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A GUIDE TO RAMUP

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INTRODUCTION

WHAT IS RAMUP

RAMUP is software that EASILY & with NO programming know how allows you to fully utilize your RAMCARDS.

RAMUP takes your favorite software and creates a Powerful WorkStation on your Applied Engineering RAMCARD (s)

RAMUP was designed based on the ideals of taking the "World of AppleWorks" and your favorite Software and bringing them together inside your computer. RAMUP users switch from program to program with a menu, not disks, and they do it in seconds, not minutes. With RAMUP you'll go from AppleWorks to Graphworks in less then 3 seconds, EFFORTLESSLY.

With RAMUP you'll Concentrate on your Work, and not which disk to install.

Once your programs are loaded, the RAMUP DESKTOP MENU will appear. This menu will be your way of flipping from program to program. The DESKTOP MENU will appear every time you leave (quit) a program, such as AppleWorks. From the DESKTOP MENU, pick the program you wish to use, YOU'RE THERE!!. No need to load it, it's already in memory.

Since RAMUP is a RAM BASED WorkStation, RAM is a very important requirement, the more RAM you have the more programs you will be able to load into your computer at any ONE time.

RAMUP offers you the "World of AppleWorks" on a RAMCARD.

MINIMUM HARDWARE

Apple //e, //c
Applied Engineering RAMCARD 256K+

SUGGESTEP HARDWARE

1 Meg 2ram
1 Meg RamWorks   Gives AppleWorks maximum Expansion
1 Meg RamFactor   Bootable RAMDISK and AppleWorks Expansion
Battery Backup   Provides constant storage (ie..hardisk) '
Transwarp Accelerator 40% faster than a GS
Unidisk   Fit your WorkStation on one Disk (non stop) loading.

RAMUP comes ready to use with many of your favorites:

    AppleWorks 1.2 1.3 2.0
    AppleWorks with MACROWORKS
    AppleWorks with AutoWorks
    Ascii Express
    FontWorks
    Graphworks
    Reportworks
    ThinkWorks
    MultiScribe
    MouseWrite
    Pinpoint Accessories
    Pinpoint Spell Checker
    Sensible Speller
    Sensible Grammar
    SideWays

You can also include your own personal favorites, See ADDING YOUR OWN: (page 17)

RAMUP will be updated as more programs become available.

CONFIGURING YOUR PROGRAMS

Most of your software will work with out any modifications to it. Their are some things you should watch for. Please Review "Notes on SoftWare" that accompanied your RAMUP program.

,IMITATIONS

* RAMUP works with unprotected ProDOS programs (a few may be protected)

* They must have the ability to run from another Volume or Directory

* Memory size will be an important factor. It won't take long before you realize why we recommend 1 Meg of memory. You may expand RAMWORKS or RAMFACTOR to 16 Megs.

RAMUP: A quick overview

Checks your RAMCARD (s) and then prepares them

Helps you easily upload your selected programs into RAM.

Provides you with a Menu of Programs on your Desktop

When you quit one program, pick the next from the DESKTOP MENU!

Allows you to add or remove programs, making room for more frequently used applications.

You can boot other software (ie..Print Shop) and latter return to your WorkStation as your last left it.

RAMUP comes with a pre-programmed data file that is ready to load many of your favorites

You can customize your RAMUP to add your personal favorites to the list

GETTING STARTED

Why A tutorial

RAMUP is very easy to use, you may not even need this tutorial. BUT, WE REALLY THINK YOU SHOULD READ THIS!!!! Anyway, it doesn't take more then 10 minutes!!, and at worst you'll learn some real neat tips.

About the Tutorial

When I ꞈ walked through tutorials, I always like it when I am told what I will be doing, then Shown how to do it, and lastly given a summary of what I have done. With that in mind, I will use the 1 2 3 method for each step of this tutorial.

1. I'll explain what we are planning to show you
2. I'll show you
3. I'll then Summarize what we did!

First, we'll start the Tutorial by booting RAMUP, starting a new WorkStation, and then loading AppleWorks.

STARTING YOUR RAMUP WORKSTATION

Insert your copy of RAMUP and TURN on the computer!!

NOTE:
RAMUP will check to see if you have already loaded your WorkStation earlier. If it cannot be found, you will be brought to the WorkStation Startup Menu.

Because we have not loaded a WorkStation since we last turned on our computer, we will be brought to the Startup Menu.

UPLOADING YOUR SOFTWARE

From the Startup Menu

PRESS ESC to select Programs by Title (s)

Use the up and down arrow keys to move through the list of programs. To mark a program, press return when the cursor is highlighting your selection. To Unmark, press Return again at the desired selection, it works like a toggle switch.

Select AppleWorks and press RETURN

(If you do not have AppleWorks, select any other program listed that you have in your program library)

Press ESC

NOTE:

When loading programs it doesn't matter how many drives you have or even what drive you put the disk in. As long he disk RAMUP is looking for is in one of your floppy drives, RAMUP will find it. If RAMUP cannot find the program it is looking for you'll see the message:

"Make sure correct disk (s) are installed"

Insert your AppleWorks Startup Disk in drive 1 and your AppleWorks Program disk in drive 2.

TIP:

If you only have one drive, insert the Startup disk. When the prompt "Make sure correct disk (s) are installed" Appears, then install the Program disk. SIMPLE!!!

Press RETURN to begin loading

After AppleWorks is loaded, you will see your DESKTOP MENU.

THE DESKTOP MENU

In the box are the programs currently loaded, these may be run directly.

Under "Accessories Loaded:" you will see optional programs that may not be run directly. For example, you might see Sensible Speller's "Random.house.1" or Pinpoint's "Accessories."

SELECTING A PROGRAM

Let's Continue!!

Next, we shall start a letter with AppleWorks. Then return to the DESKTOP MENU, and then back to AppleWorks. This will help familiarize you with the procedure of leaving one program and returning to another.

From your DESKTOP MENU

Select AppleWorks

Do so by:
Highlighting AppleWorks and Pressing Return

Now lets type a letter to George:

Follow the summarized AppleWorks Procedure listed below
(Partial working knowledge of AppleWorks is needed)

1. Add files to desktop

3. Make a new file for Word Processor and call it "GEORGE.PAY.ME"

Now Type:

Dear George:
How is the new job coming along in California, I hear you are making a
lot of money at the donut shop. Which reminds me, you still owe for
Eric's Present. With interest and such it only comes to $50,000.00.

Now to show you how to get back to the Desktop Menu, while saving
your data on your RAMDISK

LEAVING A PROGRAM

TIP:
If a program you are using doesn't have the QUIT option you'll
have to insert your RAMUP disk and press CONTROL – OPEN
APPLE – RESET, letting go of reset first. When the fist page
of the RAMUP program appears, Press Return. RAMUP will
realize your WorkStation is already loaded and then return you
to your DESKTOP MENU.

Quitting Examples:
Ascii Express uses the "X" key to exit
MultiScribe uses the Apple "Q" combination
GraphWorks exits the same way as AppleWorks 6 Return Y

If a program leaves you in basic with the "]" prompt, type the
word BYE. This will return you to your DESKTOP MENU

Getting Back to the DESKTOP MENU

To get to the DESKTOP MENU, you will quit the program you are
using.

Since were still in AppleWorks, Press ESC to get to the Main Menu.

Select 6. Quit.

Do you really want to do this? No Yes

YES YOU DO!!!!!

Move the cursor to Yes and press return

AppleWorks now reminds you about GEORGE.PAY.ME

GEORGE.PAY.ME

You created this file!

Since we are not done typing our letter we will save it on the
RAMDISK in the computer, where we can get it latter.

SAVING DATA ON YOUR RAMDISK

TIP:
You will find saving Data on your RAMCARD convenient,
especially when transferring between programs. ie..
AppleWorks, GraphWorks, Sensible Speller.

From AppleWorks Main Menu

First change to another Disk or Directory

Select Profile or other ProDOS Directory

Enter ProDOS prefix:/RAM/DATA

RAMFACTOR TRS Note:
   Your ProDos Prefix will be different. For example, if your
   RAMFACTOR card has been installed in slot 5, your prefix will
   begin with /RAM5/. Or if your card is installed in slot 7 your
   prefix will begin with "/RAM7/. "DATA" will not Change, ie.
   "/RAM5/DATA"

WARNING:
   Saving your data on your RAMDISK is good practice, but don't
   forget to save it to disk.

PRESS RETURN

After the file is "Carefully saved", you will leave AppleWorks and
   return to the DESKTOP MENU

   From the DESKTOP MENU, you could select FILER and make a
   BACKUP copy of your RAMUP disk. Filer may also be used to
   backup/restore your RAMDISK Data. Please read **BACKING UP
   WITH FILER** (page 16)

Now lets go back to AppleWorks and finish our letter to George.

From the DESKTOP MENU

   Highlight and press return at AppleWorks.

From AppleWorks Main Menu

Select "Add files to Desktop"

   A different disk

   ProFile or other ProDOS directory   .

   Enter ProDOS Prefix:/RAM/DATA

You now see the "RAM/DATA" directory. This is (e you could store all your data files. Save them to floppies when you want to make a backup of a file. So in the event of a power failure, or other natural/unnatural disaster, your work is still safe.

The simple task of backing up your data may add years to your expected life span!!

Press RETURN at "GEORGE.PAY.ME"

At the wink of an eye, your back in your Word Processor and ready to continue your letter to George.

Summary:
We have shown you how to save data on your RAMDISK, leave a Program, returning to the Desktop menu, and then return to the same Program, loading the file we had saved earlier. It will be important to know how to exit (quit) each program properly. (see "Notes on Programs" included with your RAMUP package)

ADDING OR REMOVING PROGRAMS

After loading your RAMUP WorkStation you may find other software that you would like to include on your desktop.

We will show you how to add another program to your DESKTOP.

FROM the AppleWorks Main Menu

Select 6 and Quit AppleWorks, as we did earlier

From the DESKTOP MENU

Select Add/Remove

NOTE:
From time to time, you might want to Remove programs to make room for others.

From the RAMUP Add/Remove Menu

Press ESC

"[A]DD or [R]emove programs"

Press A to add

Using the arrows and your RETURN key select any software you
wish to add to your RAMUP WorkStation.

Press ESC, when finished selecting

PRESS RETURN to begin loading

Insert Disks as prompted

RAMUP will load your selected programs:

When the DESKTOP MENU Reappears, the software you have
added is also shown on the DESKTOP MENU. If you load
Accessories you will see them under "Accessories loaded:"

LEAVING YOUR WORKSTATION

Once your programs are loaded, you can still use Print Shop, or
any other program which cannot be loaded by RAMUP. It's Ok,
you can leave your RAMUP WorkStation and return to it latter,
without reloading!!

Insert a program such as Print Shop (or even the RAMUP program disk
will do)

To BOOT any Disk, Press

CONTROL - OPEN APPLE - RESET all at once
letting go the of RESET key first.

RETURNING TO YOUR RAMUP WORKSTATION

To return to your RAMUP WorkStation where you left off, insert
your RAMUP disk and PRESS CONTROL- OPEN APPLE - RESET
and release the RESET Key first.

From the first page of the RAMUP program.

Press RETURN
RAMUP will check your RAMCARD (s), if it finds your
WorkStation, You will be brought back to your DESKTOP MENU

TIP:
If you prefer to skip the Fancy graphics, press ESC after
booting.

YOUR ALL SET---HOP TO IT---AND ENJOY!!

PROGRAMS NOT COMPATIBLE WITH RAMUP

Some programs cannot be used, at the same time your
WorkStation is loaded. You might loose your WorkStation and
would have to reload.

Programs that cause problems are those that use the memory on
your RAMCARD (s)

Pay special attention when using

Locksmith 6.0
Expanded Appleworks that has not been partitioned
    (See Partitioning memory p.xx of Program Notes)
VIP Professional

A Quick Summary:

When starting with RAMUP, Select programs you want to start using.

You may ADD more Programs to your RAMUP WorkStation.

Or you may REMOVE programs to make room for other programs or data.

You can save data on your RAMDISK under the ProDOS prefix "/RAM/DATA"

You can leave your RAMUP WorkStation and use <u>almost</u> any software. Return to your RAMUP WorkStation by Reinserting your RAMUP disk in drive 1, Boot it!

CONTROL- OPEN APPLE- RESET- Together, then letting go of reset first

TERMS YOU SHOULD KNOW:

VOLUME: Refers to the name of a Disk, every ProDOS disk has a name. The VOLUME name of the AppleWorks disk is "/APPLEWORKS/". The VOLUME name of your RAMDISK is "/RAM/".

SUBDIRECTORIES: A disk within a disk. For Example: "/MY.DATA/MARCH/". The VOLUME NAME is "/MY.DATA" and the SUBDIRECTORY is "/MARCH/". Under the SUBDIRECTORY "/March/" you might save the letters written in March.

PREFIX: Points to a disk, or part of a disk, that information is to come from or go to ie.. /RAM/DATA/ which is the area of the your RAMDISK you should save your data.

FILE NAMES: Are names given to the important STUFF you put on your disks. Let's say in March you wrote a letter to George telling him he still owed for a present you bought for Eric. Your descriptive FILE NAME might be "GEORGE.PAY.ME"

PATHNAME: The combination of a Volume, Subdirectory, and file
   name.

   "/MY.DATA/MARCH/GEORGE.PAY.ME"

 VOLUME: "/MY.DATA" - It was the name of the DISK

   SUBDIRECTORY: "/MARCH" - We wanted to file the note under
      March's letters.

   FILE NAME: "/GEORGE.PAY.ME" - When we typed the letter,
      "GEORGE.PAY.ME" was the descriptive name of the letter
      we choose to use.

TIPS FOR THE HANDY!

Making a copy of your WorkStation Disks:

> It is a good idea to copy the programs you are using with
> RAMUP and put them together in a special place. Then, when
> you do load your WorkStation you won't spend your time
> looking for them.

QUIT MENU MODIFICATION:

BASIC PROGRAMMING KNOWLEDGE REQUIRED:!!
We left the Desktop menu so you can add your own options to
it. For Example, if you are booting off of your RAMFACTOR
you might have your own utilities sub menu that you would
like to access.

Load QUIT.MENU from your RAMUP disk list lines 100 - 150
to see how ADD/REMOVE and FILER were added.

   TIP:
      Load "/RAMs/Startup" if you are already
      have your Workstation running on your
      RAMFACTOR. Then save using the same
      pathname. Don't forge to save changes to
      your Backup copy of RAMUP.

   Make your own modifications and save quit.menu to the
   RAMUP disk. If you already have your Workstation on your
   Ramfactor also save it as /RAMs/startup.

DATA MANAGEMENT

BACKING UP WITH FILER:

From time to time you may, Understandably, get the urge to back up the data on your ram card. You can use FILER which is always available from the DESKTOP MENU, or you may use your favorite ProDOS utility software, Like COPY][Plus 7.+

Using Filer:

From the DESKTOP MENU

Select FILER

From the FILER Menu

Select V for Volume Commands

Then F to Format

Enter the slot and drive of the disk you want to format
(Usually Slot 6 Drive 2)

"NEW VOLUME NAME": /DATA

After formating is complete press ESC ESC

Select F for FILE COMMANDS

C to COPY FILES

"PATHNAME:"/ram/data/=

"TO PATHNAME:"/data/=

Filer will copy all files found in the "/RAM/DATA" subdirectory to your disk drive.

When finished, press ESC ESC

Press Q to QUIT

RESTORING DATA WITH FILER:

You can use filer to copy your data back onto your RAMDISK. Select F, file commands, and then C, copy files. Use the following Pathnames

Assuming the volume name of your disk containing your data is "DATA" and assuming that you are going to copy this data onto your RAMCARD, use the following Pathnames.

PATHNAME:/data/=

TO PATHNAME /RAM/DATA/=

SUGGESTED COPY UTILITY

We have found Copy II plus 7.0+ the most effective and easy to use utility for copying files to and from Ramcards. With Copy II plus you don't have to type Pathnames or file names, a visual map of your directories is presented to you when you copy files.

ADDING YOUR OWN SOFTWARE

If you are satisfied with the programs RAMUP offers, skip this section.

WE CAN HELP

If you would like to see a program added that you own, and don't feel like doing it yourself, we are glad to help. You have to OPTIONS:

1. We Frequently update RAMUP as new software becomes available. Call us and see if the current version of RAMUP contains the programs you're looking to use. We'll mail you an update for $5.95

2. If the current version offered will not help you, using the Address on PAGE 25 send us a copy of your RAMUP and a copy of the program (s) you are trying to add, a $39.00 check, and we will personally customize RAMUP to work with your software.

MODIFYING THE DATA FILE:

RAMUP is easy to modify, but before attempting to do so please read the following instructions. If you haven't done so already make a copy of your RAMUP DISK.

RAMUP uses two data files to control the uploading of your software. One file contains the software titles ("Titles.data") and the other contains program information ("Data.list").

"Data.list" is in ASCII TEXT format, and contains program information. Making additions/changes is simple, but you must be attentive and most of all accurate. NO TYPOS ACCEPTED!!!!

Shown below is the <u>exact</u> format that must be followed for the file DATA.LIST

Data FORMAT

Program Name	Also used for title search:EXACT SPELLING
Assistance comment	Aid user regarding what disk should be inserted
Source	Where should RAMUP look for the files
Destination	Where should RAMUP put the program files
# Files	How many files are expected in this volume
System.file	This will be the file executed upon request
program.file	
program.file	
Program.file	These files are part of the program
Program.file	
Program or '/'	If a program is encountered start loading new program information. If program begins with '/', then start with source and continue loading same program but from a different volume.
End File	This key word tells RAMUP there are no more files to load and to execute the DESKTOP MENU.

⍾ Files beginning with "⍾" will be considered optional. That is, if it isn't found then RAMUP will look to the NEXT file. Perfect for accessories or for different versions of software.

: This character allows comments to be placed in the Data list. Comments are a handy way to identify different versions of software and other technical notes. ":" MUST ALWAYS appear directly against the data.

DO NOT USE SEMICOLONS OR COMMAS!!

FAILURE to follow these formats exactly will cause RAMUP TO FAIL while executing. Pay special attention to accuracy. If an error does occur, SEE SYSTEM MESSAGES.

AN EXAMPLE: AppleWorks

First, we determined what was the system file. That is, what file runs the program. In AppleWorks that file is "Aplworks.system".

AppleWorks comes with two disks, a startup disk and a program disk. There are a total of 5 - 6 - 8 program files per consecutive version: The files are separated as follows.

On the startup Disk:/APPLEWORKS/ Version 1.2
    Aplworks.system
    Seg.00
On the Program Disk:/APPLEWORKS/ Version 1.2
    Seg.m0
    Seg.m1
    Seg.pr

On the startup Disk:/APPLEWORKS/ Version 1.3
    Aplworks.system
    Seg.00
    Seg.xm
On the Program Disk:/APPLEWORKS/ Version 1.3
    Seg.m0
    Seg.m1
    Seg.pr

On the startup Disk:/APPLEWORKS/   Version 2.0
     Apl   ks.system
     Seg.00
     Seg.xm
     Seg.er
     Seg.el
On the Program Disk:/APPLEWORKS/   Version 2.0
     Seg.m0
     Seg.m1
     Seg.pr

Notice that all three versions contain the same system file. The only difference is the number of files, later versions have more. Notice how they will be handled in the data.list.

Both the startup & program disks contain the same volume name: The data format used for AppleWorks is exactly as follows.

AppleWorks:	This the name of the program
Appleworks Program and startup disks:	Message that will be displayed on screen
/AppleWorks/:	Volume name of the source disk
Appleworks/:	Destination on ramdisk, **NEVER** begin with "/"
7:	Number of possible files on volume
Aplworks.system:	System file. **Leave blank if none**
Seg.00:	File that is part of appleworks
?Seg.xm:	File only Version 1.3 and 2.0
?Seg.er:	File only on version 2.0
?Seg.el:	File only on version 2.0
Seg.m0:	File on second disk
Seg.m1:	File on second disk
Seg.pr:	Final file on second disk
End File:	no more data in file. If a program name were encountered, then repeat the above format. .

Note:
     The comments to the right of the data are in acceptable format. The ":" allows for comments, this will help you trace down any problems you may encounter. Make sure you place ":" next (against) the data.

The optional files, files that started with "ᴓ", are files that may not always be present on the disk. In this ca⸋ it would depend on the version of AppleWorks you are using. ᴊometimes they may b e accessory files that you have deleted because you know you will never have any use for them. ie..Pinpoint's.NOTEPAD...DIALER...

If you still have questions concerning "Data.list" format, look at how we did the data.list that came with RAMUP.

The file you <u>must</u> modify is named DATA.LIST.

MODIFYING WITH APPLEWORKS
You can load DATA.LIST into AppleWorks to Modify it.

   Select
     1 Add Files to desktop
     3 Make a new one for Word processor
     2 From TEXT

     The ProDOS Prefix is:/RAMUP/DATA.LIST

When finished making changes you would then print it back to a text file and use the same ProDOS Prefix:/RAMUP/DATA.LIST

If you have Added or Removed programs to the DATA.LIST file, you <u>must</u> also change the title file. The ProDOS Prefix is: /RAMUP/TITLES.DATA

Remember to save the YOUR MODIFICATIONS by saving the file back to disk as a text file!!

   With AppleWorks you would print the file to disk

Make sure you use exact spelling and punctuation. We found it handy to load both the DATA.LIST file and TITLES.DATA simultaneously. When finished adding a program to DATA.LIST we copied the titles to the clipboard and then from clipboard once in TITLES.DATA file. This ensured us there would be no difference in two names.

NOTE:
> **RAMUP uses the TITLES.DATA file to match with the names found in the DATA.LIST file. Watch for TYPOS!!!**

MODIFYING AFTER LOADING:

You'll find it faster to load your RAMUP Workstation before making changes to it. Include AppleWorks (or other text reading word processor)

The files you are looking for "Data.list" and "Titles.Data" are under the "/RAMs/worksub/" prefix.

When adding new software, you'll find that the biggest problem you'll have, is you didn't use the correct spelling of a file name. If this is the case press ESC when the you are prompted to insert the misspelled file, then select your word processor. Make the correction, then Reselect add/remove and try to load the program again. You'll notice the RAMUP won't load files that are already on the RAMDISK.

If RAMUP fails, due to improper format, study the message, then type BYE. This will bring you to your DESKTOP MENU. Select your word processor to make your change.

Change the "Data.list" and "Titles.data" files found under /RAMs/worksub/. This way the changes you make can be used instantly.

RAMUP can easily be installed on a Hardisk. Copy the following files to the subdirectory like /hard1/RAMUP/. RAMUP should be the only program in the subdirectory.

Copy the following files:
  PRODOS (yes, this file is needed)
  DELETE.ME (for utlra clock.file)
  BASIC.SYSTEM
  PRODRIVE
  TITLE.PIC
  STARTUP
  QUIT.CODE
  COPY.START
  ADD.REMOVE
  DESKTOP.MENU
  DATA.LIST
  TITLES.DATA
  LENGTH
  FILER

When you select RAMUP from your hardisk, execute the file "BASIC.SYSTEM" ..ie.. "-/Hard1/RAMUP/BASIC.SYSTEM"

You might find it handy to copy your favorite program files onto one subdirectory. RAMUP will only ask you to insert a disk when it cannot be found elsewhere. You will be freed of having to wait while RAMUP is busy loading your software, loading will be non stop.

Example:
  Sider users: you might use /HARD1/RAMUP/DATA for your source. Then go through the "DATA.LIST" and change the source of each program to /HARD1/RAMUP/DATA. Keep the destination of each program the same!!

SOFTWARE:

We too are avid AppleWorks Fans. You may have noticed when you opened your RAMUP Package there was a letter describing the Programs that RAMUP works with. It's a summary of each program, and was meant to inform you, the user, on what programs are available for your benefit. If you have any questions regarding what they can do, we're happy to hear from ya.

Tips for better operation with RAMUP are found after each review under NOTES

"World of AppleWorks": NEWSLETTER

Your RAMUP Newsletters:
Something to REALLY look forward to!

RAMUP has brought the programs together on the RAMDISK. The Newsletter will show you how to combine the power of each package to tackle some tasks that none of the programs are singularly capable of.

Your news letters will also contain:

Late breaking news from developers.

Tips and techniques from the publisher of your favorite software: Learn some handy techniques!!

Update Section: a list of software with current version # and enhancements Available.

User Participation section:

We know that it is the actual users who have the BEST IDEAS!!

For it is you who endure the painstaking work needed to make all this great applicational software do what it was designed to do. Please share your experience.

If you have any tips or tech's Write:

Quality Computers
NewsLetter Participation
1365 Berkshire
Grosse Pointe Park
MI 48230

SOFTWARE UPDATES

Updates will be available periodically. That is, when we include more programs to our list or make a modification to RAMUP.

To get your updated Software send $5.95
Quality Computers
Software Updates
1365 Berkshire
Grosse Pointe Park
MI 48230

SYSTEM MESSAGES

Most programs freeze when something goes amiss. RAMUP is utility software and we strongly felt that the power of modification is not only the publishers given right, but the users as well. Therefore, we have chosen to leave you in control.

These errors will only appear if you have modified the program, DATA.LIST or TITLES.DATA files.

ERORR 5:
This error most often occurs when the data files don't contain the proper closing. ie. "End File"

Additional Thanks To

Walker Archer

For the machince language routines found throughout RAMUP