Subject: Re: Any cross-platform IDL alternatives?
Posted by Nigel Wade on Wed, 17 Oct 2001 08:54:42 GMT
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Karsten Rodenacker wrote:

> Are there any experiences with Python by idl users on the net? Is that
> maybe an Alternative?
>
>

I use Python and I really like it for what it's good at.

Here's the main part of a post I sent to comp.soft-sys.matlab when a thread was running asking about MATLAB and Python.

Pro's
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free
embeddable and extensible (which is the main reason I chose it)
object oriented
many add-on modules (also free)
support for lists, dictionaries (associative arrays)
Numerical Python (NumPy) provides arrays of all data types (signed and unsigned integer, float, double and complex float/double).
direct access to OS system services
fully object oriented

Con's
---
block-structure is controlled by indentation
no structure data type
documentation quality far inferior to MATLAB's (and IDL's)
no direct support for array index operations execept a single range (NumPy functions take() and put() do exist to do this but it's much messier)

Specific to IDL;

extending Python can only be done by writing extensions, similar to creating a DLM in IDL. It is, however, more difficult than writing a DLM particularly in respect of reference counts (Python does garbage collection on variables when the reference count is zero - decrement the ref.count when you shouldn't and the variable can disappear on you, don't decrement it when you should and the variable becomes a core leak).

Embedding and object orientation are it's main advantages over IDL.
If this is what you want to do Python is really good.

Not sure on the speed side but I'd guess it's quite a bit slower.

What doesn't Python have? Graphics. None at all. There are some graphics packages available but none that I've found were much use. Certainly nowhere near the standard of IDL direct graphics. Not a hope of object graphics. If you need quality graphics Python is a blind alley.

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