

The One-Eyed Guide to INTERNET, E-MAIL, LISTSERV, SAS-L, and EMITS

Michael Davis, Blue Cross & Blue Shield of Connecticut, Inc.

ABSTRACT

One of computing's ironies is that sophisticated users are often "modem illiterate." The modem illiterates never enjoy trading SAS® tips and "flames" outside of conferences. The ability to exchange ready-to-run SAS code and messages instantly but courteously is denied to them. They can seek technical assistance only when someone is available to speak to them. In an effort to stamp out this heinous form of illiteracy, the One-Eyed Guide is offered.

INTRODUCTION

"In the kingdom of the blind, the one-eyed man is king"

- Erasmus, *Adagia*, 1523

The author hopes never to be introduced as an expert on telecommunication. However, after helping several SAS colleagues better use their computers for communication, the need for an introductory paper on the subject became apparent.

The content of this paper is targeted to readers with little or no knowledge of modems and telecommunication. The assumption is also made that the reader does not have satisfactory access to an electronic mail (e-mail) facility with an Internet or BITNET gateway.

If this is not the case, the reader should skip ahead to the section dealing with the SAS Online Customer Support Facility (OCSF). Those without access to a modem but with access to Internet or BITNET should skip ahead to the section introducing Internet.

The balance of this paper covers using the LISTSERV program to exchange messages with other SAS users through lists such as SAS-L and to receive problem alert notices from SAS Institute. The paper concludes with a description of how registered site consultants may use the SAS Institute Electronic Mail Interface to Technical Support (EMITS) services to obtain technical support.

Part 1: How to Get Connected You May Need a Modem

There are a myriad of methods to connect your computer or terminal to others. Often, circumstances dictate the use of conventional telephone lines to make that connection.

Computers and terminals communicate via digital signals, which are synchronized and controlled voltage pulses. However, conventional analog telephone lines carry sound only.

To use conventional telephone lines for computer telecommunication, we need to convert digital signals to sound at the origin and back to digital signals at the receiver. This is the purpose of a modem, which is an acronym for MODulator-DEModulator.

Physically, a modem is either an accessory board or a small box with LED lights or an LCD display on the front. Both forms of modems are used by connecting to a telephone line.

The modems that fit inside the computer are known as internal modems and work only with selected computers. External modems are powered by AC line current, dry cells, or telephone line current. A multi-conductor cable connects the modem to the serial port of a computer or terminal.

Modems are usually classified by how fast they can send or receive data, which is expressed in bits per second (bps). A second classification is the CCITT (Consultative Committee for International Telephony and Telegraphy) communication standards to which the modems are capable of adhering.

Modems used for the activities described in this paper may adhere to the V.22bis (2,400 bps) and V.32 (9,600 or 4,800 bps) standards. Some of these modems are capable of supporting error correction and compression protocols such as V.42 and V.42bis standards.

Modems used with common telecommunication programs support the AT (ATtention) command set. Some modems are capable of communicating with Group III facsimile machines.

What kind of modem should you buy? 2400 bps modems can be had for under \$100 and are often bundled with communication software. Send and receive facsimile (FAX) capability is often included for little or no extra cost. 9600 bps modems are now starting to appear at prices below \$300.

Since the activities described in this paper usually do not involve the exchange of massive amounts of data, 2400 bps modems are adequate. However, more and more networks are being equipped with 9600 bps modems. Thus, the extra cost of a 9600 bps modem may prove to be a good investment if you do not already own a modem.

Facsimile capability is very desirable, especially if your computer uses a GUI (graphically user interface) such as Microsoft® Windows™ and you wish to have more control over the appearance of your outgoing messages.

Communication Software

To undertake the activities outlined, you will need some telecommunications software to:

- switch modem features off and on
- set the communications port parameters
- govern the data flow from the host
- dial telephone numbers
- log received information to a file
- send and receive binary files

Some programs designed specifically for e-mail automatically logon to networks and host computers, filter out unwanted messages, and speed replies.

You may not need to license additional communication software. Adequate software may have been included with your modem, operating system or environment, or application software. Public networks often offer communication software customized to their requirements. Almost any program will be adequate for the purposes described subsequently.

A couple of popular MS-DOS® communication programs are ProComm™ and Crosstalk™. These two programs are also available in Windows versions.

Sending and Receiving Executable Files

Most of the activities described in this paper only involve text. With text, a lost, added or garbled character is usually ignored by the human reader. However, when sending or receiving computer executable files or "zaps," transmission errors are not acceptable since computers may act on every character received.

To ensure against transmission errors, telecommunications software often includes the ability to use a transfer protocol. These protocols use check-sums and other techniques to ensure that each block of information is transferred error-free. If a block is suspect, then the originating computer (your computer) requests that the host re-transmit that block.

XMODEM is one of the most universally available error-free transfer protocol. YMODEM, KERMIT, CompuServe B and MNP are other popular error-free protocols. An error-free transfer protocol has to be supported by both the receiving and sending computers to be used.

Part 2:

Online Customer Support Facility

The following services are available from the SAS Institute Online Customer Support Facility (OCSF):

- zaps
- Technical Support announcements
- list of SAS bulletin boards (BBS)
- schedule of public courses
- submission of SASware ballot suggestions
- regional conference information

In addition, registered site consultants may leave questions to which SAS Institute technical support consultants will respond. Site consultants may send and receive files associated with outstanding problems.

Before calling the OCSF, make sure you know your site number. To access the OCSF, set your modem to no parity, eight (8) data bits,

one (1) stop bit. Also set your keyboard caps lock on. Dial 919-677-8155. Then answer the following responses as prompted:

First Name: NEW
 Last Name: USER
 Site Number: 00000000
 Password: NEWUSER

The OCSF then guides you through setting up an account. Additional instructions are available on-line or by calling SAS Institute technical support.

EMITS, discussed in a subsequent section, is often superior for seeking technical support.

Part 3: Internet Why Use a Network?

As mentioned in the preceding section, dialing up a computer located out of town usually incurs long distance toll charges. Also, much of the capacity of the telephone line is wasted because of the relatively slow speeds of the modems usually used and idle time when data are neither transmitted nor received.

One way to overcome the preceding problems is to send information as packets or messages over high speed modems using dedicated data communication lines. Each packet or message carries the address of the receiver as well as message or packet content.

The remainder of the paper focuses on using Internet "network of networks" to send messages and subscribe to lists.

But How Do I Get "Connected"?

Just as an individual SAS user joins a local SAS user group to access the features of regional user groups, an individual computer has to be part of a network that has a connection (gateway) to Internet to access the features available to a "connected" computer.

Many universities, government, and corporate mail systems have an Internet gateway. If you have or can obtain an account access to such a system, you should pursue it as it probably represents your most economical way to connect to Internet.

However, if this is not the case or if you cannot access such an account while at home or traveling, then you should consider opening an account with a commercial network. Also, by understanding how messages are sent from commercial networks to Internet addresses, you will be better positioned to use a university, government, or corporate account to exchange messages with users who have public data network accounts (also known as common-carrier mail provider or X.25 service).

Commercial Gateways to Internet

It would be very risky to offer an exhaustive list of the commercial data networks with Internet gateways. Thus, if a particular commercial network that you might wish to use is not listed in this section, contact that network's customer service staff. It already may have an Internet gateway. If not, your call may motivate that network to install an Internet gateway. This advice applies to your Internet-less corporate mail systems as well.

National commercial data networks with an Internet gateway to which anyone can subscribe for a modest fee include:

- MCI
- CompuServe
- ATTMail
- SprintMail
- America Online
- AppleLink

As of this writing, GENIE (General Electric Information Services) was implementing a Internet gateway.

In addition to offering an Internet gateway, most national commercial data networks provide an option to send messages via facsimile, which a way to send messages to unconnected acquaintances. Some of these services offer considerable on-line services beyond message transfer.

In addition to the national commercial data networks previously mentioned, many regions are served by local Internet hosts. Some of these hosts offer interactive connection to Internet and other services not yet available from the national commercial data networks.

Internet: Getting Started, Chapter 4, "Service Providers", lists such providers.

Which commercial data network should you use? As of this writing, the most attractive commercial data network for the purposes outlined in this paper seems to be MCI. The annual fee for an MCI mailbox is only \$35. To reach MCI, one dials an 800 number, which eliminates hourly connect fees.

Since subscribing to a "list" will deliver an undetermined number of messages to your mailbox, your least expensive option is a commercial data network that provides local calling access without additional charges to read received mail through Internet. Be aware that some commercial data networks that offer unlimited connect time for a monthly fee also levy extra charges to read mail received through Internet!

Unless you are content with having only the ability to read messages, you need to consider how your commercial data network charges for outgoing messages. If you open an MCI account, you will pay for each outgoing message. The longer the message, the more you are charged. It would not be difficult for one to run up a \$50 bill as the author did during the first month he subscribed to SAS-L.

Fortunately, MCI offers a Preferred Pricing Option. As of this writing, for a flat fee of \$10 per month, you receive up to 40 messages free. Each message can be up to 7,500 characters long. Also under this option, the \$35 annual mailbox fee is waived after the first year.

If you pursue the activities described in this paper, you should definitely consider the MCI Preferred Pricing Option or similar plan from another commercial data network. Please keep in mind that you can only convert a standard MCI account to the Preferred Pricing Option at the beginning of the month. So if this option seems attractive to you, do not wait until you receive your first MCI statement to enroll.

To obtain more information about the aforementioned commercial data networks, the networks and the telephone number to reach them are:

MCI	1-800-444-6245
CompuServe:	1-800-848-8990
ATTMail:	1-800-242-6005
SprintMail:	1-800-736-1130
America Online:	1-800-827-6364
GENIE:	1-800-638-9636
Applelink.....	1-408-974-3309

Deciphering Internet Addresses

E-mail addresses on Internet usually have two parts. The first part of the address identifies the user account. The second part, often called the domain, tells you on which mail system the user account is located and what type of organization operates the mail system.

For example, you would direct a message for the author to:

0002395748@mcimail.com

Working backwards, you can tell that the account is located on a commercial system operated by MCI and the user account is 0002395748. The @ symbol is a delimiter, separating the user account and the domain. Another way of thinking of the syntax is that any address represents user account *at* a particular mail system.

The last part of the domain, representing the type of organization operating the mail system, is called the trailing domain. Trailing domains in common use are:

com ...	company or commercial institution
edu	educational institution
gov	government site
mil	military site
net	gateway or administrative host
org	other non-profit organization

Since Internet is international, there are trailing domains to represent the country in which the system is located, such as:

us	United States
au	Australia
ca	Canada
fr	France
uk	United Kingdom

The domains for the previously cited commercial data networks are:

mcimail.com MCI
 compuserve.com CompuServe
 attmail.com ATTMail
 orgname.sprint.com ..SprintMail
 aol.com America Online
 applelink.apple.com .. AppleLink

SAS Institute maintains mail systems on several systems. While there are no hard and fast rules to how fully qualified addresses are assigned on these systems, most addresses conform to the following format:

sasuser initials@host system.sas.com

A SAS Institute staff member may have an account on more than one host system. Currently used host systems include MVS, VM, and UNIX (UNIX). The domain for the EMITS system is simply "sas.com".

For example, those involved in SAS user groups will recognize that:

sassar@mvs.sas.com

is the address of Sally Roberson, SAS Institute's user group liaison.

When you look at the header of incoming messages, you will often see other interesting characters and names. As an example, the author sent a message to a friend (name withheld to protect the unwary) at:

friend%pacevm.bitnet@cunyvms.cuny.edu

The % acts as an extra routing method. The message is first sent to the City University of New York VM host system. That system resolves the characters to the left of the @ as friend@pacevm.bitnet. This tells the City University of New York mail system to redirect the message to the Pace University VM host system using the BITNET network.

Why do message systems add extra routing information? Network computer systems often need a little coaching to find certain e-mail addresses, just as you and I might have to ask for travel directions to find a street address. If

you follow two rules, your messages will reach their intended recipient almost all the time.

First, if you want to reply to a message, all you have to do is send it back to the address shown in the header section, exactly as it is shown. Do not get upset when you receive back a message "bounced" by a mail system. Chances are that you mis-typed the address and when you re-send the message with the correct address, it will reach its intended recipient.

Second, if you frequently correspond with another e-mail user whose address appears in the message header with extra routing methods, ask that user what their fully qualified Internet address is and try sending them a message using that shorter address. Most of the time, you will find that the shorter address gets the message to its destination in a satisfactory manner.

In the preceding example, the following Internet address could have been used.

friend@pacevm.bitnet

In the preceding example offered of an extra routing method, part of the e-mail address included BITNET. BITNET, which stands for "Because It's Time Network," is another commonly used network for exchange messages. There are a number of gateways in place to pass messages from Internet to BITNET. Thus BITNET connected computer users can participate in the activities described in the following sections of this paper.

Part 4: Using E-mail Get Permission!

E-mail is one of many ways to communicate with others. As with other forms of communication, the nature of the message and recipient determine whether the method and style you use will be effective. As someone new to the use of e-mail, some advice is in order.

First, get the permission of the intended recipient before sending a message! E-mail does not obligate others to respond to you might as a letter or telephone call. Also, many persons with e-mail addresses do not read their

mailboxes or consider uninvited mail an invasion of their privacy.

Typically, when you meet someone to whom you might wish to send an e-mail message, ask if they are comfortable receiving e-mail from you. If the answer is yes, then you can ask for their Internet address.

If you obtain a business card or receive some written correspondence from an acquaintance that lists an Internet address along with telephone or facsimile number, implied consent has been given to contact that person through e-mail. Similarly, if you are usually willing to respond to unsolicited e-mail messages, put your Internet address on your own business cards and correspondence.

Public data networks that fully adhere to the X.400 standard can send a message to you that your recipient has read your message. MCI does not fully implement this feature. As an option, MCI can send you a receipt when your message has been accepted by the mail system to which the message was addressed. However, this does not tell you when the recipient actually reads your message, if ever. Over time, you will learn how faithfully your correspondents check their mailboxes.

When to Use E-mail ?

This discussion leads to the question, "when should you use e-mail as an alternative to telephone and facsimile?" The following guidelines may assist you in making an appropriate selection.

Assuming that your recipient has an e-mail address and checks her or his mailbox regularly, e-mail is a good choice when:

- an immediate response is not essential
- written information, such as program code, needs to be transmitted
- the recipient would benefit from having the message in machine readable format
- multiple recipients need to receive the same message

Please be sure to check with the sender before forwarding a private message!

One of the reasons to select e-mail over a telephone call whenever possible is courtesy. E-mail recipients do not have to feel obliged to respond to messages the instant they receive them. Messages are not an interruption since the recipients chose when to check for mail. If they wish, recipients can shift the time of reply to a more convenient hour.

The advantage of e-mail over facsimile is direct delivery and privacy. Distribution is fully automated and goes specifically to the recipients you target. A facsimile machine is typically shared so you have to walk to the machine or wait for the message to be delivered. Also, the facsimile machine may be out of paper or someone may inadvertently pick up your message with theirs.

If your recipient has a facsimile machine but no e-mail and you are using a commercial data network with facsimile capability, you can use the network to send a message to the facsimile machine. In some situations the cost of transmitting a facsimile message via commercial data network may be less expensive than using your own facsimile machine! Also, the appearance may be better since you eliminate the scanning step, which degrades the image.

Part 5: LISTSERV and SAS-L What is LISTSERV ?

So far, we have discussed using e-mail systems to send messages to individual recipients. As alluded to, mail systems usually have the ability to create and use lists of recipients whom you correspond with as a group.

For a moment, let us suppose that you had a question about SAS software and you wanted to broadcast it to anyone that might be able to help you. You would welcome help from people you had not yet met. Therefore, their Internet addresses would be unknown to you.

How would you broadcast that message? It would take a long time for you or others to type in the addresses, even if you knew the address of all potential recipients. Further, if you pay by the message, a widely distributed message could cost a tidy fortune!

Fortunately, there is a good solution. There is an automated system for maintaining discussion lists called **LISTSERV**. **LISTSERV** is an acronym for **LIST SERVER**. One receives messages posted to **LISTSERV** by subscribing to lists whose subject interests them. Further, the sender pays only for the single message posted to the list.

If you did not know what lists are available, you might want to send the following message to **LISTSERV@BITNIC.BITNET** to get a directory of lists that you can subscribe to:

list global

Do not be surprised at the size of the message which this command returns! It occupies about 100 kilobytes.

Subscribing and Unsubscribing to Lists

One of the lists you will see on the preceding directory is **SAS-L**. It is probably the most popular list for **SAS** users and is discussed in a subsequent section. Let us assume that you want to receive (subscribe to) the messages posted to **SAS-L**. Subscribing is accomplished by sending a message to

LISTSERV@UGA.CC.UGA.EDU

An alternative address is:

LISTSERV@UGA.BITNET

To that address send the following message:

subscribe sas-l *your name*

If you are successful, **LISTSERV** will send you a message of acknowledgment and some instructions. On average, your mailbox will receive an average of about two dozen messages daily from **SAS-L**.

Let us suppose that after a week of reading these messages, you wish to yourself, "Messages, please be gone." You reverse the subscription by issuing to the same address the message:

unsubscribe sas-l *your name*

Let us further suppose that you want to remain on the list but you are about to start that long anticipated sea cruise and want to turn away incoming messages for a while. Send the following message:

set sas-l nomail

When your cruise ship docks and you arrive back at your computer, send the message

set sas-l mail

There are countless neat things that the author could tell you about **LISTSERV**, especially if he could remember them all. Instead, you should follow the introductory instructions that come with the acknowledgment message and send the following message to **LISTSERV**:

**info genintro
info database**

These messages will also be very long but they contain detailed information on using **LISTSERV** and on searching the database of archived messages.

Posting Messages and a Reminder

After reading a list for a while, you may get an itch to post a message yourself. It is easy.

Just send your message to

sas-l@uga.bitnet

For the name of the addressee, you might wish to use the following:

Multiple Recipients of List SAS-L

If you have set the amount of acknowledgment that you wish to receive from the list to "ack", **LISTSERV** will send you confirmation of your posting. You will not see your posting echoed back to your mailbox but if you send a juicy message, both public replies (to everyone on the list) and private replies (just to your mailbox) will soon follow.

About two or three times a week, one will see a posting such as:

unsubscribe sas-l john doe

What happened? The person posting the message either did not know or was suffering from a case of "happy fingers" and sent the message to SAS-L instead of LISTSERV. So if you do not want to look foolish to hundreds or more people around the globe, then send messages regarding how LISTSERV should handle your subscription to:

LISTSERV@uga.cc.uga.edu

Some subscribers probably send postings to this address by accident but we will never know.

Searching the Archives

Another useful feature of LISTSERV is the ability to search previous messages. By sending the following message:

index sas-l

LISTSERV will return a message listing the available archive files for sas-l. If you have the facility to send interactive messages to LISTSERV, you may interactively search the archives. But if this is not the case or if you are not sure that you can send interactive messages, then you may submit a batch search request.

For example, if you wanted to locate all messages containing the term NESUG, then you would submit the following job to LISTSERV:

```
// JOB Echo=No
Database Search DD=Rules
//Rules DD *
search NESUG in SAS-L
index
/*
```

There should be at least one space between the // and JOB in the first line. Also be sure to place at least space between the DD and * in the second line. The word "search" in the fourth line should be lower case.

The search will return a list of all postings meeting the search criteria (hits). You can then print the selected hits from the index using the following job:

```
// JOB Echo=No
Database Search DD=Rules
//Rules DD *
search NESUG in SAS-L
print 123, 456, 789
/*
```

In this example, 123, 456, and 789 represent the item number of postings that you want to retrieve.

Please note a list must be archived for one to search previous messages and that not all lists are archived. Searching the archives is often a better alternative to posting a question when a subject:

- was previously discussed on a particular list
- is on a list to which you do not subscribe

For detailed instructions on searching the archives, please see the instructions returned when you send "info database" to LISTSERV.

What is SAS-L ?

While it is wonderful to meet other SAS users face to face, there are two significant limitations. First, you have to wait for a meeting to be scheduled. Second, you have to travel to the meeting or conference. If the scheduled conference is some distance away, it might be an expensive way to get your question answered.

However, since you are now "connected," you can use another alternative. SAS-L is a forum for SAS users to discuss SAS-related subjects. Someone posts a question or diatribe and others respond to it.

Typical messages posted to SAS cover subjects such as:

- coding problems and solutions
- conferences and meetings
- products, pricing and policies
- where to find information or data
- problems with terminals or printers
- job openings

The last item is curious since Internet is to carry only non-commercial messages. However, you should not see self-promoting advertisements.

Since Internet allows persons from all over the globe to exchange messages, do not be surprised to see postings from SAS users outside the US. This feature adds an international flavor to SAS-L without expensive airfares or the need to get your passport renewed.

However, you will not see any postings directly from SAS Institute employees. SAS Institute internal policy prohibits this. However, on occasion, you might receive a private response from a SAS Institute employee to a posting with the disclaimer, "This is not an official message from SAS Institute but ...".

SAS Institute loads the postings from SAS-L regularly, and makes them available to Institute staff. So even though you do not see replies from SAS Institute staff, you can be fairly certain SAS Institute received the message. If you want an official response, you should send a private message to a SAS Institute employee who has agreed to correspond with you.

You might say, "Gee, SAS-L sounds just like a users group?" Well, you are right! SAS-L is a bona fide user group, complete with an administrator. The SAS-L administrator is Deborah Cannon, who can be reached at the University of Iowa at

ADDPKHTS@UIAMVS.BITNET

So subscribe to SAS-L, and conference with other "sasaholics" everyday.

Some Tips on Courtesy

While there are no official rules regarding SAS-L courtesy, some guidance might be appreciated by the newly initiated. The following rules are subjective, but you violate them at your own peril.

First, read some messages before you begin to post your own. You will pick up some tips, such as the need to specify the SAS version and platform you are using. You will also discover which subjects are answered on SAS-L and which subjects are better referred to other resources.

Please remember that you are not obliged to agree or even read every message. Please ignore those messages that do not interest you

since every subject thread eventually dies down. When you decide to reply, please go easy on the ad hominen attacks, often called "flames."

Some subscribers pay additional charges to read postings. All bytes passed through Internet and SAS-L consume finite resources. If you can shorten your posting and still convey your message, please do so.

This is especially important when posting coding problems. If you have problem with a piece of a large computer program, post a boiled-down version of the code segment in question, not the whole program! Use the CARDS statement to include the test data.

As you will notice as soon as you subscribe to SAS-L, some authors use elaborate signature blocks, complete with ASCII graphics and quotations. Because some subscribers pay for connect time and others may find such signature blocks obnoxious, you should consider keeping your signature to a minimum.

As an alternative to a signature block, you might consider listing the following information at the start of your message, enclosed by a part of dashed lines. An example follows:

CONTENT:	Reply to a Question
SUMMARY:	Sources of Zipcode Map Data
REL/PLTF:	All
E-ADDR:	0002395748@mcimail.com
NAME:	Michael Davis
PHONE:	203-985-7187

REL/PLTF is an abbreviation for the SAS release and platform to which the message applies. The summary line is helpful for those SAS-L subscribers whose e-mail system does not allow them to send a message subject.

Some SAS-L subscribers include a postal mailing address, their corporate affiliation, and a facsimile telephone number. The (voice) telephone number is helpful to have when a reply message is returned by the postmaster.

Very often, you will see a posting containing a question to which you also wish to know the answer. If responders post the answer

privately, you will not see them. So if you answer a question, please post the answer publicly. If you receive a private answer or answers, summarize them and post the summary to SAS-L.

As mentioned previously, please do not post messages pertaining to your subscription or data base searches to SAS-L. Please be careful to post them to LISTSERV.

Other Lists with Postings on SAS Software

If you adopted an earlier suggestion and submitted "list global" to

LISTSERV@BITNIC.BITNET

you may have noticed that there are other SAS-related lists to which you wish to subscribe. Their fully qualified addresses are:

- ANYSUG-L@ALBANYDH2.BITNET
- INDYSAS@INDYCMS.BITNET
- NESUG-L@UMAB.BITNET
- SAS-GE@IGECUNIV.BITNET
- SASJOB-L@ALBANYDH2.BITNET
- SUB-L@UNCVM1.BITNET

You can determine more about these lists by using the REVIEW command.

TSNEWS-L

Another list that may be of interest to SAS users is SAS Institute Technical Support News List (TSNEWS-L). The fully qualified address is:

TSNEWS-L@VM.SAS.COM

This facility distributes information from SAS Institute Technical Support such as:

- problem alert letters
- problem alert notes
- machine-readable technical support documents
- announcements of new utilities
- other non-marketing announcements

Problem alert notes are posted as soon as possible. Problem alert letters are distributed every few months. Best of all, any SAS user can subscribe to TSNEWS-L, not just registered SAS consultants and software representatives.

In addition to subscribing to TSNEWS-L, you have to tell LISTSERV what types of messages you wish to receive. This is accomplished through AFD (Automatic File Distribution) commands. For example, the following two commands:

```
AFD ADD MVS* PALERT
AFD ADD * ANNOUNCE
```

request that LISTSERV send to you all MVS problem alerts and all announcements. If your site uses another computer operating system as a SAS software platform, then substitute the name of that operating system for MVS in the preceding AFD command that requested problem alerts.

If you want verify which AFDs you have specified, send the message "AFD LIST" to:

LISTSERV@VM.SAS.COM

If you can connect to FTP.SAS.COM interactively, then you can also access Anonymous FTP (File Transfer Protocol) to request files. This subject is not covered in this paper since many readers only have batch access to Internet.

Fortunately, you can also retrieve copies of selected SAS Institute Technical Notes from the LISTSERV which services TSNEWS-L. To obtain an index of the available Technical Notes, send to LISTSERV@VM.SAS.COM the command:

```
GET INDEX TECHNOTE TSNEWS-L
```

To retrieve a specific Technical Note, send the command:

```
GET TSxxx TECHNOTE TSNEWS-L
```

where xxx is the document number shown on the retrieved index listing.

Part 6: EMITS

Another Way to Get Technical Support

While SAS-L is one way of getting information, there are many situations where one would be better off with official technical support from SAS Institute. In early 1992, SAS Institute began offering the Electronic Mail Interface to Technical Support (EMITS) to registered SAS consultants.

If you are eligible to use EMITS, you register on-line by sending a message to SAS Institute Technical Support at SUPPORT@SAS.COM. You can get detailed instructions on how to register for and use EMITS by contacting SAS Institute Technical Support or by sending a message containing the command

`./help`

starting in column 1. The subject field must contain the characters EMITS.

EMITS is very handy when you need to pass SAS code, logs or output to SAS Institute Technical Support. Even if you logged a problem originally via a voice telephone call, you can add information to the tracking number via EMITS.

EMITS is often superior to the OCSF for seeking technical support for these reasons:

- no long distance charges
- capability to receive messages with e-mail
- capability to add information to telephoned problems
- tracking numbers are never locked
- more reliable response

When a tracking number is submitted using the OCSF, the submitted problem record is "locked", making it impossible for the submitter to append the original message until Technical Support "unlocks" the record. However, EMITS permits additional information to be appended at any time.

The reason why EMITS is more reliable is that unlike the OCSF, EMITS is fully automated. Whereas telephoned problems and problems sent to EMITS usually receive a response within 24 hours, problems submitted through OCSF often take longer to receive a response.

Sometimes it is necessary to place a follow-up call to SAS Institute to achieve final problem resolution.

A current advantage of OCSF over EMITS is that OCSF allows one to download zaps on a self-service basis. These zaps are for SAS software running on all platforms, not just personal computers. Zaps are text and can be transmitted through EMITS without using an error-free transfer protocol, such as XMODEM. However, use of OCSF is recommended over EMITS for the downloading of zaps.

In general, when you have access to EMITS and your need is supported, EMITS is the superior solution.

Conclusion

With the preceding information and access to a modem and Internet, one is ready to leave the "modem illiterate" and join fellow "connected" SAS users. So fire up your modem or mail system and try out some of the facilities and techniques described in this paper.

If this paper has helped you or if you have questions or suggestions, the author would like to hear from you. Send messages to:

0002395748@mcimail.com

If you are a CompuServe subscriber, you may send messages to 75046,1627. As previously noted, the author is not an "expert" and always appreciates receiving tips and other insight.

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