to introduce a number of basic LISTSERV concepts to avoid misunderstandings and confusion, especially as some of these words are sometimes erroneously used with a different meaning on the network.

LISTSERV® is a system that makes it possible to create, manage and control electronic "mailing lists" on your corporate network or on the Internet. Since its inception in 1986 for IBM mainframes on the BITNET academic network, LISTSERV has been continually improved and expanded to become the predominant system in use today.

The first version was written in 1986 by Eric Thomas, now L-Soft's Manager of Technical Services, under the name *Revised LISTSERV*. Nowadays it is a commercial product, distributed by *L-Soft international, Inc.* (http://www.lsoft.com). LISTSERV is always spelled in upper case, and is a registered trademark licensed to L-Soft international, Inc. You can of course type the name in lower case when sending commands to LISTSERV, but you should avoid doing that when writing to people as it can be confusing. For instance, some people (incorrectly) say "a listserv" when they really mean "a mailing list", as in "I am looking for a listserv on water skiing". This is about as appropriate as saying "I am looking for a wordprocessor on the Stockholm syndrome", when what you really mean is that you are looking for a paper or thesis on that syndrome, presumably written with a word processor. And, of course, some technical people will think you are actually looking for a word processor, and send you a lot of irrelevant technical information.

Another common misconception is that "listserv" is a generic English word, like "electronic". Some people say "a listserv list" whether the list is a "real" LISTSERV list or a list managed by a totally different and incompatible mailing list manager. This is confusing because people will then think the list is managed by LISTSERV, and assume that certain functions are available and that commands are sent in a certain way. For instance, they may assume they can join the list without having to know where it is located (this will be explained later on), and complain that it does not work. Now, this may sound like nit-picking and an unfair imposition on the memory of non-technical users, but on the other hand people have no trouble remembering that "a Mac" is not an acceptable way to refer to a PC. LISTSERV is a registered trademark licensed exclusively to L-Soft international, Inc., as the name of its mailing list processor product and the term should not be used generically.

About Mailing Lists: an overview

A **mailing list** is a list of people's names and addresses that is used to send certain messages or announcements to many people at once, who are usually expected to share a common interest in the contents of the message – just like in the real world. However, unlike in the real world, you can usually join and leave the list as you see fit, so there is a good chance that you will actually find at least some of the messages interesting. In fact, electronic mailing lists are more like clubs or magazines than a "real world" mailing list.

A mailing list is managed by a **list owner** (or sometimes several owners for large lists). The list owner is the person with formal responsibility for the operation of the list – a kind of referee, if you want. The list owner defines the list's charter and policy, *i.e.* what the list is about and what are the general rules all subscribers must accept in order to be allowed to join the list. The list owner is also responsible for all administrative matters and for answering questions from the list subscribers. It is not unusual to have several list owners spreading the work and responsibility among themselves; in particular, it is common for a "technical" list owner to assist the non-technical person who is formally in charge of the list with administrative matters.

The messages sent (or **posted**) to a mailing list may be saved in files known as **list archives** for future reference. These archive files are owned by the list owner who sets the policy for their use. Other expressions you may encounter are **list notebooks** and **list logs**; they all mean the same thing to people from different computer cultures. These archives are usually organized in **log files**. A log file is a disk file containing everything that was said on the list on a given month (or week). There are two ways to access these list archives:

- you can ask LISTSERV to send you (say) the log file for March 1993

- you can use the **database functions** to **search** the archives for messages related to a particular topic, or sent by a certain person, and have LISTSERV return a copy of the messages that matched your search criteria.

The database functions take some time getting used to, because when you are searching an archive with 5000 messages it can be difficult to select the messages you are looking for without also selecting another 200 unrelated messages. But, once you get past that obstacle, they are invaluable.

Given a reliable and reasonably fast network, mailing lists are highly interactive. When you send a message to a mailing list, LISTSERV will distribute it immediately and you can expect most subscribers to receive their copy within **1 to 20 minutes**, depending on location and mail system. While this is great if you are looking for the answer to a problem your boss just reminded you needed to be solved yesterday, in some cases it can be annoying because you would rather not be interrupted while you are working. When you are not in a hurry, it can often be more convenient to read all these messages during a break, or at any other time where you are not too busy. LISTSERV provides **digest subscriptions** for this purpose (also called "list digests" or "subscriptions in digest format"). A digest is simply a larger file with everything that was said on the list in a particular day (or week for low-volume lists). Unlike their real world counterparts, LISTSERV digests are **not edited** and you get exactly the same information as with a normal subscription, just in a single message that is usually sent during the night when the lines and computers are less busy. Occasionally, the amount of activity on the list may be so high that LISTSERV will send a **special issue**, to prevent the next day's digest from becoming too large (many mail systems reject messages larger than 100 kilobytes, and some PC mail programs and editors cannot view messages larger than 64k). This special issue is sent immediately, when LISTSERV decides the list has become hyperactive.

Sometimes even digests take up too much of your time to be worth the effort – or maybe you have a limited amount of disk space to store your mail, and the large digest files occasionally fill up your disk or quota. If your interest in the list is only peripheral, you may want to get an **index subscription**, which is similar to a digest but much smaller, as it only contains a directory of all the messages posted in the last day. That is, sends you a list of all the messages, in chronological order, with the name and address of the author of the message, the message subject, and its size (in lines). It only takes a few second to identify the messages you are interested in, and you can then order a copy of just these messages from LISTSERV. And if there was nothing interesting that day, all you have to do is throw the index away.

Today, there are nearly 10,000 public mailing lists on covering virtually any imaginable topic. Think of it as a virtual encyclopedia that is always up to date: no matter what you need to know, or at what time of the day, the chances of finding a list from which you can get an answer (usually in a matter of hours, or just minutes if you are familiar with the database functions) are very good. The more specialized your questions, the higher the chances of success. You must, however, find the right list, and we will see later how LISTSERV can help you with that.

Of course, not all lists are question and answer forums. In fact most lists are more like a virtual coffee house where people you haven't met are comfortably discussing topics you enjoy conversing about, and will be happy to have you contribute your experiences.

File server functions

In addition to mailing lists, LISTSERV also acts as a **file server** – a program that manages collections of files and makes them available to users upon request. Among these files are the list archives we have already mentioned, but LISTSERV can store just about any kind of file: papers put up for discussion, agendas and minutes of upcoming meetings, survey results, programs, electronic magazine issues, *etc*. These files are organized in **filelists** (VM version) or **catalogs** (other versions), which are very much like directories on a PC. Each filelist or catalog contains a list of files, along with some descriptive text and two **file access codes** (or **FACs**) that define who is allowed to order a copy of the file and who is the person in charge of updating it (the **file owner**).

If this is your first time through this document, you may want to jump to Chapter 2 now and come back as you encounter words you are not familiar with.

Defining The Terms

Public vs. private

A **public** list is a totally open list – anyone can join or leave, ask questions, see who is on the list, search archived messages, and so on. Public lists usually attract a lot of subscribers, and tend to generate quite a lot of traffic. They are ideal candidates for digest subscription (see later on). Sometimes two people decide to have an argument on the list and your mailbox is flooded with repetitive and pointless messages. If that happens, just wait for the list owner (see below) to take action or, if you don't have the patience, sign off the list and wait a couple days before subscribing again.

Conversely, a **private** list is a list exercising some measure of access control. Usually, you need to apply for membership to the list owner, and only people who are subscribed to the list may send messages and access archived postings, but there are many other possibilities. Private lists are usually smaller, more focused, and more "professional".

Some lists do require you to apply for membership but are still called "public". Usually this is because the list owner really lets anyone join the list, but has to ask a few questions before letting you through, for instance because the list is funded by a grant which requires every subscriber to state where they work.

Open vs. closed

In most cases, open/closed are interchangeable with public/private; they are mentioned mostly so that you do not get confused the first time you encounter these expressions. An **open** list is one you can join and leave as you want; with a **closed** list, you have to apply to the list owner for membership. If a list is operating with **closed subscription**, it means nobody can join at all: this is typically used for lists corresponding to staff, boards of directors or other formal structures.

Moderated list

With a normal list, messages submitted to the list by users are either accepted or rejected. If the message is accepted, the original text is published in its entirety, and the other subscribers can know that nothing was censored. A **moderated** list is similar to a real-world newspaper: when you

send mail to the list, it is opened by a human being, called the **editor** or the **moderator**, who then decides what to do with your message. Usually the editor "cleans up" your message, shortens it if it was too long, and includes it in the next "issue" (this is called a "moderated digest", because the editor sends a new issue at regular intervals with selected contributions from the readership). Sometimes the editor just acts as a filter, deciding whether or not to accept articles.

Peered list

A **peered** list is a list that runs in parallel on multiple computers, both to spread the load between several machines and to provide better reliability (you can still access part of the list even if one of the machines is down). A peered list is in fact a collection of individual lists, called **peers**, which all receive and deliver exactly the same messages. You can send your messages to any of the peers, and they will be propagated to the others. There is no "master" list: all the peers are equivalent. When you subscribe to a peered list, your request is forwarded to the peer that is nearest to you.

Peers are now mostly a historical artifact due to the inception of the load-balancing algorithm known as DISTRIBUTE in 1987. On the other hand, for high-volume lists it is always a good thing to keep the archived postings and associated documents on more than one system, so that they remain available should a server or two be struck by a major natural disaster. Since peers are the best way to maintain two copies of this information in parallel, they are still in use for the largest lists.

List Header and Keywords

All the options you have seen are defined by **keywords** in a special section of the list, called the **list header**. When you examine the list with the REVIEW command (which will be described later), the list header is at the top, before the list of addresses and names; all the lines in the header start with an asterisk. The list header contains the **title** of the list, which is a one-line description of what the list is about, a number of keywords, and usually some additional information about the list itself.

The reason you need to know about all that is that there is no way to ask LISTSERV "So, is the XYZ list public or private?". While it is easy to write a program to answer that particular question, there are over 50 possible keywords, many of which are related to each other, and you will probably want more information if the program just answers that the list is private – who exactly can post, who can subscribe, *etc*. You quickly reach a situation where it is not much easier to remember the syntax for asking the questions than to learn the "list header language" and answer your own questions better than any computer could.

Here is a typical list header:

```
* Discounts, Deals and Bargains for Consumers by E-Mail
*
* Owner= John@company.com
* Owner= quiet:
* Owner= JCKARP@isp.com
* Subscription= Open
* Review= Owners
* Notebook= Yes,E:\FTP\BIG-E-DEALS,Monthly,Private
* Digest= No
* Editor= John@company.com,JCKARP@isp.com
* Send= Editors          Reply-To= Sender          Confidential= No
* Errors-To= Owners      Validate= Yes
*
* The definitive mailing list for bargain hunters
*
```

Some of the keywords may look pretty daunting, but they are usually the ones you do need to know about. Most of them are in fact fairly intuitive: "Send= Public" means anyone can send messages to the list, "Subscription= By owner" means that you have to go through the list owner to subscribe to the list, and so on. Note that, in the list header language, the word "Private" has a more specific meaning than in the rest of this document; it means "all the people currently subscribed to the list". Thus, "Send= Private" does not mean that the list is private rather than public (although that is actually true, it is a simple observation rather than a definition), but that only people who are subscribed to the list can send to it. "Postmaster", if you ever encounter it, refers to the people who manage the LISTSERV software on that machine.

A list header is generally maintained by a list owner (see below). For a more detailed description please refer to the List Owner's Manual for LISTSERV available on our web site at:

`http://www.lsoft.com/manuals/index.html`

Who's Who

The **list owner**, as explained above, is the person formally in charge of the operation of the list. The list owner is usually knowledgable in the field covered by the list, but may not know much about computers, and may not even work in the department or organization where the list is physically located (this is called a "remote" list owner). The responsibility of the list owner is limited to the list itself, and probably doesn't include the computer running the list, its mail system, network lines, *etc*.

The **LISTSERV maintainer**, on the other hand, is the technical person in charge of the LISTSERV program on a particular computer. While he may not be in charge of the entire computer, he will usually work where the computer is located and will know where to get help if there is a problem he cannot solve on his own. The LISTSERV maintainer creates new lists and allocates disk space to store information related to the list, but he often does not even know what the list is about. As a rule of thumb, you should never contact the LISTSERV maintainer unless you are sure that the problem you are having is due to LISTSERV itself. Remember, the list owner usually has only one list to take care of, whereas the LISTSERV maintainer oversees dozens or even hundreds of different lists.

In technical discussions, the LISTSERV maintainer is also called "the postmaster", because this is how the corresponding line in the LISTSERV configuration files reads. In 1986, the LISTSERV maintainer was usually the person in charge of the mail systems, who was commonly called the "postmaster" and received mail sent to the special *postmaster* address. As computer networks grew, the postmaster task became more than enough work for a single person, and large universities now typically have one person answering mail sent to the special *postmaster* address, another one maintaining the mail system, and yet a third one taking care of LISTSERV. The "genuine" postmaster is the person to contact if you have questions about the university he works for, or if you have problems with the mail system or gateway. If the list owner is away, he is a better person to contact than the LISTSERV maintainer; in the worst case he will be the same person.

Chapter 2: Getting started

How to begin using LISTSERV

In this section, we will see how to use LISTSERV to locate a mailing list related to a particular topic, subscribe to it, participate in the discussions, and otherwise "get information out of the system". To show how easy LISTSERV lists are for everyone to use, we will choose a topic that is focused on the interest of an individual user. All the examples in this tutorial are real, and you can duplicate them easily.

How to send mail to LISTSERV

In the following sections, you will see numerous references to "sending commands to LISTSERV". All LISTSERV commands are sent to the server by email. This means that you must create a new mail message using whatever command this requires for your mail client (click on "New message" or its equivalent for most mail clients) addressed to the LISTSERV address. Let's say for the sake of argument that the list you want to subscribe to (or are currently subscribed to) is running on a server called `LISTSERV.MYCORP.COM`. So you would create a new message and address it to `LISTSERV@LISTSERV.MYCORP.COM` if you wanted to send a command to that server.

How to locate interesting lists

Now that you know how to send commands to LISTSERV, the next thing to do is to locate a list with the right kind of experts to answer your question. Your task is to find out:

What are the best selective culture media to grow Lactobacillus?

The simplest way to look for a list is to search the so-called "list of lists" that LISTSERV maintains automatically. Now, it would probably be unrealistic to expect to find a list dedicated to the various kinds of selective culture media used to grow Lactobacillus. Even with nearly 10,000 public lists, that would still leave us with a couple dozen lists on various aspects of lactobacilli, and not very much space left for the computer experts to talk about virtual reality and C++. In fact, a list about general aspects of the study of lactobacilli seems like the most likely place to find the answer. So let's look for that and see what we find.

And the easiest way to do *that* is to search **CataList^{sm}**, the catalog of LISTSERV lists maintained at L-Soft's web site. Using your favorite forms-capable browser, go to

`http://www.lsoft.com/lists/LIST_Q.html`

and type a key word in the "Look for:" box.

However, before we type in a keyword, consider this: If we ask for **lactobacillus** and what it had in its list was **lacto-bacillus** or **bacillus lactis** or even just **lactid acid**, it is liable to say there is no such list and we will have to spend 15 minutes trying all possibilities. The simplest thing to do is to request two searches on the root words, i.e. one on **LACT** and one on **BACILL**. This should catch most related lists, even though this kind of search will probably return more lists than wanted. So let's first type BACILL in the "Look for:" box and click on "Start the search!"

Unfortunately, after executing the first search, CataList claimed that no list matched our search string **BACILL**. But when we did a second search for **LACT**, CataList did find something:

> Search results
>
> GALCIV-L@VM3090.EGE.EDU.TR
> Galactic Civilizations Discussion List (72 subscribers)
> LACTACID@SEGATE.SUNET.SE
> Lactic Acid Bacteria Forum (292 subscribers)
> LACTNET@LIBRARY.UMMED.EDU
> Lactation Information and Discussion (911 subscribers)

Bacteria, of course! It would have been a good idea to do a search on that as well (this would have shown LACTACID and another list, about cyanobacterial toxins). Anyway, this LACTACID list looks like it is about lactobacilli, so the most difficult has been done and all we need to do now is join the list and ask our question. To find out how to do that, all we have to do is click on the hyperlink for LACTACID@SEGATE.SUNET.SE, and get:

> <div align="center">LACTACID@SEGATE.SUNET.SE</div>
>
> <div align="center">Lactic Acid Bacteria Forum</div>
>
> List name:
>   LACTACID
> Host name:
>   SEGATE.SUNET.SE
> Host alias:
>   SEGATE.BITNET
> Features:
>   Spam filter
>   Archives
>   Web archive interface
>   Digests
>   High Performance version
>   LSMTP™ powered
>
> To subscribe, send mail to LISTSERV@SEGATE.SUNET.SE with the command (paste it!):
>
> <div align="center">SUBSCRIBE LACTACID</div>
>
> For more information, you can:
>
> Take a look at the list's configuration
>
> Contact the list owner at LACTACID-request@SEGATE.SUNET.SE
>
> Check the other lists at SEGATE.SUNET.SE

Alternately (for instance, if you don't have a forms-capable web browser), you may choose to e-mail your search to LISTSERV. In this case, you send mail following this example:

```
To :  LISTSERV@LISTSERV.net
Subject :   (can be left blank)
----- Message Text -----
list global search-text
```

search-text can be any keyword to be searched for. In this case, we want to use the keyword "LACT", as we did above. So we create a message as follows:

```
To :  LISTSERV@LISTSERV.net
Subject :   lactic acid list search
----- Message Text -----
list global LACT
```

This message will return two messages to your mailbox, one simply stating that your command has completed successfully, and one with the results of your search. The latter will look like this:

```
 Excerpt from the LISTSERV lists known to LISTSERV@SEARN.SUNET.SE
 --------------------------------------------------------------------
                          1 Nov 1996 19:05

                        (search string: LACT)

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L-Soft international, Inc. owns the copyright to this compilation of
Internet mailing lists (the "Compilation") and hereby grants you the
right to copy the enclosed information for the sole purpose of
identifying, locating and subscribing to mailing lists of interest. Any
other usages of the Compilation, including, without limitation,
solicitation, tele-marketing, "spamming", "mail-bombing" and "spoofing"
are strictly prohibited.

*********************************************************************
* To subscribe, send mail to LISTSERV@LISTSERV.NET with the following *
* command in the text (not the subject) of your message:          *
*                                                                 *
*                      SUBSCRIBE listname                         *
*                                                                 *
* Replace 'listname' with the name in the first column of the table. *
*********************************************************************


Network-wide ID  Full address and list description
---------------  ---------------------------------
GALCIV-L         GALCIV-L@VM3090.EGE.EDU.TR
                 Galactic Civilizations Discussion List

LACTACID         LACTACID@SEGATE.SUNET.SE
                 Lactic Acid Bacteria Forum

LACTNET          LACTNET@LIBRARY.UMMED.EDU
                 Lactation Information and Discussion
```

Remember that the general rule for searching is to keep your search terms as simple as possible when making your initial searches, and then be more specific to narrow them down.

How to join and leave a mailing list

Given the list name, joining the list is very easy. The command that needs to be sent is:

<div align="center">

subscribe lactacid

</div>

And as usual, the command can be sent to LISTSERV@LISTSERV.NET or any other LISTSERV server (including the host server, LISTSERV@SEGATE.SUNET.SE, of course). At this point, you can run into two minor problems if you are unlucky:

- LISTSERV insists on having a "real world" name for everyone on the list, because addresses such as `00038385@XXXMAIL.COM` are not very informative to the other users of the list. Normally, LISTSERV will extract both your e-mail address and your real name from the mail headers generated by your computer. But some computer programs do not supply any real name, and LISTSERV may ask you to resend the command with your name, as in:

                    subscribe lactacid Anna Galiena

- LISTSERV will then automatically insert the name you supplied in the headers of messages you send out to the list. When other people read the messages you post, they will see your name in addition to your e-mail address, and will not have to strain their memory with meaningless sequences of numbers.

- While you will never have this problem with lists you found by searching the "list of lists", some lists are confidential or otherwise not globally known throughout the LISTSERV network. In such cases, you must send the subscription to the server that is hosting the list, because the other servers (and in particular LISTSERV@LISTSERV.NET) will not know where to forward your request.

When you join a list, you are sent a little pamphlet which looks very boring and does not seem to have anything interesting to say about the list itself. Do not discard it! Treat it like a warranty card — no immediate value, but you never know when you might need it. You should make a new folder in your mail program for these little pamphlets and search it whenever you have an administrative question about a mailing list, instead of contacting the list owner directly. Although they do look the same from a distance, the pamphlets are customised to the individual lists and do not contain the same information. Finally, saving them in a dedicated mail folder makes it very easy for you to know what mailing lists you are subscribed to, and when you joined.

You can leave the list at any time by sending a SIGNOFF command to the host server (in this case, LISTSERV@SEGATE.SUNET.SE):

                        signoff lactacid

LISTSERV does not need your name for a signoff command, so there is no need to type it. Do not hesitate to subscribe to a list to see what it is really about, and then sign off a couple days later if it turns out not to be what you expected. Most list owners are used to that and will not be hurt or angry.

The OK Request

Depending on how the list is set up, once you have sent your subscription request you may receive a message like the one below:

```
Date: Tue, 7 May 1996 12:09:47 -0400
From: "L-Soft list server at SEGATE.SUNET.SE (1.8c)"
 <LISTSERV@SEGATE.SUNET.SE>
To: Your e-mail address
Subject: Command confirmation request (66B5D8)


Your command:

                SUBSCRIBE LACTACID Firstname Lastname

```

```
has been received. You must now reply to this message (as explained
below) to complete your subscription. The purpose of this confirmation
procedure is to check that the address LISTSERV is about to add to the
list for your subscription is reachable. This is a typical procedure for
high-volume lists and all new subscribers are subjected to it - you are
not being singled out. Every effort has been made to make this
verification as simple and painless as possible. Thanks in advance for
your cooperation.

To confirm the execution of your command, simply reply to the present
message and type "ok" (without the quotes) as the text of your message.
Just the word "ok" - do not retype the command. This procedure will work
with any mail program that fully conforms to the Internet standards for
electronic mail. If you receive an error message, try sending a new
message to LISTSERV@SEGATE.SUNET.SE (without using the "reply" function
- this is very important) and type "ok 66B5D8" as the text of your
message.

Finally, your command will be cancelled automatically if you do not
confirm it within 48h. After that time, you must start over and resend
the command to get a new confirmation code. If you change your mind and
decide that you do NOT want to confirm the command, simply discard the
present message and let the command expire on its own.
```

This request confirms that the e-mail address that you used to subscribe to the list is valid. **You should reply without including the original message.** So if your mail program automatically quotes the message you are replying to, you should delete the quoted text before sending the "OK". **Note also that you must reply from the address from which the original subscription request was sent.** If you have trouble with the OK command and have already tried the "ok confirmation#" suggestion above, please contact the list owner for help.

Confirmation of Subscription

Once your subscription request has been successfully processed by LISTSERV you will receive confirmation similar to the message below:

```
Date: Tue, 7 May 1996 12:10:16 -0400
From: "L-Soft list server at SEGATE.SUNET.SE (1.8c)"
 <LISTSERV@SEGATE.SUNET.SE>
To: Your e-mail address
Subject: Output of your job


> ok
Confirming:
 SUBSCRIBE LACTACID Firstname Lastname
You have been added to the LACTACID list.
```

You may also receive confirmation from the list owner that you are subscribed. It will look similar to the one below and reiterates valuable information from this guide, for a quick reference.

```
Date: Tue, 7 May 1996 12:10:15 -0400
From: "L-Soft list server at SEGATE.SUNET.SE (1.8c)"
 <LISTSERV@SEGATE.SUNET.SE>
Reply-to: LACTACID-request@SEGATE.SUNET.SE
To: <Your e-mail address>

Subject: You are now subscribed to the LACTACID list

Tue, 7 May 1996 12:10:15

Your subscription to the LACTACID list (Lactic Acid Bacteria Forum) has
been accepted....
```

How To Send Mail To A List

Now that you are subscribed to the list, all you need to do is ask your question or participate in the current discussion and wait for someone to answer.

Posting new messages

To post a new message to the list you send mail to the list address using the same procedure as when you send mail to other people. Your mail program does not need to know that you are sending to a list. The list address is the name of the list, followed by the name of the machine where it is hosted, in our example: LACTACID@SEGATE.SUNET.SE. You can also use the CataList if you forgot where the list is located. Depending on how the list is set up, LISTSERV may or may not send you a copy of the messages you post. No matter which behavior the list owner chose to have by default, you can always instruct LISTSERV to behave the way *you* want it to. This is explained in the "How to set your subscription options" section later in this chapter.

Replying to messages from the list

Once you become familiar with LISTSERV and mailing lists, you will probably want to respond to a posting you have read. Don't be shy! People will not get upset at you for contributing. The best way to respond is by using the "reply" function of your mail program (which is sometimes called "answer", "respond" or something similar). This way the message subject is preserved and the other subscribers can see that your message is a reply to the original question. You can of course post a new message, but you will then have to retype the subject, and if you enter something slightly different people may not realize it is a reply to a previous post. There is no universally correct place to send your reply. Most of the time, your reply will be useful to at least one other person on the list, but on the other hand that might be only a small fraction of the list membership, and some people might complain that you are wasting their time (some people say that anyway, so don't worry unless several people seem to share this opinion).

In general, if your reply is short there is little harm in sending it to everyone: it does not take much time to discard a message which is not interesting. On the other hand, if your reply is a 2000-line paper you wrote on the subject it might not be a good idea to send it to the list unless you are sure everyone is interested. Some people have to pay for mail by the character, or to download it to a personal computer through a low-speed modem. The best thing to do in that case is to send a short message to the list saying you wrote this paper, and that people who are interested can contact you for a copy. If you find a large number of requests in your mailbox the next morning, contact the list owner and suggest that they make the paper available from LISTSERV, so that subscribers who are interested can order it directly from the server and you are not interrupted every few minutes with a new request.

Most lists are organized as "forums" where public discussion is actively encouraged, and many of them are set so that hitting the "Reply" key or button will automatically direct replies back to the list. Unfortunately, this can sometimes be embarrassing if you end up inadvertently sending a private comment to the whole list. Fortunately, there is a very easy way to avoid this, and the good thing is that it works even for non-LISTSERV mail. It is a simple rule that is easy to remember once you understand its purpose:

> **Always think before sending any message!**

Ask yourself a few simple questions

- Who is getting the message? Carefully check who your mail program intends to send the message to, and make sure this is where you wanted it to go. It is easy to click on the wrong icon, press the wrong key, misunderstand the meaning of a help file, or otherwise do something that will make your computer send the message to the wrong people.

- How well do you know these people? Can you trust people you have never met in person not to forward your comments to someone else, or to a list? And if they did, whose reputation would suffer the most - yours for saying these things, or theirs for forwarding without your permission?

- What is the worst thing that can happen to you if this message is used against you? Computers are not perfect and they sometimes do unpredictable things to perfectly valid messages. It may be a rare occurrence, but it happens; any system manager will have a lot of juicy stories to tell you about messages that were forwarded to him because they caused some system problem or other, and whose contents could have made a couple people lose their job if it had been shown to the right person. System managers normally are ethical people, but do you really want to rely on that?

- Have you removed extraneous information not germane to the discussion, such as copies of previous postings included by my mail program or long signature files?

You want to ask yourself these questions anyway, even if the message has nothing to do with LISTSERV, even if the list is set up to reply privately by default. In a non-computer situation, you would probably look around to see if someone can overhear you. Just use that same reflex to look around the list of recipients and decide if you can trust these people with what you said. If you develop this habit, you will never send to a list by mistake.

How To Upset People You Don't Even Know

You should keep in mind that for any given list, there are at least three slightly different addresses, all of which point to different places and all of which are meant for specific purposes. Some people who inhabit lists have a tendency to get upset when you send LISTSERV commands to the list address, for instance, or you may wonder why that posting you mailed to LISTSERV keeps coming back with notes like "Unknown command - "HELLO". Try HELP." The following information intended to help you sort out these different addresses.

> **If you want to send a message to all the PEOPLE on the mailing list, the right address to use is:**
>
> *listname*@*hostname*
> (example: `LACTACID@SEGATE.SUNET.SE`)
>
> **If you want to send a COMMAND for the computer to execute, the right address is:**
>
> `LISTSERV@`*hostname*
> (example: `LISTSERV@SEGATE.SUNET.SE`)
>
> **If you want to contact the person who owns the mailing list, write to:**
>
> *listname*-Request@*hostname*
> (example: `LACTACID-Request@SEGATE.SUNET.SE`)

Please note that if you send a message to the person who manages the mailing list you may receive a confirmation message that begins like this (to remind you that it is not the right address to send commands to):

```
Your message to LACTACID-request@SEGATE.SUNET.SE has been forwarded to
the "list owners" (the people who manage the LACTACID list)....
```

How To See Who Is On The List

To see who is subscribed to the list, send the `REVIEW` command to LISTSERV following this example:

`REVIEW LACTACID`

If the list owner allows this option, LISTSERV will return a copy of the "list header" and a list of all the subscribers. The list header contains the title of the list, various configuration parameters, and a short description of what the list is about (refer to Chapter 1 for more information about list headers). There are also some statistics about the list, after the name and address of the last subscriber, and there may be a mention of "concealed" subscribers. See the description of the `CONCEAL/NOCONCEAL` option below.

By default, the list of subscribers will be sorted by host name, *i.e.* people whose account is on the same machine will be next to each other. This is mostly for historical reasons (some list owners have programs that require the list to be in that order). You can also ask LISTSERV to sort the list by surname:

`REVIEW LACTACID BY NAME`

Sometimes, it may be more interesting to have the subscribers grouped by country:

`REVIEW LACTACID BY COUNTRY`

LISTSERV has no way of knowing in what country a person is actually living. All it can do is check the country in which his computer is located. Note that this means that if you are (for instance) a German CompuServe user, you will be counted as a USA user because your address ends with COMPUSERVE.COM. This is not meant to be insulting or to belittle other countries. It is simply a case where LISTSERV can't tell from your address that you don't live in the USA.

For your convenience, country codes are listed in Appendix A.

How To Set Your Subscription Options

First, you may want to review your subscriber options. To do this you use the query command. Send this command to **LISTSERV@*hostname*** (where ***hostname*** is the name of the server where the list is hosted):

Query *listname*

Options that may be set

Mail/NOMail

Setting this option to **Mail** indicates that you will receive mail from the list. **NOMail** is the complementary command that stops mail but leaves you subscribed to the list. (**NOMail** is often a good compromise for users who are leaving the office for vacation or on extended business trips, and who don't want a full mailbox on their return.) The format of the messages received is controlled by the **DIGEST/INDEX/NODIGEST/NOINDEX** options (see below).

Please note, if you use an auto-responder while on vacation without setting your subscription options to **NOMail**, your "vacation" messages may bounce back to LISTSERV and you may be "served off" from LISTSERV when you return. This is because LISTSERV will be unable to process the message from your auto-responder and will consider it an error. Being "served off" simply means that any commands you send to LISTSERV will be ignored until someone else sends a **SERVE** command on your behalf. See **Appendix E** for more information about the **SERVE** command.

DIGest/NODIGest

Causes the subscriber to receive one posting per digest cycle (typically daily) rather than individual messages as they are processed by LISTSERV. The **MAIL/NOMAIL** option controls whether messages should be delivered, and the **DIGEST/INDEX/NODIGEST/NOINDEX** option controls the *format* in which messages should be delivered. Thus, switching to **NOMAIL** and back to **MAIL** does not destroy the digest/index/normal delivery setting; it simply determines whether or not LISTSERV should send any list mail to you. To provide as much compatibility with older syntax as possible, the four options operate as follows:

DIGest:	enable digest delivery mode (which negates INDEX), enable mail delivery.
INDEX:	enable index delivery mode (which negates DIGEST), enable mail delivery
NOMAIL:	disable mail delivery.
Mail:	restore mail delivery, without altering the digest/index/normal delivery setting

Please note that in extreme cases, subscribers using the **DIGEST** option may receive more than one digest per cycle if the digest limit is reached before the end of the cycle.

INDex/NOINDex

Causes the you to receive one posting per digest cycle containing only an index of subject topics for all messages during that cycle. Instructions on how to retrieve the individual postings are included with the index. See the section on **DIGEST** (above) for further information.

Note that non-mainframe LISTSERV servers prior to version 1.8c do not support the INDEX option. To find out which version of LISTSERV a specific list is running on, send the command

RELEASE

to **LISTSERV@***hostname*, where *hostname* is the name of the server where the list is hosted. If the response indicates that the server is running LISTSERV version 1.8b for VM, INDEX will work. If the response indicates that the server is running LISTSERV version 1.8b for any other platform (VMS, Unix, or Windows), then INDEX is not available. You can find out for sure whether or not INDEX is supported for your list by simply sending the **SET** *listname* **INDEX** command and reading the response.

ACK/NOACK/MSGack

These three command words control the level of acknowledgment you receive when posting to the list. **ACK** causes LISTSERV to send a short confirmation message to the sender of the postings when the post has been received and distributed. **NOACK** disables the confirmation feature for the sender. **MSGack** is essentially obsolete; if you do not have BITNET/NJE connectivity to the LISTSERV host in question, setting a list to **MSGack** is equivalent to **NOACK**.

CONCEAL/NOCONCEAL

Occasionally, a subscriber may not want his presence to be known to someone else making a casual **REView** of the list. You may choose to "hide" your subscription from the **REView** command by using the **CONCEAL** command. Conversely, a subscriber may choose to remove this restriction by issuing the **NOCONCEAL** command. Note that the list owner can always obtain a list of all subscribers.

REPro/NOREPro

This option controls whether or not you will get a copy of your posts back from the list after they are processed. Generally, if your mail program is configured to file copies of your outgoing mail, or if you have one of the acknowledgment options **(ACK/MSGack)** enabled, this option should be set to **NOREPro**. If, on the other hand, you are set to **NOACK** and doesn't keep a copy of outgoing mail, this option should probably be set to **REPro**.

MIME/NOMIME

Toggles MIME functions on and off. Currently this is only useful if the user has a mail client that supports MIME digests. Note that users who send their **SUBSCRIBE** command using a MIME-compliant agent will have this option set automatically unless "**Default-Options= NOMIME**" is specified for the list.

In future versions, this toggle may control other MIME functions.

Options for mail headers of incoming postings

By specifying one of the following command words, the subscriber can control the amount of mail header information in the header of list mail. The syntax is **SET** *listname headertype*, where *headertype* is one of the following:

FULLHdr	"Full" mail headers (default)
SHORTdr	Short headers
DUALhdr	Dual headers, useful with PC or Mac mail programs
SUBJecthdr	Tells LISTSERV to add the list's default subject tag to the subject line of mail coming from the list. To turn this off, simply set another mail header option. (This setting is generally additive to the other header options; however, note that if you have SHORT headers set, setting your option to SUBJecthdr will automatically change you to FULLHdr, as subject tags require at least full headers.)

Quite a few non-technical users are relying on non-RFC822 user interfaces for reading their mail. Quite often these user interfaces are user-friendly, quality implementations of a proprietary mail protocol which the users are proficient with, but which happens not to lend itself to bi-directional

mapping to RFC822. The users may have a good reason for using this particular program, and they complain that it is not always clear what list the postings come from, or who posted them. Other users have very primitive mail programs which do not preserve the original RFC822 header and may not even have a "message subject" concept. The user knows which list the message came from, but not who posted it, making private replies impossible.

The DUALhdr (minimum abbreviation: DUAL) is provided to help solve this problem. Dual headers are regular short (SHORThdr) headers followed by a second header inside the message body. This second header shows what list the message is coming from ('Sender:'), the name and address of the person who posted it ('Poster:'), the poster's organization, if present, and the message subject. The date is not shown because even the most primitive mail programs appear to supply a usable message date. Generally, users will be well-served by the FULL header option, which is the default.

The new SUBJECTHDR (minimum abbreviation: SUBJ) header option is provided for users who want to see a "tag" in the subject line of their incoming list mail that indicates where the mail is coming from (e.g., to activate a filter in their mail program to drop the message into a specified notebook). SUBJECTHDR is slightly different from the other header options, as it simply adds to the existing header definition--for instance, if the user is already set to DUALHDR, a **SET listname SUBJ** command leaves DUALHDR in effect and just adds the tag to the subject line. To turn off the subject tags, the user simply sets another header option, which automatically turns the SUBJECTHDR option off.

As noted above, if you have SHORT headers set, setting your option to SUBJecthdr will automatically change you to FULLHdr, as subject tags require at least full headers.

Generally, you will be well-served by the FULL header option, which is the default.

TOPICS

List topics provide powerful "sub-list" capabilities to a list. Not all list owners use them, but when properly set up and used, topics give subscribers the ability to receive list postings in a selective manner, based on the beginning of the "Subject:" line of the mail header. If list topics are enabled, this option allows you to specify which topics you will receive. The syntax of a SET TOPICS statement is significantly different from that of the other options. It is:

$$\text{SET } \textit{listname} \text{ TOPICS: } \textit{xxx yyy zzz}$$

where *xxx*, *yyy*, and *zzz* can is list of all the topics the subscriber wishes to receive. In that case these topics replace any other topics the subscriber may have subscribed to before. For instance, after 'SET XYZ-L TOPICS: NEWS BENCH', the subscriber will receive only postings on the topics of news and benchmarks, and nothing else.

The colon after the keyword TOPICS: is optional, and TOPICS= is also accepted. You should not forget to include the special OTHER topic if you want to receive general discussions which were not labeled properly. On the other hand, if you only wants to receive properly labeled messages it should not be included. ALL does include OTHER. Finally, it is important to note that topics are active only when your subscription is set to MAIL. Digests always contain all the postings that were made, because the same digest is prepared and sent to all the subscribers.

How To Deal With Rude People

The Internet, just like the real world, has its share of rude people. While there isn't much one can do about it, it would be silly to avoid using the Internet simply for fear that someone might insult you in public one day. Sooner or later, it will happen, and the best you can do is to be prepared

for this. When it does happen, the only thing you absolutely must not do is whack the "reply" button and send off a stream of insults at your offender - or if you absolutely must, at least make sure that you do so in private. All you would achieve with a stream of insults is what is called a "flame war" in network jargon - dozens of people casting insults at each other, and a very swollen mailbox. Insulting someone on a public list is very much like punching someone in the face in a crowded bar near closing time; don't do it unless you want to get into a fight that could be painful for everyone.

Now, of course, you have been insulted and some factually incorrect statements may have been made about you, or your words may have been twisted around to make them sound like you meant exactly the opposite of what you said. A public reply may be appropriate, in much the same way that one would write to the editor of a newspaper and request the publication of a formal reply to "straighten out the facts". The important thing is to avoid content-free messages where no misinformation is corrected, no point is made and all that is ever exchanged is insults.

But before you do that, you will want to consider why these people have been rude to you. First of all, make sure the poster did intend to be rude. The Internet connects people from over 50 countries, and many of them are not native English speakers. They may have translated an idiomatic expression literally, and insulted you without meaning to. Similarly, native English speakers may have used a correct idiomatic expression which, when translated literally, sounds very mean in your language.

The next thing to consider is where the poster comes from. No matter what your personal opinion on the question may be, there are cultures with a very different definition of what is or is not socially acceptable, and in particular there are cultures where personal attacks are no big deal. While you may think that they should not do anything that hurts your feelings, you probably don't want to get into a cultural flame war, because you are probably hurting other people's feelings as well on a regular basis. For instance, do you always address people by their full name and title, or do you just say "As Peter said yesterday..."? In some countries, it is a grave insult to call people by their first name if you don't know them personally, while in others using the full title can sound sarcastic. There are dozens of similar examples, and the only way to successful cross-cultural communication is to tolerate other people's cultural habits in return for their tolerance of yours.

Another point to consider is that, sometimes, people are having meaningful discussions in a tone that appears inappropriate to you, but that may seem perfectly normal to them. As long as their messages contain useful information, there is no point in trying to police the list, both because it is the list owner's job, not yours, and because adults are unlikely to change their behavior in any significant way, especially if the people complaining are new to the list. If you want the list owners to take action, it is better to write to them directly, so that you do not end up being labelled as "one of the people running the flame war". If you just want to publicly express your indignation, it is best to type the message and pause, just before sending it, to consider whether you are doing this in the general interest or for your personal, selfish satisfaction. Most mail programs let you cancel a message.

Lastly, if you are new to the Internet please take the time to look through existing resources on netiquette (the rules of etiquette governing on-line communication.).

Note that among Internet users, a kind of "shorthand" exists which may be confusing at first. One example of this is the term "IMHO", which means "in my humble/honest opinion". Some other examples can be found in Appendix C.

You may also encounter symbols called "emoticons", which are used to help define the emotions of the poster while he is writing. Some of the more popular emoticons are found in Appendix B.

Chapter 3: ADVANCED USERS

The Automatically Maintained "List Of Lists "

There are three basic ways to use the automatically maintained "list of lists":

- By using the CataList search engine at `http://www.lsoft.com/lists/listref.html`. See Chapter 2.

- By issuing a command (such as SUBSCRIBE) that refers to a list maintained by a server other than the one you are sending the command to. This is entirely automatic, and there isn't much more to say about it.

- By issuing a LIST GLOBAL command with an appropriate search criteria to get a copy of the list of lists that match your search criteria. LISTSERV tries to match the search criteria string to portions of the list name, address and title, and only returns matching entries. You will seldom get more than a couple hundred matches, so you shouldn't have to worry about disk space when requesting a search.

There are a few cases where the list of lists cannot provide the information you are looking for. Most of the time, it will be because the list you are looking for has been marked *confidential* or *local* by the list owner. The existence of confidential lists is hidden from non-privileged users, whereas local lists are only revealed to users of computers that have been defined as "local" (not out of secrecy, but because most sites have a number of lists for local staff, user support, and so on, and there is no point in having outside people waste their time trying to figure out what these lists are about). The only way to join a confidential or local list is to send your request to the server that actually hosts it.

Another potential problem is that there are occasionally several global lists that go by the same name. While LISTSERV attempts to guess which of them is most likely to be a wide-scale list, sometimes there is just not enough information and it leaves the decision up to you. On the other hand, if you have a very specific list in mind and know where it is located, it is always best to send the command directly to the server where that list is hosted. Another thing you should know is that list-of-lists changes are normally broadcast during the night, to reduce traffic. If you receive an announcement from the network about a new list, it may not have made it to the list of lists yet, especially if the site hosting the list is in a country where the network is often saturated.

How To Interpret Mail Headers

For a basic description of mail headers, see Chapter 1. Now that you have subscribed to the list and asked your question, people are going to start replying to you. They will probably send their answers to the list, since it is a question that might interest other subscribers as well, and you will start receiving your first messages from the mailing list.

In a "short header" you find all the important information you need to know, and nothing else.The date and subject lines have the same meaning as with normal mail messages. The "Sender" line tells you what *list* the message is coming from, whereas the "From" line contains the name and address of the *author* of the message. The "Reply-To" line shows where your reply will go if you just click on the reply icon without explicitly telling your mail program what to do. Sometimes there is an "Organization" line that tells you where the author of the message works (LISTSERV cannot know that, so it will not be present unless the author's mail program provided it). At any rate, this is called

Depending on your mail program, this message appears as if came from either the list itself or the author of the message when you check the list of new messages in your mailbox. If you only subscribe to one mailing list it does not really matter, but once you start participating in several lists you will quickly realise that it is a lot more convenient to have messages from mailing lists shown under the list address rather than the author's address. Unfortunately, each mail program is different, and there is no standard way of telling mail programs "this is what you must show in the mail directory". Luckily, most mail programs do show the list address, so you will probably not need to do anything. Many mail programs can be configured to show either the list address or the author's address, and your user support staff may be able to help.

Unfortunately, there are some mail programs which cannot be made to show the list address no matter how carefully you read the manual, and which in fact do not even show you the mail header when you open the message to read it. That is, when you double-click on the message from the directory, what you see starts with the text of the message, and there is no way to see the "Sender" or "From" lines at all. In other words, the program either shows you who sent the message or what list it came from, but not both, and, no matter how many options you try, it will never show you both because the information has been removed by the gateway that connects your LAN to the Internet. LISTSERV can help you in this scenario by sending "dual headers", which contain a second copy of the important fields from the mail header (name of the list, author, subject, *etc*.) To activate this option, you would send the following command to the LISTSERV address:

<div align="center">

SET *listname* **DUALhdr**

</div>

You will still not be able to see that information from the mail directory, but once you double-click on the message to read it, it will be there right at the top of the message, similar to this example:

```
------------------- Information from the mail header --------------------
Sender: EARN Group on Information Services <EARNINFO@EARNCC.BITNET>
Poster: David Sitman <A79@TAUNIVM.TAU.AC.IL>
Subject:    GNRT2 - call for comments
-------------------------------------------------------------------------
```

Finally, some mailing lists may send messages with long headers that you do not recognize. LISTSERV's philosophy is to adapt to the users as much as possible, rather than require them to adapt to the computer, and since computer experts are also users, after all, there is an option to give them the type of headers they like. If you subscribe to a mailing list managed by a computer expert, chances are that they will have set up the list so that you get this type of header by default. If that makes your life more difficult, all you have to do is send the following command to LISTSERV:

<div align="center">

SET *listname* **SHORT**

</div>

How To Access List Archives

Many LISTSERV lists archive everything that is said on the list for future reference, although often list owners regularly "trim" the archives to save disk space. As mentioned in Chapter 1, list archives can be accessed in two ways: you can ask LISTSERV to send you the log file for a particular month, or you can use the database functions to search the archives for messages related to a certain topic, and have LISTSERV return a copy of all the messages matching your requirements. The first method is easier, but the second is more powerful.

Using the INDEX command

In order to find out what archive files are available for a list, you would send the command command **INDEX** *listname* to the appropriate LISTSERV server. For instance, you could get the list of archives available for the LACTACID list by sending the command

INDEX LACTACID

to LISTSERV@SEGATE.SUNET.SE. LISTSERV would send the following in response:

```
*
* Archive files for the LACTACID list at SEGATE.SUNET.SE
* (monthly logs)
* rec last - change
* filename filetype GET PUT -fm lrecl nrecs   date      time
* -------- -------- --- --- --- ----- ----- -------- --------
  LACTACID LOG9511  LOG OWN  V    93   169 96/08/08 02:17:15
  LACTACID LOG9512  LOG OWN  V   152   393 96/08/08 02:17:16
  LACTACID LOG9601  LOG OWN  V    79   171 96/08/08 02:17:17
  LACTACID LOG9602  LOG OWN  V    82  2254 96/08/08 02:17:18
  LACTACID LOG9603  LOG OWN  V    80  1097 96/08/08 02:17:20
  LACTACID LOG9604  LOG OWN  V    90   635 96/08/08 02:17:21
  LACTACID LOG9605  LOG OWN  V    88    24 96/08/08 02:17:22
  LACTACID LOG9606  LOG OWN  V    77   364 96/08/08 02:17:23
  LACTACID LOG9607  LOG OWN  V    79   444 96/08/08 02:17:24
  LACTACID LOG9608  LOG OWN  V    80   200 96/08/08 16:44:21
```

Ordering archived postings with the GET command

To order a copy of a notebook archive log, simply send LISTSERV a **GET** command followed by the name of the file:

GET LACTACID LOG####

where "####" corresponds to the year and month of the archive. For instance, if you wanted the archive from March, 1996, you would type

GET LACTACID LOG9603

You can send several **GET** commands in the same message, as long as you put each new command on a separate line. Please check with your system administrator before ordering large files to confirm that you have enough disk space available.

The database functions

Searching list archives via email commands

This section discusses options available to users of lists running on LISTSERV version 1.8c or any version running on IBM's VM operating system. To find out what version your list is running on, create a new mail message and type the following command in the body (not the subject) of the message:

RELEASE

As mentioned above, the database functions are more complicated but provide more flexibility. For more information about the database functions for lists running on VM servers, send an INFO

DATABASE command to LISTSERV@LISTSERV.NET and you will be sent the documentation for the VM database functions. The information you can retrieve from a VM LISTSERV server is nearly identical to that which you can retrieve from the other search engines; the syntax of the database commands is, however, somewhat different.

For lists running on LISTSERV 1.8c on Unix, VMS, and Windows NT servers, here is a quick preview of database functions sent by mail. Let's go back to the original task we set for ourselves when we started, which was to find out:

What are the best selective culture media to grow Lactobacillus?

So we create a new e-mail message addressed to LISTSERV@SEGATE.SUNET.SE and type the following command in the body (not the subject) of the message:

search lacto bacill culture media in lactacid

LISTSERV responds:

```
> search lacto bacill culture media in lactacid
-> 2 matches.

Item #    Date    Time   Recs    Subject
------    ----    ----   ----    -------
000001 95/11/16 15:51    84     LAB as contaminants.Alcohol ferment.
000002 95/11/17 09:20    38     Re: LAB as contaminants.Alcohol ferment.

To order a copy of these postings, send the following command:

                  GETPOST LACTACID 1-2

>>> Item #1 (16 Nov 1995 15:51) - LAB as contaminants.Alcohol ferment.
alcoholic content (8,5-10,5 % vol), but, of course have some problems
of bacterial infections (mostly lactic acid bacteria =LAB, Lactobacillus
                                                  ^^^^^^^^^^^^
fermentum and others).
***************
If the LAB is mixed with a lot of yeast would it be possible to use these
rapid methods ? What are the best selective culture media to grow
                                    ^^^^^^^ ^^^^^
Lactobacillus?
^^^^^^^^^^^^^
 And ELISA ?Are there tests ready to use ?Is there a firm that develops ELISA
***************
mechanism (or any other) studies ?Is there anyone studying the proteins of
the cell walls of Lactobacillus (are they lectins?).What about the
                   ^^^^^^^^^^^^^
role of polysaccharides in the flocculation induced by LAB ?
***************
(much more context deleted--ed.)
```

To actually get a copy of the message to read, you have to send another message to LISTSERV, this time with the GETPOST command as described in the response. Then LISTSERV sends you the posting(s) you've ordered in another response.

As you can see, the database functions let you find the answer to many questions without having to disturb the people on the list, and without having to wait for them to find the time to compose an answer of (potentially) several hundred lines.

Searching list archives via the World Wide Web

> This section discusses options available to users of lists running on LISTSERV version 1.8c under Unix, VMS, or Windows NT. To find out what version your list is running on, create a new mail message and type the following command in the body (not the subject) of the message:
>
> **RELEASE**

Assuming that the server that hosts your list has these functions enabled, you can also search list archives with your favorite web browser similar to the way you searched the CataList in Chapter 2. In general, you start by finding your list in the CataList, then clicking on the "Web Archive Interface" hyperlink in the "Features:" list. (If this hyperlink does not appear, the list's archives are not publicly available. If you are subscribed to the list, see the section immediately below on "Searching list archives via email commands".)

Clicking the "Web Archive Interface" hyperlink connects you to the archives page for the list. From here you can either browse the available notebook archives by clicking on the various hyperlinks, or you can choose "Search the archives" to bring up a search page.

The most important box on the search page is the "Search for:" box. This is where you put your basic search parameters. For the purpose of this tutorial, we won't go into the uses of the other boxes on the page, but you can click the "Help!" hyperlink for more information on how to use them.

To duplicate the search we did by e-mail, we simply type "lacto bacill culture media" in the "Search for:" box, and click "Start the search!" After a moment, we get a new page:

> Search results – LACTACID
>
> 2 matches.
> --
> Item #   Date   Time   Recs   Subject
> 000001 95/11/16   15:51   84   LAB as contaminants.Alcohol ferment.
> 000002 95/11/17   09:20   38   Re: LAB as contaminants.Alcohol ferment.
>
> --
> Item #1 (16 Nov 1995 15:51) - LAB as contaminants.Alcohol ferment.
> alcoholic content (8,5-10,5 % vol), but, of course have some problems
> of bacterial infections (mostly lactic acid bacteria =LAB, Lactobacillus
> fermentum and others).
> --
> If the LAB is mixed with a lot of yeast would it be possible to use these
> rapid methods ? What are the best selective culture media to grow Lactobacillus?
> And ELISA ?Are there tests ready to use ?Is there a firm that develops ELISA
> --
> mechanism (or any other) studies ?Is there anyone studying the proteins of
> the cell walls of Lactobacillus (are they lectins?).What about the
> role of polysaccharides in the flocculation induced by LAB ?

In order to read these two postings, it is now necessary only to click on the appropriate hyperlink.

How to access a filelist and use the file server functions:

The INDEX and GET commands described in the previous chapter also work for non-list archive files. That is, if you know that a file called XYZ PROPOSAL is available from a particular

LISTSERV, you can order a copy by sending a GET XYZ PROPOSAL command to that LISTSERV. Similarly, if you know that there is a filelist called PCSOFT on LISTSERV@ABC.EDU, you can order a copy by sending an INDEX PCSOFT command to that LISTSERV.

Ordering large files via mail

Some mail systems impose a limit on the size of mail messages, for technical or administrative reasons. Usually, "large" messages are simply rejected, even if you had enough disk space to store the message... and you are not even notified! So if you order a "large" file from LISTSERV, it may be dropped on the way and you will get the impression that LISTSERV did not send you anything. Unfortunately, there is no agreement as to what "large" means, nor is there any way for LISTSERV to find out what the various gateways and mail systems between you and LISTSERV will accept. The only way to find out is trial and error.

Generally speaking, the mail systems on most LISTSERV sites accept messages of up to 2-5 megabytes, which is usually enough (one megabyte being 15-20,000 lines of text). However, most mail gateways will reject anything larger than 100-200 kilobytes. You can ask LISTSERV to split the file into a number of smaller files by adding a **SPLIT=** instruction to your GET command. For instance,

```
get lactacid log9305 split=100k
```

would instruct LISTSERV to send you a copy of the LACTACID logs for May 1993 in pieces of 100 kilobytes or less. When all the pieces have arrived, you can cut and paste them together to reconstruct the original file. If you have a MIME-compliant mail program, it should be able to do this work for you automatically, although, depending on the program, you might be required to give special instructions to that effect.

Ordering binary files

Many of the files made available via LISTSERV are binary files, *i.e.* programs or word processor documents rather than plain text files. In order for these files to be useful, they must be transmitted using techniques which are compatible with binary files. Concretely what this means is that you cannot just mail a simple GET command and hope that the file will arrive in a usable form, because ASCII mail systems are not capable of transferring binary data directly.

VMS^{TM} users should use RECEIVE/BINARY if the file is meant to be downloaded to a personal computer, or is otherwise not a VMS^{TM} program, BACKUP saveset, *etc*.

To order a binary file by mail, you have to ask LISTSERV to *encode* it before sending it. This encoding transforms the binary file into a text file, which can be mailed normally. When it arrives, you run a decoding program to return it to its original form. LISTSERV supports the Internet standard encoding, MIME's *base64* encoding. Another popular encoding format is called *uuencode*, is also supported, as is *xxencode*.

You have to choose an encoding format: **MIME/APPL**, **UUENCODE**, or **XXENCODE**. LISTSERV cannot choose one for you because it has no way to know what decoding programs you have. You then add a "**F=**" keyword to your command, with the name of the format you chose, as in:

```
get winedit2a.zip f=uuencode
```

You can shorten the format names to UU, XX or MIME/A. And, of course, if the file is large you can also use the **SPLIT=** keyword described in the previous section.

Subscribing to files

> This section discusses options available to users of lists running on LISTSERV running on IBM's VM operating system only. To find out what version your list is running on, create a new mail message and type the following command in the body (not the subject) of the message:
>
> **RELEASE**

Many of the files stored on LISTSERV are updated frequently. Software in general tends to be updated at regular intervals, and the same can be said about collections of files, such as agendas, minutes, newsletters, and so on. While the individual files may never change, new ones keep being added constantly. Checking for new files on a regular basis is a waste of your time, and just the kind of thing computers should be doing for people. LISTSERV lets you subscribe to individual files or to collections of files.

Two subscription methods are available: FUI (File Update Information) notifies you with a short mail message every time a file is changed, or a new file is added, whereas AFD (Automatic File Distribution) tells LISTSERV to send you a new copy right away. You should use FUI for files you are not sure you will want to order, otherwise AFD is probably more convenient. The two functions are independent, letting you subscribe to a file via both AFD and FUI if you want to (this can be useful if you want a copy of the file but also want to know the date and time of last update). To subscribe to an individual file, you would send an AFD ADD or FUI ADD command, followed by the name of the file you are interested in; to subscribe to a collection of files, you would just use one or more asterisks in the file name, to define the collection you are interested in. For instance, **afd add bd* minutes** would set up an AFD subscription to the collection of files whose name matches the "pattern" you specified. For instance, the files called BD9305 MINUTES and BD9307 MINUTES would be part of the subscription, and so would the yet to be released BD9405 MINUTES.

You can check what files you are subscribed to by sending an AFD LIST (or FUI LIST) command. To unsubscribe from a particular file or group of files, use the AFD DEL (or FUI DEL) command, followed by the name or pattern of the files you no longer want to receive updates for.

How To Get More Information

All of L-Soft's manuals for LISTSERV are available on our World Wide Web page at `http://www.lsoft.com/manuals/index.html` or in ascii-text format via ftp.lsoft.com. Please feel free to send your comments on this or other manuals to MANUALS@LSOFT.COM.

Appendix A: Country Codes

This list is sorted by country code, not by country. Please note that country codes do not always correspond to a person's physical location; for instance, a German CompuServe user would be counted as a USA user simply because his or her address ends with .COM; there are several Canadian universities with .EDU suffixes; and so forth.

com	USA (Company)	cf	Central African Republic	gr	Greece
edu	USA (Education)			gs	South Georgia
gov	USA (Government)	cg	Congo	gt	Guatemala
mil	USA (Military)	ch	Switzerland	gu	Guam
net	USA (Network)	ci	Ivory Coast (Cote d'Ivoire)	gw	Guinea-Bissau
org	USA (Organization)			gy	Guyana
		ck	Cook Islands		
		cl	Chile	hk	Hong Kong
ad	Andorra	cm	Cameroon	hm	Heard and McDonald Islands
ae	United Arab Emirates	cn	China		
		co	Columbia	hn	Honduras
af	Afghanistan	cr	Costa Rica	hr	Croatia (Hrvatska)
ag	Antigua and Barbuda	cu	Cuba	ht	Haiti
		cv	Cape Verde	hu	Hungary
ai	Anguilla	cx	Christmas Island		
al	Albania	cy	Cyprus	id	Indonesia
am	Armenia	cz	Czech Republic	ie	Ireland
an	Netherlands Antilles			il	Israel
		de	Germany	in	India
ao	Angola	dj	Djibouti	io	British Indian Ocean Territory
aq	Antarctica	dk	Denmark		
ar	Argentian	dm	Dominica	iq	Iraq
as	American Samoa	do	Dominican Republic	ir	Iran
at	Austria			is	Iceland
au	Australia	dz	Algeria	it	Italy
aw	Aruba				
az	Azerbaijan	ec	Ecuador	jm	Jamaica
		ee	Estonia	jo	Jordan
ba	Bosnia and Herzegovina	eg	Egypt	jp	Japan
		eh	Western Sahara		
bb	Barbados	er	Eritrea	ke	Kenya
bd	Bangladesh	es	Spain	kg	Kyrgyzstan
be	Belgium	et	Ethiopia	kh	Cambodia
bf	Burkina Faso			ki	Kirbati
bh	Bahrain	fi	Finland	km	Comoros
bh	Bulgaria	fj	Fiji	kn	Saint Kitts and Nevis
bi	Burundi	fk	Falkland Islands		
bj	Benin	fm	Micronesia	kp	Democratic People's Republic of Korea (North Korea)
bm	Bermuda	fo	Faroe Islands		
bn	Brunei Darussalam	fr	France		
bo	Bolivia				
br	Brazil	ga	Gabon	kr	Republic of Korea (South Korea)
bs	Bahamas	gb	United Kingdom		
bt	Bhutan	gd	Grenada	kw	Kuwait
bv	Bouvet Island	ge	Georiga	ky	Cayman Islands
bw	Botswana	gf	French Guiana	kz	Kazakhstan
by	Belarus	gh	Ghana		
bz	Beize	gi	Gibraltar	la	Lao Democratic Republic
		gl	Greenland		
ca	Canada	gm	Gambia	lb	Lebanon
cc	Cocos (Keeling) Islands	gn	Guinea	lc	Saint Lucia
		gp	Guadeloupe	li	Liechtenstein
		gq	Equatorial Guinea	lk	Sri Lanka

lr	Liberia	pf	French Polynesia	tf	French Southern
ls	Lesotho	pg	Papua New Guinea		Territories
lt	Lithuania	ph	Philippines	tg	Togo
lu	Luxembourg	pk	Pakistan	th	Thailand
lv	Latvia	pl	Poland	tj	Tajikistan
ly	Libya	pm	St. Pierre and	tk	Tokelau
			Miquelon	tm	Turkmenistan
ma	Morocco	pn	Pitcairn	tn	Tunisia
mc	Monaco	pr	Puerto Rico	to	Tonga
md	Moldova	pt	Portugal	tp	East Timor
mg	Madagascar	pw	Palau	tr	Turkey
mh	Marshall Islands	py	Paraguay	tt	Trinidad and
mk	Macedonia				Tobago
ml	Mali	qa	Qatar	tv	Tuvalu
mm	Myanmar			tw	Taiwan
mn	Mongolia	re	Reunion	tz	Tanzania
mo	Macau	ro	Romania		
mp	Northern Mariana	ru	Russian	ua	Ukraine
	Islands		Federation	ug	Uganda
mq	Martinique	rw	Rwanda	uk	United Kingdom
mr	Mauritania			us	United States of
ms	Montserrat	sa	Saudi Arabia		America
mt	Malta	sb	Solomon Islands	uy	Uruguay
mu	Mauritius	sc	Seychelles	uz	Uzbekistan
mv	Maldives	sd	Sudan		
mw	Malawi	se	Sweden	va	Vatican City
mx	Mexico	sg	Singapore	vc	Saint Vincent and
my	Malaysia	sh	St. Helena		the Grenadines
mz	Mozambique	si	Sierra Leone	ve	Venezuela
		si	Slovenia	vg	British Virgin
na	Namibia	sj	Svalbard and Jan		Islands
nc	New Caledonia		Mayen Islands	vi	US Virgin Islands
ne	Niger	sk	Slovakia	vn	Vietnam
nf	Norfolk Island	sm	San Marino	vu	Vanuatu
ng	Nigeria	sn	Senegal		
ni	Nicaragua	so	Somalia	wf	Wallis and Futina
nl	Netherlands	sr	Suriname		Islands
no	Norway	st	Sao tome and	ws	Samoa
np	Nepal		Principe		
nr	Nauru	sv	El Salvador	ye	Yemen
nu	Niue	sy	Syria	yt	Mayotte
nz	New Zealand	sz	Swaziland	yu	Yugoslavia
om	Oman	tc	Turks and Caicos	za	South Africa
			Islands	zm	Zambia
pa	Panama	td	Chad	zr	Zaire
pe	Peru			zw	Zimbabwe

Appendix B: EMOTICONS

Smiley	`:-)`
No-nose Smiley	`:)`
Bug-Eyed Smiley	`8^]`
Crying Smiley	`:'-(`
Grimacing Smiley	`>:-(`
Neat Smiley in Profile	`{:^)`
Punk Rock Smiley	`=:)`
Scowling Smiley	`:-/`
Shocked Smiley	`:-O`
Smiley in Profile	`:^)`
Snubbed-Nose Smiley	`:+(`
Tongue Out Smiley	`:-P`
Unhappy Smiley	`:-(`
Very Neat Smiley	`{:-D`
Very Smiley	`:-D`
Very Unhappy Smiley	`(:^(`
Winking Smiley	`;-)`
Wry Winking Smiley	`;-}`

Appendix C: Short-Hand for Common Expressions

Historical note: Many of these expressions originated in the Dark Ages <g> of computing, and were used for efficiency when typing messages from terminal to terminal in real-time chat mode (predating IRC and chatting on the World Wide Web, of course). Note that many people new to the Internet (particularly those to whom English is a second or later language) will not always understand these abbreviations, so it's always wise to judge your audience carefully before using them.

<bg>	Big grin
<g> or <G>	Grin
BCNU	Be Seeing You
BTW	By the way
DLG	Devilish Little Grin
FAQ	Frequently Asked Questions
FOTCL	Falling Off The Chair Laughing
FWIW	For What It's Worth
FYA	For Your Amusement
FYI	For Your Information
IMHO	In My Humble Opinion
IMNSHO	In My Not So Humble Opinion
IMO	In My Opinion
KISS	Keep It Simple Stupid
LOL	Laughing Out Loud
OTF	On the floor. Short form of ROTFL.
OTOH	On The Other Hand
PD	Public Domain
ROTFL	Rolling On The Floor Laughing
RTFM	Read The Fine Manual. Used when a stupid question is asked.
TIA	Thank In Advance
TNX	Thanks
TNX 1.0E6	Thanks a million (humorous)

Appendix D: Common Errors

This Appendix documents two of the most common errors. As your skills develop please be patient with people who may be new to mailing lists and/or the Internet.

Served off

If you do not receive any confirmation of your subscription it was not processed and you should contact the List Owner for help. One common error that may occur as you are trying to subscribe or signoff a list is to be **served off**. If you send more than 21 consecutive invalid commands to LISTSERV, LISTSERV automatically serves you off (as protection from a possible mailing loop) and further commands from you will be ignored until your access is restored. This can't happen with 21 invalid commands in a single message because LISTSERV will stop reading a given message after it encounters 20 invalid commands in a row. But it can conceivably happen with 2 messages sent one after the other. Here's how:

For instance, let's say that you have a long (10 lines) signature file that gets appended to every piece of mail that you send. You attempt to subscribe to a list, but you spell the word "SUBSCRIBE" incorrectly. LISTSERV rejects the command because of the misspelling, then proceeds to read your signature file as if it were a list of commands, and rejects them, too, for a total of 11 command errors. You get back a message from LISTSERV that says your commands were rejected, so you send the command again. Unfortunately you miss the fact that you made a mistake in the command and you cut and paste the original command into the new message and send the message. LISTSERV counts up 10 more errors (the command with the mistake in it, plus 9 lines of your 10 line sig file) for a total of 21 errors coming from your address, and serves you out.

You can also find yourself served off if you go away on vacation and leave a "vacation" program running that sends an "out of the office" message response back for all email that comes to your mailbox. If your system mailer sends these to LISTSERV itself instead of to the appropriate address for replies to list mail, after 21 of them LISTSERV will serve you out.

Should you become served off in this fashion, it is possible for the list owner or *any* other user (even you sending mail from a different account) to issue a `SERVE` command to restore your access. Instructions are sent along with the notification that you have been served off, and we've also printed them below.

While served off, you will be unable to set personal options and will be unable to subscribe or unsubscribe to lists on that server. Note that you will likely be served off of one particular LISTSERV site but not others. We've also encountered many users who don't even realize that they have been served off (in spite of the fact that LISTSERV sends notification to the user to that effect).

Note that the SERVE command will not restore service to users who have been manually served off by the LISTSERV maintainer.

On the next page is a sample of the notification that LISTSERV generates when you are served off, including the instructions for restoring service:

```
Date: Mon, 13 May 1996 16:52:23 -0400
From: "L-Soft list server at PEACH.EASE.LSOFT.COM (1.8c)"
 <LISTSERV@PEACH.EASE.LSOFT.COM>
To: You <your.address@your.host.com>
Subject: Output of your job "your.address"

> blab
You had 20 tries. From now on your requests will be ignored without any
reply. You can restore your access to LISTSERV by having another person send
following command to LISTSERV@PEACH.EASE.LSOFT.COM: SERVE
YOUR.ADDRESS@YOUR.HOST.COM

Unknown command - "BLAB". Try HELP.

All subsequent commands have been flushed.
```

LISTSERV always acknowledges commands sent by users who have not been served off. If you send a message and did not receive a confirmation within a reasonable amount of time, you can be fairly sure that it was either not received by LISTSERV (due to network problems, server downtime, or other problems outside of your control) or not processed because you have been served off. It never hurts to have someone send a SERVE command for you if you suspect that you may have been served off; if you haven't been, the other person simply receives a notice to the effect that your address has not been served off.

Help! I Can't Get Off This List:

Two common mistakes when leaving a list are:

- Sending the command to the list address, or to the *listname*-**REQUEST** address, instead of LISTSERV.
- Using an address to sign off that you did not use to subscribe. In this case you should review the list to make sure the address you are using is the same one you used to join. If they are different, or anytime your address changes, please notify the List Owner who can delete your former address from the list. The most common reasons for why your subscription may be for an address other than the one in your **From:** line are:

    * You changed Internet Service Providers (ISPs) and forwarded mail from the old address to the new address
    * Your ISP changed its network name and didn't bother to tell you (unfortunately very common)
    * You are using a different mail program now and it doesn't have your address entered correctly (for instance, you used to use Pine from your shell account and the return address was joe@unix1.yourisp.com, but now you're using Eudora or Pegasus and your return address is joe@yourisp.com. Both addresses point to the same mailbox, but LISTSERV has no way to know that.)

Note that you might be subscribed to a redistribution list, that is, a mailing list that is itself subscribed to the main list and simply forwards the mail on to you. This is particularly common in many corporate environments that don't want individuals to receive mail directly from mailing lists, but instead set up so-called "mail reflectors" so that only one piece of mail is actually received from the network for x number of users. If this is the case, you need to contact the administrator of the redistribution list in order to get you off of it, because all your list owner can do is remove the entire redistribution list -- a non-optimal solution.

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