NEWJUG 99ER'S NEWS

NOVEMBER 1992

HAPPY

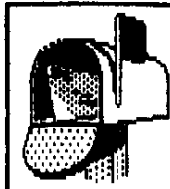# THANKSGIVING
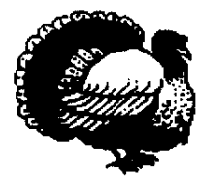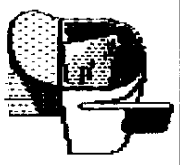
Highlights:

NEWJUG 99ER'S UG
P.O. BOX 1463
SAYREVILLE, N.J.
08871-1463

FROM:
NEWJUG 99ER'S UG
P.O. BOX 1463
SAYREVILLE, N.J.
08871-1463

POSTAGE
GOES
HERE

TO:

AFFIX MAILING LABEL
HERE

ASGARD MEMORY SYSTEM CONFERENCE
WITH
CHRIS BOBBITT

Date: 09/27/92

Attendees:
C_BOBBITT
JHWHITE   Jeff
JERRYC
SBEYER
DONEIL   Don O'Neil
CAL47
JCARVER
MARKANDERMAN
SSLICER
BRADSNYDER   Brad S.
TIMTESCH

C_BOBBITT> Thanks for coming, all... I'm here tonight to discuss our Asgard Memory Systems 128K card technical details, our plans for it, ramifactions for the rest of the TI community, etc. Recently we posted a full programmers package for it, and I'm prepared to discuss it further including answering any remaining questions. GA.

JERRYC> Your approach seems similar to the oldest 128K card in some respects (Foundation) but you seem to be committed to better support. Will there be enough programmers willing to use your support package?

C_BOBBITT> Interesting observation, but I'm prepared to discuss the differences.

JERRYC> fine - I would like to hear it.

C_BOBBITT> Well, the AMS utilizes a memory mapper. As such, it is a memory system for the 99/4A that requires no memory manager. It offers a large amount of available RAM (well, some now, more later) in 4K banks. The Foundation card did not utilize a mapper and didn't offer the same banking size. Our page size was selected for a specific reason other then compatility with

TI's own approach to memory management for the 99/8 (to be compatible with - sorry) was also selected because it seemed to offer the best tradeoff possible between flexibility and speed, especially for 99/4A programming.

As for programmers prepared to use it - we've already drafted a considerable number of the programmers that have developed software for us in the past. We've also provided a starter development kit up here, and are prepared to even provide units at cost to serious programmers, and additional programming materials that are currently in beta testing. ga

SBEYER> what types of programs are people working on and how expandable is the system, i.e., can it be expanded past the 128K?

C_BOBBITT> Well, I don't want to get too specific... but we have several development tools nearing completion... a programming language that will be modified to use it... and 4-5 applications, including communications and graphics. We've sent out 30 programmers kits as well (to third party authors and others)

This device can be jury-rigged to go past 128K, but it will take a few small hardware patches. It could conceivably go up to 1Mb with modifications.. but the next generation device, in development, will go much higher. There will be a tradeup offer when that one is released to everyone who buys the 128K model. With trade-in the price will be substantially reduced - even to the point of a near refund. ga

<Jeff> I noticed that the AMS doc's you uploaded make no mention of lower 8K. Where is it?

C_BOBBITT> Sorry - there was a sort of Freudian slip in the original press release. You are right - this version only allows banking in the upper 24K. Again, that doesn't appear in the next version. And I guess I sort of slipped it in there. The 128K version was originally designed to test our general theories. We are releasing it because it is very inexpensive, has genuine benefits for programmers (128K beats 32K!), and will allow anyone who wants to write software for this device to have a leg-up. Plus, its there.

<Jeff> So it won't work as a 32K with XB, TIW, EA, and LOGO cartridges?

C_BOBBITT> Oh yes, it works with a 32K card with EVERYTHING unless you run a 128K-aware (or rather, AMS-aware) program. We will be releasing applications for this version that will upwardly compatible with the next (to b

little). ga

the lower 8K is there, just cannot bank it? I was a little confused by the omission in the doc's of >2000-3FFF space.

No, the RAM is all there - pages of RAM can be assigned to any space within the upper memory expansion range in AMS 128K.

<Jeff> So there is really 128K barkable, plus 8K locked in at >2000-3FFF?

C-BOBBITT> yes.

<Jeff> For a total of 136K on the board.

C-BOBBITT> No. 128K total. The first 2 banks of RAM in the board, unless otherwise assigned, sit at >2000, the next 6 sit at >A000 to >FFFF (that is when the memory mapper is in pass mode).

<Jeff> Might be a good idea to add that to the docs, Chris.

C-BOBBITT> Okay, thanks for the feedback.

<Jeff> (maybe I missed that, but I thought I read the docs thoroughly -- just skimmed the assembly source)

C-BOBBITT> *> Understand

<Shirley Slicer> I just popped in, don't know where things are, is this just about the new memory card, or are all Asgard products up for questions

C-BOBBITT> Well, this is primarily about AMS - but I'll take related questions. AMS impacts everything we have and are done/doing.

<Shirley Slicer> Thanks....I'll let Don go ahead.

<Don O'Neil> Why the high price per K on the card? Doesn't it just use a 128K SRAM?

C-BOBBITT> Well, yes. But price for a product is more the the sum of the cost of its components. Even by those standards are costs are reasonable. Especially since you also get some technical support you don't get with other memory systems. We are also paying for 2 years of development, the labor of 5 people, and advertising and other costs. Also, as I mentioned above, most of the cost of this device will be applicable towards the next version. Finally, we are finishing up on a full Assembler and Linker for the puppy... that will be offered at little cost to 128K owners (certainly less then they would cost by

themselves) ga

SBEYER> Will there be many programs ready when the AMS is released? (Not just the applications you've kind of mentioned)

C-BOBBITT> That isn't a very easy question to answer - some products are at different stages. I can tell you, for instance, that we intend to have AMS-aware versions of some of our existing products fairly quickly. Programs that use overlays are simple to adapt to the system. This includes PrEditor and Batch It!, among others. Some will simply have loaders re-written to use the extra memory as overlay space, some will use it for data storage. Batch It! will be modified to allow you to load about 128K worth of programs into it and swap between them. PrEditor will allow you to edit a program that big.

SBEYER> Great, that was what I was wondering!

C-BOBBITT> We are concentrating on new products just as much, tho. I might as well mention it (it won't be a secret much longer anyway - the formal announcement is next week) but we'll have a full word processor for it soon too. The remainder of the programs under development, maybe all should be done before the end of the year. ga

SBEYER> Wow! I'm impressed!

C-BOBBITT> Hardware is useless without software to go with it

JCARVER> Can you be more specific about the word processor?

C-BOBBITT> *> I was afraid this would pop up. I can say ONE thing - it ain't gonna be called Press. Wait till next week for details, tho. ga

<Jeff> Who is writing this WP? Might be a good guest to have on Delphi CO.

C-BOBBITT> Don't get too excited Jeff - he's locked in his room till its out.

JERRYC> Did you say that the 128K card uses SRAM?

C-BOBBITT> Yes - a 128Kx8 SRAM to be exact. It saved on adding refresh circuitry. The follow-up unit uses DRAM - SIMMs actually. ga

JERRYC> But the later model will be DRAM, right? OK -- does that mean that the smaller one could be battery backed with fixes?

C-BOBBITT> Jerry: yes - fairly simply, I imagine. -- will have to look over the schematics.

<Brad S.> Have you considered allowing people to write really big XB programs with the standard TI XB by supplying the assembly links to load the program into banks and switch when needed?

C-BOBBITT> Brad - we recently finished a library of routines for our assembler that will facilitate that, yes. It could be programmed for that right away, I imagine. I expect our version of XB due out soon will take advantage of the memory. As for standard TI XB - I'd be willing to help anyone that wants to write links to take advantage of the memory. (if anyone can help me think of any other strategy that is the opposite Myarc pursued - let me know! I'll follow it.)

<Brad S.> I was thinking of something for regular old TI XB. I don't think it would be too hard.

JERRYC> Any comments on a "ramdisk" application? (in software as done with the Foundation)

C-BOBBITT> Well, it would be possible. But, I must say, we resisted the impulse to add that capability to our device. For one thing, we don't have any desire to compete with Horizon on that. For another, the TI world needs an easy-to-use and program memory card more than it needs another ram-disk. Lastly, it would add needless complexity. ga

<Jeff> Okay. First, I am going to clarify some things for myself and possibly Brad. Here is how I understand AMS to work. First, the lower 8K is always mapped to pages 0 and 1 of the 128K memory.

C-BOBBITT> As I understand it, yes. I will double check that tommorrow and post an answer up here for sure. ga

<Jeff> The 24K upper memory is mappable in 4K chunks, powering up to use pages 2-7, which can be changed with software.

C-BOBBITT> Yes - by loading the write values into the locations starting at >4000 and putting the mapper into MAP mode ga

<Jeff> The docs recommend setting pages A through F in there with the sample code.

C-BOBBITT> yes

<Jeff> Which is how I understood the docs to say powerup pass-through works. This conflicts with what you said tonight. But that is not the question.

C-BOBBITT> okay - again, I never thought about that before

(when I plugged it in, it worked).

<Jeff> One way or another, 8K is in there, and the upper 24K is mappable in 4K banks.

C-BOBBITT> I'll get some notes on it by tommorrow, tho.

<Jeff> Here goes the question. Why was CRU>1E00 chosen, and is it selectable? Also, doesn't using >4000-4020 prevent the AMS from ever having a standard DSR?

C-BOBBITT> With AMS 128K CRU >1E00 is not selectable. As for why it was chosen, I don't have the reason off hand at the moment. As for the use of >4000 to >4020, it should be fairly obvious -- AMS 128K -does not- have a DSR. It doesn't need one. However, again, this may change in the next revision.

<Jeff> Okay, Chris. I am just trying to understand the product. Seems without a DSR any RAMdisk capability would have to be user programmed. Though RAMdisk is, as you said, not the purpose. ga

C-BOBBITT> As I said, "a RAMDISK would add needless complexity". And yes, it would have to be programmed. We actually have code for one knocking around - that may allow developers to implement an internal RAM-disk for their applications. ga

<Jeff> Just trying to clarify some possible misconceptions. ga, Jerry, with your comment. I'll get you next, Shirley.

JERRYC> A "software" ramdisk might have some advantages with the P-system which has difficulty with new hardware.

C-BOBBITT> Yes - it may. I'm not sure how the P-system would have difficulties with our memory system, but perhaps we could do something with that.

JERRYC> P-system swapping is to disk.

Shirley Slicer> 1) Will the cartridge version of XB3 -require- the AMS? 2) If AMS won't be used as a RAMdisk, why not make it compatible with existing Myarc and CorComp memory cards??? 3) Can you give a direct comparison of the AMS to the 4A Memex?

C-BOBBITT> 1> No - in fact, the one I have in my hands at the moment doesnt know it from adam. 2> Because the Myarc and Corcomp 32K cards insist on supplying 32K to the 4A as memory expansion, which conflicts with the operation of our device. 3> I'm sorry, I can't compare it to 4A Memex - I've never seen it. ga

<Shirley Slicer> Can't you compare what has been written
                 about the 4A Memex to what has been
                 written about the AMS?

C-BOBBITT> I can't really compare something I physically
           have to something that isn't available yet.
           However, IF the device works to what they have
           written, the major difference may be in the
           memory paging size (4K versus 8K (?)), and that
           ours has no DSR nor memory manager - they would
           be a bit superfluous to the way we did it.
           There are lots of ways to skin this cat - I
           prefer ours but theirs may have comparable
           functionality. ga

<Shirley Slicer> Thank you. ga

<Jeff>   c: Don O'Neil (WHT) is here, but I don't want to
           start any "catfights" tonight.

C-BOBBITT> Neither do I.

CAL47>   Can you talk about XB 3?

C-BOBBITT> Sure

CAL47>   Is this specifically for AMS and what
           enhancements are we looking at?

C-BOBBITT> No - actually, they were entirely different
           efforts. We began working on XB3 and AMS around
           the same time (well, XB3 predate my involvement
           another 3 years - but I only began working with
           it 2 years ago) Only in the last year have we
           been working to dovetail our project together.
           They both lend synergy to each other -
           complement eatch other. The major enhancements
           to XB3 are fundamental changes in the language
           ... ON COINC GOTO (for instance), calculated
           GOTOs, etc.

           Speed improvements are also part of the package
           - up to 3x in some math operations. There is a
           library of new calls, but really not as many as
           you'd find in other XB enhancements. But on the
           Plus side, XB3 will work with those packages too
           (Missing Link, etc.) So, you get the advantages
           of speed, some fundemental changes, plus
           compatibility with existing enhancement
           packages. Plus, you'll get built-in support for
           the Asgard Mouse and the AMS (hopefully) before
           long. ga

CAL47>   So, you plan to provide Calls for AMS within
           XB3? Hopefully???

C-BOBBITT> Well, actually, it will be easier than that.
           You'll issue a SIZE command and it will say
           "131072 bytes free", or some such. Another
           advantage of AMS is that it works beautifully

           with GPL,
           sometimes
           does work the way.

<Jeff>   Chris, since Rich GKXB has been rele
           think). can you compare XB3 with

C-BOBBITT> Well, not really. I don't have GKXB. What
           it offer other them new CALLs?

<Jeff>   I'm not exactly sure, Chris. I thought
           night have bought a copy so you could
           GKXB with XB 3.

C-BOBBITT> I don't own a GRAM device. (other then
           German doohickey that doesn't work with
           GRAM formats)

<Jeff>   I think it works on the Geneve. Not
           though.

CAL47>   Works rather nicely on a Geneve.

C-BOBBITT> That IS one thing XB3 can't cla
           there is a re-write to the GPL
           is a no-go. Anyone want to tal
           (sorry - no baiting - take the

<Don O'Neil> That's NCTIS

<Shirley Slicer> Will the cartridge version
                 released before Christmas
                 NCTIS?

<Don O'Neil> National Comittee for TI Standards

C-BOBBITT> Shirley - hopefully, yes. We've had
           lately getting the required cartri
           done. It is a special module that
           56K of GROM and 24K of RAM (b
           increments). ga

<Shirley Slicer> I hope you will be able to
                 then...that level must have
                 current flash banks.

<Jeff>   Well, Chris, I think you opened a
           by mentioning it. Why you
           NCTIS?

C-BOBBITT> Well, yes myone. I will say
           we've the flashing NCTIS.

  [Don O'Neil dropped out momentarily and

<Jeff>   All you missed was Chris saying that
           has done predates NCTIS.

<Don O'Neil> So does what Myarc and Cor Comp d
             doesn't make it better than the o
             worse for that matter. The purpos

to integrate ████ vendors hardware into
the TI system. ████ believe the AMS should be
part of that.

████████ Ah, but the difference is in the implementation.

<Don O'Neil> The Implementation shouldn't really make
a difference, it's the interface between the
memory and the program that matters.

C-BOBBITT> Well, AMS certainly would work with whatever
specification NCTIS eventually derives. I'm
sure. But, I do have to say, our assembler and
linker will make its use fairly moot on our
systems. You write programs for a 24-bit address
space, it assembles and links them. Voila.

<Don O'Neil> NCTIS wishes to develop a "universal" memory
DSR so that ALL programs only have to know 1
language to talk to memory.

<Don O'Neil> BUT your linker will ONLY support the AMS.

[NOTE: The 99/4A system supports Device Service Routines
-- blocks of code that are "paged" into memory at
address >4000 for handling calls to a peripheral
device. On the 4A these blocks of code are generally
held in a PROM or Eprom on the device -- on the 9640
they are saved in other parts of memory. Ed.]

C-BOBBITT> But whose else is available?

<Don O'Neil> Not the Myarc, or CorComp, or Foundation, or
RAMBO, or 4a Memex, or Rave, or TI memory
cards. Those cards are all availble on the
used market, as well as some on the new
market.

C-BOBBITT> Yes, and I'm sure everyone will find a use for
them.

C-BOBBITT> We are simply trying to facilitate an enlarged
99/4A memory architecture. -- utilizing a set of
hardware and software that eliminates most of
the work of writing software to take advantage
of it.

<Don O'Neil> The impression I get is that you are trying to
facilitate enlarged 99/4a memoy architecture
with ONLY the AMS.

JERRYC> The AMS card is compatible by default since it
has no DSR. That is a major departure from the
thinking of the NCTIS.

C-BOBBITT> Don- I never said I supported either the aims or
the thinking of NCTIS. I am simply trying to
fill a whole in the market for a workable
expanded memory system that doesn't require
programmers to be gods.

<Don O'Neil> I never said you did, just what my impression
was.

<Don O'Neil> RAMBO does that fine, why do you think the AMS
will sell better than RAMBO?

C-BOBBITT> 1) Perhaps we could make our software work with
other systems at some point.
Well, yes and no. RAMBO only provides part of
it. With AMS you'll be able to literally write
code and let the assembler worry about overlays.
The only time you need to worry is when you get
up data spaces - and that to enlarge your BSSs
to 24bits instead of 16 bits. As I said, I
really am not here to debate you, I simply want
to discuss something which we designed to do the
things we wanted to do.

<Don O'Neil> The un-released RAMBO development package from
OPA is supposed to do that too.
Nor am I [reference to "debating"]. I am just
trying to understand why you are introducing
the AMS.

C-BOBBITT> Ah, the difference, Don, is that we have Art
Green finishing up an assembler right now, and a
promise from Gary Bowser to convert his software
to AMS.

<Don O'Neil> If I were a programmer, I would write for the
largest market, and in my eyes, that is RAMBO.

C-BOBBITT> I guess we'll see what we'll see. Next question?

<Jeff> have you decided how you are going to implement
larger AMS cards?

C-BOBBITT> Yes - the next offering will allow up to 16Mb of
RAM on a 99/4A using Apple 256K, 1Mb or 4Mb
SIMMs.

<Don O'Neil> What is the projected price of that unit?

C-BOBBITT> I'm not making a projection at this time.

CAL47> How many sockets on the board (Simms).

C-BOBBITT> It will have 4 SIMM sockets, and is projected to
come standard with 1Mb.

CAL47> Thanks, ga

C-BOBBITT> We selected Apple SIMMS because they are
slightly cheaper on average then PC SIMMs.

JERRYC> Can you mix the SIMMs or do all need to be the
same size?

C-BOBBITT> As far as I know at the moment, yes. I don't
have all the technical specs on the next version

yet.

JERRYCD   yes which?

C-BOBBITT> The designer is still finishing them up. Yes -
           you can mix and match.

<Jeff>   When would be a good time to get that person who
           is writing the WP on for a conference?

C-BOBBITT> Well, maybe early next year. We will be
           releasing the non-AMS version next month, and
           the AMS version maybe 4 weeks after that;

<Don O'Neil> When will the AMS be shipping? Any idea on
           when people will be able to start writing
           programs for it?

C-BOBBITT> Don- you can start writing for it immediately.
           The programmers package (which contains
           evidently everything needed but one detail Jeff
           point out) is posted up here.
           As for shipping, early next month still looks
           good AMS 128K. No formal announcement of the big
           fella was made here tonight, and a date will not
           be promised until it is. ga

<Jeff>   Is there a SAU planned?

C-BOBBITT> SAU?

<Jeff>   stand-alone unit -- sidecar

C-BOBBITT> Oh - we'll see

<Jeff>   I'm trying not to ask leading questions. I
           simply thought that since Asgard sells to many
           cassette-only users, a SAU might be a seller.

C-BOBBITT> Well, okay, we have designed it for both
           systems. But we are examing which one would be
           most cost-effective. And yes, we are considering
           one. ga

C-BOBBITT> Well, I can say I said more than I promised
           myself I would. You guys did it to me again.

SBEYER>   Could the programs written for the AMS be
           converted easily to the Geneve? Not necessiarly
           MDOS.

C-BOBBITT> I don't really know. The 9640 used 8K blocks,
           but the paging system isn't really that
           different. And all you have to do is page 2 4K
           pages instead of 1 8K page. (to emulate it, that
           is). Maybe yes. Would be neat, wouldn't it? ga

SBEYER>   yes it would!

<Jeff>   Neat if it works. Maybe not so neat doing it.

C-BOBBITT> I wouldn't want to be the programmer ‹>

<Jeff>   Could you give us some names of people working
           with the AMS right now?

C-BOBBITT> Well, I've already mentioned Art Green, and the
           docs mention Joe Delekto. One other gentleman is
           named Jim Krych, but the hardware designer wants
           to remain anonymous. Some of the programmers
           working with AMS are fairly well known, some
           aren't. All of them are very good.

<Jeff>   Which brings me to another question. I
           understand Delekto was working on BASIC and C
           compilers. Will these use the AMS?

C-BOBBITT> Well, he is preocupied with AMS, but I would
           imagine anything he writes in... the future
           would work with it. After all, he (and the
           engineering dept. of Georgia Tech, apparently)
           worked out the software design approach.

<Jeff>   Wow! Now we have Georgia Tech in on things. Is
           there a large 4A contigency at Georgia Tech?

C-BOBBITT> Well, he spent a lot of time talking to his
           professors. There are a couple of 9900 nuts in
           the engineering dept there. And evidently a few
           ex-TI engineers around there. It certainly
           helped out in the beginning. But they were
           solely in an advisory capacity. I think the
           software design of AMS turned into Joe's senior
           project (I know - shades of Paul Charlton) ga

<Jeff>   ga. anyone I'm sure I am not asking the
           questions everyone wants answered.

C-BOBBITT> Which is? (you aren't going to rope me into THIS
           again anytime soon - ask away so I can say "no
           comment" now ‹>>

<Jeff>   I cannot read minds, Chris. I just imagine what
           I ask is mainly of interest to me. ga. Cal

CAL47>   ‹‹Has the card been tested with TIM-S0?

C-BOBBITT> Yes - it passed. As I said, we've been talking
           to Gary quite a bit.

CAL47>   Gary- Hmmmmm!

C-BOBBITT> We are trying to get as much of the community as
           possible involved in this project. (and no -
           Gary didn't design the hardware) (that "Hmm"
           sounded loaded)

CAL47>   Hah! Falling off my stool, laughing.

C-BOBBITT> ga ‹>

<Jeff>   Loaded ?! Why does the designer wish to remain

anonymous? Isn't AMS the greatest thing since sliced bread (to borrow a cliche)?

C_BOBBITT> No reason really - he just prizes his peace - and has been involved in the TI community in the past and doesn't want everyone to know he is back in it again. ga

CAL47> Guess we'll have to play the Guessing Game?

<Jeff> Sounds like Charles Earl.

JERRYC> Oops - I may have blabbed already.

C_BOBBITT> Charles doesn't know Squat about hardware (other than programming for it)

C_BOBBITT> Jerry - don't worry, I know where you live <ominous music>

JERRYC> You DID mention his name at the UG meeting...

<Jeff> I don't recall him mentioning anyone by name tonight.

C_BOBBITT> I say a LOT of things at our UG meeting - after all, we've known.. each other for (oh) 8-9 years. !> ga

<Jeff> Well, let's wrap it up. If you are ready, Chris.

C_BOBBITT> I am ready.
CAL47> Ron Walters is in the background. [on-line but not in C0]

<Jeff> Anything you forgot to tell us that we need to know?

C_BCBBITT> Nothing I didn't intentionally forget <smile>.

CAL47> Good nite. It's been really fun! - signed off -

C_BOBBITT> Actually, I said more then I planned to.

JERRYC> Thanks Chris

<Jeff> Thanks for coming, Chris. Guess we didn't bruise you too much.

<Don O'Neil> Thanks, sounds like a product with potential.

[EDITOR'S NOTE: Sound like it is over? Not by a long shot. The following exchange quickly became what I call "interlaced monologues". It required some heavy editing to make it readable. Many "one-liners" that kept the exchange fairly civilized were lost since they referred to fragments that disappeared when text was pulled into blocks. Some of the participants may be surprised at some of what was said, since it is hard to follow one of these interlaced discussions in real-time.]

C_BOBBITT> No, I got lots of callouses now. Don- If you'd like to talk more in depth about it, I certainly don't want to cause another split in the TI community and perhaps we can work a way out of any differences we have.

<Don O'Neil> I don't have any qualms with competition with WHT, but I would like some cooperation with NCTIS.

C_BOBBITT> Don- I would suggest that NCTIS' definition be enlarged a bit at least to include devices with 4K banks and no DSR.

JERRYC> (like the TI 32K card?)

C_BOBBITT> And with a memory mapper on-board. I'm not planning on changing AMS' design.

<Don O'Neil> The point NCTIS made is that without a DSR extended memory will not be "universal". [It would be] very similar to the LIM standard. [That is the Lotus-Intel- Microsoft memory standard that is used to get beyond 640K on older Intel CPUs - Ed.] Some older LIM boards come with software "translators". That is what we want to do with existing TI memory cards. Mind you, It was not my decision to go that way.

C_BOBBITT> Don, I'm sure that there is a technical way around it. But I'm not going to join any group that rubber-stamps a specific design. And for the most part NCTIS _IS_ WHT

JERRYC> In the sense that no other new cards have come out?

<Don O'Neil> NO, NCTIS is NOT WHT.

<Jeff> I never got that impression. That NCTIS is WHT.

<Don O'Neil> NCTIS is made up of volunteers in the TI market. I happen to be the "spearhead" of NCTIS because nobody else will be. I would GLADLY step down, I really don't have the time for it.

C_BOBEITT> Well, considering their focus for memory beyond 32K was the Memex 4A, it seems that way to me.

<Jeff> 4A Memex was never mentioned in any NCTIS report.

<Don O'Neil> The FOCUS was NEVER on 4a Memex.

C_BOBEITT> We have a different system that we feel is better, and I would be more then happy to help NCTIS expand its definition to encompass ours as well.

<Don O'Neil> Our focus was on EXISTING memory cards.

C_BOBBITT> The top level certainly sounds like a 4A with a Memex 4A to me.

<Don O'Neil> NCTIS's definition is ANY memory expansion compatible with the NCTIS DSR, which at this time is NONE.

C_BOBBITT> And when the Memex 4A is completed - one, right?

<Don O'Neil> No, NOT TRUE... Because the DSR has not been defined with ANY limitations yet, any and ALL memory cards will be supported. The 4a Memex follows our own design, which may or may not be the same or similar way to the NCTIS may.

C_BOBBITT> Good, lets keep it that way.

<Jeff> Join the NCTIS committee, Chris. I might even do that.

C_BOBBITT> Jeff- the last thing I need to do is spend time at meetings, and away from getting products finished.

C_BOBBITT> But our card is not going to have a DSR - it would be redundant.

JERRYC> How about a non-DSR subcommittee <grin>? [for those unfamiliar with ANSI (American National Standards Institute) politics, they form subcommittees to solve any problem - Ed.]

C_BOBBITT> I'll join THAT one tho.

<Don O'Neil> It wouldnt [be redundant] though ... Think about this...

Joe Blow writes a program for the Myarc 512K car because he owns one. His program will only work with the 512K card UN MODIFIED. Now, along comes NCTIS and hands him a piece of code for him to stick into his program. He follows the rules for requesting memory, and allocating it, and viola his program now works with the Myarc, Corcomp, Rave, Ti, Foundation, Rambo, 4a Memex, and AMS! A HUGE market for his program is now at his fingertips. That is our philosophy.

C_BOBBITT> That's nice. But, suppose, a guy has a garden variety assembly program (or C,XB, etc.) and he wants to have more memory for it. Well, with XB he plugs in our card (which we are licensing at low cost to any maker that wants to make it) or assembles it with our assembler WITHOUT ANY CHANGES (other then enlarging a few buffers), and VOILA - extra memory, no muss, no fuss. THAT is what we were aiming for.

<Don O'Neil> Same thing with the NCTIS module. All he has

to do is get the NCTIS memory module he has it We are aiming for the same Just different ways. Our method encom... ALL memory cards. your's just 1.

JERRYC> o: DSR route and non-DSR. [also commented that there are already several non-DSR memory cards, not just one.]

C_BOBBITT> But you don't even have to tailor your code for anything beyond... a 32K card. You don't have to write it for a routine, change workspaces, juggle anything.

<Don O'Neil> YES you do, if your program is AORG'd or non-relocatable, or uses fixed buffers, or wants to access more than 128K, etc...

C_BOBBITT> Just write a program, assemble and link it as usual. Well, actually, we worked out some of those problems.

<Don O'Neil> You are fixing the problem by changing the assembler... We are fixing the prob... including a new module to "patch" the ... the assembler works.

C_BOBBITT> Don- we are using software to solve the problem. And fast hardware to make it efficient...

<Don O'Neil> The only difference is _where_ the ... is. A DSR does not have to be phys... the card, just somewhere in memory. ... esentially BUILT IN the DSR to the assembler.

C_BOBBITT> Don- that's fine. Well, you guys have virtually all the information you need to make your DSR work with what we are doing. As I said, I'd rather spend my time writin applications for our card.

<Jeff> I'm not comfortably with calling it a DSR.

<Don O'Neil> But WHY write an application that will only work with 1 card, and not 5?

C_BOBBITT> Because, Don, it isn't worth the effort to rewrite it for a DSR that doesn't exist. And possibly may never exist.

<Jeff> A DSR seems to be something that sits in an EPROM on the 4A waiting for use.

C_BOBBITT> Okay - terminology aside, Jeff, an "interf..." then.

<Don O'Neil> We could handle things the way you do, making an assembler to "include" our ... the assembled program. So what's the ...

<Jeff> In so much as what AMS uses and what NCTIS...

proposal, I think they are one and the same. A
routine to page memory at the appropriate time.

C_BOBBITT> Well, to be honest, we built this to address our
perceptions of how to improve the 4A. If you'd
like to make your hypothetical interface work
with it be my guest. Otherwise, we'll finish up
our assembler and linker and make it available
to everyone. Perhaps we can adapt our software
to work with your system.

<Jeff> In the AMS way, the special linker inserts the
paging code. In the NCTIS way, the paging code
is inserted by the programmer.

C_BOBBITT> jeff!! EXACTLY!!!!!!

<Jeff> And the MYARC, Corcomp, Foundation, and other
available cards make paging a pain in the neck.

C_BOBBITT> The paging code is inserted by the LINKER. the
ASSEMBLER simply does some of the grunt work.
The programmer doesn't do much at all. Our
system combines a simple to page system with a
smart assembler and a smarter linker. But for
right now, you can page it manually fairly
simply.

<Jeff> Right. Currently, AMS will be programmed
similarly to RAMBO.

<Don O'Neil> ACTUALLY, the NCTIS way has not been defined!

<Jeff> I'm just going by what I infer from NCTIS
"press" releases.

C_BOBBITT> AGAIN, we are NOT proprietary about our answer
either...   I am SERIOUS about sharing our
methods with anyone.

<Don O'Neil> If you feel that the AMS way is superior, then
come to the NCTIS meeting at Chicago and join
in the conversation... We will be collating
our info and making a decision about which way
to go.

C_BOBBITT> I'm not sure I'll be in Chicago this year. I DO
have a REAL job.

<Don O'Neil> So do I Chris, we all have REAL jobs.

C_BOBBITT> I know, but I also have no vacation time left.

JERRYC> Sounds like me <sigh>.

<Jeff> This is not to say that we do not appreciate
your generosity with information, Chris.

C_BOBBITT> <smile>

<Don O'Neil> Maybe you an get some "help" with your AMS as

well as broadening the market for any software
you would sell for it.

C_BOBBITT> Jeff, my only contention with NCTIS is that it
has already seemed to have figured out an
approach, and assumed everyone with an interest
in the subject was involoved.

<Jeff> Chris, NCTIS had no idea you were even
considering a memory card.

C_BOBBITT> We have been coordinating our activities for 2
years with the Germans and the Australians -- in
fact, we have potential licensees in both
countries. And the only hint WE had that NCTIS
was in the works was when I read... about Fest
West.

<Jeff> <at this point Jeff noted that the AMS work was
known only to the parties involved and that the
meeting at Fest West did not have NCTIS in mind
when it was scheduled.> It took everyone by
surprise.

<Don O'Neil> NCTIS is trying to make a broader market for
software developers, and having a "new" non
compatible memory board just messes things up.
I don't expect you or anybody else to change
their designs, just to at least consider what
NCTIS is trying to do.

C_BOBBITT> I didn't share my information with the rest of
the community because we didn't want to raise
expectations 2 years ago. And also, it is far
easier to work "in the dark".

As far as I'm concerned, NCTIS is the
johnny-come-lately in all this. We were working
on this problem, with people on 3 continents,
long before NCTIS.

<Jeff> But, Chris, we didn't know.

C_BOBBITT> I know, because I didn't want to repeat the
Geneva fiasco.

<Don O'Neil> [referring to the AMS work before NCTIS] So
was Enulex before ANSI picked up the MFM
standard.

[I'm not sure I understand this remark, but it is
apparently a reference to ANSI politics where some
companies (in this case Shugart?) are able to use the
ANSI mechanism to their advantage. - Ed.]

<Jeff> [in several fragments Jeff makes the point that
NCTIS success or failure will be highly visible
-- unlike most private commercial ventures]

C_BOBBITT> In a sense, I'm offering to share our labors.
And I'm prepared to be as open as possible to

facilitate scftware development.

<Don O'Neil> Looks like an NCTIS conference is in order ..
some time after Chicago. That is what NCTIS is
doing!

C_BOBBITT> I know that... but again, we did what we did not
to trip up NCTIS, but because (a) we didn't know
if we were going to succeed, and (b) we didn't
know enough about NCTIS until recently to even
be concerned.

<Don O'Neil> NCTIS was just formed in February.

C_BOBBITT> As for techn.cal participation in NCTIS, we
can't even consider it, until we finish what we
set out to do.

<Jeff> Some might think you are releasing AMS now to
get ahead of 4A Memex in the market. Which is
fine, I will add.

C_BOBBITT> We are dedicated to providing a suite of
development tools for AMS, as well 3-4 new
applications and a dozen converted ones by next
year sometime. And yes, marketing did factor
into it all. Also, a lot of pieces fell
together at the same time.

<Jeff> It might be said that WHT did you a service by
not keeping 4A Memex plans secret.

<Don O'Neil> If you were to participate in NCTIS, and the
AMS becomes part of the NCTIS DSR, then your
software market will grow by 5-6 times it
size.

C_BOBBITT> Jeff -- Yes and no -- I felt [WHT was
ill-advised] to announce [those plans] ahead of
time.

Don- we were prepared to grow our own market --
and still are.

JERRYC> C: on standards

<Jeff> ga, Jerry. We've dropped all semblance of order
here.

C_BOBBITT> (no kidding Jeff)

JERRYC> I have seen two kinds of successful standards:
1) those imposed by giants in the marketplace
and 2) those accepted by consensus. I don't
think we have either here, but I think it is
very important that all parties are thinking
seriously about the OBJECTIVES to be achieved
by such standards (i.e., broader
functionality).

<Don O'Neil> We announced the 4a Memex when we had a

working product, but then TI discontinued the
heart of it and we were up a creek, so to say.
You can't exactly "un-announce" it.

C_BOBBITT> Don- so why didn't you guys simply SAY that!

<Don O'Neil> We DID!!

C_BOBBITT> NO - you said "any time soon" That IS NOT "We
have to rethink this"

<Don O'Neil> No, we said, that because of a discontinuance
of a TI product, we will have to RE-DESIGN The
4a Memex, and that design would be done any
time soon... It is CLEARLY EXPLAINED in the
Lima Tapes.

C_BOBBITT> But it isn't in your press releases that have
been going through rewsleters for 6 mos now.

<Don O'Neil> YES IT IS. Many people "drop" the boring part.
Which is what has happened.

[the previous 15 lines or sc are included to convey some
of the "flavor" of the exchange and so that your editor
wont be guilty of dropping the boring parts - Ed.]

C_BOBBITT> All this aside, back to the main topic (which is
not to pick on you cr 4A Memex)

<Don O'Neil> I don't mind, I deserve as much criticism as
the next guy.

C_BOBBITT> I think the inportant thing is to work out a
dialogue at some point to discuss this NCTIS.
And if it is possible to support its standard in
cur assembler, fine, we'll reassemble our
applications so that it works with it. Our
system is modular. It shouldn't be a great deal
of work. But in the meantime, we are finishing
up our linker and releasing our new
applications.

<Jeff> I should call Art [Green] and schedule him for a
conference.

<Don O'Neil> Why are you willing to live with only the AMS
market for software sales? You will only be
able to sell as many copies of the software as
there are AMS's scld.

JERRYC> GENTLEMEN -- attention please!

C_BOBBITT> Because, Don, right now we can only write for
what exists

C_BOBBITT> Jeff- you [contact Art] and I'll hunt you down
and [colorful threat] I DON'T want to distract
Art.

<Jeff> Why do you say that?

C_BOBBITT> Lord knows enough DOESN'T get done in this community because everyone is too busy talking about it.

<Jeff> Don't remind me, Chris.

<Don O'Neil> The Myarc and Corcomp and RAMBO and Rave, and Foundation and TI, and others exist RIGHT NOW!

C_BOBBITT> Sure, Don, but the DSR doesn't.

<Don O'Neil> So, you don't use a DSR in yours, so why should there be a dsr for the others? (to use your argument)

<Jeff> Jerry, we are listening, if you want to say something.

JERRYC> Speaking of talking about it -- it is now nearly 1:00 am and time for all these creative people to get back to their marvelous hardware projects!

<Jeff> I just put them in listen mode. I think.

C_BOBBITT> - signed off -

JERRYC> This has been very interesting and we all look forward to exciting things to come.

<Don O'Neil> Well, I truely enjoyed the interface tonight.

JERRYC> I will have transcript together in a few days and sort out the basic issues without any more repetition.

* C_BOBBITT just joined "AMS Conference" (6 members now) *

C_BOBBITT> You kept me from HEARING anyone

<Jeff> Weird?

C_BOBBITT> I had to logout and login again missed everything you said, Jerry

<Jeff> I just put you and Don in the audience.

JERRYC> I was just passing out thanks for a very interesting discussion and promising a readable transcript in a few days.

<Jeff> Sorry about that Chris, if what I did did not work correctly.

C_BOBBITT> :> No problem

<Jeff> let's wrap it up Thanks again, Chris, for coming.

C_BOBBITT> I will say one thing, tho, we ARE committed to

our schedule already and will have to ... any NCTIS incompabilities later. In the meantime, feel free to feel free to use ... information posted here to assist in making compatible.

<Don O'Neil> We'll try.

C_BOBBITT> And I *would* make the idea of an on-board DSR optional if I were you.

<Don O'Neil> There is no requirement for ANY DSR.

C_BOBBITT> Good - lets leave it at that.

JERRYC> Great discussion (and I reserve my editorial rights to use some of the good stuff after midnite).

<Jeff> Okay. Everybody out. We're needlessly keeping everyone awake.

JERRYC> Good night Chris, Don, Jeff -- ALL -- enjoyed it.

<Jeff> Like any good boxing match, right?

C_BOBBITT> Sure, its been real. PLEASE don't bother Art -and I promise I'll try to make a date ... him up here when he's done. The same goes for the rest of the team.

<Don O'Neil> Well, Goodnight everybody. - signed off -

C_BOBBIT Night.

<Jeff> Goodnight. What's left of it.

C_BOBBITT> :> - signed off -

*** END at 01:12:55 ***

Joke Of The Month

Why did the blonde stare at the glass of orange juice for two hours? Because the label on the container read CONCENTRATE.