

steering wheel to the left then the right. If you wish to use the keyboard to steer, press the key you wish to use for turning right, immediately followed by the key for turning left. There are a few keyboard keys that cannot be selected as controls. These are: ESC, space bar, ENTER, F-keys, <, and >.

### Save Race Weekend

In NASCAR Racing, you may save your races. At any point during your race weekend you may press ESC to leave the track and return to the Race Weekend menu. If you select Done, you will be prompted to Save Race Weekend. Select Yes to save the race. The next time you select the track, you will be prompted to Choose Race Weekend. Select Previous Race to begin where you left off. The saved race will remain until you save a new race weekend over it or select New Race to start a new race weekend. You cannot save more than one race at a time. When you load a saved race, the race will resume in a pace lap if you have pace lap turned on, and in a standing start if the pace lap is turned off. In a pace lap the green flag will be displayed after one lap of yellow. From a standing start, the green flag will be displayed immediately. Pace lap may be set under the Options/Realism menu. The cars will be in the same order as when the race was saved.

### Black Flags

If you exceed the pit lane speed limit (55 mph) or pass a car under the yellow, you will receive a black flag. If you pass a car under the yellow flag, you will be told the number of the car you must stay behind. You have until the green flag to get behind that car. If the green flag appears and you are not in your proper position, you will receive a black flag. This flag will not be displayed until the green flag appears.

When you have been given a black flag, you must go to your pit for a stop and go penalty. Going into a the pit while under yellow will not resolve your stop and go penalty. You have 5 laps to go to the pit for your stop and go penalty. If you do not go into the pits within that time, you will be disqualified from the race. You will receive no championship points if you are disqualified.

NASCAR Racing is officially licensed by NASCAR®.

## NASCAR® Racing Installation and Troubleshooting Guide

### System Requirements

Before installing NASCAR Racing, check to ensure that your computer meets the minimum hardware requirements for NASCAR Racing. If you have any difficulty running the game, be sure to use a bootable floppy disk prior to starting the game. Follow the instructions in the Troubleshooting section to create a start up disk.

#### CD-ROM VGA

386DX 33MHz or greater, 6MB RAM (will run with 4MB with reduced graphic detail), MS-DOS 5.0 or later, VGA, hard drive with 15 MB free.

#### CD-ROM SVGA

486DX2 66MHz or greater, 8MB RAM, MS-DOS 5.0 or later, VGA, hard drive with 8MB free.

#### 3.5" Diskette VGA

386DX 33MHz or greater, 6MB RAM (will run with 4MB with reduced graphic detail), MS-DOS 5.0 or later, VGA, hard drive with 15 MB free.

### Installation Program

#### CD-ROM

1. Insert CD-ROM of NASCAR Racing into CD-ROM drive.
2. Type the name of that drive (e.g. D:), then press <ENTER>.
3. Type CD\NASCAR <ENTER>.
4. Type INSTALL <ENTER>.
5. Enter the letter of the drive to install to (e.g. C), press <ENTER>.
6. Enter the directory to install to (e.g. \NASCAR), press <ENTER>.
7. Select CD-ROM Installation or Hard Disk installation. If you choose CD-ROM installation, only a few necessary files will be copied to the hard disk. If you choose Hard Disk Installation the entire program will be copied to the hard disk.
8. When you see "Installation Successful Press ENTER", press <ENTER>.

### 3.5" Diskette

1. Insert Disk 1 of NASCAR Racing into disk drive.
2. Type the letter of that drive (e.g. A: or B:), then press <ENTER>.
3. Type INSTALL <ENTER>.
4. Enter the letter of the drive to install to (e.g. C), then press <ENTER>.
5. Enter the directory to install to (e.g. \NASCAR), then press <ENTER>.
6. You will be prompted to switch disks.
7. When you see "Installation Successful Press ENTER", press <ENTER>.

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### Setup

1. Installation will leave you at the NASCAR Racing Setup Program screen. You can also run the Setup Program from the game directory (C:\NASCAR> if you selected the default directory during installation) by typing SETUP <ENTER>.
2. Select *Change Sound Card* from the menu.
3. Choose your digital sound card from the list and <ENTER>
4. Enter requested setup information. You need to know the Port Address, IRQ, and DMA. Refer to your sound card documentation or look for the SET BLASTER= line in your AUTOEXEC.BAT file for this information.
5. Choose your MIDI card from the list. FM Synthesis is appropriate for most cards.
6. Enter requested setup information. For the AWE32, use 620. Most Sound Blaster or Adlib compatible cards should be set at 220, and most general MIDI cards should be set at 330. Refer to your sound card documentation for this information.
7. Choose *Make a Bootable Floppy* if you have only 6MB RAM or less, or if you have any difficulties running NASCAR Racing. Follow directions on screen to create the bootable floppy. See the Troubleshooting section below for more details
8. Choose *View README File* to read important update information about NASCAR Racing.
9. Choose *Exit* to leave the Setup program.

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### Starting NASCAR Racing

#### CD-ROM

1. Insert CD-ROM into drive into your CD-ROM drive.
2. From your hard drive, type CD\NASCAR <ENTER> (or substitute the

name of the directory that you selected in the installation.)

3. Type NASCAR <ENTER> to start VGA mode.
4. Type NASCAR -H <ENTER> to start SVGA mode. (*Consult Loading Vesa Driver for Your Graphics Card below.*)

### 3.5" Diskette

1. From your hard drive, type CD\NASCAR <ENTER> (or substitute the name of the directory that you selected in the installation.)
2. Type NASCAR <ENTER> to start VGA mode.

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### Troubleshooting

#### Loading Vesa Driver for Your Graphics Card

The SVGA mode of NASCAR Racing requires a graphics card and monitor capable of running 640 x 480 x 256 color. You will need to install a VESA driver for graphics card. The VESA driver is a TSR (terminate and stay resident) program that is run to activate certain functions of the graphics card. It is usually provided with the graphics card on a diskette. Check your hard drive for a graphics card sub-directory. Look for the driver within that sub-directory. The filename will be similar to VESA.COM or WESA.COM. If you are unable to find the driver on your hard drive, you will need to copy it from the diskette to the hard drive.

Run the driver from the command line by typing the name of the driver and pressing <ENTER>.

If a VESA driver did not come with your card, contact the card's manufacturer. For more information on the VESA driver, consult the user's guide for the graphics card. You may also use the UNIVESA driver provided with the NASCAR Racing program. This driver may not be used with all graphics cards, so we recommend that you use the driver provided by your graphics card. If you receive error messages or other problems executing the driver, it may not recognize your graphics card. When you install the game, the driver will be installed to your hard drive. Use the following instructions to run the UNIVESA driver.

1. Insert CD-ROM into drive.
2. From the CD-ROM drive, type CD\NASCAR\UNIVESA <ENTER> (or substitute the name of the directory you selected during installation.
3. Type UNIVESA <ENTER>.

## Memory

NASCAR Racing uses conventional RAM (base 640K) and extended memory (XMS). It does not use expanded memory (EMS). For VGA mode, you must have a minimum of 6MB RAM installed on your system.

(NASCAR Racing will run with only 4MB with reduced graphic detail.) For SVGA mode, you must have a minimum of 8MB RAM installed. To run NASCAR Racing in VGA mode, you will need 3,605 KB free memory in a combination of conventional plus XMS memory. For SVGA, you will need 7,367 KB free memory combined.

To find the amount of RAM memory available on your system, type MEM <ENTER> from the DOS prompt. If you have MS-DOS 6.x, look for the amount of memory in the "Free" column for "Conventional" and "Extended (XMS)." If you have MS-DOS 5, look for "largest executable program size" and "bytes available XMS memory."

If you do not have enough available RAM, we recommend the use of a bootable floppy diskette to start your computer prior to using NASCAR Racing. This will allow you to free the greatest amount of memory for the game. To create a bootable floppy, see Making a Bootable Floppy below. We do not recommend that you change the autoexec.bat and config.sys files on your hard drive because this could affect the performance of other software on your system.

## Making a Bootable Floppy

1. From the C:> prompt, type CD\NASCAR <ENTER>. (Substitute the directory name you selected if you did not use the default install options.)
2. Type SETUP <ENTER>.
3. Select *Make a Bootable Floppy* from the menu and press <ENTER>.
4. Follow the prompts on screen to create the floppy.
5. When finished, select Exit from the menu and press <ENTER>.
6. Reboot your computer with the bootable floppy in the A: drive.

## Adding Sound Card or CD-ROM Drivers to the Bootable Floppy

Most sound cards do not require drivers to be loaded onto a bootable floppy. There are a few exceptions to this rule. If you have a sound card, but are getting no sound in the game when using a start up disk, you will need to copy some necessary information to the bootable floppy. To be sure that you have all the necessary information on the bootable floppy, consult your

sound card's documentation. Because different sound card brands require various things, we are unable to tell you exactly what to look for.

If you are using the CD-ROM version of NASCAR Racing, you will need to add the device drivers for the CD-ROM drive to the start up disk. Look for any mention of the CD-ROM and the directory name that the CD-ROM software is in. (E.g. MSCDEX) If you are unsure about what is needed, please consult your CD-ROM drive user's guide or contact the CD-ROM manufacturer. Because different CD-ROM brands require various things, we are unable to tell you exactly what to look for.

Here are some hints of what to look for in the config.sys and autoexec.bat:

### *Autoexec.bat file*

```
SET SOUND=  
SET BLASTER=  
SET GALAXY=  
SET ULTRSND=  
SET ULTRADIR=  
SET GUSMOD=  
SET SNDSCAPE=  
C:\DOS\MSCDEX.EXE
```

### *Config.sys file*

```
DEVICE=C:\PROAUDIO\MVSOUND.SYS D:1 Q:7 S:1,220,1,5 M:0 J:1  
DEVICE=C:\ULTRASND\ULTRINIT.SYS...  
DEVICE=C:\SC400\DRIVERS\CDMKE.SYS /D:MSCD000 ...  
DEVICE=C:\SBCD\SBCD.SYS /D:MSCD001.....
```

## Frame Rate and Graphics Details

If you are experiencing a slow frame rate, or the textures of the graphics are not appearing, there are several things that may be adjusted in the game. Frame rate and graphics detail may be traded off against each other to create a balance that pleases you. Depending upon your system, you may not be able to have all the graphics textures turned on and still maintain a high frame rate. In addition, every object that must be drawn may have the effect of decreasing the frame rate or causing graphics details to turn off.

## How the Graphics Work

In the Options/Graphics menu, you have the opportunity to set certain graphics textures to ON, OFF, or AUTO. If you set any textures to ON, they

will be turned on regardless of the framerate. If you set any textures to OFF, they will be turned off regardless of framerate. If you set any textures to AUTO, they will turn on or off depending on the framerate selected under Minimum and Maximum Framerate settings. The minimum or maximum framerate settings are used to determine when the graphics set to AUTO turn on or off. The minimum framerate is the number of frames per second at which the detail set to AUTO will be turned off. The maximum framerate is the the number of frames per second at which the details set to auto will be turned on. For example, you have Grass Texture set to Auto, the minimum frame rate set to 15, and the maximum framerate set to 18. When the frame rate slows down to 15 fps, the grass texture turns off. It will turn on again only when the framerate climbs to 18 fps. The wider the range between minimum and maximum framerate the less frequently you will see the graphics toggle on and off while driving. NOTE: The minimum and maximim framerate settings do not guarantee any framerate while driving.

#### **How to Improve Performance**

You may turn some of your textures to OFF or AUTO in the Graphics menu. Select ON only for the textures that you deem absolutely necessary for driving. Grass and road textures require the most processor time so it is best to turn these off first.

There are a number of additional setting within the game that will affect the frame rate and graphics details. In the Options/Opponents menu, you may change the number of opponents as well as the number that are drawn or heard. Select Number to decrease the number of opponents competing in the race. Select Drawing and decrease the number of opponents that are drawn in front and behind your car. Select Heard from the menu and decrease the number of opponents that can be heard as you are driving. You may also substitute FM sounds for the digital sounds in the game to increase frame rate or graphics details. This can be done by starting NASCAR Racing using the -f parameter. From the C:\NASCAR> prompt, type NASCAR -F <ENTER> or NASCAR -F -H <ENTER> for SVGA.

#### **Novice Drivers**

If you are just starting out at driving computer simulations and would like to be more competitive with the computer cars without practicing for many hours, there are a number of settings that may be customized. The first thing to do is to decrease the opponents strength. This setting can be found

under the Options/Opponents menu. You may also decrease the number of opponents. This will give you less to worry about as you drive around the track. To make driving easier, you may select Automatic Shifting and Automatic Braking under the Options/Driving Aids menu. Also, try out the arcade driving view. Press the F-10 key to switch to an outside of the car view. Using these aids will help you to control the car until you have practiced driving for a while.

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### **Feature Information**

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#### **Accelerated Time**

If you crash out of a race, but want the race to finish without your participation, press the letter A from the standings screen. You will automatically received a "DNF" for the race. The screen will then show the updating standings as the race is resolved. This will take approximately one third the time of the normal race. You may press ESC at any point to return to the menu and view a replay of the action. After viewing the replay, press ESC then select Resume Racing to continue the accelerated race completion.

#### **Joystick Calibration and Setting Controls**

The joystick control of the menus is turned off by default in NASCAR Racing. It may be turned on and off by pressing the J key at the main menu. This will enable/disable the steering device's control of the menu option, but have no adverse affects on steering. If the highlight is scrolling through the menu options on its own, you may need to calibrate the joystick. You may press CTRL+J at the main menu to bring you directly to the calibrate joystick screen or select Options/Controls/Calibrate Joystick 1. Move your joystick or steering device to all of its extents, then press <ENTER>. If you have a steering device with no Y-axis, such as the Thrustmaster Formula T1, the menu will continue to scroll regardless of the calibration. In this case, press the letter J at the main menu.

If you enter the driving mode of the game, but your joystick or steering device is not reacting, or if you would like to customize the controls to your preferences, choose Set Controls from the Options/Controls menu. Each of the different steering and car controls is listed there. Select each option, and follow on screen directions. Example: Select Steering. The screen directions tell you to steer to the left then right. Move your joystick or