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Communications Through Internet To The Microscopy ListServer

While exchange of data and messages between academics and government people by electronic mail (eMail) has been around since 1969, the recent, rapid and relentless advances in telecommunications and computer technology is now bringing faceless and voiceless inter-communication to the masses. Easier access to the worldwide INTERNET has been a major factor in facilitating an explosive growth rate so that, at present, some 20 million users (some reports say 30 million) are exchanging more than 25 **billion** information packets each month. Considering the fact that eMail devotees are still a minority of the vast community of computer users, another factor of 10 expansion before the end of the century is expected.

So, what is INTERNET? It is not a company and is not even a system! It is much more like an agreement between central locations (let us call these locations "gateways") to communicate in a certain fashion, format, etc. In a physical sense a gateway is a central computer at each location that communicates on "auto-pilot" with the central computers at all other gateways.. The computers of individual members are connected either directly or by modem to their gateway computer and then have a bi-directional communication path through their gateway to the gateway of their addressee, and then to the addressee. At the addressee's gateway, the message is put in an "in box" to be retrieved by the addressee at his/her convenience. There are now hundreds of gateways worldwide.

How Internet really "works" is beyond the scope of this article (plus we really do not understand how it works!). A point to make, however, is that the University of Wisconsin pays some $55,000 a year for it's "connection" to Internet. As a result, we understand that few (if any) of the Universities and governmental agencies "on" Internet allow membership outside of their own employees, etc.

So, what is a LIST SERVER? It is exactly what the name implies! Rather than sending a message, through the gateways, to an individual you send your message to the gateway of the List Server where it automatically and rapidly resends your message to all the members of the list. That message will then reside in the "in-box" at the gateway of each member until he/she elects to retrieve it. You can, of course, send a message to a specific member of the list rather than the complete membership.

In a previous issue of this newsletter, we discussed the Microscopy ListServer/Mail Reflector system as inaugurated by Nestor Zaluzec and his associates at Argonne National Laboratory. With this system, hundreds of microscopists throughout the world are now communicating on a wide array of topics - rapidly and **cheaply.** To belong is much like "listening in" on discussion from, or joining in discussions with, microscopists around the world on a wide range of interests, challenges and information.. We submit that many with an interest in microscopy would find this interchange of information extremely interesting and valuable. Even manufacturers could receive value from "listening in" on these discussions. Should you have direct access to an Internet gateway, and wish to become a member of the Microscopy ListServer, all you have to do is send a message to "LISTSERVER @ANLEMC.MSD.ANLL.GOV" and simply say "SUBSCRIBE MICROSCOPY" plus your eMail address. You will receive a return message with information and instructions concerning the use of the ListServer. And, should you not be pleased with the system, it is as easy to quit as it is to start - by repeating the above but with "UNSUBSCRIBE . . . ".

Many of us, however, do not have direct access to an Internet gateway. In this and future columns, we would like to present optional ways to communicate through Internet, and then to the Microscopy ListServer. In this issue we will attempt to describe using CompuServe for this purpose. We hope that readers with knowledge of other options will educate us in future issues.

First, to use CompuServe to communicate through Internet is **very, very** easy. It even uses its own modem software so one does not have to learn how to drive a modem. The system includes a very basic word processing system and a nifty way to save messages for further reference. In the U.S., after an initial charge of $39.95, the monthly charge to belong to CompuServe is $8.95 (standard plan). Under the standard plan you receive a number of services.

Once you belong to CompuServe, you are assigned your own address - two sets of numbers separated by a comma. My CompuServe address, for example, is 74250,331. I do enjoy the ability to communicate with friends around the world, rapidly and cheaply, who are also CompuServe members.

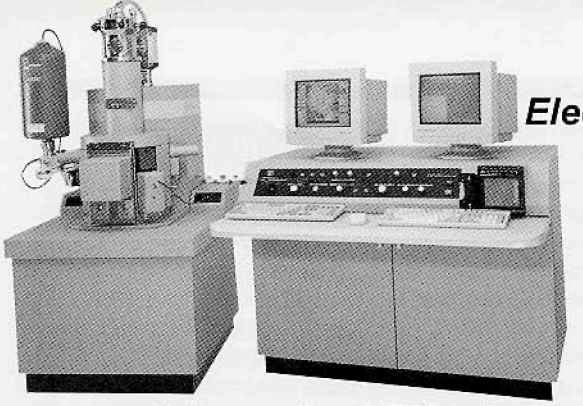
If I wished to send an Internet message through CompuServe, the address would be ">Internet:" followed, without a space, by the Internet address. If you wished to send me a message through Internet, the address would be 74250.331@CompuServe.com. Note that the comma in my CompuServe address has been replace by a period. A piece of cake!

For me to join the Microscopy ListServer through CompuServe, the address would be ">INTERNET:LISTSERVER@ANLEMC.MSD.ANLL.GOV" with the message "SUBSCRIBE MICROSCOPY 74250.331@COMPUSERVE.COM". Another piece of cake!

The bad news with CompuServe is that they charge you "postage" when you send a message through CompuServe only, and when you send or receive messages through CompuServe and then Internet. That charge is 5 cents for a message up to 2,500 characters (plus an additional 5 cents for each of the next 2,500 characters). Fortunately, most ListServer messages are well under 2,500 characters. The good news is that, with paying your $8.95 monthly CompuServe charge, they give you a $9.00 monthly postage allowance. This means, of course, that the first 180 messages (of reasonable length) sent or received each month are free. And when you connect to CompuServe by modem, usually to a local telephone number, you will naturally have to pay the telephone call charge.

For me, not being a computer jock and having no interest in learning yet another set of commands, the CompuServe option is the only way to go! I, and hopefully "we", look forward to information from others on additional options to communicate with Internet..

--- Don Grimes



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