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From bradsi Tue Jul 02 10:53:17 1991  
To: davidw  
Subject: Windows robustness  
Date: Tue Jul 02 10:53:14 1991

>From billg Thu Jun 27 13:38:28 1991  
To: bradsi steveb  
Subject: Windows robustness  
Cc: aarong  
Date: Thu Jun 27 13:38:20 1991

Its a fairly disruptive idea to bring up but the recent developments with IBMs promotion of OS/2 2.0 have convinced me we should reconsider one significant element of the windows 3.1 specification. Specifically I think our decision to do separate address space should be reexamined. IBM is putting our lack of protection between applications in their ads and there is no good response - we can try to say that OS/2 isn't robust either but that is a hard point to make.

My recommendation is that we ask 2 people to look again at how hard it would be to do separate address space - including a version we could run to test applications. Because of the way we used to handle EMS I claim the code is already in the system (although some of it will be deleted if we say to go real mode without address separation).

The question is this:  
1) can this be done with a 6 week delay?  
2) Is it worth it?

I send this mail because I think the answer to both questions is yes. NT will require 8 megabytes and it will lack reasonable driver support and its speed is questionable. Without this we risk IBM having reasonable windows program execution in a robust environment long before we will. In fact OS/2 2.0 will probably require less system resource than even win4dos which is a long ways off. Of course if we do this we would take storks recommendation and call it windows 4.

One argument against this is that it will open the floodgates - true. Things like a straightforward integration of file and program manager, shipping ole objects for sound, true drag and drop etc will come up but I think we can resist them. Separate address space should not affect documentation.

The action item right now is to decide whether davidw and someone else should take a week and really study this.

EXH 94 DATE 2/14/02  
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| I think we need to be able to say "windows is as robust as Os/2".  
| I believe that this one change allows us to say that - technical  
| people should verify that this is true or false.

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From bradsi Tue Jul 02 11:03:55 1991

To: billg steveb

Cc: aarong davidw

Subject: Re: Windows robustness

Date: Tue Jul 02 11:03:45 1991

Yes, this would be fairly disruptive thing to do. We have got everyone all in synch now and focused on getting the product done. If we decided to do this, we have to make very certain it's worth the cost.

When we looked at it before, our conclusion is that it is primarily a marketing statement; very few apps in practice stomp on another. I agree, though, it's a powerful statement to make, IBM is making it, and it's hitting home. On the other side, though, we do have some apps, developed by EricFo, which will crash OS2 2.0. We will do more of these...

I have spoken to davidw about this and he will look at it again from a technical point of view. There are some complications with the way global\_realloc is done today that would break existing apps if they were run in separate address spaces. David, can you elaborate? This means separate addr spaces would be usable only by new apps that mark themselves.

The 6 week estimate is in the ballpark for development. There is also the question of testing, and as this is a fairly radical thing to do, I would expect a substantial testing hit on top of the 6 week development effort. I will talk to Johnen, the test mgr, to get a better estimate.

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We can also consider shipping a version of win 3.1 that runs on win32/dos6 - the analogy to win3.1/nt - towards the end of 92. This would be ahead of win4 and provide separate address spaces for win32 apps.

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