Subject: Re: What does an optimal scientific programming language/environment need?
Posted by grunes on Sun, 28 Sep 2003 02:11:18 GMT
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There are way too many responses to my original post to adequately address them all. But a many of them are rather interesting.

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For example:

> and what is the value of 3**3**3 (or, if you prefer, 3^3^3)?
> -- there appears to be no consensus on this one

I assume you are using ** (FORTRAN) or ^ (BASIC) to represent exponentiation (though ^ is more or less the standard math/logic symbol for logical AND).

I thought there was consesus on x superscript y superscript z. It means x raised to the (y raised to the z) power, just like FORTRAN x**y**z means x**(y**z). The other meaning is already compactly represented as x superscript yz, at least for positive reals.

I agree that a computer language notation must remove the ambiguities present in standard mathematical notation.

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I agree that signal processing should proably include FFT, and a few other commonly used transforms.

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At one point, I wanted to create my own IDL interpreter/compiler clone, and spent quite a lot of time figuring out how, but gave up after researching the complex legal status of "reverse engineering" in the USA.

In the mean time, I am following up on the suggestion one person made that "J", perhaps combined with calls to FORTRAN and C for what needs to be efficient, already answers the major needs. If that works well enough, fine.