GRAVIS

# GrIP Game System

## User's Guide

How to Use this Guide

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# Introduction

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Introduction

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# Introduction

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Thank you for choosing to upgrade your computer gaming environment with Gravis GrIP™. Your new MultiPort™ and GrIP-Pad™ controllers are based on the patent-pending Gravis Interface Protocol (GrIP). GrIP technology allows game controllers to communicate bi-directionally, at high speed, through a standard PC game port.

The PC game port has changed little since its introduction over 15 years ago. It supports a maximum of two controllers, X and Y axes for each, and two buttons for each controller; and the task of reading a single analog joystick uses 12 to 14% of CPU cycle time, slowing the performance of your games. As the developers of today's complex games try to add more players, dimensions, and special functions to their games, the limitations of the standard game port get in the way.

Gravis GrIP opens the door to radical game development. GrIP technology imposes no practical limit on the number of controllers, buttons, and axes that can be connected to a single PC game port. The MultiPort allows you to connect four GrIP controllers or two traditional joysticks. And the MultiPort supports all eight independent buttons on each connected GrIP-Pad.

# ...Introduction, cont'd.

**Speed Compensation Note**

If you are using a speed-compensating game port, set the speed compensation level as usual for Pass-Thru Mode.

When you are running the MultiPort in GrIP Mode, however, either turn off the speed compensation, or make sure that your game port is set to a medium compensation level. (For the game port on the Gravis MULTIPORT cards, use an UltraJoy setting between 8–31.) The need for speed compensation is eliminated with GrIP, but the MultiPort may not work well with a game port set to a low (fast) compensation level.

Reading four GrIP controllers through the MultiPort uses less than 1% of the CPU cycle time, allowing your games to operate at full speed.

The MultiPort also eliminates the most common game port headaches:

- GrIP eliminates the need for speed compensation.
- The MultiPort is tolerant of half-game port systems (substandard game ports that support only two axes or two buttons).
- GrIP provides auto calibration, so no software calibration is necessary for games that support Gravis GrIP technology.

The GrIP-Pad's 8 buttons operate independently in GrIP games, and can be used in two predefined modes or programmed with keystrokes for games that do not include direct GrIP support.

# Registration

Complete the registration card in your GrIP package and mail or fax it back right away. We supply our registered customers with full warranty and technical support. If you have Internet Web access, register on-line at www.gravis.com. Leave us your e-mail address, and we'll send you information on product upgrades, new products, and special offers.



# What You'll Need

- IBM PC or compatible 486DX-66 or better recommended
- DOS 5.0 or greater
- IBM PC-compatible game port
- Double-speed or better CD-ROM drive recommended (required for initial installation)
- Hard drive
- Windows® 95 required to create custom GrIPKey keysets



# Connections

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Connecting the MultiPort

Connecting GrIP Game Controllers

Connecting Standard 15-Pin Game Controllers

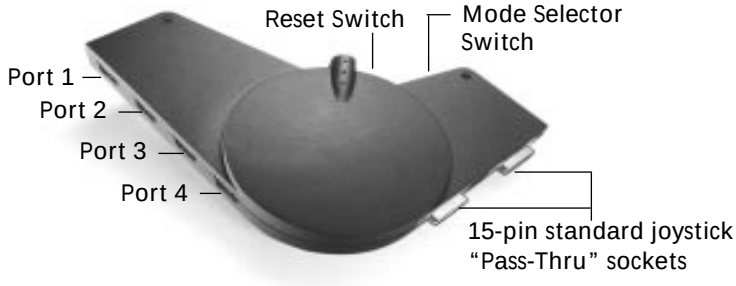


# Connecting the MultiPort

1. If your computer is running, turn it off to avoid possible electrical damage to your MultiPort or computer.
2. Plug the MultiPort's 15-pin connector into your computer's joystick port. If your game adapter has two joystick ports, use Port A.



# Connecting GrIP Game Controllers




1. With your computer running, move the Mode selector slide switch towards the two 15-pin joystick "Pass-Thru" connectors until the green LED on the Pass-Thru wing lights up.

This switches the MultiPort into Pass-Thru (standard game port) Mode and cuts off power to the four GrIP sockets so you can safely connect GrIP controllers.

The "GrIP wing" on the MultiPort has four sockets, labeled Ports 1–4.

2. Attach each GrIP-Pad or other GrIP controller to one of these sockets.

# ...Connecting GrIP Game Controllers, cont'd.

**Connecting Controllers for GamePad Emulation Control**

**GamePad Emulation** supports only two controllers. If you're going to play a game in GamePad Emulation:

- Connect a single controller to Port 1 or Port 3; or,
- Connect two controllers to Ports 1 & 2 or Ports 3 & 4.

3. Move the MultiPort's Mode Selector switch back towards the GrIP sockets to put the MultiPort into **GrIP Mode**.

   This deactivates any attached 15-pin controllers. If you are in DOS, the bi-color LED switch on the MultiPort's GrIP wing lights up red to signal that the MultiPort is in its default setting (**GamePad Emulation**). If you are running Windows 95, the GrIP LED lights up green to signal GrIP mode. Any time you run a game with GrIP support, the GrIP LED lights up green.

The MultiPort allows you to connect and use GrIP devices of different types. As analog-style GrIP controllers become available, you will be able to use these alongside your GrIP-Pads.

# Connecting Standard 15-Pin Controllers

1. Plug each game controller's 15-pin connector into one of the MultiPort's 15-pin joystick sockets. If you are using only one joystick, attach it to the MultiPort's Port A. You can connect and disconnect 15-pin controllers without shutting down your computer, but do not connect or disconnect controllers while a game is running.
2. Move the MultiPort's Mode Selector switch towards the two 15-pin sockets until the green LED on the Pass-Thru wing lights up to put the MultiPort into **Pass-Thru Mode**.

   This activates any attached 15-pin controllers and deactivates the GrIP connectors. The green LED on the MultiPort's Pass-Thru wing indicates that the MultiPort is in Pass-Thru Mode.

✳ **You cannot use 15-pin controllers and GrIP controllers at the same time.**

# GrIP MultiPort's Control Modes

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Overview

GrIP Mode

Keyboard Emulation

GamePad Emulation

Pass-Thru Mode



# Overview

The MultiPort can operate in a variety of control modes to suit different games and situations:

Games that support Gravis GrIP switch the MultiPort and controllers automatically into **GrIP Mode**. The game software determines the functions of each button and control on your GrIP controller. Look in the game's manual or Setup for its GrIP controls.

**Keyboard Emulation** allows you to assign a game's keyboard commands to the GrIP controller's buttons using the **GrIPKey** or **GKLOAD** software. Keyboard Emulation works in Windows® 95 or DOS, but is not available in Pass-Thru Mode.

**GamePad Emulation** allows the GrIP-Pad to emulate a standard PC GamePad's controls, with a few enhancements. If your game does not support Gravis GrIP, the MultiPort defaults to GamePad Emulation.

**Pass-Thru Mode** allows you to connect one or two standard 15-pin joysticks to the MultiPort. This mode "passes through" the capabilities of the standard PC game port. To use standard joysticks, the MultiPort's Mode Selector Switch must be set to Pass-Thru Mode.

# GrIP Mode

## GrIP Support

Many major software developers are adding GrIP support to their new releases, and GrIP support is built into Windows® 95.

Windows 95 and games that support Gravis GrIP require the MultiPort to be in GrIP Mode. When you are running Windows 95, and any time you want to play a game with GrIP support, you must put the **Mode Selector Switch** in GrIP Mode.

When you start a game with GrIP support, or start Windows 95, the bi-color LED on the MultiPort's GrIP connector wing turns green. This tells you that the MultiPort is in GrIP Mode.

In GrIP Mode, the game software determines the functions of each button and control on your GrIP controller (unless you have used GrIPKey to program the buttons). Look in the game's manual or Setup for a description of its GrIP controls.

GrIP Mode allows the game software to use all of each GrIP controller's buttons and axes. For the Gravis GrIP-Pad, this means that all eight buttons on each GrIP-Pad can control independent game functions, even if more than one GrIP-Pad is connected. (Some games, however, do not support 8 buttons.)

In DOS, when the MultiPort's Mode Selector Switch is set to GrIP Mode, but your game software does not support GrIP directly, the GrIP-Pads default to **GamePad Emulation**.



# Keyboard Emulation

To turn off Keyboard Emulation before you begin playing a game with GrIP support, you can run GrIPKey and deselect Keyboard Emulation, or you can double-click on the GCC task bar icon and select Keyboard Emulation Off.

When Keyboard Emulation is on, DOS-based games will not recognize the GrIP-Pads as joysticks; therefore, you must select Keyboard Control in the game's setup and make sure that the GrIPKey set you are using has keystrokes assigned to the directional pad.

Your GrIP controllers' buttons are programmable!

The **GrIPKey** software allows you to assign keyboard commands to the GrIP controller's buttons. You can save button definitions for up to 4 GrIP controllers in a control file called a *set,* or *keyset*, for each of your games.

To use Keyboard Emulation, you must assign keys to your GrIP-Pads' buttons using the GrIPKey software or load an existing GrIPKey keyset from the DOS prompt using **GKLOAD**.

### Directional Control

When you play games in Windows 95, the directional pad will provide directional control, or you can assign keystrokes to the directional pad as well as the buttons in GrIPKey.

If you are playing a game from a DOS box, select "Keyboard" in the game's Setup. Directional control will be available only through keyboard directional commands (e.g., arrow keys) that you assign to the directional pad using GrIPKey.

See the **GrIPKey Software** and **GKLOAD** sections for detailed instructions.

# GamePad Emulation

In DOS, the MultiPort defaults to GamePad Emulation.

GamePad Emulation allows you to use your GrIP-Pad or other GrIP controllers with games that have no built-in support for Gravis GrIP. When the MultiPort is set for GamePad Emulation, the bi-color LED on its GrIP connector wing lights up red. (Software that supports Gravis GrIP automatically switches the MultiPort into GrIP Mode; when this happens, the GrIP LED lights up green.)

GamePad Emulation is restricted to four button functions on one controller or two button functions on two controllers. Even in GamePad Emulation, however, your GrIP-Pad offers a variety of control options. See the next chapter, **The GrIP-Pad**, for the exact **button function mapping** for your GrIP-Pad in GamePad Emulation. If you have another type of GrIP controller, see its manual to determine its button functions in GamePad Emulation.

### Game Port Restrictions

If your game port is substandard, and supports only one controller and two buttons, GamePad Emulation support will be limited by the capabilities of the game port.

# Pass-Thru Mode

Move the MultiPort's Mode Selector Switch towards the two 15-pin Pass-Thru connectors to put the MultiPort in Pass-Thru Mode. Make sure the switch is moved all the way (the green LED on the Pass-Thru wing should light up).

The MultiPort's Pass-Thru Mode allows you to use the standard 15-pin joysticks and controllers you already own. In Pass-Thru Mode, the MultiPort operates exactly as a PC game adapter Y-cable. If you have a standard IBM PC-compatible game port, this Mode allows support for:

- 4 independent buttons and 4 axes (e.g., 2 joystick axes plus throttle and rudder control) on a single controller; or,
- 2 buttons and 2 axes (the joystick 'X' and 'Y' axes) on each of 2 attached controllers.

If your game port is substandard, and supports only one controller and two buttons without the MultiPort, Pass-Thru Mode support will be limited by the capabilities of the game port.



# The GrIP-Pad

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Features

GrIP Mode Button Functions

Keyboard Emulation Button Functions

GamePad Emulation Button Functions



# GrIP-Pad Features

The GrIP-Pad features a thumb-controlled directional pad, two index-finger "flipper" buttons, and six additional independent buttons.

In **GrIP Mode**, the GrIP-Pad's buttons can control eight independent game commands; the game software determines the button settings.

In **Keyboard Emulation**, the directional control and all eight buttons are programmable: you can assign a game's keyboard commands to the GrIP-Pad's buttons.

In **GamePad Emulation**, the GrIP-Pad offers a variety of preset control options; these work the same in every game.

In GrIP Mode, the MultiPort lets you connect and use up to four GrIP-Pads or other GrIP controllers at once for multi-player games, with all button functions available for each controller.

# Button Functions

## ...In GrIP Mode

In GrIP Mode, the game software determines the GrIP-Pad button functions. Look in the game's manual or setup for its GrIP controls. Most GrIP-supporting games let you select your own button settings. In GrIP Mode, the game can use each of the GrIP-Pad's eight buttons for a different game command.

## ...In Keyboard Emulation

In Keyboard Emulation, the GrIP-Pad's directional pad and buttons will perform the keystrokes assigned to them in the GrIPKey control set.

## ...In GamePad Emulation

In GamePad Emulation, the GrIP-Pad's buttons will function much like a Gravis PC GamePad, but with a variety of control options:

- For "standard" GamePad control, connect your GrIP-Pads to GrIP Ports 1 & 2.
- For "steering" control (great for driving games or any game where side-to-side movement is important), connect your GrIP-Pads to GrIP Ports 3 & 4.

The buttons will function as in the illustrations on the next page.



# ...Button Functions, cont'd.

| Joystick A: | | Joystick B: | |
|---|---|---|---|
| A | Button A | C | Button A |
| B | Button B | D | Button B |
| AT | A-Turbo | CT | A-Turbo |
| BT | B-Turbo | DT | B-Turbo |

**These settings are for GamePad Emulation only.**

If your game supports GrIP, the buttons may function differently. See your game's manual or Setup for a description of its GrIP functions.

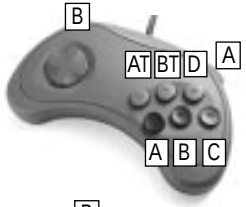
If you have configured your GrIP-Pad with the **GrIPKey** software, you are operating in **Keyboard Emulation**, and your buttons will function differently.

If your game port is substandard, and supports only one controller and two buttons, GamePad Emulation support will be limited by the capabilities of the game port.

## "STANDARD" GAMEPAD EMULATION

Recommended for arcade-style, adventure, and fighting games.

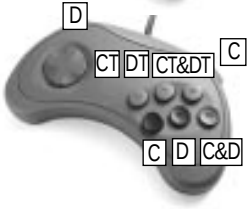
**1 GamePad in Port 1**




**2 GamePads in Ports 1 & 2**

***Pad A***


***Pad B***




## "STEERING" GAMEPAD EMULATION

Recommended for driving games and any game where left-and-right movement control is important.

**1 GamePad in Port 3**


**2 GamePads in Ports 3 & 4**

***Pad A***


***Pad B***


**GrIP-Pad Button Settings for GamePad Emulation**

# GrIP Software

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Introduction

Drivers

GrIP Control Center (GCC)

GrIPKey - Keyboard Emulation Software

GKLOAD

GravUtil

Gravis Joystick Applet



# Introduction

These software applications are included with the GrIP Game System, and are explained in this chapter:

**DOS and Windows 95 drivers.** These driver programs are required for GrIP mode. If you are not running Windows 95, only the DOS driver will be installed on your computer.

**GCC – The GrIP Control Center.** GCC is a Windows 95 task bar utility that allows you to check the status of your GrIP MultiPort and enable or disable keyboard emulation.

**GrIPKey.** GrIPKey is a Windows 95 application that allows you to program GrIP controllers to emulate keyboard commands in your games. You can use GrIPKey "keysets" with any keyboard-controlled Windows 95 or DOS game.

**GKLOAD**. GKLOAD is a DOS-based command-line utility that allows you to load GrIPKey keysets into your GrIP controllers and use them with DOS games.

**GravUtil**. GravUtil is a game port and joystick testing utility.

# Drivers

## GRIP.GLL

All DOS-based games that support Gravis GrIP require the GRIP.GLL file. It is installed into your GrIP software folder. The SET GRIP= line that the GrIP installation program adds to your AUTOEXEC.BAT file tells games where to find the file (e.g. SET GRIP=C:\GRAVIS\GRIP).

## Windows 95 GrIP Driver

If Windows 95 is installed on your computer, a Windows 95 driver is installed automatically into your Windows directory during the GrIP software installation.



# GrIP Control Center

The GrIP Control Center (GCC) is a Windows 95 task bar utility that allows you to check the status of your connected controllers and turn Keyboard Emulation on and off.

# ...GrIP Control Center (GCC), Cont'd.


**To start GCC:**

GCC is run automatically every time Windows 95 starts up. A small GCC icon appears on the task bar. To start the program, click on the task bar icon.

The GrIP Control Center window opens. The status window should display a message, letting you know what devices it finds attached to your game ports or MultiPort ports. If there is a problem with your mode selection, GCC will tell you, and the icon on the task bar will flash.

**Keyboard Emulation**

The Keyboard Emulation on/off checkboxes allow you to disable and re-enable Keyboard Emulation from the task bar—without starting the GrIPKey software.

If you have not configured your GrIP controller with a GrIPKey set (which you do by choosing **Configure GrIP** from GrIPKey's File menu or by running GKLOAD from the DOS prompt), these options will be unavailable.

# ...GrIP Control Center (GCC), Cont'd.

**Auto Joystick Mode Switching**

This option is selected by default, and in most cases, you should leave it selected. When this option is enabled (selected), the GrIP driver will automatically put the GrIP MultiPort (if there is one attached) into GamePad Emulation mode when a game tries to access the joystick port directly. If a GamePad Pro is attached and this situation occurs, GCC will pop up a message, instructing you to switch the pad's mode switch into GamePad Mode.

This option can occasionally cause problems when you are using a GrIPKey set to play a game in keyboard emulation. If GCC tells you to switch to GamePad Mode while your GamePad Pro is configured with a GrIPKey set, or if your MultiPort switches into Emulation Mode while you are using a GrIPKey set, you should disable the Auto Joystick Mode Switching option.

# GrIPKey Keyboard Emulation Software

GrIPKey is designed to work with the standard GrIP-Pad and the GamePad Pro.

GrIPKey makes games with lots of keyboard commands easier and more fun to play with your GrIP-Pads or other GrIP controllers.

The GrIPKey software allows you to assign keyboard commands to buttons on any GrIP-compatible game controller. You can save button definitions for up to 4 GrIP controllers in a control file called a *keyset* (or *set*) for each of your games.

While the GrIPKey software requires Windows® 95, you can use the completed GrIPKey sets (including all the included preconfigured sets) with DOS games as well.


## To start GrIPKey:

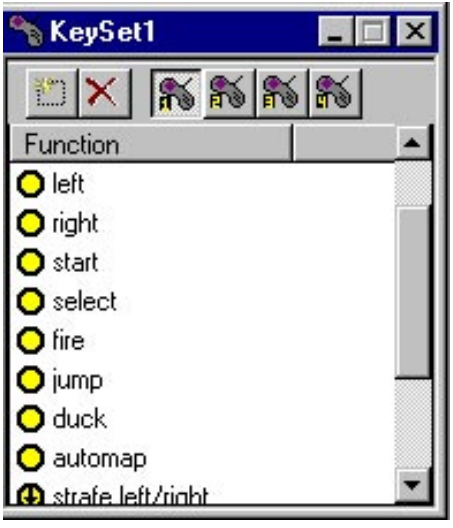
Double-click the GrIPKey icon.

## To program a GrIP controller's buttons:

1. Look in your game's setup or manual for the keyboard commands used in the game.

2. Click the New button, or choose File–New to open a new Keyset window, where you can create and store a list of game commands.

# ...GrIPKey Keyboard Emulation Software, Cont'd.




*Sample functions*
*(a new KeySet will be blank)*

3. To enter the game's keyboard commands:

   a. Click the **Add New Function button**  in the Keyset window. The **Function Configuration** window opens.
   b. Type a description in the Function Description field.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

## Examples

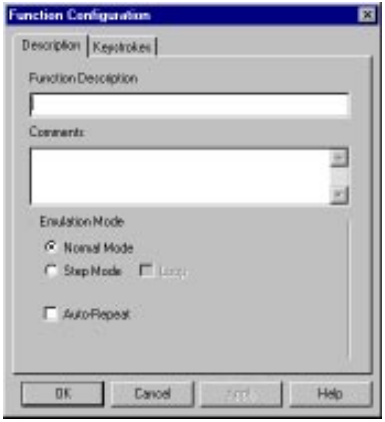
If you assign the keys A, B, and C to a Step mode button, here is what will happen when you play the game:

***Step Mode* with Loop:**

| Button press | Key |
|---|---|
| 1 | A |
| 2 | B |
| 3 | C |
| 4 | A |
| 5 | B...*and so on* |

***Step Mode without Loop:***

| Button press | Key |
|---|---|
| 1 | A |
| 2 | B |
| 3 | C |
| 4 | C |
| 5 | C...*and so on* |




c. Choose **Normal** or **Step** mode.

If you selected Step, select **Loop** if you wish the keystroke string to repeat. (See example at left.) Select **Auto Repeat** if you wish a Normal keystroke string to repeat (for a turbo-fire effect).

d. Select the Keystroke tab.

*For a Normal mode entry*, enter a key or series of keys in the Press String field. If you wish, you can enter a second key or series of

# ...GrIPKey Keyboard Emulation Software, Cont'd.

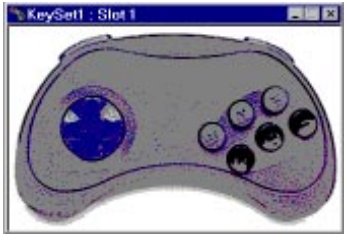
keys in the Release String field to be performed when you release the button.

For a Step mode entry, click the Add New Step String button and enter a key or series of keys in the Enter Step String dialog. Repeat these steps for each game command in the Step series.


To move a line up or down in the Step dialog, select the line and press the or button.

4. Click OK, then repeat step 3 for each game command that you want to assign to a button on your GrIP controller.
5. When all the game's commands are entered in the Keyset window, you can assign them to buttons on your GrIP controller:

# ...GrIPKey Keyboard Emulation Software, Cont'd.





GrIPKey displays the type of controller that it detects when it polls the game port (or MultiPort) at startup—unless the set was created for another controller. To display a different device, right-click in an empty area of this window and choose from the popup window.

a. Click the numbered Show Controller button for the port where a GrIP controller is connected (or choose View–Pad#). This opens a new window with an image of the controller.

b. Select a function from the Keyset window, and drag it over top of a button on the controller image.

To edit a button, double-click on it to change the Function Configuration, or drag a new function from the Keyset window or from another button.

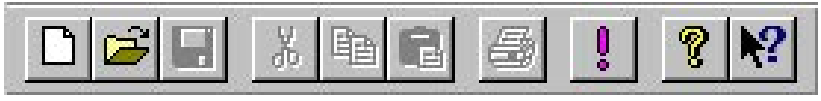
# ...GrIPKey Keyboard Emulation Software, Cont'd.

✳ **You can assign different button definitions to each GrIP controller.**

6. Select **File/Configure GrIP** to load the settings into your attached GrIP controllers.

**Note: If you skip this step, keyboard emulation *will not work*.**

## The Main Toolbar




*New*

Click on the New tool to open a new, untitled GrIP control Keyset window.

*Open*

Click on the Open tool to open an existing Keyset window.

*Save*

Click on the Save tool to save the active set.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

*Cut*

Allows you to move a function from one Keyset window to another. Select a function in the active Keyset window, then click on the Cut tool to copy the function to the Clipboard and remove it from the Keyset window. Use this command in conjunction with Paste.

*Copy*

Allows you to copy a function from one Keyset window to another. Select a function in the active Keyset window, then click on the Copy tool to copy the function to the Clipboard. Use this command in conjunction with Paste.

*Paste*

Click in the destination Keyset window, then click on the Paste tool to paste the function from the Clipboard.

*Print*

Click on the Print tool to print a reference chart of your button configurations.

***Keyboard Emulation On/Off***

Click on this tool to turn keyboard emulation on and off. When you

# ...GrIPKey Keyboard Emulation Software, Cont'd.

select **Configure GrIP** from the File menu, Keyboard Emulation goes on automatically. To disable it, click this tool; to turn keyboard emulation back on again, click this tool again.

If you prefer, you can also turn keyboard emulation on and off using the **GrIP Control Console** task bar utility.

***About***

Click on the About icon to check the version number of your GrIPKey software.

***Help***

Click on the Help tool to start GrIPKey Help.

## The Keyset Window

The Keyset window allows you to develop a list of game functions and assign them to buttons on your GrIP controller.

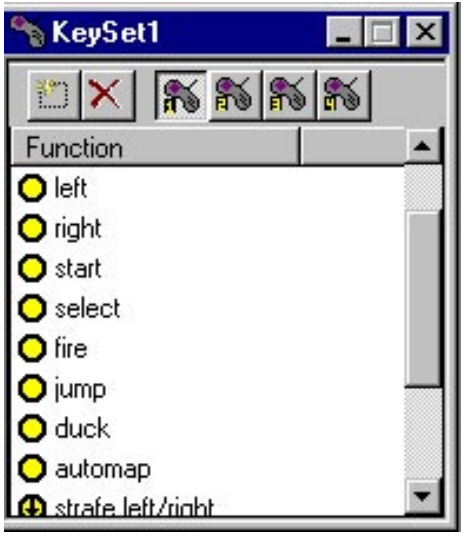
You can create or open as many Keysets as you like. You may wish to create separate Keysets with different commands for each controller.



# ...GrIPKey Keyboard Emulation Software, Cont'd.

## The Function Configuration Window

You will do all your button programming in the Function Configuration window.



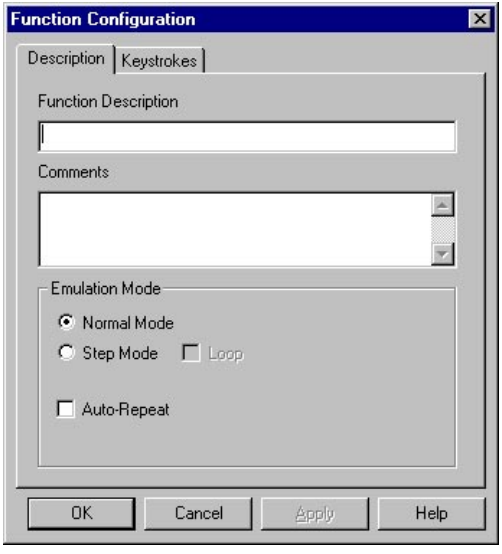

To open the Function Configuration window, choose Edit/Add Function..., or click on the Add New Function button in the active Keyset window. You can also open a Function Configuration window for a specific button by double-clicking on the button in the **Controller** window or by right-clicking on the button selecting Properties.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

## The Description Tab (Function Configuration Window)

### *Function Description*

Enter a descriptive label for the game command function in this field.




### *Comments*

If you like, you can use this field to enter more descriptive comments about the game command in this field.

### *Emulation Mode*

Select a mode for the function:

### *Normal Mode*

Pressing a button configured with this function in Normal mode will have exactly the same effect in the game as pressing the keys on the keyboard.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

**Step Functions:**

When you define a Step mode function, two functions are actually added to the keyset: one for ascending order (designated by an "up" arrow) and one for descending/reverse order (designated by a "down" arrow).

*Step Mode Example*

***Step Mode***

Step mode allows you to program a single button with a series of game commands (keystroke "Step strings") that are always executed in the same order—or reverse order (for instance, cycling through a collection of weapons).

***Loop***. The Loop option lets you cycle, or "loop" through a series of keystroke steps. This example demonstrates the difference between the results of pressing a button configured in Step mode with and without Loop:

*Function Configuration*: Step string #1: A
Step string #2: B
Step string #3: C
Step string #4: D

| *Button Functions:* | *Step with Loop:* | *Step without Loop:* |
|---|---|---|
| 1st button press | A | A |
| 2nd button press | B | B |
| 3rd button press | C | C |

# ...GrIPKey Keyboard Emulation Software, Cont'd.

*...Step Mode Example, cont'd.*

| | | |
|---|---|---|
| 4th button press | D | D |
| 5th button press | A | D |
| 6th button press | B | D |

...and so on.

***Auto-Repeat***. Auto-Repeat is a "turbo-fire" option that lets you set a keystroke string to repeat rapidly and continuously for as long as you continue to press the button. Auto-Repeat is not available with Step mode.

**The Keystrokes Tab (Function Configuration Window)**

***Normal Mode Entries:***

***Press String***

In this field, you can enter a separate keystroke or keystrokes to be sent to the game when you press a button on the GrIP controller.

***Release String***

In this field, you can enter a separate keystroke or keystrokes to be sent to the game when you release a button.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

***Step Mode Entries:***

 *Add New String*

Click on this to open a New Step String window.

 *Delete String*

Click on this to delete the currently selected Step string.

 *Move Selected Step Up*

Moves the selected Step string up in the list.

 *Move Selected Step Down*

Moves the selected Step string down in the list.

***Editing a Step String***

Double-click on the step string to open the editing window. Select the keystrokes that you want to change, then press Delete to delete them—or type new keys to replace them.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

## Controller Window

The Controller windows (labeled Keyset # – Slot #) correspond to the GrIP controllers attached to Ports 1 and 2 of a standard PC game port or to Ports 1–4 of a GrIP MultiPort.

You can assign the functions in the Keyset window to the buttons and direction controls on your GrIP controller by dragging them from the Keyset window to this Controller window.

There are two ways to open a Controller window:

- Click the Controller# buttons in the Keyset window to display a programming window for the controller attached to that port.
- Choose a Pad# from the View menu.

### To Edit a Button Configuration

Double-click on a button in the Controller window (or right-click on it and select Properties) to open its Function Configuration window.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

**To Unmap a Button**

Right-click on a button and select Unmap to unmap the function currently assigned to it. (This unmaps the function from the button but leaves the function definition intact in the KeySet window.)


**To Unmap all Buttons:**

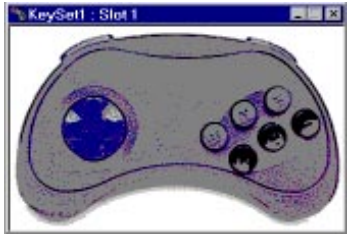
Right-click in an empty portion of the Controller window, then select Unmap All from the pop-up window to unmap all the functions from the buttons and direction controls in the active Controller window.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

When you click on a Controller# tool or choose View/Pad#, GrIPKey displays the type of device that it found attached when it polled the game port (or MultiPort) at startup. If no pad was attached when GrIPKey started, it displays the pad type selected in the Options/Preferences.

**To Change Controller Types**

When you first open the Controller window, the software polls your game port or MultiPort to determine which type of controller you have connected. If you wish to change controller types, right-click in the Controller window, and select the controller type you prefer.




To change the type of device displayed, right-click in an empty area of this window and choose from the popup box.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

## The Menus

### File Menu

# ...GrIPKey Keyboard Emulation Software, Cont'd.

***New***

Opens a new, untitled GrIP control set.

***Open***

Opens an existing set. Select a set file from the file dialog box.

***Close***

Closes the active set.

***Save***

Saves the active set.

***Save As...***

Saves a copy of the active set with a new name that you specify.

***Print...***

Prints a reference chart of your button configuration.

***Print Preview***

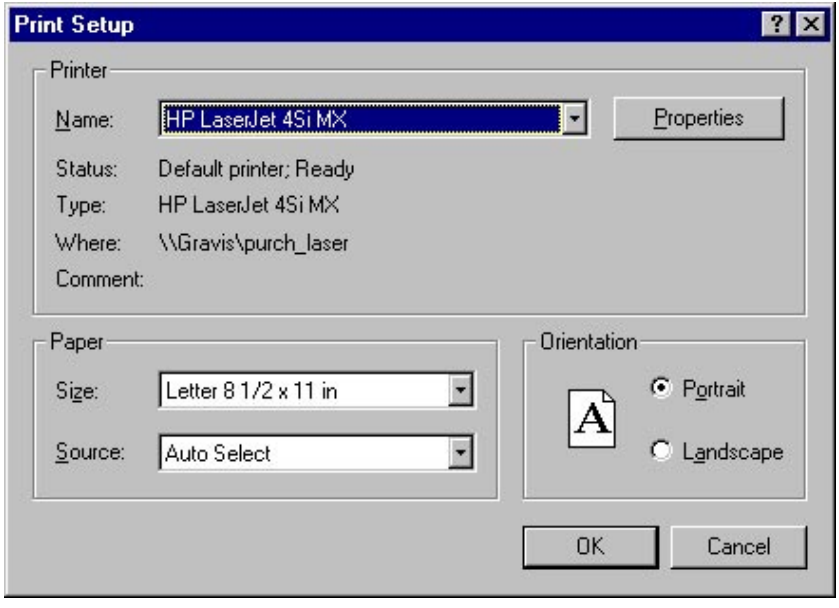
Allows you to view a preview of the reference chart on screen before you print.

***Print Setup***

Allows you to select print options.



# ...GrIPKey Keyboard Emulation Software, Cont'd.




The Properties button brings up a screen where you can select additional paper and printer options.

# ...GrIPKey Keyboard Emulation Software, Cont'd.


*Printer Properties*

For image type selections, click the More Options... button.

For the fastest printing, and for printers with limited graphics support, a Line Art option is available. For a more realistic image, select one of the Dithering options.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

If you like, you can also control the intensity/brightness of the printed image using the Intensity Control slider.

Select Letter- or Draft-quality output from the Printer Quality dropdown box.

***Configure GrIP***

Loads the settings in the active GrIPKey set into the GrIP driver. Once you have selected this option, the GrIP controllers' buttons will function according to the GrIPKey set.

***Unload Keyset***

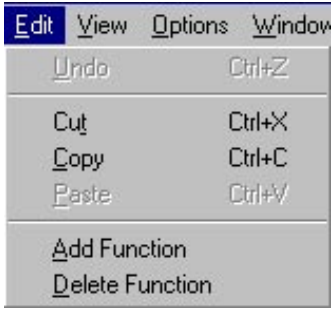
Clears the configuration of the GrIP controller.

***Exit***

Quits the program.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

**Edit Menu**




***Undo***

Undoes the last action.

***Cut***

Allows you to move a function from one Keyset window to another. Select a function in the active Keyset window, then select Cut to copy the function to the Clipboard and remove it from the Keyset window. Use this command in conjunction with Paste.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

***Copy***

Allows you to copy a function from one Keyset window to another. Select a function in the active Keyset window, then select Copy to copy the function to the Clipboard. Use this command in conjunction with Paste.

***Paste***

Click in the destination Keyset window, then select Paste to paste the function from the Clipboard.

***Add Function***

Opens a Function Configuration window that is not tied to a specific button.

***Delete Function***

Deletes the selected function from the Keyset window.



# ...GrIPKey Keyboard Emulation Software, Cont'd.

### View Menu


***Toolbar***

Select this option to display the main toolbar on screen.

***Status Bar***

Select this option to display the Status Bar at the bottom of the screen. By default, this is selected.

***Keystroke Viewer***

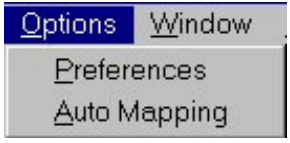
Select this option to open the Keystroke Viewer window to test your controller's configuration. Then pick up your GrIP controller and press a button; you should see the keystrokes configured to that button in the Viewer window.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

***Pads #1–4***

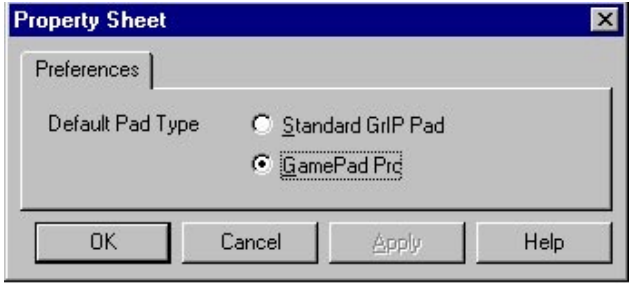
Select these options to display programming windows for each of the connected controllers.

**Options Menu**




***Preferences***

Select Preferences to change the default controller type.



# ...GrIPKey Keyboard Emulation Software, Cont'd.

***Auto Mapping***

Auto-mapping saves you the "mouse-work" of dragging functions from the Keyset window to the Controller window. To use it:

1. Select Options/Auto Mapping.
2. Select the first function in the Keyset list.
3. Pick up your GrIP controller, and press the button where you would like that function.
4. GrIPKey automatically selects the next function in the list. Press the button where you would like the second function, and continue through the end of the Keyset list.

**Window Menu**

Use the options in the Window menu to select the window you want to be active and to arrange the open windows on your screen.

# ...GrIPKey Keyboard Emulation Software, Cont'd.

**Help Menu**


***Tip of the Day...***

Displays a tip.

***Help Topics***

Opens the GrIPKey Help file. Select a topic from the Contents list.

***Go To Gravis Home Page***

If you are connected to the Internet, selecting this option will open

# ...GrIPKey Keyboard Emulation Software, Cont'd.

your Internet browser application and take you directly to the Advanced Gravis Home Page (www.gravis.com).

***About GrIPKey...***

If you ever need to contact Gravis for technical support, first select this option to check the version number of your GrIPKey software.



# GKLOAD

**Important!** Any time you use keyboard emulation (whether you enable it from GrIPKey, GKLOAD, or GCC) in order to use the your GrIP controller's directional pad (D-pad), you must use a GrIPKey set that has the game's keyboard commands for direction control mapped to the D-pad, and you must select "Keyboard only" control in the game.

GKLOAD is a DOS command-line utility for loading GrIPKey sets. While the GrIPKey software requires Windows 95, the GKLOAD utility allows you to configure your GrIP controller with a GrIPKey set from a DOS command prompt. That means that you can use your GrIP controller to play any keyboard-controlled DOS game.

## To load a GrIPKey set into your GrIP controller using GKLOAD:

1. In DOS, change to your \GRAVIS\GRIP directory.
2. Type: GKLOAD [setname] <Enter>

   (where "setname" is the name of a GrIPKey set)

If you return to Windows 95 after using GKLOAD, you must disable keyboard emulation using GCC or GrIPKey.

# GravUtil Testing Software

GravUtil is a useful program for testing your GrIP controllers and game port. Your GrIP controllers do not require GravUtil. If they are working properly, you don't need GravUtil.

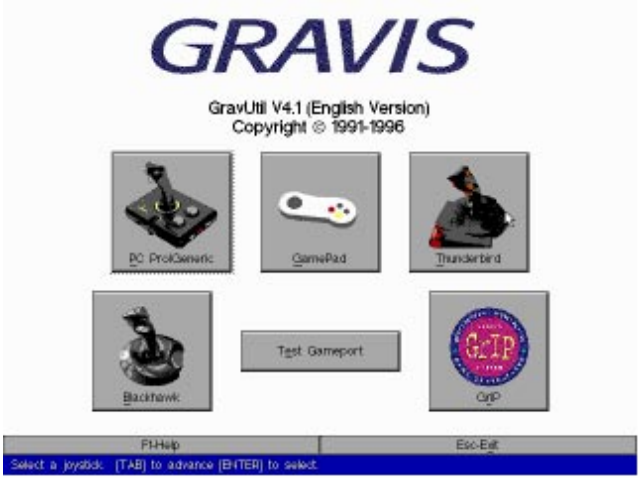
### To run GravUtil:

Double-click the GravUtil icon in your Gravis program group. To run the program from DOS, change to your \GRAVIS\GRAVUTIL directory, and type: GRAVUTIL <Enter>.

### To Test the GrIP Controller:

Select the GrIP button on GravUtil's main screen.

# ...GravUtil Testing Software, Cont'd.




1. Click on the appropriate controller button on GravUtil's main screen.
2. Follow the instructions on-screen to test the pad. For detailed instructions, press F1 or click on the Help button.

# ...GravUtil Testing Software, Cont'd.

**Note:** If your MultiPort or GrIP controllers are in GrIP mode, the Gameport Test will fail. The Gameport Test must be run with the unit in GamePad Pass-Through Mode.

The Speed Compensation option applies only if you are using the game port on a Gravis UltraSound card. For more information, press F1 to access GravUtil's Help.

If your controller and game port test OK in GravUtil, but you are having problems with the controller in a game, the problem is with either:

- the game's joystick setup or calibration; or
- your Windows 95 joystick setup (if it's a Windows 95 game).

## To Test Your Game Port:

Click on the Test Gameport button on GravUtil's main screen and read the reports on your screen as GravUtil runs three tests on your game port.

If your game port fails any portion of the test, press F1 for help, and read the following section on game port conflicts.

## Game Port Conflicts

Erratic joystick behavior is often caused by conflicting game ports in a

# ...GravUtil Testing Software, Cont'd.

system. All game ports use the same address (201 hex), and a joystick will not work properly if more than one device in your system is using that address. This address cannot be shared. A computer that has two game port circuits will cause a dilemma when a game requests information from the game port because two devices will "talk" at the same time. With two active devices on the same address, you will experience a conflict between the two circuits.

If your games are behaving erratically, you may have a conflicting or malfunctioning game port. Some cards - multi-I/O cards for example - have game card circuits but no external joystick connector. It is the interface circuit that causes problems, so you may have a conflict without actually having another visible joystick connector.

To correct a conflict, remove or disable the conflicting device, or change its base address. See the manuals for the other cards in your computer (e.g. game, scanner, tape backup, or multi-I/O cards) for information on disabling a game port or changing its base address from 201 Hex.

Press F1 at any time if you need help.

# The Gravis Joystick Applet

During the GrIP software installation, an enhanced Joystick Properties sheet (the Gravis Joystick Applet) replaced the standard one in your Control Panel.

If, for some reason, you prefer to use the standard Windows Joystick Properties sheet, you will find it saved as joy.bak in your system directory. To use it, rename the file as joy.cpl.

## Current Joystick & Joystick Selections

With Joystick 1 selected, choose a controller from the dropdown list. For the GrIP MultiPort, choose Gravis GrIP.

The list includes all the standard Windows 95 controllers as well. When you select Gravis GrIP as Joystick 1, Joysticks 2–4 are configured for Gravis GrIP at the same time. This is a requirement of the GrIP driver.

Click **Recall Last** if you wish to go back to the previous joystick selection.

## Calibration Information

This section of the Properties sheet allows you to calibrate and test a joystick or game pad. To use it:

# ...Gravis Joystick Applet, cont'd.

1. Click **Apply** to apply your new joystick selections (if you have changed the Current joystick & Joystick Selections).
2. If you are setting up a non-GrIP device, click **Calibrate** and follow the instructions on screen to calibrate the joystick. With the "Gravis GrIP" setting, this option in unavailable, since the GrIP MultiPort and all GrIP devices self-calibrate.
3. Click on the **Test** button. Then press each button on the joystick or pad; watch the corresponding blocks on the Joystick Properties sheet light up as you press each button. Click OK when finished.

   Note: If you experience any problems with the calibration or button test, click on the **GravUtil** button to run a more extensive testing program.
4. When you are finished, click **OK** to save your changes and close the properties sheet (or **Cancel** to close the sheet without saving changes). Or click on one of the buttons at the bottom of the sheet (**Gravis Special Gameport/Joystick Utilities**) to start a related program:



# ...Gravis Joystick Applet, cont'd.

**GravUtil** is a game port and joystick test utility for Gravis products. If you experience problems with the simple calibration and button tests on this Joystick Properties sheet, run GravUtil to test your game port and MultiPort further.

**Note: This option will not be available if you have not installed GravUtil from the Gravis software CD.**

**GrIPKey** is the graphical keyboard emulation software for the MultiPort and other GrIP devices.

**FCC** (Firebird Control Console) is the keyboard emulation software for the Gravis Firebird 2 joystick; if you do not have the Firebird 2 software installed on your computer, this option will be unavailable.

# Troubleshooting

Click on a Topic or click on the arrow at the bottom of the page to continue reading through the book.

Throughout this book, you can click on green-highlighted text to jump to a related topic.

 To return, click the Back button in the tool bar.

Keyboard Emulation Won't Work in a Game

GrIP Support Won’t Work in a Game

15-Pin Joystick Won’t Work with MultiPort

MultiPort Stuck in GrIP Mode



# Keyboard Emulation Won't Work in a Game

**Is the MultiPort in GrIP mode?**

Keyboard emulation works only when the MultiPort is in GrIP mode.

**Did you turn off Keyboard Emulation and forget to turn it back on?**

You can **enable or disable Keyboard Emulation** using the radio buttons in GCC or by clicking on the exclamation mark button in GrIPKey.

**Have you configured the MultiPort with a GrIPKey set?**

You configure the MultiPort by selecting **Configure GrIP** from GrIPKey's File menu or by loading a set from the DOS prompt using **GKLOAD**.

**Did you select Keyboard Only control in the game?**

GrIPKey emulates standard keyboard controls. If you turn on Keyboard Emulation and configure the MultiPort with a GrIPKey set, DOS-based games will not recognize the GrIP controller as a joystick; you MUST select Keyboard control in the game's setup.

# GrIP Support Won't Work in a Game

**My game says it supports Gravis GrIP. I've selected GrIP in the game's Setup, and I've switched the MultiPort into GrIP Mode, but when I start the game, the MultiPort stays in GamePad Emulation. Why?**

*If you are running a game from Windows 95*, check to make sure that the GrIP driver is listed in the Drivers section of your Control Panel. If it's not there, click Add New Hardware... and install the driver from your the MultiPort CD. See your Windows manual for help installing drivers.

*If you are running a DOS-based game from a Win 95 DOS box or in MS-DOS Mode:*

Sometimes DOS-based games that support GrIP expect to find the MultiPort in the DOS default 'GamePad Emulation' (with the GrIP LED red). In Windows 95, however, the default is GrIP mode (LED green). Before you open a Windows 95 DOS box or drop to MS-DOS mode, press the MultiPort's Reset button to turn the LED red. Then open a DOS box or drop to MS-DOS mode and start the game.

*If you are running a DOS-based game*, you may have altered or moved the **GRIP.GLL** file or the SET GRIP= line in your AUTOEXEC.BAT that helps DOS programs locate this file. All DOS-based games require this

# ...GrIP Support Won't Work in a Game, cont'd.

file for GrIP support.

Reinstalling the GrIP software should restore this.

**As I start my game, the GrIP LED switches to green, but there's no GrIP support once I start playing.**

Your game port cable may be plugged in only partially. Make sure it is plugged in securely.

# 15-Pin Joystick Won't Work with MultiPort

**I plugged my old joystick into one of the MultiPort's 15-pin connectors, but it's not working. Why not?**

You probably forgot to switch the MultiPort's Mode Selector switch into Pass-Thru Mode. Make sure the Mode Selector is switched towards the two 15-pin Pass-Thru connectors to allow your 15-pin controllers to work through the MultiPort. Make sure that the green LED on the Pass-Thru wing is lit.

Also, make sure that you have selected the correct joystick description in your game's Setup. Choose "Joystick" or a more specific description of your joystick—not "Gravis GrIP"—if you are using the MultiPort with a standard controller in Pass-Thru Mode.

# MultiPort Stuck in GrIP Mode

**My MultiPort is stuck in GrIP Mode; the bi-color LED stays green, and I can‘t play games in GamePad Emulation.**

When you exit a GrIP-compatible game, the game software should switch the MultiPort back into GamePad Emulation automatically. If your computer crashes in the middle of a game, or if this instruction in the game has been altered or omitted, your MultiPort may ”stick“ in GrIP Mode.

You can switch back to GamePad Emulation manually using the MultiPort‘s **reset switch**.

# Technical Support

Click on a Topic or click on the arrow at the bottom of the page to continue reading through the book.

Throughout this book, you can click on green-highlighted text to jump to a related topic.

 To return, click the Back button in the tool bar.

Technical Support Instructions

Support by Telephone

Support by Electronic Mail

Warranty

Garantie de Advanced Gravis (Français)

Garantie von Advanced Gravis (Deutsch)

Garantia de Advanced Gravis (Español)



# Technical Support Instructions

Technical support is available to all registered owners of Gravis products. Before you call, please read the README file on the Gravis CD or floppy disk and, if you can, please read the Frequently Asked Questions (FAQ) on the Gravis Web site (www.gravis.com). There is no charge for technical support, except possible long distance charges.

## Technical Support Tips

- If only certain programs are affected, read their manuals for information relating to joysticks and game cards.
- Call from a phone near your computer so you can test suggestions and provide any additional information that may be required.
- Please be prepared to provide the following information:

  Name, address and telephone number
  The name of the Gravis product
  Make and Model of your computer
  Your system software and version
  The MultiPort software version number
  Names and versions of all affected software programs
  Symptoms of the problem, and what led to them

# Support By Telephone

Technical support is available weekdays by phone, fax, or e-mail. To save yourself long distance charges, send questions by fax or **e-mail** if you can.

Troubleshooting information and Frequently Asked Question responses are available 24 hours a day on the **Gravis Web site** and from the automated 24-hour faxback service.

Technical support is available by telephone 8:00 AM–4:30 PM Pacific Coast Time Monday–Thursday, 8:00 AM–3:30 PM Friday.

**24-Hour Automated Faxback Service:** (604) 431-9179
Fax responses will be sent directly to you, so please call directly from a fax machine or set your fax-modem to Manual Receive.

In the United States, Canada, and Mexico, please call:

**Phone:** (604) 431-1807 **Fax:** (604) 431-9358

In Europe, please call one of these numbers:

| | | | |
|---|---|---|---|
| Austria | 0660-5791 | Luxembourg | 0800-2778 |
| Belgium | 0800-16778 | Netherlands | 31-36-536 4443 |
| Denmark | 800-17838 | Norway | 800-11335 |
| Finland | 9800-13228 | Portugal | 05-05313318 |
| France | 05-906053 | Spain | 900-993129 |
| Germany | 0130-810654 | Sweden | 020-795845 |
| Hungary | 00800-11727 | Switzerland | 155-8605 |
| Ireland | 1800-553168 | UK | 0800-894383 |

If your country is not listed, please call either (604) 431-1807 (Canada) or +31-36-536-4443 (Netherlands).

# Support By Electronic Mail

This Web site is the hub of Gravis' online support network. For the most current and detailed information and files, look here.

Contact Advanced Gravis at the following addresses:

| | |
|---|---|
| Internet Web Site: | http://www.gravis.com |
| Internet E-mail: | pcstick@gravis.com (Canada) |
| | gravis@euronet.nl (Europe) |
| Internet File Server: | ftp.gravis.com |
| CompuServe: | Go PCVENB area #14 |
| Advanced Gravis BBS: | (604) 431-5927 V32bis N81 |
| Advanced Gravis Europe BBS: | +31-36-536-0379 V32bis N81 |
| America On-Line: | email Gravistec |
| | go keyword: Gravis |

# Warranty Information

Advanced Gravis Computer Technology Ltd. (hereinafter referred to as GRAVIS) warrants to the original purchaser of the Gravis MultiPort and GrIP-Pad (hereinafter referred to as MULTIPORT) manufactured by GRAVIS that it will be free of defects in materials and workmanship for a period of 1 year from the original date of purchase.

Information on obtaining warranty services is provided in the "Warranty Claim Instructions" section. Proof of purchase must be provided when requesting work be done during the warranty period. All warranty claims must be sent to GRAVIS—do not return your MULTIPORT to the place of purchase.

In no event will GRAVIS be responsible for any indirect, special, incremental, consequential or similar damages or lost data or profits to you or any other person or entity regardless of the legal theory, even if we have been advised of the possibility of such damage. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation or exclusion may not apply to you. Our liability for any damage to you or any third party in the event that any of the above limitations are held unenforceable shall not exceed three times the fee you paid for the MULTIPORT regardless of the form of any claim.



# ...Warranty, cont'd.

During the warranty period, GRAVIS will repair, (or at its option replace with a reconditioned MULTIPORT) at no extra charge, components that prove to be defective, provided the MULTIPORT is returned with proof of purchase and shipped prepaid to Advanced Gravis:

Canadian and International Customers
101-3750 North Fraser Way
Burnaby, B.C. V5J 5E9
Canada

U.S. Customers
3140 Mercer Avenue, Suite H
Bellingham, WA 98225-8446
USA

## Warranty Claim Instructions

Carefully read the warranty section and provide a detailed description of the problem including the make and Model of your computer system and the name, version and publisher of the software you are using.

The means of product shipment to GRAVIS is at your cost and discretion. We suggest that you insure your Gravis MULTIPORT in case of



# ...Warranty, cont'd.

damage during shipment. GRAVIS is not responsible for product lost or damaged in shipment.

**We regret that warranty claims originating in the U.S. that are shipped to the Canadian address must be refused due to customs and importation requirements. To avoid customs charges for warranty claims originating outside the U.S. or Canada, please state on the customs documents that the joystick is being returned for warranty repair.**

Include the following information:

- Your name and address
- Home and business numbers
- Fax number (if applicable)
- A copy of your original sales bill
- A description of the problem



# Garantie de Advanced Gravis

Advanced Gravis Computer Technology Ltd. (ci-après désigné sous le nom GRAVIS) garantit à l'acheteur original de la Gravis GrIP Game System (ci-après désigné sous le nom MULTIPORT) fabriqué par GRAVIS, qu'elle ne présente aucun défaut de matériau ou de fabrication, et cela pour une période d'un an à compter de la date d'achat. Pour toute demande de réparation pendant la période de garantie, vous devez fournir une preuve d'achat. Toutes les réclamations doivent être adressées à GRAVIS : ne rapportez pas votre MULTIPORTau revendeur.

En aucun cas GRAVIS ne saurait être tenu responsable des dommages indirects, spéciaux, marginaux, consécutifs, ou similaires, ou de la perte de données ou de bénéfices à votre compte ou celui d'un tiers, quelle que soit la théorie juridique pouvant s'appliquer et même si nous avons été avertis de la possibilité d'un tel dommage. Certains États n'autorisant pas l'exclusion ou la limite des dommages indirects, les limites ou l'exclusion décrites ci-dessus peuvent ne pas vous concerner. Dans le cas où elles ne sont pas applicables, et en cas de dommages, notre responsabilité vis-à-vis de vous ou d'un tiers ne dépassera pas trois fois le prix d'achat de la MULTIPORT, quelle que soit la forme de la réclamation.

# ...Garantie de Advanced Gravis

Pendant la période de garantie, GRAVIS s'engage à réparer les composants défectueux (ou, àson choix, remplacer sans supplément la MULTIPORT par une autre MULTIPORT remise àneuf), sous réserve que la MULTIPORT, accompagnée d'une preuve d'achat, soit expédiée en port pré-payé à : Advanced Gravis Computer Technology.

Clients canadiens et étrangers
101-3750 North Fraser Way
Burnaby, B.C. V5J 5E9
Canada

Clients des États-Unis
3140 Mercer Avenue, Suite H
Bellingham, WA 98225-8446
États-Unis

## Instructions pour faire valoir une rèclamation sous garantie

Veuillez lire attentivement la section sur la garantie et fournir une description détaillée du problème, en indiquant la marque et le modèle de votre ordinateur, ainsi que le nom, la version et l'éditeur du logiciel utilisé.

# ...Garantie de Advanced Gravis

Les frais d'expédition d'un produit à GRAVIS sont à votre charge et le choix du mode de transport vous appartient. Nous vous suggérons d'assurer votre MULTIPORT contre la perte ou les dommages subis pendant le transport. GRAVIS n'est pas responsable de la perte du produit ou des dommages subis par celui-ci au cours du transport.

Les réclamations de garantie expédiées à l'adresse canadienne à partir des États-Unis seront renvoyées à l'expéditeur en raison des réglementations d'importation et de taxes douanières. Pour les réclamations faites en dehors des États-Unis ou du Canada, veuillez préciser sur les formulaires des douanes que vous retournez pour réparation un produit sous garantie. Vous éviterez ainsi des frais de douane.

Veuillez fournir les informations suivantes :

- Vos nom et adresse.
- Vos numéros de téléphone (domicile et lieu de travail).
- Votre numéro de télécopieur (le cas échéant).
- Une photocopie de la facture originale.
- Une description du problème.



# Garantie von Advanced Gravis

Advanced Gravis Computer Technology Ltd. (im folgenden Gravis genannt) garantiert dem Erstbesitzer des von GRAVIS hergestellten Gravis GrIP Game System (im folgenden MULTIPORT genannt) für die Dauer für ein Jahr ab Kaufdatum, daß das Produkt frei von Material- und Verarbeitungsfehlern ist. Alle Garantieansprüche müssen direkt über GRAVIS abgewickelt werden, geben Sie daher den MULTIPORT nicht an Ihren Händler zurück.

GRAVIS haftet nicht für alle mittelbaren, speziellen, zufälligen oder Folgeschäden bzw. ähnlichen Schäden, einschließlich Daten- oder Vermögensverluste, die Ihnen oder einer anderen Person oder juristischen Person entstehen, unabhängig von der gültigen Rechtsauffassung, selbst dann, wenn GRAVIS von der Möglichkeit solcher Schäden in Kenntnis gesetzt wurde. In einigen Ländern ist eine Haftungsbeschränkung oder der Ausschluß von Folgeschäden nicht erlaubt. Daher ist es möglich, daß der oben beschriebene Haftungsausschluß bzw. die Haftungsbeschränkung nicht auf Sie zutreffen. In keinem Fall kann Ihr Schadensersatzanspruch oder der eines Dritten gegenüber GRAVIS den dreifachen Betrag, den Sie für den MULTIPORT bezahlt haben, überschreiten.

Während der Garantiezeit repariert GRAVIS fehlerhafte Komponenten



# ...Garantie von Advanced Gravis

auf eigene Kosten, vorausgesetzt, der MULTIPORT wurde zusammen mit einem Kaufnachweis an eine der genannten Adressen von Advanced Gravis Computer Technology Ltd. geschickt. Dabei bleibt es Gravis überlassen, das defekte Gerät zu reparieren oder durch ein generalüberholtes auszutauschen.

Kanadische und internationale Kunden
101-3750 North Fraser Way
Burnaby, B.C. V5J 5E9
Kanada

Nordamerikanische Kunden (USA)
3140 Mercer Avenue, Suite H
Bellingham, WA 98225-8446
USA

## Hinweise Zur Garantieabwicklung

Lesen Sie den Abschnitt mit den Garantiebestimmungen sorgfältig durch, und legen Sie beim Einreichen des Garantieanspruchs eine genaue Problembeschreibung bei. Geben Sie dabei Marke und Modell Ihres Computers sowie Namen, Version und Hersteller der von Ihnen verwendeten Software an.

# ...Garantie von Advanced Gravis

Die Versandkosten tragen Sie, und es bleibt Ihnen überlassen, auf welche Art Sie das Produkt an GRAVIS zurückschicken. Wir empfehlen Ihnen, den Joystick gegen Verlust und Transportschäden zu versichern. GRAVIS lehnt jede Haftung für Produkte ab, die während des Versands beschädigt werden oder verlorengehen.

Garantieansprüche aus den USA, die an die kanadische Adresse geschickt werden, werden aus Zollgründen abgewiesen und an den Absender zurückgeschickt. Wenn Sie einen Garantieanspruch aus dem Ausland schicken, geben Sie bitte auf dem Zollformular an, daß Sie ein in Kanada hergestelltes Produkt aus Reparaturgründen im Rahmen der Gewährleistung an den Hersteller zurückschicken.

Geben Sie ferner folgende Informationen an:

- Ihren Namen und Ihre Adresse.
- Telefonnummern, unter denen Sie privat und geschäftlich zu erreichen sind.
- Faxnummer (falls vorhanden).
- Eine Kopie Ihres Kaufnachweises.
- Eine genaue Fehlerbeschreibung.

# Garantia de Advanced Gravis

Advanced Gravis Computer Technology Ltd. (denominada en adelante GRAVIS) garantiza al comprador original del bastón de mando Gravis GrIP Game System (denominado en adelante MULTIPORT), fabricado por GRAVIS, que el producto estará libre de defectos de material y mano de obra por un período de 1 año desde la fecha de adquisición original. Cuando solicite reparaciones durante el período de garantía, el usuario deberá suministrar un comprobante de compra. Todos los reclamos de garantía deben enviarse a GRAVIS. No devuelva su MULTIPORT al lugar de adquisición.

GRAVIS no se responsabiliza por ningún daño o perjuicio indirecto, especial, incremental, consecuente o similares o por la pérdida de datos o ganancias sufridas por el usuario o por cualquier otra persona o entidad, independientemente de la teoría legal, aun si GRAVIS hubiera recibido aviso sobre la posibilidad de tales daños y perjuicios. Algunos estados de los Estados Unidos no permiten la exclusión o limitación de los daños y perjuicios consecuentes, por lo que la limitación precedente puede no ser aplicable en todos los casos. La responsabilidad de GRAVIS por cualquier daño o perjuicio al usuario o a terceros, en caso de que alguna de las limitaciones precedentes no fuera legalmente aplicable, no excederá el triple del monto que el

# ...Garantia de Advanced Gravis

usuario pagó por el MULTIPORT, independientemente de la forma del reclamo.

Durante el período de garantía, GRAVIS reparará los componentes defectuosos (o a opción de GRAVIS los reemplazará por un MULTIPORT reacondicionado sin costo adicional), siempre que el usuario devuelva el MULTIPORT, con comprobante de adquisición y lo envíe con flete prepago a: Advanced Gravis Computer Technology Ltd.

Clientes internacionales y canadienses
101–3750 North Fraser Way
Burnaby, BC V5J 5E9
Canadá

Clientes de los Estados Unidos
3140 Mercer Avenue, Suite H
Bellingham, WA 98225-8446
EE.UU.

## Instrucciones para reclamos de garantia

Lea cuidadosamente la sección de la garantía y proporcione una descripción detallada del problema, incluidos la marca y modelo de su



# ...Garantia de Advanced Gravis

sistema de computadora y el nombre, versión y editor del software que utiliza.

El costo del medio de transporte del producto a GRAVIS estará a cargo y discreción del cliente. Sugerimos asegurar el MULTIPORT contra pérdida o daños durante el transporte. GRAVIS no acepta responsabilidad por la pérdida o daños de los productos durante el transporte.

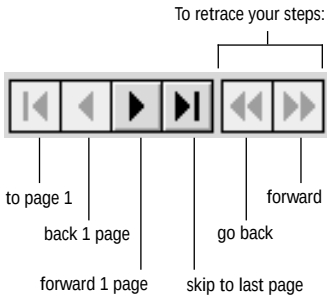
Los artículos enviados a la dirección canadiense desde los Estados Unidos se devolverán al remitente debido a las regulaciones de importación aduaneras e impositivas. Para evitar recargos aduaneros, cuando el reclamo de garantía se origina fuera de los Estados Unidos o Canadá, sírvase declarar en los documentos de aduana que el producto se devuelve para reparaciones bajo garantía.

Incluya la siguiente información:

* Nombre y dirección.
* Números de teléfono particular y comercial.
* Número de fax (si corresponde).
* Una copia de la boleta de venta original.
* Una descripción del problema.

# How to Use this Guide

## Navigating Buttons




## Scroll Bar

Click the up arrow or drag the slider up to move back.

Click the down arrow or drag the slider down to move forward.

This guide is designed to make information easy to find. Read it "cover to cover" like a book if you like. Use the **navigating buttons** or the **scroll bar** to page through the guide.


Click the **Find** button to search for a specific topic.


Click the **Bookmarks** button to view the complete Contents list.

In the Contents ("Bookmarks") list, click the triangles to view subtopics, and double-click a topic to skip to that page in the guide.


Click the **Thumbnails** button to view small previews of each page.


Click the **Page View** button to return to the default view.


Click the **Resize** or **Zoom** buttons to change the page view size.


Use the **Hand** tool to move a document page on-screen when it does not fit within the window. Drag the hand tool in the direction you want to move the page.


Use the **Text** tool to select text to copy.