

ARPA3.TXT

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 "0" 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

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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
Job 3      SU-AI WAITS 9.17/H Assembled
06/17/84
Type HELP followed by any of the
following, then carriage return:
ACCESS  COMPIL  EDITOR  HOSTS
MICROS  PPK      SORT      UNDELETE
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
```

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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.

.....

.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

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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
Job 5 SU-AI WAITS 9.17/H Assembled
06/17/84
(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
SUAU.TXT[S,NET] Our write-up in
the Arpanet Resource Handbook.

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

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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
Job 5      SU-AI WAITS 9.17/H  Assembled
06/17/84
```

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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