
Subject: Re: Speed does matter

Posted by on Fri, 14 Aug 2015 12:16:44 GMT

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Hi Chris,

thanks for your answer.

> Hi Kallisthène,

>

> Well, your posts contain a lot of information. If I could sum them up, I would say "IDL is faster at some computations, Python or Matlab is faster at others."

>

> It really does depend upon your code and your algorithm. To make a sweeping generalization, IDL's interpreter will be faster than Python's for "normal" problems - things with lots of "for" loops, small-to-medium size arrays, and image processing. Python and Matlab will be faster for hard-core linear algebra problems with large matrices.

Well, that's indeed vastly sweeping. When I watch my computer cores while executing IDL codes containing a lot of matrix operations among those I tested, I see only one core in action. The Thread pool seems to me a "theoretical" solution with not that much impact in the real world.

Meanwhile Python (and Matlab I think) "MKLed" enjoy a full 100% CPU occupation. It means that IDL still hasn't fully embraced the multi-processor revolution (like a lot of software ecosystems, I must admit)

>

> The chances of compiling IDL against the Intel Math Kernel library is low - the IDL team isn't huge, and we have a lot of pending features on our plate.

That I can understand, to change your compilation environment can be a real mess. But hasn't a single guy recompiled Python and numerous libraries with MKL library ?
(see <http://www.lfd.uci.edu/~gohlke/pythonlibs/>)

>

> So I think your solution is a good one. Use IDL as your general purpose scripting engine, input/output of data, use it for medium-size arrays. Then use the Python bridge to process your large arrays.

By the way I just ran into a problem in this respect, I can't seem to be able to load matplotlib.pyplot as in your example. I've got "% PYTHON_IMPORT: Exception: No module named Tkinter." error message.

Since enough modules do work well, I wonder if it might come from the fact that this module has another name in Python 3 : tkinter ?

What do you think ?

Best regards

>
> I'd love to see real-world examples of using the Python bridge, so please post again!
>
> Cheers,
> Chris
> VIS/Exelis/Harris
