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## General Help

### **SETUP: Close Other Visual Basic Applications**

Q: During setup, I received this error message: "One or more Visual Basic applications are running. Please close those applications, then choose OK to continue." Why do I have to close my other applications during Wintune setup?

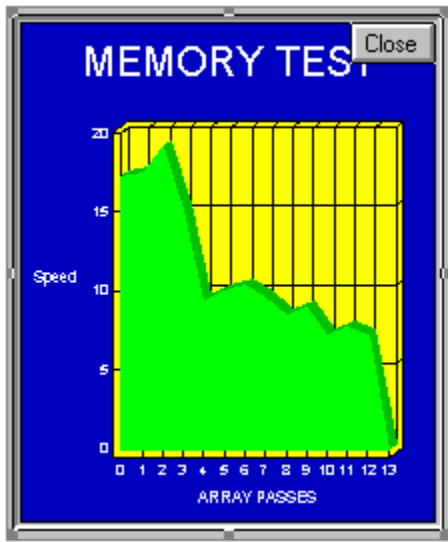
A: The installation of Wintune, like the installation of most VB applications, updates some components of VB itself. Since this can't occur while a VB program is running (executables can't be overwritten while in use), the only way the install can succeed is if all VB apps are shut down first.

## General Help

### CPU: Increase External Cache?

Q: Would increasing my external cache (versus the internal 486 8KB cache) to 256KB speed up things?

A: We've observed 20 percent differences in application performance with and without 256KB of external cache. More is always better. As a first-cut way to tell if additional cache will help, run Wintune 2.0 and click on the pointer for the RAM indicator on the front panel. The resulting display should look something like this:



The high speed on the left end of the chart (17MB per second in this case) represents how fast your CPU can perform a series of read/write operations inside the 8KB primary cache. The low speed on the right end of the chart (6MB per second) indicates the speed of the main RAM on the motherboard. Installing 256KB of secondary cache changes the figure to look like this:

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Note that the "roll off" between the high in-cache and the low motherboard speeds is much more smooth in this figure. The result is 20 percent faster application performance in standard spreadsheet macro tests.

If your memory performance looks like the first figure, with a steep "cliff" at about 8KB (array pass #3), then you could benefit from adding an external RAM cache. If you see the "cliff" with cache already installed, it's probably turned off.

## DISK: SCSI and Wintune

Q: Why are my Wintune disk numbers so low on my SCSI disk in WFWG 3.11?

A: There are some very strange things going on with caching, 32-bit disk access and 32-bit file access in 3.11, and Wintune isn't the only diagnostic that highlights them...

Nevertheless, the most common possible problem with SCSI disks is that Windows will set SMARTDRV /double\_buffer in CONFIG.SYS. This slows the effective disk access to a crawl, both in applications and in the Wintune disk benchmarks. You need to

☞ install the correct ASPI driver for the SCSI card you are using, which will enable you to use WFWG 3.11 32-bit file access on the drive.

☞ remove the SMARTDRV line for CONFIG.SYS (or edit the SMARTDRV line to disable caching on your SCSI drive(s). [Click here](#) to see our advice on adjusting SMARTDRV settings.

Performance will jump **dramatically** after doing this.

## **DISK: SMARTDRV and Hard Disk Performance**

Q: Can I improve the low overall disk performance on my compressed drive (using Stacker, DoubleSpace or SuperStor) by setting SMARTDRV to cache it?

A: Actually, you don't want to cache a compressed drive. You want to cache the physical "host" drive, the one that's not compressed, but holds the hidden file that comprises the compressed disk. Caching the physical/host drive allows you to keep compressed data in the cache, effectively doubling the apparent amount of RAM dedicated to caching, and doubling the chances of finding needed data in the cache. Check your SMARTDRV settings to assure that the compressed drive is not cached-- but the physical drive is compressed. [Click here](#) ) to see our advice on adjusting SMARTDRV settings.

## General Help

### Slow Disk Performance III

Q: I've reset my system to provide over 1MB of disk cache, and Wintune **still** says it's slow...

A: Now things get more complicated. A number of factors can affect overall disk performance, including use of EMM386.EXE to provide expanded memory for DOS applications (it's not needed for Windows applications, and should be eliminated when not required), fragmentation on your hard disk, use of a compression program such as Stacker or DoubleSpace, and so on. See [Disk Performance Improvement Tips](#) for some suggestions.

**General Help**

## **CPU: Typical Performance Figures**


We tested a number of reasonably well-tuned computers and established what kind of performance you should expect from various processors.


[Click here](#) to see the typical CPU performance figures we found in our testing.


## **DISK: Slow Disk Performance**


Q: According to Wintune, my hard disks performance ranges from 0.16 to 0.23. When I run another benchmark, I get a transfer rate of 881.4KB per second from within Windows, and a transfer rate of 1220.9 from DOS. Does anyone have any idea how to reconcile these differences?

A: Okay, here's a simple test.

 Use File Manager to copy a 1MB file (just find something on your disk that's close to that size and use File/Copy).

 You are doing 2MB of disk I/O (reading 1MB and writing 1MB).

 If your file copy takes a bit over 2 seconds then Coretest--PAUL--what is this?? is right.

 If it takes more like 10 seconds then Wintune is closer to reality.

Your other benchmark measures raw disk performance without all the DOS and Windows software in the way. The number might make your computer look faster on paper but that's not the way your applications run.



## General Help

### **DISK: Memory and Disk Performance**

Q: I have a 4MB system and my disk numbers are low. What should I do?

A: Install more RAM. With only 4MB of RAM, your SMARTDrive cache probably isn't set larger than 512KB. That means that large files will be forced directly to disk, without the benefit of caching. Don't try making SMARTDrive larger without increasing RAM, though, that will cause programs to thrash as they fight for the small amount of RAM that's left. The simple fact is that 4MB isn't enough RAM to get optimal performance from **any** current version of Windows.

**General Help**

**DISK: Hardware Cache Unrecognized**

Q: Wintune doesn't seem to recognize my hardware cache--it shows my disk as being very slow.

A: It ain't just Wintune that doesn't recognize your cache... it's **Windows itself**.

We use the same file I/O functions (OpenFile, ReadFile, WriteFile, CloseHandle) as any other Windows application. If we aren't seeing your cache, neither will any other Windows app. Check with your drive manufacturer to see if you're using the right drivers and settings to get maximum performance under Windows.

## **VIDEO: Slow Video Tests**

Q: I just ran a Wintune test with the Full Test option selected. All the video tests were extremely fast until the picture test started and then it took several seconds to display.

A: The 24-bit video test uses the Windows 3.1 SetDIBitsToDevice() API call--which essentially hands the bitmap to the driver and tells it to do the best job it can of rendering the image. We've seen wildly varying results from this, ranging from near-instant display of a low-resolution rendering up to displays that may take several \*minutes\* (not to mention several cases where it crashes the video driver). Better performance on this test depends on getting a better driver from your video card vendor.

Now, with all that said--very few Windows applications actually call the SetDIBitsToDevice() API--for obvious reasons. Unless you plan to use your video system for something like 24-bit image editing (and probably not even then), you needn't be concerned.

**General Help**

**SETUP: Proper Wintune Downloading**

Q: How can I be sure I downloaded Wintune correctly?

A: Wintune 2.0 is currently available only online, in a single .ZIP file archive. The name, size and modification date of that archive are shown below:

Name	Date	Size
WT20.	12/02/9	1,395,90
ZIP	4	0


If your file size and modification date don't match, then you probably have a bad download, and will need to retrieve the .ZIP file again.

## General Help

### SETUP: Unzipping /Decompressing Wintune


Q: What do I do with WT20.ZIP?

A: WT20.ZIP is a .ZIP file archive. . Archive files contain other files. Before you can install Wintune, you must extract the files , and place them into a common directory. You should then run the program SETUP.EXE, which will be found in the common directory you'll create.

 Create the directory that will hold the Wintune files. We suggest you create a directory on your hard disk named C:\WT20. To do this, enter the following DOS command at any DOS prompt:

```
MKDIR C:\WT20
```

Or select Create Directory from File Manager's File menu, and enter C:\WT20 when asked for the name of the directory to be created.

 Extract the files contained in WT20.ZIP, and place the extracted files in the C:\WT20 directory.

AOL USERS: [Click here](#) to see specific instructions for installing Wintune after an AOL download.

OTHER DOWNLOADERS: [Click here](#) to see instructions for installing Wintune after a download from a service **other than AOL**.



## Other Downloaders

Copy

Close

Several utility programs can extract the files contained in .ZIP archives. PKUNZIP.EXE, a DOS-based shareware utility, is the most popular. If you have a copy of PKUNZIP.EXE, the following DOS command will extract the Wintune files and place them in C:\WT20:

```
PKUNZIP WT20.ZIP C:\WT20
```

Another popular utility program is WinZip, a Windows-based shareware program. Like PKUNZIP, it is available from most bulletin board systems, probably including the one where you obtained Wintune. WinZip includes instructions for its use. Be sure to ask WinZip to extract the files from WT20.ZIP.



## **AOL Users**

**Copy**

**Close**

If you downloaded WT20.ZIP from America Online (AOL), the extraction may have already been done for you. AOL has an option that causes it to automatically extract files from any .ZIP archives you download.

In that case, you will find the contents of WT20.ZIP in the directory C:\WAOL\DOWNLOAD\WT20. If this is the case, you can simply install Wintune directly from the WT20 directory.

## General Help

### SETUP: File Listing

Q: How can I tell if the Wintune files were extracted from the .ZIP files correctly?

A: Below is a list of files that are in each of the Wintune archive files. If you experience setup problems, first check your files against the files listed below, verifying dates, times and sizes of corresponding files. If you find a discrepancy, re-extract the files from the indicated .ZIP file. If the extracted file(s) still don't match those shown below, you may need to re-download the indicated .ZIP file and try again.

#### WT20.ZIP contains the following files:

Name	Length	Date
CMDIALOG.VB	<b>10,865</b>	04-28-93
GETINFO.DL_	<b>22,263</b>	09-27-94
GSW.EX_	<b>151,678</b>	02-18-94
GSWDLL.DL_	<b>24,408</b>	02-18-94
HELL16C.DL_	<b>224,800</b>	12-01-94
README.TXT	<b>12,454</b>	12-02-94
SETUP.EXE	<b>8,480</b>	10-07-93
SETUP.INF	<b>217</b>	08-30-94
SETUP1.EX_	<b>20,207</b>	10-01-94
SETUPKIT.DL_	<b>3,657</b>	04-28-93
SSIDXTAB.VB_	<b>39,604</b>	05-23-94
TIPADW16.DL_	<b>12,575</b>	12-09-94
VBRUN300.DL_	<b>276,684</b>	05-12-93
VER.DL_	<b>6,307</b>	03-10-92
WINTUNE.TR_	<b>22,511</b>	11-08-94
WT20.EX_	<b>103,956</b>	11-09-94
WTFAQ.HL_	<b>40,810</b>	12-09-94
WTGRAPH.VB_	<b>41,683</b>	02-18-94
WTHELP.HL_	<b>251,953</b>	12-05-94
WTSS3D.VB_	<b>28,209</b>	08-24-93
WTSS3D2.VB_	<b>44,100</b>	06-01-93
WTTIP.HL_	<b>53,145</b>	12-05-94

\*not less than



**General Help**

**SETUP: Running SETUP.EXE**

Q: How do I run SETUP.EXE?

A: SETUP.EXE must be run from Windows. You can run the program from either Program Manager or File Manager.

To run SETUP.EXE from Program Manager, select Run from Program Manager's File menu. When asked for a Command Line, enter:

C:\WT20\SETUP.EXE

(assuming you've extracted all the Wintune files into the recommended C:\WT20 directory).

To run SETUP.EXE from File Manager, cause File Manager to display the files located in the C:\WT20 directory (or other directory where you've placed the Wintune files after extraction). Next, double-click on the file named SETUP.EXE.

## General Help

### SETUP: Checking for Proper Setup

Please note: During Wintune's installation, it creates a file called WTSETUP.LOG in your WINDOWS directory. If you are experiencing setup problems, check this file. Very often it will tell you where it had a problem

Q: How can I tell if SETUP.EXE ran correctly?

A: The best way to test your setup is to run Wintune. To do that, double-click on the Wintune icon in Program Manager that SETUP.EXE created for you.

If you have problems, first check to see if SETUP.EXE installed all files correctly. Below is a list of Wintune files, after installation. Check to be sure that each file exists, is in the expected location, and has the right size and date:

#### Wintune files after SETUP is complete:

Name	Length	Date	Directory
CMDIALOG.VBX	<b>18,688</b>	04-28-93	\windows\ system
GETINFO.DLL	<b>37,652</b>	09-27-94	\wt20
GSW.EXE	<b>262,704</b>	02-18-94	\windows\ system
GSWDLL.DLL	<b>45,584</b>	02-18-94	\windows\ system
HELL16C.DLL	<b>303,104</b>	12-01-94	\wt20
README.TXT	<b>12,454</b>	12-02-94	\wt20
SSIDXTAB.VBX	<b>61,664</b>	05-23-94	\windows\ system
TIPADW16.DLL	<b>21,056</b>	12-09-94	\wt20
VBRUN300.DLL	<b>398,416</b>	05-12-93	\windows\ system
VER.DLL	<b>9,008</b>	03-10-92	\windows\ system (varies)
WINTUNE.TRF	<b>107,940</b>	11-08-94	\wt20
WT20.EXE	<b>276,519</b>	11-09-94	\wt20
WTFAQ.HLP	<b>100,575</b>	12-09-94	\wt20
WTGRAPH.VBX	<b>73,296</b>	02-18-94	\windows\ system
WTHELP.HLP	<b>640,043</b>	12-05-94	\wt20
WTSS3D.VBX	<b>28,209</b>	08-24-93	\windows\ system
WTSS3D2.VBX	<b>44,100</b>	06-01-93	\windows\ system
WTTIP.HLP	<b>115,242</b>	12-05-94	\wt20

\*not less than

#### General Help

### ERROR: VBX File Out Of Date Message

Q: I get a message that a .VBX file is "Out-of-Date."

A: It's likely that another program's installation procedure has placed an out-of-date version of the .VBX file in your WINDOWS directory.

.VBX files should be placed in the WINDOWS\SYSTEM directory, since Windows searches the path, WINDOWS, and then WINDOWS\SYSTEM. If an out-of-date .VBX file is erroneously placed in the WINDOWS directory, newer, correctly installed .VBXs (in WINDOWS) will be missed, while older, incorrectly installed (into WINDOWS) .VBXs will be loaded and run.

To correct this problem,

#### General Help

**Back up the WINDOWS and WINDOWS\SYSTEM directories.** Then check your WINDOWS directory for the existence of .VBX files.

#### General Help

If a .VBX file is found in the WINDOWS directory, copy it from the WINDOWS directory to the WINDOWS\SYSTEM directory **IF**:

#### General Help

The .VBX file in the WINDOWS directory is **newer** than one by the same name in the WINDOWS\SYSTEM directory.

#### General Help

There is now a .VBX file in the WINDOWS\SYSTEM directory whose name matches that of the .VBX file in the WINDOWS directory.

### What Not To Do

**Do not copy a .VBX FILE** from WINDOWS to WINDOWS\SYSTEM if the .VBX file in WINDOWS is **older** than the .VBX file in WINDOWS\SYSTEM. **IT IS IMPORTANT NOT TO COPY OLDER FILES OVER NEWER FILES!!!**

### When You're Done

Once the appropriate .VBX files (if any) have been copied from WINDOWS to WINDOWS\SYSTEM

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Delete all .VBX file from the WINDOWS directory

#### General Help

Exit Windows

#### General Help

Restart Windows

#### General Help

Run Wintune again.

## General Help

### **ERROR:Failed To Open Graphics Server/Cannot Load DLL**

Q: When I run Wintune I get two error messages:

"Failed to open Graphics Server/GSW.EXE Must be available via the DOS path"

and:

"Can't load custom control .DLL/"C:\Windows\System\Graph.VBX"

What should I do?

A: If you get a similar message to the ones above, it is almost a guaranteed that you have a corrupted download. The first message indicates that Wintune is having a problem loading GSW.EXE, which is necessary for Wintune's chart displays. The second message comes because the graphics server (GSW.EXE) was unable to load.

Check your files against [Checking for Proper Setup](#) **after** setup has been completed!

**General Help**

## **SETUP:Files Renamed/Files Already Exist**

Q: When running Setup, I get a message that files need to be renamed. What does it mean?

Q: When I run Wintune's Setup a second time, I get a message that files already exist, and then the program ends. What next?

A: Actually, these two questions are related!

During Wintune's setup, it looks to see if any versions of the files it needs are located in the your WINDOWS directory. Usually, supporting files should be installed to the WINDOWS\SYSTEM directory, but some programmers put .DLLs and .VBXs in the wrong place. Wintune checks for this, and if it finds files where they should not be, it warns you that it will rename them, and if you say "OK," it renames the errant files and installs the correct files in the correct place.

When Wintune installs and finds a file where it shouldn't be, it renames it.

**General Help**

.DLLs that are in the WINDOWS directory which should be in the WINDOWS\SYSTEM directory, get renamed to \*.WTL,

**General Help**

.VBX files get renamed to \*.WTX

**General Help**

.EXE files get renamed to \*.WTE.

If, when trying to rename a file, the system finds that a file with the new name already exists, you will receive a message that "a" file already exists, and when you choose OK, the program ends.

**General Help**

Erase all the files in your WINDOWS directory with the \*.wt\* extension

**General Help**

Run Setup again.

## General Help

### **ERROR: Please Close Visual Basic Applications**

Q: When I run Wintune, I get a message "One of more Visual Basic applications are running. Please close those applications, then choose OK to continue." What does this mean?

A: Just what it says--Wintune needs to have total control over your system while performing its low-level tests. It can't do that while Visual Basic apps are running (for that matter, ideally Wintune should be the **only** program running--that's why we recommend that you always run it first after starting a clean Windows session). Running it any other way gives misleading results.

## General Help

### **ERROR:General Protection Fault**

Q: Wintune fails with a GPF (General Protection Fault). What's wrong?

A: There is one known condition that can cause a GPF when running Wintune. It occurs when Wintune is just starting to load, and it generally indicates a setup problem. Check the dates and sizes of all files ([Click here](#))--quite probably you'll find that one file is the wrong size, and Wintune needs to be downloaded again.

**General Help**

**ERROR: Divide By Zero/Overflow**

Q: I get a "Divide by Zero" or an "Overflow" error while running Wintune's Floating-Point (FPU) Test. What gives?

A: If you have a 386-based system (or a 486SX) that's been upgraded by adding a 387 (or 487) math coprocessor, this may indicate that the FPU is incompatible with the CPU (probably it's not fast enough). To check:

**General Help** Use the Turbo switch (or fast/slow CMOS setting) to reset your system to slow speed

**General Help** Run Wintune again

**General Help** If the divide-by-zero error goes away, this indicates that your CPU is too fast for the coprocessor, and you need to replace the coprocessor with a faster model.



**General Help**

**ERROR:Unable To Load VBX/Newer Version of VBX**

Q: When I try to run Wintune , I get an "unable to load \*\*.VBX" error--or Wintune says that I need a newer version of \*\*.VBX...

A: See [Checking for Proper Setup](#)

## General Help

### **GENERAL:Test Scores Vary**

Q: I get different disk test scores when I run Wintune more than once--what's up?

A: It's normal to see some variation in Wintune disk scores. We read disk data through whatever cache is enabled (SMARTDrive, FastFAT, etc.), and the precise score depends on the cache state. For maximum accuracy, run the Full Test rather than the Quick Test, run it several times, and average the results.

If the disk score appears to be changing when some other system component not related to the disk (video driver, network drivers, etc.) is changed, then this may indicate that some sort of delayed activity or timer setting is interfering with the test. Try [editing the command line](#) to:

```
c:\wintune\wintune.exe /t30
```

this will set a 30-second delay between tests, eliminating any possibility that the video test affects the disk test.

## DISK: Slow Disk Performance II

Q: Wintune says I have a slow hard disk --what can I do?

A: Several factors can affect disk performance (see [Understanding Disk Test Results](#)); but the most common by far is disk cache settings. If your disk scores are in the .1 to .3MB per second . range then you are almost certainly running without cache, or with inadequate cache.

Wintune's disk test looks for the size of your WFWG 3.11 32BFA cache or SMARTDrive cache, and runs two tests--one at 20 percent of the cache size ("cached" test), and one at 10 percent over the cache size. Thus, for a 1MB cache size, we test at 200KB (cached) and 1.1MB (un-cached). If we find neither 32BFA nor SMARTDrive, then we test cached performance at a 64KB file size, and uncached performance at 50 percent of the size of your system's RAM (if you have 8MB of RAM, we run a 4MB test file). In any case, Wintune 2.0 creates the test file, then performs sequential and random reads and writes in the file using 4KB blocks. We compute overall disk performance for the front-panel indicator using a weighted average of cached and uncached performance, weighted at 50 percent each at a 2MB cache size. Increasing either the cache size or the disk performance will improve both the Wintune disk score and overall system performance [in most cases](#)

[Click here](#) if you have Windows NT.

[Click here](#) if you have Windows 3.1.

[Click here](#) if you have Windows for Workgroups 3.11.

[Click here](#) to see typical disk performance figures.





Note: Wintune's Disk Test will show the best performance with **both** read and write caching enabled. Write caching can be dangerous--if your system is shut down unexpectedly between disk flushes you may lose data or even corrupt your disk. If you are not certain that your system is reliable with write caching enabled, turn it off. Consult the documentation provided by your manufacturer (for SMARTDrive and WFWG 3.11 32BFA, this is the DOS/Windows documentation from Microsoft).



## Windows NT Advice



If you have Windows NT, then caching is automatic (NT uses the virtual memory system to provide a dynamic cache, which can be as large as physical memory). If Wintune reports poor disk performance on an NT system, it may indicate that you have insufficient RAM in the NT machine. Repeat the test to verify your results, and then take steps to free up as much RAM as possible. Such steps may include:

-  eliminating unused device drivers
-  shutting down unused services
-  resetting the Network Server subsystem to use less memory (Double-click on Control Panel/Network, select the Server item from the Installed Software list, click on the Configure button--and reset the Optimization to one that requires less RAM).
-  increasing system page file size (Double-click on Control Panel/System, click on the Virtual Memory button, adjust the Paging File initial and maximum sizes, and click on the Set button.

Consult your Windows NT System Guide and the Windows NT Resource Kit for further suggestions.

General Help

## Windows 3.1 Advice

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If you have Windows (or Windows for Workgroups) 3.1, then the cache may be SMARTDrive, which is covered under [Adjusting SMARTDRV Settings](#), or a third-party disk cache (consult the instructions that come with your third-party cache software).

General Help

## Windows for Workgroups 3.11 Advice

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General Help

If you have WFWG 3.11, then the cache situation depends on whether you are able to use 32-bit file access. In [Control Panel](#), click on the Enhanced Icon, then select Virtual Memory and Change>>. If you see a check box for Use 32-bit File Access, check it and set the cache size to about 25 percent of the total memory in your system (2MB on an 8MB system).

If you have a SMARTDrive line in your AUTOEXEC.BAT file, Windows automatically adjusts it downward when you select 32-bit file access. If you have put SMARTDrive in another batch file or are using a different cache, then you should either comment it out, or modify the SMARTDrive settings to avoid caching the hard disks you're using with 32BFA. These issues are discussed in detail in the Microsoft Windows for Workgroups Resource Kit, which is a must-have reference for serious tuning. The cost is approximately \$30. Call Microsoft End User Sales at 800-426-9400

[General Help](#)

## **Laptops Are An Exception**

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[General Help](#)

The low disk performance figures for laptop and notebook computers reflect the use of a smaller disk cache--you can't run 1MB of cache in a 4MB system without making the system swap frequently!

**General Help**

**ERROR: Cannot Create Redraw File**

Q: I get a "cannot create redraw file" error. What does this mean?

A: It means you are short on both memory and disk space. Wintune's user interface was built with Visual Basic 3.0, and uses VB's auto-redraw feature. This requires opening a redraw file that contains copies of the bitmaps used in the user interface, so that we can quickly restore the display when you move a window or take other actions that require redraw activity. When Wintune can't find enough space to create the redraw file, it can't run. Try freeing up some space on your hard disk.



## **ERROR: Invalid Property Value**

Q: I get an "Invalid Property Value" error. What does this mean?

Usually, this means you have deleted a font required by Wintune.

Wintune (and Windows itself) **requires** certain fonts in order to run. Do not delete the following fonts:

- Arial (TrueType)
- Arial Bold (TrueType)
- Arial Bold Italic (TrueType)
- Arial Italic (TrueType)
- Courier 10,12,15 (VGA res)
- Courier New (TrueType)
- Courier New Bold (TrueType)
- Courier New Bold Italic (TrueType)
- Courier New Italic (TrueType)
- Modern (Plotter)
- MS Sans Serif 8,10,12,14,18,24 (VGA res)
- MS Serif 8,10,12,14,18,24 (VGA res)
- Roman (Plotter)
- Script (Plotter)
- small fonts (VGA res)
- Symbol (TrueType)
- Symbol 8,10,12,14,18,24 (VGA res)
- Times New Roman (TrueType)
- Times New Roman Bold (TrueType)
- Times New Roman Bold Italic (TrueType)
- Times New Roman Italic (TrueType)
- Wingdings (TrueType)

Deleting these fonts, particularly MS Sans Serif, may result in an "Invalid Property Value" error when attempting to start Wintune.

**General Help**

**ERROR: Invalid File Format**

Q: What do I do when I see a dialog that says "Invalid File Format" during start-up?

A: Most likely, this indicates you have a bad download. Check your files against the list under [SETUP: Checking for Proper Setup.](#)

**General Help**

**GENERAL: Less Free RAM Each Time**

Q: Running Wintune repeatedly, it shows less free RAM on each pass. Is there something wrong?

A: This is normal. We execute a GlobalCompact command on start-up, which forces Windows to go through its garbage collection cycle and free up memory segments (we do this to predict swapping behavior in small-footprint systems). Then we run a bunch of tests that dirty those segments--including a video test that uses lots of GDI heap resources. If you run the test again, we start off with a GlobalCompact--which can't get as much back as it did the first time because heap resources are in use, etc. You'd probably get a more meaningful result if you:

**General Help** Run Wintune

**General Help** Exit

**General Help** Run it again

## General Help

### **GENERAL: WINTUNE.TRF**

Q: Now that I've run Wintune , what can I do with the information in WINTUNE.TRF?

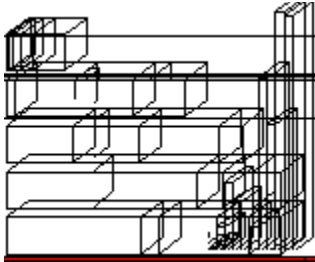
A: WINTUNE.TRF is the file in which results of Wintune 2.0 testing are stored. The data in WINTUNE.TRF is stored in a proprietary binary format, but may be saved in a Comma Separated Variable format; with an extension of .CSV. Such files are also known as comma-delimited ASCII, which is accepted as input by most spreadsheet programs, and some databases. Try loading the comma-delimited version of .TRF into a spreadsheet and graphing some of the variables from test to test. This can provide a great way to see how your system's performance changes over time!

**General Help**

**VIDEO: Video Problems**

Q: When I start Wintune I see a strange, ghostly outline of a graph. How do I make this go away?

A: If you're seeing something like this:



Then you've run into a bug in your video driver. We've observed this problem with first-generation Diamond Viper video cards, and it might happen on some other video systems as well. Contact your video card vendor for information on updated drivers. [Click here](#) to see our advice on updating video drivers.

**General Help**

**VIDEO: Slow Diamond Viper Video Performance**

Q: Why am I getting low video performance on my Diamond Viper video card?

A recently issued Diamond Viper video card driver includes a new In Control Windows utility. In order to obtain the best performance from your card, you need to activate this utility, turn off fast scrolling, close Windows, restart Windows and reset fast scrolling to on.

