

tabbles
**PLAINTIFF'S
EXHIBIT**
2250
Comes v. Microsoft

EXHIBIT
Lundberg
25

From: Mark Calkins
To: Internet:microsoft.com:bradc, Internet:microsoft.c...
Date: 3/6/95 11:26am
Subject: Windows 95 Logo Program Requirements

Dear Brad Silverberg and Brad Chase,

The Novell Applications Group requests that Microsoft drop the requirement to provide compatibility with Windows NT to participate in the Windows 95 logo program.

We make this request based on the technical differences between Windows 95 and Windows NT. Listed below, we have outlined the problems an ISV will encounter attempting to develop a single application to run under both operating systems.

Novell does plan to support Windows NT with our applications. We were pleased to participate in your latest press release on Windows NT and show support with a future version of WordPerfect for Windows NT. We have looked extensively at supporting Windows NT with other applications, such as PerfectOffice. Requesting this change in the Windows 95 logo program does not mean we will not support Windows NT, but we do believe that it imposes additional burdens on us to compete in the Windows 95 applications market.

There is no question that time to market is critical to the success of any application. We believe that Windows 95 offers a major opportunity to the entire PC software industry. Delivering applications in a timely manner is critical to the potential success of an application. And the ability to participate in the Windows 95 logo program obviously adds to the recognition that an application has met the operating system vendor's requirements for successful operation on that new platform.

In some respects, we are a little surprised that Microsoft is requiring dual support for both Windows 95 and Windows NT for the Windows 95 logo program. For example, it is our belief that the success of the Macintosh has been due in part to the common user interface of Macintosh applications. Apple was able to get the entire Macintosh development community to use Macintosh OS user interface controls. We see the same potential with Windows 95. Microsoft has the opportunity to get the entire ISV community to support the Windows 95 user interface and environment for common consistency between applications. But the problem is that many of those OS facilities either do not exist or they work differently under Windows NT. One prime example is Windows 95 Plug and Play feature. We think Plug and Play represents a huge breakthrough in the industry, yet any application that supports it has to jump through hoops to code around it for Windows NT.

It is our assertion to Microsoft that having to also support Windows NT in the same timeframe to use the Windows 95 logo is unfair and could be viewed in some respects as illegal. While we could debate the level of success that is expected for Windows NT on the desktop, there is no question that analysts industry wide see a huge difference in market acceptance between the two operating system for desktop PCs.

Windows 95 and Windows NT 3.5 Portability Issues

Let us outline the technical reasons for our request that you disconnect the requirement to support Windows NT from the Windows 95 logo program.

1. **Relying on Windows 95 functionality to enhance product functionality.** In Windows 95 there exists potential to rely on the OS for certain functionality. For example, the Task Bar under Windows 95 influences the design of an SDI application because it provides for easy switching of tasks and switching between documents. If an ISV relies on that capability and does not put code in to switch between documents easily (even under SDI), users would not have the same experience with the product under Windows NT. Therefore, extra work needs to be take to give it the same functional level under Windows NT as the product running under Windows 95. The same is true for other key features in Windows 95, such as Plug and Play. It is expected that there could be many such instances with this type of impact in developing for both Windows 95 and Windows NT.
2. **Memory Mapped Files.** In Windows NT, a memory mapped file is only accessible to processes that have called CreateFileMapping and MapViewOfFile for that particular file. In addition the file's memory region can be based at different virtual addresses in different processes. In Windows 95, once a program creates a memory mapped file, that memory region is accessible to all programs. Thus, a Windows 95 memory mapped file is always at the same

2

NL2 0000140

NOV-25-000139

virtual address in all processes.

3. **Memory Management in DLLs.** There is a difference in the way the SHARED data in DLLs is handled between Windows 95 and Windows NT 3.5. Initializing a SHARED variable with a pointer to another SHARED variable will work in Windows 95, but not in Windows NT 3.5. It appears that it is easier to share memory between processes in Windows 95 than Windows NT.

4. **Registry.** The registry file format is different between Windows 95 and Windows NT. This means that it is not possible to do a RegSaveKey/LoadKey/RestoreKey from a Windows 95 machine to a Windows NT machine, or vice-versa. Windows 95 provides some System Administration capability through system policies. We have not seen any information regarding system policies on Windows NT. Any ISV use of system policies would appear to be a problem for NT.

5. **Unicode and ANSI OLE.** The level of integration with OLE 2.0 between the two operating systems is different. In Windows NT, the application needs to supply Unicode strings for many APIs. With Windows 95, the application must use ANSI. Between the two environments it becomes difficult for an application to operate the same way using ANSI or Unicode with the OLE system.

6. **Other Small Differences.** There will be numerous subtle differences that have to be programmed around. For example we have already had seen a difference in our code that adds menu items. We modified the code to work on NT, and when we moved to Windows 95 we found that the code didn't work. This stems from the internal Unicode under NT to the ANSI API set under Windows 95. We were able to come up with an easy fix that worked on both platforms but there was effort involved. We found setting a global hook worked on NT, but brought Windows 95 to its knees. There will be differences in memory management, in addition to memory mapped files, that will require special attention. We have even noticed that while we are developing we have behavior differences in many APIs themselves. When found, we have reported them to Microsoft.

Common controls are supposed to behave the same under both operating systems but the ISV will need to validate the current DLLs for consistency in behavior. Windows 95 help system running on Windows NT, for example, appears to have a problem of inconsistency in behavior and functionality. Basically it requires a lot of validation to feel comfortable that Microsoft has handled all the issues of common sub-systems between the two platforms since they are not based on the same OS model.

7. **Maintain two development and testing environments.** There will be additional effort required in maintaining two environments, testing, programming around subtle differences, etc.; costs such as having to purchase two different operating systems, buying hardware capable of developing for NT (not only for developers but for testing as well), and licensing of development tools.

For example, the ISV must use the Windows 95 SDK to get certain headers pertaining to the Common control set and Plug and Play messages, etc. VC++ 2.0 release does not have the changes in to support Windows 95 (headers). Under Windows 95 you must load the SDK and VC++ to get the environment setup for proper Windows 95 development. Patches are made available to keep VC++ 2.0 working under Windows 95.

While there are theoretical solutions to these problems around, they pose unfair additional burden on the development process and require more resources in order to get the application code common between both platforms.

Conclusion

Based on these technical problems and challenges, we request that Microsoft drop the requirement to concurrently support Windows 95 and Windows NT to participate in the Windows 95 logo program.

We would like to propose that we set up a conference call to discuss this issue. We will work through our Windows 95 contact, Brad Struss, to find a time that is mutually compatible for all to review this with you.

Thank you for taking the time to review and evaluate our request.

Very sincerely,
Mark Calkins
Vice President and General Manager

NOV-25-000140

NL2 0000141

Novell Business Applications

CC: Internet:microsoft.com:bradstr, WPCDEV2.TESTING.TO...

NL2 0000142
NOV-25-000141