

The Public-Access Computer Systems Forum:  
A Computer Conference on BITNET

By Charles W. Bailey, Jr.

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Introduction

The Public-Access Computer Systems Forum is a computer conference that deals with all computer systems that libraries make available to their patrons. Utilizing the PACS Forum, users discuss topics such as CD-ROM databases, computer-assisted instruction software, expert systems, hypertext programs, locally-mounted databases, online catalogs, and remote end-user search systems. While many users are librarians, the PACS Forum also serves computer specialists, faculty members, and other types of users. As of January 1990, over 950 users from 25 countries are exchanging information via the PACS Forum. The University of Houston does not charge users for accessing the conference. The PACS Forum is available to users with e-mail accounts on computers connected to BITNET or to networks that are linked to BITNET.

The PACS Forum was established in June 1989 at the University of Houston. Initiated by the University Libraries, the PACS Forum is a joint project of the Libraries and the Information Technology Division. During the last six years, the University Libraries have conducted experimental projects and developed ongoing services aimed at giving patrons access to computer systems. Representative efforts include (1) the Geac Online Catalog; (2) the Foresight Project, an end-user searching service; (3) the Chemistry Research Information Service Project,<sup>1</sup> an end-user searching and document delivery service; (4) the Information Machine,<sup>2</sup> a microcomputer-based system that orients users to the Libraries; (5) the Index Expert system,<sup>3</sup> a microcomputer-based expert system that assists users in selecting indexes; (6) the Electronic Publications Center, a CD-ROM database facility that also provides access to BRS After Dark and Knowledge Index; and (7) the HARLiC CD-ROM Union Catalog, a microcomputer-based online catalog being developed with seven libraries in the Houston area. Given this strong, long-standing interest in public services automation, it was natural for the University Libraries to establish the PACS Forum as a means of

exploring the potentials of public-access computer systems with colleagues across the globe.

The PACS Forum uses the Revised LISTSERV software, which was written by Eric Thomas of the Ecole Centrale de Paris, running on an IBM-compatible NAS/9000N mainframe computer under the VM/SP operating system. In operation, the LISTSERV software is called a list server and the individual conferences that it maintains are called lists.

### Subscriptions

To join the PACS Forum, a user sends an e-mail message containing a subscription command to LISTSERV@UHUPVM1. For example, a user named John Doe sends the following command:

```
SUBSCRIBE PACS-L John Doe
```

Note that the user puts his or her first and last name after the SUBSCRIBE PACS-L command.

After receiving the request, the list server adds the user's e-mail address to the conference's list of participants, and it automatically sends out an e-mail message that provides generic information about the operation of the list server software. The list server also sends notification of the new subscription to a special e-mail address I use to run the list. Upon learning of a new subscription, I send a welcome message to the user that describes the PACS Forum and orients the user to its operation. Some users have difficulty adding themselves to the list, and I can add these users to the list using a special command.

Given the volume of message traffic on the PACS Forum, it is advisable for users to sign off the list when they will not be able to check their e-mail for an extended period of time (e.g., vacation). To do this, a user sends an e-mail message to LISTSERV@UHUPVM1 that says:

```
UNSUBSCRIBE PACS-L
```

### Message Distribution

To send a message to the PACS Forum, a user simply sends an e-mail

message to PACS-L@UHUPVM1. Upon receiving a message, the list server notifies the sender that the message has been submitted to the moderator of the PACS Forum. As moderator, I screen all messages sent to the list and forward appropriate ones to the list server for distribution to conference participants.

Although moderating the list is a time-consuming task, it benefits conference participants by freeing them from having to deal with messages on topics outside the scope of the conference, pleas for help in using list server features, personal messages, and list server commands that have been sent to the wrong address. I also can prevent distribution of very long messages (over 100 lines) that cause some PACS Forum participants' e-mail accounts to malfunction. I usually edit these messages into a series of smaller messages. Since I forward messages to the list server, I also can control the timing of when messages are distributed, permitting me to spread out a large group of messages over several days.

New users of the PACS Forum are often surprised by volume of messages, usually at least 5-10 messages on a work day. PACS Forum users have sent over 1,200 messages since the start of the service. "Hot" topics, such as networking CD-ROMs and Internet access to online catalogs, can generate a long series of messages, some of which can be mini-essays.

#### Message Retrieval Capabilities

All messages to the conference are automatically archived. PACS Forum users can retrieve the monthly archive files using the GET command. For example, to retrieve the file for January 1990, a user sends an e-mail message to LISTSERV@UHUPVM1 that says:

```
GET PACS-L LOG9001
```

The list server sends the user an e-mail message that describes the processing of the request and the requested file. The user can then read, print, or download the file using the appropriate commands for his or her computer system.

Users can search the entire message database for specific information using complex, Boolean queries. The most reliable method of searching the database is to submit batch search jobs to the list server via e-mail messages.

To obtain a list of messages that contain the search key "Hypertext OR Hypermedia," a user sends the following message to LISTSERV@UHUPVM1. Note the use of special control characters and the format of this message. The "Index" command causes the system to list the messages containing the search key.

```
//      JOB
Database Search DD=Rules
//Rules DD      *
Search Hypertext OR Hypermedia in PACS-L
Index
/*
```

The system sends the user an e-mail message that describes the processing of the job and the DATABASE OUTPUT file, which contains a list of the messages that match the search key. After noting the numbers of interesting messages (326 and 525 in this example), the user then sends a second search request to LISTSERV@UHUPVM1 to obtain the full-text of specific messages:

```
//      JOB
Database Search DD=Rules
//Rules DD      *
Search Hypertext OR Hypermedia in PACS-L
Print all of 326 525
/*
```

The system sends the user an e-mail message that describes the processing of the job and a second DATABASE OUTPUT file, which contains the text of the requested messages.

If the user wanted the text of all messages that match the search key, he or she could simply put "Print" in the fifth line of the preceding example. If this was done, the user could skip the first search request entirely; however, the user would have no way of knowing how many messages he or she would receive.

This brief description only scratches the surface of the retrieval capabilities of the list server. Other search features include nested Boolean expressions, search limitation by date and time (e.g., until a specified date, since a specified date, and between two dates), and SOUNDEX searches.

#### List of Subscribers

PACS Forum users can easily obtain a copy of the list, complete with the e-mail address and names of subscribers. To accomplish this task, a user sends an e-mail message with the following command to LISTSERV@UHUPVM1:

```
REVIEW PACS-L
```

The system sends the user an e-mail message that describes the processing of the job and the PACS-L LIST file, which contains the PACS Forum list of subscribers. This file also includes brief summary statistics about the list.

To get the basic list plus a breakdown of users by country, a user sends the following command:

```
REVIEW PACS-L COUNTRIES
```

### Documentation

The functions of the list server are explained in a number of documentation files, which users can retrieve as needed. To get a list of these files, a user sends an e-mail message to LISTSERV@UHUPVM1 containing the command:

```
INFO ?
```

The system sends the user an e-mail message that lists the INFO commands used to retrieve specific documentation files. The user can then determine the appropriate INFO command to obtain a needed file and send an e-mail message containing that command to the list server. For example, if the user wants an overview of the list server functions, he or she sends an e-mail message containing the INFO PRESENT command to LISTSERV@UHUPVM1. The list server sends an e-mail message describing the processing of the job and the LISTPRES MEMO file, which contains the needed information.

### Generic List Server Capabilities

Although it is a relatively simple piece of software, the list server is a flexible and powerful tool for facilitating group communication. It can be used for both public and private conferences. So far, we have examined how the PACS Forum list is set up. In this section, we will briefly look at list server

features in a more general way.

The header of a list contains certain keyword values. By altering the standard list header, authorized staff can customize the list to reflect local needs.

Using the major keywords, these staff can:

- (1) Identify special users who will be involved in maintaining the list.
- (2) Determine if messages are screened by a moderator.
- (3) Indicate whether users can subscribe to the list at will, users can only request to be added to the list, or users can perform neither of these actions (authorized personnel add users to a "closed" list).
- (4) Control who can examine the list of users' e-mail address and names.
- (5) Conceal or reveal the existence of the list to network users.
- (6) Determine if messages are archived and establish the frequency with which new archive files are created (e.g., weekly, monthly, or annually).
- (7) Indicate whether message traffic statistics are maintained and control who can see them.

The list server software can be customized in other ways, and it has a variety of additional operational features that are described in the documentation.

#### Other Library-Oriented Lists on BITNET

The PACS Forum is not the only open-subscription list on BITNET that deals with library topics. Other lists include: (1) BRS-L@USCVM, a list for users of the BRS/Search software; (2) GOVDOC-L@PSUVM, a list for government documents librarians, (3) INNOPAC@MAINE, a list for users of the Innovative Interfaces system; (4) MLA-L@IUBVM, a list for members of the Music Library Association; (5) NOTIS-L@TCSVM, a list for users of the NOTIS system; and (6) SPILIB-L@SUVM, a list for users of the SPIRES software. When subscribing

to these lists, please remember to send the SUBSCRIBE command to the list server address (always starts with "LISTSERV") not to the list address. For example, to subscribe to BRS-L, send the command to LISYSERV@USCVM not to BRS-L@USCVM. Keep in mind that these lists deal in very specialized subjects that may not necessarily be of general interest.

### The Public-Access Computer Systems Review

To complement the PACS Forum, an electronic journal, called The Public-Access Computer Systems Review, was established on 1/3/90. Articles are stored as individual files on the list server, and an annotated table of contents for each issue is sent out as an e-mail message to all PACS Forum users. After looking over the table of contents, users can retrieve article files of interest. It is anticipated that many users will want to download selected articles to their microcomputers and print them. Libraries are authorized to add The Public-Access Computer Systems Review to their collections at no charge.

To obtain a list of available files, a user sends an e-mail message containing the INDEX PACS-L command to LISYSERV@UHUPVM1. The list server sends the user an e-mail message about the job and the PACS-L FILELIST file.

PACS Forum users can retrieve article files using the GET command. For example, to retrieve the table of contents file for the first issue, a user sends an e-mail message to LISYSERV@UHUPVM1 that says:

```
GET CONTENTS PRV1N1
```

The list server sends the user an e-mail message about the job and the CONTENTS PRV1N1 file.

### Conclusion

The Public-Access Computer Systems Forum is an active list on BITNET, which allows users to exchange advice, news, and opinions about evolving patron-oriented computer systems with colleagues across the globe. The PACS Forum automatically archives these e-mail messages and permits users to search this database using sophisticated retrieval techniques. Unlike many library lists, the PACS Forum is moderated, and this permits inappropriate messages to

be weeded out. Hopefully, the PACS Forum and other BITNET lists are in the vanguard of a movement to establish computer conferences for library professionals, which will dramatically improve our ability to communicate with remote colleagues about important, timely topics.

#### References

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