

The **KAMAS**TM Report

Knowledge And Mind Amplification System.

Issue Number 3

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IN ISSUE 3

This issue of The KAMAS Report contains news about the latest versions of KAMAS; a major application that increases the Outline Processing features of KAMAS; a rewritten KAMASBBS that works with a wider range of Hayes compatible modems including the U.S. Robotics Password and the Anchor Signalman Mark XII; and a variety of tips and techniques from the support line. So, let's get right to it without further delay.

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NEW VERSIONS AVAILABLE

We've been very busy since the last newsletter releasing pre-configured versions of KAMAS for three more machines and an improved Version 1.1 for all the machines that we support.

New Machines Added

The KAMAS system is now available for the Osborne 1 with the double density upgrade; the Big Board I using on-board video and the June 19, 1983 SWP double density upgrade; and the Big Board 2 using on-board video.

The Osborne version does not support any of the telecommunications features of KAMAS i.e., the Osborne version will not run

KAMASBBS. The Big Board computers are kit computers that are similar to the Kaypro; both Big Board versions are distributed on 8" single sided, single density format. The Osborne version is distributed on an Osborne double density formatted, 5-1/4" diskette.

We are working on versions for new machines based on demand. And the demand has been high since the Infoworld review (Oct. 8, 1984) and the Byte coverage (Sept., 1984). We'll keep you informed about new preconfigured versions as they are made available.

Version 1.1 Now Ready

We have been shipping Version 1.1x since September 11, 1984. The new version includes corrections to bugs as well as enhancements based on your suggestions. Those of you with Version 1.0x will probably want to upgrade to the new version. The ordering instructions follow the list of changes.

Corrections

The following bugs are corrected in Version 1.1x of KAMAS. The first three bugs were actually corrected before Version 1.1, but they are listed here for completeness.

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Correction 1

PROBLEM: The OWNERS command and the TO (Topic Owners) option in ROVE mode fail to set a status flag that is required for editing an outline. Thus, a subsequent OUTLINE command or EO (Edit Outline) option in ROVE mode causes an unrecoverable TREELOST abend.

CORRECTION: This problem was caught near the end of May and was corrected in all units shipped since then. A letter was sent to all of you who had a unit with this problem explaining how to avoid the problem and how to correct it. The problem is corrected in Version 1.1x also.

Correction 2

PROBLEM: If you try to prepare a new topic (with the TP option in ROVE mode or the TPREP command) on a full disk, you get a DISKFULL abend. In some cases, a CP/M directory entry is created for the topic even though the topic itself could not be created. Later, when you try to list the topics with the TT option in ROVE mode or the TOPICS command, the topic entry in the directory causes a TREELOST abend. In this case, you can recover from the TREELOST abend.

CORRECTION: If you have run into this problem, you can clean house by using the CP/M ERA command to erase the incorrect directory entry. The file (there may be more than one) to erase has a size of 0 and an extension of .TOP. Once the bad directory entries are erased, you can list topics in KAMAS without any problem. The problem was corrected in all units shipped after July and is in Version 1.1x.

Correction 3

PROBLEM: Jexing (Job EXecution) can not be started in a command assigned to USERGO and later executed via the U (USER) option in ROVE mode.

CORRECTION: This problem was corrected in all units shipped after July and is in Version 1.1x.

Correction 4

PROBLEM: If a DUPKEY abend occurs during an insert option in ROVE mode (ID, IN, or IU) and you enter another key that is accepted, the new key is inserted relative to the duplicate key rather than at the intended location.

CORRECTION: This problem is corrected in Version 1.1x.

Correction 5

PROBLEM: The Page and Hide format marks are not obeyed during the OO (Output Outline) option in ROVE mode and the PRINTO command.

CORRECTION: This problem is corrected in Version 1.1x.

Correction 6

PROBLEM: It is possible to create a full leaf (2420 characters) that cannot be read back in later by the leaf editor. When attempting to edit the leaf, you get a TREELOST abend that you can recover from. The same problem can be caused if you get a TOODENSE abend while saving a leaf. This problem can also cause a "phantom" character to appear as the last character in the leaf. The phantom cannot be deleted.

CORRECTION: This problem is corrected in Version 1.1x.

Correction 7

PROBLEM: The OF (Output File) option in ROVE mode allows a lowercased CP/M filename to be created. A lowercased filename cannot be properly accessed by CP/M utilities.

CORRECTION: This problem is corrected in Version 1.1x by always uppercasing the filename that you specify for the OF option.

Correction 8

PROBLEM: Pressing the RETURN key at the topic name prompt for the TP (Topic Prepare), TM (Topic Mount), TB (Topic Build), and TK (Topic Kill) options in ROVE mode creates a null topic name and causes a TREELOST abend that you can recover from.

CORRECTION: This problem is corrected in Version 1.1x.

Correction 9

PROBLEM: You can edit the top key in a topic changing the topic name so that it is the same as another topic on the same disk. The duplicate file names would then prevent one of the topics from being mounted later.

CORRECTION: This problem is corrected in Version 1.1x by issuing the DUPTOPIC abend if you attempt to rename a topic to be the same as another topic on the same disk.

Correction 10

PROBLEM: If you enter the leaf editor and copy a region and then exit, the editor incorrectly prompts you "Abandon Modified Leaf?". This prompt is in error, since the leaf is not modified by the copy region command. You can actually type Y to the prompt without losing any data. If you save the leaf first, no data is lost either.

CORRECTION: This problem is corrected in Version 1.1x.

Enhancements

The following enhancements have been added to Version 1.1x based on your comments and suggestions.

Enhancement 1

VERSION 1.0x: During formatted output commands such as the OP (Output Print) option in ROVE mode, verbatim leaves that do not have any format marks do not obey the

left margin. This feature allows centering titles over leaf text by indenting the left margin. Titles obey the indented left margin but the leaves ignore it unless they are marked left justified.

VERSION 1.1x: Now, the left margin is always obeyed by leaves during formatted output making tables and Jex leaves easier to print.

Enhancement 2

VERSION 1.0x: To abort KAMASBBS, you have to type CTRL-C on the local keyboard during any remote console activity. If there is no remote console activity, you must reset the computer to abort KAMASBBS. Also, in local operations, CTRL-C responds only during console activity.

VERSION 1.1x: Now, remote operation and local operations respond to CTRL-C even when there is no console activity. For example, KAMAS can now be aborted with CTRL-C during long searches like the QC (Query Context) option or the LS (Lookup String) option. In KAMASBBS, loss of carrier during a long search operation now causes the Bulletin Board to discontinue the search and recycle.

Enhancement 3

VERSION 1.0x: If an application is assigned to the U (User) option in ROVE mode, it can be executed by remote users through KAMASBBS. However, if an abend occurs during the application, it throws remote users into the language environment.

VERSION 1.1x: When abends occur during local or remote operation of the U option, KAMAS always returns to ROVE mode. Now, any abend during remote operation in ROVE mode returns to ROVE mode. In local operation, any abend during ROVE mode except during explicit Jexing (GJ option) returns to ROVE mode. Abends during explicit Jexing in local operation return to the language environment. You can cause Jex abends to return to ROVE by starting the Jex within the U (User) option.

Enhancement 4

VERSION 1.0x: REMOTEGO is only executed during character receives. This can lead to a long period before KAMASBBS acknowledges loss of carrier.

VERSION 1.1x: REMOTEGO is executed during character receives and transmits.

Enhancement 5

VERSION 1.0x: The KAMASBBS software works only with the Hayes Smartmodem 1200 or close compatibles. It will NOT work with either the U.S. Robotics Password or the Anchor Signalman Mark XII.

VERSION 1.1x: A new version of KAMASBBS is supplied. It is easier to modify to work with a wider range of auto-answer modems. For more details, see the article on KAMASBBS in this issue of The KAMAS Report.

Enhancement 6

VERSION 1.0x: Topic names are case sensitive when used by the TB (Topic Build), TM (Topic Mount), and TK (Topic Kill) options.

VERSION 1.1x: Now, topic names can be either uppercase, lowercase, or mixed and they are retained as specified. When you refer to the name later, you can use any mixture of upper or lower case.

Enhancement 7

VERSION 1.0x: In the leaf editor CTRL-V will take you to the last screen but it will not put the cursor on the last character. Similarly, CTRL-Z will take you to the first screen of the leaf, but will not put the cursor on the first character of the leaf.

VERSION 1.1x: Now, repeated CTRL-V's take you to the last screen and put the cursor on the last character; repeated CTRL-Z's take you to the first screen and put the cursor on the first character.

How to Order

If you have Version 1.0x and you want to order Version 1.1x, you must be a registered customer. This means that you must have returned your signed registration card so that we have it on file. In this case, you can order the upgrade by sending \$10.00 to cover shipping and handling. Be sure to specify your machine and include your name and shipping address. Also, give us the serial number on your Master System Disk. Shipping is via UPS Ground and takes anywhere from 1 to 7 days depending on how far away from Portland, Oregon you are. It also takes a day or two to process your order. No documentation is supplied so keep this copy of the newsletter for a list of differences in the new version.

-- AH --

OTHER NEWS

KAMAS has now been covered in two major articles in computer magazines. First, a feature article in the September issue of Byte magazine covers the language. Second, a review in the October 8, 1984 issue of Infoworld gave us high marks in all categories. The three-star review focused mainly on Outline Processing.

Both articles generated a tremendous interest in KAMAS. We've been very busy keeping up with the demand.

-- AH --

ADDING OPTIONS TO ROVE

This article describes a way to extend ROVE mode by adding more functions through the U (User) option in ROVE.

Listing 1 (a, b, c, d, e, f, g, and h) contains a program that you can Jex to extend the ROVE mode in KAMAS. The SUPERCOPY and OUTLINE OUT programs were written and submitted to the newsletter by Thomas Almy. Both were submitted only a couple of days after he got hold of KAMAS. WOW! Thanks, Tom.

See the AUX ROVE HELP listing (1h) for info

on the options that are added. You can edit the AUX ROVE and AUXCMD Jex leafs to add your own extensions.

Each listing (1a thru 1f) shows one stem of the branch containing the auxiliary program. The first thing you should do is construct a tree with the following keys and structure:

```
AUX ROVE
  AUXCMD
  TREE TRAVERSE
  OUTLINE OUT
  OUTPUT LOOP
  SUPERCOPY SUBROUTINES
  SUPERCOPY USER INTERFACE
  AUX ROVE HELP
```

Then, edit in the leafs according to the listing for each stem.

Jex the AUX ROVE stem to add all the functions to ROVE. You can do this in your AUTOJEX leaf by replacing the line "GT ROVE" with "AUX ROVE" KJEX.

-- AT --

KAMASBBS IMPROVEMENTS

Michael Galassi runs a version of KAMASBBS in Portland, Oregon. The number is ~~503-283-2983~~, an acronym for that number to make it easier to remember is ATE-BYTE. The BBS has been operating 24 hours/day using either an Anchor Mark XII modem or a Western Electric 212A modem.

1-503-231-6373

Michael has set up separate topic files for conversations on Sports, Computers, Human Sexuality, and Fiction. The Fiction topic is an online novel that callers join together in writing.

The board is interesting in part because it runs on a 512K Semidisk in an Epson QX-10 computer. The main message topic is 376K and has branches like the following:

```
BBSMESSAGES
  WELCOME
  SYSTEM INFO
  USERS
    Michael Galassi
      Fm AT on 84-09-27
      Fm AT on 84-09-27 /2
    Adam Trent
      Fm MG on 84-09-28
      Fm MG on 84-09-29
  MESSAGES TO ALL
  ADVERTISEMENTS
  USER'S GROUPS
  DISCUSSIONS
```

Michael has done wonders in optimizing the code for the initial KAMASBBS from Version 1.0x. He has taken on a personal crusade to write the smallest possible RKAMAS (Remote KAMAS). Listing 2 (a, b, and c) contains several of his recent versions of BBS programs for KAMAS. Thanks, Michael.

To run one of these, replace the KAMASBBS branch with the one you want. They all assume that you've set up a topic called BBSMESSAGES and that you've edited the WELCOME leaf to suit your tastes. See above for an example beginning skeleton for BBSMESSAGES. An example of the welcome message in the WELCOME branch of the BBSMESSAGES topic is shown in Listing 2d. These programs work only on the Kaypro and Epson versions of KAMAS.

Currently, the WEBBS version (Listing 2a) is being run on Michael's system. WEBBS has been optimized for use with any "dumb" dual-rate, auto-answer modem such as the Western Electric 212A. BBS (Listing 2b) is similar to WEBBS but contains routines to initialize Hayes compatible modems. It is actually a cut down and speeded up version of KAMASBBS (Listing 2c). KAMASBBS is included in Version 1.1x of KAMAS and replaces the Version 1.0x of KAMASBBS.

If you plan to use either KAMASBBS or BBS, the initialization strings in INITMODEM must be changed depending on the modem you have. The strings in Listing 2e work for the specified modems.

In the routine NEWCALLER, insert any topics that you want mounted when a user

logs on immediately before the command "BBSMESSAGES TBUILD". See WEBBS for an example of this. WEBBS assumes that several topics exist and it mounts them (HUMAN SEXUALITY, COMPUTERS, and FICTION).

To prevent users from getting access to the language, set a lock level of 1 on SYSTOPIC. To prevent people from renaming and/or deleting topic files, use the MARKRO command from SYSVOC on the first key in the topic. To preserve an orderly outline, you may want to use MARKRO on all the important stems in the topic.

-- AT --

FROM THE SUPPORT LINE

Here are some helpful tips and techniques that have come up during support calls.

Serial Printers

Some Kaypro owners use the Kaypro serial port for a printer. KAMAS uses this port for its telecommunications. In fact, KAMAS initializes this port for use with a modem when it is first invoked. Issue 2 of The KAMAS Report lists the serial port configuration that KAMAS sets up. This modem configuration conflicts with the default configuration of the NEC Spinwriter (and possibly other serial printers as well). The following commands added to the AUTOJEX leaf often init the serial port back to what the NEC wants to see.

```
SYS SETHEX
10 0 1 1 61 3 AA 5 47 4
  A LOOPS 6 WCPOROUT .LOOPS
SETDEC
```

We've tested this on a Kaypro II with a NEC Spinwriter 3510 and it works. In this case the baud rate on the NEC was set to 300. The default in KAMAS is also 300. If you run your Spinwriter at 600 or 1200 baud, you must add a SETBAUD command on the line after the SETDEC. Use either "600 SETBAUD" to run at 600 baud or "1200 SETBAUD" to run at 1200 baud.

The explanation of the routine is a little complicated, but all you have to do is key it in. The ten numbers on the second line are all hexadecimal values. Each pair is a command to the serial port. Specifically, the pair 10 and 0 send a command of 10 to write register 0 on the serial port; the second pair 1 and 1 send a command of 1 to write register 1; the third pair 61 and 3 send a command of 61 to write register 3; the fourth pair AA and 5 send a command of AA to write register 5; and the fifth pair 47 and 4 send a command of 47 to write register 4. All of these commands set the serial port to receive and transmit 7 data bits, 1 stop bit, and even parity.

If the addition to your AUTOJEX leaf does not work or you are otherwise having trouble getting your serial printer to accept printing for KAMAS, you can try the following "permanent" patch to the file KAMAS.COM:

1. Place your KAMAS Working System Disk in drive B.
2. Place a CP/M Operating System Disk containing the file DDT.COM into drive A. Type CTRL-C to warm boot the operating system.
3. Carefully, type in the following sequence of DDT commands. Boldfaced characters indicate what you type:

```
A>DDT B:KAMAS.COM
NEXT PC
9000 0100
-S8CB2
8CB2 21 C3
8CB3 58 C9
8CB4 01 8C
8CB5 46 .
-60
A>SAVE 143 B:KAMAS.COM
```

4. Your KAMAS Working System Disk in drive B is now ready for use.

This patch disables the initialization of the serial port. Thus, the port would keep whatever properties it had prior to entering

KAMAS. Often, these properties are set by CP/M or by a utility you may be using. Note that this patch only works with Version 1.1x of KAMAS. Do not try to use it on Version 1.0x. The patch can be used on any 1.1x version (e.g., Epson QX-10, Kaypro, Morrow, or Osborne).

Whether you use the AUTOJEX change or make the patch, you will probably not be able to run KAMASBBS software. If you want to run the bulletin board too, retain an unpatched version or a version without the AUTOJEX change for KAMASBBS use.

Logging to a Printer

If you are familiar with CP/M, you know that you can type CTRL-P at the A> prompt in CP/M to log all console activity to the printer. This CP/M CTRL-P is NOT the same as the CTRL-P that you type at the ROVE: prompt in KAMAS to log console activity to a printer. If both are active at the same time, you will get double characters printed for all output.

Topic Sizes

If you know you'll be using the OF (Output File) option in ROVE mode, be sure to leave room on Drive B for the file. The OF option converts the current branch in your topic file to a standard CP/M text file. Don't make your topic so big that it takes all the space on Drive B leaving no room for your CP/M text file to be output. This tip is especially useful for Kaypro II, Osborne I, and Morrow MD2 owners who have a limited amount of space for topics on drive B.

More Space in Systopic

As distributed, SYSTOPIC is almost full. There isn't much room to add fancy AUTOJEX commands or to extend ROVE mode through the U (User) option. Here are a few suggestions on what to delete to free

up some space. Before you start deleting, make sure you are deleting from a Working System Disk. Save your Master System Disk so you can restore things if you need to.

First, if you don't use the bulletin board, delete the entire KAMASBBS branch. This should free up quite a bit of space.

Also, if you don't use the Jex branch programs SETDATE, MDUMP, DEBUG, and JEXBRANCH, you can delete them.

TCOPY Utility

There is an undocumented utility in SYSTOPIC called TCOPY. To execute this program, go to the key TCOPY and then type GJ (Go Jex) in ROVE mode. The TCOPY program asks for the name of the topic to be copied. Then, it prompts for the destination topic name and the size of the destination topic. The program then exhaustively re-indexes and copies the topic. The purpose of the program is to copy a topic to another, different-sized topic. You can make an existing topic larger or smaller this way. The program can take a long time especially on a large topic. Be sure that you have room for the new topic on the drive you specify; TCOPY abends if there isn't enough room.

There is a more general copy program included in the AUX ROVE extension described in this issue.

-- AH --

Note that in all the listings, the first line is the title of the stem. All subsequent lines should be typed in as the contents of the stem's leaf.

```

AUX ROVE - Jex this stem to add Auxiliary functions to ROVE's U option

LANG SYS

'PAGET : NEWPAGE TOGPRINT CRLFOUT TRUEWF .

"OUTLINE OUT" KJEX           ; Jex in Tom Almy's Outline Output program
"SUPERCOPY SUBROUTINES" KJEX ; Jex in Tom Almy's Super Copy program
"SUPERCOPY USER INTERFACE" KJEX

'NLT : NEWLINE 4 SPSOUT .

'AUXOPS : NEWLINE "==== AUXILIARY OPTIONS FOR ROVE =====" STOUT
  NLT "? - Show this option list" STOUT
  NLT "K - Print Keys in Branch Below" STOUT
  NLT "T - Print Titles in Branch Below" STOUT
  NLT "F - Print FormFeed" STOUT
  NLT "O - Print Outline Formatted" STOUT
  NLT "C - Copy a Topic Branch" STOUT
  NLT "P - Protect current stem as Read Only" STOUT
  NLT "D - Delete leaf of current stem" STOUT
  NLT "S - Set Page size, Line skip, or Indent" STOUT
  NLT "R - Return to ROVE" STOUT
  NEWLINE EXECSTAT 768 WAND WOO=
  IFSO NLT "MORE HELP (N)?" STOUT NOYES
  IFSO "AUX ROVE HELP" KSHOW .IFSO .IFSO .

'INKEY : WCIN DUPW WCOUW WCCVTUC .

'SETCMD : "(P - Page size, L - Line skip, I - Indent):" STOUT
  INKEY
  WOCASES
  'P ASCII WOCASE "AGE SIZE: " STOUT WGIN TO PGSIZE           .WOCASE
  'L ASCII WOCASE "INE SKIP: " STOUT WGIN TO SKIP             .WOCASE
  'I ASCII WOCASE "NDENT SIZE: " STOUT WGIN TO INDSIZE       .WOCASE
  OTHERS BEEPOUT NEWLINE
  .WOCASES .

ABENDVOC VMOUNT

'REMCK : IOSTAT 2 WAND NOT WOO= IFSO REMOTEVIOL .IFSO .

ABENDVOC VUNMOUNT

'AUXCMD KJEX

```

Listing 1a - AUX ROVE Stem

AUXCMD - Auxiliary ROVE command

```
'AUXCMD : NEWLINE
LOOP 13 WCOU 20 SPSOUT 13 WCOU 'AUX: STOUT INKEY
WOCASES
  '? ASCII WOCASE " - HELP." STOUT AUXOPS FALSEWF           .WOCASE
  'K ASCII WOCASE " - KEYS." STOUT REMCK TOGPRINT KEYS PAGET .WOCASE
  'T ASCII WOCASE " - TITLES." STOUT REMCK TOGPRINT TITLES PAGET .WOCASE
  'F ASCII WOCASE " - FORMFEED." STOUT REMCK 12 WCPRT TRUEWF .WOCASE
  'O ASCII WOCASE " - OUTLINE." STOUT REMCK OUTLINEOUT TRUEWF .WOCASE
  'C ASCII WOCASE " - COPY." STOUT SUPERCOPY TRUEWF           .WOCASE
  'P ASCII WOCASE " - PROTECT." STOUT MARKRO TRUEWF           .WOCASE
  'D ASCII WOCASE " - DELLEAF." STOUT DELLEAF TRUEWF          .WOCASE
  'S ASCII WOCASE " - SET " STOUT REMCK SETCMD TRUEWF         .WOCASE
  'R ASCII WOCASE " - ROVE." STOUT TRUEWF                     .WOCASE
      13 WOCASE AUXOPS FALSEWF
      27 WOCASE          TRUEWF
      OTHERS BEEPOUT FALSEWF
.WOCASES UNTILT .LOOP .

'AUXCMD SETDFENCE 'AUXCMD TOGO USERGO

.SYS .LANG ROVE
```

Listing 1b - AUXCMD Stem

```
TREE TRAVERSE - Universal KAMAS Tree Traversal Routine
; Universal KAMAS tree traversal routine by Adam Trent

'?DOWN :FLAGVAR           ; flag is set if dropping to new lower level
'UPCOUNT :WOVAR         ; count if going to upper level

'TRAVERSE : CLEAR UPCOUNT GD ?ENDLINK
  IFSO LOOP
    GN ?ENDLINK
  UNTILF
    GU ?ENDLINK
  UNTILT
    1 +TO UPCOUNT
  .LOOP
  NOT ?ENDLINK IFSO CLEAR ?DOWN .IFSO
ELSE
  RAISE ?DOWN
.IFSO .
```

Listing 1c - TREE TRAVERSE Stem

OUTLINE OUT - By Thomas Almy

LANG SYS

; This program will query for printer or file output, and outline the
; current branch using section numbers before each title. The Author
; is Thomas Almy, who relinquishes all right to these programs to
; Compusophic Systems, providing they are distributed without additional
; charge to users of KAMAS.

"TREE TRAVERSE" KJEX
"OUTPUT LOOP" KJEX

'?PRINT :FLAGVAR ; true if printing
'?FILE :FLAGVAR ; true if file output
32 'SAVEKEY :STVAR ; starting position
32 'FILENAME :STVAR ; file name to use for file outputs

'OUTLINEOUT :
GETKEY TO SAVEKEY ; save out position
NEWLINE "Show leaf (Y)?" STOUT YESNO TO ?LEAF
NOT ?LEAF TO ?INDENT ; we will indent if leaf not shown
NEWLINE "Use printer (N)?" STOUT NOYES TO ?PRINT
?PRINT IFSO
TOGPRINT CLEAR ?FILE
ELSE
NEWLINE "Use CP/M file (N)?" STOUT NOYES TO ?FILE
?FILE IFSO NEWLINE " Name: " STOUT FILENAME STIN
FILENAME STUC STARTLOG .IFSO
.IFSO

DO-OUTLINE ; do our thing

?PRINT IFSO ; turn off printer or file output if necessary
TOGPRINT
ELSE
?FILE IFSO STOPLOG .IFSO
.IFSO

SAVEKEY KG ; go to whence we came
.

Listing 1d - OUTLINE OUT Stem

OUTPUT LOOP - Universal Outline Output Routine

; "Universal" printing routine by Thomas Almy

'LEVEL :WOVAR ; nesting depth of outline
20 'POSITION :WOARRAY ; outline item number for each level
'?LEAF :FLAGVAR ; set true to show leafs
'?INDENT :FLAGVAR ; set true to indent the titles

'PRINTLEAF : ; print leaf if asked
?LEAF IFSO CRLFOUT
LINCOUNT SHOWLEAF
LINCOUNT NOT WO= IFSO NEWLINE CRLFOUT CRLFOUT .IFSO
.IFSO .

'DO-OUTLINE :
CLEAR LEVEL CLEAR ?DOWN CLEAR POSITION

; print major title
NEWLINE GETKEY DUPW STLEN RMARG SWAPW WO- WO2/ SPSOUT STOUT
NEWLINE CRLFOUT

; print title leaf
PRINTLEAF

; print rest of branch
LOOP

; go to next stem
TRAVERSE ?ENDLINK UNTILT
; adjust position
?DOWN IFSO 1 +TO LEVEL 1 LEVEL TO POSITION
ELSE LEVEL UPCOUNT WO- TO LEVEL
1 LEVEL +TO POSITION
.IFSO

; stop if out of branch
LEVEL WOO= UNTILT

; print outline section number
NEWLINE LMARG SPSOUT ?INDENT IFSO LEVEL WO1- WO2* SPSOUT .IFSO
LEVEL LOOPS IWO POSITION 0 WOOUTR
IWO LEVEL NOT WO= IFSO '. STOUT .IFSO .LOOPS
2 SPSOUT

; print title
GETKEY STOUT GETSUBT STOUT
NEWLINE

; print leaf
PRINTLEAF
.LOOP NEWLINE .

.sting 1e - OUTPUT LOOP Stem

SUPERCOPY SUBROUTINES - By Thomas Almy

LANG SYS

; SUPERCOPY is a version of TCOPI which copies branches (subtrees),
; rather than complete topics. It will not create new topics.
; It will maintain time/date stamps and formatting flags.
; Branches may be copied within a single topic; the program requests
; a new stem title in case of conflicts.

```
'LEAFSIZE :WOVAR      ; size of the leaf
32 'OLDTOPIC :STVAR   ; source topic name
32 'NEWTOPIC :STVAR   ; destination topic name
32 'LASTOLDKEY :STVAR ; name of last source key
32 'LASTNEWKEY :STVAR ; name of last destination key
32 'NEWKEYNAME :STVAR ; name of new key
32 'TEMPSTR :STVAR   ; temporary string
14 'TMPST :STVAR    ; storage for date stamp
64 'OLDSUBT :STVAR  ; stem subtitle
'NESTDEPTH :WOVAR   ; nest depth into branch
'?SAMETOPIC :FLAGVAR ; true if Dest=Source topic
                        ; location of status flags for stem
'CLRO CMDFIND DROPD 6 WO+ FETW 'FLAGLOC :WOCON
'FLAGS :WOVAR      ; mark flags for current stem

'CUEOLD : NOT ?SAMETOPIC IFSO OLDTOPIC TBUILD .IFSO LASTOLDKEY KG .

'CUENEWTOPIC : NOT ?SAMETOPIC IFSO NEWTOPIC TBUILD .IFSO .

'CUENEWPOS : LASTNEWKEY KG .

'INDENT : NEWLINE 5 SPSOUT .

'PUTNEWLEAF : ?LEAF IFSO LEAFSIZE PUTLEAF .IFSO .

'READOLD : NEWLINE "READING: " STOUT GETKEY STOUT
GETSTAMP TO TMPST
2 TMPST STLEFT TO DATEST
13 4 STEP IWO 2 TMPST STMID +TO DATEST 3 .STEP
GETKEY TO LASTOLDKEY
GETSUBT TO OLDSUBT
FLAGLOC FETB TO FLAGS
GETLEAF
IFSO RAISE ?LEAF CUELEAF SWAPW DROPW TO LEAFSIZE
ELSE CLEAR ?LEAF .IFSO .

'?DUPNAME :          ; ( -- wf)
GETTNAME TO TEMPSTR
NEWKEYNAME KFOUND IFSO ; found -- may be trouble
GETTNAME TEMPSTR ST=
DUPW WFNOT IFSO CUENEWTOPIC .IFSO
ELSE FALSEWF .IFSO .
```

Listing 1f - SUPERCOPY SUBROUTINES Stem

```
'WRITING : \`OD\` ASCII WCOU "WRITING: " STOUT .
'WRITENEW : UPCOUNT LOOPS GU .LOOPS
  WRITING NEWKEYNAME STOUT
  NEWKEYNAME OLDSUBT ?DOWN IFSO TID ELSE TIN .IFSO
  GETKEY TO LASTNEWKEY PUTNEWLEAF
  FLAGS 191 WAND FLAGLOC STOB      ; set format marks except READONLY
  CLRO .                ; dest is never readonly
```

Listing 1f - SUPERCOPY SUBROUTINES Stem (Continued)

SUPERCOPY USER INTERFACE - By Thomas Almy

```
'NBL : NEWLINE "???? " STOUT BEEPOUT .
'CLKCMD :WOVAR
'GETPARAMS :
  GETTNAME TO OLDTOPIC  GETKEY TO LASTOLDKEY  GETKEY TO SAVEKEY
  INDENT "Is Destination in Current Topic (N)?" STOUT NOYES IFSO
  RAISE ?SAMETOPIC  OLDTOPIC TO NEWTOPIC  ELSE
  LOOP INDENT "Destination Topic: " STOUT NEWTOPIC STIN
    NEWTOPIC TFIND UNTILT NBL "TOPIC NOT FOUND, TRY AGAIN" STOUT
  .LOOP .IFSO
  GETTNAME TO TEMPSTR
  LOOP INDENT "Destination Branch Key Name: " STOUT LASTNEWKEY STIN
    LASTNEWKEY KFIN  GETTNAME TEMPSTR ST= WAND UNTILT
    NBL "KEY NOT FOUND IN TOPIC, TRY AGAIN" STOUT .LOOP
  INDENT "Insert Down (Y)?" STOUT YESNO TO ?DOWN .

'ASKNAME :
  INDENT "Rename '" STOUT LASTOLDKEY STOUT "' to: " STOUT
  NEWKEYNAME STIN NEWLINE .

'SUPERCOPY : NEWLINE "==== KAMAS BRANCH COPY by Thomas Almy =====" STOUT
  CLEAR ?SAMETOPIC  CLEAR NESTDEPTH  CLEAR UPCOUNT  GETPARAMS
  NEWLINE "==== COPYING AND INDEXING TOPIC STEMS =====" STOUT
  LANGVOC VMOUNT SYSVOC VMOUNT
  'DATEGO CMDFIND DROPD 3 WO+ FETW TO CLKCMD ; save DATEGO--a.t.
  'NOOP TOGO DATEGO
  CUEOLD      ; get to first without traversal
  LOOP READOLD CUENEWTOPIC
    ?SAMETOPIC IFSO ASKNAME ELSE LASTOLDKEY TO NEWKEYNAME .IFSO
    LOOP ?DUPNAME UNTILF " -- IS DUPLICATE NAME" STOUT ASKNAME .LOOP
    CUENEWPOS WRITENEW CUEOLD TRAVERSE ?ENLINK ; go to next source stem
  UNTILT
    ?DOWN IFSO 1 +TO NESTDEPTH ELSE NESTDEPTH UPCOUNT WO- TO NESTDEPTH .IFSO
  NESTDEPTH WOO=
  UNTILT
  .LOOP
  OLDTOPIC TBUILD SAVEKEY KG
  NEWLINE "==== BRANCH COPY DONE =====" STOUT
  CLKCMD MFATNFA NFATST TOGO DATEGO DATEGO . ; restore DATEGO--a.t.
```

Listing 1g - SUPERCOPY USER INTERFACE Stem

AUX ROVE HELP - Auxiliary functions via the U (User) option in ROVE

These Auxiliary ROVE options add to the functionality of KAMAS and show how the ROVE menu-driven system can be extended by KAMAS programming.

The K option prints all keys in the current branch. Formatting marks are shown as codes and indentation is used to show the outline structure.

The T option prints all titles in the current branch. Indentation is used to show the outline structure.

The F option simply prints a single FormFeed character to the printer.

The O option will ask you if you want either printer or file output, and will then output an outline of the current branch using section numbers before each title. Indentation is not used and leaf formatting is obeyed. You can also opt to output only the titles without the leafs.

The C option allows you to copy the current branch to another place in the current topic, or to another place in another topic. It will not create a new topic. It maintains time/date stamps and formatting marks. This option requests a new key name in cases of duplicate key names.

The P option simply marks the current stem as read-only protected.

The D option deletes only the leaf of the current stem and retains the title intact. Note that this delete does not affect the content of the Leaf Editor's Yank buffer.

The S option allows you to set the following:

- P - Page size = number of lines that KAMAS counts before issuing a FormFeed to skip the perf during printing.
- L - Line skip = number of extra blank lines that KAMAS uses during formatted output. 0 is default. Set it to 1 for double spacing.
- I - Indent size = number of spaces to output per level of indentation during formatted output of an outline.

The R option returns to ROVE from AUX.

Listing 1h - AUX ROVE HELP Stem

```

WEBBS - A mean lean experiment for dumb modems (389 bytes)

LANG SYS SETDEC
'BAUDWO :WOVAR

'SETBAUD : DUPW SETBAUD TO BAUDWO .

'RCIN : TOGREMOTE WCRCV TOGREMOTE .

'AWAIT : 1200 SETBAUD LOOP TOGREMOTE WCRCV TOGREMOTE
WOCASES
  13 WOCASE TRUEWF .WOCASE
  10 WOCASE TRUEWF .WOCASE
  OTHERS 340 FETB WCPORIN BAUDWO
  WOCASES
    300 WOCASE 1200 SETBAUD .WOCASE
    1200 WOCASE 300 SETBAUD .WOCASE
  .WOCASES FALSEWF
.WOCASES UNTILT .LOOP .

'NEWCALLER :
343 FETB 337 FETB WCPOROUT 337 FETB WCPORIN 342 FETB WAND WOO=
IFSO
  CLSOUT 2 SETDRIVES 0 72 SETMARGINS 3 SETHELP 1 1 SETVIEW
  CLVC 'USER TO USERST CLTC CLPSTACK CLRSTACK
  "HUMAN SEXUALITY" TMount 'COMPUTERS TMount 'FICTION TMount
  'BBSMESSAGES TBuild AWAIT 'WELCOME KSHOW ROVE
.IFSO .

'BBS : 'NEWCALLER TOGO REMOTEGO TOGREMOTE ROVE .

'BBS SETDFENCE ROVE

```

Listing 2a - WEBBS Stem

```
BBS - A mean lean experiment

LANG SYS

'RCIN : TOGREMOTE WRCV TOGREMOTE .

'ENDCMD : 13 WCXMT RCIN DROPW .

'INITMODEM : 300 SETBAUD 'ATEOVOQOF1S2=255S0=1 STOUT ENDCMD .

'AWAIT : 300 SETBAUD 65 WCXMT 84 WCMXT ENDCMD LOOP RCIN
WOCASES
  49 WOCASE 300 SETBAUD TRUEWF .WOCASE
  53 WOCASE 1200 SETBAUD TRUEWF .WOCASE
    OTHERS FALSEWF
.WOCASES UNTILT .LOOP
500 LOOP W01- DUPW W00= UNTILT .LOOP DROPW .

'NEWCALLER :
343 FETB 337 FETB WCPOROUT 337 FETB WCPORIN 342 FETB WAND W00=
IFSO
  CLSOUT 2 SETDRIVES 0 72 SETMARGINS 3 SETHELP 1 1 SETVIEW
  CLVC 'USER TO USERST CLTC CLPSTACK CLRSTACK
  'BBSMESSAGES TBUILD AWAIT 'WELCOME KSHOW ROVE
.IFSO .

'BBS : LANGVOC VMOUNT 'NOOP TOGO REMOTEGO TOGREMOTE INITMODEM
'NEWCALLER TOGO REMOTEGO ROVE .

'BBS SETDFENCE ROVE
```

Listing 2b - BBS Stem

KAMASBBS - KAMAS (tm) Bulletin Board System

LANG SYS

```
; The following should work for the Kaypro and Epson QX-10 computers
'NOCARRIER? : 343 FETB 337 FETB WCPOROUT 337 FETB WCPORIN
  342 FETB WAND WOO= .
'BBSFAILURE :ABEND
'DELAY : LOOP W01- DUPW W00= UNTILT .LOOP DROPW .
'RCIN : TOGREMOTE WCRCV TOGREMOTE .
'CMD : 13 WCXMT 4000 DELAY .
'FLUSH : CMD 300 SETBAUD 65 WCXMT 84 WCXMT CMD .
; Delete the X1 in the below init string if you have a Hayes Smartmodem 300
'INITMODEM : FLUSH 'ATEOVQQOMOF1S2=255S0=1X1 STOUT CMD .
'AWAIT : FLUSH LOOP RCIN
  WOCASES
    49 WOCASE 300 SETBAUD TRUEWF .WOCASE
    53 WOCASE 1200 SETBAUD TRUEWF .WOCASE
    OTHERS FALSEWF
  .WOCASES UNTILT .LOOP 800 DELAY .
'NEWUSER : CLVC 'PUBLIC TO USERST CLTC .
'NEWCALLER : NOCARRIER? IFSO 0 72 SETMARGINS 3 SETHelp 1 1 SETVIEW
  NEWUSER CLPSTACK CLRSTACK 'BBSMESSAGES TBUILD MARKRO AWAIT
  'WELCOME KSHOW MENU .IFSO .
'BBS : NEWLINE "==== KAMASBBS" STOUT NOCARRIER?
  IFSO LANGVOC VMOUNT 'NOOP TOGO REMOTEGO CLVC
  "...AWAITING FIRST CALLER" STOUT NEWLINE
  TOGREMOTE INITMODEM 'NEWCALLER TOGO REMOTEGO MENU
  ELSE BBSFAILURE .IFSO .
'BBS SETDFENCE
BBS .SYS .LANG
```

Listing 2c - KAMASBBS Stem

WELCOME - You have reached ATE-BYTE, an RKAMAS.

If you don't know what to do, type a question mark. When you are done just hang up.

System Operator

Listing 2d - WELCOME Stem

```
Hayes Smartmodem 1200      'ATEOVQQOMOF1X1S2=255S0=1
Hayes Smartmodem 300      'ATEOVQQOMOF1S2=255S0=1
Anchor Signalman Mark XII 'ATEOVQQOF1S2=255S0=1
U.S. Robotics Password    'ATEOVQQOMOF1S2=255S0=1
```

Listing 2e - Initialization Strings

Contributor Key

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