PrintScreen

February

General Meeting
Wednesday, February 26th
7:30PM @ Cubberley
Community Center

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Words from the Prez

Bob Mitchell

This perhaps is a little late for reviewing 1996 and looking into the future of 1997 but ....I'll avoid the obvious cliche. In review, we did have some rather positive things happen. For openers, we were fortunate in arranging with EPRI the use of the wonderful facilities we currently enjoy. PrintScreen sparkles. Brian Christopher as editor has added a number of features and come up with extremely interesting and informative articles for every issue. Kendric Smith, our Webmaster continually maintains a very attractive and informative Web Page that tells the world what SPAUG is about. He has made it very easy to browse and move onto countless locations. Robert Mitchell has kept very busy scouting new shareware applications for the disk-of-the-month, that is attractive to a maximum number of people at every meeting. Mildred Kohn makes her regular trips to the Stanford Post Office to see that we all get our mail on a regular basis and has renewed the practice of supplying all of our members with the minutes of our planning meetings so that everyone knows what to expect in SPAUG's future. Walt Varner, our treasurer has done his level best to see that we pay our bills, collect our dues and maintain solvency in the organization. Arlan Kertz in addition to having spent a horrendous amount of time in finally establishing our legitimacy as a non-profit group to the IRS, is now our vice president and backs up the Prez in meetings and keeps him humble and honest at all of the staff meetings. Most important, Beverly Altman, who throughout all these many years has been truly the rock that maintains the existence of SPAUG in so many ways too numerous to mention. Thanks to all of the above and to all of the other members who contribute their efforts in answering the questions that come up in Random Access sessions, work with groups in building a computer (Jim Dinkey), and take the phone calls from members in computer trouble. With that kind of a team how can we go wrong.

Now, if only we had a Publicity Chairman! 🖫

Planning Meeting

February 5, 1997

Present: Bob Mitchell, President, Arlan Kertz, Walter Varner, Treasurer, Brian Christopher, PrintScreen Editor, Beverly Altman, Director at Large,

The meeting was called to order at the home of Beverly Altman at 7:30 PM.

LAST GENERAL MEETING: The Last general meeting in January was discussed. There were 25 members in attendance plus 8 guests. Based on the number who signed up for SIGs on the Internet and on Windows 95, plans will be set up to arrange for regularly scheduled SIGs.

FUTURE GENERAL MEETINGS: It was announced that the date of the next SPAUG General Meeting has been moved up to February 19. There is a meeting scheduled by EPRI that prevented us from using the room on February 26. We were reminded that for very understandable reasons we will always be subject to pre-emption by the business needs of the EPRI organization. Because of the change in dates we could not confirm a guest for this next meeting at the time of the meeting.

PUBLICITY: We are still looking for a Publicity Chairperson. The job is primarily limited to sending out a notice each month to a prepared list of print media advising them of the date of the upcoming meeting and the guest demonstrators. This is a vital part of the operation of SPAUG. If we intend to grow in membership we must have published information about SPAUG in all potential publications.

SPAUG COMPUTER: Robert Mitchell has agreed to donate a CD ROM and sound card to enhance our SPAUG computer. The planning staff also agreed to purchase additional memory in order that we will have a full 32 MB of memory. We will also add Windows 95 to the existing Windows 3.1 and set it up for a dual boot operation in order to

make it as flexible as possible for all needs.

FINANCIAL: Treasurer Walt Varner reported on the current SPAUG financial status. Our newsletter, PRINTSCREEN which has expanded by several pages in the past few months will have a minimal cut back in size in order to maintain a reasonable balance in our funds.

SEARCH FOR A NEW LOCATION: While there are no immediate plans to move our meeting location from EPRI and the very fine facilities that the management of EPRI so graciously allows us to use, we must consider the possibility that the needs of EPRI may eventually preclude the possibility of our use of their facilities in the future. All members will be asked to explore all other possibilities for future locations.

The next planning meeting was scheduled for March 5.

General Meeting Minutes

January 29, 1997

Members and guests were welcomed to the meeting. Tom Passell of EPRI was also present as a guest. We expressed our thanks to Tom and EPRI for allowing us the use of its fine facilities each month for SPAUG meetings.

Members were asked their preferences for possible special interest groups (SIG's) Interest was expressed in a SIG for Windows 95 and a SIG to continue for the Internet. Eleven members signed up for Windows 95 and eight for the SIG on the Internet.

Hugh Bowen of Hugh Bowen and Associates announced the opportunity for SPAUG members to participate in focus group sessions to evaluate various software applications primarily in the areas of games for all various age groups. He indicated they would be paid for their time.

Helen Lupowitz of One Day Workshops demonstrated a software application entitled

Home Page and Brochure Writer that was designed to simplify the preparation of professional home pages, brochures and other presentations.

Robert Mitchell demonstrated the latest DOM disk. A program for a solitaire version of the card game, Bridge was particularly interesting. All disks sold out.

A number of questions were raised in Random Access, in particular a recommendation for what to expect in the current state of the art for a computer in the $2,500 - $3,000 range for one who would want to devote a rather substantial amount of time surfing the Internet. There were a number of thoughts advanced initially but in the end there was a rather definite consensus of opinion.

The usual raffle took place with a substantial number of software programs and Cds that were picked up by those in attendance.

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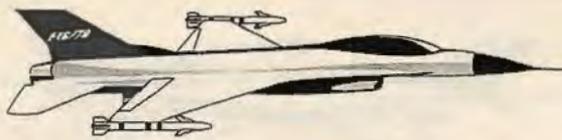
The Need For Speed !!! OverClocking Your CPU

Thomas Pabst
http://sysdoc.pair.com/

What Is Overclocking?

The term 'overclocking' describes the process of running your CPU at a clock and/or bus speed that the CPU hasn't been specified for - logically, that speed is usually higher.

Why Overclocking?

The tempting idea behind overclocking is to increase system performance at very little cost. In many cases you only need to change a few settings on your motherboard to make your system run faster. In other cases you only have to add a few components (usually for cooling) to achieve the performance increase. In the past, overclocking was usually nothing more than increasing a CPU's clock speed to that of the next higher model, e.g. a Pentium 120 to a Pentium 133. Now, with new bus speeds available on several motherboards, you can change the clock and bus speed of a CPU to values that don't officially exist. This new way of overclocking is yielding an even higher performance increase than the classic one. It even gives you the ability to increase the performance of the fastest model of a particular CPU production line (e.g. P200 to 250 MHz, PPro 200 to 233 Mhz).

Why not Overclocking?

Although there are millions of tales of damaged CPUs and other system components, in most cases overclocking is completely harmless. There are, however, a few things to take into consideration.

Your CPU could be damaged by so-called 'electromigration'. Electromigration takes place on the actual silicon chip of your CPU in areas which operate at a very high temperature, and can cause permanent damage to the chip. Before you start to panic, you should first realize a few things. CPUs are designed to run at temperatures between -25 and 80 degrees Celsius. To give you an idea, 80 degrees Celsius is a temperature that nobody is able to touch for longer than 1/10 second. I have never come across a CPU at this temperature. There are plenty of ways to keep the CPU case at less than 50 degrees Celsius which increases the probability of keeping the chip inside at less than 80 degrees. Also, electromigration does not immediately damage your chip. It is a slow process, which more or less shortens the life span of a CPU running at a very high temperature. A normal CPU is meant to live for about 10 years. However, in ten years nobody is going to be using a CPU with today's technology. I won't even use my CPU anymore in 2 months. If you want to be kept free from this electromigration scare, you have to do as much as possible to cool the CPU. Cooling is the Numero Uno Oncho in overclocking!!! Never ever forget that!

These terms don't necessarily apply for Cyrix, IBM, and AMD CPUs. Because of the already high rate of heat production at their original clock rate, you must work extra hard to keep them cool in overclocked conditions. I've come across several dead Cyrix 6x86 CPUs so far, so be careful or just let it be!

Nobody likes system crashes or hangs, but in a professional business environment, avoiding a system crash or hang can be most crucial. It certainly is a fact that you are increasing the probability of system faults by overclocking your CPU. But this is only the probability !! If you have just overclocked your system and the first thing you do is use it to start writing your dissertation, don't be surprised if a system crash occurs which causes you to lose all your data. After finishing the overclocking process you have to put your system through a tough and thorough testing procedure. If the system passes all the testing, only then can you talk of successful overclocking and feel confident everything is working well. I'm using Winstone and the BAPCo Suite for reliability testing. You may not have the BAPCo, but it certainly is worth getting the new Winstone 97.

The third debate against overclocking is that your father, brother, best friend, neighbour, or boss thinks it's immoral. Well, I always
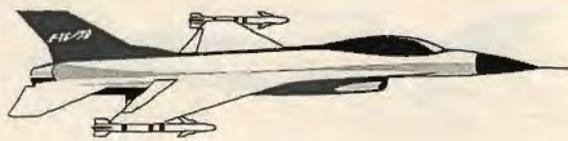
enjoyed living in sin, but if you've got problems with that, read the next chapter.

Is Overclocking Immoral?

My dear visitors, I can tell you that I have come across a lot of animosities from the really straight-up type of law book fellows who have told me how irresponsible and immoral my website is. There are quite a few different ways to respond to this topic:

If you are unwilling or afraid to overclock your CPU, there is no reason to annoy other people with your opinion. Just because the CPU manufacturers have an opinion on overclocking does not make it the right one. People who are overclocking their CPUs appreciate and respect this point of view, but choose to see it differently and are benefiting from their opinion. As long as there is no sentence against overclocking, we are not doing anything against the law and hence there is no pleasure in denunciation. Period!

It is also fairly questionable if there actually is a difference between Pentium chips with different official clock speeds. The best example of this is the P150 and the P166. Isn't it strange, that all P150s are standard voltage chips and almost all P166s are VRE voltage chips? Doesn't it sound like Intel is using the same chip in both of them, but it only runs stable enough at 166 MHz with VRE voltage. Intel is selling the P150 only to satisfy the market and probably gets a good chuckle at the stupidity of the general public who don't realize this.

In Europe there are a lot remarked Pentium chips around, as recently discovered when all over Europe there were several concurrent razzias against criminal organizations that re-marked thousands of P133s to P166. The proud owners of these CPUs are convinced they have a real P166, just because it's written on the chip. Do you think such things do not occur in the US? Hahaha!! I'm wondering how many people own faked P166s, who would NEVER overclock their CPU! Isn't that a funny thought? Did you know that Intel isn't interested in marking their chips reliably via a

software readout at all? As long as they sell enough chips, they don't mind the re-marking of Pentiums. They even tried to avoid the publication of the recent events in Europe and I bet hardly anybody in the US ever heard about that.

The main idea behind sensible overclocking is simply to use your brain, which brings me back to my 'car driving' introduction. If you want to successfully overclock your system without any loss in reliability, you will have to take care of proper cooling, do decent testing, and stay within the bounds of common sense. Don't try to overclock a P100 to 200 Mhz or anything crazy like that. Just use your brain!

Continued in the March PrintScreen

CPU Performance Enhancing Utilities

http://www.dfw.net/~sdw/fastutil.html

Looking for ways to speed up your PC? These utilities will help you do just that. If you own a Pentium Pro, Cyrix 6x86, or Cyrix 5x86, keep reading - this is your lucky day.

Intel Pentium Pro Processor

CTPPRO.ZIP [16k]
This utility enables the PPro write buffers on the Intel Orion and Natoma Chipsets, increases video performance by re-programming the PPro's internal Memory Type Range Register (MTRR), and enables the fast strings of the PPro.

FASTVID.ZIP [237k]
You have undoubtedly heard of this utility on Usenet. It is indeed hard to find, but you've found it. It enhances video performance by programming the PPro's MTRR's to write combined and enables the write buffers of the Orion Chipset.

Cyrix 6x86

6XOPT074.ZIP [19k]
Written by Mikael Johansson - This program optimizes the 6x86 processor by enabling
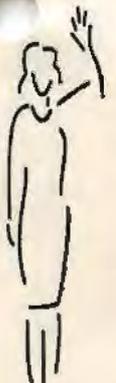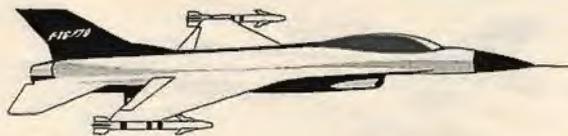
features of that are disabled by default such as the Branch Target Buffer (BTB), and the Linear Frame Buffer. It also enables Windows 95 to correctly identify the 6x86.

MI.EXE [I63k]

Utility from IBM that allows you to view and edit the 6x86 settings.

MIOPT.EXE

Enables features of the 6x86 that are disabled by default to increase performance. ▤

Intel Pentium 200MHz vs. Cyrix 6x86 P200+

Scott Wainner
http://www.dfw.net/~sdw

Condensed for PrintScreen

This survey will put these two powerhouses up against each other for the ultimate test. Who will come out ahead? If you own a PC with one of these processors, read on to learn how to benchmark the performance of your system and add your score to this survey. If you are looking to buy one of these processors, but can't decide which, this is your lucky day!

The survey will use two benchmark programs: ZDlabs PC-Bench v9.0 for DOS, and CacheChk v4.0 for DOS. These benchmarks will help reveal the performance of each processor.

Running the Tests

Downloading CacheChk v4.0
http://www.dfw.net/~sdw/cachk4.html

Downloading PC-Bench v9.0
http://www.zdnet.com/zdbop/pcbench/pcbench.html

Setup your system so it will run reliably (don't just speed up your system to an unreliable state for the benchmark and then lower the speed - run the benchmark at the speed that you would run applications). Unzip

cachechk4.zip and run cachechk: record the Main Memory Score (in MB/s). In PC-Bench, you only need to obtain the CPUmark score.

Simply fill out the survey and submit it to help answer the question; who will come out ahead? http://www.dfw.net/~sdw/cgi-bin/bench/cicomp/cisurvey.html

Benchmark Statistics

Updated: Sat Feb.08,1997

Intel P5-200 Averages (n=10)
PC-Bench CPUmark 403.65
CacheChk 104.50

Cyrix P200+ Averages (n=24)
PC-Bench CPUmark 403.44
CacheChk 146.72

Note: 'n' denotes number of CPUs included in statistics. ▤

SIMM and DIMM

Thomas Pabst

Since the new SDRAMs came out, the good old DIMM standard is getting popular in PC systems and the poor PC users don't know what it is. I know that all Mac users will smile now - MACs have been using DIMMs for ages. So what is it ?

DIMM stands for Dual In line Memory Module in opposition to SIMM, which simply is Single In line Memory Module. DIMM or SIMM only specifies the package RAM comes in, not the type! You can get each RAM type for each module, but as far as PCs are concerned, DIMMs are at present only used for SDRAM. The benefit of a DIMM is that it has a 64 bit (72 bit with parity) wide data path and therefore can be used single in Pentium boards, which normally require two SIMMs to work (valid for the fast chipsets only, SiS and others got around that by decreasing memory performance). You also can mix each size with another - no thinking in pairs anymore as for SIMMs. Well that's all the secret about DIMMs. ▤

The Synchronous Dynamic RAM (SDRAM)

Thomas Pabst

THE WINNER -Well, here we are, this is the other type of RAM, which possibly will get very popular soon, 'cause it's supported by the new Intel Triton VX chipset and all new VIA chipsets, the 580VP, 590VP (for Pentiums, 6x86) and the 680VP (for Pentium Pro)! As the name says already, this RAM is able to handle all input and output signals synchronized to the system clock, which is quite amazing, for that is something a short while ago only Static Cache RAM was able to achieve. The fastest access speed of SDRAM in CPU cycles is 5-1-1-1 for a four data (Byte/Word/Dword) burst read, which makes it exactly as fast as BEDO RAM, however the best thing about SDRAM is that it easily handles bus speeds up to 100 MHz !!!!!!! This is exactly what is needed in the near future, the bus speeds soon will reach these dimensions and only SDRAM seems to be able to keep up with it. 🖫

Intel Chipsets

Thomas Pabst

Condensed for PrintScreen

Intel chipsets have become extremely successful these days, starting with the huge success of the 430 FX or 'Triton' chipset two years ago. Intel was able to sweep away all the competitors and now only VIA and SiS have products to compete with Intel. The big advantage of Intel is firstly of course the fact that they have the best knowledge of their CPUs, they are the most successful semiconductor producer world wide with an extremely high budget to play with. They have also invented the PCI bus and the USB and are now introducing a new bus the AGP - Advanced Graphics Bus. This and its name gives Intel a huge advantage above other chipset producers and so far they have been able to produce the currently fastest chipsets. Since Intel doesn't like it's competitors in the

CPU market very much at all, it of course doesn't include any special support for Cyrix or AMD products in its chipsets. This is the best reason why Intel officially also disapproves to run any of its chipsets at more than 66 MHz bus speed, because it doesn't want to support the 75 MHz bus speed of its competitor Cyrix. Fortunately the Intel chipsets DO run at 75 and even 83 MHz just fine, which gave lots of 6x86 P200+ users the ability to run their CPU on an Intel chipset equipped motherboard.

Although VIA and SiS as well as some other even less successful chipset manufacturers are trying their best to compete with Intel chipsets, also by officially supporting the higher bus speeds and e.g. the Cyrix 6x86 own 'linear burst', the performance of boards with these new chipsets hasn't been able to reach the dimensions of Intel chipset boards. VIA is currently closest to Intel and may be able to catch up with it fairly soon. SiS has still got a way ahead of them, but is now getting back into business with it's P200+ support. Obviously VIA is unable to PR their products as successful as SiS, because their chipsets are superior to SiS chipsets, but less known and used.

The 430 FX or 'Triton' chipset was the first Intel chipset to become extremely successful and is responsible for Intel's success to blow away all other competitors like the formerly well known SiS, UMC and ALI. It was the first x86 chipset using EDO RAM and is responsible for EDO being the standard RAM now. Compared to the latest chipsets it's not quite up to the competition anymore, but still a decent performer.

It doesn't have any multi CPU support, no ECC support, only supports memory up to 128 MB and can cache only up to 64 MB of memory. Its PCI and memory performance is less than the performance of the later Intel chipsets, but compared to chipsets from other companies, it's still considerably fast.

The 430 HX chipset, also called 'Triton 2', includes almost all the features we missed in the 430 FX chipset. It supports up to 512 MB

memory, which can be cached completely as long as the motherboard is equipped with a special tag RAM chip, it can be used for dual Pentium systems and supports ECC.

The performance of the 430HX is so far unreached by any other Pentium chipset. This is due to its deep buffers between CPU, PCI and memory and also to its fast DRAM timings. PCI performance as well as memory performance is even faster than the VX chipset, although the VX can use SDRAM and the HX can't.

The only thing we are missing in this chipset is the support of SDRAM. It is otherwise most convenient and can be used in desktop systems as well as in servers, due to the large max. memory, the dual CPU support and ECC. So far there doesn't seem to be any worthy Intel successor of this chipset, since the upcoming 430 TX chipset doesn't support all the above named special high-end features of the HX chipset. The 430 VX chipset was originally designed for low end desktop computers, leaving the 430 HX for the high-end users. It is inferior to the 430 HX chipset in almost every area, but it has got one big ace, the SDRAM support.

No multi CPU support, max. RAM only 128 MB, cacheable only up to 64 MB and no ECC. The buffers between CPU, PCI and memory are smaller than in the 430 HX chipset and the DRAM timings are slower as well. This is the reason, why systems with the VX chipset are a little bit slower than systems with the HX chipset, even when you equip the VX systems with SDRAM. One of the problems of the VX chipset is the slow SDRAM timing of only 7-1-1-1, although 5-1-1-1 would be technically possible from the SDRAM's point of view.

The VX chipset is a decent performer in systems, which don't need more than 64 MB RAM, no dual CPU support and no ECC. It's still faster than any competitor from different chipset manufacturers in real life.

The 430 TX chipset seems indeed to be a direct successor to the VX chipset. It still doesn't support ECC, multi CPU and not even more

than 64 MB cacheable RAM. The max. RAM has been raised to 256 MB, but what help is this if only a quarter of this will be cached? Maybe the information is wrong and there is a way to top up the cacheability to 256 MB, but so far it doesn't sound like this at all.

The only advance above current chipsets is the inclusion of the new DMA/33 EIDE protocol, which can boost your EIDE interface to a data rate of up to 33 MB/s, as long as you've got a HDD with this specification. The other advance is the faster SDRAM timing of now correct 5-1-1-1. If you are looking for AGP support you will be looking in vain. Not even the PCI buffers have been topped up to the level of the HX chipset! Hence there isn't too much to expect of this chipset and I'll carry on waiting for a successor of the HX chipset.

A listing of the improvememts:

- SDRAM Timing now 5-1-1-1 against 7-1-1-1 in the VX chipset
- ATA-33 or DMA/33 support
- 256 MB max. memory
- 6 CAS lines instead of four in the VX. This will enable TX boards to have up to 6 SIMM or 3 DIMM slots instead of 4 SIMM and 2 DIMM slots in VX boards. 🖫

Does the Pentium MMX Live up to the Expectations?

Thomas Pabst
http://sysdoc.pair.com

Condensed for PrintScreen

15 days after its official release I eventually received my very own Pentium MMX 200. It was actually a kind donation of Erik Wagner from Nutek Systems USA, IL. I installed it on my system and it it ran straight away without any problems even at 208/83, 225/75 and 250/83 MHz. I am currently using it on my ABIT IT5V at 225/75 MHz with 64 MB SDRAM.

Before you start bombarding me with emails, asking why I used 205/68 instead of 200/66, or
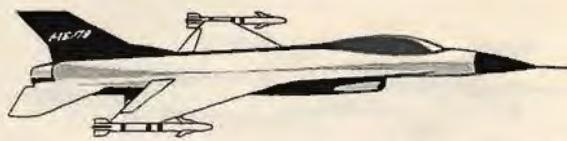
166/66 instead of 171/86, I would like to explain the reason for it. I wanted to show most impressively, that under some conditions the Pentium MMX 166 is even faster than a slightly tuned Pentium Classic 200 at 205/68. Hence I used the slowest Pentium MMX to compete against the fastest official Pentium Classic at turbo frequency.

The most impressive performance Advantage of the new Pentium MMX CPUs are reached when running normal Windows applications. At the same CPU speed, the Pentium MMX shows a performance advantage of 16% over the Pentium Classic. This is only achieved by the new cache size and design, the branch prediction unit, the enlarged pipeline and all the other enhancements besides MMX. The performance advantage could be much bigger with image processing applications that are using the new MMX instructions.

For people who are using lots of Windows business applications, the Pentium MMX is certainly worth getting. Even the Pentium MMX 166 is already 5% faster than a maxed out Pentium Classic 200 at 205/68 MHz.

The first disappointment about the new Pentium MMX is its DirectX, especially its Direct3D performance. It is hardly any better than the performance of a Pentium Classic. This wasn't expected by me, since MMX was meant to enhance DirectX directly. The Benchmarks were all run with the latest DirectX 3 drivers installed. Obviously the best improvement is seen in RGB mode. RAMP mode hardly shows any difference.

My Monster Truck Madness Benchmark didn't show any improve over the Pentium Classic at all. This is to be considered as fairly sad, because lots of gamers were hoping to save the purchase of a 3D enhanced Video Card, like e.g. the Diamond Monster3D, due to the MMX enhancements of the P55C. Obviously so far we can forget about this. Either Microsoft has to improve their DirectX, especially Direct3D drivers, or the games have to use MMX instructions directly.

Currently Windows 95 gamers certainly hardly

benefit from MMX at all and they can stick to the cheaper Pentium Classic for now.

I found an explanation for this problem, which doesn't make MMX look too good for 3D freaks at all. It's the missing 32bit SIMD multiply option of MMX.

The new Pentium MMX hardly shows any improvement for DOS Gamers. An increase of 2.5% is hardly worth mentioning. Even the other new architecture improvements of the Pentium MMX besides the MMX extension don't bring us much of a difference in games like Quake or DukeNukem. Hence DOS gamers will have to hope for games to soon use the MMX instructions or they happily can stick to their good old Pentium Classics.

Conclusion

The new Pentium MMX certainly yields at least some increased performance out of your system. In current Windows business applications it already runs about 16% faster than the Pentium Classic. As soon as MMX instructions will be used in all applications, the improvement may be considerably higher, particularly in image processing applications.

For the majority of the Windows business application users the Pentium MMX is certainly to be recommended. Don't forget that a Pentium MMX 166 is already faster than a Pentium Classic 200 under these circumstances and hence the Pentium Classic 200 should only be purchased if it is cheaper than the Pentium MMX 166. However, for people who are using their computer mainly for gaming, which seems to be an increasing number, the Pentium MMX so far doesn't show much of an improvement. If you are belonging to this group, you can either stick to your old system, or you could get a MMX approved motherboard now and wait until the Pentium MMX gets cheaper. The prices of the Pentium Classic will drop soon, so if you want to get a CPU for gaming now, you might as well take advantage of the cheaper Pentium Classic. After all this CPU still is a good performer, which kept us happy until Jan 8, 1997. ▣

RAM Utilities - Shareware

Tests for bad RAM memory chips in DOS.
Download
**ftp://ftp.coast.net/coast/msdos/
memutil/rt302.zip** - (55k)

Thorough RAM testing utility for DOS.
Download
**ftp://ftp.coast.net/coast/msdos/
memutil/nmi.zip** - (5k)

MemorySpy32 v1.0: Memory gauge for Win95.
Download
**ftp://ftp.cdrom.com/pub/simtelnet/
win95/util/mspy3210.zip** - (239k)

Displays DOS memory information
Download
**ftp://oak.oakland.edu/pub/simtelnet/
msdos/sysinfo/reveal11.zip** - (33k) 🖫

Yahoo 3D

http://www.yahoo.com

You are about to enter Yahoo! 3D, Yahoo!'s
VRML (Virtual Reality Modeling Language)
based virtual world. Yahoo! 3D allows YOU to
explore our 14 main categories in 3D space,
interacting with objects rather than text! Using
Caligari's VRML-based modeling tool, Yahoo!
and Caligari have created 15 worlds that
include hundreds of objects. We encourage you
to explore these worlds and use this site as a
demonstration of the emerging technologies
on the Internet.

Software Requirements

Yahoo! 3D requires that your browser support
Live3D. If you experience "garbage" characters
on your screen, this means that you will need
to install or reinstall the Live3D plug-in, or
update your browser. Current, complete
versions of Netscape Navigator 3.0 (PowerPC
and Windows only) and Internet Explorer
3.0 support Live3D. Netscape Navigator users
can download the latest Live3D plug-in from
Netscape. SGI IRIX users can use
CosmoPlayer to view these worlds.

Performance

VRML-based worlds are rich in geometry. The
15 worlds vary in size from 100K to 200K, and
all are compressed. Because of their size, it will
be best to view these worlds if you have an
ISDNlevel (128kbps) connection or higher.
Users with modems will experience significant
download times for some worlds (about 1 to

Got a Problem? - Perhaps I Can Help...

Name	Area Of Expertise	Phone	Hours	E-Mail
Jim Bailey	DOS , Quick Books	415 494 -631	9AM - 9PM	NA
Bill Goldmacker	DOS	415 691 0911	6PM - 9PM	gold@svpal.org
Clyde Lerner	Netscape, Word/Win, Lotus Notes, Ascend/Win, Franklin Planner, Quicken	415 494 2593	6PM - 9PM	clydel@pacbell.net
Bill McElhinney	Quicken, Dazzle, Plug In, Word Express, Daytimer, Sidekick	415 325 9808	9AM - 9PM	Mcels@aol.com
John Sleeman	Fortran	415 326 5603	9AM - 8PM	sleeman-j@sbs-stanford
Walt Varner	All PC areas: Software and Hardware incl. Win 95	408 739 3488	9AM - 9PM	walt2222@aol.com

We sincerely appreciate the SPAUG members listed above who have offered their time on behalf of other SPAUG members. If
there are others who would also like to be of occasional help to other members, please contact Bob Mitchell and your name will be
added to this list of esteemed members

2 minutes). In addition, each world is compressed (to minimize download time) and need to be decompressed by the browser (which may take another 1 to 2 minutes, depending on processor speed and available memory). Navigation through the worlds may be sluggish on slower processors with low memory availability.

Navigating on Yahoo! 3D

Yahoo! 3D uses three dimensional space to

organize the various categories. You can use the mouse or arrow keys on your keyboard to navigate through them. If you use the arrow keys, you may need to clik on the world once to start "walking." Navigating in 3D space can be a bit challenging. The curret specification for VRML does not allow for collision detection, so you will be able to go through walls and floors.

To make navigating easier, we have placed a number of pre-defined "camera angles" for you. To use them, just click on the "view"arrows on the navigation tool bar (see below). Not all browsers may have this feature. Clicking the up or down view arrows takes you to several strategically placed camera angles that will help you see all of the objects in each world. You can also create your own VRML world using

```
Procedure Bring_Friends (1 to 50)
Dim Day As Integer
Dim General_Meeting As Integer
Dim Friends_at_Meeting As Integer
Dim All As Integer
If General_Meeting = Day
Then Bring_Friends
Else All_Friends
All = Friends_At_Meeting
End Sub
```

Caligari's Pioneer software, which is available at retail locations and on their web site. ▣

Encoding & Decoding E-Mail

http://www.netaxs.com/people/
dmorgen/de-code.html

News Express for Windows 95
Version 2.0 Beta 2
**http://tucows.myriad.net/
files/nx2Ob2.zip**
News Express is The Best News Reader. For Usenet Groups Makes Downloading Very Simple This Program Will Decode The Files
News Express for Windows 3.1
**http://tucows.myriad.net/
files/nxlOb4-p.zip**
WINCODE ver 2.7.3a Is The greatest software for Encoding & Decoding
**http://tucows.myriad.net/
files/wc273rl6.zip**
(All Binary Files In The News Groups That Are Encoded)You Need To Decode Them To Run ,See Or Play Them.
Information Transfer Professional ver 1.1.0
This Is One Easy encoder/decoder.
**http://tucows.myriad.net/
files/xferpllO.zip** ▣

Thank You
for the Membership Renewals

Vincent Grande
Laddie Hughes
Bill Mc Elhinney
Wes Anderson

Wecome to New Member

Herb Hamerslough

Thank you
for the
Computer Hardware Donation

Robert Mitchell

Stanford Palo Alto Users Group for PC
POB 3738
Stanford, CA. 94309-3738
http://www.mediacity.com/~spaug/
Membership Dues $35 annual

Address Correction Requested

Deliver to:

10/1/97

General Meeting

Wednesday
February 26th @ 7:30 PM
Cubberley
Community Center
4000 Middlefield Rd.
Room A-2
Palo Alto
(415) 329-2418
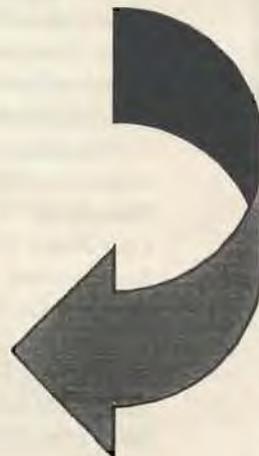
MOVING ON!!!

The *General Meeting* has Moved to Cubberley Community Center
(see inside map)

MEETiNG!!

Preeeesenting...

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