

The KAMAS Report

Issue Number 4

February, 1985

IN THIS ISSUE

Hello, again. We had a very busy Christmas Season, and we thank all of you for the overwhelming response. Your enthusiastic letters, suggestions, and contributions made our holidays shine. Our theme for this issue is Word Processing, and we selected contributions mostly in that area. We had so many program contributions that we incorporated the code onto a public domain Utility Disk. Here's an overview of the contents of this issue.

Anne Hickman, Editor

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IN THE NEWS

The major news items this time are the release of our first KAMAS Utility Disk and the appearance of several KAMAS reviews in major publications.

First Utility Disk

Utility Disk 1 is now available. This Utility Disk contains contributions from many KAMAS users that enhance and extend the features in KAMAS by using the built-in programming language. The disk is available from us for \$10.00 to cover our shipping and handling costs. (Be sure to specify your computer if you order it from us so we can send it in the proper format.) We are also making it available on Bulletin Board Systems, through user groups, and through dealers. The contributors have placed their work in the public domain, so if you get a copy, feel free to put it in your local user group library and pass it on to others who have KAMAS. To us, the utility disk illustrates the advantage of including the programming language in KAMAS, even for the many non-programmers who use KAMAS mainly for its outline processing. Anyone can obtain the disk for virtually nothing and run the programs that others have written. We hope that Utility Disk 1 will be the first of many more to come.

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In the first disk, we have concentrated on the most requested KAMAS enhancements. You'll find a program to change the cursor control keys in both editors to behave more like Wordstar. (No more accidental deletes for those of you who are used to WordStar's CTRL-D.) Another highly request item is the program to read existing text files into KAMAS topics. And, Wordstar users will find another program of value that is similar to the OF (Output File) function in ROVE mode which outputs a Wordstar-compatible document file complete with "soft" carriage returns.

Programmers will find much of value here as well. First, there is the KAMAS LANGUAGE topic which contains a fantastic on-line manual for the KAMAS programming language. Then, there is the source code for all the programs supplied on the Utility Disk. There are many jewels buried in this source code, such as the file read and write routines. The source code routines are documented in the PROGRAMMER'S GUIDE branch of the USER'S GUIDE in the UTILITIES topic.

Several articles in the rest of this issue describe what's available on the Utility Disk 1 in more detail.

What's on the Utility Disk?

The Utility Disk that we are sending out contains three files that add up to 183K. There's a lot of substance here. One of the files is called READ.ME, and is a short CP/M text file that you can display with the CP/M TYPE command. It gives you pointers on how to print out the USER'S GUIDE branch which contains all the documentation supplied with the disk. We hope to make READ.ME and the USER'S GUIDE branch conventions on every Utility Disk that becomes available.

The other two files are KAMAS topic files, UTILITIES and KAMAS LANGUAGE, containing the utility programs and the online manual for the programming language, respectively.

There are two kinds of programs included in

the UTILITIES topic -- those that you will probably want to run frequently and those that will probably only be run from time to time. The frequently used programs are grouped together as the AUX ROVE branch and can be added to ROVE mode as a new menu that can be accessed by typing the letter U at the main "ROVE:" prompt. These include:

- New VIEW command that doesn't show as much data but still gives you a clear idea of your neighborhood. Let us know if you like this one better and we'll include it in the next release of KAMAS in place of the old SV option in ROVE mode.
- Partial Key Find. Lets you locate a stem by specifying part of a key and also lets you confine your search to a specific branch of a topic.
- A command to print keys only with formatting marks and indentation.
- A command to print titles only with indentation.
- Output an outline or titles with section numbering (1.1, 1.1.1, 1.1.1.1) according to level and position in the outline. You can output to the printer or to a Wordstar document file with "soft" carriage returns and "soft" spaces. The file can then be edited more easily in document mode with Wordstar or Newword.
- A command to copy a branch of a topic to another topic or to another branch in the same topic.
- A command to delete a leaf keeping the title intact.
- Commands to set the page size, line spacing (skip), and indent size from ROVE.
- And more.

The other programs include the much requested WordStar configuration, the job to read in existing CP/M text files, a job to list a CP/M text file, and more.

A Big Hand for the Contributors III

Now, to give proper credit, we would like to thank the people who contributed programs to the Utility Disk. All these people have provided a value to the entire KAMAS user community.

Thanks to Jim Newell and Tom Almy who both contributed programs to read in CP/M text files. And to Adam Trent who combined the two programs and modified them to work with his own File Input/Output package.

Thanks to Norm Worthington who helped with the Wordstar configuration program.

Thanks again to Tom Almy who gave us the new view command, the partial key find, the KAMAS LANGUAGE topic, and several other AUX ROVE programs that were taken from the last issue of the newsletter.

New Versions Available

We've added seven new versions of KAMAS for the Televideo 802/803, the Otrona Attache, the Zorba, the Xerox 820-II, the Morrow MD5/11, the Osborne Executive, and the Lobo Max 80. None of these versions have any telecommunications, i.e., the KAMASBBS is not included. The Morrow MD5/11 version, which also works with the MD16, requires a Televideo 900 series terminal or compatible. The MT50, MT60, and MT70 terminals from Morrow all work.

The Morrow, Osborne, and Lobo versions all work with CP/M 3.0. CP/M 3.0 is an improved version of CP/M 2.2; and we have recoded parts of KAMAS to take advantage of the improvements. These versions run 3-5 times faster than the CP/M 2.2 versions. The major improvements come in disk accesses.

Other News

Since the last issue of the newsletter, KAMAS has been reviewed in several major

publications. The November issue of Profiles (a magazine for Kaypro owners) carried a rave review by Thomas Tucker. The November issue of the McWilliams Letter (Peter McWilliams is the guy who writes all those books about Word Processing) also included a favorable review. The January issue of Computer Shopper had one of the most detailed reviews of KAMAS to date; the article was by Hardin Brothers.

In addition, KAMAS reviews have been showing up in user group newsletters and on bulletin board systems all over the place. The newsletter put out by Echelon, Inc. (the company that makes ZCPR3) rated KAMAS as one of six pieces of "Lasting-Value Software" that they knew of. Thanks to those of you who have sent us clippings and printouts. We like to keep up with the press coverage.

FOCUS ON WORD PROCESSING

There are a number of Word Processing Enhancements to KAMAS on Utility Disk 1. They are described in the following articles. Also, included below are articles on how to print topics in KAMAS, how to format whole topics, and how to print topics with headers and footers.

Printing Topics in 3 Easy Steps

So, you've created your first topic file in KAMAS and entered your outline into it. After you've started editing leafs, you'll will eventually get to a point where you want to print the entire topic. As mentioned elsewhere in this issue, the Utility Disk has a program that you can use to print titles only or keys only. This article deals with printing stems that also have text in their leafs.

Here's an overview of the three steps involved in printing an outline. Then, we'll go into detail with an example.

1. Mark each stem in the topic with the desired formatting marks. Each stem is marked separately with formatting marks that apply to that stem only.
2. Set the global printing parameters. These parameters are set once and then apply to all the stems that are printed. Global parameters include the page size, the left and right margin settings, and the line spacing.

2.1. NOTE: Even though the margin settings are global, each stem must be marked separately to obey the margins or not. Even if you set the right margin, the stems will ignore the right margin setting unless you mark each stem to obey it.

3. Use one of the options from the Output menu in ROVE mode (or the new AUX ROVE menu if you have the Utility Disk) to print the topic starting at the current topic cursor location and obeying any formatting marks on the stems.

NOTE: Some of you have called us about your printer overflowing the right margin and printing the remainder of the line on the next line below. This is caused by internal margins set on your printer that are not as wide as the margins set in KAMAS. The easiest way to avoid the problem is set KAMAS's right margin to a smaller value so it will fall within the right margin of the printer. Remember that you have to mark each stem to obey the right margin (either mark it left justify or full justify). Otherwise, setting the margin does no good.

Step 1: Format the Stems

You format stems from ROVE mode. There are four different format marks that can be placed on a given stem that affect the way it will be printed:

- H marks the title of the stem as hidden. The title is not printed during any formatted printing.
- P marks the stem as the start of a

new page. A new page is started before the marked stem is printed.

- L marks the stem to obey left and right margin and to left justify the text.
- F marks the stem to obey left and right margins and to full justify the text.

The format marks are displayed when you do a Show View (SV) or Show Keys (SK) command. Actually, the codes H, P, L, or F are shown following the key.

Assume that you have entered the topic shown in Figure 1. There are no marks on the stems yet. The '&' character after the keys indicates that the stem has a leaf; the '+' character indicates that the stem has children; and the '.' character indicates that the stem does not have children.

In this example, let's say you want to print the outline with full justification, i.e., the text is aligned on the left and right margins.

With MICROCOMPUTER SOFTWARE as your Build Topic, type GT to go to the top. Then, alternately type FF and GF, FF and GF, FF and GF, until KAMAS beeps. FF marks the stem for full justification; GF goes forward to the next stem. When KAMAS beeps, you cannot go forward anymore and you are at the end of the topic.

Let's say that you want the second major classification (PRODUCTIVITY SOFTWARE) to start the top of a new page. Type GK at the "ROVE:" prompt and then type PRODUCTIVITY SOFTWARE as the key. When you are at the PRODUCTIVITY SOFTWARE stem, type FP to mark that stem as the start of a new page.

Finally, the WORD PROCESSORS stem overflowed the leaf and you had to create a second stem below it to finish your text. You don't want the title for that second stem to print out, so go to it and mark it as hidden. Type GK and type WORD PROCESSORS CONTINUED as the key. Type FH to mark it as a hidden title. When you

MICROCOMPUTER SOFTWARE &+
SYSTEMS SOFTWARE &+
OPERATING SYSTEMS &.
TELECOMMUNICATIONS SOFTWARE &.
PRODUCTIVITY SOFTWARE &+
WORD PROCESSORS &+
WORD PROCESSORS CONTINUED &.
INFORMATION RETRIEVAL SOFTWARE &.
DATABASE MANAGEMENT SYSTEMS &.
SPREADSHEET SOFTWARE &.
GRAPHICS SOFTWARE &.

Figure 1. Example Outline for Printing

MICROCOMPUTER SOFTWARE F&+
SYSTEMS SOFTWARE F&+
OPERATING SYSTEMS F&.
TELECOMMUNICATIONS SOFTWARE F&.
PRODUCTIVITY SOFTWARE PF&+
WORD PROCESSORS F&+
WORD PROCESSORS CONTINUED HF&.
INFORMATION RETRIEVAL SOFTWARE F&.
DATABASE MANAGEMENT SYSTEMS F&.
SPREADSHEET SOFTWARE F&.
GRAPHICS SOFTWARE F&.

Figure 2. After Formatting Outline

print out the outline, the text in the WORD PROCESSORS CONTINUED leaf will appear contiguous with the text from WORD PROCESSORS.

Now, type GT to go to the top of the outline. You can type SK at this point to show the keys with the marks that have just been set. See Figure 2.

Step 2: Set Global Parameters

The next step in printing your outline is to set the global printing parameters. The page size is set by default to 60 lines per page. You can change it by using the AUX ROVE S option. (AUX ROVE is on the utility disk.) Type USP at the ROVE prompt with AUX ROVE loaded and then enter the number of lines per page that you want. Try 55 for this example. If you don't have the utility disk with AUX ROVE, type TE at the ROVE prompt. At the 0D0! prompt, type:

```
LANG SYS 55 TO PGSIZE ROVE
```

The 55 is the new page size. Type whatever number you want in place of 55, but make sure that your paper size will hold that many lines. If you enter 100 lines per page, it will overflow an 8-1/2 x 11 inch sheet of paper.

You might also want to change the left and right margin settings. If you type TS at the ROVE prompt, you'll get a display that includes the current settings for the margins. To change the margins, type FM at the ROVE prompt. When prompted, enter the new values. For this example, try 10 for the left margin and 75 for the right margin.

Another global setting that you can change is the line spacing or skip. You might want to double space the outline for a draft and later print it at single spacing. With the AUX ROVE menu, type USS and enter 1 to get double spacing, i.e., enter the number of blank lines you want skipped between printed lines. If you don't have AUX ROVE, type TE at the ROVE: prompt. At the 0D0! prompt, type:

```
LANG SYS 1 TO SKIP ROVE
```

to set up for double spacing.

If you are going to print the outline using one of the options that shows the indentation, you might want to change this value. The default setting is 2; that is 2 more spaces are used for indentation at each level of the outline.

If you have the AUX ROVE menu loaded, type USI and then type in the value 3 for the new indent size. If you don't have AUX ROVE, type TE at the ROVE prompt. At the 0D0! prompt, type:

```
LANG SYS 3 TO INDSIZE ROVE
```

to set the value for 3 blank spaces.

NOTE: You don't have to change these values if you are happy with the defaults. This example just shows how to change them if you want to.

Step 3: Print the Outline

The final step is to print the outline using one of the options from the O menu in ROVE mode. You can also use the print option in the AUX ROVE menu to print the outline with section numbers.

There are two options in the output menu in ROVE mode. First, move your topic cursor to the top stem of the outline you want to print. In this case, type GT to go to the top of the topic. Then, type OO at the "ROVE:" prompt to print the outline, obeying all format marks on stems and using indentation to show levels of the outline.

Type OP at the "ROVE:" prompt to print the outline, obeying all format marks on stems, but without any indentation to show the levels. All stems are left justified.

If you have the Utility Disk, you can also access the AUX ROVE menu option to print the outline with section numbers. Type UO at the "ROVE:" prompt and answer the questions that the program asks. If you don't have the Utility Disk, you can check on Issue 3 of the newsletter which contains a printout of this same program. You can

type the program into leafs as described in the newsletter and then run it.

Formatting Whole Topics

In the previous article, we talked about formatting the stems in a topic manually by alternately typing FF and GF. The following sequence of commands can be used to format an entire topic in KAMAS automatically.

First, make the topic you want to format be your current Build Topic and go to the top of the topic (GT at the "ROVE:" prompt)

Then, type TE at the ROVE prompt to exit to the language prompt, 0D0!.

At the language prompt, type in the following commands:

```
LANG SYS
LOOP MARKFJUST GF ?ENDLINK UNTILT .LOOP ROVE
```

These commands mark every stem in your topic for full justification. If you want to mark the entire topic for left justification, substitute the command MARKLJUST for MARKFJUST.

You can compare this sequence of commands to the commands that clear the READ ONLY mark on SYSTOPIC later in this issue.

Headers and Footers on Output

There is a command in the KAMAS language called PAGEGO, and there are two interesting things about it. First, it is executed at every page break. The value of PGSIZE, the page size, determines when the page break occurs. Second, PAGEGO is a go variable. Being a variable means that PAGEGO can be assigned different values, and, when it takes on one of those values, it takes on the characteristics of the value. For example, if you assign 3 to the variable x, then x takes on the characteristic of the value 3. Well, the interesting thing about go variables is that you assign commands to them.

When you get KAMAS, PAGEGO is initially assigned the NEWPAGE command. This makes sense because PAGEGO is executed at every page break. By assigning the NEWPAGE command to it, you get a formfeed sent to your printer at the page break. If the PGSIZE is 60 (the default setting), you get a formfeed after every 60 lines of printout. The default allows for six lines to skip the perf on standard 11 inch fanfold printout paper.

You can assign some other command to PAGEGO. For example, you can define a command that prints a footer, then issues a formfeed, and then prints a header. Then, you can assign that command to PAGEGO. After every 60 lines of printout, you get a footer, a formfeed, and a header at the top of the next page.

This is the basic idea behind the PRINTJOB command. You can edit a stem called PRINTJOB and place it in your UTILITIES topic in the branch called UTILITY JOBS. Then, you can run it by typing UU and then selecting PRINTJOB from the menu. You can also run it by typing GK and typing PRINTJOB for the key. Then, type GJ. You will be prompted for the name of the branch to print and for the Header you want to use and the Footer. PRINTJOB also changes the PGSIZE to allow room for the new header and footer.

Figure 3 shows the PRINTJOB stem. The first line is the title. PRINTJOB is the key. The space, dash, space, etc. make up the subtitle. You also need to make another stem that is a child of PRINTJOB. Call it PAGEBREAK. PAGEBREAK is shown in Figure 4. The key is PAGEBREAK; the subtitle starts with a space, dash, space.

Word Processing Enhancements on Utility Disk 1

Utility Disk 1 is full of word processing enhancements for KAMAS. There are commands that print titles only without the leafs, or keys only without the leafs or subtitles. The command to print keys also shows the format marks on each stem. Both of these commands are part of AUX ROVE. To

```

PRINTJOB - Jex this job to print with headers and footers

LANG SYS SETDEC
'PAGEBREAK KJEX
NEWLINE "Print What branch? " STOUT WORKST STIN WORKST KFINW WFNW
  IFSO BEEPW NEWLINE " -- NWFUNW" STOUT WOVE .IFSW
NEWLINE "What Header? " STOUT HEADST STIN
NEWLINE "What Footer? " STOUT FOOTST STIN
NEWLINE "Want to double space (N)? " STOUT NWAYS
  IFSO 1 TO SKIP ELSE 0 TO SKIP .IFSW
NEWLINE "Current page size is " STOUT PGSIZE WWWW
  "  Want new page size (N)? " STOUT NWAYS
  IFSO NEWLINE "New Page Size: " STOUT WWIN TO PGSIZE .IFSW
1 TO PAGE#
NEWLINE "Print in Outline format (N)? " STOUT NWAYS
  IFSO PRINTO ELSE PRINT .IFSW CLEAR SKIP 12 WCPRT WOVE

```

Figure 3. PRINTJOB. The top line is the title.

```

PAGEBREAK - Set up page break definition

LANG SYS SETDEC
'PGBREAK CMDFINW IFSO WRPD WEND .IFSW
'PAGE# :WVW
63 'FOOTST :STVW
63 'HEADST :STVW
'HEAD : HEADST STOUT PAGE# 79 WUTWNT W0- WWWW 1 +TO PAGE# .
'FOOTER : CLEAR LINCWNT CRLFOUT CRLFOUT CRLFOUT
  FOOTST DUPW STLEN 79 SWAPW W0- W2/ SPSWNT STOUT 12 WCPRT .
'HEADER : CRLFOUT CRLFOUT HEAD CRLFOUT CRLFOUT CRLFOUT CRLFOUT .
'PGBREAK : PAGE# 1 W0=
  IFSO CLEAR LINCWNT CRLFOUT CRLFOUT CRLFOUT HEAD 12 WCPRT
  ELSE FOOTER .IFSW HEADER .
'PGBREAK SETDFENCE 'PGBREAK WOGO PAGEGO

```

Figure 4. PAGEBREAK. The top line is the title.

print titles only, type UT. To print keys only, type UK.

If you type UO in ROVE mode, you can print an outline with section numbers or write it to a file with section numbers. You also have the option of outputting numbered titles only without the leafs. For Wordstar users, you can select to output a Wordstar document file instead of a strict ASCII text file.

If you type US in ROVE mode, you can set several global formatting options like the page size (USP), the line spacing (USL), or the indent size (USI). The indent size determines the number of spaces used to show indentation for each level of the outline. The default is two spaces.

There are also several jobs that add to the word processing capabilities of KAMAS. These are accessed by typing UU at the ROVE prompt. The UTILITIES topic must be available. Once you access the second menu, you can read a CP/M text file into a KAMAS topic (FINPUTJOB) or you can list a CP/M text file on the console (FLISTJOB). For you Wordstar users, you can now run a job that configures the editors in KAMAS to behave more like Wordstar.

FOCUS ON PROGRAMMING

In this issue, Focus on Programming contains an article with some tips on how to start programming in KAMAS.

Programming in KAMAS

The basic idea of programming in KAMAS is that you edit a leaf and type in a sequence of KAMAS commands. Then, you save those commands and exit. When you want to run the program, you go to the stem containing the sequence of commands, i.e., the program, and you type GJ at the ROVE prompt to Jex those commands. Jex stands for Job EXecute, i.e., run the program.

If you put the ROVE command at the very end of your leaf, it will return to ROVE mode when the jexing is complete.

So, for example, in the last issue of the newsletter, we listed the source code for some useful KAMAS programs contributed by some of our users. To run those programs, you create a stem with the key and subtitle shown in the listing and then you edit the leaf and enter the commands as shown. Once entered, you run the programs by going to the main leaf, called AUX ROVE, and type GJ to jex in all the branch containing the programs and add the AUX ROVE menu to KAMAS. After that, you type U to get the options in AUX ROVE.

Here are a couple of programming examples.

First, here's a simple program to print titles. Just enter the following commands into a leaf.

```
LANG SYS
"MY TOPIC" TBUILD
TOGPRINT
  TITLES
TOGPRINT
ROVE
```

LANG and SYS make the commands you will need accessible. Type the name of your topic within the double quotes. MY TOPIC is used in this example. The TBUILD command makes your topic into the Build Topic. Then, TOGPRINT turns on printing. The TITLES command lists all the titles without leafs from your topic. They will be printed and shown on the console at the same time. The second TOGPRINT turns printing off. Finally, the ROVE command returns to ROVE mode.

By the way, a better program to print titles is included on Utility Disk 1.

Another Example

Here's another example that programmers might find of interest. Programmers are using KAMAS to store source code routines according to function. This source code does not have to be KAMAS code. In fact, in this example, assume that the source code is in the C language. Let's assume that there are several routines that read in files and they are all stored in one branch. For a given C program, you only need to choose

one of the routines. Similarly, you might have several programs that write files in a single branch.

When you want to put together a working C program, you select stems containing the routines you need and produce a CP/M text file that consists of the stems you have selected concatenated together.

```
LANG SYS 'MYSOURCE.C STARTLOG
"READ MODULE 1" KG SHOWLEAF
"PROCESS PROG 3" KG SHOWLEAF
"WRITE MODULE 2" KG SHOWLEAF
STOPLOG ROVE
```

This is a very simple example, but it shows the basic idea of concatenating selected stems to form a single output file that contains the stems in series.

This idea can also be useful in other applications besides programming. For example, suppose you write up contracts. The basic contract might have separate sections, but different sections might have alternative paragraph wordings. You can store each alternative in a branch and then print out the contract by selecting the specific alternatives you want to use at a given time.

FROM USER GROUPS

If any of you are interested in establishing KAMAS User Groups or KAMAS Interest Groups within a larger user's group, let us know and we'll publish your name and address in the newsletter so others can contact you.

If you already have a KAMAS User Group or Interest Group, send us any news you have and we'll publish that too.

We know that there is a lot of interest in KAMAS at the Bay Area Kaypro Users and Programmers (BAKUP). There has been a review of KAMAS in their newsletter and strong interest from their members. If you

are in this area and want to contact some of the other KAMAS users through BAKUP, try contacting the user group through 415-524-4195. You can find out when and where they meet and then attend one of their meetings. You're likely to run across some KAMAS users that way.

FROM THE SUPPORT LINE

This article addresses some of the questions we've received from all of you out there. It includes some hints on getting started with the new Utility Disk, tips on editing SYSTOPIC, answers about time stamps, and a listing of the TCOPI program that was mentioned in the last newsletter.

Tips on Using the Utility Disk

You may have recognized some of the programs included on the Utility Disk from Issue 3. The good thing is that you don't have to key in that code and then debug the typos that you inevitably end up with. It's a real time saver to just plug in the Utility Disk and run.

As we said, some of these programs are the type that you'll want to use frequently. You probably won't want to go through the time delay of loading these into memory on each occasion that you want to run them. So we've created an AUX ROVE extension that allows these functions to be loaded into memory when KAMAS is initializing. This makes the initialization longer but once they are in memory you can quickly execute any of these functions through a new ROVE menu. You first type U at the main "ROVE:" prompt and then press another single key to run the program of your choice. Help is available in the same way as with other ROVE menus by typing the "?" key after you've pressed U. If your help level is set to 3, you'll get the usual "MORE HELP?" prompt.

The other programs are ones that you'll want to run less frequently, but they can also be run from the U menu in ROVE. The only thing is that they'll have to be loaded into memory each time you run them, so

they'll be slower.

The tradeoff here is because of the limited memory space on CP/M computers. The programs that reside in memory are taking up space from something else. In this case, they occupy space that could otherwise be used by the Outline Editor. This means that you can expand fewer titles at one time when you are editing outlines with AUX ROVE loaded in than you can without it. They take about half of the memory for Outline Editing. It should be worthwhile to give up the space. You can always collapse a portion of the Outline that you are not working on in order to expand the portion that you are working on.

The detailed instructions for installing the utilities are in the USER'S GUIDE branch. The READ,ME file tells you how to print out the USER'S GUIDE. The general idea is that we have included an INSTALL program in UTILITIES. You run it according to the instructions in the USER'S GUIDE. It deletes your AUTOJEX and replaces it with a new one which lets you load in the AUX ROVE extensions during initialization of KAMAS. If you have a customized AUTOJEX, you'll have to combine your customized routines with the new AUTOJEX.

The New AUTOJEX

The new AUTOJEX contains a "quick" routine that lets you manually set the date and time. This routine contains no error checking at all so type it in carefully according to the required format:

YYMMDDHHMM

YY is the last two digits of the year. The first MM is a two-digit month; use a leading zero for 1-9. For example, January is 01; February is 02; etc. DD is a two digit date; again, use a leading 0 for 1-9. HH is a two digit hour; use a leading zero for 1-9. The second MM is a two-digit minute; use a leading zero for 1-9. The hour and minutes should be entered according to a 24-hour time. For example, 8:00 PM is 2000; 11:00 AM is 1100. You have to add 12 to any hour after noon and before midnight. Midnight

is 0000; noon is 1200.

The Otrona and Epson versions do not prompt for manual input of the date; they both use the real time clock and automatically set the date.

The date and time are used to stamp any topics or stems you create. If you don't use the stamps, just type return for the date to keep the default value. See the article on Time Stamps for more information.

Next, the AUTOJEX prompts you to initialize your printer. If you have a Panasonic 1092 printer, you can type Y. Otherwise, type N. The code supplied with the UTILITIES disk initializes the Panasonic 1092. You can modify this part of the AUTOJEX to work with other printers. For the Panasonic 1092, the codes set the printer for: 1/8 inch line spacing (KAMAS is set for 88 lines per page to match this spacing); 96 character per inch font; detecting paper out; a left margin of 4 characters. If you don't know how to modify the AUTOJEX for your printer, find someone who knows about hexadecimal and sit down with your printer manual. Usually, the manual will show a chart or table that lists different parameters that can be set for your printer. The codes usually start with 1B or ESCape and are followed by one or two other hex digits. Refer to the AUTOJEX code in the stem called MY FAVORITE AUTOJEX in the UTILITIES topic. It will show you the code used for the Panasonic 1092 which should be similar to other printers. If any of you work out the codes for the Epson or other printers, send them in and we'll publish them.

Then, the new AUTOJEX prompts you to load the AUX ROVE utilities. The UTILITIES topic must be available if you answer Y to this prompt. See the article on strategies for using UTILITIES for more information about this.

Finally, the new AUTOJEX lists the topics available on all drives and prompts you to edit one of them. If you enter a topic, the one you specify becomes the Build Topic and you enter the Outline Editor. If you just press the RETURN key, you enter ROVE mode with SYSTOPIC as the Build Topic.

Strategies for Loading AUX ROVE

If you use the new AUTOJEX and load AUX ROVE when prompted, the UTILITIES topic must be available. If you have a hard disk or double sided floppy drives or several extra drives (i.e., RAMDISKS), this should prove to be no problem. Just copy the UTILITIES topic onto your hard disk or RAMDISK using PIP or put the Utility Disk in one of your extra floppy drives or copy it onto your working system disk on double sided floppies. You should be able to find room for it somewhere so that it will be accessible when you need to load it from AUX ROVE.

If you have a Kaypro II or an Osborne 1 or an Osborne Executive with no RAMDISKS and no hard disks, you will find yourself cramped for space. Here are two suggestions that can help.

Suggestion 1: Start with KAMAS in drive A and the Utility Disk in drive B. After you invoke KAMAS and the AUX ROVE is loaded, you will have to change drive B to your data disk. **DON'T JUST SWITCH THE DISKS!** Use the TN option in ROVE mode. **AND BE SURE TO WAIT UNTIL YOU ARE PROMPTED BEFORE YOU SWITCH THE DISKS!** CP/M 2.2 is very picky about changing disks. Type T at the main "ROVE:" prompt. Then, type N at the "TENV:" prompt. Then, it is possible that you will see or hear some disk activity on drive B. There may be some pending writes when you decide to change disks. In other words, there could be some data left in the computer's memory that needs to be written to the disk before the current topic files can be closed and before you can safely switch disks. KAMAS takes care of this before clearing the topic context. Only then will you be prompted to change disks with the "NEW DISK, READY?" prompt. Only then is it safe to switch the disks. Once you have the data disk in drive B, press the Y key at the prompt to continue.

This suggestion is fine except when you want to run one of the Utility jobs that are not resident in memory, like reading a CP/M text file into a KAMAS topic. To do these jobs, the UTILITIES topic must be

mounted. Somehow, you have to be able to have your data topic, the CP/M text file that you want to read in, and the UTILITIES topic all available at once. And your Working System Disk takes up all of drive A. Any way you look at it, that's a lot to squeeze onto drive B. So here's another suggestion.

Suggestion 2: Make a "NO FRILLS SYSTOPIC" on your Working System Disk. The smaller SYSTOPIC is 8K in size and contains only the AUTOJEX leaf and two help screens. It no longer contains most help screens for menus or abends. Here's how to make this smaller SYSTOPIC. If you have the Utility Disk, fire up KAMAS and load AUX ROVE. Keep the UTILITIES topic available on drive B. Type U at the main "ROVE:" prompt. Then, type U again to get the Utility Job prompt. The item you want on that menu is called MAKE 8K SYSTOPIC. If you don't have the Utility Disk, here's how you can make an 8K SYSTOPIC anyway:

1. Fire up KAMAS with the Working System Disk in A and a data disk in B.
2. Type GK (Go Key) and type AUTOJEX for the key name.
3. Type EL (Edit Leaf).
4. When the AUTOJEX leaf appears, type ESC M (the escape key followed by M) to mark the start of a block. Move the cursor to the end of the leaf and type ESC C (the escape key followed by C) to copy the leaf to the yank buffer.
5. Type ESC ESC to exit the leaf editor.
6. Type TK (Topic Kill) and type SYSTOPIC. **NOTE:** This step kills SYSTOPIC from your Working System Disk. Only do this step on a Working copy of KAMAS so that the original SYSTOPIC can be restored from the Master System Disk.
7. Type TP (Topic Prepare) and type 8 for the size and A:SYSTOPIC for the name.
8. Type ID (Insert Down) and type AUTOJEX for the key name. This inserts an AUTOJEX stem in the new 8K SYSTOPIC.

9. Type EL to edit the new AUTOJEX leaf. Type CTRL-Y to yank the text you saved in the yank buffer from the old AUTOJEX leaf. NOTE: If you have configured KAMAS for Wordstar, use CTRL-O instead of CTRL-Y.
10. Type ESC S (the escape key followed by S) to save the new AUTOJEX leaf.
11. Type ESC ESC (escape key two times) to exit the leaf editor.

You now have an 8K SYSTOPIC and 120K of extra space on your KAMAS Working System Disk in drive A.

Problem with Early Utility Disks

A few of the early Utility Disks that we sent out had a minor problem in them that can be easily corrected as follows.

First, fire up KAMAS with the Utility Disk in drive B. Then, type TB and type B:UTILITIES to answer to the topic prompt. This mounts the UTILITIES topic as the Build Topic. Next, type GK and type OUTPUT LOOP as the key.

Now, type EL to edit the OUTPUT LOOP leaf. Move your cursor to the end of the leaf. The fifth line from the end of the leaf reads as follows on the incorrect versions:

```
IFSO 79 OUTCOUNT WO- SWAPW STLEFT .IFSO .IFSO
```

Move your cursor to the second .IFSO at the end of the line and type STOUT between the two .IFSOs. The line should look like:

```
IFSO 79 OUTCOUNT WO- SWAPW STLEFT .IFSO STOUT .IFSO
```

Finally, move the cursor down to the next line. This line reads as follows on the incorrect versions:

```
STOUT BOLD NEWLINE
```

Delete the STOUT so that the line reads:

```
BOLD NEWLINE
```

Now, save the leaf by typing ESC S (escape key followed by S). Exit the editor with ESC ESC (two escape keys).

The problem caused by the STOUT command being in the wrong place was that when you printed an outline with the numbering scheme and the top stem had no subtitle, the program would halt with a PSTACKEMPTY abend.

Editing SYSTOPIC

Most of the stems in SYSTOPIC are marked READ ONLY so you won't accidentally delete them while you are learning KAMAS. After you know your way around the system better, you might want to edit help screens or abend messages to suit your needs better. Here's a sequence of commands you can use to clear all the READ ONLY marks so you can edit SYSTOPIC.

First, type TE (Topic Environment Expand) at the "ROVE:" prompt. You will then get a "OD0!" prompt. Type in the following commands as shown:

```
OD0! LANG SYS
OD0! 'SYSTOPIC TBUILD LOOP CLRO GF
3D1& ?ENDLINK UNTILT .LOOP ROVE
```

The ROVE command at the end of the line returns you to ROVE mode with SYSTOPIC as the Build Topic.

See the article on marking stems in the Word Processing section of this issue for a similar sequence of commands that mark stems for formatting.

Time Stamps

If you have used the new AUTOJEX supplied with the UTILITIES disk, you have probably run into the date prompt. Even if you don't have the UTILITIES disk, you may have noticed time and date displays when you list topics or show keys or you do a show view.

KAMAS has a built in time and date stamp. Whenever you create a topic, it is stamped

with the current date as the creation date. If you list topics with the TC or TT options in ROVE mode, you'll always see this value. The creation date is never changed even if you later modify the topic or edit it.

Each stem in a topic is also stamped with the date and time. In the case of stems, the stamp is updated each time you edit the stem with the leaf editor. To see this value, type FS at the ROVE prompt. Then, every SV, SK, QV, or QK will show the date and time for each stem. To turn off the display of stamps, type FS again. Alternate FS's toggle the display of stamps.

The Epson and Otrona versions of KAMAS both use the built-in real time clock to set the date and time stamps before they are used. You never have to manually set the date on these two versions. But on other versions of KAMAS, you either use the default date and time setting that we put in or you set the stamps manually. The new AUTOJEX lets you enter the date and time during initialization. Then, the date and time you entered will be used on all topics created or stems edited during that session.

If anyone has figured out how to make the Kaypro IV work with the built-in real time clock, send us the routine and we'll publish it in the next newsletter.

TCOPY Revisited

In the last issue of the newsletter, we discussed an undocumented job in SYSTOPIC called TCOPY. Unfortunately, we forgot that TCOPY was not available on all versions of KAMAS. We had to leave it out of the Osborne version because of disk space. Well, TCOPY is now available on the Utility Disk 1. It is also printed below in Figure 5 for those of you who missed out on it.

TCOPY should have been called RESIZE because you should not use it just to make backup copies. There are plenty of CP/M programs like PIP or NSWEEP that you can use to make backups. TCOPY was intended to allow you to change the size of your topic files (either larger or smaller). It exhaustively re-indexes the entire topic, so

it is really too slow to use just to create backups. It's indispensable though if you run out of room in a topic or if you did not fill up a topic and you want to squeeze it down and free up some of the extra space you allocated.

USING SPECIFIC VERSIONS

This part of the newsletter contains information about specific versions of KAMAS that run on different computers. You can find tips and techniques related to specific hardware here.

Osborne Executive Bug

We have found that there is a bug in the operating system of all Executives, i.e., all ROM versions and all BIOS versions, that can cause your keyboard to lock up while running software on the Executive.

To avoid this problem while running KAMAS, run the SETUP program on the Executive.

1. Set the Modem port as follows:
 - 1.1. 300 or 1200 baud
 - 1.2. Device selections: OTHER (AUXIN:/AUXOUT:)
2. Set the Printer port as follows:
 - 2.1. 300 or 1200 baud
 - 2.2. Device selection: PRINTER (LST:)

In no cases should any of the above settings show the value "none" when you run SETUP.

When you exit SETUP, select the option to save the new settings permanently to disk. You should then boot from the disk you've set up before you run KAMAS.

KAMASBBS on the Morrow MD2/3

The KAMASBBS source code in SYSTOPIC

TCOPY

```
LANG
; Just Jex this leaf to run this job (it returns to ROVE)
; You'll be prompted for the necessary parameters
; TCOPY completely re-indexes a topic--a lengthy process.
;
SYS SETDEC 'TCOPYJOB :JOB
'?DOWN :FLAGVAR '?LEAF :FLAGVAR
'NEWSIZE :WOVAR 'LEAFSIZE :WOVAR 'UPCOUNT :WOVAR
32 'OLDTOPIC :STVAR 32 'NEWTOPIC :STVAR 32 'LASTOLDKEY :STVAR
32 'LASTNEWKEY :STVAR 64 'OLDSUBT :STVAR
' CUEOLD : OLDTOPIC TBUILD LASTOLDKEY KG .
' CUENew : NEWTOPIC TBUILD LASTNEWKEY KG .
' INDENT : NEWLINE 5 SPSOUT .
' TRAVOLD : 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 .
'GETPARAMS : INDENT "OLD TOPIC: " STOUT FOR OLDTOPIC STIN
  INDENT "NEW TOPIC: " STOUT FOR NEWTOPIC STIN
  INDENT "NEW SIZE: " STOUT WAIN TO NEWSIZE .
'PREPNEW : NEWSIZE NEWTOPIC TPREP .
'PUTNEWLEAF : ?LEAF IFSO LEAFSIZE PUTLEAF .IFSO .
'READOLD : NEWLINE "READING: " STOUT GETKEY STOUT
  GETKEY TO LASTOLDKEY GETSUBT TO OLDSUBT GETLEAF
  IFSO RAISE ?LEAF CUELEAF SWAPW DROPW TO LEAFSIZE
  ELSE CLEAR ?LEAF .IFSO .
'WRITING : \`OD`\ ASCII WCOU "WRITING: " STOUT .
'WRITENEW : UPCOUNT LOOPS GU .LOOPS
  WRITING LASTOLDKEY STOUT
  LASTOLDKEY OLDSUBT ?DOWN IFSO TID ELSE TIN .IFSO
  GETKEY TO LASTNEWKEY PUTNEWLEAF .
'COPYTOPSTEM : READOLD
  NEWTOPIC TBUILD GETKEY TO LASTNEWKEY
  WRITING GETKEY STOUT
  OLDSUBT PUTSUBT PUTNEWLEAF .
'TCOPY : NEWLINE "==== TOPIC COPY =====" STOUT
  GETPARAMS PREPNEW OLDTOPIC TBUILD
  NEWLINE "==== COPYING AND INDEXING TOPIC STEMS =====" STOUT
  COPYTOPSTEM
  LOOP CUEOLD TRAVOLD ?ENDLINK UNTILT
  READOLD CUENew WRITENEW .LOOP
  NEWLINE "==== TOPIC COPY DONE =====" STOUT .
;
TCOPY DONE
.SYS .LANG ROVE
```

Figure 5. TCOPY. The top line is the title.

on some Morrow MD2/3 versions has an error in it. This error is only in the Morrow MD2/3 version of the source. The other versions are fine. To correct the error, edit the KAMASBBS leaf in SYSTOPIC and delete the phrase 300 SETBAUD from the FLUSH command. You will have to clear the READ ONLY mark from the KAMASBBS leaf. To do this, go to the KAMASBBS leaf (type GK and type KAMASBBS as the key). Then, type TE at the ROVE prompt. At the "0D0!" prompt, type:

```
LANG SYS CLRD EDIT
```

Now, you can edit the leaf. The FLUSH command is about halfway down the leaf. The line reads:

```
'FLUSH : HAYESCMD 300 SETBAUD ATHAYES HAYESCMD .
```

Just delete the 300 SETBAUD so the corrected line reads:

```
'FLUSH : HAYESCMD ATHAYES HAYESCMD .
```

Save the new leaf and exit the editor. After you make this change, KAMASBBS should run fine on the Morrow MD2/3.

Running KAMAS on Hard Disks

Here's a pointer for those of you who run KAMAS with a hard disk. We ran across this in talking to some of you. And, also, in our own in-house usage of KAMAS on the Morrow MD5 hard disk system.

The tip has to do with User Areas and it's different for CP/M 2.2 systems like the Kaypro 10 and CP/M 3.0 systems like the Morrow MD5.

For CP/M 2.2: If you want to run KAMAS in a User Area other than 0, you must place a copy of all KAMAS files in that User Area. The following files must be present: SYSTOPIC.TOP, KAMAS.COM, KAMAS.OV0, KAMAS.OV1, KAMAS.OV2, KAMAS.OV3, and KAMAS.SWP. You have to have complete copies of KAMAS in each User Area that you want to use KAMAS. KAMAS does not know or care what User Area it is operating in. If you ask it to make new files, it will place them in the User Area that you are running

in. For example, if you are running on a Kaypro 10 with KAMAS in User Area 12, and you prepare a new topic on the floppy drive C, that new topic will be placed in User Area 12 on the floppy drive C. Don't be confused if you later try to do a DIR on drive C from the A> prompt and you don't see the topic. The topic is out there in User Area 12; you have to be at the A12> prompt to see it with DIR.

For CP/M 3.0: If you want to run KAMAS in a User Area other than 0, you need only place a copy of the file KAMAS.SWP in the given User Area. You also need a single complete copy of KAMAS in User Area 0. See the files listed above. On our MD5 system (CP/M 3.0), we place all of KAMAS in User Area 0 of drive A on the hard disk. Then, we SET all of the KAMAS files as System type files:

```
A>SET KAMAS.*[SYS]  
A>SET SYSTOPIC.TOP[SYS]
```

This way, the operating system will find KAMAS no matter what User Area you invoke it from. KAMAS finds its overlays OK. Once you're in another User Area running KAMAS, you won't be able to access topics outside of your User Area. You won't even see topics in alternate user areas when you do the TT command, including SYSTOPIC.TOP.

Using the Epson RAMDISK

(Bill Wisniewski wrote in with the following tip for Epson QX-10 users. Thank you, Bill)

"This is for EPSON QX10 owners/users with the CP/M 2.2B release.

Simply: the Epson QX10 with the RAM DISK (CP/M 2.2B) can increase the speed of executing KAMAS files and routines by a factor of 2 to 10 times.

For example:

- Files created and later BUILT upon can be retrieved from Drive M three times faster than those from Drive B.

- When in the Rove Edit Outline mode: Topic, Title and Leaf editing is approximately 10 times faster with RAM Drive M than with Disk Drive B. Saving the edited data is extremely fast with Drive M.
- The TCOPY Utility execution time can be cut by more than half by Reading from Drive B and Writing to Drive M. For example, moving a 30K file with TCOPY to a new 64K file on Drive B used up over 12 minutes. This same file was Read from Drive B and written to the RAM (Drive M) in less than 6 minutes.

To take advantage of the RAM Drive, I use 'INDEXER' (always on the default drive) to examine and move my files around. The file to be edited is moved to Drive M after booting up in CP/M and before executing KAMAS.

The RAM Drive is very handy and does execute files considerably faster. Unfortunately, its capacity is only 112 K. Therefore, one must be careful about the size of files used in Drive M.

Another drawback is that KAMAS's status screen does not show Drive M as an active drive. There probably is a patch that will take care of this. (Editor's Note: See the article on Setting MAXDRIVES to take care of this.)

Another feature that QX 10 owners may want to use is the "FUNCTION KEYS MODIFICATION" routine available in CP/M 2.2B. Some modifications that I use are: (Read Function Key, New Modified Meaning)

MENU	KAMAS = Executes KAMAS
STOP	CTL C = Stops Screen Scrolling of Outlines
STORE	ESC S = Saves Edited Leaf

I'm confident that other function keys can be modified to execute KAMAS commands. Perhaps with the 'pause' feature of the function keys modification routine, the most often used commands (such as EO, GT, TT, TC, SL, etc) can be cut to one key stroke. Cutting keystrokes cuts time and certainly cuts errors."

Running KAMAS on RAMDISKS

As Bill Wisniewski's letter points out, KAMAS runs wonderfully on most RAMDISKS. The following list indicates which RAMDISKS we've had reports about. If you have tried KAMAS on a RAMDISK, let us know what kind it is and we'll include it in a later issue of the newsletter.

EPSON QX10

The built-in RAMDISK on the Epson QX10 works fine under CP/M 2.2 A or CP/M 2.2 B.

SemiDisk Every SemiDisk we've ever tried or heard of (on Epson and Kaypro) have worked fine.

Drive C We've had reports from Osborne 1 customers that this RAMDISK works fine with KAMAS.

SWP The Co-Power 88 board includes a RAMDISK that can be used with CP/M 2.2. Early versions of this RAMDISK did not work. These early versions included software that only let you have the RAM drive on drive M. The newer software (which is shipped with the "official" Kaypro upgrades) works fine. The newer software lets you select the logical drive for the RAMDISK.

MICROSPHERE

Early versions would not work. We contacted Don Thompson who now has new software that works fine. If you have one of the early versions, you can get an upgrade from MICROSPHERE.

In many of the problem cases that we investigated, the RAMDISK software was trapping the SELDSK BIOS jump and not returning the Z80 HL register pair equal to 0 when no drive exists (as specified by Digital Research for the SELDSK BIOS call). KAMAS uses this feature of CP/M to search more than one drive and we depend on strict adherence to the Digital Research specifications for the SELDSK BIOS call.

Changing MAXDRIVES

If you have set up a RAMDISK, or you have extra floppy disk drives, or you have added a hard disk to your system, you are probably using more than the two drives that are set up for KAMAS as a default. When KAMAS initializes, it looks for SYSTOPIC on drive A or B and then executes the AUTOJEX leaf from the SYSTOPIC it found. If you want to run KAMAS from some other drive, for example drive C and up, and you want it to find SYSTOPIC on the other drive, here are some steps you can follow. The basic idea here is that you patch the KAMAS.COM file to look for SYSTOPIC on drives beyond B.

1. Place your KAMAS Working System Disk in drive B.
2. Place a CP/M operating system disk containing the file DDT.COM (or SID.COM) in drive A. Type CTRL-C to warm boot the system.
3. Carefully, type in the following sequence of commands. Type in the number of drives you have where indicated by xx.

(a) For KAMAS V 1.1x on CP/M 2.2 Systems:

```
A>DDT B:KAMAS.COM
NEXT PC
9000 0100
-S1930
0193 02 xx <<<<< Drive no. goes here.
0194 90.
-G0
A>SAVE 143 B:KAMAS.COM
```

(b) For KAMAS V 1.1x on CP/M 3.0 Systems:

```
A>SID B:KAMAS.COM
NEXT PC
9000 0100
-S178
0178 02 xx <<<<< Drive no. goes here.
0179 XX.
-WB:KAMAS.COM,100,8FFF
-G0
```

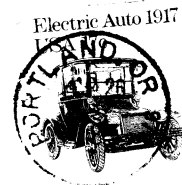
4. Your KAMAS Working System Disk in drive B is now ready for use.

If you want to set KAMAS for using 3 drives (A, B, and C), type in 03 where the xx appears. The value you enter must be in hexadecimal. This patch works best if all your drives are contiguous (with no intervening non-existent drives).



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