

## HP Forum Archive 15

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### RPN or RPL

Message #1 Posted by [Joe Edwards](#) on 15 Feb 2006, 10:22 p.m.

I realize most folks here are probably more comfortable with RPN versus RPL (am I wrong?).

RPN seems so simple and the programming style for the 41/42 models seems rather easy to use - not to mention the 32 models and the voyager models as well.

RPL seems so much more, well MORE powerful, but at the same time has a much larger learning curve. I assume (incorrectly?) that RPL can do much more (my programming skills are very much at the novice level) than RPN.

My question is this: what niche does the RPL programming language fit, especially nowadays with the 49g+. With so many more powerful handheld devices, is the RPL in the 49 series just a left-over concept that just works well to power the 49g?

Overall, I just don't see much of a use when compared to a simple RPN calculator. I assume I am not seeing the forest due to all the trees!

Anyone care to enlighten a simple "grasshopper"???

Joe

### Re: RPN or RPL

Message #2 Posted by [Vassilis Prevelakis](#) on 15 Feb 2006, 11:01 p.m.,  
in response to message #1 by Joe Edwards

The french say that "better" is the enemy of "good".

This is my opinion of RPL. HP took a system that was easy to use/efficient and ruined it.

I agree fully with the statement that RPL is elegant. It is also more complete with fewer exceptions and strange rules (cf discussion on raising the stack which usually takes 1 to 2 pages at the end of every RPN calculator manual).

But is elegant better? In the case of RPN vs RPL my opinion is that it is not. Take a simple job where you want to carry out a bunch of calculations and keep an audit trail. On the HP-97 this is trivial, just switch the printer from MAN to NORM. On the HP-41 ditto. Try the same on the HP28 or later. You have to write a program to do this.

Consider programming. On the HP-41 you just switch to PRGM mode and press the same keystrokes that you would when solving the same problem manually. On the HP-28C or the HP48GX you have to deal with that horrible object editor.

But I won't bore you with any more arguments. I just do not like it.

BTW for a great discussion for and against RPL check the first issue of the HPX Exchange (Jan/Feb 1987 V1N1). Pages 5-9 Bill Wickes presents the then new HP28C, and pages 9-13 has an article called "The HP28C A wonder that wasn't" by Harry Beruccelli.

The scans for this magazine are available from Jake Schwartz's CDROM and may be available from TOS.

\*\*vp

### Re: RPN or RPL

Message #3 Posted by [Andreas Terzis](#) on 15 Feb 2006, 11:28 p.m.,  
in response to message #2 by Vassilis Prevelakis

Vassili, I couldn't agree with you more. And with all the latest postings on this, and similar subjects like a possible HP-43S, I don't feel so much of a dreamer. "Every past year was better" type of thing? Andreas Terzis

### Re: RPN or RPL

Message #4 Posted by [Joe Edwards](#) on 15 Feb 2006, 11:33 p.m.,  
in response to message #2 by Vassilis Prevelakis

Quote:

BTW for a great discussion for and against RPL check the first issue of the HPX Exchange (Jan/Feb 1987 V1N1). Pages 5-9 Bill Wickes presents the then new HP28C, and pages 9-13 has an article called "The HP28C A wonder that wasn't" by Harry Beruccelli.

The scans for this magazine are available from Jake Schwartz's CDROM and may be available from TOS.

\*\*vp

Is this the CDROM sold on this website? If not, where would I find Jake Schwartz's CD. I don't know what TOS is either.

You have confirmed how I feel about RPN. I have tried doing the same thing with a 41 and a 49g and it seems so much more complicated for someone as simple as myself. :)

I am still unsure of where RPL fits in these days, other than as an "OS" to run the 49g+/48gII. It really seems that HP would be better off with a 43s model versus trying to compete with TI. A 43s would be a wonderfully useful calculator. The new 49g+ seems to be aimed more at the educational market as opposed to the market(s) that the 48 series was - engineers, scientists, surveyors, etc.

### TOS

Message #5 Posted by [Klaus](#) on 16 Feb 2006, 2:47 a.m.,  
in response to message #4 by Joe Edwards

TOS is a homepage about the 41C and contains copyrighted material. Therefore its link should not be mentioned in this forum. On the simulation pages of this museum there is a link to <http://www.furlow.org/> and this will lead you to TOS

### Re: TOS

Message #6 Posted by [Joe Edwards](#) on 16 Feb 2006, 8:49 a.m.,  
in response to message #5 by Klaus

Thanks for the update. I will do some research regarding TOS. Have a good day.

Cheers.

Quote:

TOS is a homepage about the 41C and contains copyrighted material. Therefore its link should not be mentioned in this forum. On the simulation pages of this museum there is a link to <http://www.furlow.org/> and this will lead you to TOS

### Re: TOS

Message #7 Posted by [Eric Smith](#) on 20 Feb 2006, 2:53 a.m.,  
in response to message #5 by Klaus

Quote:

TOS is a homepage about the 41C and contains copyrighted material.

It contains copyrighted material that is there BY PERMISSION OF THE COPYRIGHT OWNERS. Yes, including HP. The gentleman who runs TOS is scrupulous about this.

If someone at HP asked Dave to disallow links to TOS from MoHPC, that's only because HP's left hand doesn't know what the right hand is doing (or has done), which is not too surprising given how big HP is.

### Re: TOS

Message #8 Posted by [Klaus](#) on 20 Feb 2006, 6:23 a.m.,  
in response to message #7 by Eric Smith

Hi Eric,

you are right, Warren states that he has permission and I have no reason to doubt his words. I will try to correct this in my original post.

(EDIT: Editing messages is not allowed as soon as there are responses to the message, so I can't correct it. Perhaps one of the moderators can correct or delete my original message?)

Greetings, Klaus

Edited: 20 Feb 2006, 6:26 a.m.

### Re: RPN or RPL

Message #9 Posted by [Vassilis Prevelakis](#) on 16 Feb 2006, 3:23 a.m.,  
in response to message #4 by Joe Edwards

Joe Edwards wrote:

> Is this the CDROM sold on this website? If not, where would I find  
> Jake Schwartz's CD.

come ON!!! Just type

Jake Schwartz CDROM

in google and click on the first entry.

\*\*vp

### Cut the hostilities

Message #10 Posted by **Joe Edwards** on 16 Feb 2006, 8:31 a.m.,  
in response to message #9 by Vassilis Prevelakis

How about you COME ON!!! I am trying to engage in conversation here, not play, screw you go google it. You realize it would be a great deal more polite to just answer a question versus playing games.

Maybe something along the lines of..."Oh, Jake Schwartz's CD is a compilation of information from the PPC (club) over the years. <Add in a neat historical comment>.

I was raised to be generally polite and show others consideration, how about you doing the same!

Joe

Quote:

Joe Edwards wrote:

> Is this the CDROM sold on this website? If not, where would I find  
> Jake Schwartz's CD.

come ON!!! Just type

Jake Schwartz CDROM

in google and click on the first entry.

\*\*vp

### About politeness

Message #11 Posted by **Karl Schneider** on 16 Feb 2006, 11:57 p.m.,  
in response to message #10 by Joe Edwards

Joe, I'm getting a bit tired of the increasingly-confrontational tenor characterizing some of your own recent posts. You have made many requests here recently for advice, guidance, information, and insights regarding HP calculators, but have rarely acknowledged those (including myself) who have taken considerable time and effort to respond. You have also dished out a fair amount of lecturing, scolding, and imperative statements, which is rather unseemly for someone who is a fairly new participant in the MoHPC Forum:

Quote:

We are interested in folks reasons for using the calcs, not bashing them due to their choice. Everyone has their own personal preferences. Let's leave them to enjoy those preferred machines.

Quote:

Why even ask if someone is trying to start a flame war? That question in itself is inflammatory. Just answer the guy's question and if he responds with a reasonable answer, or not at all, you have the answer to your question.

Quote:

How about you COME ON!!! I am trying to engage in conversation here, not play, screw you go google it. You realize it would be a great deal more polite to just answer a question versus playing games.

Frankly, Joe, it would have been much faster for you to do a search for "Jake Schwartz CD-ROM" (without quotes; include the hyphen) under Google, Yahoo, Altavista, etc., than for someone to track down the latest URL of Jake's site and paste it into a titled, clickable link for your convenience.

However, for the benefit of you and others who are interested, I have done exactly that. The search quickly led me to these locations on the first page of listings:

[CD-ROM at Jake Schwartz' home page, updated 05 Oct 2005](#)

[CD-ROM at Jake Schwartz' home page, updated 10 Feb 2006](#)

In closing, it takes a fair amount of effort to research, develop, edit, and proofread answers to the questions you and others present to us. It's not reasonable to expect a detailed, spoon-fed response to every query that is posed here. I'll add, though, that new enthusiasts for the fine HP calculators and other products of an earlier era are certainly welcome and needed -- I would surmise that the ones who care are mostly the ones who remember, which makes most of us over 40 years old...

Regards,

-- KS

*Edited: 17 Feb 2006, 1:57 a.m.*

### **Re: About politeness**

*Message #12 Posted by [Joe Edwards](#) on 17 Feb 2006, 4:19 p.m.,  
in response to message #11 by [Karl Schneider](#)*

Karl, 1. I have thanked folks for their insight. I am sorry you are upset that I didn't thank you personally. Therefore, Karl, thank you for all your help in the past regarding my questions.

2. It seems that I have misunderstood the concept of this forum. I was under the (mistaken) impression that this was a place where folks could ask for advice, etc. regarding the HP calculator topics. I guess this forum is more of a place for those who are already well-versed in HP calculator lore (and/or have lived through the actual HP age) to share ideas. Since I fall into neither of these categories, I will refrain from requesting information from those who visit this site since I have only been visiting the MoHPC forum since 2003.

3. Since my status here is "newbie" it seems I don't have the right to make my opinion known regarding other's confrontational comments. My apologies for speaking up and acting in the manner of a moderator.

4. Frankly Karl, while I did admit to a lack of knowledge regarding the TOS and the Schwartz CD it wasn't my intention to ask someone to track down the info and post hyperlinks. I was merely engaging in conversation. It seems that I mistook the forum as a place to converse (see point above) with other like-minded individuals.

Your points are well taken.

Quote:

Joe, I'm getting a bit tired of the increasingly-confrontational tenor characterizing some of your own recent posts. You have made many requests here recently for advice, guidance, information, and insights regarding HP calculators, but have rarely acknowledged those (including myself) who have taken considerable time and effort to respond. You have also dished out a fair amount of lecturing, scolding, and imperative statements, which is rather unseemly for someone who is a fairly new participant in the MoHPC Forum:

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Regards,

-- KS

### **Re: RPN or RPL**

*Message #13 Posted by [Valentin Albillo](#) on 16 Feb 2006, 4:46 a.m.,  
in response to message #1 by [Joe Edwards](#)*

Hi, Joe:

Though this isn't an answer to your exact question, let me quote a relevant post from 2001:

*"And here's what I think about RPL versus RPN: All classic machines, such as the wonderful 15C, 41C and 42S, had a simple but powerful and elegant RPN keystroke programming language, with an efficient 4-level-plus-LAST-X stack, which was easy to understand and easy to visualize while programming. They also had some simple looping controls (decrement and increment), storage arithmetic and indirection, and a fairly useful, uncomplicated filesystem.*

*Now, they've been 'replaced' by these new machines using RPL, which is kinda some "FORTH-with-dressing", which only transforms the intuitive and simple RPN programming paradigm into something so arcane and complicated that matter of fact, a lot of people desist from writing programs in that 'language' not to mention trying to understand them.*

*You need several yellow-pages-sized 'advanced' manuals just to try and grasp the basics and fundamentals of their programming style, the thousands of whimsical functions and their complicated syntax and expected parameters, to the point where you can do almost nothing without such a manual or hefty guide always at hand.*

*Tha sad truth is that the extremely simple, useful and elegant RPN paradigm has been 'improved' to utterly preposterous extremes. The typical RPL program is a nearly unfathomable mess where you actually need paper (lots) and a pen plus the advanced manuals, just to attempt to understand what it's going on. It's kinda some 'obfuscated C' contest, if you know what I mean.*

*Not to mention its efficiency, or lack of it. Where you could do wonders in RPN on a 41C in just 224 bytes, you'll find yourself using more and more kilobytes for the simplest programs. So what ? After all, those RPL machines do have hundreds of Kbytes, even a Mb or two, so who cares anymore for elegant, efficient programming ?*

*[...]*

*To summarize, **RPL is RPN's "Peter's Principle" come true: It's RPN raised to its saddest level of incompetence.** And like it or not, there it will remain forever, no turning back."*

There's also this other post on the subject:

*"Back then we were waiting for the dream HP calculator for everyone, kinda a super-HP42, i.e., full compatibility with the 41C and all its peripherals, full I/O, large screen (>= 4 lines), menus, named variables plus registers, matrix operations, complex math, much better alpha capability, much faster, more RAM, the works !*

*Should that have happened, we all would've been in paradise, and would still be there, 20 years later. RPN would've had a natural expansion, users would have had a natural grow path for their skills.*

*What did HP release instead ? The HP-28S ... and RPL, thus creating a schism among loyal HP users that still persists. But we HP lovers were a very tiny minority among people using calculators at the time, what with us having to defend and proselitize RPN, and the \*last\* thing we needed was a schism among us, much less something that literally required to throw all our carefully developed programming skills and start anew, back to square one. RPN was already too cryptic for the average non-HP users, RPL made it absolutely obfuscated for everyone. While you had a chance to convince some people of RPN's value in normal use and programming, no non-HP users would ever touch RPL with a ten feet pole, or be convinced of its alleged advantages, and many HP users of old thought along the same lines.*

*The result is, RPN never properly developed an upgrade path, the 42S was dismayingly handicapped, and we got extremely complex, very large, graphing calculators that many of us neither needed nor wanted. Effort, time, and money who could've been spent in RPN were instead focused on the new models. A truly golden opportunity for RPN was absolutely wasted because someone at HP just happened to have other ideas in mind, and practically \*killed\* RPN from then on."*

I might add now a lot of things related to program editing, traceability, debugging, inconsistent and incoherent program structures, inefficiency, etc, etc. but it's no use, 'nuff said.

Best regards from V.

*Note: Edited for a typo*

*Edited: 16 Feb 2006, 5:39 a.m.*

### **HP 49g+ just purchased**

*Message #14 Posted by [Joe Edwards](#) on 16 Feb 2006, 8:32 a.m.,  
in response to message #13 by [Valentin Albillo](#)*

V, Thanks for the ever interesting information. Was HP still a company focusing on engineers, etc. back in the mid/late 80's when RPL was introduced?

At this point, does anyone today really care about what "OS" their graphing calculator runs? It seems few folks at my university would care if they ran embedded linux or whatnot, as long as they can display a graph of a function, or perform other higher maths. While I have played with RPL on my 49g+, it seems to be just as useful without ever really touching the programming aspect of the machine. HP could have hidden the RPL away like on the first machine (18??) and very few folks would really care, I feel IMHO.

Joe

*Edited: 16 Feb 2006, 8:45 a.m.*

**Re: HP 49g+ just purchased**

Message #15 Posted by **Maximilian Hohmann** on 16 Feb 2006, 9:16 a.m.,  
in response to message #14 by Joe Edwards

Hello!

Quote:

1. Was HP still a company focusing on engineers, etc. back in the mid/late 80's when RPL was introduced?
2. At this point, does anyone today really care about what "OS" their graphing calculator runs?

1. Certainly not, since no engineer can afford to use RPL at work! We (I am one myself) get paid for doing our job quickly and efficiently which is simply not possible using RPL. As a matter of fact, very few of the engineers I work with (mainly aerospace and IT) use pocket calculators at all. Excel (and programs like Mathematica for the more complicated stuff) has won the battle long ago.

2. The same as #1: In industrial/engineering environments no graphing calculators are used at all. The only graphing calculators I ever see at the office are used by our trainee students for playing games, but even in this role they quickly become phased out in favour of mobile phones...

Greetings, Max

**Re: HP 49g+ just purchased**

Message #16 Posted by **Valentin Albillo** on 16 Feb 2006, 9:26 a.m.,  
in response to message #14 by Joe Edwards

Hi again, Joe:

Joe posted:

*"V, Thanks for the ever interesting information."*

You're welcome. Glad you found it interesting.

*"Was HP still a company focusing on engineers, etc. back in the mid/late 80's when RPL was introduced?"*

I think HP was then on the verge of a major change (for the worse). On the one side, there were some of the best US engineers ever, assembled at Corvallis, who thought they were still designing the most powerful and state-of-the-art products for the worldwide best engineers out there. So far so good.

But on the other side, as yet unnoticed to them, there were some of the most cretin 'marketeers' and 'bean counters' in the whole US, the kind of people who will take any US company, no matter how great, and quickly reduce it to irrelevancy after getting their pockets full, who were moving fast to take full control of everything designed and produced at HP Corvallis Division, with sales and short-term profits as their main regard and next to perfect disregard for HP's traditional customer base, utmost quality, cutting-edge technology, in short 'the HP way'.

This wasn't that obvious to the people working there at the moment, but became painfully so the moment the 1st Saturn machine was developed and released, namely the HP-71B. Have a look at this revealing and heartfelt post by **Steven T. Abell, one of the HP-71B's 'fathers'** and see for yourself just how badly he felt with the whole experience. It was just the beginning of HP's unstoppable decline, which continues to this day but not for long ...

Best regards from V.

**HP's unstoppable decline? Measured by what?**

Message #17 Posted by **Gene** on 16 Feb 2006, 10:42 a.m.,  
in response to message #16 by Valentin Albillo

Not by stock price.

<http://money.cnn.com/quote/quote.html?pg=qu&sid=2385&symb=HPQ&time=all&uf=0>

Looking at this graph, there is an obvious spike around 1999/2000, but then, the market fell a good amount in 2001-2003 for a lot of companies.

The stock is still 4 times higher than it was in the mid-1980s. So since the beginning of HP's unstoppable decline, they have increased value to their shareholders by 400%. How dare they do that!

That's hardly running down the hill to oblivion.

And, with revenues this year estimated at nearly \$90 billion, that's a lot of sales.

HP may yet go under, but I would beware premature predictions of doom.

**Re: HP's unstoppable decline? Measured by what?**

Message #18 Posted by [Valentin Albillo](#) on 16 Feb 2006, 10:58 a.m.,  
in response to message #17 by Gene

Hi, Gene:

Gene posted:

*"Gene, one of those bean-counters"*

No you aren't, because I specifically addressed *"some of the most cretin 'marketeers' and 'bean counters' in the whole US"* and I do not think you fit that category, neither do you.

Please, Gene, no offence was meant, less of all to you. I do not think you are a "bean-counter" and even if you were, you certainly aren't like that. There are bean-counters and there are bean-counters and everyone knows which side they are on.

As for 'decline', if you really think that current HP, 400% increased value or not, can hold a candle to HP of the past, the one we knew and loved, then our views of the current state of affairs are far too apart for meaningful discussion.

Best regards from V.

**Re: HP's unstoppable decline? Measured by what?**

Message #19 Posted by [Gene](#) on 16 Feb 2006, 12:06 p.m.,  
in response to message #18 by Valentin Albillo

No problem on the bean-counter reference...I intended to make the point, which you echo'd that not all bean-counters are the same.

However, it is not obvious to me that a company's success is limited by not growing, by not expanding sales/profits, and catering to a limited market instead of changing to grow.

The company, as a corporation, exists to make money for shareholders. It is their fiduciary responsibility to do so.

A 400% increase in market value is good news for shareholders. That is the only measure of success.

Since sales are much, much larger than they were in the 1980s, obviously the buying public has not minded this change, nor have the owners, the shareholders.

The fact that some of us lament the loss of exquisitely made machinery does not mean that HP should have continued doing that, if the stock had only gone up 10% since the 1980s.

Basic point from Principles of Finance: The corporation exists to make money for the shareholders. Period.

But, that also means that you don't do that by sticking it to your customers, raping the environment, etc., because SUSTAINED profitability is what the goal is, not short-term profits.

And, a 400% increase over the last 20 years looks quite sustained to me.

**Re: HP's unstoppable decline? Measured by what?**

Message #20 Posted by [bill platt](#) on 16 Feb 2006, 12:26 p.m.,  
in response to message #19 by Gene

400% over 20 years is 7.2% per annum. That sucks, especially considering what the bond market did over the same period.

**Re: HP's unstoppable decline? Measured by what?**

Message #21 Posted by [Gene](#) on 16 Feb 2006, 1:09 p.m.,  
in response to message #20 by bill platt

Well, that 400% is an eyeball estimate of the stock price graph from money.cnn.com over the last 20 years.

It doesn't include dividends which would increase the return.

Over the last 10 years, HP's stock price is up right at the same amount as the S&P 500.

Certainly it is not on some sort of unfailling decline.

**Re: HP's unstoppable decline? Measured by what?**

Message #22 Posted by [bill platt](#) on 16 Feb 2006, 1:22 p.m.,

in response to message #21 by Gene

yes, since 02 or 03, HP has been a very good investment. Amazing, really, but not so amazing when you compare it to many other "tech" companies.

HP has a lot of desirable qualities, for an investor (no, not for Wayne or Valentin, perhaps):

Market Share  
Brand Recognition  
repeat customer base

We noticed the quality of our new printers sliding in the Carly period, though. We've had to retire a number of 2200 laserjets with blown NICs.

And yet, we buy more HP printers. Why? Price to performance, etc works out.

So, yes, HP seems to be a good investment -- but will that stock price continue to climb?

## Re: HP's unstoppable decline? Measured by what?

Message #23 Posted by [Valentín Albillo](#) on 16 Feb 2006, 12:54 p.m.,  
in response to message #19 by Gene

Hi again, Gene:

Interesting points you raise, and I would like to argue some of them, if you don't mind.

First of all, let me state right front that I know next to nothing about economics or finance so you're the undisputed authority in this particular instance and I abide by what you say, but:

*"a 400% increase over the last 20 years looks quite sustained to me."*

The company I work for has sustained a growth of some 2000% in 10 years, so your figure doesn't look that impressive to me, though certainly we weren't as big as HP to begin with. Now the question: that 400% increase over the last 20 years, does it take inflation into account? What would the real increase be after discounting 20 years of inflation?

*"However, it is not obvious to me that a company's success is limited by not growing, by not expanding sales/profits, and catering to a limited market instead of changing to grow. The company, as a corporation, exists to make money for shareholders. It is their fiduciary responsibility to do so."*

That doesn't sound like "The HP Way" to me. It rather sounds like every run-of-the-mill company's way, i.e., to make money for the shareholders, as much as possible and as soon as possible, and to hell with everything else.

If I'm not wrong, that was not the idea the late Mr. Hewlett and Mr. Packard had about how you should run a successful business and how to keep your customers and your workforce happy, satisfied, and above all, hooked for life to you and your products.

The HP of old was a relatively small company that nonetheless managed to create superb, absolutely state-of-the-art products, many times actually pioneers in their field. They were outrageously expensive, but never mind, you felt the quality the moment you saw the \*add\*, not to mention the product itself.

You would do whatever was necessary to get the money to buy it, you would be extremely proud of owning it, you would be the envy of everyone in your field, and I'm not talking only about calculators but very expensive lab instrumental.

Also, you would be so impressed with the quality and the experience would be so positive that afterwards in life you would always trust in HP for any other lab or computing equipment, based solely on your positive experiences. The keyword here is **fideliztion**.

This would result in, for the simple fact of having produced and released a superb calculator, worth \$500, say, some very satisfied customer would later purchase goods from HP worth many, many thousands of dollars, both for him and for his company. That's about the best fidelization campaign and the best advertisement campaign you would ever make: "We're the best, you know it, you want us, nothing else will do, we deliver".

Compare \*that\* with later HP: "The HP way" long abandoned ... crappy products created somewhere else and simply HP-branded ... no outstanding quality whatsoever ... their engineers disbanded, no research, no pioneering, everything's outsourced ...

So, are you really sure that abandoning the old philosophy has been best for the company and its shareholders? Short-term, meager-at-best benefits instead of a solid, reputable, the-best-of-the-best company, which people would \*die\* for, both employees and clients?

The \$250 HP-25 I bought resulted in my buying many, many, many thousands of dollars from HP, and my recommending their products to everyone who would listen, and many \*did\* listen, with both ears wide open.



Now, I buy \*nothing\* from HP and recommend their products to noone. And it's not a pathetic revenge for not producing RPN calculators, matter of fact I do prefer SHARP handhelds.

It's just that they're no good value for money anymore.

Best regards from V.

### **Re: HP's unstoppable decline? Measured by what?**

*Message #24 Posted by [Gene](#) on 16 Feb 2006, 1:14 p.m.,  
in response to message #23 by Valentin Albillo*

Certainly, some companies have done better than HP over the last 10 years, 20 years, etc., but you are quite right to note that a % increase in price is much easier if you start lower and smaller.

If HP has abandoned the old "HP way", it certainly does not seem to have affected their sales. The lack of referrals from you (and others) does not seem to have been noticed in their results.

Apparently, those of us (myself included) who really did/do appreciate their products from 20 years ago did not reduce their sales enough when some of us may have taken our business elsewhere.

And, wonder of wonders, HP is up as I write this 8.3% TODAY because of good sales and earnings.

Guess the investors will just cry all the way to the bank.

### **Re: HP's unstoppable decline? Measured by what?**

*Message #25 Posted by [Valentin Albillo](#) on 16 Feb 2006, 3:07 p.m.,  
in response to message #24 by Gene*

Hi, Gene:

Gene posted:

*"Guess the investors will just cry all the way to the bank. "*

More power to them. There are many people that equate money with success, but I'm not one of them. HP could be earning 10 times more and that wouldn't improve the crappy quality of their outsourced products an iota. I don't quite see why you think that earning more has anything to do towards improving the quality of their products, actually logic dictates that it should be exactly the opposite.

As for the investors running to the bank, it might be the case that they're going there with some of your very own money in their pockets.

Not mine.

Best regards from V.

### **Re: HP's unstoppable decline? Measured by what?**

*Message #26 Posted by [Gene](#) on 16 Feb 2006, 3:35 p.m.,  
in response to message #25 by Valentin Albillo*

Investors, if they are really investors, would of course equate money with success. I assume that if you invest, you prefer to invest in companies that earn a good return on your investment rather than companies that lose your money.

I'm not equating HP's product quality, as it is, with earning more money. But it does appear that our distaste for some of the quality issues with HP's current products is not being shared with the market in total, and that's what counts.

I'm merely pointing out that despite the statements of some here, in a capitalistic economy, companies win when they provide what consumers want (i.e., buy) and are able to sell them for more than what they cost to make.

The investors will run to the bank with whatever \$\$ is left from the sales prices paid by consumers after deducting HP's cost of goods and other expenses. If I have bought HP products, then yes, some of my money will be in their pockets.

Quality SHOULD matter, but either a) it does not for some reason, or b) consumers in general don't believe HP's quality is low enough to not buy their products.

### **Another fine "short essay" [HP's unstoppable decline]**

*Message #27 Posted by [Karl Schneider](#) on 17 Feb 2006, 12:19 a.m.,  
in response to message #23 by Valentin Albillo*

Valentin --

Author! Author!

The link to your latest short essay (among many others) will be placed in my "Bookmarks" (using the original Netscape/Mosaic[?] terminology, rather than Windows IE's inane "Favorites"), once it goes to Archives.

Regards,

-- KS

**Re: Another fine "short essay" [HP's unstoppable decline]**

Message #28 Posted by [Valentin Albillo](#) on 17 Feb 2006, 4:26 a.m.,  
in response to message #27 by Karl Schneider

Hi, Karl:

Why, thank you for your kind compliments but matter of fact these posts of mine are not 'essays', meaning that I write them in the heat of the moment, at full speed, without time to rethink them or polish them a little.

The one you mention, for instance, has at least three or four typos I noticed after the fact, which the utterly inconvenient ruling currently in effect at MoHP prevents me from correcting as I should.

Shame for me, that my 'essays' go into the archives, for posterity, with such demeaning typos ... being a perfectionist at heart, I can barely stand the fact ...

Best regards from V.

Note: Edited to correct a typo which, thanks to the utterly inconvenient ruling currently in effect at MoHP, I could only do because I detected it fast enough that there were no replies yet.

*Edited: 17 Feb 2006, 4:40 a.m.*

**Measured by what? Not Quality**

Message #29 Posted by [Joe Edwards](#) on 16 Feb 2006, 10:47 a.m.,  
in response to message #17 by Gene

Gene, I think something is wrong with a company when the products are poorly made (compared to past equipment) and the shareholders are pocketing more and more money. Shouldn't some of that profit be used to, once again, make better products instead of disposable electronics?

Joe

Quote:

Not by stock price.

<http://money.cnn.com/quote/quote.html?pg=qu&sid=2385&symb=HPQ&time=all&uf=0>

Looking at this graph, there is an obvious spike around 1999/2000, but then, the market fell a good amount in 2001-2003 for a lot of companies.

The stock is still 4 times higher than it was in the mid-1980s. So since the beginning of HP's unstoppable decline, they have increased value to their shareholders by 400%. How dare they do that!

That's hardly running down the hill to oblivion.

And, with revenues this year estimated at nearly \$90 billion, that's a lot of sales.

HP may yet go under, but I would beware premature predictions of doom.

Gene, one of those bean-counters

**Re: Measured by what? Not Quality**

Message #30 Posted by [Gene](#) on 16 Feb 2006, 3:26 p.m.,  
in response to message #29 by Joe Edwards

Joe wrote: "Gene, I think something is wrong with a company when the products are poorly made (compared to past equipment) and the shareholders are pocketing more and more money. Shouldn't some of that profit be used to, once again, make better products instead of disposable electronics?"

Gene: One cure for that is for customers to buy products somewhere else. If people didn't buy products they consider cheaply or poorly made, the market would be a correcting influence.

Since HP's sales will total nearly \$90 billion this year, the market apparently LIKES the products HP makes in total.

Rather difficult to argue with that...it's called capitalism.

The shareholders can force a management change if they feel the company is being poorly run, but since sales are near \$90 billion, apparently the shareholders who own the company feel just fine with things the way they are.

How many shareholders would want HP to make fewer, more expensive products with the quality of old? Only those who don't care whether they make money on their investment.

### **Re: Measured by what? Not Quality**

*Message #31 Posted by **Walter B** on 16 Feb 2006, 6:50 p.m.,  
in response to message #30 by Gene*

Gene, having read your discussion with Valentin I think there is just one main difference between your points of view:

- You claim that the success of a company is measured in \$ and nothing else.
- For Valentin there are more dimensions of sustained success, one of them being quality.

The "HP-way" as outlined in the book, and the mission statement in old HP calculator manuals emphasize this quality dimension. AFAIK the late Mr. Hewlett and Mr. Packard did not burn money, but turned into wealthy men while running HP for 50 years - and many more people shared this profit to some extent. Now we may discuss if this was BECAUSE they've put quality first or ALTHOUGH they did that. Difficult to decide because it is almost impossible to verify scientifically. So you can just BELIEVE in one or the other.

I think a big fraction, maybe the majority of this forum believes in the first. Let's call it the "technical fraction". It doesn't feel comfortable with the kind of capitalism you explained so well (for which "bean counters" or "marketeers" are just popular labels in this forum). Don't get me wrong, I live in this world and I appreciate its benefits. But IMO something is missing, some "ideas" besides just piling up \$\$\$ . HP in earlier days transported the message to have such "ideas" - and it looked consistent. I can't see this today anymore and I miss it. And HP is no singularity - many more companies moved the same way.

The way our system works, changing requirements of customers will sooner or later generate some supplies to fulfill them. If priorities shift and the demand is big enough, it may bring and carry even expensive high quality products. Maybe we're just approaching the end of mass scrap production and the pendulum will swing back. But this is another story, turning really OT, so I'll stop here.

Just my 0,02 Euros.

### **Re: Measured by what? Not Quality**

*Message #32 Posted by **Garth Wilson** on 17 Feb 2006, 1:30 a.m.,  
in response to message #31 by Walter B*

The company I worked for from 1985 to 1992 had an owner who was out for the immediate buck. His approach included making the product as cheaply as possible. This included not only build quality, but good ideas for improving performance were rejected if they would raise the cost of manufacture. I was instructed to set up automated testing, with the idea that somehow we were going to "test the quality into it" after cheap production. As you can imagine, that doesn't work. When the failure rate exceeded certain levels, he would lose his cool and order that the test standards be lowered; IOW, we would "fix" the testing instead of the product. Even of those units that did pass, the reliability was not good. The product's reputation was terrible-- but not to worry, we had an aggressive sales team that was always able to find new, unsuspecting customers. Well actually, this could only go on for so long, and gradually it did all catch up to him. The little company went from making money hand over fist to nearly six feet under in a couple of years. Now more than ten years later, they never have recovered. They could have, if the business philosophy had changed.

### **Re: HP 49g+ just purchased**

*Message #33 Posted by **Joe Edwards** on 16 Feb 2006, 10:42 a.m.,  
in response to message #16 by Valentin Albillo*

But not for long...?????

### **Re: HP 49g+ just purchased**

*Message #34 Posted by **Joe Edwards** on 16 Feb 2006, 10:43 a.m.,  
in response to message #16 by Valentin Albillo*

What do you mean by "not for long"....?

**Re: HP 49g+ just purchased**

Message #35 Posted by [Valentin Albillo](#) on 16 Feb 2006, 3:14 p.m.,  
in response to message #34 by Joe Edwards

Hi, Joe:

Joe posted: "What do you mean by "not for long"....?"

I think that HP's days in the limelight, as a big name company, are numbered. It will fade into irrelevancy sooner than later.

Best regards from V.

**HP-71B developer anecdote**

Message #36 Posted by [Karl Schneider](#) on 16 Feb 2006, 11:12 p.m.,  
in response to message #16 by Valentin Albillo

Hello, Valentin --

Thank you for re-posting the link to the comp.sys.hp48 post from 1992 by one of the HP-71B's developers, Steven Abell.

Those who read the entire thread will find a truly puzzling statement by a Mr. VanDevender, who replied to Abell:

Quote:

It would seem, in fact, that HP's calculator division had a dry spell in the early 80s where they were surviving off the continued popularity of the HP 41 series but were not doing so well at introducing new designs.

Guess he'd never heard of the hugely successful Voyager series (HP-10C, -11C, 12C, -15C, and -16C), introduced in 1981 and 1982.

-- KS

**Re: HP-71B developer anecdote**

Message #37 Posted by [Valentin Albillo](#) on 17 Feb 2006, 4:32 a.m.,  
in response to message #36 by Karl Schneider

Hi again, Karl:

Certainly, if nothing else, the HP-12C would be a ***\*HUGE\**** exception.

Millions sold, still in production 25+ years later. Must be an absolute record among mass market technical, computing gadgets. Talk about "not doing so well at introducing new designs" ...

Best regards from V.

**Re: HP 49g+ just purchased**

Message #38 Posted by [Ron](#) on 17 Feb 2006, 2:58 a.m.,  
in response to message #14 by Joe Edwards

Good choice if you have a little time to play with it. The User Guide is over 800 pages in a .pdf file. The Advance User Reference is somewhat smaller, and also in a .pdf file, very awkward. If you have a budget and lots of paper,, print both manuals, the AUR first and put them into about 5 inches of binders.

I personally think the hardest thing to learn is how to navigate among the various menus. The unit is almost too powerful to be efficient. The secret there is intelligent menu and subdirectory architecture to get your personal needs close to the surface.

I graduated(?) from my 48gx a little over a year ago and still sneak back to it for some jobs. The 48 averages about one-third the speed of the 49g+ but it is a lot friendlier and with hard copy documentation which I refer to for the basics of the 49 (many of the same functions, etc.)

I had catarac surgery last year and now have problems reading the finer print on the 49, even with cheater glasses.

Good luck in your new adventures/ I changed my whole focus on life, career, family,in my 52nd year and have never been happier.

Ron

**Re: RPN or RPL**

Message #39 Posted by [Thomas Radtke](#) on 16 Feb 2006, 4:58 a.m.,  
in response to message #1 by Joe Edwards

When programs grow, I quickly get lost in the code. 'Higher level' languages can help keeping the overview. However, I dislike RPL much and recently went over to BASIC again (after so many years) on a Sharp PC-1500. One of the first programs I wrote was a Monte Carlo simulation. I could have done it on the PC in Java much quicker but I sat in the warm kitchen having breakfast and the Sharp brick came in pretty handy:). There are better languages than BASIC, thats for sure but somehow it works great for me.

Thomas

**Re: RPN or RPL**

Message #40 Posted by [Joe Edwards](#) on 16 Feb 2006, 8:38 a.m.,  
in response to message #39 by Thomas Radtke

Thomas, I am relearning BASIC now on my HP 71b, hence the questions. I am really suprised at the level of difficulty in programming in simple BASIC versus the RPL. Not impossible, mind you, but RLP seems more arcane.

**Re: RPN or RPL**

Message #41 Posted by [GE](#) on 20 Feb 2006, 11:36 a.m.,  
in response to message #40 by Joe Edwards

The PC1500 is a brick indeed, it is surprising that V. (you know him !) hasn't advised usage of a very small PC1262, or a thin PC1360 instead.

I recently tried again to use RPL and ran into another \*\*\*-breaking "feature" of these beasts : you just can't temporarily save a syntactically unfinished program. For example, you can't start a FOR loop without writing the NEXT, and have your program accepted for editing later - right after you have performed that small quick calculation you need (of course it's not just one FOR that was "hanging" when this happened to me).

Not to speak about the lack of early loop termination or GOTO...

And to catch another rabbit with this message, I'd say that whoever believes that success is rated by money first and foremost, cannot have children. This stuff costs LOTS !!! When I go home early (ruining my career in the process) to take them in my arms, the reward is not money. I don't regret this choice however - not one day. And after all, they will soon be new customers for cheap throwable stuff !! (possibly not if they listen to dad).

I really don't envy those who don't have the luck to see their children grow.

**Re: RPN or RPL**

Message #42 Posted by [Valentin Albillo](#) on 20 Feb 2006, 11:49 a.m.,  
in response to message #41 by GE

Hi, GE:

GE posted:

*"The PC1500 is a brick indeed, it is surprising that V. (you know him !) hasn't advised usage of a very small PC1262, or a thin PC1360 instead."*

I said nothing at all re the PC-1500, it was Thomas Radtke, not me. And I \*do\* use a SHARP PC-1350 all the time when I have no laptop at hand. If I do, then Emu71 is the 'calculator' I use. IIf I need absolute portability (i.e., it must fit in a shirt pocket) then an HP-15C is the calc of choice. And once in a while, just for fun, I might grab an HP42S but I quickly tire of the menus, entering programs in this thing is a real chore.

*"And to catch another rabbit with this message, I'd say that whoever believes that success is rated by money first and foremost, cannot have children. This stuff costs LOTS !!!"*

You tell me !! I have only the one child, and it's costing me as much money as it took my parents to raise the four of us.

Best regards from V.

**Re: RPN or RPL**

Message #43 Posted by [James M. Prange \(Michigan\)](#) on 20 Feb 2006, 11:56 p.m.,  
in response to message #41 by GE

Quote:

I recently tried again to use RPL and ran into another \*\*\*-breaking "feature" of these beasts :

Wow, I'm amazed at the "problems" you guys seem to have with RPL.

Quote:

you just can't temporarily save a syntactically unfinished program. For example, you can't start a FOR loop without writing the NEXT, and have your program accepted for editing later - right after you have performed that small quick calculation you need (of course it's not just one FOR that was "hanging" when this happened to me).

Although the command line compiler will sometimes add on an END or closing delimiters (although not always where you'd want), it won't fix the syntax for **all** program structures. When it doesn't know how to compile your source code, it gives you an "Invalid Syntax" error and highlights the "word" where it first determined that something must be wrong.

If you want to save your unfinished source code for later editing, then simply insert a " (double quotation mark) as the first character in the command line so that it will be compiled as a character string. That won't always work so well when your source code already contains " characters though; perhaps a better method is to insert:

C\$ \$

as the first line of the command line; that forces the compiler to treat the rest of the command line as a character string, even if it does already contain a " character. After you think that you've finished editing it, remove the " character or

C\$ \$

and try compiling it.

Quote:

Not to speak about the lack of early loop termination

Haven't we been over this one before? Maybe use a WHILE...REPEAT...END or DO...UNTIL...END loop, or force an early exit from a FOR...NEXT/STEP loop by storing a high (or low) value in the loop index local variable.

Quote:

or GOTO...

Well, GOTO and labels are fine in languages that need them, but I don't see any need for a GOTO in RPL.

Regards,  
James

### Re: RPN or RPL

Message #44 Posted by **GE** on 21 Feb 2006, 6:07 a.m.,  
in response to message #43 by James M. Prange (Michigan)

You're right on the 3 points (I promise I won't talk about GOTO or loop termination - for some time). On syntax checking before execution, the theoretical reason why RPL behaves this way is obvious. However, it is a real bad thing. On other machines (BASIC included of course), I sometimes type pseudo-code like "GCD(X,Y)->A" or even "W=SOLVE(X\*EXP(X)=Z)" when the GCD or SOLVE functions are not available, and then I code 'top-down' going into smaller and smaller parts of the program while keeping complexity manageable.

I want to be allowed to leave parts in an unfinished state and write a FOR while I don't already know what bounds and variable names will be appropriate. Placeholders are not desirable because I will have to determine that they are not the final, correct values.

A real BASIC (with PRINT and INPUT, \$ and :) on current graphing calculators is an excellent option (HP71 emulators come to mind). I had this experience with a Sharp organizer of the 8000 series, Sharp made an add-in card that would allow one to program in BASIC with 128K of RAM. The 8000 has one of the largest screen and the best keyboard there is for an organizer, and by adding the card you would have one of the best, fastest BASIC computers on the market at the time.

Sorry, Olde Phartte mode was on again.

### Re: RPN or RPL

Message #45 Posted by **James M. Prange (Michigan)** on 21 Feb 2006, 10:14 p.m.,  
in response to message #1 by Joe Edwards

Quote:

I realize most folks here are probably more comfortable with RPN versus RPL (am I wrong?).

Apparently, most people here are indeed more comfortable with "Classic RPN". Since it's a "Museum" forum, that perhaps shouldn't seem too surprising. For a different viewpoint, browse the comp.sys.hp48 usenet group (<http://groups.google.com/group/comp.sys.hp48>, if you don't have it in your newsreader).

Quote:

RPN seems so simple and the programming style for the 41/42 models seems rather easy to use - not to mention the 32 models and the voyager models as well.

RPL seems so much more, well MORE powerful, but at the same time has a much larger learning curve. I assume (incorrectly?) that RPL can do much more (my programming skills are very much at the novice level) than RPN.

Personally, I see RPL as an "enhanced" RPN. I find it pretty simple and very intuitive. If the fine manuals aren't enough for you, see the excellent books by William C. Wickes, available on the Museum CD set / DVD (<http://www.hpmuseum.org/cd/cddesc.htm>). Also see <http://www.hpcalc.org/>

I'd think that anyone who can learn to program well in Classic RPN would find RPL easy, but some seem to have some sort of "block" when it come to learning RPL.

Quote:

My question is this: what niche does the RPL programming language fit, especially nowadays with the 49g+. With so many more powerful handheld devices, is the RPL in the 49 series just a left-over concept that just works well to power the 49g?

Huh? The "niche" for UserRPL is that it's the built-in "fool-proof" language for "ordinary" users of the 28, 48, and 49 series. Well, "fool-proof" in the sense that it's pretty difficult to accidentally get a TTRM ("Try To Recover Memory?") in UserRPL.

Far from being just a "left-over", I see it as being an excellent language for using calculators.

In the case of the 49g+ and 48gII with their ARM processors, I suppose that one could argue that a better RPL could be designed for the particular processor instead of using an emulated (simulated?) Saturn processor with relatively minor changes to the legacy RPL, but that would take time, developers, and money, which HP doesn't seem to be willing (able?) to invest these days.

SysRPL doesn't include the argument checking and dispatching to protect the user from his mistakes, but that makes it faster, and, perhaps even more importantly, it also has a much larger command set. SysRPL is the underlying language used for developing UserRPL, as well as for various non-RPL models. The 49 series has a built-in compiler for SysRPL, but for other models, you'd need an add-on or a PC application. In general, a well-written SysRPL program is smaller and faster than a UserRPL program to accomplish the same thing, but requires more time and care in development.

Actually. RPL doesn't always seem to work out so well for me on the 49 series. Sometimes the new CAS (Computer Algebra System) seems to get in the way, perhaps due to not knowing what effect the added system flags will have. I often get the feeling that the new development team for the 49 series didn't quite understand the 48 series RPL as a whole, so their "improvements" don't always seem to be very well-integrated.

Being able to upgrade the flash "ROM" on the 49G and 49g+ should be an advantage, but the downside of it is that "beta" quality code can be released as "good enough", with the expectation that bugs can be fixed as needed.

Additionally, the RPL calculators can be programmed in assembly language, and the Classic RPN aficionados could even get to use their beloved GOTOs that way. Like SysRPL tools, assembly language tools are built in to the 49 series, but not the 28 and 48 series. Programs written in assembly language are generally much faster, but larger, and of course require specialized knowledge. Ultimately, SysRPL commands end up using code written in assembly language; I doubt that much (any?) SysRPL code was written in actual "machine language".

The 49g+ and 48gII don't actually have a physical Saturn processor, instead emulating it (plus additional assembly instructions) in code running on the underlying ARM processor. For these models, you could use hpgcc (see: <http://hpgcc.org/>) to do some programming in C language.

Quote:

Overall, I just don't see much of a use when compared to a simple RPN calculator. I assume I am not seeing the forest due to all the trees!

Well, I suppose that it depends on what you want to use your calculator for. For many purposes, Classic RPN indeed suffices. To me, the RPL models, although certainly primarily "calculators", often seem rather like simple "computers". Assuming that you have an RPL model, give it a real try and see whether it can do useful things for you.

Quote:

Anyone care to enlighten a simple "grasshopper"???

"grasshopper"???

Regards.  
James

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