Earthworm Jim

Technical Troubleshooting

Introduction

Thank you for downloading the one-level demo version of *Earthworm Jim*.   This supplemental documentation is designed as a troubleshooting guide in the event you experience technical problems while running the program.   The following contains technical tips and other information that could not be included in the online Help file.

Customer Support Bulletins

In an effort to keep you informed of the latest product developments, Activision has created Customer Support Bulletins.   These files are located on the various online services and contain the latest information about Activision products.

Troubleshooting

The following information is designed to help you resolve any difficulties you may encounter while running the program.

Error Messages

"Requires a 486, Pentium or better processor"

1. *Earthworm Jim* requires a 486/33 or better processor with a minimum of 8 MB of RAM.   Attempting to run the program on a lesser machine may result in hardware and performance difficulties.
2. The game is not compatible with the NextGen chip as it is a 386 chip that emulates a Pentium. *Earthworm Jim* requires a 486 or better chip in order to run.

"Requires Windows 95 or Windows NT 3.51+"

1. *Earthworm Jim* requires the Windows 95 or Windows NT 3.51 operating system.   The game is not compatible with Windows 3.1 or other operating systems.

"Earthworm Jim should be played in 256 color mode for best performance"

See the section entitled Game Graphics Are Faded Or Strange In Appearance.

"Are you sure you want to give up the current game?"

1. Using the File Menu to start a new level or changing the level of difficulty in the middle of a game will reset the weapons, continues, energy level, enemies and other collectables to

their default settings.
2. Switching difficulty levels in the middle of a game will result in the start of a new game in the newly selected difficulty mode.   However, the game will automatically save the last level played in the previous difficulty mode.   Read the online Help file for more information about switching levels of difficulty.

Windows 95 Troubleshooting

Activision thoroughly tests its games on a variety of systems before they are released, but it is virtually impossible to test on all combinations of software and hardware.   Many of the problems you may encounter in Windows 95 are caused by device drivers for video cards, sound cards and CD-ROM drives that are not fully compatible with the Windows 95 operating system.

The following troubleshooting tips are intended to assist you in solving some of the common problems that occur with the new Windows 95 operating system.   If you continue to experience technical difficulties after trying the following solutions, please contact Activision Customer Support.

Game Freezes Or Crashes

1. Make sure your system is at least a 486/33 with a minimum of 8 MB of RAM.   Trying to run the game on a lesser machine may result in hardware and performance difficulties.
2. Disable the Sound Effects option in the Sound page of the Properties Box contained in *Earthworm Jim*.   Particular sounds may cause the game to freeze when played on certain sound cards.   If an updated driver does not correct this problem, disabling the sound effects may help to decrease the chance of game crashes.
3. Do not leave the game sitting idle for extended periods of time as this may cause your system to lock up.   If you are not playing the game, please exit the program and restart it later when you want to play again.
4. It is recommended that you reboot your system after experiencing a crash.   This helps to ensure that you will not experience any residual effects related to the crash.

Game Too Slow

1. If your computer has a turbo button, make sure it is set to the highest MHz possible.
2. Make sure your system is at least a 486/33 with a minimum of 8 MB of RAM.   Running the game on a lesser machine may result in hardware and performance difficulties.
3. Make sure that your display mode is set to 256 colors.   *Earthworm Jim* should be played in 256 color mode for best performance.   Although the game may be played in higher color modes, you may experience slowdown and minor color changes in game graphics.   Although it may be time consuming to have to switch between higher color modes and 256 color mode, this is what allows for the high rate of speed in the game.   To switch to 256 color mode, perform the following steps:

   a) Make sure you have a 256 color video driver installed for use.
   a) Open the Windows 95 Control Panel folder and double-click on the Display icon.
   b) Click on the Settings tab.
   c) Select 256 Color in the Color Palette drop-down menu, then click the OK button.

   Various utilities that eliminate the need to reboot whenever you switch color modes are available on most online services.

4. Playing the game in a large-sized or maximized window and/or while your screen resolution is set above 640x480 may result in screen "tearing", frame dropout and general slowdown.   For better performance in this situation, it is recommended that you select one of the pre-determined window sizes in the Display section of the System page located in the Properties Box contained in *Earthworm*

Jim and/or set your screen resolution in Windows 95 to 640x480.   To do this, perform the following steps:

a) Open the Windows 95 Control Panel folder and double-click on the Display icon.
b) Click on the Settings tab.
c) Move the slider bar in the Desktop Area section until it reads 640x480, then click the OK button.

5.   If you are playing the game in an odd-sized custom window, this may result in screen"tearing" and general slowdown.   For better performance in this situation, it is recommended that you select one of the pre-determined window sizes in the Display section of the System page located in the Properties Box contained in *Earthworm Jim*.
6.   If you are running the program on a Pentium machine with a speed of less than 90 Mhz and are playing in Full Screen mode with the Sync Full to Monitor option enabled, this may result in slower performance.   For better performance in this situation, disable the Sync Full Screen to Monitor option.
7.   Make sure you are not running an excessive amount of background applications.   Before running *Earthworm Jim*, close any applications that are not in use.   If you still experience slowdown, make sure you are not running any programs or utilites, such as System Agent, that automatically perform functions at given intervals.   Applications that perform auto-scans, auto-defragmentation and the like may result in slower performance during these functions.
8.   If you frequently multi-task or your system is linked to a network, go to the System page in the Properties Box contained in *Earthworm Jim* and set the Game Priority option to Real Time.   This will devote maximum processing power to the game.   Remember that playing the game in Real Time mode may affect any applications running in the background.   It is recommended that you do not attempt downloading or other similar functions while playing in this mode.
9.   If you are experiencing general slowdown problems, it is recommended that you play the game in Full Screen mode, which is designed for maximum display combined with maximum performance.   The Full Screen option is not available when running the program in Windows NT.

Game Too Fast

1.   There is a rare problem related to Windows 95 that results in the game running at twice the normal speed.   To resolve this situation, reboot your system and restart the game.

Partial Sound Or No Sound

1.   Make sure your sound card is 100% Windows 95 compatible.   Using a non-Windows 95 compatible sound card and drivers may result in sound problems.
2.   The Sound Effects option is not available when running the program in Windows NT.
3.   Make sure your speakers are plugged in correctly, turned on and the volume is set at an audible level.
4.   Open the Windows 95 Volume Control program to verify that none of the various channels are muted or set to an inaudible level.
5.   Make sure the Sound Effects option is enabled in the Sound page of the Properties Box contained in *Earthworm Jim*.
6.   Your sound drivers for Windows 95 may require updating.   Check the installation and setup parameters of your sound card using the Device Manager of Windows 95 to determine if this is the case.   To do this, perform the following steps:

a) Open the Windows 95 Control Panel folder and double-click on the System icon.
b) Click on the Device Manager tab.
c) Click on the plus sign located next to the Sound, Video and Game Controllers icon.
d) Highlight your sound card and click on the Properties button.

If you purchased your sound card before the release of Windows 95, you may obtain updated drivers in a variety of places.   Most hardware retailers have access to the most recent drivers.   Additionally, most sound card manufacturers maintain a BBS containing the latest drivers for free downloading.

Moreover, drivers are available on CompuServe, America Online, The Microsoft Network and other popular online services.   A list of sound card manufacturers and their Technical Support and BBS numbers is contained at the end of this document.   Please make every effort to install the latest sound drivers before calling Activision Customer Support.

Game Graphics Are Faded Or Strange In Appearance

1. Make sure your video card is 100% Windows 95 compatible.   Using a non-Windows 95 compatible video card and drivers may result in display problems.   It is known that playing the game using Trident video cards occassionally results in minor color changes in game graphics.   It is recommended that you obtain the latest Trident video drivers in an effort to avoid this situation.   A list of video card manufacturers and their Technical Support and BBS numbers is contained at the end of this document.
2. Make sure that your display mode is set to 256 colors.   *Earthworm Jim* should be played in 256 color mode for best performance.   Although the game may be played in higher color modes, you may experience slowdown and minor color changes in game graphics.   Although it may be time consuming to have to switch between higher color modes and 256 color mode, this is what allows for the high rate of speed in the game.   To switch to 256 color mode, perform the following steps:

   a) Make sure you have a 256 color video driver installed for use.
   a) Open the Windows 95 Control Panel folder and double-click on the Display icon.
   b) Click on the Settings tab.
   c) Select 256 Color in the Color Palette drop-down menu, then click the OK button.

   Various utilities that eliminate the need to reboot whenever you switch color modes are available on most online services.

3. If you are experiencing problems in seeing all of the File pull-down menu on your screen, it is recommended that you change the font size in Windows 95 to a smaller setting.   To do this, perform the following steps:

   a) Open the Windows 95 Control Panel folder and double-click on the Display icon.
   b) Click on the Appearance tab.
   c) Select the word Menu located in the Item drop-down menu.
   d) Change the font size by clicking on the bottom arrow in the Size menu located to the right of the Item drop-down menu.

   If you purchased your video card before the release of Windows 95, you may obtain updated drivers in a variety of places.   Most hardware retailers have access to the most recent drivers.   Additionally, most video card manufacturers maintain a BBS containing the latest drivers for free downloading.   Moreover, drivers are available on CompuServe, America Online, The Microsoft Network and other popular online services.   A list of video card manufacturers and their Technical Support and BBS numbers is contained at the end of this document.   Please make every effort to install the latest video drivers before calling Activision Customer Support.

Keyboard Controls Do Not Work

1. Make sure the Keyboard option is enabled in the Keyboard page of the Properties box contained in *Earthworm Jim.*
2. Make sure all connections between your keyboard and computer are properly connected.
3. Certain key configurations will not allow three simultaneous key presses, which often results in not being able to perform certain game actions simultaneously.   You will hear a keyboard "tick" from the PC speaker when this happens.

Gamepad Or Joystick Does Not Work

1. Make sure your joystick is properly calibrated in Windows 95.   To do this, perform the following steps:

   a) Open the Windows 95 Control Panel folder and double-click on the Joystick icon.
   b) Select the appropriate settings in the Current Joystick and Joystick Selection drop-down
         menus.
   c) Calibrate your controller.

2. Although Windows 95 contains several built-in gamepad and joystick drivers, you may need to obtain
   a Windows 95 compatible driver from the gamepad or joystick manufacturer.
3. The Joystick option is not available when running the program in Windows NT.

Hardware Manufacturers

The following is a list of Technical Support and Customer BBS numbers for system, sound card, video
card and CD-ROM manufacturers.   Activision has made every effort to ensure that these numbers are
correct.   However, you may want to consult the documentation for your PC, video card, sound card or
CD-ROM drive for more up-to-date information about each company.   The first section is for people living
in North America.   The second section is for people living outside of North America.

Inside North America...

System Manufacturers

Acer
Technical Support	(800) 733-2237
BBS	(408) 428-0140
BBS	(800) 833-8241

AST Research
Technical Support	(800) 727-1278
BBS	(714) 852-1872

Compaq
Technical Support	(800) 652-6672
BBS	(713) 378-1418

Dell
Technical Support	(800) 624-9896
BBS	(512) 728-8528

Epson
BBS	(310) 782-4531

Gateway
Technical Support	(800) 846-2301
BBS	(605) 323-2224 or (605) 232-2109
Download Service	(800) 846-7562

Hercules Computer Technology Inc.
Technical Support	(510) 623-6050	
BBS	(510) 623-7449	(V.32 bis)

BBS   (510) 623-7034 (9600 baud)
BBS   (510) 623-7142 (2400 baud)

IBM
Technical Support Multimedia (908) 329-7131
Technical Support PS/1 PRO (800) 765-4747
Technical Support Valuepoint (800) 772-2227
Technical Support Valuepoint (213) 621-5576

Intel
Technical Support   (800) 538-3373
BBS   (503) 645-6275

Leading Edge
Technical Support   (800) 225-2283
BBS   (503) 836-3971

Micronics
Technical Support   (510) 651-2323
BBS   (510) 651-6837

Packard Bell
Hardware Support   (800) 733-4411
Software Support   (801) 579-0161
BBS   (801) 250-1600
BBS   (818) 773-7207

Tandon
Technical Support   (805) 523-0340

Tandy Computer
Technical Support   (817) 878-6875

Toshiba
Technical Support   (800) 999-4273
BBS   (415) 656-5159

Zenith
Technical Support   (800) 227-3360
BBS   (800) 888-3058

Sound Card Manufacturers

Advanced Gravis
Technical Support   (206) 881-6945

ATI Technologies Inc.
Technical Support   (905) 882-2626
BBS   (905) 764-9404

Aztech
Technical Support   (800) 886-8879

Boca Research Inc.
Technical Support   (407) 241-8088

BBS   (407) 241-1601

Cardinal
Technical Support   (717) 293-3124
BBS   (717) 293-3074

Creative Labs
Technical Support   (408) 428-6622
BBS   (408) 428-6660

Diamond
Technical Support   (408) 736-2000
BBS   (408) 524-9301

Logitech
Technical Support   (510) 795-8100
BBS   (510) 795-0408

Media Vision
Technical Support   (800) 638-2807
BBS   (510) 770-0968

Microsoft
Technical Support   (206) 637-7096
BBS   (206) 936-4082
BBS   (206) 936-6735

Reveal
Technical Support   (800) 473-8325

Roland US
Technical Support   (213) 685-5141

Turtle Beach
Technical Support   (717) 843-6916
BBS   (717) 845-4835

Video Card Manufacturers

Actix Systems
Technical Support   (408) 986-1625
BBS   (408) 970-3719

Advanced Integration Research
Technical Support   (408) 428-0800
BBS   (408) 428-1735

Advanced Micro Technology
Technical Support   (909) 598-6120
BBS   (909) 594-5770

Alpha Systems Lab
Technical Support   (800) 576-4275

Altech International

Technical Support   (800) 882-8194
BBS   (408) 946-2227

Artist Graphics Company
Technical Support   (800) 627-8478
BBS   (612) 631-7664

ATI Technologies
Technical Support   (905) 882-2626
BBS   (905) 764-9404

Atlaz Intl., Limited
Technical Support   (516) 239-1854

Boca
Technical Support   (407) 241-8088
BBS   (407) 241-1601

Cache Computers, Inc.
Technical Support   (510) 226-9922
BBS   (510) 226-7486

Cardinal
Technical Support   (717) 293-3124
BBS   (717) 293-3074

Celerite Graphics, Inc.
Technical Support   (510) 226-6390
BBS   (510) 226-7851

Cirrus Logic
Technical Support   (510) 435-8808
Technical Support   (510) 623-8300   (west coast)
Technical Support   (508) 470-3380   (east coast)
BBS   (510) 440-9080

Colorgraphic Communication
Technical Support   (404) 455-3921
BBS   (404) 452-8238

Cornerstone Technology
Technical Support   (800) 562-2552 x306
BBS   (408) 435-8943

CSS Laboratories, Inc.
Technical Support   (800) 966-2771
BBS   (714) 852-9231

Diamond Computer Systems, Inc.
Technical Support   (408) 325-7100
BBS   (408) 325-7175   (14400 baud, 8 bits, no parity, 1 stop)
BBS   (408) 325-7080   (2400 baud, 8 bits, no parity, 1 stop)

Edge Technology, Inc.
Technical Support   (800) 438-3343

ELSA America, Inc.

Technical Support   (800) 272-3572
BBS   (415) 588-6286

Focus Information Systems, Inc.

Technical Support   (510) 657-4586
BBS   (510) 657-9451

Genoa

Technical Support   (408) 432-8324
BBS   (408) 943-1231

Headland (Video Seven)

Technical Support   (800) 553-1850
BBS   (415) 656-0503

Hercules Computer Technology Inc.

Technical Support   (510) 623-6050
BBS   (510) 623-7449   (V.32 bis)
BBS   (510) 623-7034   (9600 baud)
BBS   (510) 623-7142   (2400 baud)

Identity Systems Technology

Technical Support   (800) 723-8324
BBS   (214) 705-7213

IOcomm Intl., Corp.

Technical Support   (800) 998-8919

Liberty Electronics USA

Technical Support   (800) 497-8324

Matrox Electronics Systems Limited

Technical Support   (800) 462-8769
BBS   (514) 685-6008

Metheus Corporation

Technical Support   (503) 690-1550
BBS   (503) 690-1559

MicroStep, Inc.

Technical Support   (818) 336-8991
BBS   (818) 961-9992

Mirage Computer Systems

Technical Support   (310) 440-1460

National Design, Inc.

Technical Support   (512) 329-5055
BBS   (512) 329-6327

Number Nine Computer Corporation

Technical Support   (617) 674-0009
BBS   (617) 862-7502

Nth Graphics

| Technical Support | (800) 624-7552 |
| BBS | (512) 832-1964 |

Oak Technology
| Technical Support | (408) 737-0888 |
| BBS | (408) 524-9014 |

Orchid Technology Inc.
| Technical Support | (510) 683-0323 |
| BBS | (510) 683-0327 |

Paradise
| Technical Support | (800) 832-4778 |
| BBS | (415) 968-1834 |

Sigma Designs
| Technical Support | (510) 770-0100 |
| BBS | (510) 770-0111 |

SixGraph Computing, Limited
| Technical Support | (800) 561-2892 |
| BBS | (514) 336-4169 |

STB Systems
Technical Support	(800) 234-4334
Technical Support	(214) 234-8750
BBS Phone	(214) 437-9615
BBS	(214) 237-9615

SuperMac Technology, Inc.
| Technical Support | (408) 245-0646 |
| BBS | (408) 773-4500 |

Swan Technologies, Inc.
| Technical Support | (800) 468-7926 |
| BBS | (814) 237-6143 |

Trident Microsystems Inc.
| Phone | (415) 691-9211 |
| BBS | (415) 691-1016 |

Tseng Labs
| Technical Support | (215) 968-0502 |
| BBS | (215) 579-7536 |

Video Logic, Inc.
| Technical Support | (617) 494-0530 |
| BBS | (617) 494-4960 |

Video Seven
Technical Support	(800) 553-1850
BBS	(510) 656-0503
BBS	(415) 656-0503

VidTech Microsystems, Inc.
| Technical Support | (800) 752-8033 |

BBS   (612) 780-3564

Willow
Technical Support   (212) 402-9500

CD-ROM Manufacturers

Hitachi
Technical Support   (800) 241-6558

Mitsubishi
Technical Support   (800) 344-6352
BBS   (714) 236-6286

Mitsumi
Technical Support   (408) 970-9699

NEC
Technical Support   (708) 860-0335
BBS   (508) 635-6328

Panasonic
Technical Support   (800) 222-0584
BBS   (201) 863-7845

Sony
Technical Support   (714) 826-6410   (west coast)
Technical Support   (201) 368-3774   (east coast)
BBS   (408) 955-5107

Teac
Technical Support   (213) 726-0303

Outside North America...

System Manufacturers

Acer
Technical Support   USA (408) 434-6677
BBS   USA (408) 428-0140

AST Computers
Technical Support   USA (817) 232-9824
BBS   USA (714) 852-1872

Compaq
Technical Support   USA (713) 378-2000
BBS   USA (713) 378-1418

Dell
Technical Support   France 1-30-60-6900
                           Germany 61-03-971-0
                           Spain 1-32-91080

United Kingdom 344-860-456
Australia 2-930-3355
Finland 0-692-3122
Ireland 61-304091
Poland   644-2525
Sweden   8-590-05-100
Austria 2243-34100-0
Belgium/Luxembourg 2-466-91-99
Netherlands 20-6812666
Canada (416) 758-2100
Czechoslovakia 2-879250
Japan 3-5420-5353
Mexico 5-228-7800
Norway 67-125711
Singapore 32-08370
Switzerland 22-979-0101

BBS   USA (512) 728-8528

Epson
Technical Support   USA (310) 782-0770
BBS   USA (310) 782-4531

Gateway
Technical Support   USA (605) 232-2191
BBS   USA (605) 232-2109

Hercules Computer Technology Inc.
Technical Support   Germany 14-24-910-5
BBS   Germany 14-24-089-8

IBM
Technical Support   USA (404) 238-1234
BBS   USA (919) 517-0001

Intel
Technical Support   USA (503) 264-7000
BBS   USA (503) 264-7999

Leading Edge
Technical Support   USA (508) 836-4800
BBS   USA (503) 836-3971

Micronics
Technical Support   USA (510) 651-2323
BBS   USA (510) 651-6837

Packard Bell
Technical Support   France 1-40-64-1000
                                   Germany 89-83-703-1
                                   Italy 2-29-52-7444
                                   Spain 1-45-80055
BBS   USA (801) 250-1600

Tandon Computer
Technical Support   USA (805) 582-6119

Tandy
Technical Support   United Kingdom 922-434-000

Toshiba
Technical Support   USA (714) 859-4273
BBS   USA (714) 837-4408

Zenith
Technical Support   USA (708) 808-5000
BBS   USA (708) 808-2264

Sound Card Manufacturers

Advanced Gravis
Technical Support   France 1-39-73-1534
               Germany 99-61-507-7
BBS   USA (206) 883-3211

ATI Technologies Inc.
Technical Support   Germany 46-09-077-7
BBS   Germany 46-21-020-1 or 46-09-076-6

Aztech Labs
Technical Support   Germany 11-69-084-3
BBS   Germany 11-69-178-2

Boca Research Inc.
Technical Support   USA (407) 997-7202
BBS   USA (407) 241-1602

Cardinal
Technical Support   USA (717) 293-3124
BBS   USA (717) 293-3074

Creative Labs
Technical Support   France 1-39-20-0421
               Germany 31-10-283-8
BBS   USA (918) 742-2377

Diamond Computer Systems, Inc.
Technical Support   France 42-20-5959
               Germany 78-04-023-5
               Italy 39-25-16-671
               Spain 1-30-41534
BBS   USA (408) 325-7175

Logitech
Technical Support   France 34-48-9050
               Switzerland 21-869-9851
BBS   USA (510) 795-0408

Media Vision
Technical Support   USA (510) 770-9905
BBS   USA (510) 770-0968

Microsoft
Technical Support   France 1-69-86-1020
Germany 08-93-176-0
Italy 39-22-69-121
Spain 1-80-40000
BBS   Belgium 2-735-00-45

Reveal
Technical Support   United Kingdom 818-457-400
BBS   USA (818) 713-8188

Roland US
Technical Support   Germany 05-26-0009-0
Italy 29-35-81-311
Spain 3-30-81000

Turtle Beach
Technical Support   Switzerland 22-347-1181
BBS   USA (717) 767-5934

Video Card Manufacturers

Actix Systems
Technical Support   USA (408) 986-1625
BBS   USA (408) 970-3719

Advanced Integration Research
Technical Support   USA (408) 428-0800
BBS   USA (408) 428-1735

Advanced Micro Technology
Technical Support   United Kingdom 256-811-101
BBS   USA (909) 594-5770

Alpha Systems Lab
Technical Support   USA (714) 252-9200
BBS   USA (714) 252-0624

Artist Graphics Company
Technical Support   United Kingdom 844-261-313
BBS   USA (612) 631-7664

ATI Technologies
Technical Support   Germany 46-09-077-7
BBS   Germany 46-21-020-1 or 46-09-076-6

Atlaz Intl., Limited
Technical Support   USA (516) 239-1854

Boca Research Inc.
Technical Support   USA (407) 997-7202
BBS   USA (407) 241-1602

Cache Computers, Inc.

Technical Support	USA (510) 226-9922
BBS	USA (510) 226-7486

Cardinal
Technical Support	USA (717) 293-3124
BBS	USA (717) 293-3074

Cirrus Logic
Technical Support	France 1-48-12-2812
	Germany 15-24-008-4
	Italy 92-61-34-836
BBS	USA (510) 440-9080

Colorgraphic Communication
Technical Support	USA (404) 455-3921
BBS	USA (404) 452-8238

Cornerstone Technology
Technical Support	Germany 97-44-154-0
BBS	USA (408) 435-8943

CSS Laboratories, Inc.
Technical Support	USA (714) 852-8161
BBS	USA (714) 852-9231

Diamond Computer Systems, Inc.
Technical Support	France 42-20-5959
	Germany 78-04-023-5
	Italy 39-25-16-671
	Spain 1-30-41534
BBS	USA (408) 325-7175

ELSA America, Inc.
Technical Support	USA (408) 565-9669
BBS	USA (408) 565-9630

Focus Information Systems, Inc.
Technical Support	USA (510) 657-4586
BBS	USA (510) 657-9451

Genoa
Technical Support	USA (408) 432-8324
BBS	USA (408) 943-1231

Hercules Computer Technology Inc.
Technical Support	Germany 14-24-910-5
BBS	Germany 14-24-089-8

Liberty Electronics USA
Technical Support	USA (510) 623-6000

Matrox Electronics Systems Limited
Technical Support	USA (514) 685-2630
BBS	USA (514) 685-6008

Metheus Corporation
Technical Support   United Kingdom 734-312-112
BBS   USA (503) 690-1559

Micron Computer
Technical Support   USA (208) 463-3444

Mirage Computer Systems
Technical Support   USA (310) 301-4541
BBS   USA (310) 301 4542

Number Nine Computer Corporation
Technical Support   Germany 96-14-491-0
BBS   Germany 96-12-139-0

Nth Graphics
Technical Support   USA (512) 832-1944
BBS   USA 512) 832-1964

Oak Technology
Technical Support   USA (408) 737-0888
BBS   USA (408) 524-9014

Orchid Technology Inc.
Technical Support   France 1-47-80-7050
          Germany 13-28-007-1
          United Kingdom 256-479-898
BBS   United Kingdom 256-463-373

Sigma Designs
Technical Support   Germany 89-33-644-3
BBS   USA (510) 770-0111

STB Systems
Technical Support   United Kingdom 818-970-662
BBS   United Kingdom 818-971-008

Swan Technologies, Inc.
Technical Support   USA (814) 238-1820
BBS   USA (814) 237-6145

Trident Microsystems Inc.
Technical Support   USA (415) 335-1179
BBS   USA (415) 691-1016

Tseng Labs
Technical Support   Germany 49-00-004-9
          Belgium 2-716-50-00
BBS   USA (215) 579-7536

Video Logic, Inc.
Technical Support   United Kingdom 923-260-511
BBS   United Kingdom 923-271-301

VidTech Microsystems, Inc.

Technical Support   USA (612) 785-9717
BBS   USA (612) 780-8033

Western Digital
Technical Support   USA (714) 932-4900
BBS   USA (714) 753-1234

Willow
Technical Support   USA (718) 402-0203
BBS   USA (718) 993-2066

CD-ROM Manufacturers

Hitachi
Technical Support   France 1-48-21-6015
                           Germany 40-73-441-0
                           Italy 39-02-30-231
                           Spain 3-33-08652

Mitsumi
Technical Support   USA (415) 691-4465

NEC
Technical Support   USA (508) 264-8000
BBS   USA (508) 635-4706

Panasonic
Technical Support   France 1-49-46-4300
                           Germany 32-18-702-0
                           Spain 7-24-81100
BBS   USA (201) 863-7845

Sony
Technical Support   USA (408) 894-0555
BBS   USA (408) 955-5107

Teac
Technical Support   USA (213) 726-0303
BBS   USA (213) 727-7660