

## HP Forum Archive 14

[ [Return to Index](#) | [Top of Index](#) ]

### HP 33s - Dead or Alive?

Message #1 Posted by [Philbert](#) on 10 June 2004, 11:46 a.m.

Greetings:

I have not seen the 33s in stock at any online source. At one location, a notice was posted that the item has been discontinued. Is that true or false? If the 33s is generally available, does anyone know a reliable, in-stock source for the item?

TIA, Philbert

### Re: HP 33s - Dead or Alive?

Message #2 Posted by [Philbert](#) on 10 June 2004, 11:52 a.m.,  
in response to message #1 by Philbert

Sorry to reply to my own post, but I wanted to add the link to the site that claimed the HP 33s was discontinued.

<http://www.officequarters.com/product.php/item/HEW-33S/HEW33S.html>

Carry on.

### Re: HP 33s - Dead or Alive?

Message #3 Posted by [Norris](#) on 10 June 2004, 12:13 p.m.,  
in response to message #1 by Philbert

Seems a bit unlikely that the 33S would be discontinued already, since HP formally introduced it on April 20, 2004, less than 2 months ago. See

<http://www.hp.com/hpinfo/newsroom/press/2004/040420c.html>

The 33S appears to be available from amazon.com, or from calculator dealers like samsoncables.com, commerce.hpcalc.org, or calculatorsource.com

Oddly enough, it seems to be out of stock at hp.com

### Re: HP 33s - Dead or Alive?

Message #4 Posted by [Valentin Albillo](#) on 10 June 2004, 12:20 p.m.,  
in response to message #1 by Philbert

It hasn't been discontinued, for sure. Here in Spain, you can find it available in numbers at every major department store, such as "El Corte Ingles". Price is 80 euros, i.e.: some US \$90.

I don't know whether it's doing well or not, might ask the clerk. And no, I didn't buy one. After looking at it very carefully, having one in my hand, and trying it thoroughly, I decided it was sheer rubbish and there's no way I would pay 80 euros for that crap, though I fully respect that other people are entitled to think otherwise, of course.

Best regards from V.

### Re: HP 33s - Dead or Alive?

Message #5 Posted by [Jeff](#) on 10 June 2004, 12:51 p.m.,  
in response to message #4 by Valentin Albillo

V.

What about the 33S led you to your negative impression? Was it the chevron-style keyboard, the small "ENTER" key in the "wrong" place, small radix/comma in the display, other, or some combination? Aside from these attributes, the 33S (in RPN mode) seems to be a near identical functional reproduction of the 32Sii, with the benefit of much more memory. Many HP users feel that the 32sii is a pretty decent calculator. Have you ever used a 32sii, do you have an opinion on its capabilities?

I am not a great fan of the 33S, but I own one and have a much more favorable opinion of it than you. I certainly consider the attributes specifically mentioned above to be definite shortcomings and sympathize and respect the opinions of those that don't like it because of them. The biggest negative is that it would have been relatively easy to avoid the problems and produce a calculator that many more people would have liked.

### Re: HP 33s - and Logic Systems

Message #6 Posted by [bill platt](#) on 10 June 2004, 1:14 p.m.,  
in response to message #5 by Jeff

Hi Jeff,

I should let Valentin speak for himself, but with all do respect to you, he is absolutely correct that at \$90 the 33s is rubbish. You can buy a 32s (or even a 32sii for that if you are lucky) and there is no comparison in terms of tactile behavior. The 33s has clicking buttons, but they are really too clicky with too much travel, compared to the Pioneers, voyagers, and even to the 41. Also, the rubber feet are so soft on those little stilts that it squirms around on the table wen you use it. I bought one, and liked it at \$40, especially for travel, but lost it the other day and I am (trying to) be patient about buying another. I do find that the 11c 15c 48gx and 32s are fine for me right now (I liked the extra memory in the 33s---and that is the one thing that may drive me to buy one again some time).

However, what I suspect Valentin may find interesting is the Algebraic system on the 33s---it is somewhatunlike most others out there (see some threads with my name on them from the recent month), and it would be interesting to see a comparison made with a variety of Sharp algebraic systems (of which I unfortunately know less).

So, (Valentin) if you are listening, I am remembering a very interesting series of posts regarding RPN vs ALG in which you made a number of very important points---especially that RPN is by no means the only or best logic---a good logic but not the only way--and I think I remember some Sharp logic systems mentioned.

In fact I intend to post a short treatise on this topic sometime in the next month.....and your input would be valuable.

Regards,

Bill

### Re: HP 33s - and Logic Systems

Message #7 Posted by [Valentin Albillo](#) on 11 June 2004, 11:22 a.m.,  
in response to message #6 by bill platt

Hi, Bill:

Bill posted:

*"So, (Valentin) if you are listening, I am remembering a very interesting series of posts regarding RPN vs ALG in which you made a number of very important points---especially that RPN is by no means the only or best logic---a good logic but not the only way--and I think I remember some Sharp logic systems mentioned. In fact I intend to post a short treatise on this topic sometime in the next month.....and your input would be valuable."*

Sure, go ahead. And assuming it's minimally honest and serious (as I'm sure it will, being you the one treating the subject), putting the hard facts over the table instead of the usual bunch of RPN-addict ramblings (which I don't usually bite), you can count me in to discuss it in all its gory detail :-)

Hopefully this time it *might* be a useful and enlightening thread from which useful conclusions can be extracted, and devoid of the typical and topical oh-so-rational *mantras* such as "I hate algebraic calcs", "RPN is best, period", "I wouldn't touch an algebraic calc with a ten foot pole", "I can't survive without RPN", "I can't use alg calcs anymore", "RPN rules!", "RPN should be mandatory at schools", etc, etc, etc. :-)

Best regards from V.

### Re: HP 33s - and Logic Systems

Message #8 Posted by [Chris Woodhouse](#) on 11 June 2004, 12:01 p.m.,  
in response to message #7 by Valentin Albillo

I am looking forward to reading this post as well. I have found the discussion of alg vs rpn on this and other HP forums puzzling. I honestly can't see any advantage to alg entry. The only thing I have heard that would make me think there is any advantage to alg is the argument that rpn is more difficult. While I won't completely discount that it is possible for to write an equation that is easier to do using alg, I have never seen one. So I am very interested if someone can show me where alg is better than rpn.

Chris W

### Re: HP 33s - and Logic Systems

Message #9 Posted by [martin cohen](#) on 12 June 2004, 9:17 p.m.,  
in response to message #6 by bill platt

I don't know where you got your \$90 price, but it is readily available for about US \$50.

I got one and am quite happy with it.

### Re: HP 33s - and Logic Systems

Message #10 Posted by [Chris Woodhouse](#) on 13 June 2004, 12:22 a.m.,  
in response to message #9 by martin cohen

If you follow the thread closer, you will see that the \$90 was the lowest price in USD that could be found in some country outside the USA, I don't remember the country now though.

Chris W

[Bring Back the HP 15C](#)

### Re: HP 33s - Dead or Alive?

Message #11 Posted by [Valentin Albillo](#) on 10 June 2004, 1:53 p.m.,  
in response to message #5 by Jeff

Hi, Jeff:

Jeff posted:

*"What about the 33S led you to your negative impression? Was it the chevron-style keyboard, the small "ENTER" key in the "wrong" place, small radix/comma in the display, other, or some combination?"*

Right, you've nailed it. First of all, let me insist that I mean no disrespect to those people who like this machine, my opinions are my own and I don't claim them to be absolute truth. To summarize:

- Inconvenient form factor, far too large and bulky for a 'pocket calculator'. If there's something I don't need is yet-another-bulky-calculator. Seems that the trend is "bigger is better". Nonsense. It doesn't feel right in my hand, let alone in my pocket.
- The small, misplaced ENTER key is a real show-stopper. I did try such simple things as basic arithmetic, and the ENTER key was so misplaced that it hurt. I couldn't stand it after a while.
- The chevron-style keyboard together with the ultra-cramped legends and the awful color scheme were also unbearable. Used to classic HP machines, such as the Voyager series, the Classic series, the HP-41 series, and the HP-71B, among others, there's no way I would suffer such garish-colored, cluttered lettering surrounding those distorted concoctions which passed as keys.
- The display I find less fault with, but the small radix/comma is yet another nuisance.

- And last but not least, the general feeling of a cheap, unpolished, uncared-for product, where no attention whatsoever has been put by anyone. You read Mr. Kahan's detailed descriptions of how the HP-15C team put the best of themselves to achieve utmost quality and functionality in very limited hardware, then you see this HP33S where no one has bothered in the least to achieve even the minimum specs to make use of its much more powerful hardware. It's an insult to their intended customers, to say the least, to make you pay and swallow a less than half-cooked product that absolutely underutilizes its capabilities.

*"Aside from these attributes, the 33S (in RPN mode) seems to be a near identical functional reproduction of the 32Sii, with the benefit of much more memory. Many HP users feel that the 32Sii is a pretty decent calculator. Have you ever used a 32Sii, do you have an opinion on its capabilities?"*

You can't "aside" these attributes, they are extremely significant and important, at least to me. If I'm not wrong, we are proud to be HP fans because we felt that their machines were the best bar none, and we felt justifiably proud to own and use one. If that feeling is sadly lost (I simply can't feel 'proud' of owning and using an HP33S, at all, I'd feel silly), what remains isn't worth the trouble, to me.

Also, re the HP32S, I concede that it has 'the benefit of much more memory' but there's no need to repeat that said memory is nearly unusable in its entirety, because HP didn't see fit to make the changes in the firmware that would allow a user to actually use it. You can bet that the HP-15C team would've given anything for even 100 more bytes, yet the 33S team would waste 32 Kb without batting an eyelid.

One of the tests I made was to solve a 7x7 system of linear equations. It runs fine in the 33S while it wouldn't on the 32S because of its extremely limited RAM, roughly 1/3rd the HP-15C's RAM. But that's just about it. Though 32 Kb would allow you to solve up to 50x50 systems, you just can't because no one at HP gave a damn for your convenience. Why would you care for this product, then ?

Anyway, I don't have a problem with this product, at all. I don't like it, I don't buy it, period. Fortunately I have a large surplus of really good models, such as several HP-15C, 41CX, 42S and 71B, to name a few, not to mention my SHARPs which are every bit as good if not better. My needs are fully covered and I remain a proud HP user, proud of my collection, which I proudly show everyone. To place an HP33S next to an [HP-15C](#), say, or a [SHARP PC-1262](#) would be tantamount to heresy. But different people think differently and I am all the most respectful of yours and anyone else's opinions and feelings.

Best regards from V.

*Edited: 10 June 2004, 2:04 p.m.*

### **That's unfair, Valentin**

*Message #12 Posted by [Gene](#) on 10 June 2004, 2:46 p.m.,  
in response to message #11 by Valentin Albillo*

Valentin wrote: "You can bet that the HP-15C team would've given anything for even 100 more bytes, yet the 33S team would waste 32 Kb without batting an eyelid."

Gene: You're being quite unfair, IMO.

It appears the ONLY goal of the 33S was to replace the 32SII, which could no longer be made. The objective appears to have been, quite reasonably, IMO, to do so as easily/quickly as possible, but adding a couple of functions and algebraic mode so that it would sell beyond the 1000 people who visit the museum.

Regarding the memory issue...HP could have put in a 4K or 8K chip, but since the 32K chip was probably only pennies MORE, they dropped it in...after all, who knows what those enterprising HP users might make of extra room.

If HP had the time to invent extra functions to take advantage of that extra room, would I have been glad? Certainly.

BUT that is not the stated purpose of the 33S.

Say this a few dozen times over and over...

"This is a 32SII clone"

Anything beyond that is extra.

Gene

### 33S memory issue

*Message #13 Posted by **Norris** on 10 June 2004, 3:29 p.m.,  
in response to message #12 by Gene*

Two questions come to mind:

(1) To 33S Haters: Would the 33S be improved if HP/Kinpo swapped out the 32KB memory chip for a smaller 4KB chip? After all, then there wouldn't be such a dreadful mismatch between the large memory and the small number of labels and variables. Would you like the 33S \*better\* if the memory was \*reduced\* ?

(2) To 33S Defenders: Is it fair for HP (and resellers) to advertise the 33S as having 31KB of memory, without any mention of the limitations caused by the small number of labels and variables? For practical purposes, isn't it true that the effective memory size is only a fraction of the advertised 31KB value ?

My opinion: Don't complain about the 33S memory. Even if the effective memory size is only 3-5KB, that's still way better than the 32SII, 15C, etc. But do complain about the misleading and unethical way that HP advertises it.

### Re: 33S memory issue

*Message #14 Posted by **Gene** on 10 June 2004, 4:33 p.m.,  
in response to message #13 by Norris*

I do agree it is DIFFICULT to use the 32K of ram, but that doesn't mean you can't do it...you just have to learn a new way to program.

Everything you thought you knew about writing programs before the 33S must be relearned.

1) GOTO branching? Nope. Set a flag and continually test the status of the flag in a long string of steps to take.

Example:

Old way: X>Y? GOTO B BLAH BLAH BLAH GOTO C LBL B HO HO HO...

New way: X>Y? SF 1 FS? 1 HO FS? 1 HO FS? 1 HO FC? 1 BLAH FC? 1 BLAH FC?C BLAH

2) Efficiency? Why do that? Just repeat code segments - never do subroutines.

Example:

Old way: X>Y? XEQ A RTN LBL B XEQ A RTN LBL A YADA YADA RTN

New way: X>Y? SF 1 FS? 1 YADA FS? 1 YADA RTN LBL B YADA YADA RTN

It's not exactly "easy", but I've seen programs over a thousand lines long this way that work.

Gene

P.S. Don't get me wrong, I too want better ways of using the memory, but I'll ALWAYS take extra memory - there might always end up a chance to use it better.

### Re: 33S memory issue

Message #15 Posted by [Norris](#) on 10 June 2004, 5:23 p.m.,  
in response to message #14 by Gene

<< Everything you thought you knew about writing programs before the 33S must be relearned.>>

But doesn't this strike you as a significant limitation? Wouldn't it be appropriate for HP to explicitly acknowledge this drawback in their advertisements, or even in the user manual?

Your point is valid, but a 33S buyer who doesn't know about it in advance may understandably be disappointed. And HP certainly isn't calling anyone's attention to it.

### Re: 33S memory issue

Message #16 Posted by [Gene](#) on 10 June 2004, 6:01 p.m.,  
in response to message #15 by Norris

Since when did ANY manufacturer do such a thing? What kind of world do you think this is? The reaction you indicate may just make HP decide next time to just put a 1k ram chip in...they may say, "Remember those people who were upset at the memory they said was hard to use? Well, let's don't bother this time".

I doubt >0.1% of any buyers would be disappointed. Let's face it, studies show an incredibly small number of buyers EVER program their machines.

I think a company would be nuts to say "We go 0 to 40kph quickly, but we really stink going around curves"

Might as well wait for pigs to fly.

Gene

### Re: 33S memory issue

*Message #17 Posted by **Norris** on 10 June 2004, 7:14 p.m.,  
in response to message #16 by Gene*

I'm afraid that you're wrong about the 0.1% disappointment factor, and here's why: an unusually high percentage of 33S buyers \*do\* want to program it (typically for exams where graphing calcs are banned, such as NCEES exams).

This is most obviously true for those who prefer algebraic calculators. Why on earth would an algebraic user pay \$50-60 for a 33S, when equally capable scientific calcs are widely available from Casio, Sharp, TI, and even HP for a fraction of the price? (e.g., Casio FX-115MS, \$14.99). The \*only\* reason to pay three or four times as much for a 33S is for its programming capability. The 33S offers nothing else to justify its super-premium price, relative to other algebraic scientifics.

Check the amazon.com customer reviews, the ppi2pass.com NCEES exam forums, and even here at hpmuseum.org. You will see repeated posts from dissatisfied 33S buyers who ran out of labels long before they ran out of memory. That's not what they expected when they purchased a 31KB machine.

If HP had advertised the 33S as a 4KB model, then slipped in a 32KB chip instead, nobody would have complained. The customers would have perceived the extra memory as a free bonus, and they would have been happy.

Instead, HP advertises the 33S as a 31KB model, without disclosing that most of the memory is difficult or impossible to use effectively. Many customers have perceived this as a ripoff, and it is hard to blame them.

Is it good marketing to annoy your customers by creating misleading expectations ? The 33S would have sold just as well if it was advertised as a 4KB model, and customers would have been happy, rather than angry, about the extra, hard-to-use 27KB.

*Edited: 10 June 2004, 7:26 p.m.*

### **Re: 33S memory issue**

*Message #18 Posted by **Gene** on 11 June 2004, 12:41 a.m.,  
in response to message #17 by Norris*

Read the amazon reviews - same stuff we've all talked about - decimal point, uneducated consumer who thought it would have an infinite floating stack, etc. AND quite a few people who really liked it.

If you read HP's advertising, they do not sell the 32K of ram as some sort of cure-all. The mention it - it does have 32K after all, and it IS possible to fill it up (try typing + a few thousand times).

Again, this is a 32SII replacement. plus algebraic plus 32K of ram.

If I were an HP business executive reading this forum with the way so many here are complaining about the extra ram, I wouldn't do it next time - I'd give you the small amount the HP32Sii had. It was NOT in the cards to get a machine with more labels. Period! So, do you want a couple of hundred bytes of ram or more than that?

Gene



P.S. I too agree with comments on the decimal point, key shape, etc.

### Re: 33S memory issue

Message #19 Posted by [Norris](#) on 11 June 2004, 4:14 p.m.,  
in response to message #18 by Gene

<< It was NOT in the cards to get a machine with more labels. Period! So, do you want a couple of hundred bytes of ram or more than that? >>

I want as much RAM as possible. But if there are any limitations that affect my use of that RAM -- and there clearly are on the 33S -- then I think that these limitations should be disclosed prior to purchase.

I'm genuinely surprised to find that this position is perceived as unreasonable. But I'll drop it; this has gone on long enough.

### Re: 33S memory issue

Message #20 Posted by [Brent](#) on 11 June 2004, 10:06 p.m.,  
in response to message #19 by Norris

Equations use memory as do the solve and integrate functions(during execution). It's not all about program space.

### Re: 33S memory issue

Message #21 Posted by [Veli-Pekka Nousiainen](#) on 12 June 2004, 4:55 a.m.,  
in response to message #20 by Brent

Is there an unlimited Equation list?

'V-P/N'

### Re: 33S memory issue

Message #22 Posted by [Arnaud Amiel](#) on 11 June 2004, 5:23 a.m.,  
in response to message #14 by Gene

Quote:

Everything you thought you knew about writing programs before the 33S must be relearned

This is not really true. You can program the 33s exactly how you would the 32s. The only difference is that you don't have to worry about running out of memory.

Of course if you want to use all the memory, you will have to change the way you program. For me, I use my 33 exactly the way I would my 32 except that I am not so careful with it.

Arnaud

**Re: 33S memory issue**

Message #23 Posted by [martin cohen](#) on 22 June 2004, 4:57 p.m.,  
in response to message #22 by Arnaud Amiel

I agree.

However, the essentially unlimited program space combined with the (imho) ridiculously limited label and data space has led me to make these changes:

- 1) Use equations in programs.
- 2) More statements of the form "x=0? do-something".
- 3) Unfold loops.
- 4) Use the user-settable flags in code of type (2), above.

I have also found the new integer divide and remainder functions very useful in routines I wrote (and posted here) to do bit-fiddling (and, or, not, xor, ...).

Right now, my only real complaint about the 33s is the difficulty in distinguishing between the comma and decimal point. I sometimes have had to look quite carefully to see if an answer was, e.g., 4.096 or 4,096.

My wish list for 33sII (all, I believe, easily accomplished):

- 1) More labels and variables (allowing the prefixing of letters with a single digit would allow  $11 \times 26 = 286$  (or more) labels and variables while preserving compatibility with existing code).
- 2) Make the decimal point more visible.
- 3) Allow the comma to be turned off (this might make (2) unnecessary).
- 4) Allow a lot of the memory to be used for variables (along with (1), let i get big - a thousand or so).

(The following are optional, but would be useful)

- 5) Add bit-fiddling operations (and, or, not, ...).
- 6) Extend complex operations to  $1/x$ , sqrt,  $x^2$ , STO, and RCL (complex sto A would be like sto A  $\langle \rangle$  y sto B  $\langle \rangle$  y; complex rcl A would be like rcl B rcl A).

**"Way better": Are you sure, Norris ?**

Message #24 Posted by [Valentin Albillo](#) on 11 June 2004, 6:55 a.m.,  
in response to message #13 by Norris

Hi, Norris:

Norris posted:

*"My opinion: Don't complain about the 33S memory. Even if the effective memory size is only 3-5KB, that's still way better than the 32SII, 15C, etc."*

Way better ? Let's see. For the sake of argument, let's assume the 33S's "effective memory size" (by golly, what an euphemism !) is 5 Kb. Good.

Now, we also know that the HP-15C's "real memory size" for programs/data is only 448 bytes, aka 0.43 Kb. Fine.

Yet you *can* invert an 8x8 matrix in a 0.43 Kb HP-15C, but you *can't* in a 5 Kb 33S. Does that ring a bell ?

"Way better" !? Don't make me laugh.

Best regards from V.

*Edited: 11 June 2004, 6:57 a.m.*

### **Re: "Way better": Are you sure, Norris ?**

*Message #25 Posted by [Norris](#) on 11 June 2004, 2:47 p.m.,  
in response to message #24 by [Valentin Albillo](#)*

Your point is valid -- for people who want to invert 8 x 8 matrices. I will grant that the 15C is also better for handling complex numbers.

But for many other practical applications, the 33S is still the better choice, simply because it has more memory. For example, there is already a commercial package for surveying calculations on the 33S (Survey Stakeout 33S). It's 5KB in size. Obviously this could not be duplicated on the 15C, because the memory just isn't large enough.

For some people, including many civil engineeris and surveyors, greater memory is more valuable than matrices and complex math. For other people, such as electrical engineers, it may be the reverse.

In the US, one of the primary reasons that professionals buy an HP calculator is for use on state licensing exams. But civil engineers and surveyors are much more likely to take such exams than electrical engineers. In fact, civil engineers and surveyors probably take more licensing exams than all other branches of engineering combined. For such users, the 33S may well be a better choice than the 15C (although the 48G, which was tragically banned on the exams, remains the favorite)

### **Re: "Way better": Are you sure, Norris ?**

*Message #26 Posted by [Valentin Albillo](#) on 14 June 2004, 5:52 a.m.,  
in response to message #25 by [Norris](#)*

Hi, Norris:

I posted and you posted:

**Me:** "Yet you can invert an 8x8 matrix in a 0.43 Kb HP-15C, but you can't in a 5 Kb 33S. Does that ring a bell ? "

**You:** "Your point is valid -- for people who want to invert 8 x 8 matrices [...] But for many other practical applications, the 33S is still the better choice, simply because it has more memory."

I see that the bell *didn't* ring loud enough as you still don't seem to get the point at all. The 8x8 matrix inversion is but an *example*. The real issue has nothing to do with matrix inversion or complex numbers of whatsoever advanced functions in ROM but with the *RAM memory* needed to perform them.

To invert an 8x8 matrix requires 64 data storage registers (variables, memories, whatever). The 33S, which you point out it's the better choice "*simply because it has more memory*", for all its whopping "32 Kb RAM" has *only* but 27 named data storage registers, plus a handful more for statistics. That is *half* as much as the HP-15C.

And as any surveyor will tell you, the more data points you can store and process, the better. There are surveying applications you could run on an HP-15C which you'd *never* be able to run on a 33S, with its meager A-Z plus "I" variables. That is, unless you resort to the tried-and-true, hi-tech method of writing some numbers down, then re-keying them in when needed. On an HP-15C you can program a 119-step routine, yet still have 50 registers available for the data.

And please, surveying is but an example, as matrix inversion was. The same applies to many other disciplines, because it's not about surveying or inverting matrices, but pure and simply RAM usability. Having 32 Kb (or 120 Gb for that matter) will do you little good if you can't use them for such essential purposes as allocating 40 or 50 data storage variables.

Got the point now ?

Thanks for the interesting discussion and

Best regards from V.

[Edited for typos]

*Edited: 14 June 2004, 10:12 a.m.*

### **Re: "Way better": Are you sure, Norris ?**

Message #27 Posted by [Norris](#) on 14 June 2004, 7:10 p.m.,  
in response to message #26 by Valentin Albillo

Yes, I get your point. To prove it, I will reiterate your point: the 15C has more data registers than the 33S. This is obviously valuable for applications that use many variables, such as (but not limited to) large matrices. For such purposes, the 15C is clearly superior. The 15C is also much more elegant, and is in nearly all respects a more impressive design.

Now I will reiterate my point: the 33S has much more memory available for relatively simple programs and equations. For most 21st Century calculator buyers, the ability of the 33S to store a large number of simple programs and equations is more valuable than the ability of the 15C to manipulate large numbers of variables.

Why? Because most people don't use calculators to manipulate large numbers of variables anymore -- they use computers for that. So what do they use calculators for? They use them on exams (college and professional) where computers aren't available.

Let's consider surveying again. For field surveying purposes, the 15C and 33S are both useless; neither model has enough storage registers and neither has any means of data output. However, the 33S is better for surveying exams (college, FLS, PLS), because it can store and solve far more of the many equations that surveyors need to use during such exams. For example, the commercial "Survey Stakeout" software for the 33S that I mentioned is intended for exam use.

Summary:

The 15C is an elegant, technically impressive calculator that can be used to manipulate large numbers of variables. Unfortunately, this ability is no longer valuable to most people, because they prefer to use computers for such work.

The 33S is an ugly, poorly designed calculator that can store large numbers of relatively simple equations and programs. This ability is of value to many people, because it is helpful in exam situations, where computers cannot compete.

So the 33S, while a generally less impressive design than the 15C, is the better calculator for the 21st Century market.

**Re: That's unfair, Valentin**

Message #28 Posted by **Raymond Del Tondo** on 10 June 2004, 4:10 p.m.,  
in response to message #12 by Gene

Hi,

Gene wrote (humoristic) : "This is a 32SII clone"

IMHO the 33S isn't a 32SII clone. Maybe it would get nearer to a clone if the 33S had the 32SII keyboard layout \*and\* quality/reliability. Ok, the 33S OS mimics the 32SII user interface and functionality, but that's not all to count in for a clone...

Raymond

**Re: That's unfair, Valentin**

Message #29 Posted by **Gene** on 10 June 2004, 4:11 p.m.,  
in response to message #28 by Raymond Del Tondo

Ok, how about "intended replacement product" rather than clone? :-)

Gene

**Re: That's unfair, Valentin**

Message #30 Posted by **Raymond Del Tondo** on 11 June 2004, 10:22 a.m.,

in response to message #29 by Gene

MUCH better:-)))

Raymond

## You sure, Gene ?

Message #31 Posted by [Valentin Albillo](#) on 11 June 2004, 5:25 a.m.,  
in response to message #12 by Gene

Hi, Gene ! :-)

Gene, don't get angry with me ! An opinion is never "unfair", everyone of us has his/her own tastes ("horses for courses", as they say), and most specially if there are *plausible* reasons to substantiate it. Let's answer your points:

*"The objective appears to have been, quite reasonably, IMO, to do so as easily/quickly as possible"*

I can't speak for you, but I didn't buy HP calcs because they were produced by HP as "easily/quickly" as possible, but because they were produced at the highest possible quality. The "easily/quickly as possible" motto may be great for HP but their customers of old couldn't care less. That's an HP issue, not a customer issue. The mottos who made us all devoted HP fans were "the highest quality", "state-of-the-art", "cutting edge" and so on. Maybe some people will settle for "as easily/quickly as possible", and lower their expectations accordingly. Not me. I was drawn into HP for their "best quality in the whole world" and I'm too spoilt by now to settle for less. HP of old taught me to think so, and rightly so.

*"Regarding the memory issue...HP could have put in a 4K or 8K chip, but since the 32K chip was probably only pennies MORE, they dropped it in...after all, who knows what those enterprising HP users might make of extra room."*

You are experiencing a case of self-delusion if you really believe that thought crossed HP minds. There are only two reasons why HP decided to put in the 32 Kb chip. The first and foremost is because it's *\*cheaper\** than 4K or 8K. Those are actually harder to get in quantity, because manufacturers find it easier to produce and sell the larger chip.

Just for instance, this same week my company needed to get hold of a number of 4.2 Gb hard disks to honor a maintenance contract. The disks must be that exact size because of an automated replication process. Guess what ? They are nearly impossible to get, everyone is offering 120 Gb HD and the like. And the very few we found were *\*more expensive\** than brand-new 120 Gb HD !!!

So don't indulge in HP kindly fitting the 32 Kb chip because "who knows what those enterprising HP users might make of extra room". C'mon ! You're an adult ! Current HP doesn't entertain those blissful thoughts for a moment !!

As for the second reason, plain and simple: marketing. "Let's fool our customers into thinking they're getting 32 Kb for their money. They can't sue us because indeed the machine does have 32 Kb RAM. And nowhere did we put in writing that they would be able to actually use it as they rightly expected to."

*"Say this a few dozen times over and over... "This is a 32SII clone" "*

Aw ! So you think that repeating something a large number of times, mantra-like, makes it truer ?? Fascinating ! ...

*"I do agree it is DIFFICULT to use the 32K of ram, but that doesn't mean you can't do it...you just have to learn a new way to program."*

Fascinating again ! HP will really make a bunch of followers this time. A new way to program, RPL wasn't good enough after all. They've improved on it. Let's see this superb, amazing paradigm of structured programming:

*"Everything you thought you knew about writing programs before the 33S must be relearned."*

Good. After spaghetti BASIC programming we had to learn structured, GOTO-less programming, which was better, then object-oriented programming, which also was an improvement. Re-learning is good, it will shape our programming minds for the better. Let's see:

*"1) GOTO branching? Nope. Set a flag and continually test the status of the flag in a long string of steps to take."*

Uh ?!

*"2) Efficiency? Why do that? Just repeat code segments - never do subroutines."*

Double-Uh ??!

And you want me to take this seriously ? Not only do I get a freakish, grotesque, misshapen, garish-colored calculator whose keyboard will do nothing for my fingers, whose size will do nothing for my pocket, whose display will do nothing for my eyes, whose very style will do nothing (good) for my reputation, but it will also *\*completely ruin\** my hard-earned good-programming habits ?!?!?!?

That's what HP is promoting now ? The *worst* programming style possible ? That's what you want your children to *learn* ??

Come to think of it, it should be *forbidden*. Maybe someone can sue HP for *ruining* their children's programming education and make a little fortune. It's a dead ringer, you'll make millions !! :-)

Best regards from V.

[Edited just in order to correct a few typos]

*Edited: 11 June 2004, 6:30 a.m. after one or more responses were posted*

### **Re: You sure, Gene ?**

*Message #32 Posted by . on 11 June 2004, 6:02 a.m.,  
in response to message #31 by Valentin Albillo*

--- "Regarding the memory issue...HP could have put in a 4K or 8K chip, but since the 32K chip was probably only pennies MORE, they dropped it in...after all, who knows what those enterprising HP users might make of extra room."

You are experiencing a case of self-delusion if you really believe that thought crossed HP minds. There are only two reasons why HP decided to put in the 32 Kb chip. The first and foremost is because it's *\*cheaper\** than 4K or 8K. Those are actually harder to get in quantity, because manufacturers find it easier to produce and sell the larger chip.

---

Well, HP would have just bought the larger chip and kept the firmware the same if price was of the essence. They changed it so you can use 32kb, just not very easily with programs.

How much would a 15c cost in today's dollars when it was new?

### Re: You sure, Gene ?

Message #33 Posted by [Richard Garner](#) on 11 June 2004, 10:42 a.m.,  
in response to message #31 by Valentin Albillo

The problem with programming goes back further than what HP is doing now. It goes back to Mr. Bill and the Kingdom of Gates. If Microsoft had adhered to the the programmers code to keep the program code clean and compacted, Windows would only be about a third for its current size, run 10 times faster and have few if any security problems. The marketing mentality of, we must have a new product on the shelf every 12 months or less overshadows the keep it clean and compact concept. It has become a copy and past world when it comes to programming. New programmers would rather copy a section of code two dozen times than set up a subroutine to go to each time they need it. RAM is cheap, hard drives are large & cheap, and processors are fast, so why bother. Programs I have created start out with a lot of spaghetti code, but when the program is running like I want it, I go back and clean up the code.

### Re: HP 33s - Dead or Alive?

Message #34 Posted by [martin cohen](#) on 14 June 2004, 12:27 a.m.,  
in response to message #11 by Valentin Albillo

How did you solve (or even enter) a 7x7 system of equations?

The only way I can think of doing this is to have the values in program code, not data memory. You might have a subroutine that is passed the indices and returns the values. This would be quite slow, though.

### Re: HP 33s - Dead or Alive?

Message #35 Posted by [Valentin Albillo](#) on 14 June 2004, 9:52 a.m.,  
in response to message #34 by martin cohen

Martin Cohen posted:

*"How did you solve (or even enter) a 7x7 system of equations? The only way I can think of doing this is to have the values in program code, not data memory"*

"There are more things in heaven and earth, Horatio, Than  
are dreamt of in your philosophy" [from Hamlet (I, v, 166-167)] :-)

Now, seriously, there's no problem at all, nor any need to resort to such cumbersome methods. The program is straightforward, it wouldn't run on the HP32S/32SII just because after entering the program no memory whatsoever was left for data, at all. The program itself took most of the 384 bytes available.



No such problem in the case of the 33S, after keying in the program you're still left with enough RAM for all 27 variables plus statistics.

Best regards from V.

### Re: 7x7 system on the 33s

Message #36 Posted by [martin cohen](#) on 18 June 2004, 2:17 a.m.,  
in response to message #35 by Valentin Albillo

A general 7x7 system has  $49+7=56$  elements. A symmetric 7x7 system has  $7*8/2 + 7 = 35$  elements. How did you get 27?

### Re: 7x7 system on the 33s

Message #37 Posted by [Valentin Albillo](#) on 18 June 2004, 4:28 a.m.,  
in response to message #36 by martin cohen

Hi, Martin:

Martin posted:

*"A general 7x7 system has  $49+7=56$  elements. A symmetric 7x7 system has  $7*8/2 + 7 = 35$  elements. How did you get 27? "*

27 what ? When I said ...

*"No such problem in the case of the 33S, after keying in the program you're still left with enough RAM for all 27 variables plus statistics. "*

... I was obviously referring to the fact that the 32S, 32SII, and 33S, all saddle you with just 27 named variables, namely A to Z plus "I" for indirection. That makes a total of 27, and that's the 27 I was talking about. What about your "27" ?

Best regards from V.

*Edited: 18 June 2004, 4:31 a.m.*

### Re: 7x7 system on the 33s

Message #38 Posted by [martin cohen](#) on 18 June 2004, 2:21 p.m.,  
in response to message #37 by Valentin Albillo

You said:

<<< One of the tests I made was to solve a 7x7 system of linear equations. It runs fine in the 33S while it wouldn't on the 32S because of its extremely limited RAM, roughly 1/3rd the HP-15C's RAM. But that's just about it. Though 32 Kb would allow you to solve up to 50x50 systems, you just can't because noone at HP gave a damn for your convenience. Why would you care for this product, then ? >>>

How did you do this? How did you store the coefficients? How did you solve the equations?

**Re: 7x7 system on the 33s**

Message #39 Posted by [Valentin Albillo](#) on 19 June 2004, 9:10 p.m.,  
in response to message #38 by martin cohen

There's no mystery in this, Martin, just plain performing the usual diagonalization and back substitution algorithm (Gauss), that's all. I can't see why you consider it so interesting, unless you don't know a thing about that ultra-well known algorithm and think that some kind of fancy matrix inversion or solution by determinants or the like are needed. Please consult any primer book on numerical methods.

I have no HP33S right now (nor will I ever buy that crap, rest assured) but if (and when) I can borrow one, I'll re-translate the program for it on the fly (as I did last time, when testing the machine), record the exact program steps in 33S notation, with checksums and lengths and all, and post the resulting program here, with some examples. Right now I do not have the machine to do this and frankly, not much interest either.

Best regards from V.

**Re: 7x7 system on the 33s**

Message #40 Posted by [martin cohen](#) on 20 June 2004, 1:40 a.m.,  
in response to message #39 by Valentin Albillo

This is getting tiresome. You avoid answering my questions.

Please answer just this one:

How do you store the coefficients of a 7x7 linear system of equations on the 33s?

**Re: 7x7 system on the 33s**

Message #41 Posted by [bill platt](#) on 21 June 2004, 5:16 p.m.,  
in response to message #39 by Valentin Albillo

Hi Valentin,

I am *\*really\** rusty (and wasn't highly proficient to begin with) with matrices.

And I am interested in how you carried out this business.

I might mention that your quizzes and postings, often involving matrices, have, though puzzling, tended to provide impetus for me to finally master them. (I have in fact started to look over some of my books---but there is only so much time....).

The problem is that when I do (and this is fairly often) find myself with a simultaneous system of equations, I just go after it by hand (usually just 2 variables). I do remember very much enjoying, and being good at, "synthetic substitution" back in 9th grade [over 20 years ago!]...and I saw in one of

my books that the matrix approach to linear systems is in fact not far removed from that approach. So I know there is hope yet...and I know that it would help immensely for making progress towards transition to using Finite Element Methods (I daresay matrix algebra becomes essential then)....

The interesting thing is that when I was in college, matrix algebra was not in the early courses for some reason. And I never took it later on. As I progressed in my field to becoming an engineer, I never felt any need to know matrix math---everything I do is possible without matrices--and my field is so large and wide ranging that there is no possible way to know everything--you give up something when you take something else.....it seems like one of those tools which is only essential once you know it (except of course fEM which is a subspecialty anyway).

At any rate, please take no offense--if you have the time, I would be very grateful for the answer. But I understand if you do not answer---as you are bound to be working on something else of even greater merit for all of us.

Best regards,

Bill

*Edited: 21 June 2004, 5:22 p.m.*

### **Re: 7x7 system on the 33s**

*Message #42 Posted by [Valentin Albillo](#) on 22 June 2004, 5:28 a.m.,  
in response to message #41 by bill platt*

Hi, Bill:

Bill posted:

*"I might mention that your quizzes and postings, often involving matrices, have, though puzzling, tended to provide impetus for me to fianlly master them. (I have in fact started to look over some of my books---but there is only so muich time....)."*

You tell me ! :-) My Number One problem is time. Even sleeping just 4 hours or less a day, I still don't get even 10% of the time I need to do the things I want to do. So priorities must be stablished, regrettably. Anyway, I'm truly glad if my postings are useful for other like-minded people like you to get interested in such enjoyable (and useful!) matters.

*"As I progressed in my field to becoming an engineer, I never felt any need to know matrix math---everything I do is possible without matrices--"*

I, on the other hand, have used them extensively in a number of engineering and architectural tasks, where they were mandatory for exact mathematical solutions (instead of 19th-century 'approximations', intended for manual computation).

*"At any rate, please take no offense"*

For what !? None taken, certainly. Perhaps this is a 'challenge' you're issuing on me, to try and find out what's the offending paragraph in your posting ... :-|

*"--if you have the time, I would be very grateful for the answer."*

As stated, time is always a problem, but in this particular case the real problem is I do not have an HP33S at hand, don't own one and don't intend to [really, can you imagine me, a man who has seen with his very eyes an HP-25, HP-67, HP-41 and HP-15C brand-new at the store, the very day they were released, that has had them in his hands, that was enthralled by their absolutely-new-top-quality \*smell\*, buying and owning that ungodly KinHPo crap !? Please ... :-)].

That being so, it can take a while till I finally get one to enter, double-check and record the actual program steps, but as soon as I am able and get the time, you'll see the listing posted here, with a couple examples for good.

Of course, if you're in such a hurry to see the program, just send me an HP33S free of charge and you'll have the listing within two days. After that, I'll get rid of the monstrosity as fast as I can, rest assured. I don't want it to contaminate my valuable HP & SHARP collection. :-)

Best regards from V.

### **Re: 7x7 system on the 33s**

*Message #43 Posted by [martin cohen](#) on 22 June 2004, 1:07 p.m.,  
in response to message #42 by Valentin Albillo*

Oh come on - I think you are trolling.

Just tell us approximately how you would store the coefficients of a 7x7 linear system of equations on the HP-33s. The code does not have to be perfect - a rough idea would be fine.

You do not need a 33s to do this.

### **HP33S 7x7 systems: I've had enough**

*Message #44 Posted by [Valentin Albillo](#) on 22 June 2004, 1:22 p.m.,  
in response to message #43 by martin cohen*

Martin posted:

*"This is getting tiresome. You avoid answering my questions."*

and further

*"Oh come on - I think you are trolling."*

This is getting tiresome, indeed. And further, I don't like your attitude, at all. Your wording seems to imply a deliberate attempt on my part to avoid giving you some answers or even that I am pretending to have achieved something I actually haven't. Enough.

First of all, I'm under *no obligation whatsoever* to answer your questions or anyone else's for that matter, so a little *netiquette* on your part would be most appropriate. As for answering your questions, I've done that a number of times, and you don't see to understand my answers (see your "27" question earlier in this thread).

Second, if I say I've done something, I've done it. Period. I don't need to prove my skills great or small to you or to anybody else. If you think I'm "trolling" that's your problem, I have nothing to prove, least of all to you.

Also, I didn't start this thread, nor was I interested in discussing 7x7 systems on the 33S or any other calc for that matter. I just posted a reply re the 33S's quality (or lack thereof), in which I mentioned a simple, system-solving test I ran on it, out of curiosity. You then got completely out of the original thread's topic and began asking question after question about that particular test, oblivious to the fact that I've clearly stated that I do *not* own this machine and thus I *can't* write down that program right now, even if I wanted.

I've offered to do it so in a near future, mainly because of your insistence, though I'm not interested at all in 33S programming. Yet you still insist with question after question, as if it were my duty and obligation to satisfy your requests, completely disregarding my statements of not being able to, right now, or if I actually have the time or want to.

How do I store the coefficients of a 7x7 linear system of equations on the 33s ? Using the "I" register for indirect addressing (STO+ "I", RCL- "I"), row after row, beginning with the first equation, in a simple loop, that's how ! What could be easier ?? Is there any other way of doing it, bar using non-indirect register addressing (STO+ A, RCL- J), unless resorting to your "data-as-program-steps" technique !?

Anyway, if you still can't figure out how to do it and want the *exact* program I used, you'll have to wait till I get a 33S and find the time and the mood to enter and write it down. In the meantime, there surely must be a lot of people in this forum that will oblige and provide you with any necessary details. I'm just about tired of this sub-thread I was dragged into, and here it ends for me.

Best regards from V.

### HP33S 7x7 systems: I've had enough

Message #45 Posted by [Veli-Pekka Nousiainen](#) on 22 June 2004, 3:04 p.m.,  
in response to message #44 by Valentin Albillo

since a 7\*7 system needs 49 register plus a possible index  
this is simply not possible with the absolutely maximum 27 registers (A..Z + i) of the hp 33s calculator.  
(VPN)

### Re: HP33S 7x7 systems: I've had enough

Message #46 Posted by [martin cohen](#) on 22 June 2004, 4:37 p.m.,  
in response to message #45 by Veli-Pekka Nousiainen

Exactly my thought!

Beside, the i register would get stepped on when (i) is 27 (see page 13-21 of the 33s manual).

He may have been misled by the fact that indices (in i) can be from -33 to 33 (excluding 0). However, the sign is ignored, so that +10 and -10 in i both make (i) refer to J.

A way of storing a read-only array would be to have code such as this:

You pass the desired index in the x reg, do XEQ A. If  $x \neq 0$  upon return, the index was not found. If  $x=0$ , then do Rv (rotate down) to get the value.

LBL A

value1  $x \langle \rangle y$  1 -  $x=0?$  rtn

value2  $x \langle \rangle y$  1 -  $x=0?$  rtn

...

valuen  $x \langle \rangle y$  1 -  $x=0?$  rtn

rtn

A little more work (left as an exercise) would have to be done if the index could be any value (essentially implementing a MAP function).

### Re: 7x7 systems and non-verified assumptions

Message #47 Posted by [Andrés C. Rodríguez \(Argentina\)](#) on 22 June 2004, 5:52 p.m.,  
in response to message #46 by martin cohen

First of all: While I learned matrix algebra and operations as part of my EE curriculum (that was about 25 years ago), it would be a big mistake to consider myself a current expert on the subject. My apologies.

Valentín showed many times his impressive command in mathematics and calculator programming; so I would not doubt he is able to do what he says. Of course, as a  $7 \times 7$  matrix has  $7^2=49$  elements, it is fairly obvious that a calculator with less than 49 registers cannot handle all the elements of any (...Who said ANY?)  $7 \times 7$  Real (in the mathematical sense) matrix ... AT THE SAME TIME.

1) If the coefficients can be converted to integers in the range  $[-49999, +49999]$ , a simple technique can be used to store two values in a single register, with a packing/unpacking routine using the integer and fractional parts as independent values, and an offset routine to care for negative values.

2) If the matrix can be diagonalized (a task I'm not prepared to teach, for sure!), it would have only 28 non-zero elements, a number not impossible to handle on a 33S. The program may be cumbersome, but there will be plenty of RAM for the many unelegant steps needed to move contents here and there, and to skip the non-regularities of indirect addressing.

3) I vaguely remember a program I developed for my HP41 in 1980, to solve linear equations for the Simplex optimization method. While I cannot give any details, I think I used a pivoting technique to work with a part of the matrix at a time, and later with other columns and rows; so not all the values were in memory all the time.

A weak conclusion:

IF the matrix has integer coefficients in a [-49999, +49999] range (it may be enough if its coefficients could be mapped in such range by means of linear transformations),

OR, IF the matrix can be diagonalized (perhaps as part of a preprocessing routine at data entry time),

OR, IF data is to be entered not just at program start, but in certain pauses during program execution,

THEN it MAY be possible to invert such matrix on a 33S

While I cannot offer any details on how to do it; I would like just to suggest that it may be not as impossible as it seems at first sight.

### In Stock at HP SMB (was: HP 33s - Dead or Alive?)

Message #48 Posted by [Jeff](#) on 10 June 2004, 12:26 p.m.,  
in response to message #1 by Philbert

A so-called English/Canadian/French version, which apparently includes English and French Canadian operators' manual seems to be in stock and available from [HP SMB](#). Click on "Shop for calculators at HP's SMB Store", then scroll down to the "HP 33s scientific calculator (Eng/Can/French)" item. (I tried to link directly to the product, but the link did not seem to want to work.)

### Re: HP 33s - Dead or Alive?

Message #49 Posted by [Eddie Shore](#) on 10 June 2004, 1:00 p.m.,  
in response to message #1 by Philbert

Try Fry's Electronics. Fry's carries all of the current HP calculators. If not, maybe your university (either your alma mater or a school you cheer for) will have some in stock.

### Re: HP 33s - Dead or Alive? (why i bought/don't like...)

Message #50 Posted by [Bill Wiese](#) on 10 June 2004, 1:39 p.m.,  
in response to message #49 by Eddie Shore

I got mine at Fry's in Sunnyvale, CA for \$49, IIRC. At that price I bought it as a lark, had no real reason to do so - but it came out of my 'toy' budget (guns, gadgets, electronics...) so there's no real harm done.

It'd be quite attractive at first blush without the chevron keyboard layout. I don't care for the chevron layout but it doesn't affect use that much. But for me usage without a large ENTER key above the numeric area is a real weakness; all RPN calcs should have ENTER, CHS, EEX, <-/CLx keys above the numeric area, and Rdn should be nearby too.

Only later did I note I had to hunt for the small decimal point. The LCD could use some more contrast too...

I have not (nor would I ever) use the algebraic mode. And I don't do programming on 32S... 41C/42S if I need to whip up some specialty calculations...

Bill Wiese  
San Jose CA USA

### Re: HP 33s - Dead or Alive?

Message #51 Posted by [Charlie O.](#) on 10 June 2004, 4:20 p.m.,  
in response to message #1 by Philbert

Phoenix Fry's Electronics has it in for \$50 as well as the 17bii, 12c, 12cp, 48gii, 49g+, 9s.

### Re: Fry's

Message #52 Posted by [Eddie Shore](#) on 11 June 2004, 1:20 a.m.,  
in response to message #51 by Charlie O.

And sometimes older calcs on clearance. I found the HP20 and HP19BII (bought only the 20) at the Anaheim (CA) Fry's.

### Re: HP 33s - Dead or Alive?

Message #53 Posted by [Vieira, Luiz C. \(Brazil\)](#) on 11 June 2004, 1:40 a.m.,  
in response to message #1 by Philbert

Hi, all;

I see that most guys, many good friends here are upset with the HP33S.

I remember that since I got the chance to put my hands on my first HP calculators (I was lucky having an HP41C) I thought that having the "top" ones was always the best choice. At that time I was not able to go for financial calculators at the same time I was going for scientific ones.

After some time (about four to five years) I had an HP15C, an HP16C, an HP41CX, an HP41CV, an HP28S, an HP48SX and an HP42S. I remember I used to develop programs for the HP11C, the HP41C/CV and the HP42S. Once I was asked to write programs for the HP28S and two times for the HP48. And I remember seeing some guys using the HP20S, the HP32S, the HP27S and other financial ones, mostly the HP12C, the HP18C (I saw one) and a few others. I remember feeling curious about the HP32S at the time it was introduced, along with the HP22S, but I was so interested on having an HP42S that I did not actually pay enough attention to them. I see now that they have their merit.

Some weeks ago (present days) I had the chance to put my hands in my HP33S. I use HP calculators since 1982, and I know others in here are in contact with them since longer than that, so I am no specific "expert". I saw some deficiencies, most if not all of them already mentioned here, but I also saw these characteristics:



-> controllable operation over fractions in a way I was not aware of; the HP48S/G allow us to control the fraction based on rounding operations, but the HP33S seems to be better. If you deal with inches, it's a must;

-> a "constants library" that allows the use of the constant reference (name, characters) in programs and in equations/functions; I see this as an extension of the use of PI, although PI is dimensionless and almost all others refer to some sort of unit (Yes, Neper's constant "e" is obtained with the sequence 1 [e<sup>x</sup>], but there is no specific key that returns its value directly without changing an existing value);

-> and I guess many of you will not agree with me, but I feel confused about one thing: if a calculator accepts equations and functions as input data, why not adding algebraic notation as one of its operating modes? And the HP33S actually does: Algebraic mode and function/equation input.

I'm completely fond to RPN, but I always try to understand Algebraic operation in any calculator I have that offers it. The first algebraic-only HP calculator I bought (and I guess the only one I have so far) was the HP14B. I remember reading the manual from the first to the last page, trying all examples and mostly trying hard to understand how does LAST work in algebraic models. Now all of the calculators I recently acquired are "hybrid", i.e., Algebraic/RPN selectable. And I want to understand how and use them in both Algebraic and RPN modes. I remember that I wrote programs for the HP48 that had extensive use of expressions. The first version was RPN only, and it took me a while to find the last cause of a final computing error. So I decided to write it differently: I used the expressions as they were, so all stack manipulations for loops and input/output data were kept. It ran without errors in the first attempt. And if it had problems, I guess it would be easier to find them because I'd not need to follow each step and rebuild the expressions in order to find the errors.

Back to the HP33S: it's not an HP-like calculator (related to the old timers), it has not the key-feeling, I'd particularly choose a different layout, I'm not confident with the key labeling (every time I pull it out or push it in the protective case, I force the case sides a bit so the front face slightly "bends out" and the keys to not rub it) but I do not regret buying it. And I hope it lasts long enough I can give it my daughter or to my grandchildren so they can collect it as an item.

Sorry writing too much.

Cheers.

Luiz (Brazil)

*Edited: 11 June 2004, 1:44 a.m.*

## Re: HP 33s - Dead or Alive?

*Message #54 Posted by **Ed Look** on 12 June 2004, 1:00 a.m.,  
in response to message #53 by Vieira, Luiz C. (Brazil)*

Luiz, that was a very balanced view.

In fact, I have ordered a 33S myself, with the view to using it as a calculator that I can toss in my briefcase, yet having that delightful power and relative ease of use of a 32SII, which I will not let leave my house.

I have tried to use my 48G as a "programmable 4-banger" that I can throw in my briefcase, and found that for some things, all that extra jazz like a constants library, open ended stack, powerful programmability, multiline display, and even the much-maligned "only" 32K RAM was quite handy.

But other times, it was too clumsy to use, owing to its relatively large form factor and relatedly expansive keyboard, for some quick calculations or very simple programming or in some places where a large calculator is inconvenient. But I'll never bring my 32SII in to work! And I so use the 48G only because I got through Randy Sloyer (fixthatcalc.com) a 48G+ that I can use and won't let leave my house. (I'm still figuring out how to effectively use the attractively mysterious but oh-so-powerful 49G+.)

So, I am hoping the 33S can complement the 48G for me at work. It is good to hear from you that you did not regret buying the 33S. I hope likewise for me; if so, I will carry both the 48G and 33S. Calculators of each of these types have their place and use.

And to be totally honest, I think from what I've read (or especially because of it) the 33S is a worthy piece for collection!

---

[ [Return to Index](#) | [Top of Index](#) ]



[Go back to the main exhibit hall](#)