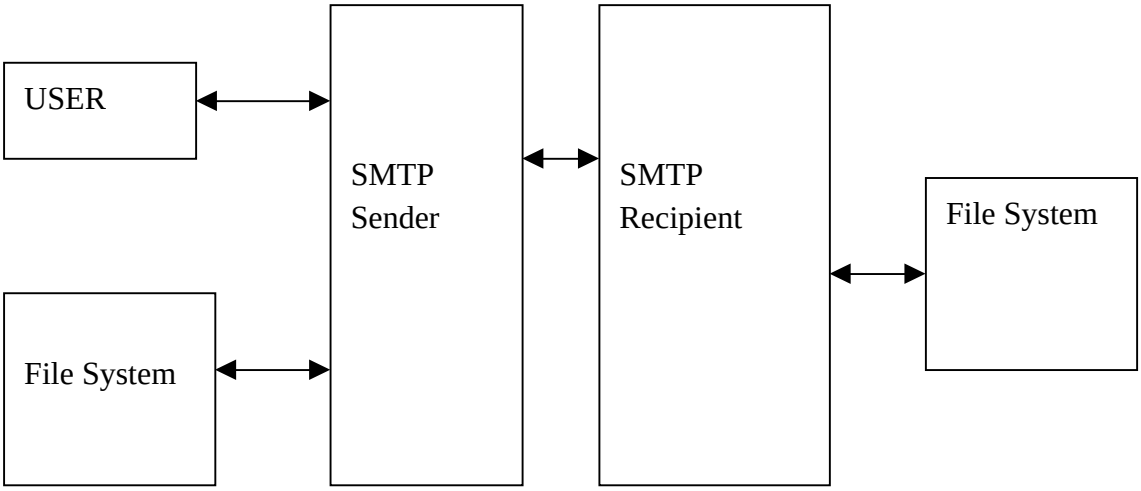
CS607 Electronic Mail

Electronic Mail:
Email is the most popular method of comunicating on the internet.

It is a one-to-one, and a one-to-many medium.

Mail is transferred by any number of Protocols. Gateways connect network using different protocols.

Simple Mail Transfer Protocol (SMTP) is one of the most common mail protocols on the internet.



Mail Messages
Messages are made up of 2 parts

- The Header
- The Body

Email Addresses

Internet email addesses have the users email account name followed by the "@" and the domain name of the mail server.

e.g. j.smith@ocean.ucc.ie

Usernames can be aliases

e.g. js@ocean.ucc.ie
jane@ocean.ucc.ie
Jane_Smith@ocean.ucc.ie

Aliases point to an email account and are kept in a file called aliases. It's format looks contains lines similar to the following.

Js: Jsmith
Jane:Jsmith

When Jsmith is the actual email account and Js and Jane are aliases to that address.

Aliases can point to many user names (or other aliases)
Eg,

Staff: js, gavin, liam, anne,tom@eircom

Headers

Headers consist of the following fields:

<u>To:</u>

The address of the recipient

The to: filed is filled in by the sender or automatically if replying and is obviously essential.

<u>From:</u>

The address of the sender

Automatically filled in by senders mail program

This is also essential if you want a reply.

<u>Subject:</u>

A short descriptionof the contents of the message, filled in by the sender .

Sometime prepended by “Re:” when replying to a message

e.g. when replying to a message with the subject: Hello

Re: is prepended e.g. Re: Hello

<u>Cc:</u> Carbon Copy

Other address that the mail is to be sent to (filled in by the sender)

<u>Bcc:</u> Blind Carbon Copy

Similar to CC: but the recipients are unaware of each other.

Filled in by dender.

Date: The date and the time that the mail was sent from the sender. Filled in automatically by the sender's email program.

There can be any number of other optional headers. Many of these are automatically added by the mail programs.

e.g. Received
Reply-to:
Content-Type:
Mime-Version
X-mailer
Etc.

Received: The time and date the message was passed through various mail hosts. There may be more than 1 Received header. Filled in Automatically.

Reply_to: Normally when you reply to a messae the reply is sent to the address in the **from:** field . If the reply-to: field header is present then the reply is sent to that address instead. Can be filled in manually or automatically.

Headers: can be user defined eg
X-favourite colour: Orange
X-phone: 902972
Etc.

Note: the From: and the To: are stored separately to the other headers which are stored with the body of the message (they are separated by a blank line form the body itself)

BODY:

Traditionally email was a text-only medium (ASCII)

To send binary files they must be converted to ASCII first.
(ASCII uses only 7 bits of a byte.)

MIME: Multi –purpose Internet Mail Extensions.

MIME offers a way to interghange text in Languages with different character sets or multimedia e-mail.

MIME cabable mail readers are required at a minimum, to ensure users will not see raw data.

Separate decoders are used for each data type.

A simple email message can consist of several MIME types

Headers can contain MIME type information

e.g.
Content-Type:text/plain;charset=”us-ascii”

Attachments:

Files sent along with you email message.

POP: (Post Office Protocol)

A protocol for transferring mail messages from an SMTP mail host to a PC

One -to-Many :

- Aliases
- Cc:, Bcc:
- Nicknames
- Mailing Lists

Mailing lists:
One-to-many.
Digests
Newsletters

You would normally send an email to subscribe.

Many-to-many
Listservers – manual or Automatic.

Use 2 addresses

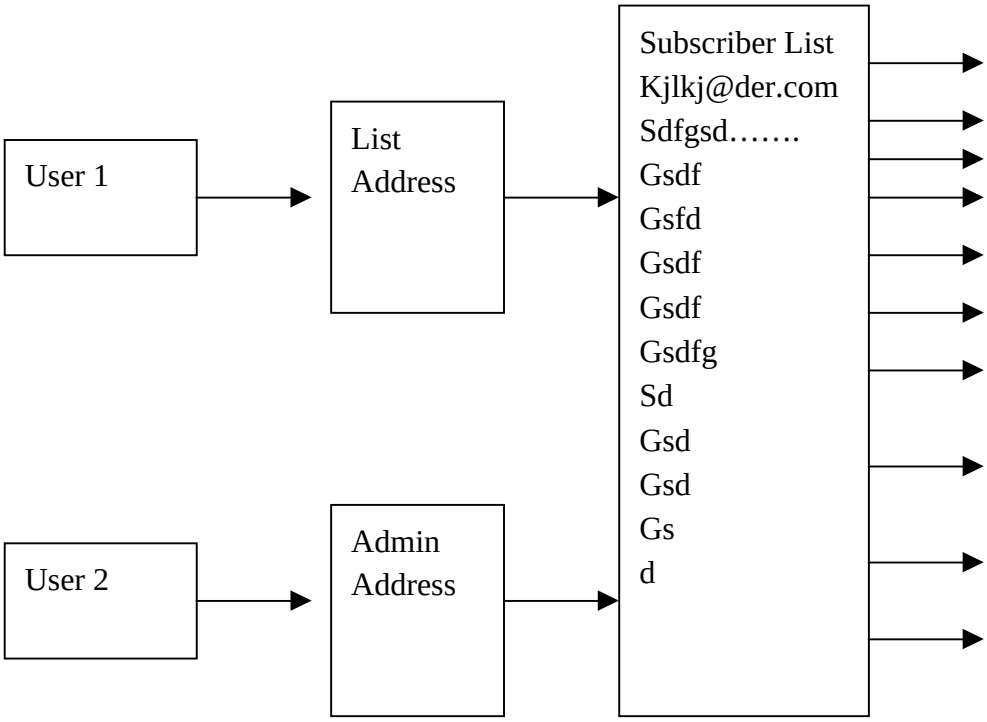
List music_l@bitnic.cren.net

Administrator listserve@bitnic.cren.net

Send mail to administrator to do the following commands.

Subscribe
Unsubscribe
List users
Get help
Request digest for

If you send mail to the lisat address , everybody on the mailing list gets the mail



One to Many

Public can subscribe but only the admin or moderator can send

e.g. Irish times Email edition
Newsletters
Junk mail

Kill Files
Can select people you do not want to receive mail from

Filters
Can specify actions to be performed on the receipt of mail depending

E-Mail Etiquette

Don't Be A Novelist

Messages should be concise and to the point. Think of it as a telephone conversation, except you are typing instead of speaking. Nobody has ever won a Pulitzer Prize for a telephone conversation nor will they win one for an e-mail message.

Its also important to remember that some people receive hundreds of e-mail messages a day (yes, there are such people), so the last thing they want to see is a message from someone who thinks he/she is the next Dickens.

Too Much Punctuation!!!

Don't get caught up in grammar and punctuation, especially excessive punctuation. You'll see lots of e-mail messages where people put a dozen exclamation points at the end of a sentence for added emphasis. Big deal. Exclamation points (called "bangs" in computer circles) are just another form of ending a sentence.
If something is important it should be reflected in your text, not in your punctuation.

The Legacy Of Punch Cards

Although this is the 1990's, not everyone in the world has e-mail software that has the word wrap feature (word wrap keeps you from having to hit the Enter key at the end of the line). There are still a large number of users with dumb (and not so dumb) terminals and teletype devices that do not gracefully handle text longer than the old punch card length of 80 characters. Therefore, keep the number of characters per line below the 80 character limit. Some recent e-mail packages have a built-in feature that automatically word wraps at a specified character limit so that the problem is essentially solved. However, if you're software does not

support this feature, you'll just have to remember to use the big Enter key again.

Abbreviations

Abbreviation usage is quite rampant with e-mail. In the quest to save keystrokes, users have traded clarity for confusion (unless you understand the abbreviations). Some of the more common abbreviations are listed in the table below. I would recommend that you use abbreviations that are already common to the English language, such as FYI and BTW. Beyond that, you run the risk of confusing your recipient.

This	Means This
BCNU	be seeing you
BTW	by the way
FWIW	for what it's worth
FYI	for your information
IMHO	in my humble opinion
OBO	or best offer
ROTFL	rolling on the floor laughing
RTFM	read the funny manual
TNSTAAFL	there's no such thing as a free lunch
TTFN	ta ta for now
TTYL	talk to you later

Smilies

Part of the nature of a good one-on-one conversation is the use of visual cues. How important are facial expressions and body gestures to a conversation? A simple eye movement can mean the difference between "yes" and "YES". What about auditory cues? The results are the same.
Since there are no visual or auditory cues with e-mail, users have come up with something called "smilies". They are simple strings of characters that are interspersed in the e-mail text to convey the writer's emotions (cues). The most common example is :-). Turn your head to the left and you should see a happy face (the colon are the eyes, the dash is the nose and the parentheses is the mouth). Here are some more examples.

This	Means This
:-)	Smiley face
;-)	Wink (light sarcasm)
:-|	Indifference
:->	Devilish grin (heavy sarcasm)
8-)	Eye-glasses
:-D	Shock or surprise
:-/	Perplexed
:-(	Frown (anger or displeasure)
:-P	Wry smile
;-}	Leer
:-Q	Smoker

:-e Disappointment
:-@ Scream
:-O Yell
:-* Drunk
:-{} Wears lipstick

They are typically found at the end of sentences and will usually refer back to the prior statement.
(a miss-interpreted smilie could lead to a flame).

Salutations

The question here is "How personal is too personal?" or to be more specific, how do you open your e-mail: "Dear Sir", "Dear Mr. Smith", "Joe" or none of the afore-mentioned.
If you posed this question to Miss Manners, I expect she would come back with a quick answer - use the standard formalities -- but I don't know that I would agree.
In a non-business situation, it is recommend that you bypass the standard formalities. At most, I would only include something along the lines of "Dear John" or just "John".

In the business situation, things are much more complicated. Each situation will need to be evaluated on it's on, but in general, I would use the following as a guide: If you normally address a person as Miss/Mrs./Ms./Mr. Smith then that's the way I would initially address them in e-mail. If you normally call them by their

first name then I would either omit the salutation or follow the guideline specified in the prior paragraph. If you are unsure, stick to the formal salutation. It's the safest bet.

Signatures

If you had to guess what a signature was (the e-mail version), you would probably be close.
On a paper document (save a tree, send e-mail) it's typical to close the document with the following:

Gene Wicker, Jr.

Since it's not possible (yet) to sign your e-mail, users will sometimes include the same information (minus the signature) at the bottom of their e-mail messages.
I would highly recommend this practice because the originator is not always clear to the recipient. Lots of companies use abbreviated names or numbers for employee e-mail addresses and those abbreviations or numbers will mean little to someone not familiar with their significance.
I would also recommend that you included your e-mail address in this information. Sometimes it can be very difficult to locate your

e-mail address in the information that's a part of transmission, especially if it's going across the Internet.
If your e-mail address is a business address, I would include your title and company name in the signature. Normally, this might be part of a letterhead, but in the e-mail world letterheads are not used (wasted space).

You will sometimes run across a user's signature that contains a quote (as in "...the secret to life is that there is no secret.") after the person's name. This has become a fairly common practice. If you choose this option I would recommend that the quote be something that is a reflection of yourself. Keep it short. You don't want the quote to be longer than the message.

I would recommend that you keep the total number of lines for the signature down to four or less.

Threads

Once you send that first e-mail, you will probably get a response. If you want to reply to that response what should you do? The wrong thing to do is to start a new e-mail message. This breaks the link (called a "thread") between the original message and your soon-to-be-created response. Without the link, it can get difficult for the users on each end to follow the sequence of messages, especially after several exchanges. This becomes an even larger problem when you are dealing with newsgroups (more later) where several people may be replying to messages and trying to follow the thread of exchanged information. The correct thing to do is to reply, which is essentially the same thing as creating a new message, but maintains the thread.

Quotes

Nothing is more wasteful than to reply to an e-mail by including a complete copy of the original with the words "I agree" , "Okay" or "Ditto" at the bottom.
The correct method is to use quoting. This is best explained by an example:

>and do you agree with the proposal to hire Ms. Ross to
>handle our legal services?

Yes. Please make the necessary arrangements.

The '>' in front of the text indicates to the recipient that this is quoted material from his/her last e-mail message. The second sentence is your response to the quoted material. The key with quoting is to include enough material in the quote so that it will be relevant to the recipient. Imagine that the original message was a hundred lines long and the only question that required a response was located in the last sentence. Why send the whole message back in the reply? That would cause the recipient to scroll through the hundred line message again just to find your response at the bottom.
Quoting can occur again and again as in the example:

>>and do you agree with the proposal to hire Ms. Ross to
>>handle our legal services?
>
>Yes. Please make the necessary arrangements.

Arrangements made. Our first meeting is scheduled for tomorrow morning.
From this we see both two level quoting (>>) and one level quoting (>). The (>>) indicates that the sender is quoting your quote and the (>) is a quote of part of your message you sent in reply.
Don't get hung up in quoting. After so many levels, all you end up with is a bunch of ">" and very little substance.

Save A Tree

One of the goals for e-mail usage is to eliminate (or greatly reduce) the shuffling of paper, but what chance does that have if a significant number of people are going to print every message they receive.
I'm not saying that all messages should not be printed. I'm saying that too many messages are printed for no reason (a lot are printed and never retrieved from the printer).

Unless you have a very primitive e-mail system, it probably has some system (usually called "folders") that can be used to permanently store messages for recall at any time in the future. If the same people who print messages for paper file systems would create the same structure in the e-mail system with folders, it would accomplish the same goal, but would save an enormous amount of paper (and trees).

Privacy, Are You Kidding?

Stop right where you are and set aside a couple of brain cells for the following statement: **there is no such thing as a private e-mail**

With some e-mail systems, the e-mail administrator has the ability to read any and all e-mail messages. If this is the case where you are located you better hope that there is a honest and respectable person in that position.

Some companies monitor employee e-mail :
The reasons for this obtrusive behavior range from company management wanting to make sure users are not wasting time on frivolous messages to making sure that company secrets are not being leaked to unauthorized sources.

E-mail software is like all software in that occasionally things go wrong. If this happens, you may end up receiving e-mail meant for another person or your e-mail may get sent to the wrong person. Either way, what you thought was private is not private anymore.

Somewhere in the world there is a person (usually a hacker) who is able to read your e-mail if he/she tries hard enough.

Of course "Tries hard enough" is the key. It's not that simple to read another person's e-mail (usually) . (Usually) there are security measures in place to prevent this from happening, but no security is one hundred percent hacker-proof. I have "usually" in parenthesis in the prior two sentences because I'm making the assumption that the person/persons who install and operate your e-mail system have taken the necessary precautions. Of course, the same must also be true for the person/persons on the receiving end of your e-mail.
So where does this leave us.
First, there is no such thing as a private e-mail
Second, don't send anything by e-mail that you would not want posted on the company bulletin board.

If it's safe enough for the bulletin board, it's safe enough for e-mail.
Finally, if you are debating whether or not to send something personal by e-mail, either deliver it by hand or send it by snail mail.

Flames

What is a "flame" or specifically what does it mean "to be flamed?" To be flamed means that you've sent an e-mail to a person(s) that has caused that person(s) to respond in many, not-so-nice words. It's basically a verbal attack in electronic form. I would provide examples, but I'm not too sure of the age of my audience and I, in turn, do not want to end up getting flamed from the readers of this document.

Sometimes the reason for a flame is quite obvious (keep reading), but in other cases you just never know. You might send what you think is a harmless e-mail to ten people. Nine people respond in a rational tone while number ten sends you a flame. Just remember that everyone sees the world differently. You may be lucky and spend your whole life dealing only with the people in the group of nine, but I'll bet that sooner or later you will run into person ten.
How do you respond to flame? Tough question. The best answer would be to ignore it and go about your life as logical and rational human being. If this is not your first reaction, it probably will be after you've been flamed a couple dozen times. You will find out that responses just aren't worth the effort. Remember that old saying about "You can please some of the people...".
If you do choose to respond you will probably end up in what is known as a "flame war". This is where two or more people end up exchanging flames for an extended period of time, usually to the point that users start making references to one's mother, one's mental capability, etc... At some point, all those participating in the war will eventually forget what originally started it and go back to being normal human beings.
Never been flamed? Well if you are begging for it, I would suggest one of the following:

Send an e-mail in all UPPER-CASE. Use of upper-case words is the equivalent of shouting in some one's ear. ONLY use upper-case words when trying to make a point (such as I just did). Even at that, you should be careful with who you are exchanging messages.

Make a comment about grammar or punctuation. Nobody wants to feel like they are exchanging e-mail with their eighth-grade English teacher.

Send a mass-mailing advertisement. This is numero uno on the don'ts list and will generate more flames than the devil himself. Think about the amount of junk mail you receive everyday by snail mail. Even though you don't want it, you find you must look through all of it because somewhere in that stack of unwanted advertisements and wasted paper could be your monthly water bill. The same principle applies to the e-mail. Would you want to search through a mailbox full of advertisements simply to find that all-important message from your boss?

Request computer help without providing system-specific information. For example, if I submitted an e-mail that stated "I've got this problem with Word...". Well is that MS Word for DOS, MS Word for Windows, MS Word for Macs? What version? Version 2.0? Version 6.0?
Remember, the world (and it's users) is made up of every kind of computer imaginable, from IBM PC's to Macs to UNIX workstations to the one your neighbor assembled in his garage. The correct method would be to list all the system specifics first, then describe the problem or question. For example, if I were seeking answers to questions about Microsquish Word for my computer at home, I would list Gizmo Model SR-32 (Microchannel Clone, 486-66Mhz, 16MB RAM, 400MB SCSI

hard disk), MS DOS 6.22, MS Windows 3.11, MS Word 6.0a and then state the problem in detail.

Send a e-mail asking for the meaning of BTW or :-) . If you've not already found these in this document, keep reading. E-mail users use lots of abbreviations (not everyone can type 200 words a minute) and other funny characters. These are two of the more common examples -- "BTW" is the equivalent of "by the way" and :-) is a happy face or smile (turn your head to the left).

Better Than Snail Mail

You would think that since e-mail is electronic and electronic information is suppose to move at the speed of light, your e-mail message would arrive seconds after you send it. If you're sending e-mail to the person in the office next to yours it might happen that way. In most cases, however, the message will probably take anywhere from a couple of minutes (majority of the time) to a couple of days (in which case there is usually a problem).
Think of it this way. Sending e-mail locally is as easy as delivering it by hand. Following that premise, if you had to hand deliver mail to some one clear across the country, doesn't that take a little more effort?
The reason it takes longer is that in the transmission of a message from point A to point B, the message may pass across one, two, or up to who-knows-how-many different types of mail systems before it reaches it's destination. Remember my earlier statement? All computers (and e-mail systems) are not the same.

No matter how far away you are sending your e-mail message I'll guarantee that it will beat snail mail. On top of that you save the cost of a stamp.

A Blessing And A Curse

E-mail is a conversation that does not require an immediate response (like a telephone). If someone calls you on the telephone, you pick it up (unless you have an answering machine, voice mail or you are just plain rude) and the conversation begins. This is an interactive conversation.

With e-mail you send a message and then wait for a response. The response may come in five minutes or the response may come in five days. Either way it's not an interactive conversation.

If a hundred people send you e-mail in one day, so what? You didn't have to talk with all one hundred. Just think of all the hellos, good-byes and other unnecessary chit-chat you avoided. With e-mail you only deal with their messages (which usually omit hellos, good-byes and such) and you deal with them on your own time. That's the blessing.

Now for the curse.

Too many users assume that the minute someone receives an e-mail it, the person will read it. Bad assumption.

If you schedule a meeting for an hour from now and send an e-mail to each attendee, the chance that all the attendee's will read that message within the hour will be pretty small. On the other hand, if you schedule the meeting for the next day, the chance that they will read the message will be pretty high. Remember, e-mail is not

designed for immediacy (that's why you have a telephone), it's designed for convenience.
Some (not all) e-mail systems have features that try to combat this problem. These features (usually called "notification") will notify you when a person has received your e-mail and may also notify you when the person has read it (really all it can do is assume you that the person has looked at the first screen of the message -- it has no way to know if the person has read the message word for word). Referring back to the example in the last paragraph, you could check to see who has checked their e-mail before the meeting and then telephone those who have not read it.

Talking To Dinosaurs

If your e-mail package has links to the Internet (which any worthwhile site should have) then you can send e-mail to the poor, unenlightened souls on Compuserve, AOL or Prodigy.
For Compuserve users, the address format is:

user.number@compuserve.com
For example, if my user number is 123,98765, the correct address would be:

123.98765@compuserve.com

For AOL users, the address format is:

screenname@aol.com

For example, if my screenname is dinosaur, the correct address would be:

dinosaur@aol.com

For Prodigee-wiz users, the address format is:

userid@prodigy.com

For example, if my Prodigy user id is dino12x, the correct address would be:

dino12x@prodigy.com