From: Jeff Rehbein
To: Microsoft ATR
Date: 1/28/02 12:55am
Subject: Microsoft Settlement

January 27, 2002

To Whom it May Concern:

In accordance with the Tunney Act, I am writing to comment on the proposed settlement of the United States vs. Microsoft antitrust case.

I believe that there are many problems with the proposed settlement. As shown by Dan Kegel's open letter (http://www.kegel.com/remedy/remedy2.html), there are so many holes in the settlement that it is essentially useless. However, I will focus my comments on a specific group of actions by Microsoft that affect my work directly.

I work as a Macintosh game developer. My work entails both porting games originally written for the Microsoft Windows platform to run on the Macintosh platform, and writing original games for the Macintosh platform. In the following paragraphs, I will show how Microsoft's anticompetitive actions have harmed (and are continuing to harm) me, my company's customers, and the customers of virtually all developers of games for the Macintosh.

In 1992, OpenGL was introduced as an open standard application programming interface (API) for 2D and 3D graphics. Over the years, it has gained wide adoption by operating system vendors (OSV) and graphics sub-systems hardware vendors (GSHV). Seeing that adopting OpenGL would increase the number of games available for the Windows platform, Microsoft adopted it. However, Microsoft only adopted it because it didn't have a competing product.

As Microsoft has done time and time again, it quickly turned out it's own version of someone else's innovation. In this case (as in most cases), it's version (Direct3D) was nowhere near as good as the original. However, Microsoft tied it to Windows (still on the same pattern) and to its development environment and some developers used it. Recently, Direct3D has became good enough to compete with OpenGL. So what did Microsoft do? It removed OpenGL support from Windows XP before release - support that was already there. OpenGL can still be used, but the support has to be added by each GSHV, seriously complicating the situation.

Removal of OpenGL support from Windows harms several groups of people:

1. Developers who know and wish to use OpenGL in a Windows application.

2. Developers who want to write 3D (and 2D) applications that can be compiled for Windows and other operating systems from one codebase.
3. Developers who port applications originally written for Windows to run on other operating system (the original application may have been written with OpenGL under different circumstances, making it far easier to port)
4. In the long run, other OSVs that depend on OpenGL will likely be harmed. This is because usage of OpenGL will drop off, which will lead to a stagnation in the OpenGL standard.

As if removing OpenGL support from Windows wasn't enough, Microsoft recently purchased key patents from Silicon Graphics, Inc. that may give it even more ammunition against the competing, open standard. I can't say for sure what Microsoft will do with this new power, but given its past history I think it's a sure bet that it will be bad for OpenGL, and by extension, bad for developers and consumers. One company should not be able to so negatively affect an open standard. Unfortunately, the proposed settlement does nothing to prevent this sort of activity.

Microsoft also hurts all developers who port Windows games to the Macintosh by keeping all DirectX APIs usable on Windows alone. Microsof routinely changes the API calls so that developers can't make a "glue library" (a glue library is used to easily convert calls to one API to calls to different API) that can keep being used in each new project. There is no need to so routinely change the actual interface calls of APIs. Other OSVs do everything they can to keep those calls the consistent. Doing otherwise would break compatibility and drive away developers. Only a company with a monopoly could do this and survive.

One DirectX API in particular gives port developers trouble - DirectPlay. DirectPlay is an API that makes it relatively easy to add networking features to a game. Because of the lack of documentation of the internal message structure, any port of a game originally written using DirectPlay cannot communicate with the original version. This relegates users of the ported version to a second-class status. Although technically possible to reverse-engineer the protocol, Microsoft actively thwarts such attempts. The one known instance where the protocol was reverse-engineered and used in a product (which took 6 months), Microsoft promptly overhauled the protocol and released a new version which completely broke the compatibility.

Microsoft's actions with the DirectX API serve solely to strengthen the applications barrier-to-entry, even at the expense of their own developers. Unfortunately, the proposed settlement does absolutely nothing to alleviate this or any problems concerning this barrier. The unfortunate truth of the matter is that there is no remedy for the above problems short of separating the OS business from the rest of Microsoft.

As show in the previous reference to Dan Kegel's open letter and in my

own, the proposed settlement will do little to limit Microsoft's anticompetitive behavior. It would be a grievous waste of taxpayer money if this settlement was the end result of the case. I implore you to reconsider this course of action.

Thank you for your time in considering this matter.

Sincerely,
Jeffrey Rehbein
Macintosh Games Developer