

The SAGATUG

INTERFACE

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The San Gabriel Valley Technology User's Group. The Club for TRSDOS and MS-DOS

Upgrade Your Own PC

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With technology improving daily, the computer you bought last week might already be inferior to the more powerful machine released today. And applications are being released to accompany the faster, sleeker machines, leaving your computer struggling to keep up. While it doesn't make sense to invest in a new computer each time a more advanced machine becomes available, you can help your current investment stay up to speed by upgrading.

You can upgrade almost any part of your computer, but a memory upgrade is one of the easiest and most cost-effective ways to improve your computer's performance. In fact, it's so easy to perform that you can do it yourself in about half an hour. Ready to get started?

Do I need an upgrade?

Your computer stores information in RAM (random access memory) chips installed in your motherboard. When those chips become full of information, your computer is forced to rely on its hard drive for data processing. The hard drive is much slower than RAM, which means processes on your computer take longer. If you add more RAM, your computer can then go back to a more

efficient way of handling data, resulting in a quicker, smoother functioning system.

So how do you know if your RAM is filled to the gills and ready for help?

- **You receive error messages** indicating that you don't have enough memory. This is your

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Memory Jogger...

See you at the next SAGATUG meeting this Friday, September 12, 2003 from 7 to 10 p.m. at the Arcadia Park Senior

Citizen's Center, 405 S. Santa Anita Ave. (See page four for directions and upcoming events.)

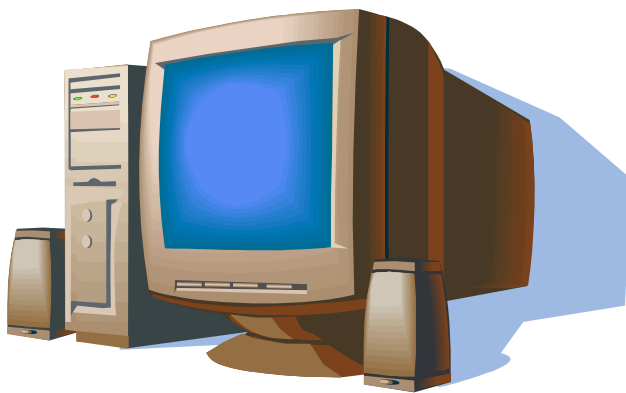


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computer's cry for help, but you probably will notice slow performance long before the computer speaks up.

- **Your PC's hard drive light flickers** frequently during normal use. If your RAM chips are close to capacity, your computer relies more heavily on your less-efficient hard drive, slowing down the whole system.
- **Your System Resources are less than 65 percent.** To find out, right click on "My Computer," scroll down to "Properties," and then click on the "Performance" tab. On Windows® 3.x, open Program Manager, click on "Help," then "About."
- ♦ **You multitask.** If you frequently run several programs simultaneously, having extra memory will increase performance



Let's Get Started

Before buying more RAM, you need to pinpoint the type of RAM your computer uses, and the maximum amount that your system can handle. To determine how much memory you need, consider the types of tasks that you normally perform on your computer. Graphics and calculation-intensive tasks require more RAM. Don't worry about overload; there's no such thing as too much RAM! You are limited only by the number of chips your computer can hold.

When shopping for RAM, you must make the following choices. There may be others depending on what kind of computer you have.

- **Type of RAM.** Most computers are now made with SDRAM (synchronous dynamic random access memory) because it's faster than most other kinds of memory. The increasing speed of computer processors is resulting in new

types of memory designed to keep up with them. When upgrading, it's wise to choose the memory that your computer is already using.

- **Type of module.** There are two types of memory modules: SIMM (single in-line memory module), and DIMM (dual in-line memory module). SIMMs are short and have one notch along the bottom; DIMMs are a bit longer and have two notches. There are further divisions of SIMMs and DIMMs as well.
- **Speed.** Memory is also classified by speed. This is usually measured in megahertz (MHz) and nanoseconds (ns). Higher megahertz and lower nanoseconds means faster data processing. Since your computer can only support specific speeds, make sure you purchase compatible chips.

Choosing the Right Memory

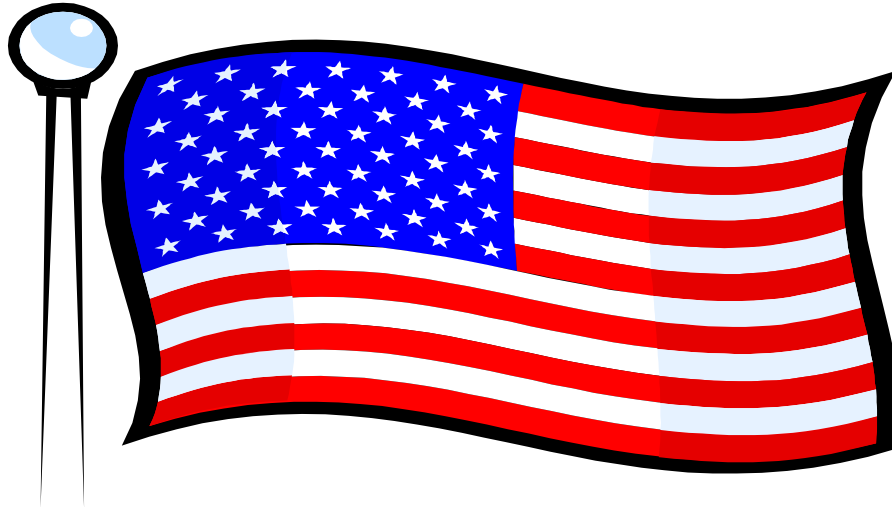
There are many classifications of memory: megabytes, type, speed, voltage, number of pins, single-sided or double-sided, and whether chips are added singly or in pairs. Because these choices can be confusing, it's best to consult the owner's manual that came with your computer. The manual should tell you exactly what kind of memory your computer uses. If you still have questions, bring the manual to the store where you plan to purchase the memory and they can help you decipher it.

Once you've determined what kind of memory you need, find out how many available memory slots your computer has. Also remember that SIMMs must be added in even-numbered, matching pairs, and DIMMs can be added singly, so purchase accordingly.

Installing with Ease

Opening a computer's case and digging around makes some users nervous. But even if you've never done it before, this is one of the easiest upgrades you can do. And you can do it. Simply unplug your computer, open the case, ground

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9-11: We Will Never Forget

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yourself, and install the new RAM.

- **Open up.** The first step is to unplug your computer from the electrical socket. Once that is done, consult your manual for guidance and open up the case of your computer using a screwdriver.
- **Get grounded.** Now that you've opened the computer, you need to ground yourself to prevent electrostatic shock to the machine. Static electricity is harmless to you but it can cause serious damage to your computer. You can buy an inexpensive grounding strip, wristband, or you can keep one hand on the metal part of the computer to negate any electrical charge.
- **Add it up.** Now it's time to add the memory. The owner's manual should provide clear instructions on inserting memory into your specific computer. In the motherboard, little brackets hold the chips in place. Insert the chips, carefully pushing them into the slots until the brackets snap and they are secure. You may need to apply a small amount of pressure, but if you are pushing hard, the chip is not going in right.
- **That's it!** Once you've successfully installed the memory, replace the case cover and plug your computer back in. When you turn it on, your computer should acknowledge the new memory automatically.

Now that you've installed your memory, you can enjoy speedier response time, more efficient handling of data, and the satisfaction of knowing you did it yourself.

SAGATUG Meeting

Time and Place:

7 to 10 p.m., Friday, September 12, 2003
Arcadia Park Senior Citizen's Center
405 South Santa Anita Avenue, Arcadia.
(In the park just south of Huntington Drive)
Meetings held second Friday every month

Upcoming Events:

Glendora Seniors Computer Club

La Fetra Senior Citizens Center, 333 E. Foothill Blvd., Glendora, 2nd & 4th Wednesdays at 1 p.m.

TRW Swap Meet

Last Saturday, monthly, Manhattan Beach

Pomona Fairplex

(Bldgs. 6 & 7 LA Fair grounds, Gate 14) - Admission \$7 plus parking

Buena Park at the Sequoia Conference Center, 7530 Orangethorpe, (Beach Blvd exit from 91 Freeway) \$3 admission

Reseda at the Sherman Square Entertainment Center, 18430 Sherman Way. Admission \$3.

Costa Mesa, Sept 12 & 13, bldg. 12, 2002, Orange County Fair and Exposition Center, 88 Fair Drive, Costa Mesa, CA 92626, 10:00 a.m. to 5:00 p.m., \$5 admission

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Deadline For The Newsletter

The deadline for the INTERFACE is the last Saturday of the month.

Republication:

Articles may be republished if credit is given to the author and the San Gabriel Valley Technology User's Group.

Please visit the new SAGATUG website at www.sagatug.org There you will find photos of the meeting site, maps to the meeting, articles from other sources and an archive of the SAGATUG *Interface*

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