
Hacking ARPANET -- Part III

by

The Source

ARPANET can't be faulted for the amount of information it is willing to disclose to anyone who knows the number of a dial-up and knows enough to type in "@N" and then follow directions. But the EXEC is, after all, limited to managing inter-computer phone calls. Even more interesting material is available once you get onto what is known as one of the network's "server" computers.

OPENING THE DOOR

Once you have reached the Exec on a TIP, getting the door to a server machine to open to you is no problem. At the "@" prompt type "O" for open followed by a space and then by two numbers separated by a comma. The numbers represent the address of a computer system. The first number may be from 0 to 3, and the second number may range from 0 to 15:

```
@0 0,11
```

```
<the Exec responds:>
```

```
TCP Trying...SU-AI WAITS 9.17/H
```

```
Assembled 06/17/84
```

```
.Open
```

The ".Open" shows that you're in. There is a great deal you can do at this level, and you don't even have a password yet -- as far as the system

knows, you're still "anonymous guest"! Most server systems operate under the UNIX operating system, so any good manual on UNIX should tell you more than you need to know. But now that we've reached Stanford University's Artificial Intelligence Lab (having been switched there by SRI, formerly Stanford Research Institute), let's take a look at what's available. First, list the HELP files:

.HELP

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Type HELP followed by any of the following, then carriage return:

ACCESS	COMPIL	EDITOR	HOSTS
MICROS	PPK	SORT	UNDELE
ACCOUN	COPY	EDKEY	HOWBIG
MIDAS	PPSAV	SOS	UNPROT
ACRONY	CPRINT	EFTP	IIPOX
MLISP	PRESS	SOUP	VERIFY
ADA	CRDIR	EKL	ILISP
MLISP2	PRINT	SPASM	WEAVE
ADAEDT	CRE	EMACLS	IMPRIN
MONCOM	PRLISP	SPINDL	WEB
AL	CREF	ESC	INTERN
MOORE	PROLOG	SPOOL	WHEN
ALIAS	CRYPT	ESCAPE	JARGON
MUSIC	PROTEC	SRCCHK	WHERE
ARKTEX	CSD	ET	KILL
NCOMPL	PROVE	SRCCOM	WHO
ARM	D	ETEACH	KJOB
NET	PRUNE	STICKY	WHOLIN
ARPA	DART	ETV	KRL
NETDOC	PTYJOB	SUTIP	WHOPHN
ARPANE	DDFONT	EVENT	L
NETWRK	PUMPKI	SYMBOL	WL
ASSIGN	DDKEY	EXT	LATER
NEWIO	PUPTIM	SYSTEM	XGP
ATSIGN	DDQ	FAIL	LATEX
NEWS	RCV	TALK	XGPSYG
ATTACH	DED	FASBOL	LAWS
NOEKEY	REMIND	TANGLE	XGPSYN
BAIL	DFTP	FCOPY	LEDIT
NOTEBK	RENAME	TECO	XGPTYP
BATCH	DIAL	FELT	LIFE
NSL	RESOLV	TELNET	XIP

ARPA3.TXT

BBOARD	DIALNE	FILES	LIFXGP
OPTION	RESTOR	TEMPER	XPART
BIBOP	DIR	FIND	LINGO
P	RETRY	TERMINK10	
PAM	SAIL	TEX78	YUMYUM
BMP	DISPLA	FONT	LISP
PASCAL	SAVE	TEX82	Z80
BOISE	DM	FORWAR	LIST
PASSWO	SCHEME	TFM	ZERO
BOOK	DMKEY	FRAID	LOADAV
PC	SCIP	TIP	370
BOYER	DO	FTP	LOGIN
PCP	SCRIBE	TTY	6500
CANCEL	DOC	GEOMED	LOGOUT
PHONE	SD	TTYCMD	6800
CANON	DOVER	GRIPE	MACLIS
PHONES	SEND	TTYESC	8080
CC	DRAW	GRUMP	MACLSP
PIX	SERVIC	TTYSET	
CHARGE	DRD	GUEST	MAIL
PK	SIMPLE	TVFONT	
CHRMAC	DSKSIZ	H19KEY	MAP
PLAN	SLAC	TYPE	
CKMAIL	DTN	HELP	MAXTEX
POLL	SLR1	TYPREL	
COLIST	E	HELPER	METAFO
PONY	SNAIL	UDPUFD	
COMBIN	ECL	HOST	MF
POX	SNOBOL	UFD	

Type "HELP HELPER" for one-line descriptions of most of the HELP messages.

MORE HELP

If you'd like, try "HELP HELPER" for yourself. Meanwhile more detailed listings of some help files follow.

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.HELP GUEST

There is no general guest account on this system. There are some commands that can be given without an account, as listed below. If you need to know more about any of these, type "HELP <topic><carriage return>". For information on special control

characters and commands, type "HELP TTY".

WHO, FINGER, WHERE, WHEN provide information about people and jobs currently running.

MAIL, SEND, GRIPE permit you to send messages and converse with people on the system. (You can use SEND to ask someone who is logged in to form a two-way link with you.)

DIR lists the files in specified directories.

TYPE lets you type out the contents of text files.

FIND searches text files and prints those paragraphs that contain specified keywords.

If you need to do more than the above programs permit, say "HELP LOGIN".

.HELP NETDOC

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(Much network information is available from the Network Information Center at SRI-NIC. Please consult the network liaison, Martin Frost (ME), for more information about the network or the resources available to you at the NIC.)

A large library of source and documentation files about the network, NOT including the host table, live on the [S,NET] directory. Even more hardcopy documentation is available in the bookshelf in ME's office for the general SAIL community (please ask ME before borrowing anything). The host table files can be found on [HST,NET]. The NETWRK library of network subroutines can be found in NETWRK.FAI[S,NET] and NETWRK.MID[S,NET].

Some interesting files are:

HOSTS.TXT[HST,NET] The source of the host table

SUAI.TXT[S,NET] Our write-up in the Arpanet Resource Handbook.

Most of the network user-level documentation is contained in the

Monitor Command Manual, which can be found online by giving the monitor command READ MONCOM<cr>. Large online directories of network documentation exist at SRI-NIC as <NETINFO> and MIT-DMS as NETDOC;.

Type HELP NETWRK for information on programming for the network.
Kjob

...HELP HOST

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The HOST command is used to look up information in the host table about a particular host name or host number. This information includes the official name of the host if the name is a nickname, all host numbers known for that host, whether the host is a user or a server, the host machine and the host operating system.

To use HOST, type HOST followed the host name (or any abbreviation) you want to look for, or the host number, and return. The program will print all hosts (and nicknames) which match the input specification. A null specification will type out the entire host table, but only if you are logged in. For example:

```
.HOST MIT-MC
(describe MIT-MC)
.HOST CMU
(describe all CMU sites)
.HOST 36.40.0.194
(describe Internet host 36.40.0.194)
.HOST 50#302
(describe SU Ethernet host 50#302)
.HOST (print
out the host table)
```

Note that even non-unique abbreviations are accepted. For example "SU" will print out ALL of the Stanford University hosts. This is different from TELNET, etc., which only accept abbreviations which are unique to a single host.
Kjob

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(In Hacking ARPANET Part IV we'll report on some more important help files.)

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