Immediate Release

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IBM AND MICROSOFT EXPAND PARTNERSHIP; SET FUTURE DOS AND OS/2 DIRECTIONS

LAS VEGAS, Nev., November 13 . . . IBM and Microsoft today broadened the scope of their development partnership and have agreed to develop jointly a consistent, full range of systems software offerings for the 1990s. These software offerings will include enhancements to DOS, OS/2* and local area network products.

This statement of direction will assist customers in choosing the software solution appropriate to their requirements and in planning a smooth transition to the advanced personal computing platforms of the 1990s. Together, IBM and Microsoft described the "platform for the '90s" as hardware systems with Intel 386 or i486 ** microprocessors, 4 megabytes(MB) of memory and 60MB fixed disk drives with OS/2 and the Presentation Manager* graphical user interface.

To reaffirm this, the companies indicated the majority of their application and systems development resources will be -- CONFIDENTIAL applied to OS/2 solutions. Beginning in the second half of 1990, MS-PCA 1107420 CONFIDENTIAL X089030 IBM and Microsoft plan to make their graphical applications available first on OS/2.

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Specifically, the companies jointly announced:

- The intent to deliver a version of OS/2 that exploits the advanced capabilities of the 386 and i486 in 1990. This version will have advanced features such as demand paging and the ability to run multiple DOS applications concurrently. It also will allow applications to exploit the 32-bit flat memory model. Today's emerging Presentation Manager applications will run unmodified on the new version of OS/2.
- Availability of early development support for this new OS/2 version by year-end 1989 with a common development toolkit. Software developers starting new high performance or server applications targeted toward 1865K/4MB or larger systems should build directly on the advanced APIs of this forthcoming 32-bit version of OS/2.
- The intent to develop OS/2 32-bit technology that is portable, along with its applications, to other hardware instruction sets, e.g., RISC (Reduced Instruction Set Computing architectures).

Today's OS/2 1.2 is recommended for systems with at least

3MB of memory and 30MB fixed disk drives. IBM and Microsoft are
committed to continue to expand the range of OS/2 capable systems.

As a first step, the companies announced that the over 512

kilobytes(KB) of memory used by the OS/2 "DOS Compatibility Box"

also will be usable by OS/2 applications when the DOS program is
inactive. This capability will be available this year. Both
companies are making a concerted effort to enable OS/2 for 2MB
entry systems. Customers should plan to use Microsoft Windows to
implement graphical applications on platforms with less than 2MB
of memory.

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On systems with 4MB of memory, customers can take full advantage of advanced system features such as the High Performance File System, expanded LAN client features and advanced applications. OS/2 is currently best suited for customers using or building database applications, needing full multi-application and background processing support or using distributed processing solutions requiring full LAN client support.

OS/2 is also recommended for all server applications. The new 32-bit version of OS/2 will be further enhanced for server requirements. In addition, certain advanced operating system features such as Department of Defense security, full object-oriented capabilities and symmetrical multi-processing, will be available only in future releases of 32-bit OS/2.

DOS and Windows are recommended for systems with 1-2MB of memory or fixed disk drives smaller than 30MB. For these customers, Windows is an easy installation upgrade to DOS; allows the user to run existing DOS or Windows applications; enables limited multi-application support; and provides function for a basic LAN client and, as such, is an excellent entry graphical workstation. While Windows will provide the Systems Application Architecture* (SAA) user interface, it is not planned to include the full range of SAA support that OS/2 will provide.

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Microsoft stated that Windows is not intended to be used as a server, nor will future releases contain advanced OS/2 features such as distributed processing, the 32-bit flat memory model, threads, or long file names. OS/2 is the recommended operating system environment for new or existing 286/386 systems with 3MB or more of memory.

IBM and Microsoft believe customers with OS/2 capable systems and software developers with Windows applications will want to migrate to OS/2. IBM and Microsoft will provide support through tools, seminars and technical assistance to help with that migration.

IBM and Microsoft recommend that software developers develop for the platform that best meets their application's system requirements. Software developers, other than those with current windows projects under way, who are targeting both environments, are recommended to start with OS/2.

In addition to these announcements focused on the desktop environments, IBM and Microsoft also announced:

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- The two companies will work together to make the Database Manager, Communications Manager and LAN Requester and Server functions of IBM's OS/2 Extended Edition available to all OS/2 users. These functions of OS/2 Extended Edition continue to be primary participants in the IBM SAA strategy.
- For local area networks, the two companies intend to converge IBM's OS/2 LAN Server and Microsoft's LAN Manager to be identical over time. These LAN products will be designed to run on the base OS/2 operating system in both client and server configurations, like LAN Manager does X009033 today, and will exploit 386/1486 functions.

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In summary, IBM and Microsoft are reaffirming their commitment to provide a graphical user interface on all platforms and significantly extending the functions of OS/2 to provide a consistent systems software base for the hardware platforms of the '90s.

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