

# Re: Maple Vs Mathematica debugging / cost to write a system

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*Source:* <http://sci.tech-archive.net/Archive/sci.math.symbolic/2005-12/msg00114.html>

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- *From:* [carlos@xxxxxxxxxxxxx](mailto:carlos@xxxxxxxxxxxxx)
  - *Date:* 7 Dec 2005 18:32:24 -0800
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> Some time (long) ago, when I was active as a Software Engineer(?),  
> software metrics told me that independent of language a  
> programmer could handle 40–50 lines a day. So we end up with  
> approx. 2000 lines of code a year.

Programmer productivity can span many orders of magnitude.  
My own metrics in terms of \*usable\* codelines/year (which  
I used before moving to academia in the mid 80s):

Class A – superprogrammers  $10^4$ – $10^5$   
Class B – competent  $10^3$ – $10^4$   
Class C – average  $10^2$ – $10^3$   
Class F – hopeless 0

This is for code of standard–to–moderate difficulty. For truly  
challenging tasks, say a real–time fault–tolerant multiplexer  
in assembly, divide by 10. For easy stuff, such as  
numerical software, multiply by 10.

Class F programmers might be difficult to predict. In 1979  
I was managing a software project at Lockheed that began to  
lag milestones. I hired two seemingly Class–C guys to speed it up  
(I had not read Brooks' The Mythical Man–Month yet). In a year  
span they wrote thousands of lines that were totally useless.  
That code had to be rewritten from scratch, further delaying  
the project. That why the qualifier \*usable\* is important.

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- *Follow–Ups:*
    - ◆ ***Re: Maple Vs Mathematica debugging / cost to write a system***  
◇ *From:* Colin Rose
    - ◆ ***Re: Maple Vs Mathematica debugging / cost to write a system***  
◇ *From:* David N. Williams
    - ◆ ***Re: Maple Vs Mathematica debugging / cost to write a system***

Re: Maple Vs Mathematica debugging / cost to write a system

◇ From: Nasser Abbasi

• **References:**

- ◆ **Maple Vs Mathematica**  
◇ From: kush99
- ◆ **Re: Maple Vs Mathematica**  
◇ From: Nasser Abbasi
- ◆ **Re: Maple Vs Mathematica**  
◇ From: John Francis
- ◆ **Re: Maple Vs Mathematica**  
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- ◆ **Re: Maple Vs Mathematica**  
◇ From: Albert Reiner
- ◆ **Re: Maple Vs Mathematica : How much of the source code?**  
◇ From: Richard Fateman
- ◆ **Re: Maple Vs Mathematica : How much of the source code?**  
◇ From: carlos
- ◆ **Re: Maple Vs Mathematica debugging**  
◇ From: Richard J. Fateman
- ◆ **Re: Maple Vs Mathematica debugging**  
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- ◆ **Re: Maple Vs Mathematica debugging**  
◇ From: Jaap Spies
- ◆ **Re: Maple Vs Mathematica debugging**  
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- ◆ **Re: Maple Vs Mathematica debugging / cost to write a system**  
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