

documents you may have that are responsive. It should take about 15 minutes. Please let me know when you would have time to meet with me!

Thanks!

Lynn Radliff-Williams  
Legal



From: Claire LEMATTA (WGNR)  
To: Windows Focus Squad  
Cc: Marty Taucher; Claire LEMATTA (WGNR); Pam EDSTROM (WGNR)  
Subject: WSJ doing story on IBM bundling OS/2  
Date: Friday, May 01, 1992 1:51PM

Paul Carroll is planning to do a story Monday that IBM is bundling OS/2 with two mid range PS/2 systems. He got the lead from the Infoworld press notice about next weeks issue (they do one every Friday afternoon). He wanted to know about OEMs and Windows—I explained the ready to run program and told him the OEMs number over 90 in the program now. Paul said, that contrasts with none on IBMs side.

He didn't want to discuss in detail, since the entire WSJ office was vacating in anticipation of a major rally in times square over the Rodney King ruling and everyone was very nervous about it. He said he would likely file on Sunday as a result.

If you have any other reaction, please send over mail and we could contact Paul by phone.

SteveB—do you want to hint about Janus/Blue Janus? It's pretty early to do so but we could lead him to believe that we won't leave customers hurting..

Claire

From: Brad Chase  
To: Paul Maritz  
Cc: Ben Slivka; Brad Chase; Brad Silverberg; Eric Straub; Karl Stock; Mack Mccauley; Marion Junttila; Richard Freedman  
Subject: Compression Update 5/1  
Date: Friday, May 01, 1992 1:51PM

Stac says they are interested in doing something and our proposal is a good start. They are willing to come up next week with their lawyer and try to bang out the details and they are willing to committ to get the lawyers and us together immediately thereafter if we agree. Lori is scheduling

We had a project review on Astro yesterday. The consensus was that we couldn't get it done with any certainty or commitment for 9/15. There is a chance if everything went perfectly. But the uncertainty is too high (contracts not signed yet, no code in house, resource conflicts with Janus) to allows us to plan for a major fall introduction with PR, resellers, etc. The uncertainty also makes it difficulty also makes it difficult to committ to our isv partners so they can plan.

Since we can't be sure of making this fall, the plan is to make mid-dec rtm, which the team felt it could commit to. This makes DoubleDisk even more interesting. We received an upgrade version of DoubleDisk that we began testing yesterday. The early testing on the new dd driver shows excellent speed improvements, superior for the most part to stacker. Compression ratio is about equal to Stacker. On the flip side, it did have some compatibility problems and consequently we could not complete some of our tests.

Below I summarize the situation..  
Paul how would you like to proceed? Still want a meeting with billg?

1. DoubleDisk

Deal

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We get 3.0 source

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(we would get all languages but while 2.6 is localized into French, German, Spanish and Italian, 3.0 hasn't been localized at all yet) 500K if we give them attribution, 1.25M without, in either case he can still sell DoubleDisk and keep improving it.

\$4M or so if we want to buy the product out completely (he no longer sells DD at all, we have the right to do a stand-alone compression product, he doesn't compete for some period of time etc.)

#### Advantages

- \* Gives us compression in the MS-DOS Upgrade box in January
- \* Should increase Upgrade revenues b/c of a more compelling product and b/c having compression in the box allows us to better justify some price increase for the Upgrade.
- \* We control access to competition
- \* We can get into the accessories/hardware business

#### Disadvantages

- \* Product needs some work, always risk we could uncover something when we get code or when we beta that slips schedule
- \* Harder on customers who have Stacker (estimated installed base by January = 500K). They either have to go through some conversion process or they keep Stacker
- \* We would have to write or have DoubleDisk write a conversion utility. We already have done some work here and have a driver that will read Stacker drives (not write).
- \* Plan on Stacker doing a deal with IBM on OS/2 and conceivably PC-DOS

## 2. Stacker

#### Current Proposal:

- \* Stac licenses us their current technology, all languages (v2.02)
- \* We may OEM the entire product (i.e. including defragger) immediately
- \* We can incorporate it into Cougar/Jaguar
- \* We can offer a \$35 coupon to buyers of Windows or MS-DOS retail
- \* Either party can make any changes to the base technology that it wants to. Neither party is required to share those technology improvements with the other
- \* We will tell Stac if we plan to change the on-disk formats (and share those changes with you) and visa versa
- \* Stac agrees to the following competitive restrictions:
  - Stac will not ship an aftermarket OS/2 product until January 31, 1993
  - Stac will not fund or get involved with any bundle of Stacker with OS/2 nor allow it to be integrated into OS/2 until 6 months after we ship Cougar.
  - Stac may not license any dos compression to IBM for the term of the agreement (3-5 years)
  - Stac will not license Stacker to or allow it to be bundled or integrated with any product that substantially presents the APIs of MS-DOS or Windows for the life of the contract. OS/2 to be treated differently as described above. (DR DOS would be an example of this.)

#### Advantages

- \* Gives us compression for OEMs immediately (don't have to wait until Astro)
- \* No schedule risk for Astro due to compression
- \* Little internal development work for Astro, will be work to integrate into Cougar/Jaguar
- \* Best product for customers (installed base)
- \* Award winning product and clear leader, would be perceived as the two leaders teaming up
- \* No cost

#### Disadvantages

- \* No compression in the Upgrade box until MS-DOS 7, only coupon for \$35 off Stacker

Note: This means we could go awhile without compression in the Upgrade box. It is a realistic possibility that we will not see MS-DOS 7 until Q1CY94.

- \* Limited competitive restrictions
- \* Microsoft can not get into the hardware business (co-processor chips, add -on boards)
- \* While we will be able to do what we want to the code we get,

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Stacker market presence and  
commitment to improvement may make it harder for us to control the technology

Note that Addstor (makers of SuperStor, the compression in DR DOS) called me today (I have kept the dialog open) and made another offer. \$2M one time fee and we get their current source and can do whatever we want with it. no attribution. He also told me again they are doing a version for Netware servers. Recall we eliminated SuperStor (Addstor), b/c we can not control the technology. Their contract with DR DOS is either 3 or 4 years and DR gets right to improvements Addstor makes along the way. At the end of the contract DR may continue to ship the compression they last got. They may not modify the code, but they can keep shipping the last improvement Addstor gave them b4 contract expiration.

From: Lewis Levin  
To: Brad Silverberg; Pete Higgins  
Subject: FW: Win XL4 under OS/2 2.0 [LONG]  
Date: Friday, May 01, 1992 2:12PM

>From mikeluce Fri May 1 13:56:24 1992  
To: LewisL Pinckney  
Cc: JohnHo MarcO  
Subject: Win XL4 under OS/2 2.0 [LONG]

Date: Fri, 01 May 92 13:54:53 PDT

I did a little informal work with this over the last couple of days, and here are the results:

**Executive Summary:**

Overall, Win XL4 will run aduquately under OS/2 2.0 in a full screen Win-OS/2 session. This is basically like running Win 3.0a. It runs unreasonably slow when run on the desktop, so we should recommend that users run in a full-screen session.

Performance is cut by an overall average of 47%, with a whopping 1000% hit in complex paste operations.

The auto-test ran fairly well, but crashed on several occasions due to system resource deprivation. Restarts from that location worked successfully.

The statements that Michael made in his draft mail about Win Excel under OS/2 are valid and supportable.

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**Specific Information:**

**Installation:**

Users who wish to run under OS/2 2.0 will need to run the setup from within the Win-OS/2 session. They will not be able to run an installation from a previous Windows installation, nor to "migrate"\* because Excel places several files (COMMDLG, VER, SHELL) in the \WINDOWS\SYSTEM directory. The \WINDOWS\SYSTEM directory under a Win-OS/2 session is different than that of any existing Windows installation.

\* Migration is an OS/2 tool that lets you setup to use your existing Windows application installations under Win-OS/2.

**Clipboard Support:**

The Win-OS/2 clipboard tries to run in two modes: Public and Private. Public clipboard allows other applications on the Desktop access the Win-OS/2 clipboard. Large Cut/Copy/Paste operations, and some formatting operations seem to cause the system to want to use the clipboard locally. Users should be advised that local use of the clipboard is the recommended method.

**System Resources:**

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After loading a default installation of Win XL4 under a full-screen Win-OS/2 session, System resources have dropped to 47% and 1677K free. Since the Win-OS/2 session only runs in Standard Mode, resources are limited. Users should be advised that resource contention is going to be common when they have multiple Windows applications open, or large models. Anyone who attempts to do complex analysis with large files is likely to run into this problem. (To give you an idea, our own benchmarks barely ran and the autotest died a couple of time because of this limitation.)

Benchmarks:

(A complete listing of the benchmarks is available on \\abu\public\user\mikeluca\os2\bench.xls).

Overall, Win XL4 runs about 47% slower under Win-OS/2 than it did under Windows 3.0a on the same machine. The benchmark machine was a PS/2 Model 70 with 12 MB ram and standard VGA. The most notable was a greater than 1000% slowdown on certain paste special tests. That is due to the very poor clipboard handling under OS/2.

DDE/OLE:

Any applications that use DDE/OLE will have to be running in the same Win-OS/2 session. Users should be advised to read the OS/2 readme file for more information.

Printing:

It appears that Win-OS/2 supports the same printer drivers that were supported under Windows 3.0a. It looks like OS/2 just allows the Win-OS/2 session access to the printer port, so printing doesn't seem like a problem.

Display:

Due again to the speed hit and the resource limitations, there are many places where screen redraw slows noticeably (COMMdlg & SlideShow are the most glaring). Using standard VGA drivers and limiting the number of concurrent windows open will help.

Other:

There is no multimedia support.  
SEND.KEYS() doesn't seem to work.  
Crosstabs, SlideShow, and StatPak all run, although slowly.

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If anyone needs additional data, let me know and I'll see if I can get it.

Thanks,

Michael

From: George Forsman  
To: SYS General DOS Technical Issues, Windows BU developers alias  
Subject: DR-DOS vs MS-DOS and Windows  
Date: Friday, May 01, 1992 2:22PM

Ok folks, I've been asked to explain, technically, why MS-DOS is a better platform than DR-DOS to run Windows 3.x. And, sadly, I cannot think of any technical reasons. Plenty of marketing reasons come to mind, but none that actually say "DR-DOS is not good for running Windows because \_\_\_\_". The fact that Windows runs on DR makes arguing the point very hard.

So, what things make DR lousy for windows. I know we did not test on DR, but we must have some idea of holes in their product.

With asbestos underwear on...  
GeorgeF MS-DOS OEM/ISV support

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