Subject: Re: Compiling IDL ... ever likey?
Posted by Rick White on Wed, 24 Jan 1996 08:00:00 GMT
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Ken Knighton <knighton@gav.gat.com> wrote:

> Since you are a Java expert, does Java have built-in:
>
> 1. Vector based arithmetic and array manipulation functions
> 2. Plotting/imaging
> 3. Image processing and numeric functions
> 4. Mapping functions

I'd hardly call myself a Java expert, but ... Java does have
some built-in plotting/imaging functions, but they are much lower-level
than IDL's. There are people writing add-on packages to do some of
these things.

Java does not have built-in vector/array operations, and you're right:
that is (IMHO) both the reason why a Java compiler is needed and the
reason why 90% of (well written) IDL programs would not benefit from
such a compiler.

When I started using IDL a few years ago, I thought I was developing
prototype algorithms that would eventually need to be converted into
a standard programming language (e.g. C) for efficient execution. However,
I found that almost all my applications (mainly image processing) are
as fast in IDL as they would be in C (though they can be developed
many times faster in IDL.)

There are, though, a small number of operations that cannot be
implemented efficiently in IDL, and it would be nice to have an
IDL compiler for those cases. Calling external C programs from IDL
is a big pain and is hard to make portable. Have you ever tried to
give out your IDL/C combinations to other people? If an IDL "on-the-fly"
compiler existed then I believe I would *never* have to go outside IDL
for my image processing applications.

>> Perhaps someone should be working on an IDL-to-Java translator or even
>> an IDL-to-Java pseudo-code compiler!
>
> If you feel that it would make money, perhaps you should do it yourself.

Sorry, when I became an astronomer I had to swear that I would never make
any money! :-)

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