

# Re: Symbolic Calculator for Mobile Devices

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*Source:* <http://sci.tech-archive.net/Archive/sci.math.symbolic/2006-05/msg00088.html>

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  - *Date:* Mon, 15 May 2006 17:26:29 +0100
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Richard Fateman wrote:

I'm unclear on why you are spending time on this. The smallest laptop probably weighs < 2 kilograms and is the size of a paperback book. It can run Maxima, Maple, Mathematica. It has a keyboard and mouse-equivalent. Sometimes it has a wireless internet and phone access like Skype.

Very small laptops have a somewhat limited use. They are not really suitable for things like Word. They are also very expensive compared to the larger laptops. I've known people spend serious money on small laptops, find them of limited use and so buy larger ones.

Of course large laptops have their problems too.

I can't speak for a phone, but a PDA does seem to offer something here. I see far more people using PDAs than very small laptops.

Is there an application you have in mind where someone needs to take that extra step and do calculus homework on a cellphone?

I think engineers/scientists will use PDAs – not just students doing their homework.

Would it be simpler to use instant-messaging

I'm not into phones or instant messaging, but as far as I know there is no graphics. PDAs have reasonable graphics capabilities and this is improving all the time.

could get you access  
to a much larger computer? Or interact with a web page somehow?

I tend to agree with you there, but it does rely on you having access to the web or similar, which is not cheap, or in some cases possible, if on a train for example.

## Re: Symbolic Calculator for Mobile Devices

I have Mathematica running on a server to which I can access via ssh on my PDA. I've got WebMathematica and would like to get full graphical access via the web of that (for private use, not to make it public which would contravene the license). It's not too easy to set that up. There are a lot of restrictions in WebMathematica, many for security reasons (to for example stopping you overwriting files) and some to protect Wolfram, so make it hard for someone to put a full version on the web.

I also thought designing my own web-based front-end for Mathematica, for text (not graphics) use. That would avoid the need for having an SSH client. I have got some where with that, but lost interest, having decided SSH access to the full program was more useful.

There is a front end for Mathematica that runs on a PDA

[http://www.oreillynet.com/mac/blog/2005/04/mathme\\_smartphone\\_and\\_pda\\_fron.html](http://www.oreillynet.com/mac/blog/2005/04/mathme_smartphone_and_pda_fron.html)

but when I emailed the author, it was clear development has stalled due to a change of jobs.

I've not found an X emulator for the PDA that was any use. If I could run Mathematica on a UNIX box and display the result on a PDA it would be nice.

Robert is right that you would be more than welcome to contribute to advancing the art, if you tire of hacking on the current mobile computing API.

I would tend to agree that making use of what is available is nice where possible.

By the way, the original Macsyma on a PDP-10 time-sharing system occupied, along with Lisp, a maximum of 1.2 megabytes (that was all the address space of the PDP-6 computer): 256K words X 36 bits per word.

Which only proves the small devices have the computational power for these tasks. Mathematica used to run on DOS (1 MB), which is of course a lot less than a PDA has.

I suspect it is only a matter of time before Wolfram port Mathematica to a PDA. There does seem to be quite a bit of interest in having it on a small device. The link below is one of many.

<http://forums.wolfram.com/mathgroup/archive/2003/Jan/msg00554.html>

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MCSE = Minefield Consultant and Solitaire Expert.

Please note my email address changes periodically to avoid spam. It is always of the form: month-year@domain. Hitting reply will work for a couple of months only. Later set it manually.

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