Microsoft Internal Memorandum

To: Russ Werner, Steve Ballmer

From: Cameron D. Myhrvold

Re: **ISV "State-of-the-Nation" Report**

Cc: Paul Maritz, Brad Silverberg, Jon Lazarus, Bill Gates, Mike Murray, Bruce Jacobsen, Rich Abel, Bob Muglia, Mike Slade, Pat Bellamah, ISVMKT, Gary Ferguson, Bill Miller, Lionel Job,

Date: September 28, 1990

This is an updated "State of the Nation" memo going over the status of our ISVs. We plan to update this more regularly than we have in the past - probably once a quarter. This memo goes over the status of a total of 178 ISVs. A quick summary is provided for 178 ISVs and more detail is provided for 61 of these ISVs. This particular edition of the report is heavily slanted towards networking ISVs as we have not historically had as much information about these accounts. I would be very interested in feedback on the format of the report, what other information people would like to see, etc.

This memo is divided into four parts, taken in the order they appear:

1.) Intro, platform summary and selected ISV issues
2.) Brief "one-line" summary on 178 ISVs
3.) More detailed highlights on 61 ISVs
4.) Appendix of app lists - shipping and soon to be shipping apps broken down by platform

APPLICATION SUMMARY BY PLATFORM

Windows   650 shipping Windows applications total
                385 applications currently marked, tested and shipping under Windows 3 now

OS/2 PM   61 applications shipping for Presentation Manager
                (874 copies of the SMK distributed to date)

LAN Manager

 - LM Utilities   8 shipping now
                10 more (for a total of 18) shipping by March 1991 Networld

 - OS/2 Server   14 shipping now
                5 more (for a total of 19) shipping by end of Q1 '91

SQL Server   38 apps from 23 ISVs currently shipping with SQL Server support
                21 more apps (for a total of 59) will be shipping by April '91

Detailed listings for the above information is attached at the end of this document. Specifically:

 - Shipping Win 3 and important upcoming Win 3 apps
 - Ship Summary of LAN Man Utilities,
 - Ship Summary of OS/2 Server apps
 - Ship Summary of SQL Server front-ends

SELECTED ISV ISSUES

IBM/MS Announcement

The ISVs we have talked to see this as a good thing and think it was a positive announcment for Windows and for OS/2. Some ISVs would have liked us to be a little more specific and detailed on where Windows is going and on who should be using Windows and OS/2. We are preparing to do a call down of our ISVs to discuss the announcement with them and get their feedback. Most ISVs (all we have talked to), despite our obvious prejudice towards Windows, still view IBM being the primary developer for OS/2 as a less than optimal situation for OS/2.

PM-only ISVs and Development Tools

This Summer we spent some time trying to identify all of the OS/2 and PM only ISVs and move them to Windows. We had a special focus on moving the OS/2 tools vendors to Windows 3 as this is a good way of minimizing the impact of a Windows-centric strategy for corporations who have invested in OS/2 development internally. We identified about 30 companies in this position including about 15 development tools. We contacted these vendors and tried to convince them to move to Windows and were pretty successful in most cases. Many of the ISVs immediately saw the Windows opportunity and began a development effort without needing any encouragement from us (Digitalk, Logitech/Multiscope, MDBS, etc.). Others we had to convince to do this, but have been able to do so in almost every case (Intelligent Environments, Guidance, Hilgraeve, Cooperative Solutions, etc.). A more detailed discussion of individual ISV status can be found under company name below. At this point there are very few who are not moving to Windows. The notable exceptions are:

Development Tools

- Cadre	Teamwork
- Interactive Software Engineering	Eiffel
- Metaware	High C, Pascal
- Stepstone	Objective C
- Texas Instruments	Info Engr. Facility (IEF)

Other Applications

- Cawthon Software	ChipChat
- DeScribe	DeScribe
- Imara Research	Imara Workgroup

The development tools are not the most popular or visible tools. Texas Instruments and Cadre are CASE tools part of IBM's AD/Cycle partners program. Interactive and StepStone are from the Unix environment. I expect that we can get all of these tools vendors committed to Windows. Cawthon is a one man shop developing async communications software, Describe is the PM-based word processor and Imara is a PM based office document imaging system. DeScribe claims to have insurmountable technical obstacles, Marty Cawthon does not believe he can compete in the Windows marketplace and Imara Research is trying to go to Windows, but has run out of money and will almost certainly go out of business before they can release a Windows product.

There are two primary points of view, a "business" argument and a "technical" argument. The business argument is based on the value ISVs (especially small ISVs) percieve in being on a platform first and argue that they cannot compete even in a market like Windows because there are already far larger entrenched competitors with resources they cannot hope to match. This is the argument forwarded by Marty Cawthon and also by Hilgraeve - both communications ISVs who don't relish competing against DCA in the Windows market (though it appears that Future Soft is actually doing better than DCA). Hilgraeve is working on Windows, Cawthon is not.

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Several ISVs have quoted technical difficulties in moving to Windows or writing an application like theirs under Windows, though in all honestly we believe the technial issues are motivated by a more religious resistance to Windows and to DOS. Here are the three most often quoted technical problems in moving to Windows (in order of importance):

1. Lack of multitasking/multi-thread support

Lack of threads in Windows requires the developer to incorporate an internal multitasking model within their application itself. Not necessarily pretty, but doable.

2. Poor memory support / lack of large memory

Windows does not support virtual memory in real or standard modes; in enhanced mode, it only supports 4X memory overcommit, limiting the available memory severely. Some apps rely on virtual memory support to retain large data files/documents completely in memory. By using the system memory swapper, they can rely on good performance, plus a high degree of stability. The alternative to this model is what current DOS based work processors do: they have to build their own virtual memory system to handle documents that are larger than the available memory. Changing to such a model may be a pretty big big task.

3. GPI graphics

A few applications do use splines and fillets (not available in GDI.). Furthermore, some use retained mode graphics to do hit testing on poly objects. This is something that IBM has been reccommending to tool vendors and so several AD/Cycle partners have implemented their OS/2 tools using retained mode graphics. Doing your own version of hit testing (as the Windows graphics app do) is much more complicated, and time consuming, as the application has to go and re-render all objects which are in the neighborhood of the mouse click. Only this way can they test whether a particular object was clicked on. retained graphics actually makes this much easier.

SMK/BCL

We ran a total of three workshops on the SMK and IBM actually just sponsored one themselves which was run by a third party consulting company. We helped by providing SMKs, materials from our workshops and some consultation. A coupon for the SMK is included in every Win 3 toolkit. To date we have passed out a total of 874 copies of the SMK. ISVs have been super responsive to the SMK and I think we have made a lot of friends with the SMK. It provides a great path for ISVs to follow and they see it as our delivering on past promises. Despite our successes we're worried about the SMK. We have had major slips in our dates and our ISVs are working with alpha-level code that is six months old. The beta we told ISVs would occur in Aug/Sept will now not ship until early next year (note that the beta release now scheduled for December is a different beast from the beta we described to our ISVs and does not contain all the performance tuning we promised for the original beta). Irrespective of what the SMK will be, it is losing credibility now as ISVs see us slip our dates and continue to get nothing better than six month old alpha code. Some ISVs are speculating that our commitment to the SMK is waning. With our new agreement with IBM it is not apparent to the outside ISV where the responsibility (and interest) in the SMK lies (with us, or with IBM?).

This is especially critical if we are not going to deliver true binary compatibility with the BCL. Us backing away from the BCL could easily be interpreted as also backing away from the SMK - and probably will be unless we specifically counter this. I think that any change in our positioning of the BCL has to be done very carefully not to damage or weaken the SMK.

There are several things we should really do to reinforce the SMK:.

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1.) Let's send a mailing to every SMK recipient with two things:
- Tell them about the delay and give them new dates and reiterate our commitment and support for the SMK (and maybe have this letter be a joint letter from MS and IBM?);
- Include a new update of the SMK code to show we are working and that it's getting better.

2.) Future Soft is one ISV that believes they could almost ship on the SMK now. Future Soft has three specific bugs, that if fixed, they claim they could ship within thirty days. So, let's do it. Let's fix their three bugs and get Future Soft shipping by Comdex with the SMK. Then we should get maximum PR leverage out of this for the SMK. If there are other ISVs in this position, let's do it for them as well.

3.) Let's put the SMK in the Windows 3.1 SDK and announce this as soon as we announce 3.1. Brad is already planning to put the SMK in the 3.1 SDK provided it's finished. Let's get the OS/2 group signed up to deliver the final SMK in time for the Win 3.1 SDK.

4.) When the SMK is final we should have "Ship" workshops for the SMK that focus on getting ISVs to ship their SMK products.

32-bit Windows Apps (WINMEM32)

There are several applications now in beta test that are using the WINMEM32.DLL in Windows 3 to support true flat-model 32-bit portions of their applications. Wolfram Research is in beta test now with Mathmatica as is Caere with OmniPage. We are holding a design workshop on October 18th on WINMEM32 for a hand picked audience of 32-bit DOS extender ISVs (we've invited about 80 companies). While WINMEM32 is not a panacea and can never replace the need for a real full 32-bit API, it can help us move a class of application to Windows (32-bit DOS Extender apps)now, prior to having a 32-bit Windows or a 32-bit Win SDK. Since these applications should be SMK-able there is no downside to this work and we may get more (and more sophisticated, higher-end apps) on Windows sooner.