

R/O COMPUTING NEWSLETTER

Welcome to the first issue of our information newsletter on the new computer system we mentioned on every TI BBS we could find in North America! This bulletin is designed for all present TI owners AND future 9900 family computer owners. We will be reporting directly back to the developers of this marvelous job. The public response to their work will determine the final production runs set up. Your input is CRITICAL! Write us with YOUR response, letters, ideas, comments and/or programs (assembly language is preferred) and PLEASE pass the data along to friends, associates, TI owners and anyone else who might be interested: retailers, programmers, users groups etc.

Beta testing is slated to begin next month - as soon as the printed circuit boards roll off the line. As this happens, we will be reporting on features, changes and more final details on the operation of this truly superb machine.

This new computer incorporates the 9995 chip from Texas Instruments - fully compatible with the 9900 family of micro processors used in the 99/4A.

Based on the unreleased "99/8" - intended to be the successor to the 99/4A (before the disastrous 'computer wars' of '83) - this computer is everything the 4A and the 99/8 should have been...AND MORE! None of the current limitations of the TI 99/4A have been designed into the new machine. Several very exciting features are included or designed as options.

Perhaps most important is compatibility with 99/4A hardware and software. You will be able to use your Peripheral Expansion Box, disk drives, modems, printers, monitor and the software that runs on your system right now with few, if any modifications. Interface connectors will work; PLUS, rather than the huge flat cable hanging off the side of the 4A, the new console connector cable will be smaller and round. The unfortunate news is that there are some compatibility problems with non-TI equipment. Further testing will show exactly which hardware will not work with the new computer system. If you are considering upgrading your 99/4A console now, we would suggest that you stick with the original TI expansion unit. More on all this in a moment.

Prototype design work is completed. THIS IS NOT A "PROPOSED" SYSTEM OR ANY SORT OF CLONE. Rather than announcing a future computer to be developed later, this computer has actually been produced before confirming the fact. The motherboards are up and running. The printed circuit boards are going into production phase - but no commitment has yet been made for FINAL full-scale volume production runs: as we mentioned, this depends on your feedback! Due to the heavy financial investment, not to mention time factors, we have been asked to NOT reveal full information at this point. With these stakes at risk, the parent company (a very well known TI support manufacturer) is setting up a new company to handle the production, distribution and marketing. We are assisting in an informal manner. In other words, we are doing everything we can to provide market research and assist them in committing to resurrecting the TI world for everyone's benefit.

FORMAL release date has been set for the June Consumer Electronics Show. We will keep all interested parties informed through our information newsletter subscription. Upon authorization to release FULL data, WE WILL NOTIFY ALL SUBSCRIBERS. There are several new and vital developments are planned.

Now, back to features: Standard memory configuration is 128k - expandable internally to 512k, with options to address up to one megabyte of memory directly. This is what the 99/4A 'could' have been capable of with some slightly different addressing schemes. The ROM size has not been fully

specified at this writing. In addition to the 128 - 512k RAM, another 10k VDP RAM is included - similar to the 16k "memory" of the 4A contained in the Video Display Ram. This is also expandable to 64k with a new VDP chip from TI. Plans are for this to accommodate teletext (if all goes as presently planned).

A full size keyboard - Selectric type - with function keys has been designed to a console design which is larger than the 4A, similar to the Apple II but sleeker and lower in profile. The reason for this approach is that the original TI expansion box will be used as the card cage - rather than forcing users to purchase another piece of hardware or completely re-designing new cards for additional functions. For example, an internal modem card is under development for the PEB as are RAM disk cards, Analog/Digital cards and real time clock cards. The Pascal subsystem is another case in point along with the standard RS-232 cards. Having retained hardware compatibility, it only makes sense to allow users to upgrade without sacrificing their total investment in hardware (and software).

The video display mentioned varies in several other ways as well. Resolution is twice that of the 99/4A in both directions. A full 80 columns is displayed for "full scale" word processing and even better graphics. As we all know, even IBM uses TI's 9918A chip in the PCjr. Now with a much faster machine and greater VDP RAM, we will see some truly amazing graphics capabilities! Being separate from the CPU addressing, this VDP RAM will not slow the machine down the same way it does in the 4/A. Rather than the CPU being owned & operated by the Graphics Read Only Memory, possibilities such as page switching, banks of graphics screens and multi-layered sprites are on the horizon. In addition, the video output will support both composite (the 99/4A output) and RGB (red-green-blue) monitors. This will let owners use their existing monitors or switch to the higher resolution RGB units available. Using the older composite monitors will sacrifice some of the resolution possible with the new machine. This of course is to be expected when dealing with advances in equipment.

The disk operating system is substantially different. The interface will allow your choice of 5 1/4" floppy disks or a hard disk to be added without adding a hard disk controller. Double-sided, double-density disks can be added to the system in any combination of SS/SD, SS/DD or all the way up to the new quad-density 800k floppies now available. The DOS has been rewritten to be more powerful and easier to utilize. Rather than switching back & forth to see your file directory or do other housekeeping duties, the system will allow such functions to be accessed readily.

It looks as if the sound/music capabilities will be upgraded as well. We're not sure about this feature at this point. It could remain very similar or it could easily be a more powerful approach. The TI could easily use more flexible sound shaping; envelope, attack & delay: Comments?

Another question for the developers is that of speech. This is rather complex to develop fully. Some doubt has arisen about the desire owners have to keep (or be able to obtain) speech with this new computer. TI still has the leading edge in the speech technology area. Few people realize that the PCjr's "speech unit" costs more than TI's EVER did. This is another area we require your input on. It will be possible to add a card to the expansion unit later - but if it's a high priority item for many users....

Now, here's the real clincher: (SPEED). Running at a full 10 megahertz clock (remember, the 99/4A runs at 3.3mhz, the IBM PC at 4.6mhz), this "monster" will outperform anything in it's class!!! With all the other features, this new computer will give everyone a run for their money. Even the 32 bit machines being sold will have a hard time keeping up with a full-blown 16 bit system. A large software base, all ready to go, will also make the machine VERY attractive to old and new users. The system designers have multiplexed the address lines so that large banks of memory can be used. This allows the more powerful - and memory intensive business software to be used/developed. One of the unheralded technical advances TI used in their 9900 family, was the "memory

to memory" architecture. This means that the computers "workspaces" are all external to the CPU's internal registers. Programmers are able to take better advantage of the speed potential without lines of code to "push" & "pop" the stack. We can expect some very powerful software to follow this machine.

People who have upgraded their consoles recently have discovered what so many 99'ers already know - to get the same capabilities out of any other machine, you have to spend a lot more money. Still, it comes down to marketing. Today I take great pleasure in showing some of the "technical" "experts" what the 9900 chip is capable of. He who laughs last! We have lived to see the 99/4A live on. Osborne proved there was life after death in this industry.

With the many companies still supporting the 99, you can upgrade your console knowing that the equipment you purchase will be useful later. Should you upgrade to this new computer, the hardware will move along with your new, hot system. More powerful software will be introduced - more support will appear and truly innovative products will be developed. We have seen a gradual fading away of some TI support companies. Other companies have moved to produce clones - but have never made it past the drawing board. One persistent rumour was that TI would re-enter the market. Their legal people (as of mid-January) say they most definitely will not. Another announced computer has been placed on the back burner. Some people even wanted to buy the rights to the 99/4A - but who wants to risk 40 million in venture capital in the hopes of doing a better marketing job? Well, we know who! It is very real - and your response will determine the full commitment to production.

A comment about this last point: we have been asked about this hesitancy in final production commitment. It boils down to the risks involved. Effective marketing is the FINAL KEY. Obviously no one can afford to go into full-scale production without knowing that money can be made. On the other hand, it isn't really fair to raise false hopes. A balance is being struck. Our efforts are dedicated to helping TI users (as we are also long term, die hard enthusiasts) and the developers.

As contract commitments to volume purchasing of chips must be made - and full commitment from TI in producing these new VDP chips - such features may change slightly by the June release date. As noted, we will keep our subscribers informed during the next few months. We are developing the first users support services, newsletter / magazine, software development / marketing and Canadian distribution for this new computer (and the 99/4A!). From now until the formal release in June, we will be offering an introductory price for a monthly publication. Judging from the response to date, we are planning a full-scale

publication to cover this new computer starting in July 1985. At that point, we will include advertising, reviews, technical information and programs for both computers. At this time we are actively soliciting assembly code programs to fill the market demand. With a standard 128k to work with, vastly superior software is the next wave for the TI world. The next issue will be sent out to automatically. If you decide to not follow these developments, simply write cancel across the invoice and return both the next issue and the invoice to us. As a special introductory offer, the price is \$7.00 for a total of 7 issues. Our next issue will include more system details, new products, programming and reader feedback. Reports on beta testing and developments will continue along with additional tech features, how-to-articles and on-going product reviews for hardware, software and products for both machines.

As many users groups are following these developments, we would like to make a point of cross-referencing information sources. Wild and inaccurate rumours are not to be developed! We provide limited authorization to reprint this information under the following guidelines:

1) Full credit must be given to RYTE Data, including our address & phone number. We need DIRECT response from users to report to the developers.

2) Notice must be made that THE RESPONSE RECEIVED from individual users will influence full-production runs and that public release is scheduled for June. 3) Newsletter copies must be submitted to us to verify the accuracy of this information and to formalize this limited authorization.

4) We are not the system designers. We are acting to gauge users response and provide market research to encourage full production.

5) We reserve the right to the information we publish under these terms.

6) In exchange, we would like permission in kind to utilize quotes from other newsletters under the same guidelines to facilitate information exchange among users in North America and overseas.

For any further information, please contact Bruce Ryan at (703) 457-2774. Comp copies will be traded under the above stipulations for the duration of the limited offer noted or until further notice. We would appreciate ANY addresses of other users groups you know of for information sharing.

We are offering the supply of original TI Peripheral Expansion Boxes - with or without additional cards - as follows:

PEB.....\$202.00 (US funds) plus \$20 shipping & insurance from our US shipping depot. PEB fully loaded with TI disk controller, 32k memory, disk controller, disk drive and system interface (includes Disk Manager II)...\$449.00 plus \$20 shipping & insurance. These items are new, under full one year warranty and will work as expansion card cage units for the new computer.

Orders will be shipped upon receipt of cheque, money order or MasterCard data.

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