"RAMADEMO" TECHNICAL TIPS AND SUGGESTIONS FOR MS-DOS

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INSTALLATION PROCEDURES

Please make sure you have the following minimum hardware requirements:

486/66
8MB RAM
11MB Hard Drive Space
CD-ROM drive, double speed or better
MSCDEX version 2.2 or higher
MS-DOS 5.0 or higher
SVGA video card that supports 640x480x256 colors or better
Sound card with DAC - Sound Blaster compatible
Mouse

RECOMMENDED FOR BEST PERFORMANCE:
Pentium
16MB RAM
Quad speed CD ROM

If you are using file deletion tracking utilities such as Mirror, SmartCan, Undelete, etc., please disable these utilities before installing The Rama Demo.

1.   Insert the RAMADEMO into your CD-ROM drive.
2.   From an MS-DOS prompt, type the CD-Drive letter followed by a colon and press the <ENTER> key.   For example, if your CD-ROM drive is labeled as your D drive, you would type: D: <ENTER>
3.   At your CD-ROM drive label prompt, type: INSTALL <ENTER>
4.   Be sure the correct choice has been made for AUDIO. Choose ACCEPT THESE CHOICES AND INSTALL Follow the on-screen prompts to complete the installation.

To run Rama in MS-DOS after it is installed, type the following commands:

        C: (and press the ENTER key)
        CD\SIERRA (and press the ENTER key)
        RAMADEMO   (and press the ENTER key)

HANDY TO KNOW

You may exit the demo by pressing the Alt+x keys.

Do not remove the CD while playing the demo.

If you try the game in MS-DOS and find problems running the demo, try installing and running the game in Windows instead. Running in Windows will allow Rama to use different video, sound, and memory management drivers.

A list of BBS and Tech Support Numbers for Sound Card, Video Card, and Miscellaneous Computer Peripheral / Software Manufacturers is provided on RAMA.   To view this file, type "EDIT D:\CONTACT.TXT" (if your CD-ROM drive is D:).

MS-DOS PROBLEMS AND SOLUTIONS

-INSTALLING THE GAME-

Problem: After running INSTALL, a row of dots runs across the screen, then stops and locks up.
Solution: At the CD-ROM drive prompt (such as D:\), Type the following:
INSTALL -m
(If this doesn't work, try typing INSTALL -f) The dots indicate the hardware detection portion of the installation program.   You can bypass the hardware detection (and therefore the lockup) by typing INSTALL /M.   If this entry doesn't work, try INSTALL /F.   One of these entries should get you past the lockup.

Problem: "Can't create output file" or "Not enough space" during installation.
Solution: You need to free up more hard drive space before installing the game.

-STARTING THE GAME-

Problem: "Error 53: Can't find sound driver ".   Please run INSTALL".
Solution: This error will happen if you typed "D:\INSTALL" to install Rama.   To solve this problem, you must type "D:" and press the ENTER key (if your CD-ROM drive is D:), then type "INSTALL" and press ENTER.

Problem: "DOS/4GW Professional Fatal Error:, followed by a screen of technical information while running RAMA is an MS-DOS box under Windows 95.
Solution: Although you can run Rama through an MS-DOS box under Windows 95, it is highly recommended that you reboot Win95 into an MS-DOS session before installing and running Rama.   If you run in an MS-DOS box inside Windows, you may see "DOS/4GW Fatal error" messages.   To allow Win95 to boot to an MS-DOS session, reboot your computer and press the F8 key on your keyboard when you see the screen message "Starting Windows 95".

Problem: "DOS/4GW Professional Fatal Error (1307): Not enough memory"
Solution: Rerun the INSTALL program.   Select the option to MAKE A BOOTABLE FLOPPY DISK.   Follow the prompts.   When you are finished making one, leave the boot disk in your floppy drive A:, turn off your computer, then turn it back on.   This will allow the boot disk to run to free up more memory for the game to run successfully.

Problem: "No mouse driver was found in MS-DOS"
Solution: This means your MS-DOS mouse program was not run before the game started.   Rerun INSTALL and choose MAKE A BOOTABLE FLOPPY DISK to help us find and use your MS-DOS mouse driver.
More Information: MS-DOS needs a mouse program to be run before it can use the mouse.   To see if a mouse program is hidden on your hard drive, type "DIR \MOUSE /S /P".   Let's say you see:
    Directory of C:\MSMOUSE
    MOUSE   COM
    Directory of C:\WINDOWS
    MOUSE   DRV
    MOUSE   INI

A mouse program will end in ".COM" or ".EXE", so the mouse drivers in C:\WINDOWS in this example won't do.   To run the mouse driver in MSMOUSE in this example, type "C:\MSMOUSE\MOUSE.COM".   You should see a message saying your mouse is now enabled.   You can now play Rama.

Problem: "No VESA support detected"
Solution: This means your video card's VESA program was not run before the game started.   VESA allows MS-DOS games to run in colorful, crisp high-resolution.   Please refer to your video card manual for more information to run your particular VESA program to enable high resolution in MS-DOS.   Some examples are "VVESA.COM", "VESA.COM", and "VMODE VESA".
More Information: We have provided many popular VESA drivers for you on the Rama CD.   They are located in the \VESA\VESA directory on the CD.

Problem: "Cannot find 999.pal resource.   If this is a CD-ROM game, please make sure that a CD-ROM is loaded. If you continue to experience this dialog, make sure your CD-ROM drivers are loaded properly."
Solution #1: Make sure the Rama CD is in the CD-ROM drive before starting the game.
Solution #2: If you booted off a boot disk that does not load your CD-ROM drivers, please reboot without that boot disk.   If you need to use a boot disk, please rerun Rama's INSTALL and choose MAKE A BOOTABLE FLOPPY DISK to make one that supports Rama.

Problem: "Error 29: Unable to initialize audio hardware"
Solution #1: If you have a Gravis Ultrasound, please install and run the game in Windows.
Solution #2: If you have a Pro Audio Spectrum Plus, rerun INSTALL and choose "Pro Audio Spectrum" instead of "Pro Audio Spectrum 16".

-VIDEO, GRAPHICS

Problem: The game is too dark.
Solution: Edit the game's configuration file on the hard drive to increase the brightness.   To do this, type the following command:

EDIT C:\SIERRA\RAMADEMO\RESOURCE.CFG

You'll see a line "brightness = 0".   Increase this number to 4.   Save this change, then start demo to see an increase in the demo brightness.
NOTE: If you increase the brightness to 5 or more, you'll see very odd colors or a black screen in the game.

-MUSIC, SPEECH, AND SOUND EFFECTS-

Note: Check if your SET BLASTER environment variable is enabled and at the correct setting.   To check this, at the C: prompt, type SET and press <ENTER>.   You should see a line that says BLASTER = A220 I7 D1 (or something similar).   If you do not see such a line and your sound card is on Address 220, IRQ 10, and DMA 1, at the C: prompt, type SET BLASTER = A220 I10 D1 and press <ENTER>.   This line tells MS-DOS how to access your sound card and may prevent lockups.

Problem: In MS-DOS, using a Reveal or Aztech Labs sound card, the music and speech are barely audible.
Solution: The chipset used to emulate the Sound Blaster digital to analog conversion is not 100% ompatible with the Sound Blaster driver built-in to the game.   Rerun INSTALL and choose Microsoft Windows Sound System for AUDIO.   If this does not instantly improve the volume, change to the UTILITY subdirectory in the sound card's DOS directory.   Run SETMODE /MSS to change over to Microsoft Sound System mode.   Then, load the sound card's mixer to reset the digital audio level -- the executable for this may be SG16MIX or MIXTSR.   After doing this, unload the mixer to free up memory: type SG16MIX /Q or MIXTSR /Q.   Keep in mind that these commands will need to be typed each time you go into the game.

If this does not help, try making and using a boot disk to free up more conventional memory.   This may help.   If it doesn't help, install Rama in Windows for full sound.

Question: Why does Rama not support General MIDI, Roland MT-32, AWE32, Wave Synthesizer or FM Synthesizer?
Answer: All the music, speech, and sound effects in RAMA are digitized, not synthesized.   This allows more control over the game's sound quality and timing on every SB compatible sound card without the need for MIDI Mapper setup issues, music volume control too loud or too soft, hanging notes, etc.

-MAKING AND USING A BOOT DISK-

Question: What is a boot disk?
Explanation: A boot disk is a way to make games work faster and better on your computer.   All you need is a blank floppy disk for your A: drive.   This will not work in your B: drive.   To make a boot disk, rerun the INSTALL program and choose the menu option MAKE A BOOTABLE FLOPPY DISK.

Problem: When you run INSTALL and choose MAKE A BOOTABLE FLOPPY DISK, it makes one successfully, but it doesn't load the CD-ROM or other drivers.
Solution: At the MS-DOS prompt, go to your CD-ROM drive letter by typing D: and pressing the <ENTER> key. If your CD-ROM drive is another letter, type that drive letter instead.   Then type the command: BOOTDISK -c -p and press the <ENTER> key.   This is an updated boot disk maker that will find the latest CD-ROM and other drivers.
Note: On some computers, we have found typing BOOTDISK -w -c -s512 will improve your computer's performance using a boot disk with Rama.

Problem: "Can't find FORMAT.COM--Unable to make boot disk"
Solution: This is caused when our boot disk maker program cannot find FORMAT.COM on your hard drive. This usually happens if you installed PC Tools or Norton Utilities. These utilities rename FORMAT.COM to either FORMAT!.COM or XXFORMAT.COM. If this is the case, please type
the following commands from a C:\> prompt:
CD \DOS
COPY FORMAT!.COM FORMAT.COM
COPY XXFORMAT.COM FORMAT.COM
One of these commands will help restore your FORMAT command back to normal, and will allow our boot disk maker to work.

Problem: "Can't make bootdisk since you're not using COMMAND.COM" or "Boot disk was not created"
Solution: This can be caused if you are using 4DOS or NDOS (in Norton Utilities). Get to a C:\> prompt. Type: SET and press the ENTER key. COMSPEC should equal C:\COMMAND.COM or C:\DOS\COMMAND.COM. If COMSPEC =4DOS.COM or NDOS.COM, the boot disk maker will not work. To correct this, type: SET COMSPEC=C:\DOS\COMMAND.COM   This will allow our boot
disk maker to work. When you reboot without a boot disk, the COMSPEC will return to your original setting.

Problem: "Invalid Drive Specification" using a boot disk on a Western Digital IDE controller.
Explanation: The Western Digital IDE hard drive controller displays a message "Press the SPACEBAR to boot from a floppy disk." If you insert the boot disk and reboot before seeing this message, you'll get the message "Invalid Drive Specification" and won't have hard drive access until you reboot without the boot disk.
Solution: Remove the boot disk from the floppy drive. Reboot your computer. When you see this message, insert the boot disk and press the SPACEBAR.

Problem: "Invalid Drive Specification" using a boot disk on larger Seagate hard drives, such as the Seagate 800 meg hard drive.

Explanation: Seagate hard drives larger than 528 meg use a disk manager called "EZ-DRIVE."   If you insert the boot disk and reboot before seeing this message, you'll get the message "Invalid Drive Specification" and won't have hard drive access until you reboot without the boot disk.
Solution: Remove the boot disk from the floppy drive. Hold down the CTRL key and reboot your computer. You'll see a message "Insert boot disk and hit ENTER to reboot." Insert the boot disk and press ENTER.

Problem: "Invalid Drive Specification" using a boot disk on a removable media drive, such as Bernoulli, Seagate, or SyQuest drives.
Explanation: Our boot disk maker does not load the removable media drive software drivers.   If your removable drive was D: and your CD-ROM was E: when the game was installed, then you booted with our boot disk to free up more memory, your Bernoulli drive would not be seen, and your CD-ROM drive would now be D:.   The Rama icon's properties will not be correct to run the game in this case.
Solution: Add your removable media drivers to the boot disk.

-SPEED ISSUES-

Problem: The movies are choppy on a 486-66 computer.
Solution #1: Rerun INSTALL and choose "Make a bootable floppy disk". Follow the on-screen instructions.   Once completed, reboot your computer with the boot disk in the A: drive.

-RUNNING THE GAME-

Problem: The mouse cannot get past the left side of the screen
Solution: You need either an updated mouse driver or an updated VESA driver.   Please contact the mouse or video card hardware vendor for driver updates.

Problem: "EMM386 Error 6 or Error 12... " The error number may vary. Solution: This is caused by a memory conflict. Running the game from the boot disk will usually correct this problem. Please see "Create a Boot Disk" under Memory Troubleshooting.

Problem: "CDR 101 Error reading" or "DOS Error, Read Error".
Solution: Make sure the CD is not scratched, dirty, or smudged with   fingerprints.   If so, clean it with a soft cloth and try again.   This can also be caused by an outdated version of the MSCDEX file.
    MS-DOS version 6.2 and above should use MSCDEX version 2.23
    MS-DOS version 6.0 should use MSCDEX version 2.22
    MS-DOS version 5.0 should use MSCDEX version 2.21
    If you have MSCDEX version 2.20, please get a later version from your CD-ROM manufacturer.

Problem: "Out of Moveable Memory"
Solution: Make a boot disk.   Please make sure you have enough memory to run the game.   If you have 4 meg of RAM instead of 8 meg, the game will try to run, but will fail when more memory is required. The most common causes for this error is either insufficient memory (4 meg of RAM) or excessively large disk caches such as SmartDrive (2 meg allocated on an 8 meg computer) or Windows' 32-bit File Access.

-OTHER QUESTIONS-

Please make sure you are using Microsoft's MSCDEX program for CD-ROM drive access.   If you are using Corel's CORELCDX program instead, you may experience "Out of Memory" messages and other random problems playing Sierra games.   The easiest way to bypass CORELCDX is to make a boot disk.   Please refer to the "Making and Using a Boot Disk" section of this README file.

Note: Although you can run Rama through an MS-DOS box under Windows 95, it is highly recommended that you reboot Win95 into an MS-DOS session before installing and running Rama.   If you run in an MS-DOS box inside Windows, you may see "DOS/4GW Fatal error" messages.

Note: If you are installing this game as a DOS application under Win95 and are having problems with random lockups running Rama as a true MS-DOS session (where you reboot the computer in MS-DOS mode), try modifying the properties of Rama's PIF file.   To do this in Win95, right click on the RAMADEMO.BAT file.   Click on the PROPERTIES menu choice, then on the PROGRAM tab, then on the ADVANCED button.   Make sure to select "Prevent MS-DOS-based programs from detecting Windows", and de-select "Suggest MS-DOS mode as necessary". Click the OK buttons.   This will create a new RAMADEMO.PIF file to help try to run the game smoother in DOS mode.   This new PIF file will only help if your computer has the proper conventional and XMS extended memory allocated upon bootup of
Windows 95.   In other words, if you only have 500K of conventional memory when booting Win95, and the game requires 540K, you still need to free up additional memory.

Rama's install creates a file on your hard drive called RESOURCE.CFG. This file is important for the smooth running of the game.   If you have any problems not mentioned above, please look at this file by typing: EDIT C:\SIERRA\RAMADEMO\RESOURCE.CFG   then press <ENTER>. The file should look something like the sample listed below.   In this example, D: = the CD-ROM drive.

```
videoDrv   = VESA.DRV
soundDrv   = MIDNONE.DRV
audioDrv   = DACBLAST.DRV
joyDrv      = NO
directory = \SIERRA\RAMADEMO
cmd          = RAMADEMO
mouseDrv    = NONE
memoryDrv   = NONE
minMemory   = 1600k
brightness = 0
language    = 1
minCPU       = 486
cd           = YES
smartdrv    = YES
cdSpeed=2
resAUD=CD:\
resSFX=CD:\
resMAP=CD:\;C:\SIERRA\RAMADEMO
rescdisc=CD:\
patchDir=C:\SIERRA\RAMADEMO;CD:\
movieDir=CD:\movies
robot=CD:\robot
CD:=D
```

If any of these lines are missing, you may want to delete the RAMADEMO directory from your hard drive and rerun INSTALL from the Rama CD.

If you don't see your question listed, most difficulties with Rama can be resolved by simply running the game with a boot disk.   Please see "Create a Boot Disk" under Memory Troubleshooting.

MEMORY TROUBLESHOOTING

Some game players have experienced difficulty getting enough memory to run Rama.   This usually occurs on computer systems with 8 megabytes of   RAM, but can happen on machines with more memory.   If you are having

trouble starting the game because of memory problems or are receiving memory-related errors during the game (such as an "Out of Hunk" or "Out of Memory" message), please make and use a boot disk.

Create a Boot Disk: Sierra has included a boot disk maker with Rama. You can access it by running INSTALL from game CD.   You can also access the boot disk maker from the MS-DOS prompt.   Type "BOOTDISK -c -p" at the D:\> prompt (if your CD-ROM is D:).

SOUND CARD CONFIGURATIONS AND SOUND ISSUES

If you need more control over the volume, most sound cards' speech and music volume can be controlled through software provided by the sound card manufacturer.   Here is a list of some common sound cards' mixer volume control commands in MS-DOS.

Sound Blaster 16:
Type C:\SB16\SB16MIX

Vibra 16 in AST Advantage:
Type C:\VIBRA16\MIXERSET

Sound Galaxy 16 in Packard Bell:
Type C:\SOUND16A\UTILITY\MIXTSR or type C:\SOUND144\MIXTSR

Ensoniq Soundscape:
Type: SSINIT

Compaq Presario CDS 524, 920, etc.:
If DEVICE=C:\CPQDOS\VOLCTRL.EXE is in CONFIG.SYS on the boot disk, then:
Press CTRL-RIGHTSHIFT to increase volume
Press CTRL-LEFTSHIFT to decrease volume

Proaudio Spectrum Family:
Type PAS * to bring up the mixer controls
Press CTRL-ALT-U to increase the master volume level
Press CTRL-ALT-D to lower the master volume level

Sound Blaster 8 bit: No software control. Adjust thumbwheel on card.

Thunderboard: No software control. Adjust thumbwheel on back of card.

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Data Compression Software
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