From: Robert McConnell
To: Microsoft ATR
Date: 1/28/02 5:08pm
Subject: Microsoft Settlement.

In response to the government's request for comments on the proposed Microsoft Settlement:

As a computer professional with over three decades of experience writing software for a variety of operating systems including Windows, and as one-time fan of Microsoft, I would like to make two points. The first is to suggest one route which in the absence of a breakup I expect Microsoft to continue to exploit to maintain it's monopoly. The second point is to call attention to a related danger from Microsoft's monopoly which I believe is accelerating the flight of manufacturing from the US to foreign countries.

First the monopoly preservation strategy:

Most competent computer programmers can, if they wish, write and document functioning code which is virtually incomprehensible to any other competent programmer (including the author him/herself). Moreover said author can almost certainly (disingenuously but successfully) argue in a court comprised of non-experts that the code is straightforward, well-documented and easy to understand.

What does this have to do with Microsoft maintaining and extending their monopoly? Everything. Whether hardware or software, it is in the interests of the creator of any product to facilitate use by the consumer while hiding as much of the internal workings as possible to discourage competition. Microsoft's strategy has been to continuously expand the boundaries of it's "operating system" (more properly now an operating environment) enveloping or attempting to envelope entire classes of applications, office, networking, on-line shopping, manufacturing etc... within the boundaries of the "operating system". This can be done explicitly as in the case of Internet Explorer, or implicitly by simply making it difficult and or prohibitively expensive for outsiders to access, or even know about, operating system or hardware features which may be important for fields Microsoft dominates, or wishes to dominate. The "browser wars" were about exposing the inner workings of Microsoft's operating system so others might use them.

Because of the ease of writing and defending impenetrable code Microsoft already has an almost unlimited ability to restrict access to the core of the operating system and to the hardware beyond, whether or not a court orders it to provide access. Microsoft sells just enough tools to access selected parts its operating environment to be able to provide lip-service to openness. Generally speaking the products are scaled in such a way that only those who have made a large commitment, financial or "sweat equity" which will tend to lock in their allegiance to Microsoft are allowed access

to the more powerful tools.

Because of the high barrier created by the impenetrability of the Microsoft code, it is hard to imagine any remedy short of a breakup will be able to curtail Microsoft's illegal monopolistic practices.

The second comment, related to manufacturing flight, is contained in a letter I sent to the Attorney General general of Massachusetts several months ago. The text follows:

Dear Mr. Attorney General,

I must congratulate you and your staff on the stand you have taken against the proposed Microsoft settlement.

I am a software developer who has long been appalled by the relentless manner in which the American public interest continues to be steamrolled by the Microsoft juggernaut. Therefore I was shocked by the decision by the Justice Department to take the breakup option off the table. It is my opinion that this option offered the only chance to restore competition to the software marketplace. Needless to say, I was further dismayed by the terms of the proposed settlement.

As you are obviously well aware, under the guise of "innovation" Microsoft has succeeded in stifling true innovation in many ways. Much of the damage done by Microsoft is not as a result of overt actions towards the "victim" whether an individual or a company. Rather it is in creating an environment in which the fate of others who have tried to innovate in the face of Microsoft serves as a deterrent to further innovation. Of course this type of deterrence by example does not carry the connotation of physical danger as might be expected from similar threats by organized crime or terrorists. Nevertheless it is quite effective. This is an environment in which:

1. Intelligent software developers know that they have little chance of being successful unless they join the Microsoft camp. Once in that camp more of a developer's time will be likely spent keeping up with Microsoft's complexity-increasing-whims than improving their product.

2. Intelligent funding institutions know from history that there is no point in developing a product in a market in which Microsoft is known or believed to have interest. The best one can hope for in the case of a very successful product is the opportunity to sell the product to Microsoft at a price determined only by the latter.

3. The required "operating system" (now more properly an operating environment) is so complex as to create a huge barrier between the creative idea of a researcher, developer, or engineer and its implementation into a useful product.

I'm reminded of a university researcher's website I saw several years ago. The researcher noted that he was using older, and by then outdated, analysis software for his research. Although he had written the original software himself, he believed that the new requirement of interfacing with Windows had introduced such complexities that he could not afford either the time to update the software himself, or the money to to hire a Windows specialist to update it for him. Whether or not the researcher's assumption was actually true, Microsoft literature and promotions (the so-called FUD factor) would certainly lead him to this conclusion. Hence his further research in this field was stymied.

4. Similarly the Microsoft "one size fits all" operating system and tools, interposed between America's manufacturing engineers and the computer, hamper their creative efforts. Modern Windows software effectively prevents these engineers from writing high speed one-of-a-kind applications necessary for the most efficient manufacturing. Ten years ago the same engineer would have had no trouble writing this type of software.

As a Senior Member and member of the Peer Review Committee of the Machine Vision Association of the Society of Manufacturing Engineers I became personally concerned about this issue several years ago. I was particularly worried that is resulting in substantial advantages for manufacturing facilities in foreign countries and earlier this year prepared the attached document.

I'm not sure any of this will be of any help in the successful resolution of the Microsoft situation, However I thought it might be helpful in explaining why at least one of us is behind you.

Again, congratulations and good luck on your stand!

Sincerely,

Robert McConnell

CC: Attorney General Tom Reilly