
Subject: Re: alternative to execute

Posted by news.qwest.net on Wed, 01 Feb 2006 23:03:57 GMT

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"greg michael" <greg.michael@gmail.com> wrote in message
news:1138732984.579226.255440@f14g2000cwb.googlegroups.com... .

>
> I'm trying to think up a good way to implement a user-defined function
> which would run in the IDL VM. The function might involve any of about
> 300 similar 2-d arrays, each of which is quite expensive to generate.
> So I thought to obtain the function as a string, scan it to see which
> arrays are needed, generate them, and then apply the function with
> 'execute'. But 'execute' is excluded from the VM.

>
> A typical function might look like:

>
> result = b123 / b100 - .9 * b050 / b035

>
> Without execute, I can only think to attempt to write some kind of
> arithmetic interpreter. Would anyone have a suggestion for a way to get
> IDL to do this more directly?

>

From your example equations, it seems that all you want is a calculator
that operates on arbitrary arrays. So, my first impulse would be to
greatly restrict the number of functions.

You don't need to have a function for every possible expression.

How about a function for addition, subtraction, multiplication and division,
each accepting 2 inputs and returning one output.

Of course, you can add some simple functions like sqrt to it easy enough.

Then save the result as a new array, and allow further operations on it.
If you had a "workspace" (like 'memory' on a calculator) where the user
could save their results, then it is really easy to make the full
expression.

Each term in a complex expression becomes one entry in the memory,
then you add them all together to get the final result.

Cheers,
bob
