Subject: Re: Any interest in an IDL to Python interface? Posted by R.Bauer on Mon, 03 Mar 2008 16:36:48 GMT

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m schellens@hotmail.com schrieb:

- > GDL
- > http://sourceforge.net/projects/gnudatalanguage

>

- > has this functionality.
- > Actually both ways: One can call python from GDL similar as described
- > and GDL can be compiled as a python module.
- > The drawback is that GDL only supports python numarray yet.

>

- > Cheers.
- > Marc

btw. it was quite easy to install on my olpc XO yum install gdl plplot

it seems not such easy on my SuSE box.

cheers

Reimar

>

- > On Feb 28, 5:00 pm, Jason Ferrara < jason.ferr...@jacquette.com > wrote:
- >> We're thinking of coming out with product that acts as a bridge
- >> between IDL and Python, and are trying to get an idea of how much of a
- >> demand there is for this sort of thing.

>>

>> It would make Python modules usable directly from IDL.

- >> Some simple usage examples, meant to show how the interface works,
- rather than why you might want to use Python from IDL.

>>

- >> Using the Python Imaging Library to load an image, rotate it, and then
- >> place it in an IDL array.
- >> IDL> numpy=pyimport('numpy')
- >> Loaded DLM: PYTHONFROMIDL.
- >> IDL> pilimage=pyimport('PIL.Image')
- >> IDL> img=pilimage->open('scan.jpeg')
- >> IDL> img=img->rotate(30)
- >> IDL> imgarr=numpy->array(img)

```
>> IDL> help, imgarr
>> IMGARR
                  BYTE
                           = Array[3, 850, 864]
>> IDL> tv, imgarr, /true, order=1
>>
>> Defining and calling an arbitrary python function.
>> IDL> py=pyimport('__main__')
>> IDL> py->exec, "def mulbytwo(a):"+string(10b)+"
                                                    return [x*2 for x
>> in a]"
>> IDL> print, py->mulbytwo([1,2,3,4,5])
          2
                  4
                                         10
                         6
                                 8
>>
>>
>> Features of the interface:
>>
    Python objects (including modules) appear in IDL as IDL objects.
>>
>>
    Automatic conversion of method parameters from IDL variables to the
>>
>> appropriate python type.
>>
    Automatic conversion of return values to IDL types.
>>
>>
    The Python environment runs in the same process as IDL, so parameter
>>
>> passing is fast.
>>
>>
    Automatic garbage collection of IDL objects that represent Python
>> objects, so calling OBJ_DESTROY is not required. This makes the
>> objects behave more Python like, so that you can do things like
>> "img=((pilimage->open('scan.jpeg'))->rotate(30))->convert('L') "
>> without leaking objects or having to call HEAP GC.
>>
>> Would anyone find this useful?
>> Thanks
>>
>> Jason Ferrara
>> Jacquette Consulting, Inc.
>
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