

## 3D Accelerator Problems

"As soon as I launch a mission, *Heavy Gear* crashes."

"I'm able to launch into missions, but *Heavy Gear* crashes during gameplay."

"When I launch missions, the colors are all messed up."

"I'm playing in wire-frame (low-light) mode and *Heavy Gear* crashes."

"Gameplay is choppy."

"My screen flickers like crazy when I launch a mission."

All of these problems may be caused by obsolete drivers for your 3D accelerator card.

If you are playing on a 3Dfx-based card, you need to use newer drivers than the [Diamond](#) Monster 3D v.1.08 or the [Orchid](#) Righteous 3D v.2.0 drivers. Reference drivers are provided in the DRIVERS directory on the *Heavy Gear* Install CD. Note that different drivers need to be installed depending on whether you have a Voodoo, Voodoo Rush single-card, Voodoo Rush double-card, or Voodoo 2 board. At the time of writing, Voodoo 2 cards were not available, so these drivers are not provided on the Install CD.

If you are using a board based on any other chip-set, you'll need to contact your [board manufacturer](#) directly for up-to-date drivers. Be aware that not all 3D accelerator cards support DirectX 5. If you have a board that isn't 100% DirectX 5 compatible, you will need to play *Heavy Gear* in software mode. This can be set manually within *Heavy Gear* on the '**Combat Variables**' screen, by switching '**Graphics Type**' to '**Software 320**' or '**Software 640**'.

If you are using an [NEC](#) PowerVR-based card, you may need to disable the HAL (hardware abstraction layer) to make *Heavy Gear* work. Contact your manufacturer for instructions.

**"I'm using a Rendition-based accelerator card on a 16MB computer. The game pauses periodically during gameplay."**

Since Rendition-based accelerators use some of your computer's RAM to hold textures, you might experience pauses during gameplay on 16MB systems. The solution for this is to upgrade the amount of memory in your computer.

**"I have a 3D accelerator card, but gameplay is still choppy."**

This can be caused by using old drivers (see the section above). If you're sure you have the latest drivers, performance may be limited by your processor. If you are using an Intel-based or AMD-based computer that is 166mhz or slower, or a Cyrix-based computer that is 200mhz or slower, your frame-rate is being hindered by your processor. *Heavy Gear* conducts a lot of math operations using floating-point format, and when the screen is full of detail, frame-rates will diminish.

**Why do I have to quit the game application if I want to switch video modes from 3DFX to D3D, or vice versa?"**

Not doing so will cause the game to crash. If you switch from 3DFX mode to D3D or vice versa, you must quit and then restart the game. As a reminder, a dialog box containing these instructions will be displayed

when you attempt to change video modes.

# 3D Card Driver Problems

## ATTENTION 3D CARD OWNERS: IMPORTANT INFORMATION

If you have a 100% DirectX5 compatible 3D card or a 3D hardware accelerated video card based on:

**3Dfx Voodoo / Voodoo Rush**

-or-

**Rendition Verite 1000/2000**

chipsets and plan to run in 3D hardware accelerated mode, please read the following information carefully. If you do not have a 3D video card or you plan to [run the game in Software mode](#), you may ignore this information.

As of the time of its release, *Heavy Gear* has been designed to provide the maximum gameplay experience consistent with the hardware available to you. Because it is so advanced, certain issues on hardware accelerated D3D video cards using the latest manufacturer provided drivers still exist due to driver immaturity. Both 3Dfx and Rendition have worked with Activision to successfully resolve these driver issues and *Heavy Gear* functions as expected with updated drivers provided by them. The problem is that your video board based on the 3DFX or Rendition chipsets is manufactured by an OEM company (Canopus, Creative Labs, Deltron, Diamond, Hercules, Intergraph, Jazz, Orchid, Sierra, etc.) who adds features and functionalities and releases an enhanced driver set based on the reference drivers provided by 3Dfx or Rendition. Carrying these corrections through to your manufacturer driver always lags behind the resolution of the problems. This is the case with *Heavy Gear* and 3Dfx or Rendition-based D3D video boards, as well as other 100% DirectX5 compatible 3D cards.

Certain D3D drivers are **absolutely required** for 3D accelerated play. These drivers, referred to here as "reference drivers", utilize leading technology with the 3Dfx and Rendition cards and are provided on Heavy Gear Disc 1 (Install), as well as the Activision website ([www.activision.com](http://www.activision.com)) and on the 3Dfx and Rendition websites. If you attempt to play *Heavy Gear* in 3D hardware accelerated mode without these specific reference drivers, the game will **crash**. However, if you install these reference drivers, they will override and eliminate the specific drivers provided by the OEM manufacturer of your video board. You will have to reinstall such OEM drivers if you wish to continue to use them. Activision will not be able to provide you with specific instructions with respect to reinstalling the original drivers as Activision does not possess such information. We strongly urge you, therefore **not** to use the reference drivers unless you have the latest drivers issued by your video board's OEM readily available to be reinstalled **and** you feel comfortable with the process of installing and reinstalling video drivers on your system. In all cases, *Heavy Gear* will work properly in Software mode, without 3D acceleration and without any modification to your installed video drivers.

In order to utilize **native** 3D acceleration for Rendition using the RRedline API with *Heavy Gear*, you must have the latest version of the reference hardware driver. This is the case until your video board manufacturer can incorporate the latest fixes into their driver sets. The latest RRedline driver is provided on Heavy Gear Disc 1 (Install). This driver is also available on the Activision website ([www.activision.com](http://www.activision.com)), and on the Rendition website.

No reference drivers are provided for Verite 2000-based boards. Owners of Rendition V2000-based boards should use the drivers which came with their board. You should regularly check your board manufacturer's web site for newly-released driver updates.

Users of [other cards](#) that are 100% DirectX 5.0 / Direct3D compatible should contact the manufacturer of their cards for the latest drivers. Detailed instructions should be provided with any drivers you obtain.

Since *Heavy Gear* uses Microsoft's DirectX 5 API, 100% compatibility with DirectX 5 is required to run the

game. If your 3D card doesn't fully support DirectX 5 yet, you can still [run the game in Software mode](#).

## FREQUENTLY ASKED QUESTIONS

### Q: What are "reference" drivers?

A: "Reference" drivers are the drivers written by the manufacturer of a video chip. Manufacturers of video cards base their card-specific drivers on these reference drivers.

### Q: If these new reference drivers are better, why didn't the manufacturer of my card use them?

A: They haven't had a chance to yet. The reference drivers provided with *Heavy Gear* are brand new, and help the game to take full advantage of the features of these chips. After these drivers are released, it takes some time for card manufacturers to tweak them so that they get the best possible performance from their cards. These new drivers must then be tested with a wide variety of software to make sure they don't introduce any problems.

### Q: If the cards are all based on the same chip, why do card manufacturers write their own drivers?

A: While the cards are based on the same chipset (3DFX, Rendition, etc.), each manufacturer does something different with their actual cards, to optimize it for those features they wish to emphasize. They then use the reference drivers as a base and modify them to take full advantage of the specifics of their card.

### Q: How do I know which drivers I should use, if any?

A: Generally, you should only use provided reference drivers if you are comfortable with the process of installing, uninstalling, and reinstalling drivers and if you have the original drivers provided by your manufacturer with your video card readily available. Click [here](#) for a listing of all supported cards using the 3Dfx and Rendition chipsets, and where to find the corresponding driver. If your card is listed, use the corresponding driver for the chipset. Also included below is a list of many [3D cards which do not use either of these chipsets](#). If your card is listed in this category, you will not need to use either of these drivers. If you do not see your card listed, but believe it to have 3D acceleration, your [video card manufacturer](#) should be able to provide you with the information you need.

### Q: How do I run *Heavy Gear* in Software mode instead?

A: To determine whether you are running in Software mode, start the game. After the opening movie, when the Main Menu appears, press **ESC**. In the menu that appears, select **Combat Variables** and look at the **Graphics Type** option. If it lists *Software 320* or *Software 640* you are running in Software mode.

### Q: What if I want to restore my original driver settings?

A: While it is not possible to automatically uninstall the reference drivers, there are several ways to return to the original drivers you had before:

- You can reinstall from the original install disk that came with your board by following the directions that came with it.
- Your board manufacturer should have the original driver on their website, although we cannot

guarantee so. Only your board manufacturer can provide you with specific instructions regarding reinstalling the original drivers.

**Q: Are these reference drivers installed automatically?**

**A:** No. We are providing them on Heavy Gear Disc 1 (Install) should you choose to install them to play *Heavy Gear* using hardware acceleration. In contrast, playing in Software mode requires no additional driver installation.

**Q: How do I install the reference drivers?**

**A:** Manufacturer instructions for both driver types are provided with the drivers themselves on Heavy Gear Disc 1 (Install). See below for locations.

**Reference Drivers**

We have included 4 directories on Heavy Gear Disc 1 (Install), in the DRIVERS directory.

**If you have a Voodoo Rush-based board such as:**

- **Hercules Stingray 128 3D**
- **Intergraph Intense 3D Voodoo**
- **Jazz Adrenaline Rush 3D**

**please use the drivers located in the RUSH1 or RUSH 2 directories:**

These directories contain the install for the 3Dfx Reference Drivers for 3Dfx Voodoo Rush-based boards. If your video card has one circuit board, then go to the RUSH 1 directory. If it has a 2nd circuit board, then go to the RUSH 2 directory. The directory is located on Heavy Gear Disc 1 (Install) in the DRIVERS directory. Please follow the instructions in the README.TXT located in that directory to upgrade your existing drivers, or perform a fresh installation.

**If you have a Voodoo-based board such as:**

- **Deltron Flash 3D**
- **Diamond Monster 3D**
- **Orchid Righteous 3D**

**please use the drivers located in the VOODOO directory:**

This directory contains the DirectX5.0 Direct3D reference drivers (v2.13) for Voodoo Graphics Based 3D Accelerators. The following cards should work with these drivers: 3Dfx Interactive reference boards, Diamond Monster 3D, Orchid Righteous 3D, and Deltron Realvision Flash 3D. The following 3Dfx Voodoo boards have not been tested with these drivers and *Heavy Gear*, but may work: Canopus Pure 3D, Skywell Technology Magic 3D, Guillernot MaxiGamer, and Miro HiScore. The directory is located on Heavy Gear Disc 1 (Install) in the DRIVERS directory. Please follow the instructions in the README.TXT located in that directory to upgrade your existing drivers, or perform a fresh installation.

**If you have a Rendition Verite 1000-based board such as:**

- **Sierra Screamin' 3D**
- **Canopus Total 3D**
- **Creative Labs 3D Blaster**
- **Intergraph Intense 3D 100**

**please use the drivers located in the V1000 directory:**

This directory contains the Rendition reference D3D and RRedline drivers for all Verite 1000-based boards. The directory is located on Heavy Gear Disc 1 (Install) in the DRIVERS directory. Please follow the instructions in the README.TXT located in that directory to upgrade your existing drivers, or perform a fresh installation.

**If you have a Rendition Verite 2000-based board such as:**

- **Diamond Stealth II 220 3D**

No reference drivers are provided for Verite 2000-based boards. Owners of Rendition V2000-based boards should use the drivers which came with their board. You should regularly check your [video card manufacturer](#) website for newly-released driver updates.

## LISTS OF CARDS

NOTE: All of these are partial lists based on the information available to us at this time. The information is subject to change as new cards are released.

### Supported Cards and Chipsets in Native 3D Acceleration Mode and Direct3D Mode

The following video cards were tested and are supported by *Heavy Gear*. As noted above, the reference drivers provided on Heavy Gear Disc 1 (Install) are required for proper operation.

#### 3Dfx Voodoo Graphics

- Deltron Flash 3D
- Diamond Monster 3D
- Orchid Righteous 3D

#### 3Dfx Voodoo Rush

- Hercules Stingray 128 3D
- Intergraph Intense 3D Voodoo
- Jazz Adrenaline Rush 3D

#### Rendition Verite 1000-based

- Sierra Screamin' 3D
- Canopus Total 3D
- Creative Labs 3D Blaster
- Intergraph Intense 3D 100

#### Rendition Verite 2000-based

- Diamond Stealth II 220 3D

### Known Issues for Supported Cards and Chipsets in Native 3D Acceleration Mode

#### *RRedline (Rendition)*

- For all listed Rendition Verite 1000 boards, unless the provided reference drivers are used, *Heavy Gear* will crash.
- For the Diamond Stealth II 220 3D (Rendition Verite 2000-based) board, *Heavy Gear* will run properly except that players will see a Windows-hourglass cursor in the middle of their screen during gameplay. This can be moved to the edge of the screen while the mission is loading.

#### *Glide (3Dfx)*

- For all listed 3Dfx Voodoo Graphics-based boards, players using the board manufacturer's drivers may experience a crash in wireframe (low-light) mode.

### **Known Issues for Supported Cards and Chipsets in D3D Acceleration Mode**

#### *3Dfx*

- For all listed 3Dfx Voodoo Rush cards, using either the board manufacturer's drivers or the reference drivers, players will notice excessive screen flicker while in gameplay. Players in this mode should switch to Native 3D Acceleration mode.

#### *Rendition*

- For all listed Rendition Verite 1000 and 2000-based cards, using either the board manufacturer's drivers or the reference drivers, players will notice that wireframe (low-light) mode and wire-frame damage overlay does not work. Players in this mode should switch to Native 3D Acceleration mode.

### **Note on Known Issues**

At the time *Heavy Gear* is being released, the board and chipset manufacturers of these cards / chipsets were aware of the aforementioned problems and have been working on fixes for them. Please check your video board manufacturer's website regularly for updates to their driver set which may solve the noted issues.

### **Tested, yet unsupported Cards and Chipsets in Direct3D Mode**

The following video cards have undergone testing with *Heavy Gear*, yet are not officially supported by *Heavy Gear*. The issues listed with each card will likely be resolved by subsequent driver releases from either the chipset or board manufacturer.

#### **Chipset/Card**

Nvidia Riva 128 / Diamond Viper 330  
 Nvidia Riva 128 / STB Velocity 128  
 PowerVR PCX2 / All  
 ATI Rage Pro  
 Oak Technologies Warp 5

#### **Issue**

Graphics flicker  
 Graphics flicker  
 Sky texture corruption  
 Gray boxes around explosions  
 Minor graphics issues

### **DISCLAIMER**

We have included the video card manufacturer instructions on installing the drivers in the directories listed above. If you encounter difficulties during driver installation, please contact the manufacturer of the drivers you are installing. Activision makes no warranty that changing your own drivers will not have adverse effects on your system or on installed software.

The 3Dfx reference drivers provided on Heavy Gear Disc 1 (Install) contain fixes that may not have been incorporated into the current drivers for your video card and are not yet available from your board manufacturer. These drivers are more current than the Diamond Monster 3D v1.08 drivers, and the Orchid Righteous 3D v2.0 drivers.

The Rendition reference drivers provided on Heavy Gear Disc 1 (Install) also contain fixes that may not have been incorporated into the current drivers for your video card and are not yet available from your board manufacturer. The drivers provided are only for Verite 1000-based boards, and are newer than the

Sierra Screamin' 3D SS v2.1 drivers, Creative Labs 3D Blaster CL3DBV v1.05 drivers, and Intergraph Intense 3D II v2.3 drivers.

Be warned that using reference drivers may affect any manufacturer-specific control panel applets associated with your video board. You will have to reinstall the drivers provided with your video board in order to gain back the use of such functions. We strongly urge you to periodically check your video board manufacturer's website for newly-released driver updates.



## **3D accelerator cards supported by *Heavy Gear***

### **3Dfx Voodoo Graphics**

Deltron Flash 3D  
Diamond Monster 3D  
Orchid Righteous 3D

### **3Dfx Voodoo Rush**

Hercules Stingray 128 3D  
Intergraph Intense 3D Voodoo  
Jazz Adrenaline Rush 3D

### **Rendition 1000 Based**

Sierra Screamin' 3D  
Canopus Total 3D  
Creative Labs 3D Blaster  
Intergraph Intense 3D 100

### **Rendition 2000 Based**

Diamond Stealth II 220 3D

## Before The Installation

- This game uses Microsoft DirectX 5 video and audio drivers. It is important that you check with your audio and video card manufacturer to determine if your hardware will support DirectX. Please see the [DirectX 5](#) & [3D Card Driver Problems](#) sections in this file for more information.
- This game should not be installed to a compressed drive.
- Please make sure your computer system is 100% Windows 95 compatible; *Heavy Gear* is not compatible with Windows 3.1.
- To operate best, *Heavy Gear* requires that your system have the latest Windows 95 32-bit drivers for your CD-ROM drive, sound, and video card. If you have any problems running the program, outdated drivers are the most likely cause.
- If you need help obtaining the latest sound and video drivers, check out the [Vendor List](#).

## **Can I run the game without the gameplay CD in the drive?**

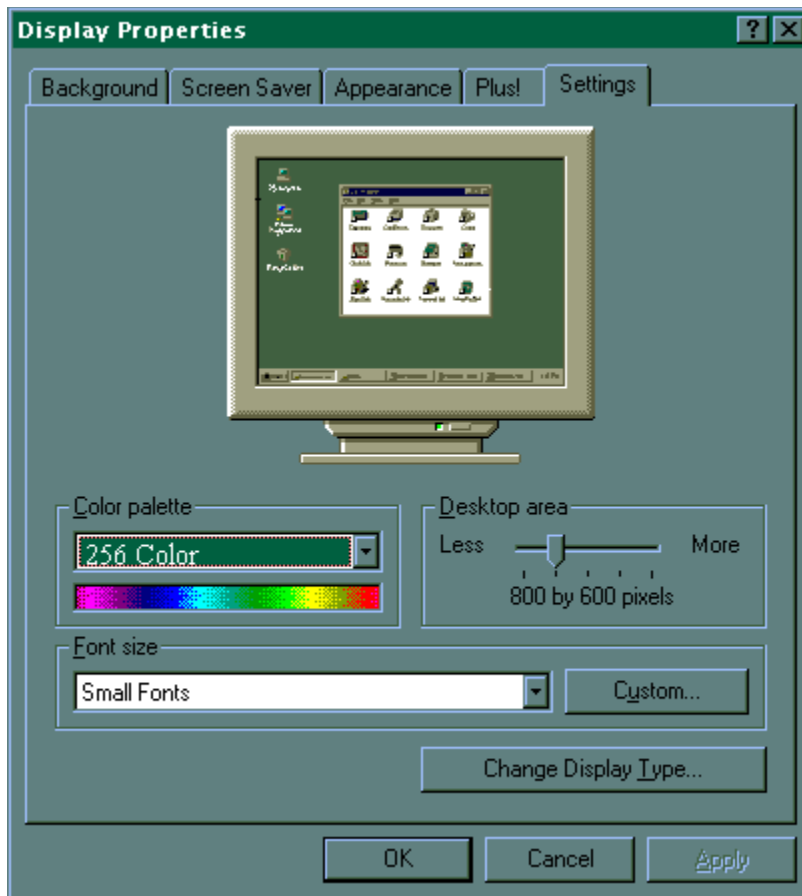
Yes. You do not need the disc in the CD-ROM drive while playing the game.

## Color Settings

This game utilizes the Direct Draw libraries of Microsoft's DirectX. Some video cards do not yet have driver support for Direct Draw. Updated drivers are being developed by manufacturers to remedy this. To obtain information on these updates, contact your [Video Card Manufacturer](#) and download their latest DirectX drivers for your video card. If you are not sure about your video card or its capabilities, please refer to the section called [Check Your Display Type Settings](#) for more information, or contact your [Video Card Manufacturer](#).

### To Change Your Color Setting:

You need to change the **Color palette** box of the window shown below to at least 256 Color. To go to the Display Properties window to change it, [click here](#).



If you choose to make this change at some other time, you can always return to this Help file and try again, or follow the steps listed below to access these settings.

1. Place your mouse cursor over an empty area of your desktop and click the right mouse button. At the bottom of the list that appears, click on **Properties**. This will bring up the Display Properties window. You can also bring this window up by clicking on the **Display** icon in the Control Panel.

2. Choose the **Settings** tab and change the color setting to 256 Color as shown in the **Color palette** box above.

If you have a video card that supports 256 Color, but you cannot select this as an option, check to see that you have the most updated Windows 95 video driver.

# Common Audio Problems

**IMPORTANT NOTE:** You may encounter choppy gameplay if your sound card is not **100% Sound Blaster 16 compatible**. 8 bit sound cards are not supported with this game (e.g. Sound Blaster and Sound Blaster PRO compatible). Also, the following sound cards may not fully support DirectX:

- Yamaha OPL3 series
- AD (Analog Devices)
- Sound 2
- Ensoniq (Gateway 2000)
- IBM's MWAVE
- Compaq's ESS

You may want to contact your sound card manufacturer to see if your card is 100% Sound Blaster 16 compatible.

Half of the problems with sound cards are remedied by obtaining the latest sound card drivers. We highly recommend updating drivers, which is usually free and easy to do. You can contact your sound card manufacturer for details.

## Game Specific:

[Can I play my own music on my computer while I play Heavy Gear, by swapping the Heavy Gear CD for an audio CD?](#)

[The sounds are distorted and/or the movies are choppy. What can I do?](#)

[I have a Media Vision Pro Audio Spectrum 16. The sound and movies are choppy. What should I do?](#)

[I don't hear any music during missions.](#)

[I don't hear any difference when I change to the different 3D sound types.](#)

[I have a 3D sound card \(for example, the Diamond Monster Sound card\) which uses the Aureal A3D audio technology. I would like to use the hardware accelerated sound feature. What do I need to do?](#)

[I have an Aztec Sound card and the sound effects will drop out almost every mission, but the music will keep playing.](#)

## General:

[Installing a new sound card.](#)

[I just installed a new sound card. How come I'm not getting any sound?](#)

[Checking Your Sound Card For Conflicting Settings.](#)

[I have only partial or no sound when running the game.](#)

[I have a Diamond Telecommander sound/modem card and it does not work with the game. What do I do?](#)

I have a Packard Bell with little and/or no sound when playing the game.

I have an Advanced Gravis UltraSound ACE and I am experiencing severe lock-up problems.

Why is the sound fuzzy on my Sound Blaster Pro 2 sound card?

# Common CD-ROM Problems

If you encounter any CD-ROM drive problems, make sure you have the latest 32-bit CD-ROM drivers installed. Most problems are the result of 16-bit CD-ROM drivers. To see if your computer is using 16-bit drivers, follow these steps:

1. Right mouse click on **MY COMPUTER**
2. Choose **Properties**
3. Select the **Performance** tab

If **File System** does not state "32-bit", then you need to update your CD-ROM drivers. Please contact your **CD-ROM drive manufacturer** for details.

**Can I run the game without a CD in the drive?**

**I have a CD changer and I am having problems launching into the game. What should I do?**



# Common Input Device Problems

Game Specific:

[How do I set up my joystick or game pad?](#)

[My joystick's throttle control is not responding well. What can I do?](#)

[My two button joystick does not seem to work. What's going on?](#)

[I have a programmable joystick. Are there joystick configurations for \*Heavy Gear\* available for my joystick?](#)

General:

[General Troubleshooting for Joysticks and Game Pads](#)

[Joystick Calibration](#)

[Mouse](#)

# Common Video Card Problems

Many of the problems with video cards are remedied by installing newer video card drivers. This is highly recommended and is usually free and easy to do. Contact your [video card manufacturer](#) for details.

## Game Specific:

**3D CARD OWNERS:** [Click here](#)

[When I launch into the game, the screen goes black and freezes.](#)

[Why do I have wavy lines across my screen when I play the game?](#)

[How do I set my display for 256 Color?](#)

[As soon as I launch a mission, \*Heavy Gear\* crashes.](#)

[I'm able to launch into missions, but \*Heavy Gear\* crashes during gameplay.](#)

[When I launch missions, the colors are all messed up.](#)

[I'm playing in wire-frame \(low-light\) mode and \*Heavy Gear\* crashes.](#)

[Gameplay is choppy.](#)

[My screen flickers like crazy when I launch a mission.](#)

[I'm using a Rendition-based accelerator card on a 16MB computer. The game pauses periodically during gameplay.](#)

[I have a 3D accelerator card, but gameplay is still choppy.](#)

[Why do I have to quit the game application if I want to switch video modes from 3DFX to D3D, or vice versa?](#)

[When I launch missions, the colors are all messed up.](#)

[My cursor flashes when I move it around.](#)

[As I move my cursor, the Windows desktop shows through the screen.](#)

[During the mission, I can see the Windows cursor or the Windows hourglass.](#)

[I have a Tseng Labs 4000 PCI video card. In 640 Software mode, when I enter a mission, the Windows hourglass cursor is visible.](#)

## General:

[The images are very choppy and slow while playing the game.](#)

[I installed a new video card, and the game doesn't look right. What do I do?](#)

Changing the standard Windows 95 cursors or desktop theme causes video corruption.

When I launch the game from the title screen or from the taskbar, my screen stays blank and the game doesn't start. What should I do?

Game graphics are faded and/or strange in appearance.

The fonts are too large and/or extend off the screen.

## Crashing by clicking on the desktop or hitting ESC

The desktop appears because the game is in the process of switching video modes. During this time period, DO NOT click anywhere on the desktop or the toolbar, as that will cause a crash. After that period, while the game is launching and you see the launch animation, DO NOT hit **ESC** or any other key, as that will also cause a crash.

# Credits

## HEAVY GEAR

Director  
Tim Morten

Producer  
Chacko Sonny

Associate Producer  
Jim Riordan

Associate Producer/Asset Manager  
Daiva Venckus

Production Assistant  
Ashton Szabo

Design  
Lead Designer  
Dustin Browder

Mission Designer  
Jeff Jorczak

Mission Designer  
John Harris

Mission Designer  
Mike Ward

Creative Executive  
Chris Hewish

Programming  
Lead Programmer/3D Programmer  
Bill Ferrer

Game Logic Programmer  
Sebastien Juanico

Shell Programmer  
Dan Blumenthal

Network Programmer  
Jeff Graebner

AI Programmer  
Smith Surasmith

Tools Programmer  
Pat Griffith

Localization Programmer  
Frankie Tam

Guest 3D Programmer  
Julio Jerez

Guest 3D Programmer  
John Lemberger

Art  
3D Artist  
Junki Saita

3D Artist  
Sean Kinnear

3D Artist  
JJ Franzen

3D/2D Artist  
Jack Burton

2D Artist  
Juan Carlos Rodriguez

2D Artist  
Jerret Farmer

Guest 3D Artist  
Paul Waggoner

Guest 2D Artist  
Rick Glenn

Guest 2D Artist  
James Maeda

Guest 2D Artist  
Ivan Enriquez

Guest 2D Artist  
Eric Piccione

3D/2D Art & Conceptuals  
(Equinoxe)  
Henry Cheng  
Anthony Fung  
Brian Heins  
Aryeh Richmond  
Sean Ro

Terranovan Map  
Julian Fong

Mission Audio  
Producer

Jim Riordan

Composer  
Jeehun Hwang

Sound Design  
(SounDelux)  
Bryan Bowen

Voice-over Engineering  
Michael Schwartz

Voice Talent  
Jamie Bafus  
Robert Berger  
Greg Borrud  
Bryan Bowen  
Dion Brain  
Matt Candler  
John Cibulski  
Sarah Cigliano  
George Collins  
Mason Deming  
Kristen Denmark  
Bryan Diggs  
Joseph Donaldson  
Tamara Downs  
Jon Eubanks  
Jarrett Farmer  
Chad Findley  
Maria Flagg  
Chris Game  
Seth Gerson  
Adam Goldberg  
Bridgett Hoffman  
Jim Hudson  
Sebastien Juanico  
Kacee  
John Keating  
Mark Lamia  
Ronnie Lane  
Trish Loughne  
Jack Mamias  
Zack Norman  
Stephanie O'Malley  
Jenny Park  
Katie Pine  
Lateef Priester  
James Riordan  
Anthony Roman  
Carole Ruggier  
Michael Schwartz  
Chacko Sonny  
Tim Vanlaw  
Daiva Venckus  
Marvette Williams

Casting  
Jim Hudson

Cut-Scenes  
(Activision)

Producer  
James Ott

Story  
Dustin Browder

Writers  
Peter Ocko  
Dustin Browder  
Tom Abernathy

Editor  
Chris Hepburn

Voice Over Recording  
(SounDelux)  
Brian Celano

Composer  
Jeehun Hwang

CGI  
(Equinoxe)  
Henry Cheng  
Anthony Fung  
Brian Heins  
Aryeh Richmond  
Sean Ro

Storyboard Artist  
Lateef Priester

(Vision Mixer - Production)

Director  
George Bloom

Producer  
Mark Levinson

Director of Photography  
Kim Haun

Art Director  
Chuck Dutrow

Production Manager  
Ivan Johnson



1st Assistant Director  
Al Winchell

2nd Assistant Director  
Martin French

Gaffer  
Chuck Mason

Best Boy Electric  
Gus Oliva

Key Grip  
Paco Fisher

Best Boy Grip  
Billy Bosson

Swing  
Billy Meyers

Script Supervisor  
Nili Sinai

Make-up  
Leigh Ann Chio

Make-up Assistant  
Charlotte Purifoy

Wardrobe  
Kerry Mellin

Wardrobe Assistant  
Gillean McLeod

Set Decorator  
Laurie Scott

Prop Master  
J. Cardillo Lee

Video Technician  
Ken Roy

Sound

(SounDelux)  
Tom Ozanich

Boom Operator  
Ross Levy

Production Assistant  
Richard Massino

Production Assistant  
Alex Comana

Production Assistant  
Laura Bloom

Production Assistants  
Angel Short

Production Assistants  
Clay Anderon

Craft Services  
Michael Richter

Stand-Ins  
Addison Yeaman  
Susan Marque

(Cast)

Ranger Scott  
Lieutenant Brockton  
Corporal Reeves  
Colonel Janus  
Corporal Henry Janus  
Vigilance Captain  
Draco Captain  
Vigilance Lieutenant

Chris Stapleton  
Bari Buckner  
Robert Gevrekian  
Scott Kloes  
Ron Pacheco  
Michael Halsey  
Jerry Rector  
William Smith Keene

Extras

Jimmy Austin  
Brian Celano  
Marina Freeman  
Bridget McBride  
Keith Jennings  
Susan Marque  
Linwood "Woody" Porter  
Lateef Priester  
Jim Riordan  
Addison Yeaman

Intro Movie

Producer  
Ron Gould

Writer  
Dustin Browder

CGI

(Equinoxe)  
Henry Cheng  
Anthony Fung  
Brian Heins  
Aryeh Richmond  
Sean Ro

Composer  
(SounDelux)  
Bill Brown

Audio Engineer  
(SounDelux)  
Bryan Bowen

Sr. V.P., Activision Studios  
Alan Gershenfeld

Director of Production,  
Action/Sim Group  
Frank Evers

Director of Technology,  
Action/Sim Group  
Henry Yu

Director of QA & Customer Support  
Jim Summers

QA Manager  
Dave Arnsperger

Director of Marketing  
Henk Hartong

Associate Product Manager  
Charlie Hill

Manual  
Producer  
Mike Riviera

Writer  
Sacha Howells

Layout  
Sylvia Orzel

Additional Art  
(Dream Pod 9 Art Team)  
Pierre Ouellette  
Jean Francois Fortier  
Ghislain Barbe  
Normand Bilodeau  
Bobbi Burquel  
Charles-Emmanuel Ouellette  
Marc Ouellette

Installer & Splash Screen  
Producer  
Daiva Venckus

Production Coordinator  
Tanya Martino

Programmer  
Eric Schmidt

Artist  
Jack Burton

ActivLink  
Producer  
Mark Lamia

Senior Programmer  
Dan Kegel

Localization  
Producer  
Jim Riordan

Asset Manager  
Daiva Venckus

Programmer  
Frankie Tam

Project Coordinator  
Nicky Kerth

Production Assistants  
David Escobar  
Thomas Wolski

German Translation  
Natascha Conrad  
Gaby Heissenberg

German Voice Recording  
M&S Music, Germany

Spanish Translation  
Berlitz International

Spanish Voice Recordings  
Aquarium Recordings

Cross Production  
Associate Producer  
Adam Goldberg

Production Coordinators  
Tanya Martino  
Jason Feffer  
Kevin Cohen

Tech-Help Writers  
Jason Feffer  
Ronnie Lane

Quality Assurance  
QA Project Lead  
Tyler Scott

Senior QA Project Lead  
Eric Zala

Production Testers  
Emily Moher  
Mohammed Wright

QA Test Team  
Ken Anderson  
Aaron Casillas  
Liza Clary  
Damien Fischer  
Tim Harrison  
Moh Wright  
T.Q. Jefferson  
Tanya Langston  
Emily Moher  
Sam Nouriani  
John Sherwood  
Dale Son  
Brian Ullmer  
Ronald D. Weibel

Games Analyst  
Ryan Moos

Internal BetaTesters  
Jens Andersen  
Mike Arkin  
Dan Atkins  
Neil Barizo  
Lars Batista  
Lee Briskin  
Gary Brunetti  
Chris Campbell  
George Collins  
Jonathan Eubanks  
Frank Evers  
James Farley  
David Georgeson  
Alan Gershenfeld  
Chip James  
Thaine Lyman  
Jack Mamais  
Chris Martinich  
Jonathon Moses  
Zack Norman  
Dave Nash

Doug Pearson  
Junki Saita

Demo Testers  
Biff Coon  
Sean Dickerson  
Maurice Fitzgerald  
Eriks Germanis  
Patrick Gonzales  
Sean Gupta  
Nick Holden  
Steve Hudson  
Scott Kunian  
Bob McPhearson  
Yongho Son Minale  
Clayton J. Miner  
Jim Patterson  
Martin D. Paulk  
Nicholas Pratt  
Michael Tarr  
Chris Travis  
Tom and Adam Wolf

External Beta Testers  
Bill Ainsworth  
Brett Alcorn  
Kenneth C. Baltz  
Jean Claude Bureau  
Chris Carlson  
Jason Cash  
Tommy Cheatham  
Doug Chronkite  
Mark Cottell  
Kenny Cowette  
Kevin Cuillard  
Will Day  
James Debbs  
Maxwell DeChant  
Lane Denson  
James Dicken  
Kevin Dorsey  
Paul Dunlap  
Michael Dwiel  
Brian Edwardo  
William Ellender  
Derek Evans  
David Ferriera  
Sasha Grieco  
Richard Grochowski  
John Hamilton  
John Harris  
Michael Hayes  
Tom Hepner  
Barton Hodges  
Alan Johns  
Mark W. Kaelin

Scott Kasai  
Eddie Klaynberg  
Xaeriq Xavier Wulf Knight  
Gary Lapidus  
Alan Liebowitz  
Charles Little, Jr.  
Shawn Lovill  
Woody Lovill  
Roland Lozier  
Lloyd D. Jessee  
Bob McPherson  
John Mahlendorf  
Todd Manion  
Dave Marcinowski  
Justin Nafziger  
Bryan Ray Nord  
Dean O'Donnell  
Martin D. Paulk  
Joshua Pollak  
Brett Reid  
Kevin P. Rocha  
Felix Rodriguez  
Joseph Ruffolo  
Brant Rusch  
David C. Seale  
John Sherwood  
Mark Shurtleff  
Dakota Smith  
Eric Strandberg  
Clint Swereda  
Jeffrey Sylvan  
Mark Valentine  
Brian Wade  
Justin Wahlstrom  
Jeremy Wellner  
Jack York  
Eric Zolnowski

#### Special Thanks

Dream Pod 9, for coming up with a great Universe and letting us make the computer game  
Henk Hartong, for being a steadfast supporter and doing a great job marketing  
Alan Gershenfeld, for keeping a level head through the usual mayhem  
Johnny Wilson, for believing in the project early on  
The MW2 Team, for creating the framework that we built upon  
Henry Yu, for lending us his talent and support throughout  
Sean Vesce, for a lot of helpful feedback  
Lee Briskin, for countless CD burns  
Andy Rothfusz and Brian Bruning, for their help with the Glide version  
Karl Fischer and Vaughn Rhodes, for their help with the Redline version  
Suneil Mishra and Skip McIlvaine, for their help with the Aureal A3D implementation  
All the Heavy Gear fans, for their insight, suggestions and feedback that went into making this game great  
John Lemberger, for being a good friend

# DirectX 5

During the game setup, the installation process will determine if Microsoft DirectX 5 needs to be installed on your computer. If so, the Microsoft DirectX 5 setup program will install the appropriate files on your computer. If you choose not to install DirectX 5, and you find that later you need to install DirectX 5, follow these directions. With the game disc in your CD-ROM drive, right mouse click the game's CD icon and select **Install DirectX**.

## Who makes DirectX and how can I contact them?

Microsoft created DirectX. If the answer to the question you are looking for is not found on this page, you may want to contact Microsoft via mail at:

Microsoft Customer Sales and Service  
One Microsoft Way  
Redmond, WA 98052-6399, USA

Microsoft can also be reached in the USA at (800) 426-9400, or internationally at +1(206) 882-8080.

## What is DirectX and why do I need it?

Microsoft DirectX 5 is an API (Application Programming Interface) that increases the speed at which games play under the Windows 95 operating system. These APIs allow direct access to the enhanced features of hardware under Windows 95. With DirectX 5, a program has instant access to the hardware, allowing for great advances in graphics, sound, video, 3-D, and network capabilities of games.

Since Windows 95 and DirectX 5 are relatively new in the computer world and have not achieved compatibility with some older video cards, many manufacturers are releasing updated drivers for Windows 95 to meet the DirectX standard. If you are not sure about your video card's compatibility, consult the Vendor List for the company that makes your video card.

If the Microsoft DirectX Installer does not detect DirectX 5 on your computer, it will install DirectX 5 for you. After installation is complete, you will need to restart your computer in order for DirectX 5 to take effect.

If you have other Windows 95 games on your computer, chances are you already have an earlier version of DirectX installed on your computer. In this case, the Microsoft Installer will overwrite that version with DirectX 5. The DirectX installation process will then be complete. You will need to restart your computer for the changes to take effect.

If you already have DirectX 5 installed on your computer, the Microsoft DirectX 5 installer will detect it and not overwrite any DirectX 5 files. In this case, you will not need to restart your computer after installation in order to run the game.

DirectX 5 should not affect any titles designed for the earlier versions of DirectX. Should you encounter difficulties with DirectX 5, please contact Microsoft for further information.

## How do I check to see if my computer supports DirectX?

1. Place the disc in the CD-ROM drive and exit from any autoplay screens.
2. Double-click **My Computer**.
3. Right-click your CD-ROM drive and choose **Install DirectX**.



If any of the components of DirectX are not certified, please call your hardware manufacturer for the updated drivers that support DirectX.

### **I am having problems with running the game and think it might be related to my Direct X installation. What should I do?**

If you experience problems running the game, try turning off the "Enable 3D Acceleration" option in the DirectX setup program. To disable 3D Acceleration, double click the dxsetup icon located in **Program Files\DirectX\Setup**. Uncheck the option for 3D acceleration in the middle of the DXSetup window.

You can also lower the "Graphic Hardware Acceleration" slider bar in the System Properties found in the Control Panel.

### **I have heard DirectX is not compatible with some video cards. What can you tell me about that?**

Windows 95 and DirectX are relatively new in the computer world and have not achieved compatibility with some older video cards. Many manufacturers are releasing updated drivers to meet the DirectX standard. If you are not sure about your video card's compatibility, consult the [Vendor List](#) for the company that makes your video card.

### **If I don't have DirectX, will the game install it for me?**

Yes. If the Microsoft DirectX Installer does not detect DirectX on your computer, it will install DirectX for you. After installation is complete, you will need to restart your computer in order for DirectX to take effect.

### **How do I restore my video and/or audio drivers once DirectX has been installed?**

1. Place the disc in the CD-ROM drive and exit from any autoplay screens.
2. Double-click **My Computer**.
3. Right-click your CD-ROM drive and choose **Install DirectX**.

Choose the button that satisfies your need (e.g. **Restore Audio drivers**). This process will install your previous drivers and prompt you to restart Microsoft Windows.

### **I'm trying to install *Heavy Gear*, and the installer gives me an error box during DirectX setup. What's going on?**

If you did a custom install of Windows95, and did not install audio compression, you will see the aforementioned error box. Clicking the **Cancel** button three times after this box appears will allow installation to continue and game function will be unaffected.

## **Problems Relating to Specific Video Cards**

The following manufacturers suggest running DirectX 5 with their products using the configurations listed below. If you need further assistance, please contact your video card manufacturer directly.

**[ATTENTION 3D CARD OWNERS: Click here](#)**

## Diamond Multimedia

*Stealth SE*

*Stealth 64 Graphics 2000*

*Stealth 64 Video 2000*

*Stealth 64 Video 3000*

*Stealth Video 2001*

*Stealth Video 2001\TV*

*Stealth Video 2500*

*Stealth 3D 2000*

*S3 Trio 64V+* (Images will appear very dark on some monitors when using this card)

If problems are encountered with the above Diamond Multimedia video cards, we recommend that you restore your video card drivers. Instructions are as follows:

1. Place the game disc in the CD-ROM drive and exit from any autoplay screens.
2. Double-click **My Computer**.
3. Right-click your CD-ROM drive and choose **Install DirectX**.
4. Click the button labeled **Restore Video drivers**.

## Matrox Graphics

*Matrox Millennium*

*Matrox Mystique*

The Matrox Millennium card may not support the current version of Direct3D acceleration (which is enabled by DirectX by default). Even if the game does not use Direct3D, this card may have problems due to Direct3D being enabled. You can disable this feature from within the DirectX setup menu.

Please follow these instructions to do so:

1. Place the game disc in the CD-ROM drive and exit from any autoplay screens.
2. Double-click on **My Computer**.
3. Right-click on your CD-ROM drive and choose **Install DirectX**.
4. Click on the box labeled **Direct3D Hardware Acceleration Enabled** to make this box empty. This will disable Direct3D.
5. Click on the **OK** button.

At the time of creating this file, Matrox Mystique drivers version 3.70 were not 100% DirectX 5 certified. We recommend you contact Matrox for the most current DirectX 5 compatible drivers for this card. You may also try using driver version 3.63 with this card.

## STB Systems

*Powergraph 64 using Vision 95*

We have experienced numerous problems with STB video cards running the STB Vision 95 set of display tools. If you experience any problems playing the game, please uninstall your STB Vision 95 display tools by reinstalling the STB drivers **without** the STB Vision 95 display tools .

## ATI Technologies

### *Mach 64*

If you experience problems running with an ATI Mach 64, click the **Start** Button and select **Run**, then type SYSTEM.INI. Click **OK**.

Locate the section within the file labeled  
[Display]

and add the line STRETCHENGINE=0

Example:

```
[Display]
STRETCHENGINE=0
```

Click **File**, then choose **Save**. Click **File** then choose **Exit** to leave your System Configuration editor. Reboot the system and try playing the game again.

Contact your [video card manufacturer](#) directly for further support or driver updates.

# Electronic Registration

**There are three ways to access the electronic registration for Windows 95:**

1. Select **Register Now** during the installation process.
2. Insert the CD. From the game's title screen, click on **More**. Then, click on **Electronic Registration**.
3. Right-click on the the game's CD icon with the disc in your CD-ROM drive and select **Electronic Registration** from the menu.

# Encryption

The encryption feature allows team members to chat and plan a strategy without alerting the enemy of your intentions. Enemy players cannot read your messages while the encryption key is depressed.

## Exit the game

To exit the game properly, hit **ESC** and choose the menu option "Exit to Windows".

# How can I improve performance

**"Gameplay is choppy."**

**"I'm experiencing low frame-rate during missions."**

If you are using an Intel-based or AMD-based computer that is 166mhz or slower, or a Cyrix-based computer that is 200mhz or slower, your frame-rate is being hindered by your processor. *Heavy Gear* conducts a lot of math operations using floating-point format, and when the screen is full of detail, frame-rates will diminish.

You can improve frame-rate by going to the '**Combat Variables**' screen and changing some of the options. The two things that will have the greatest affect on frame-rate are 'Graphics Type' and 'Textures'. For optimal performance, set 'Graphics Type' to '**Software 320**', and 'Textures' to '**off**'. Note that this will cause the graphics to look less detailed.

Also, make sure 3D sound is off if you're having performance problems. It will use 5 to 10 percent of your computer's bandwidth.

**"The game takes a long time to load."**

**"Missions take a long time to load."**

*Heavy Gear* contains more art than any game we've ever made. On systems with less than 24MB of RAM, not all of those assets will fit in memory at the same time. To improve your load-time performance, it is recommended that you upgrade to 32MB of RAM.

You may also try to improve game performance by using the following steps:

1. Close all other programs while playing.
2. Set Graphics Acceleration to maximum in your System Control Panel.
  - a. Go to the **Start** menu on your taskbar. **Select Settings→Control Panel**.
  - b. Double-click on the **System** icon.
  - c. Click on the **Performance** tab.
  - d. Click on the **Graphics** button.
  - e. In the Graphics box, position the Hardware Acceleration slider to **Full**.

# How do I set up my joystick or game pad?

You must setup your joystick/gamepad in the Windows 95 Control Panel. Click **Start** on the taskbar, then **Control Panel**. Then click on **Game Controllers**. From here you can choose and calibrate your controller. If your controller does not appear on the list of available controllers, you must get the drivers from the manufacturer.

Then start the game and go to the Cockpit Controls screen, where you can adjust what functions are controlled by what input. Your customized configuration can be saved for future use.

## Customizing Controls

First, choose the category of commands then the device you would like to adjust. For example, to adjust the settings for movement, select "**Movement**" from the Category box between the two arrowheads. Next, select the device you would like to use from the list in the Device box.

The lower half of the screen lists each possible action in the category you selected, and what input will produce the action. The Modifier column represents what control keys must be used in combination with the input.

To change the setting for an action, select the action and click "**Edit**". This will bring up a dialog box listing the possible modifier keys and inputs for your currently selected device. Click on the modifier and input you would like to use, and then click "**Accept**".

At any time, you can click "**Restore Defaults**" to set all controls to their default configuration.

## Loading, Saving, and Deleting Configurations

Once you have created a custom configuration, you may want to save it future use. To do this, click in the Configuration box and type in a name for your custom configuration. Then, click "**Save**".

You can cycle through all the configurations that have been created by clicking on the left or right arrows in the Configuration box. Any custom configurations you have created will appear in this list.

## The Simulation and Action Configurations

Two default configurations are provided: Simulation and Action. These can be selected by clicking on the left or right arrows in the configuration box until their name appears.

The **Simulation** configuration is designed for players who are used to the controls for simulation-style games, including giant robot combat simulations. The **Action** configuration is designed for players who are used to the controls for first-person action games.

## Accepting a Configuration

After you have selected the configuration you want to use, click "**Accept**" in the lower right hand corner of the screen.

**I have a programmable joystick. Are there preconfigured joystick settings for Heavy Gear available for my joystick?**



Heavy Gear supports programmable joysticks. We have provided on the install CD, pre-configured cockpit control files for the following joysticks:

- Saitek X36F and X35T
- Saitek PC Dash
- Thrustmaster FCS & WCS
- Thrustmaster FLCS & TQS
- Thrustmaster FLCS & WCS

To utilize any of these configurations, copy all of the files from the correct folder in the CFGS directory of the Heavy Gear CD into your game directory (the directory to which you installed the game). Then, when scrolling through available control configurations in the Cockpit Controls screen, you should see an entry for your particular joystick.

**I changed the joystick I use to play *Heavy Gear*. The first joystick worked, but the second one does not. What should I do?**

You must properly configure any new joystick. After you hook up your joystick and [configure it in Windows 95](#), all you have to do is go to Cockpit Controls and click on your new joystick in the Device window. Then click **Restore Defaults**. *Heavy Gear* automatically will map the proper commands to your new joystick. This also will restore your keyboard settings to the default configuration.

## How to Start the Game

After installing the game, click **START** and select **PROGRAMS**. Click **Heavy Gear** and choose **Heavy Gear**. Once the title screen appears, click **PLAY** to launch *Heavy Gear*.

## I have a Media Vision Pro Audio Spectrum 16. The sound and movies are choppy. What should I do?

The game requires a 100% Sound Blaster 16 compatible sound card. Your sound card meets the requirement, but is not working properly. Follow these instructions to allow your card to work in 16 bit mode:

- (1) Click on **Start**→**Settings**→**Control Panel** and double-click the **Multimedia** icon.
- (2) Make sure you are on the Audio tab.
- (3) Within the Playback section change the Preferred Device to "ProAudio Wave Out".
- (4) Click on the tab labeled **Advanced**.
- (5) Single-click the plus sign in front of "Audio Devices". This should expand the branch.
- (6) Single-click on the phrase "Audio for Sound Blaster Emulation" and click the **Properties** button.
- (7) Check-mark the boxes for "Do not use audio features on this device" and "Do not map through this device".
- (8) Click the **Apply** button and restart your computer for the changes to take effect.

If you still encounter problems, contact [Media Vision](#) for more assistance.

# Installing & Uninstalling the Game

## **ATTENTION 3D CARD OWNERS: IMPORTANT INFORMATION**

### **Before the installation**

**Installing the Game** - This contains installation instructions and information about this version.

### **Electronic Registration**

**Uninstalling the Game** - Basic instructions on how to uninstall the game.

**Common Installation Problems** - Problems that might be encountered before and/or after installation.

# Installing the Game

## How to Install

1. Before installing, close all other applications. Also, make sure **Virtual Memory** (located in your **System Control Panel** under **Performance**) is *not* disabled.
2. Insert the *Heavy Gear* disc into your CD-ROM drive and wait a few moments until the *Heavy Gear* title screen appears. (If the title screen does not appear, please refer to the [AutoPlay](#) Troubleshooting section.)
3. Click the **Install** button to begin the installation process and follow the on-screen instructions.
4. After *Heavy Gear* installation is complete, your computer will install Microsoft's DirectX 5 drivers if you do not already have them. After installation of DirectX 5 is complete, you will need to restart your computer for the new drivers to take effect. For more information on DirectX 5, see the [DirectX 5](#) & [3D Card Driver Problems](#) sections of this file.
5. You can now run *Heavy Gear* by choosing **Start**→**Programs**→**Heavy Gear**→**Heavy Gear** from the **Start** menu or by clicking **Play** on the *Heavy Gear* title screen.

## Joystick throttle unresponsive

Make sure that your Joystick Auto-Center is on. You can change this setting in the Cockpit Control screen, or during gameplay by hitting **ESC**, selecting **Combat Variables**, then clicking **Yes** next to Joystick Auto-Center to turn it on.

## Joysticks with two buttons not recognized

The control configuration for *Heavy Gear* assumes that you have a four button joystick. If you only have a joystick with two buttons, you need to map the commands corresponding to buttons three and four to your keyboard.

## Keyboard controls update

- Self-Destruct: "**Ctrl+Alt+x**" will allow the user to self-destruct.
- For Jumping: "**Alt+Up**" arrow does not work. To jumpjet, hold down "**J**".
- For Crouching: "**Alt+Down**" arrow does not work. To crouch, hold down "**Tab**".
- For Inspection: "**I**" does not work. "**I**" only activates Infrared Mode.
- For Radar Zooming: "**x**" will zoom in the radar display.
- "**Shift+x**" will zoom out the radar display.
- "**Ctrl+x**" will reset the zoom on the radar to normal.



# Minimum System Requirements

- 100% Microsoft Windows 95 compatible computer system (including compatible 32-bit drivers for CD-ROM drive, video card, sound card and input devices)
- Processor Type: Pentium® 90 MHz (for 320x200 resolution with textures turned off)  
Pentium 166 Mhz recommended (for 640x480 resolution with textures on)
- U.S. version Microsoft® Windows 95 operating system
- RAM: 16 MB, 24 MB for multiplayer (32 MB recommended)
- 195 MB of uncompressed hard disk space for installation
- 16-bit High Color (640 x 480) PCI or VLB video card with 1 MB RAM
- 100% Sound Blaster 16 compatible sound card
- Quad-speed CD-ROM drive (600 K/second sustained transfer rate)
- 100% Microsoft-compatible mouse and driver

**3D Acceleration:** Supports 3DFX and Rendition cards. For a list of cards known to work optimally with *Heavy Gear*, see the [list of supported cards](#).

**WARNING:** Certain D3D drivers are absolutely required for 3D play. [Click here](#) for information on these drivers and additional information on them.

## **Additional System Requirements for Multiplayer:**

- 100% 14.4Kbps compatible Windows 95 modem (Head to Head Modem Play)
- 100% Windows 95 compatible network ([LAN](#))
- IPX network (LAN)
- TCP/IP network (WAN e.g. Internet)

**NOTE: THIS RELEASE OF HEAVY GEAR'S MULTIPLAYER COMPONENT IS A BETA RELEASE.**

**NOTE:** In order to play *Heavy Gear* single player or multiplayer (Internet, LAN or modem-to-modem) the CD must be in your CD-ROM drive at all times.

**NOTE:** *Heavy Gear* uses Microsoft [DirectX 5](#) technology, and requires that your system have the most updated drivers that fully support DirectX.

*Heavy Gear* may have trouble working with some 1993 or earlier Matsushita CD-ROM drives. These CD-ROM drives have trouble reading beyond 63 minutes on CDs, and *Heavy Gear* uses the full CD. These drives were sold under the names of Panasonic, JVC, Reveal, Creative Labs and Plextor. Gameplay may occasionally slow down and the CD-ROM drive will be accessed constantly. We highly recommend that you upgrade to a newer CD-ROM drive to avoid problems with other programs in the future.

Click here if you have a [NexGen](#) compatible processor or click here if you have a [Cyrix](#) processor and are receiving a warning message during the installation process.

# Multiplayer Troubleshooting

NOTE: THIS RELEASE OF HEAVY GEAR'S MULTIPLAYER COMPONENT IS A BETA RELEASE. AS SUCH, YOU MAY ENCOUNTER PROBLEMS WHILE PLAYING MULTIPLAYER HEAVY GEAR. PLEASE REGISTER YOUR SOFTWARE SO THAT WE MAY INFORM YOU OF ANY PATCH UPDATES TO THE MULTIPLAYER GAME, OR REGULARLY CHECK OUR WEB SITE: [WWW.ACTIVISION.COM](http://WWW.ACTIVISION.COM), FOR PATCH UPDATES TO THE HEAVY GEAR MULTIPLAYER GAME.

I have both a Network adapter card and Modem installed on my machine and I can't join a game or room when I use my modem to play. What is wrong?

My computer is behind a firewall, and I'm having trouble connecting with computers outside the firewall.

I start the game, select IPX, and the screen says "Network driver not available". What should I do?

Does a slow connection speed slow down the game for everybody?

I have a fast computer, but in network games, it takes a long time to get into missions.

I have a fast computer, but gameplay seems choppy during network play.

I am connected to the Internet via America On-Line, but when I try to play an Internet game, I don't see any servers.

My framerate during modem play is unacceptable.

**I have both a Network adapter card and Modem installed on my machine and I can't join a game or room when I use my modem to play. What is wrong?**

You may have to remove the TCP/IP protocol for your network adapter card before you will be able to use your dial up connection. To do this, go to **Start**→**Settings**→**Control Panel**→**Network** and check to see if you have a "TCP/IP Dial-up Adapter" and a "TCP/IP Adapter (for your network card)". If you do, select the adapter for your network card and click "**Remove**". Then select "**OK**" and restart your computer.

**My computer is behind a firewall, and I'm having trouble connecting with computers outside the firewall.**

*Heavy Gear* multiplayer does not currently support play from behind firewalls.

**I start the game, select IPX, and the screen says "Network driver not available". What should I do?**

You might have left another copy of the game running in the background. You can only run one copy of the game at a time. If this isn't the case, you probably need to load an IPX driver.

To load an IPX driver in Windows 95, go to the **Start** menu and choose **Settings**→**Control Panel**. Click

on **Networking** and make sure that you have an IPX or IPX-compatible driver listed. If you don't have one loaded, try the following: Double-click on **Add**, then double-click on **Protocol**. Click on **Microsoft**, and finally double-click on **IPX/SPX-compatible Protocol**.

Technically inclined people who want to connect an IPX driver to a modem instead of an Ethernet card may be able to do so in the Protocol control panel in Windows 95.

### **Does a slow connection speed slow down the game for everybody?**

Yes. The speed of the game is dependent on the connection speed of the slowest connection. We recommend playing with fewer players depending on the slowest connection. Use the following chart as a guideline:

<u>Slowest Connection</u>	<u>Number of Players</u>
T1	8 players
28.8	4 players
14.4	2 players

**I have a fast computer, but in network games, it takes a long time to get into missions.**

**I have a fast computer, but gameplay seems choppy during network play.**

In network missions, your gameplay experience is directly affected by the speed of the other players' computers. They may take a long time to get into network games, slowing down your entry, and their gear may appear choppy on your screen, making overall gameplay seem choppy.

**I am connected to the Internet via America On-Line, but when I try to play an Internet game, I don't see any servers.**

At the time of this writing, you cannot play Internet games of *Heavy Gear* if you are connected to the Internet via America On-Line.

**My framerate during modem play is unacceptable.**

As a general rule, your framerate will become slower as the number of Gears in your game increases. This is especially true in modern games. The best solution is to not take computer controlled Gears (i.e. Squadmates) with you.

# Players Guide

## Game Contents

Information on game controls, multiplayer gaming, strategy, etc...

## Encryption

Information on the Encryption feature

## Keyboard Controls Update

Last minute changes on using the keyboard commands

## **Saving game to floppy**

This is not recommended as your installation of *Heavy Gear* may or may not work with saved games from another computer.

# Sound Problems

## **I don't hear any music during missions.**

The in-mission music is played directly from the CD. Make sure the audio cable that goes from your CD-ROM drive to your audio card is attached.

## **I don't hear any difference when I change to the different 3D sound types.**

If you're using an Aureal-based 3D sound accelerator card, you may need to exit the game and restart it before changes in your 3D sound settings take effect.

There is a small percentage of the population that is incapable of perceiving audio in 3 dimensions, so it is possible that you fall into that category.

## **I have a 3D sound card (for example, the Diamond Monster Sound card) which uses the Aureal A3D audio technology. I would like to use the hardware accelerated sound feature. What do I need to do?**

Heavy Gear supports hardware acceleration of 3D sound, via the Aureal A3D technology. If you have a card that supports this technology, choose **Combat Variables** from the shell escape screen, click **Override** in the Performance Options section, and select the desired sound setup from the item entitled, 3D Sound. The choices include:

- Headphones
- Mono Speakers
- Quad Speakers
- Stereo Speakers
- Surround Speakers

Click **Accept** and begin a mission.

If you have a hardware accelerator for 3D sound, you should notice enhanced 3D sound effects.

**PLEASE NOTE:** If you do not have a hardware accelerator for 3D sound, and you enable these effects, you will incur a loss in performance (i.e. poor frame-rate or gameplay pauses).

**I have an Aztec Labs Sound card and the sound effects will drop out almost every mission, but the music will keep playing.**

We have experienced problems with Aztec Labs sound cards while testing *Heavy Gear*. *Heavy Gear* uses DirectSound, so a fix for this problem may soon be provided in the form of updated drivers from Aztec Labs. Please contact [Aztech Labs](#) for updated drivers compatible with DirectX 5.0.



# Supported Operating Systems

*Heavy Gear* has been fully tested using Windows 95.

The following operating systems are not supported:

Windows NT

Microsoft Windows 3.1x

MS-DOS 6.22 or higher

IBM OS/2 (All Varieties)

# Table of Contents



These help files contain some information from the full version of the game that may not apply to this demo version.

[Minimum System Requirements](#)

[Installing & Uninstalling the Game](#)

[How to Start the Game](#)

[Troubleshooting](#) - Where to go when you are having problems with the game.

[Vendor List](#) - A directory of hardware/software companies for compatibility issues.

[Credits](#) - The people who made this game possible.

## Taskbar Always on Top

If you experience a problem with the Taskbar showing up during the game, please see the Microsoft Help subject on **Configuring the Taskbar**.

## The sounds are distorted and/or the movies are choppy. What can I do?

You may encounter choppy game play if your sound card is not 100% Sound Blaster 16 compatible. 8 bit sound cards are not supported with this game (e.g. Sound Blaster and Sound Blaster PRO compatible). You may want to contact your [sound card manufacturer](#) to see if your card is 100% Sound Blaster 16 compatible.

If you are fully confident that your sound card is 100% Sound Blaster **16** compatible you should acquire the most updated sound card drivers available. This is highly recommended and is usually free and easy to do. You can contact your [sound card manufacturer](#) for details.

You may also encounter choppy movies if your CD-ROM drive is not at least a quad-speed drive.

*Heavy Gear* uses Indeo 5.0 for movie playback.

## The taskbar hides a portion of the game window. Can I fix this?

This can happen if your taskbar is always on top. You can hide the taskbar by right-clicking on it and selecting **Properties**. Turn on **Auto Hide** and turn off **Always on Top**. The taskbar will hide when it is not used. To make the taskbar reappear, place your mouse in the area where the taskbar once was and it will appear.

# 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 issues 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 and/or DirectX. The following troubleshooting tips are intended to assist you in resolving some of the common issues that occur with the Windows 95 operating system and the game.

## Topic Areas

[Audio](#)

[Autoplay](#)

[CD-ROM](#)

[DirectX 5](#)

[Input Devices](#) (e.g. mouse, joystick, or gamepads).

[Installation](#)

[Multiplayer Troubleshooting](#)

[Power Saver Functions](#)

[Video](#)

## Problems & Solutions

[Can I run \*Heavy Gear\* on Windows 3.1, Windows NT or OS/2?](#)

[Can I save my games to a floppy disk and use them on another computer with \*Heavy Gear\*?](#)

[Why does the game sometimes quit to the desktop?](#)

[The taskbar hides a portion of the game window. Can I fix this?](#)

[My screen saver operates slowly while the game is running. What can I do?](#)

[The fonts on my game screen are too large and extend off the screen. Why is this happening?](#)

[Ctrl-Alt-Del locks up my system.](#)

[How can I improve performance?](#)

[Where do I go for game updates and/or patches?](#)

[Why does the desktop momentarily appear and disappear before and after I launch a mission? If I click on the desktop or toolbar during that time, my system will crash. If I hit 'ESC' while the Commencing Mission screen is up, my system will also crash.](#)

## Tseng Labs 4000 PCI video card

**I have a Tseng Labs 4000 PCI video card. In 640 Software mode, when I enter a mission, the Windows hourglass cursor is visible.**

This is a known driver problem with the Tseng Labs 4000 PCI video card. Contact [Tseng Labs](#) for the latest drivers, which should fix the problem.

# Uninstalling the Game

## How to uninstall *Heavy Gear*:

The Uninstall option in *Heavy Gear* allows the game to remove itself completely from your hard drive. From the **Start** button, go to **Programs**→**Heavy Gear**→**Heavy Gear Uninstall** and follow the Uninstaller instructions.

**NOTE: You should always uninstall the game with the Uninstaller provided.**

If you remove the game from your hard drive by dragging your *Heavy Gear* folder to the Recycle Bin, certain files may be left behind causing problems with a later reinstallation of the game. In order to completely remove all *Heavy Gear* files from your computer, complete the following steps:

1. Make sure you have deleted the entire directory to which you installed *Heavy Gear*.
2. Remove *Heavy Gear* from the **Start** menu.
  - a. From the **Start** button, go to **Settings**→**Taskbar**.
  - b. Select the **Start Menu Programs** tab.
  - c. Click the **Remove** button.
  - d. Highlight and then delete the entire **Heavy Gear** entry.
3. You must also clean up the Windows 95 Registry, in order to be able to reinstall *Heavy Gear* again.
  - a. Go to the **Start** menu on your taskbar and select **Run**.
  - b. In the **Run** dialog box, type **REGEDIT** and click the **OK** button.
  - c. Once REGEDIT is open, double-click the entry **HKEY\_LOCAL MACHINE**.
  - d. Double-click on **SOFTWARE**. If you have any other Activision programs installed, open the Activision folder and delete only the **Heavy Gear** folder. Otherwise, delete the entire item called **Activision**.



## Visual Problems

### **When I launch missions, the colors are all messed up.**

This problem may be caused by obsolete drivers for your 3D accelerator card.

If you are playing on a 3Dfx-based card, you need to use newer drivers than the Diamond Monster 3D v.1.08 or the Orchid Righteous 3D v.2.0 drivers. Reference drivers are provided in the DRIVERS directory on the Heavy Gear Install CD. Note that different drivers need to be installed depending on whether you have a Voodoo, Voodoo Rush single-card, Voodoo Rush double-card, or Voodoo 2 board. At the time of writing, Voodoo 2 cards were not available, so these drivers are not provided on the Install CD.

If you are using a board based on any other chip-set, you'll need to contact your board manufacturer directly for up-to-date drivers. Be aware that not all 3D accelerator cards support DirectX 5. If you have a board that isn't 100% DirectX 5 compatible, you will need to play *Heavy Gear* in software mode. This can be set manually within *Heavy Gear* on the 'Combat Variables' screen, by switching 'Graphics Type' to 'Software 320' or 'Software 640'.

### **My cursor flashes when I move it around.**

### **As I move my cursor, the Windows desktop shows through the screen.**

These problems can be caused by using custom cursors. Please restore your cursors to the default Windows cursors.

### **During the mission, I can see the Windows cursor or the Windows hourglass.**

Some video card drivers cause this problem, such as the Tseng 4000. Contact your video-card manufacturer for a driver fix.

## **When I launch into the game, the screen goes black and freezes.**

We have found this to be the case when you do not have DirectX certification. In most cases you can fix this problem by updating your video card drivers. This is highly recommended and is usually free and easy to do. You can contact your Video Card Manufacturer for details.

Another possible cause could be that the CD is not in the CD-ROM drive. Please insert the *Heavy Gear* CD before you attempt to start the game.

## **Why do I have wavy lines across my screen when I play the game?**

We have found this to be the case when outdated DirectX drivers are present on a system. This can be fixed by updating your video card drivers. This is highly recommended and is usually free and easy to do. You can contact your Video Card Manufacturer for details.

## Why does the game sometimes quit to the desktop?

Occasionally, *Heavy Gear* will suddenly quit to the desktop. This may be a result of a conflict with the EZDesk desktop utility, which is used to organize icons on your desktop. Disable EZDesk whenever playing *Heavy Gear*.

The game may also suddenly minimize to the taskbar if you are running an electronic mail program (e.g MS Exchange) in the background.

*Heavy Gear* should be run as a stand-alone application.

