Subject: Re: IDL Virtual Machine information
Posted by JD Smith on Thu, 26 Jun 2003 17:25:50 GMT
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On Thu, 26 Jun 2003 08:28:47 -0700, Liam Gumley wrote:

> "Craig Markwardt" <craigmnet@cow.physics.wisc.edu> wrote in message
> news:onptl0g9wi.fsf@cow.physics.wisc.edu...
>>
>> "Liam Gumley" <Liam.Gumley@ssec.wisc.edu> writes:
>>> A particularly interesting feature of IDL 6.0 is the IDL Virtual
> Machine,
>>> which will allow developers to distribute compiled cross-platform
>>> applications that do not require IDL to run.
>>
>> Liam--
>>
>> You're right this is an interesting development. This may help get
>> more IDL applications distributed, which I'm sure is the goal of RSI.
>> But the virtual machine is significantly less interesting to me on
>> account of the fact that EXECUTE() is disabled:
>>
>> http://www.rsinc.com/idl/idlvm_faq.asp#runtime
>>
>> There are a couple of key places in my code where EXECUTE() is integral
>> to the operation of the algorithm, and those would not transfer over to
>> the IDL VM.
>
> I wonder why EXECUTE is not allowed?
>

Presumably for the same reason that uncompiled .pro routines can't be run with the VM: it doesn't include the byte-code compiler. I'd suspect that EXECUTE works by calling the very same compiler at run-time. If it did include the compiler, the VM could easily be turned into a full-fledged copy of IDL! The CALL_* routines still work because they are only allowed to call routines which are compiled (either natively in IDL, or in the .sav file itself).

That said, there are lots of uses of EXECUTE which are no longer really necessary in IDL 6.0, e.g., building variable-length argument lists of dimensions for various routines (I've noticed Craig using that trick a lot). Since the VM will only run .sav files compiled with IDLv6.0, there's no need to hang onto these old constructions for compatibility's sake. Perhaps people could list their typical uses of EXECUTE and we could consider ways to eliminate them?

JD