



Newsletter

Spring-Summer 1988

Copyright 1988, USUS, Inc.
"All the News that Fits, We Print!"
Sam'l Bassett, Editor

HIGHLIGHTS

First of all, USUS now has a full-fledged **President -- Weber Baker**, whose "opening shot" appears in this issue under the title "Prez Sez".

Second, the **USUS General Meeting** is going to be in conjunction with the 1988 Stride Faire at the **CalNeva Lodge** in North Lake Tahoe NV, the week of **June 13-18**. Details follow . . .

Jon Nevins & Bob Clark have been hard at work on the **USUS Power Tools**, and there is a loooong description of them here.

It is time to send in **nominations** (Electronic Mail, U.S. Snail, carrier pigeon, whatever) for the next election of **USUS Directors**, to be held by mail in June or July -- quick fire off your nomination to Hays Busch as soon as you can manage it. Nominate yourself and your friends -- then vote!

USUS still needs a Secretary -- duties are not onerous (keeping custody of the Seal and the Minutes). Any volunteers? Nominations and denunciations cheerfully accepted.

We also could use a **new Newsletter Editor** -- the critter who's doing it now is just too busy/lazy/preoccupied (take your pick) to do a good job. Wanna see your name in lights, make executive decisions? Put up your hand, and watch how fast things happen!

We've also, by popular demand, got some **Modula-2** code for your edification in this issue. We have been told we need more of that, and we'll try . . .

Also in this issue:

We get Letters . . .

How to keep down Compuserve costs. . .

SIG chairs wanted . . .

and other stuff that fits.

Prez Sez:

by Weber Baker

When I received the last newsletter, I became aware of a situation that many others were aware of and many more were not: **USUS needs officers**. And so, in a brief flash of insanity I volunteered to be President.

I think some of the members of the Board of Directors question my sanity, (they keep asking me 'are you **SURE** you want to be president?'), but I will press on anyway; ("no guts, no glory"). Anyway, now that I have ascended to the Ivory Tower, I want to give you some of my philosophy about the organization and where we need to be headed.

USUS began as an organization of users of the p-System who were (more or less) technically oriented. Many, however, were simply users who needed help on occasion, and this was provided by the technologists running around.

The makeup of the organization has shifted, and now our members are more often than not users looking for help or bits of code that can do a task. A large number of our more technical folks are still around too.

Continued on Page 2

More Prez Sez:

In addition, the world of Pascal and Modula-2 has changed. I feel we need to begin to explore avenues to supply Pascal, Modula-2 or p-System support that are perhaps out of the realm of the traditional definition of USUS. As users and programmers it is in our interest to promote standards and provide education and practical programs such as Power Tools for our members.

What we need is to begin to provide for our non-technical members by giving them access to programs and support. We also need to expand and organize our library. We need to place a new emphasis on the members who have orphaned machines. We need to begin working more closely with those who provide software, tools and support for our users. And we need to provide a forum where our technical folks can freely discuss bit-twiddling.

The three primary paths to follow here are the Library, the Newsletter and the Journal. Regular meetings with useful information provided and online activities through MUSUS are other areas to work on.

Please feel free to send me your thoughts, suggestions, ideas, and so on. No ideas are turned away. Don't send your dirty socks, your neighbors' bratty kids or your burnt pot roasts. I have enough of all of these to go around.

I can be reached either on Compuserve at 70506,136 or at home:

Weber Baker
14430 Tanglewood Dr.
Dallas, Tx. 75234
214-247-8979.

If you call you have about an 80% chance of getting my answering machine, but a 100% chance of getting a reply.

Last, a pitch to each person reading this. Remember that USUS is a user's organization. All of the work is done by volunteers.

Much of what you get out is dependent on what you put in besides your dues. We need folks who can and will set aside some time each week to dedicate to some USUS function. We need Sig chairpeople, library test and review people and some officers (VP., Secretary).

I ask you to sit down and consider if you can set aside some time and if so, how much. Then pick a level of involvement that fits in with that. If you only have a couple of hours, consider reviewing some library material or testing it on your machine.

Newsletter/Journal articles are always appreciated, of course. If you are so inclined, altering a program that does not work on your brand of machine so that it will maybe just the thing. If you have more time, consider chairing a SIG or heading up a project to develop some useful software tools.

We could use someone with artistic ability to help in the design of publication covers, posters, signs etc.. Whatever you can do, try to do.

Hays Busch had a great idea for serving the TI99 members of USUS. He sent out different parts of the library to TI99 owners. They in turn took those programs and tested them out on the TI. The testers then sent them back with notes about what worked and what didn't. Now we can offer a set of disks that we know are usefull on the TI99. The Library Committee would oversee all of this, keeping track of what has been returned and what is its status. The Sig chairs would send out and receive the material.

The next step in the process is to begin to look at those programs that did not work, figure out why they did not and whether it is worth trying to

Continued on Page 3

More Prez Sez:

modify them. With active Sig Chairs and Library committee we can get this done by October of this year.

So let us know in what you want to participate. We have lots of things to do.

SIG Leaders Needed

Are you a leader, searching and longing for the adulation of millions? Are you an adventurer, born to sail the high seas or to climb perilous precipices? Are you a latent Indiana Jones waiting for your chance? Well....

NOW IS YOUR CHANCE. Yes, you can be a USUS SIG Leader. Fame, glory and the praise of the unwashed masses can be yours. How? you may ask! EASY. Send us your name and a convenient time/manner to contact you. Oh yes, tell us what area of interest you have. We need Leaders for:

Apple][& ///
(Co-chairs for each group?)
Education
Macintosh
Modula-2
Sage/Stride/Pinnacle
TI99.

If two days of high speed racing or alligator wrestling are your idea of a fun weekend, write us now. First come, first appointed.

Library Reorganization

One of the projects that has been initiated in the Ivory Tower is a reorganization of the USUS Libraries. At the current time we need some one to take over command fo the Library Committee. This person will need to keep track of the Library, who the distributors are and making sure there are archival copies of all formats in the USUS library. This person will also be responsible for seeing that the Sig Chair people (we need these too) are distributing and returning disks for the machine the Sig represents.

Editor Needed

The pen is mightier than the sword. USUS needs blue-pencil warriors to serve as editors: one for the Newsletter, one for the Journal. As Editor, you can put a stop to the torrent of male bovine fecal material flowing out of the Ivory Tower from the Presidents office.

Skills required:

If you can read this, you're qualified. Strong desire to see your name in print. Good sense of humor.

If your desire is to be a member of the fourth estate, to inform and enlighten your fellow USUS members, and to contribute to the advance of civilization, send in now. Preparations for the Journal have already begun and our esteemed Chaircritter says he prepared to pass on the Editorship of the Newsletter. So let us know. If you don't do it it won't get done.

NOTICE

USUS Meeting at Lake Tahoe
to be held in conjunction with
Stride Faire '88)

Tuesday, June 14th, 1988
CalNeva Lodge
Crystal Bay, NV
(north end, at the state line).

On June 13th and 14th, Stride is sponsoring a UNIX course. Faire runs June 15th and 16th and will probably also feature things of interest to USUS members. Further information is available directly from SageMicro: see below.

The USUS meeting will be held in the Cabaret Room beginning in the morning and running up to the time of the USUS Board meeting to be held in the late afternoon. A number of very interesting presentations are anticipated concerning a wide variety of topics: Pascal, Modula-2, the Power System and various applications and then some! Please plan to join your fellow p-System users.

USUS will have a booth on the exhibit floor during Stride Faire providing a place to meet other USUS members, to obtain Library Volumes, and to see other demonstrations. PowerTools will be demonstrated as well.

The USUS Meeting registration fee is \$5.00 with preregistration, \$10.00 "at the door". [Registration for Stride Faire is free.]

A number of social events are scheduled by SageMicro: there will be a welcoming party Tuesday evening, a Western BBQ Wednesday at 6:00pm and an evening dinner cruise aboard the M.S. Dixie on beautiful Lake Tahoe on Thursday. Many are planning to bring their wives (or "significant others" as the case may be) to more fully enjoy the beauty of Lake Tahoe in the summer.

For more up to date information concerning the USUS Meeting, stay "tuned" to MUSUS on CompuServe or contact Alex Kleider, 1651 Stone Pine Lane, Menlo Park, CA 94025 [415/327-7916 at home or 415/780-2286 at work].

We Get Letters...

From Beverley Henderson of El Granada, CA, we get:

Dear Newsletter and Mr. Busch:

My motivation for writing is a strong feeling that USUS does (or can or should) fill a need. It seems, however, that there is no clear definition of what that need is (or could or should be). It is my suggestion, therefore, that in your next mailing to your membership, both active and inactive, you include some sort of polling questionnaire with a returnable postcard that can be quickly marked by the recipient.

The major questions would be determined by you in the end, but some form of "Why did you join USUS? What did you hope to learn or receive? How much of that have you found in USUS membership? What do you still need or want from USUS? What would you be interested in contributing to USUS?" might give you some rewarding surprises.

I realize that this return postcard business is archaic and no doubt some form of the questionnaire could be put in electronic mail. There are many people who would return the comfortable old fashioned card who would not (or could not) reply to the electronic version.

My own reply to such a request would be the following. May it be of some use to your.

More from B. Henderson:

Originally, I did some of my own programming (almost exclusively in Pascal) on my AppleII Plus. But the level of complexity of much that I required eventually made the "store bought" variety cheaper in terms of time invested. In other words, I copped out.

But of all the languages I had met, I still preferred Pascal and found the "word processor" that was the A.S.E. Editor in Apple Pascal to be better, especially for the money (I already owned it), than any of the specialized products.

In the beginning, I had hoped to receive pointers in some of my programming efforts, but just as I began seriously to consider writing to USUS, my situation changed drastically, I bought ready made programs and when I looked around, USUS seemed to have melted into the mists typical of commercial vaporware.

Now, my main selfish interest would be to see some form of information exchange about commercial software formally guided by USUS (and in hard copy, even if also available on disk or from the electronic mail service).

This information exchange would tap the resources of the USUS hackers who are, according to Mr. Baya, "Rich in our ability to develop and evaluate software." I would see that skill devoted especially to those Pascal based programs abandoned by their original developers and now in limbo.

Would it be feasible to ask these people who do not want to support their old products to make the code available to USUS so that the experts could provide the updates, at a profit to USUS of course?

Could your survey help to determine where the greatest interest lies and which orphaned software has the largest potential sales volume among the USUS membership, both active and inactive?

Might the survey also reveal which programs would best repay an information exchange column? There has been enormous profit made in add ons and expansions for popular programs. Could you find some way to do this for

Pascal based programs (again, especially those that are no longer supported by their developers)?

It seems to me some real monetary advantage to USUS could be had here, while performing a service of great value to your membership (which might even increase if it were a condition of purchase as so many organizations work it now).

You might have to pay some royalty to the owners of such programs, but if it were a reasonable percentage (and it should be, they are making a big zero on these programs now) it could be managed.

I suspect many of your inactive members joined when they bought or were using a Pascal-based application and that at least some of the loss of interest is due to the fact that they have had to abandon those same applications.

Another possible source of advantage to membership in USUS would be if, as a result of your survey, you could approach those companies that have dropped past Pascal applications and show a real potential market for updates or expansions. This could encourage them to revitalize the program, or agree that there would be some gain to them in allowing you to do so. There is no gainsaying the power of numbers in an assault.

There has never been much specific application support or information in USUS and, in order to maintain any broadly based membership, this may be a necessity.

Another minor idea: when a question is posed in the Newsletter, such as the TRS80 letter in the Winer 87-88 issue, ask that the answer be sent to the Newsletter, and print it.

Otherwise, the rest of the readership feels the whole thing went out to lunch and stayed there. Not too encouraging if you were thinking of sending in a query.

Along the lines of inactive members: please consider that a large number of dedicated users will not, for whatever reason, have access to electronic mail. In my years reading USUS, I often felt that the majority of the organization's life blood flowed through modems, and gave up hope of participating.

Not that I don't have a modem, I do, but am not willing to pay that kind of money for conversation. Unless you wish to scorn members who need to consider financial costs, you need to make the written voice a larger part of your 'communication portfolio'.

If the valuable information available from USUS is only available by modem, why print a Newsletter at all?

Now MY soapbox is exhausted. Hope at least some of this is useful and or stimulates (infuriates?) others into writing.

{ Good points -- I'm going to buck the larger issues on to our esteemed President, and point to my article in this issue on how to keep down the cost of MUSUS -- Ed. }

USUS
P.O. BOX 1148
LA JOLLA, CA 92038

From Stuart A. Bell, the Newsletter Editor of USUS(UK), we get a very chatty letter, outlining a familiar problem -- lack of material to publish, and usually in the wrong format. I can sympathize, especially as regards previous issues -- this issue seems to have turned the corner, however.

He also suggests that we trade disks (he confesses to using an elderly Apple][, but that's no sin -- I do, too) so that the U.S. and U.K Newsletters can support each other. A very good idea -- I will do that.

We also had a renewal letter from Mr. Victor Chang, who is with Reuters Asia Services, Ltd. in Hong Kong -- the p-System seems to be quite popular in Asia. Thank you, Mr. Chang!

We also had a letter from Mr. Thomas E. Dennis, Anker Strasse, #34, St. Augustin 1, Bundesrepublik Deutschland (West Germany), inquiring about information about the p-System on the TI 99/4a, so that he could work on updating it to the VLM Power System. He says that he needs to find the following books, which seem to be out of print:

"Operating System Reference Manual",
"Program Development Ref. Man.",
"Internal Architecture Guide",
"Application Development Guide", and
"Assembler Ref. Man." for the p-System,
as well as:

"Microprocessor Pascal System Users' Manual",
"uProc Pascal Executive Users' Man.",
"Device Independent File I/O Users' Manual", and
"Realtime Executive Users' Manual" from T.I.

Can anyone help him?

```

MODULE bitorder;
(* test order of bit allocation in
BITSETs. Copyright (C) 1988 A. Robert
Spitzer MD. Donated to USUS, for use
by members. Sale by USUS permitted. *)

```

```

FROM InOut IMPORT WriteLn,
                  WriteString,
                  Write,
                  Read,
                  ReadCard,
                  ReadString,
                  WriteCard,
                  WriteHex;

```

```

VAR
  bit : CARDINAL;
  bs : BITSET;
  continue : CHAR;

```

```

BEGIN
REPEAT
  WriteLn;
  WriteLn;
  WriteString('-----');
  WriteString('-----');
  WriteString('-----');
  (* These 3 lines can be put together
  I had to break 'em to fit the
  width of the column -- Ed. *)
  WriteLn;
  WriteString ('Enter bit number ');
  WriteString ('<0..15> to set: ');
  (* Ditto -- Ed. *0
  ReadCard (bit);
  bs := BITSET{};
  INCL (bs,bit);
  WriteLn;
  WriteLn;
  WriteString ('Bit ');
  WriteCard (bit,1);
  WriteString (' set      in BITSET');
  WriteString (' Result: ');
  WriteHex (CARDINAL(bs),6);
  Write ('H');
  WriteString (' Cardinal value = ');
  WriteCard (CARDINAL(bs),6);
  WriteLn;
  bs := BITSET{0..15};
  EXCL (bs,bit);
  WriteString ('Bit ');
  WriteCard (bit,1);
  WriteString (' cleared in BITSET');

```

```

  WriteString (' Result: ');
  WriteHex (CARDINAL(bs),6);
  Write ('H');
  WriteString (' Cardinal value = ');
  WriteCard (CARDINAL(bs),6);
  WriteLn;
  WriteLn;
  WriteString ('Continue? ');
  Read (continue)
UNTIL continue # 'y'

END bitorder.

```

How to Log ON (and OFF) MUSUS fast!

Everyone has the problem of spending enormous amounts of time and money on MUSUS -- if you log on and both read and answer messages on-line. There is, however, a way to avoid the time and expense -- it takes a little preparation and a communications program that will capture text to disk.

Read on . . .

First, you need to set up your MUSUS options -- at the 'Function:' prompt, type:

Function:OP<Return>

USER OPTIONS

[] represents current setting

- 1 (SM) Stop After Msgs [Never]
Name [Sam'l Bassett]
- 3 (PC) Prompt Character [^Q]
- 4 (ED) Editor [EDIT]
- 5 (SU) Subtopics [...]
- 6 (HI) High Msg Read [55907]
- 7 (RE) Replies Info [Count]
- 8 (FO) Forum Mode [COMMAND]
- 9 (TY) Type Waiting Msgs [No]
- 10 (SK) Skip Msgs You Left [Yes]

Enter choice !

Now you type the number of the Option you want to change, then go through and change all of those you need to; the Option menu will repeat.

Continued on Page 8

The important settings are:

#1 -- Never.
#4 -- EDIT
#8 -- COMMAND
#9 -- No
#10 -- Yes

When you are done, just type <Return> at the 'Enter choice !' prompt, and CServe will ask you if you want to make the changes Permanent or just for this session -- tell them PERMANENT.

So much for setting up options . . .

Next, you need to spend some time with your Communications software documentation, figuring out how to do TEXT CAPTURE (capturing every character that comes in to disk). Every Commo program that I have ever heard of lets you do this, but they all seem to have a different word to describe it, and a different set of commands to start and stop it. I use CrossTalk and ProComm, so telling you what I do wouldn't help much . . .

At any rate, once you figure out how to do it, log on to MUSUS the usual way, and when you get the 'Function:' prompt, type 'rn' (NO <Ret>!)

Then tell your commo program to start TEXT CAPTURE (whatever it calls it). When things have settled down (the Commo program is no longer writing to disk or asking inane questions), type <Return>.

The messages will then come scrolling by:

{ These are what I found when I logged on Sunday, 21-Feb-88 }

#: 55908 S4/UCSD Pascal System
21-Feb-88 12:11:40
Sb: #55897-#Only 3 svols allowed?
Fm: Chris Jewell 72415,1757
To: Harry Baya 72135,1667 (X)

Harry,

It sounds to me as if COM4 is a reserved name in DOS3.3, like COM1, CON, PRN, etc. When you give the dos command "more <com4.vol", do you get garbage from block 0, or does it hang waiting for input from the 4th serial port? (If you have a hex dump utility program, you can try that instead, of course.)

Chris

1 Reply

#: 55909 S4/UCSD Pascal System
21-Feb-88 13:11:31
Sb: #55905-Only 3 svols allowed?
Fm: Harry Baya 72135,1667
To: Eli Willner 76703,500

Eli, sounds great, I'll try it right now. I have another question for you, pre-typed message follows :

The Power System User Manual(1-200.421, pg 174) states that "Subsidiary volumes may not be nested.". However I find that I can put "svols" inside virtual Dos volumes when using the Dos-hosted p-system. Is there any reason why I should not do this?

Harry

#: 55910 S4/UCSD Pascal System
21-Feb-88 13:12:58
Sb: #55908-Only 3 svols allowed?
Fm: Harry Baya 72135,1667
To: Chris Jewell 72415,1757

Chris, I will check the "more" command you indicated. I suspect your guess is correct. Thanks. Harry

When you get the 'Function:' prompt, type 'off<Return>', and IMMEDIATELY tell your Commo program to stop TEXT CAPTURE. By the time it does, you will be off-line, and no longer running up CompuServe bills . . .

Next, OFFLINE, read and edit the file you just captured, answering the messages you want to, and ignoring or saving the rest.

My MUSUS.RPL file for these messages would look like:

```
re 55908      <--{ REply to Msg#55908
Chris:
```

```
    I thought that was probably the
    problem, and told Harry something
    similar.
```

```
/ex          <--{ EXit the EDITOR
s            <--{ Save the answer in
              { the same section
              { the message was.
{ I decided not to comment on any of
the other messages }
```

To send a new message (not a reply), I would type in:

```
l;Chris Jewell 72415,1757;Aha!
    Caught you at it -- actually
    admitting to using IBM iron!
O Tempora, O Mores!
/ex
s4
```

The "l" means 'Leave a message'.

Don't forget the PPN in the recipient's name -- otherwise CServe won't tell him or her that there's a message waiting. Actually, the only thing reason CServe needs a PPN is to flag messages waiting -- it will happily accept an address without a PPN, and just not flag the message -- I often address things to "All" or "Board & Officers".

The last item is the message 'Subject:' entry. The semicolons (;) between the sections are necessary

Next, you need to study the Commo program documentation to find out how it does TEXT UPLOADS (sends characters directly from a text file to the modem, without you having to type them in).

As with TEXT CAPTURE, every program I've ever heard of does this, but they all use different terminology & commands.

When you have it figured out, log in to MUSUS, and when you get the 'Function:' prompt, tell the Commo program to UPLOAD. The screen display may get a little confused (CServe is programmed to believe that everyone is running 300 baud, so it doesn't update the screen display correctly for 1200 baud & above), but, if you formulated the messages correctly (mainly '/ex' and 's' or 's<Section #>') it will be OK.

When you get the 'Function:' prompt again, type 'off<Ret>' and you're done.

I often answer messages the second or third day after I read them, so my sequence of actions often runs:

Log on to CompuServe.

Go to MUSUS.

At the 'Function:' prompt, UPLOAD answers to the message traffic from the last time I was on (I call this file 'MUSUS.RPL').

At the next 'Function:' prompt, DOWNLOAD the current traffic to disk, over-writing the old 'MUSUS.RPL' file.

Log off Compuserve.

This averages about 3 minutes at 1200 baud (1200 baud modems are down to about \$150 now, considerably less than I spent for mine 5 or 6 years ago). This costs me, I figure, about \$0.60 (\$12/hr = \$0.20/min times 3 = \$0.60)

2400 baud (Modems cost \$2-300) would be a little cheaper -- CServe rounds up connect time to the nearest minute, so 1-1/2 minutes would be charged as 2 minutes (2 x \$0.20 = \$0.40)

300 baud would be a little more expensive (\$6/hr = \$0.10/min; 12 min. x \$0.10 = \$1.20). 300 baud modems can be had for about \$50 nowadays -- with software.

USING PowerTools
Operating TermTools

by Bob Clark and Jon Nevins

By the time you read this, versions of USUS PowerTools for the Stride/Sage, IBM, Macintosh, and Apple /// will have been distributed to a number of USUS members. Hopefully, all are now installed and running successfully.

If the owners of these machines also have Hayes Smartmodem 1200s, installation and use of the Telecommunications portion of PowerTools was quite simple. The software is installed according to information contained in README files for each machine and an extensive manual provided on disk.

In general, the Hayes Smartmodem1200 is attached to an RS232 port after all dip switches except seven have been set in the down position. {Ed. Note: I found by experimentation that only Switches 3, 5 & 6 need to be down.} (For IBM and clones, attach to COM 1. Stride/Sage users set switch six up.)

PowerTools is then started. After the menu appears, pressing <T> selects the TermTools telecommunication module.

TermTools transmits a series of commands to the modem and, if the modem responds properly, sets up a number of parameters, displays the TermTools menu, and shows, "No carrier" in the upper right corner of the screen. (On external modems, flashing lights let you know that communication is occurring.)

Unfortunately, some modems claiming to be "Hayes compatible" aren't really. Their switches (or jumpers) can operate differently, or in some cases, can not accomodate these settings. Or, the modem may not produce the full command set for the 15 Hayes registers used by TermTools.

If the modem is not compatible, there will be a long delay while TermTools attempts to communicate with the modem. Finally, the TermTools menu

will appear showing "No carrier" and "No modem" in the upper right corner.

This means that there is no match between TermTools and the modem. As a result, the "file center" telecommunication software defaults to hardware transfer mode. (This doesn't do much good for the offending modem, but works fine for transferring files between two computers running USUS PowerTools!)

Because of the mix of hardware in the user community, writing a telecommunication package that would work without modification on every computer that can run a version of the p-System, and at the same time accomodate many different modems, was too formidable a task to undertake. Instead, PowerTools has been written to provide easy-to-use software for the Hayes modem and those machines which were available to us for testing.

However, this does not mean that all is lost for unsupported systems! The USUS REMUNIT provides the path which will allow PowerTools to be expanded to other systems. All that is required is time and effort by USUS volunteers!

Currently, REMUNITS supporting the IBM-PC,XT,AT (and true compatibles), Stride, Sage, Macintosh, and Apple /// have been completed. There are also partially complete but non-functional REMUNITS for the Apple //, Atari, and Amiga.

These will require additional development work and testing. We believe that the programming expertise of USUS members can provide the finishing touches so PowerTools can run on these and other systems. In addition, some of the features which make the present software configuration so easy to use could be changed if a more general approach is desired.

If possible, a new Section will be set up on MUSUS specifically designed to support further development of PowerTools software. There, questions pertaining to the program can be asked and answered.

The Data Library from the new Section would contain the source for all current REMUNITS. Newly developed or modified units will be uploaded so they can be tested by members with the specific machine in question. Modifications or additions to the documentation could also be available in this DL.

We need volunteers to help in this effort. If you are interested, please let us know. Send a note to the address at the end of this article. Please include your full address, phone number(s), PPN, and the type of machine(s) you would be using for this work. You will need the Power System Development software, version IV.2.2 to compile the source files.

If you are not a member of CompuServe and wish to join, write to Hays Busch, USUS Administrator, at the address below. He can send you a CompuServe Membership Packet that entitles you to \$15.00 in free connect time so you can join. (Please note that this kit will NOT work to give free time to existing CIS members!)

Also, we want to hold a PowerTools SIG organizational meeting in conjunction with the USUS General Meeting at Lake Tahoe (see the announcement of that meeting elsewhere in this Newsletter). We plan to demonstrate PowerTools running on as many of the supported machines as we can accumulate.

We also hope to review all of the features of the software and help PowerTools users to resolve any questions they may have. At this writing plans are for the PowerTools SIG to meet one day prior to the start of the USUS meeting. If you are interested in attending, please let us know so we can set up a room appropriate to the level of interest.

Machine Specific Hints

Although machine-specific information is shipped with the PowerTools software, the following paragraphs provide

hints for using it on the currently supported machines.

Stride/Sage

Most of the supported REMUNITS follow the CARRIER through the software. On a machine like the Stride, which provides hardware CARRIER detection, set the Hayes Smartmodem1200 switch 6 in the UP position to obtain reliable TermTools operation.

The BAUD rate is set differently on the Stride. While TermTools will show the baud rate being changed, it won't be unless the Stride UTIL program has set it to the desired rate prior to starting TermTools.

Macintosh

Hardwire file transfer to an IBM computer will only work with a modified RS232 cable. This is described in detail on page 0-33 of Pecan Software Systems, Inc's Macintosh Users Manual.

In short, pins 4, 5, and 6 must be wired together on the IBM side of the cable. The other end of the modified RS232 cable should be plugged into the Macintosh Imagewriter cable. This, in turn, is plugged into the Macintosh remote port (the one with the telephone icon).

Because of problems with the Macintosh implementation, terminal emulation at 300 baud may not always work. If this happens on your machine, try setting the system to 300 baud using the Macintosh configure program before entering TermTools.

Apple ///

Before starting WordTools (called PRINT.CODE on the PowerTools disk), use the G(et command on the Apple /// Pascal Filer command line to select the file you are editing. Once the workfile has been set, selecting Edit on the WordTools command line will automatically bring the file into the Editor.

When you quit the Editor, press X <Ret> to restart WordTools. Since it was the last program eXecuted, it will automatically restart without you having to retype "PRINT" each time.

TermTools (called TERM.CODE on the PowerTools disk) can be restarted in the same manner. Using this technique makes the Apple /// almost as convenient to use as the IV.2.2 PowerTools implementation.

Machine to Machine File Transfer

One of the very useful features of PowerTools is its ability to transfer any type of p-System file between any two computers able to run the PowerTools software. This process allows files which can be accessed by one machine to be sent to the other.

Thus, disk format or size problems are easily overcome. Code, text, p-System subvolumes, database files, user labels, or unspecified file types can be processed. If the p-System can display it, TermTools can send or receive it.

Apple /// files can reside on a Stride volume for subsequent retransmission to another machine. DOS files of any type can be accessed directly from a DOS subdirectory.

For example, a developer who wishes to move a IV.2.2 code file stored in the "C:\USUS" subdirectory on an IBM or MS-DOS computer to a Macintosh can easily do so. The file can then be eXecuted by the Macintosh p-System and will run without having to be recompiled.

To transfer files using the "hardware mode", connect the IBM COM1: port to the Mac using the modified RS232 cable and the procedure described above. Start TermTools on both machines by pressing <T> on the main menu.

Press <Esc> IMMEDIATELY after pressing <T>. This tells the software there is

no modem attached and it skips the modem initializing routines. If your Macintosh keyboard does not have an escape key, press <Clear> on the numeric keypad, or press <Command><`> to produce the <Esc>.

Select a pathname on each machine using the "Set Local Pathname" command if you want to change the pathname showing on the TermTools menu. The pathname could be a DOS subdirectory called C:\USUS on the IBM or a volume called RAMDISK: on the Mac (as needed in this example) -- or it could be any legal DOS or p-System pathname on either machine.

On the IBM, select the "Add a User" command to create a file containing a user name and password. Accept the default user name "USUS" and password "None".

Remember that the calling computer will need to know both the user name and password before access to the data location is allowed. Empty spaces are significant so type <Ret> or <Enter> at the end of each entry. DO NOT use the <Spacebar> to clean off any characters left from any previous entry which extend past the cursor position.

Set up the IBM as a file center by selecting the "Be a File Center" command. Press <Ret> to accept the 2 minute "recycle" time.

Once a File Center has been set up, the computer will remain in that mode until <Esc> is pressed, or you shut down the machine. It will process each call, allowing access to users with the correct name and password, and recycling for another call if no activity occurs in any 2-minute period or a call has terminated normally.

On the Mac, select "Phone a file center" and press <Ret> three times to accept the Volume Path Name "\USUS\", the user name "USUS", and the password "None". If you used another data location, user name, or password, you will need to enter them in place of the default values.

Press <Ret> instead of entering a phone number. The bell on the Mac with ring twice to simulate a telephone ring. The IBM file center should then answer. Each step of the log-on activity should appear on the Mac's screen.

The Mac screen should say "Logging on". When access has been granted, the IBM screen will say "Call in progress" and on the Mac a command line will appear. It will allow you to send or receive files, change your local pathname, or hangup.

If, for some reason, the IBM does not answer, the Mac bell will continue to ring. You will need to press <Esc> one or more times to terminate the call.

Then check your cable and other connections. Be sure that the IBM side of the cable is connected to COM1: and that you have performed the required modifications.

If "Access denied" appeared, check the volume path names on the IBM. Be sure that the DOS prefix is set to "C:\USUS\" and the user name and password are stored in the subdirectory called USUS.

Press <L><L> to list labels. A USUS label should be listed on the screen. If you are in doubt about its contents, press <Esc> <A><Ret><Ret> to return to the TermTools menu and recreate the user "USUS" with password "None". Then call again using the procedure described above.

Once connections have been made, a command line appears on the Mac which lets you Send or Receive files, change the Local pathname, or Hangup.

If you press <S>, you can send files from the Mac to the IBM storing them on the DOS subdirectory. You choose the type of file you wish to send, and when the list of files of that type appears, position the cursor next to its name using the <up> and <down> arrow keys on your Mac keyboard or keypad.

On older Mac keyboards, arrow keys can be produced by pressing <Command><I> for <up>, Command<M> for <down>, <Command><J> for <left>, and <Command><K> for <right>. Press <Ret> to select a file.

A DOS file will be opened on the IBM. As the commands are sent to the IBM, they are shown in the lower right of the IBM screen. The number of blocks which have been sent will show in the lower right corner of each computer's screen.

If you press <R> to receive files from the IBM, a similar process occurs. Once the type of file is selected, there will be a delay while the file-names are processed and placed on the Mac screen.

Position the cursor next to the desired file and press return to select it. It will be stored in the Mac RAMDISK:. When the file has finished transmitting, a bell will ring on each machine. If you want to receive another file of the same type, use the cursor and select it by pressing <Ret>.

To return to the command line, press <Esc>. From the command line, you can again select Send or Receive (and then choose one of the displayed file types), select another local pathname, or if you have finished, hang up and return to the TermTools main menu.

With the exception of the cable modification (Mac to IBM), hardware transfer works the same with other machines connected by RS232 cables. We use the hardware transfer mode as part of our development process.

For example, most of the development work for PowerTools took place on a Stride. Power System IV.2.2 text and code files are organized into p-System sub volumes and placed on IBM 720 block disks. These are moved to the Macintosh using earlier versions of TermTools running on each machine.

As mentioned previously, the new code files will run on the Macintosh without modification. On some machines, this is not true.

Apple Pascal II.x cannot run IV.2 code. Thus, the source text files are moved by hardwire transfer from the easiest machine to reach (normally the IBM) to the Apple ///.

Since Apple Pascal II.x does not support subvolumes, individual text files must be transferred. This makes the process more time-consuming, but it works.

When hardwire file transfer is not feasible, telephone file transfer works just as well. As mentioned previously, the hardware must be set up in a specific manner. Once this is done, pressing <T> from the TermTools main menu starts the process. If a modem is recognized, telephone communications can proceed.

We have moved all types of files without problems, most frequently as text files. For example, this article was drafted on an Apple /// at my {Bob Clark's -- Ed.} home. The text file was then transferred by TermTools to a DOS Corvus network at TVA where it was stored as a p-System text file.

From there, it was read directly into WordTools running on an AT clone attached to the network, or transferred to our Stride by using TermTools to call our IBM PC on the network. (The IBM PC is always set up as a TermTools File Center).

Each subsequent draft was stored on the network so that it would be accessible to all machines. And finally it was transmitted by modem from Alabama to the Editor in California with PowerTool software at both ends of the cross country link.

We have found that PowerTools makes life much easier for p-System users. Files are easily transferred between machines, text processing is smoother, and data manipulation is enhanced.

Perhaps the best illustration of its value is found when having to work on a machine not currently able to run all of the components of PowerTools. One forgets how complicated things can be without it.

Thus, we believe that the new user will find the p-System a much more powerful and easier to use environment when assisted by PowerTools.

While PowerTools runs nicely on all of the supported machines. We feel that it will be most useful for owners of MS-DOS machines who are unfamiliar with the Power System. The MS-DOS version of PowerTools makes the p-System largely invisible -- yet easily accessible.

More importantly, all of the features of PowerTools are available to the user. And for \$59.95, you can't go too far wrong.

Remember that this is a voluntary cooperative effort by USUS members for the benefit of USUS members. All receipts from the sale of PowerTool software are used by USUS to pay its obligations and enhance member services. This is because USUS is a not-for-profit Corporation.

In future articles, we will explore other options of PowerTools. We welcome your comments and questions. Please send them to:

USUS, Inc.
Attn: Using PowerTools
Box 1148
La Jolla, CA 92038

Spring-Summer 1988

USNS Newsletter

Sam'l Bassett, Editor

Copyright 1987, USUS, Inc. All Rights Reserved.

Page	Article
1	Highlights
	The Prez Sez: Weber Baker
3	Volunteers Needed
4	Summer General Meeting at Lake Tahoe
4-6	Letters to USUS
7	Modula-2 Code -- A. Robert Spitzer
7-9	How to get on & off MUSUS Fast!
10-14	Election -- Candidates' Statements
15 on	Membership & Order Forms
End	You're reading it.

Note: The USUS Administrator, who handles almost all of our business, and especially new memberships and renewals, is Hays Busch. He can be reached at the USUS address in La Jolla, or at 2193 Montane Dr. East, Boulder CO 80401-9125; (303) 526-0057.

Fold

USUS, Inc.
P.O. Box 1148
La Jolla CA 92038

ADDRESS CORRECTION REQUESTED