Subject: Re: Message From RSI VP of Engineering
Posted by John-David T. Smith on Wed, 24 Oct 2001 20:46:18 GMT
View Forum Message <> Reply to Message

"Liam E. Gumley" wrote:
>
> JD Smith wrote:
> [stuff deleted]
>> The bigger trouble lies under the hood. IDL for MacOSX had some
>> significant optimizations for display and within the core engine itself
>> which are being tossed out with the bath water. The display speed will
>> suffer, since in effect you're running through *two* levels of display
>> (the X level, which translates drawing commands into the native display
>> level). Any use of the much-improved OpenGL OS/hardware support will be
>> impossible. The powerful AltiVec tuning already accomplished or planned
>> for the OSX version will not be included.
>>
>> Here's a small sampling of a feature table comparison, far from
>> complete:
>>
>> +=== ======+
>> IDL feature comparison OSX Native OSX Straight Unix Port
>> +=== ======+
>> Interface Aqua X/Motif (server required)
>> Display Speed Fast Slow
>> 3D/OpenGL Optimization Yes No
>> Altivec Vectorization Complete None, or limited
>> Separate Core/IDE Threads Yes No
>> Pervasive PDF Output Yes No
>> +=== ======+
>
> Please correct me if I'm wrong, but I don't see why the display speed
> would suffer.

I'll put a fine point on it: running the RSI-supplied graphics_times3 benchmark on a native OSX vs. a X11-based IDL would reveal the former to be much faster than the latter. This is a direct result of layering two display devices one atop another (which is different from your SGI, for which X11 is the native drawing layer).

You could demonstrate this to yourself quite convincingly by running graphics_times3 in your IDL version running in an X-emulator under Windows, and on the Windows version directly. I think you'll find the latter to be a good deal faster.

This may not be a *practical* limit for what you do, but certainly could impact others with more display-taxing applications.

A similar story could be told for core routine performance and lack of Altivec tuning. Unless RSI is hiding a miracle up their sleeve, "IDL OSX--" will be noticeably slower in both display and computation than the aborted IDL OSX. Of course, we may never know the difference.

JD
