

# Wintune 95 - System

The System Analyzer summarizes information about the components of the system and how they are configured. This includes the system board, the BIOS version, operating system software, and other software that may be running.

For questions on a particular item reported by this analyzer, click on the item in Wintune's Details tab and press F1, or right-click on the item and select "Tell Me More". You can also browse the help topics using the >> and << buttons above, or select a specific item from the list below.

## **FAQs**

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## **Why does my notebook PC show an ISA bus type?**

Wintune gets its information on bus configurations from the registry. On notebook or portable PCs, Windows likes to pretend there's an ISA bus even if there aren't actually ISA bus slots in the system. The ISA architecture encompasses the way the serial ports, system timer, interrupt controller, and other devices are configured, and much of this still holds for a notebook PC. There just aren't any slots.

## **Why does my BIOS info have strange characters in it?**

Wintune gets its BIOS information from the data that Windows stores in the registry. As with many PC-related pieces of information, there isn't a completely documented way of getting the BIOS information. Windows simply looks for printable ASCII characters in a particular area of the BIOS ROM. Sometimes there are printable characters there that aren't part of the BIOS information. This is generally just a cosmetic problem, and does not affect the function of either Windows or Wintune.

## **Why is my BIOS info wrong?**

Wintune gets its BIOS information from the data that Windows stores in the registry. Windows 95 only puts the BIOS information into the registry when you install Windows 95 onto the system. This means that registry information about the BIOS type stored into the registry will not be correct if it is later changed. You might change BIOS information if you re-flash a flash BIOS, or if you move a hard disk with Windows 95 installed to another system board. (This last procedure is not recommended, it's a much better idea to reinstall Windows 95 onto the new system board.)

Windows NT builds its registry information each time the system boots, so it should not have this problem. We are examining the possibility of having Wintune 95 examine the BIOS itself on Windows 95, although the best solution would be for Microsoft to have the Windows 95 registry reflect up-to-date information.

On some BIOS versions, a different version number or date will be displayed on-screen when the system boots than the date or version that is stored in the BIOS info field. Or, the BIOS will have two dates, one shown in the BIOS type field and one in BIOS info. Yes, it is weird. All we can do is report it; the BIOS or system vendor would have to explain it.

## Why don't I see the "other programs" running?

The most obvious place for an "Other program" or "Problem program" to be is on the taskbar (Windows 95) or as an icon (Windows NT). However, you would have seen those, right? Here's a few other places that running programs can hide:

- \* As a taskbar icon near the clock. Although they don't have a window in the normal sense, taskbar icon "windows" have a name that will be listed in Other Programs. (Some taskbar windows are automatically taken out of the list though; see below.) For example, the System Agent from Microsoft's Plus Pack is named "SYSTEM AGENT COM WINDOW".

- \* As a hidden window. No wonder you can't see it. Examples of this type include "Spooler Process", the print spooler.

- \* As a system service on Windows NT. These are started when the system is booted and are controlled through the Control Panel Services icon.

Wintune keeps a list of programs that it automatically removes from the "other programs" list. These are programs that are known to not affect performance, such as Battery Meter. (Trivia item: The Volume Control taskbar icon has a window that is mistakenly labeled Battery Meter, probably because the person who wrote it started with the Battery Meter code and forgot to change the name.)

Some power management schemes also cause a CPU load reading by stopping the CPU to save power. If you can't find any running programs, make sure that all power management is turned off.

## **Brand/Model**

You should put the brand and model name of the PC in this field. To edit this field, go to the Details screen, right-click the SYSTEM entry, and select Properties. If you want to change the Brand/Model description of another system in the database, go to the Database tab, right-click the system, and select Properties.

See also

[Notes](#)

## **SYSID**

This is a number generated by Wintune to identify this configuration of BIOS and CPU. It is generally unique for a specific brand of system. However, two systems from different manufacturers might have the same SYSID if they use the same BIOS and CPU.

## Tested On

This is the date and time that the system was tested. If tests have not been run yet, this will be the time that Wintune started running. This field is available in the Database tab as a way to sort test entries.

See also

[Notes](#)



## **APM**

Advanced Power Management, or APM, is a software interface that many PCs support in order to reduce their power consumption. Battery-powered portable computers can extend their battery life by reducing their speed or turning off peripherals when they are not being used. Desktop systems based on the Energy Star guidelines from the US Department of Energy also support APM. The drawback to having APM enabled, particularly while using Wintune, is that you may receive results that are slower than the best available for the system. To get a good baseline performance measurement, turn all power-saving features off using the BIOS setup program. Then you can enable the features and see what effect they have on performance.

## Notes

You can put anything you want in this field. It is useful for pointing out any changes you may have made to the configuration before testing that aren't reflected in Wintune's own database. To edit the Notes field, go to the Details screen, right-click the SYSTEM entry, and select Properties. If you want to change the Notes field of another system in the database, go to the Database tab, right-click the system, and select Properties.

See also

[Brand/Model](#)

## **Operating system**

As of Wintune 95's release this will be either Windows 95 or Windows NT. The three numbers following the operating system name are the major version, the minor version, and the build number. The first release of Windows 95 is 4.0.950, and any older (lower-numbered) build is a beta version. The first release of Windows NT supported by Wintune 95 is 3.51.1057; when NT is running with the new (Windows 95 Explorer) shell it may report a major version of 4.

## **Bus type**

These are the types of buses installed in the system according to the Windows registry. The most common bus types are ISA, EISA, PCI, MCA, and PCMCIA. Another common type of bus is the VESA Local Bus (VL-Bus) but Windows does not specifically detect these slots because there is no software-defined means to do so.

See also:

FAQ: [Why does my notebook PC show an ISA bus type?](#)

## BIOS type

Usually this field will be the name brand of the BIOS being used in the system, along with the date stored in the BIOS ROM. Common brand names include Compaq, Phoenix, American Megatrends, Quadtel, IBM, System Soft, AST, and Award. Some non-IBM BIOS versions will report themselves as IBM in an attempt to be as compatible as possible with (very) old software that expects a genuine IBM AT.

For a few BIOS brands, Windows does not report a type at all and only the date will be displayed; this problem seems to be more common in Windows NT than Windows 95. Windows NT and Windows 95 do not appear to use the same code to detect the BIOS string, so this field may be different if you run the two operating systems on the same system.

See also:

[BIOS info](#)

FAQ: [Why does my BIOS info have strange characters in it?](#)

FAQ: [Why is my BIOS info wrong?](#)

## **BIOS info**

This field may provide further information about the type of BIOS that is in the system. Wintune gets its BIOS information from the data that Windows stores in the registry. Windows NT and Windows 95 do not appear to use the same code to detect the BIOS string, so this field may be different if you run the two operating systems on the same system.

See also:

FAQ: [Why does my BIOS info have strange characters in it?](#)

FAQ: [Why is my BIOS info wrong?](#)

## Problem programs

Our experience has shown that the programs in the "Problem programs" list will often use up significant amounts of CPU time while running in background<sup>¾</sup>that is, while they're minimized on the taskbar and you're not typing at them. Although you might not mind the occasional slowdown this causes while you're using your word processor, it will cause Wintune to report results that are lower than your system is capable of performing.

The best way to tell if one of the "Problem programs" is using up CPU time is to take a look at the "CPU load" value that Wintune reports. If this number is more than 5 to 10 percent, it's likely that a program is trying to run in background and using up CPU time.

Since vendors may update their products without changing the name, it's possible that you have an improved version of the program and it no longer uses up CPU time like the version we identified. The easiest way to tell is to check the "CPU load" number. A value of zero indicates that the program is not using CPU time.

See also

[Other programs](#)

FAQ: [Why don't I see these "other programs" running?](#)

## Other programs

"Other programs" are programs that are currently active while Wintune is running its tests. Many times these programs will not cause any change in Wintune's results. However, you should try to run Wintune at least once without other programs active to ensure that they are not affecting results.

Having other programs running can affect Wintune's results in two ways. First, they may use up CPU time and cause Wintune's results to be lower than the best results that could be obtained on your system. To determine if this is the case, take a look at the "CPU load" value that Wintune reports. If this number is more than 5 to 10 percent, it's likely that a program is trying to run in background and is using up CPU time.

Other programs also can consume system resources such as memory, which may cause swapping or excessive disk activity during the tests. As is the case with CPU usage, the result will be to make the system slower than its best-case performance. They may also cause erratic results, with some tests varying by more than 10 percent between runs.

The procedure for stopping a program varies. Most of the time you just right-click the taskbar and select Close. Some programs can't be stopped unless you uninstall the software. Others can be temporarily stopped for testing by removing their shortcuts from the Startup folder. Microsoft Plus System Agent can be stopped by right-clicking its taskbar icon and selecting Suspend System Agent. (Be sure to re-enable it later!)

See also

[FAQ: Why don't I see the "other programs" running?](#)

[Problem programs](#)



## **Click Analyze Now**

When Wintune starts, it gathers whatever information it can quickly ascertain about the system. Wintune does not actually perform its benchmark tests until you click the Analyze Now button, since the tests can take a few minutes to complete. If you just want to view systems in the database--including results you previously saved for this system--you do not need to click Analyze Now. You can simply go the Database tab, select the systems you want to view, and then use the Reports and Charts tab to view the data.

The Details tab always reflects the results for the current test run, so the entries there will show as Not Tested if you have not yet run an analysis. However, you may still use the Details tab to browse through the entries. If you right-click on any entry in the Details tree and select Tell Me More, Wintune will take you to the help file entry that describes that entry.

## **Compare your system to others in the database**

Once you have run the full set of tests using Analyze Now, you may want to compare your results to other systems in Wintune's database. To do so, click the Database tab. The current system will already be selected and positioned at the top of the database. You can click other systems to select them, and they will appear in the reports and charts that you generate. Click on any of the column headings, such as Brand/Model or CPU type, to sort the database listing by that column. Right-click on an entry to see additional options you have in selecting items and managing the database.

Once you have selected the systems you want to compare, click on the Reports or Charts tab. You will see a report or chart of the systems you selected. To change the order that the entries appear in the chart or report, change the sort order in the Database tab by clicking on a column heading.

