### 21 Questions from Canopus Forum

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### **Marketing**

### 1. What is IBM's Planned response to MS and Win95?

IBM's response is numerous improvements to current versions and new versions of OS/2 Warp. IBM is committed to continuing a steady course of development. IBM will bring out significant new products when they are ready. Ready being defined as having fully passed testing procedures and having met the criteria of any beta program they may have been put thru.

### **ISV's and Non-IBM Applications**

### 2. What is IBM doing to get the ISV's to jump on the OS/2 bandwagon other than DAX?

IBM does not call the developer API extensions, DAX. This is a proprietary name and is the property of Paramount. Internally it refered to by either the entire phrase or DAEX by some of the staff.

IBM has a SDO group responsible for contacts with developers. One possible relationship with developers involves a shared risk agreement, where IBM might put up a part of the development money, do joint marketing and promotion, and provide technical assistance to get a product onto the market. This is NOT fully funding or paying for any products - doing that doesn't meet IBM's goals. This group has been extraordinarily successful, with 61 announcements so far this year. Many more announcements are awaiting the release and use of the Developer API Extensions, discussed later in this

document.

### 3. Are ISV's writing applications for OS/2? If so, what types?

Those ISVs make their own announcements. IBM doesn't own them, they make their own announcements - or sometimes a joint announcement - for their own legal purposes. IBM certainly doesn't push them in any way in this regards. This also means that IBM may be at the mercy of their process; perhaps their announcement doesn't show up in some periodicals because it coincides with other major announcements.

## 4. Excluding Games and Desktop Utilities, what are the next 3 non-IBM/LOTUS applications that will be released?

Jeff is from PSP and this is outside his area, you will have to watch for the press releases from the vendors themselves.

# 5. Can IBM underwrite the initial porting efforts of some major application [E.G. WordPerfect, Quicken, Delphi, Paradox, Visio, etc.] to close the application gap perception?

To paraphrase Lee Resweig: We tried that. The incentive to make a product that could compete in the market place, isn t always there when you pay someone.

#### On the WPS

### 6. What is IBM doing to update the CUA 91 specification for the future? When will Warp get another face lift?

WPS will continue to grow and continue to be the best object interface there is, and IBM will be making additions to it. The WPS is very extendable and NPS WPS Enhancer and Object Desktop are good examples of what can be done. However to IBM, consistency is important, cost of ownership is important, and the cost of retraining is of concern to IBM's customers, but the WPS will evolve to new levels. CUA '94 specifications have been published, and by late '96 you will certainly see an implimentation of them on OS/2.

#### 7. Does IBM have any plans to license StarDock's Object Desktop?

No. WPS is O-O and will continue to evolve.

#### On the IAK

### 8. Is IBM committed to having the best web browser on the market?

Yes, you will see further integration with WPS, and more HTML compliancy. "Connect" is Warp's middle name and there will certainly be much more coming quickly in this extremely important area.

9. Will we see better, faster, more full-featured FTP, Archie, Gopher and especially Mail applications included in the Bonus Pack or another add-on package?

All the IAK software will continue to evolve.

### On the Future Releases of WARP

### 10. What is the expected sequence of Warp releases for the next year?

Warp Server is in 8400 beta shops now, development continues and we will see it as a product sometime after the 1st of the year. OS/2 Warp Connect (Power PC Edition) has been in beta since the end of last year. Development is continuing on this very important evolution of OS/2, and another beta release will be available soon. Because of the significance of the evolution of this product - and the importance of maintaining the familiar WPS and 32-bit OS/2 API, it has had a very long development cycle. A Warp refresh will be out after the first of the year, incorporating fixes that have been created to date and also the new Developer API Extension functions.

The architecture of the microkernel-based OS/2 is the long-term direction for all of OS/2, and will eventually be moved to the x86 arena too.

### 11. What will be the top 5 technological improvements to OS/2 to insure it retains the high ground among OSes?

Continuing evolvement of the O-O interface WPS, Human Centric Interface, Network Centric, Microkernel, Developer API Extensions, real time loadable modules, OpenDoc.

## 12. Will the single input queue be fixed to function more like NT's by having multiples or will it be patched as David Reich has discussed? [Dynamic depth with better detach service?]

The SIQ will change with the microkernel version. Documentation will be available from the Power PC developer's kits and should be available by year end.

### 13. Will OS/2 provide a SOM based equivalent to TAPI?

This is a very important area for which IBM is very carefully preparing a reply. Certainly the implementation, as is much of OS/2 and many of the sharpest vendor products, would utilize SOM.

#### 14. Will OS/2 include native scanner and TWAIN drivers in the base SO?

Image solutions is a different area within IBM, Jeff is really unfamiliar with it, but said it is a recognized requirement, though.

### 15. When is the game subsystem and developer API's planned for inclusion with a Warp GA?

The developer API s will be available first in the Warp refresh. These API s are the main point of the refresh. The game subsystem has not been planned for any particular release at this time, and has only been released in an early beta SDK.

### 16. Can IBM provide a way to switch the WPS screen resolutions without a complete reboot?

It might be possible in the microkernel version, the technical issues are a much larger, and a more difficult question here.

### 17. Can IBM provide a DOS Mode which totally unloads OS/2 and switches to PC-DOS 7.0?

This is under discussion with very high visibility, but again, what's the future importance of pure DOS? This topic is a major discussion point in the industry today. Given the fact that it is generally thought in the industry that there is little point in bringing out further releases of pure DOS, what does this gain the average user? Does the home user, for example, run CompuServe in pure DOS? What does an average business user gain from DOS? What would be the cost in time or cycles to totally unload OS/2, and since you'd then lose the memory protection advantages of running under OS/2, what would be the point?

IBM understands why a DOS mode and the game developer subsystem are important to many OS/2 users. IBM's focus is on the business enterprise, which is where OS/2 is of primary importance. IBM wants to win in the business marketplace and capitalize on its expertise in middleware. Winning this market will pay the bills for extensions to OS/2 for gamers, which continue to be worked on.

### 18. When will OS/2 have a straightforward way to centrally administer hundreds and thousands of OS/2 workstations across the enterprise?

Users will soon see better integration between IBM's three products into SystemView as the manager [AIX and OS/2] and Net Infinity as a client, for NT, Win95, OS/2 and Win3.x.

With current IBM products you can centrally administer - and IBM software does at many many customers - thousands and tens of thousands of workstations. The techniques aren't perfect, and currently you have to integrate a several different pieces of software yourselves - especially if you've got a multi-platform shop. IBM is working to integrate its own multiple solutions more thoroughly, while at the same time increasing their scope. IBM recognizes that most shops are multi-platform, and they are not excluding anyone with thier solutions. IBM feels it is ahead of the rest of the industry at this point in time, but certainly has a lot more work to do as the rest of the world becomes even more network-centric.

### 19. When will IBM provide a PM version of INSTAID.EXE, with a central system to keep logs of installed applications and Uninstall them, removing the files AND the INI entries?

This is actually 2 different questions.

1> IBM has, and is more widely implementing, a common install front-end to products. This install is available on the DevCon CD-ROMs for use by developers. This saves enduser training time and administration time because more and more installs all look and act exactly the same. IBM is also doing this for the CID process - in existence now for 5 years. IBM feels they have the only viable process to remotely install a complete operating systems and - just as importantly - the complete suite of middleware solutions. IBM will continue to improve this front-end and then integrate it into the planned registry.

2> IBM will implement a registry function. The registry shares some traits with a relational database - not all - and its function is to centrally replace configs and INIs, make all entries consistent and compatible, and give a level or protection to the information contained therein. Eventually, a security implementation will control its access, too. The registry and its workings has been presented to developers in New Orleans, and will be a technical session in San Jose at the October TechCon, next month. A similar technical session will be presented in Paris, France the week before the TechCon.

### 20. When will we see greater Win32S support in Warp?

It is still not in IBM's plans to provide full Win95 functions for WinOS/2. IBM has the talent in-house, particularly so since Win95 is still a DOS based system and there is not much of an architectural change, or advantage over it's predecessor. IBM believes that there are specific benefits to writing a native OS/2 application however, and to help ISV's move in this direction IBM is providing the developer API extensions in the new year. Windows developers can participate in the DevCon subscription program which has a minimal cost (\$99-199) and comes with many development tools including a 'lite' version of SMART which will help them port to the native OS/2 environment.

#### On the Power PC

### 21. What's the story on the Power PC? Is it now a blown opportunity?

No, the Power PC is not a blown opportunity. IBM is committed to the Power PC and the technology that it represents. The long beta test for OS/2 for the Power PC have enabled it to have a smaller footprint, which will continue to decline. The current beta's footprint is 16M. The Power PC will have integrated sound; multimedia performance is phenomenal, two to three times the frame rate of current technology.

### Expanded and additional information:

The developer API extensions with Win API's are only the first step in making the OS/2 API set the best possible developer's API set. In time you will see more additions to the API set making it the strongest for cross-platform development. The developer API extensions will be included in the Warp refresh available after Jan. 1. These are not executables for binaries but an API interface that gives developers an opportunity to expand their market presence. Windows is not the end of these extensions and additional API's will be brought out enhancing OS/2 and adding additional cross platform opportunities in the long term.

There are at least 4 sets of MS Windows APIs across their products at the moment - and because MS's APIs are proprietary there will certainly have be updates to the Developer API Extensions as MS adds and removes functions.

OS/2 as a whole is important to the PC community as it has a positive influence on the market. It is an open platform, that is open to all vendors. The API set is growing but not breaking. The API base is the same across all versions and platforms. There are no changes in 'flavor' for different versions. OS/2 has documented all API's and there are no secret or proprietary API's.

The best example of this open framework is the work IBM is doing with ORACLE and Sybase in bringing their products to OS/2 when there is IBM's own database DB2/2 v2. DB2/2 currently exists on multiple platforms with the exact same code base. On AIX it has been benchmarked by the industry and has the highest transaction rates of any RDBM. But the choice is up to IBM's customers. IBM wants to make sure that they have the choices they want, even if it is not IBM's own products. PSP does not have an IBM only mentality.

OpenDoc for OS/2 is positioned as a superset of OLE, a tool kit has been released on the DevCon 8. IBM believes that it will give huge significant function to OS/2 when it is released. IBM continues to work with its partners in OpenDoc development toward its release.

IBM's microkernel is completely portable, and written entirely in C.

The Microkernel will act as a software bus allowing real time loadable modules to be added and

removed as required. This will allow developers who write applications to decide if the applications functions will be a part of the operating system or just applications running on the interface. The Microkernel allows OS/2 to become smaller and more flexible as it will no longer have to follow the monolithic style of Operating System that it and others have been. The Microkernel represents a complete overhaul of the plumbing that runs the current OS/2. It will be transparent to the user and to most developers. It will allow us to respond to the needs of the market faster and with more possible change without losing compatibility.

There is no change to the OS/2 32-bit API - only a recompile of existing 32-bit code is required to migrate to the Power PC. The WPS doesn't change, so a user requiring more power could have swapped their x86 machine, and be given 32-bit Power PC applications - would only notice that the machine looked different, had excellent s3-level graphics, and operated somewhat faster.

The Microkernel will have a new simplified and flexible device driver model made of O-O and other reusable code parts that can be enhanced by third party vendors. These device drivers will be able to load and unload dynamically. They will be far easier to write than the current device drivers.

Human Centric is a future technology - and a subject of research by IBM Research - that will add to and evolve the existing WPS O-O interface.

SMP will exist in the first release of Power PC Warp Connect, but will not be available until the hardware platform, SMP Power Personal Systems are available. SMP will be a part of the port back to the x86 platform.

The Microkernel is a real and available product for OEMs. IBM already has commitments from OEMs who wish to use the Microkernel in various types of controllers.

A JFS [Journaled File System] is being looked at as a possible available plug-in file system on the Microkernel version at some time in the future.

IBM currently has (approximately) 250 products for OS/2. IBM is looking at combining these along with third party software, into more marketable solution packages that target specific needs. John M. Thompson wants to create a virtual software company based on these packages. The bundling of these products will make it easier for IBM customers to realize and maximize the benefits of IBM middleware - which is already and probably always has been the best recognized: things like DB2, MQSeries, CICS, IBM's internet work, DCE, etc. Fully integrating products like these for customers will create vertical solution packages that can be targeted at different segments of the market. The integration of these products in OS/2 was started with "suites", and "paks", the most famous version of which is the BonusPak, and will continue with Warp Connect and Server.

Warp Bonus Pack was the first of these packages. Another example is the Attach Pack which is going to be released on Sept. 28. It will have Personal Communications/2 for 3270, DCE, NVDM/2, AnyNet Sockets, CM/2 for SNA, Mobile File Synchronizer, Lotus Notes Desktop,

Dial-in Access to Lan.

A possible server package for next year might have [and is subject to change] Network System Coordinator, ADSM/2, LanServer/2, Network Client support, PSF/2, LanDistance, System View, OS/2 Connect, Netware Client and Netware Migration Tool.

Some of these packages may be sold for other IBM platforms where the products overlap.