
Scott, Peter. "Using HYTELNET to Access Internet Resources" The Public-Access Computer Systems Review 3, no. 4 (1992): 15-21. To retrieve this article, send the following message to LISTSERV@UHUPVM1 or LISTSERV@UHUPVM1.UH.EDU: GET SCOTT PRV3N4 F=MAIL.

1.0 Introduction

HYTELNET is a hypertext browser that allows a user to gain almost instant access to all telnet-accessible sites on the Internet. It is written for use on an IBM-compatible personal computer, running as a terminate-and-stay-resident program.

The purpose of this paper is not to explain the history and operation of the program (that information can be found in a previous article). [1] Rather, this article describes the different kinds of Internet resources that a user can connect to with the help of the program.

2.0 OPAC Access

Typically, the program is started from its own subdirectory by running HR.EXE. This brings up the START.TXT file (see Figure 1). [2]

Figure 1. Welcome to HYTELNET Screen

```

                                Welcome to HYTELNET
                                version 6.2
                                .....

What is HYTELNET?      <WHATIS>  .      Up/Down arrows MOVE
Library catalogs      <SITES1>  .      Left/Right arrows
                                SELECT
Other resources        <SITES2>  .      F1 for HELP anytime
Help files for catalogs <OP000>  .
Catalog interfaces     <SYS000>  .      CONTROL/HOME
                                returns here
Internet Glossary      <GLOSSARY> .      ALT-T quits
Telnet tips            <TELNET>  .
Key-stroke commands    <HELP.TXT> .
                                .....
```

HYTELNET 6.2 was written by Peter Scott,
U of Saskatchewan Libraries, Saskatoon, Sask, Canada. 1992

If a user selects the SITES1 file, he or she will be presented with a list of countries that have Internet-accessible OPACs available for browsing (see Figure 2).

Figure 2. On-Line Library Catalogs Screen

On-Line Library Catalogs

The Americas	<CN000>	Canada
	<MX000>	Mexico
	<US000>	United States
Europe/Scandinavia	<AU000>	Austria
	<DE000>	Denmark
	<FI000>	Finland
	<GE000>	Germany
	<IC000>	Iceland
	<IR000>	Ireland
	<IS000>	Israel
	<IT000>	Italy
	<NE000>	Netherlands
	<ES000>	Spain
	<SW000>	Sweden
	<SZ000>	Switzerland
	<UK000>	United Kingdom
Asia/Pacific	<AT000>	Australia
	<HK000>	Hong Kong
	<NZ000>	New Zealand

Selecting any of the files will bring up a list of sites within a particular country. The user then selects the library to access. Each library has its own file, complete with telnet address and any special login instructions. Currently, a user can connect to about four hundred libraries worldwide, including those subsumed under consortia.

One feature that users find helpful is the ability to view a file describing the particular OPAC software in use.

Also included in the program are lists of sites that use a particular software interface. At least twenty-one such interfaces are in use: BLCMP, BuCAT, CATS, DOBIS/LIBIS, DRA Altas, Dynix, Geac, Geac Advance, GvB, Inlex, INNOPAC, Libertas, LS/2000, Multilis, NOTIS, PALS, UNICORN, URICA, UTCAT, VTLS, and Z39.58.

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For example, if a user wishes to see which libraries use URICA, the file SYS012 would be retrieved (see Figure 3).

Figure 3. Libraries Using URICA Screen

Libraries using URICA

<AT002>	Australian National University
<UK072>	Bradford University
<AT018>	University of Canberra
<NZ002>	University of Canterbury

It is then a simple matter of moving the cursor to the appropriate file and hitting the return key. Figure 4 shows the

screen that the user sees when he or she chooses the Australian National University.

Figure 4. Australian National University Screen

Australian National University

1. TELNET LIBRARY.ANU.EDU.AU or 130.56.108.3
2. At login, type LIBRARY

OPAC = URICA <OP015>

To exit, use the TELNET escape key.

E-mail contact is helpdesk@library.anu.edu.au

The user then simply keys in the telnet instructions and connects to the remote site. Currently, the IBM PC version of the program does not make automatic connections.

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3.0 Access to Other Resources

Of course, there are other kinds of resources available on the Internet besides OPACs. This can be shown by invoking the SITES2 file from the START.TXT file (see Figure 5).

Figure 5. Other Telnet-Accessible Resources Screen

Other Telnet-accessible resources

<ARC000>	Archie: Archive Server Listing Service
<CWI000>	Campus-wide Information systems
<FUL000>	Databases and bibliographies
<DIS000>	Distributed File Servers (Gopher/WAIS/WWW)
<ELB000>	Electronic books
<FRE000>	FREE-NET systems
<BBS000>	General Bulletin Boards
<HYT000>	HYTELNET On-line versions
<NAS000>	NASA databases
<NET000>	Network Information Services
<DIR000>	Whois/White Pages/Directory Services
<OTH000>	Miscellaneous resources

Let's look at these Internet resources in more detail.

Archie is a program that identifies what Internet archives hold a particular software package or text file. A user can then retrieve the desired file using anonymous file transfer (FTP). There are Archie servers in eight countries.

Campus-wide information systems typically contain general information about a particular university or college. Some of

these systems run sophisticated software that allows keyword searching of appropriate files (e.g., telephone directories).

There are a number of databases and bibliographies available on the network, including the Choice book reviews, the Central Statistical Office Macro-Economic Time Series Data, the Global Land Information System, and the Meeman Archive (environmental journalism). In most cases, the databases are fully searchable.

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Distributed file servers include instructions for connecting to the latest breed of Internet services: Gopher, Wide Area Information Servers (WAIS), and the World-Wide Web.

Many electronic versions of public-domain literary works and some commercial services are available for searching on the Internet (e.g., the complete works of Shakespeare, the Lewis Carroll novels, the Oedipus trilogy, and religious texts such as the King James Bible and the Koran).

Free-Net systems are among the most popular sites accessible on the Internet. There are currently five Free-Nets available, with more to be added shortly. These systems are generally operated by volunteers, and they contain a wealth of information on almost every topic.

General bulletin boards include the traditional library bulletin boards, plus many FidoNet boards that are now making connections to the Internet. Many sites require users to pay a fee in order to use their boards, and this information is duly noted in HYTELNET.

Earl Fogel of the University of Saskatchewan's Computing Services Department recently adapted HYTELNET so that it can run on UNIX/VMS machines and make remote logins for users. To see this version in action, telnet to access.usask.ca using VT100 emulation and login with "hytelnet" in lower case. Many other sites have loaded this software and they will be noted in future versions of the program.

Many NASA databases are now fully accessible, including the Astronomical Data Center, NASA Science Internet Online Network Data, and the Pilot Land Data System.

Information concerning other networks subsumed under the Internet can be found in the files listed in the NET000 subdirectory (listed as "Network Information Services" in Figure 5). For example, a user can find files describing the activities of networks in Germany, the Netherlands, Sweden, the United Kingdom, and the United States. Again, very sophisticated software is in place for searching.

A new subdirectory in Version 6.2 of HYTELNET lists various types of directory services, including USENET contributor e-mail addresses, white and yellow page telephone directories, and WHOIS services.

Finally, there is a file containing miscellaneous resources that have not been classified. These resources include such services as flight plan filing systems, ocean information, publishers' services, and supercomputer facilities.

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4.0 Other HYTELNET Features

Two other files which assist the user in making the most of their Internet accounts are GLOSSARY and TELNET. The former lists terms that a user will encounter during network travel, while the

later gives tips and tricks for using the telnet program.

5.0 Where to Find HYTELNET

Version 6.2 of the program is available via anonymous FTP. To FTP the program:

- (1) At your system prompt, enter: ftp access.usask.ca.
- (2) At the user prompt, enter: anonymous.
- (3) At the password prompt, enter: your e-mail address.
- (4) At the command prompt, enter: binary
- (5) At the command prompt, enter: cd pub/hytnet/pc.
- (6) At the command prompt, enter: get hytn62.zip
- (7) At the command prompt, enter: quit.

You will need the PKUNZIP program to "unzip" this file (this program is also in the pub/hytnet/pc directory).

For information regarding the UNIX/VMS version, write to Earl Fogel at fogel@skyfox.usask.ca.

For information regarding the Macintosh version, write to Charles Burchill at burchil@ccu.umanitoba.ca.

6.0 Updating HYTELNET

New sites join the Internet almost on a daily basis. Members of the LIB_HYTELNET mailing list, now numbering over 400 people in twenty countries, forward information to me which I, in turn, forward to the list. New and updated files may also be downloaded via anonymous FTP from the access address above. Completely new versions of the program are issued every two months. To be added to the LIB_HYTELNET list, send a request to scott@sklib.usask.ca. (Berkeley UNIX users can obtain information about the latest version of the program by issuing the following command at the system prompt: finger scott@herald.usask.ca.)

If you discover any new sites on the Internet, please send full details to scott@sklib.usask.ca. You may also send corrections to login procedures and/or telnet addresses.

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7.0 The Future

The author is committed to keeping HYTELNET up-to-date, a task that will be less burdensome if Internet users provide assistance. Telnet-accessible sites will soon be available in Africa, Asia, and Eastern Europe, and they will need to be indexed. If you wish to help your Internet colleagues in gaining access to the rest of the world's knowledge, then sign up!

References and Notes

1. Peter Scott, "HYTELNET as Software for Accessing the Internet: A Personal Perspective on the Development of HYTELNET," Electronic Networking: Research, Applications and Policy 2

(Spring 1992): 38-44.

2. The screen displays used as illustrations in this paper have been modified slightly to accommodate the ASCII distribution format of the journal.

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