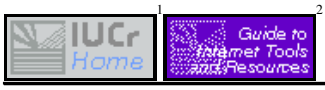

Internet Newsgroups – General Information

Internet newsgroups are a system for public world–wide text conferencing and discussions somewhat in the manner of an electronic bulletin board. Newsgroup material is essentially limited to basic (ASCII) text. As the name implies the conferences are structured into discussion groups, each covering a particular field of interest or activity. A few examples drawn from the several thousand existing newsgroups are:

```
bionet.photosynthesis
bionet.xtallography
bit.listserv.geograph
biz.jobs.offered
ch.avalanche
comp.compilers.tools.pccts
fr.petites-annonces.immobilier
info.nsf.grants
misc.fitness.aerobic
rec.arts.books.childrens
sci.data.formats
sci.techniques.xtallography
soc.culture.estonia
```

Information on newsgroups of particular interest to crystallographers can be found in the section Internet Newsgroups for Crystallography[3] where some examples of recent discussions on crystallography are presented.

A user's news program will present the complete list of newsgroups[4] available on his installation. One may thus `subscribe` to or `unsubscribe` from any particular newsgroup. For subscribed groups a list of the titles of unread contributions to the discussion will be shown[5] and the user may choose which of these he wishes to read. In general an article that has been consulted[6] will be marked `read` and for the unconsulted articles the operation of `catchup` will change their status to `read`. Consequently only the titles of new articles are automatically presented to a reader.

A user interacts in a discussion group by operations which are very similar to sending an e–mail. In a news program one can `post`[7] a contribution to a group or groups on a new topic of discussion or `follow-up` (*i.e.* reply) to someone else's contribution. With `post`[8] and `follow-up`[9] the user's contribution is sent to the newsgroup and hence distributed world–wide. On the other hand with `reply to sender`[10] a message is sent only as a personal e–mail to the author of the message the user is reading.

The origins of the internet newsgroups[11] can be traced back to a link between two computers in 1979.

How do the Internet Newsgroups Work? | top[12]

[1] http://www.iucr.ac.uk/iucr–top/welcome.html
[2] int.index.html
[3] int.news.crys.html
[4] int.news.set.html#subscribe
[5] int.news.use.html#view
[6] int.news.use.html#reading
[7] int.news.use.html#posting
[8] int.news.use.html#posting
[9] int.news.use.html#followon
[10] int.news.use.html#followon
[11] ftp://rtfm.mit.edu/pub/usenet/news.announce.newusers/Usenet_Software:_History_and_Sources
[12] #top

Each internet site or service provider has its own *News Server* computer that is connected to at least one other. This forms a web of connections whereby news messages can be distributed by using standard network news transfer protocols (NNTP) without the requirement for a central master computer. The newsgroups are thus completely decentralised and have no central authority directing their use. Even if important news server computers are not operable, the messages will try and find alternative distribution routes. Individual sites have the option *via* their news server software either to collect all newsgroups or only those in which they are interested.

There are two main types of newsgroup:

- **unmoderated** newsgroups that have unrestricted posting, and
- **moderated** newsgroups where messages are vetted by moderators before appearing on the newsgroup.

Moderation of newsgroups can be desirable to exclude inappropriate messages, to increase the signal to noise of the discussion forum and to verify the exactitude of statements made.

Many newsgroups have a FAQ (Frequently Asked Questions) file where the most common questions and answers are given. This FAQ file is often posted out every fortnight, month or at irregular intervals. Also, as a help to people who do not have access to the newsgroups via the normal news reading software, some newsgroups are mirrored to an e–mail list server.

Newsgroup Hierarchies | top[13]

Newsgroups are split amongst different hierarchies, each with its own generally accepted rules, guidelines and culture. Only some of these are of real use for scientific applications and are detailed below:

- Usenet[14]
- Bionet[15]
- Scinet[16]
- Altnet[17]
- Regional[18]

The procedures to be used in the creation of a new newsgroup[19] are described elsewhere.

The **Usenet** (short for Users Network) is the largest organised collection of newsgroups comprising the *big eight* newsgroup hierarchies; **comp** (computers), **humanities** (humanitites and fine arts), **sci** (science), **soc** (social), **news** (Usenet news issues), **rec** (recreational), **misc** (miscellaneous) and **talk**. Usenet newsgroup creation[20] is administered by a group of volunteer Usenet administrators. Although the Usenet is presently the main respository for non–biological science newsgroups, Usenet opinion makers tend to disapprove of specialist science newsgroups as their *low usage makes them a waste of bandwidth* and consequently the creation of new newsgroups for science is an arduous task.

The **bionet** (also called BIOSCI) is a newsgroup hierarchy originally setup with generous funding and assistance to create a scientist–friendly newsgroup discussion resource for the biological sciences. Recently, the bionet has ceased obtaining support from its government funding agencies and is instead running independently using the US PBS (Public Broadcasting System) as its model and obtaining funding from commercial sponsorship.[21] Due to its specific mission to a particular area of science and the presence of scientist–friendly administrators, bionet has achieved a high level of

[13] #top
[14] #usenet
[15] #bionet
[16] #scinet
[17] #altnet
[18] #regional
[19] int.news.crea.html
[20] int.news.crea.html#create–usenet
[21] http://www.bio.net/imp–word.html

penetration in the biological sciences. New newsgroups can be created by following scientist–friendly guidelines. Each bionet newsgroup has a discussion leader (usually the original proposer) who has the function of promoting, focussing and encouraging discussion.

There is a proposal to extend the activities of bionet into science in general in the form of **scinet**. As presently the charter of the bionet limits its activities to biological science, the change to commercial sponsorship will allow bionet to extend into other scientific areas. Scinet will serve non–biological scientists with newsgroup and mailing list facilities. However, it looks like this will not happen unless the **bionet** can obtain sufficient commercial sponsorship[22] to maintain its existing facilities, let alone expand into new areas.

The **altnet** is another large newsgroup hierarchy (by number of newsgroups alone), but has variable to low distribution. This supposedly represents the "true anarchy" of the internet newsgroups where anything goes, but it is more an area for people with bizarre and purile tastes combined with a lifetime of leisure to kill. However, some scientists find it useful to create serious science newsgroups under the altnet hierarchy as they are so easy to create. This is why the altnet newsgroup creation guidelines[23] are included.

Regional hierarchies are run by most countries linked to the internet. For example, in Australia the aus.* series of newsgroups are specifically targetted for Australia while the ch.* newsgroups are for Switzerland. It is not uncommon for regional hierarchies to be available beyond their immediate geographical areas. Newsgroup creation for these hierarchies tends to vary quite considerably, but is hopefully more relaxed and less hassle than creating Usenet newsgroups.

We have completed this text with some further comments on the present status and possible future developments[24] of the Internet Newsgroups.

[Index][25] – 10th Sept. 1996 – © Lachlan M. D. Cranswick[26] – **Not to be copied or reproduced without permission** – Author's current manuscript[27]

[22] http://www.bio.net/imp–word.html
[23] int.news.crea.html
[24] int.news.futr.html
[25] int.index.html
[26] http://www.unige.ch/crystal/stxnews/stx/volnteer.htm
[27] http://www.unige.ch/crystal/stxnews/newsgrp/newsgen.htm