Microsoft Memo

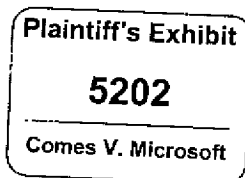**To:** DOS and Windows Business Unit
From: David Cole
Subject: Windows Everywhere
Date: November 16, 1990

Attached is a document intended to clarify the current "Windows Everywhere" product strategy for the DOS and Windows business unit. This document makes no attempt to resolve open issues, it merely describes the current state of our plans.

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Strategy for DOS/Windows Business Unit

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"Windows Everywhere"
Strategy for Success

DOS/Windows Business Unit
November 16, 1990

A. Introduction

This document is intended to clarify how the "Windows Everywhere" system strategy will be executed in the DOS/Windows Business Unit. Although there's brief mention of the high level strategy in this document, clarifying the strategy as it applies to OS/2 2.0, OS/2 3.0, and the Printing Business Unit will be left up to those specific groups. It should be noted that as we continue to work through the details of executing this strategy, plans will change as we "fine tune" the strategy.

B. Summary of Strategy

"Windows Everywhere" means that Microsoft will be promoting the Windows APIs as the graphical set of APIs which ISVs should write to. The Windows APIs will be extended to 32bits with preemption, multi-threads, protection, and security. Target machines for 32 bit Windows range from a 2 MB 386SX machine running DOS and Windows, up to a 16 MB and beyond RISC machine running NT Windows.

Applications written to the Windows APIs can be run everywhere from the low-end DOS/Windows platform, up to the OS/2 2.0 platform via the Binary Compatibility Layer (BCL) and the Software Migration Kit (SMK), all the way up to the power PC platform built around the Intel 486 or a RISC processor which is running OS/2 3.0, (NT). (Note: The SMK is used by ISVs to mark their Windows apps as OS/2 1.x and OS/2 2.0 compatible, it can also be used to take advantage of OS/2 specific features.)

The Windows environment running on top of OS/2 3.0 is referred to as NT Windows and can be ported to various machine architectures. There will also be efforts made to put the portable version of the Windows Graphical Device Interface (GDI) into smart printers to allow spooling of Windows metafiles directly to the printer, the net effect being very fast, very high quality printing.

This strategy not only allows us to better focus our resources, but gives ISVs an absolutely clear message, "Write to the Windows APIs".

C. Windows Release Strategy for the DOS/Windows Business Unit

This section to describes how the DOS/Windows business unit will execute its part of the "Windows Everywhere" strategy. First, a couple of clarifications on our release objectives:

1. Objectives
There are 2 clear (and obvious) objectives we try to accomplish with each Windows release:
a) Meet today's needs of our customers. This means listen to what customers say and give them solutions as quickly as possible in order to accelerate Windows acceptance.
b) Move the technology forward. This essentially means moving our customers towards the data oriented world of "Information at Your Fingertips"®. For the purposes of this memo I'll call this new world Windows 4.0.

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2. Development Teams

Right now there are 6 separate development teams in the DOS/Win BU working on Windows and DOS:

a) **The Windows 3.10 team**. Windows 3.0 is a great product, but it's not perfect. Thus, a large team of developers will focus on features intended to meet today's customer needs while at the same time incrementally moving the system forward.

b) **The "Win 32" team**. This team is focused entirely on 'stretching' and enhancing the Windows APIs to 32bits. These APIs will serve as a foundation for Windows 4.0 and will be released to ISVs early so they can begin taking advantage of them. The code produced by this team will not be portable, it'll be tuned for the Intel x86 platform. A separate development team in the OS/2 group is working on the portable Windows core.

c) **The Windows 4.0 team**. A 3rd Windows development team is focused on "Information at your Fingertips"* technology. This includes the new data storage model, content indexing, and new shell that go in Windows 4.0. These components will be built in a 'portable' fashion so they can be used for Windows on OS/2 3.0 as well as for Windows on DOS.

d) **The DOS 5.0 Team**. This team is working hard to get DOS 5.0 shipped by Q1 CY91.

e) **The DOS 6.0 Team**. This team is focused on advanced DOS technology which among other things will allow 32bit Windows to work even better on DOS.

f) **The "LapTop Effort"**. This effort is focused on a Rom executable version of MS-DOS 5.0 as well as a new file system for PCMCIA/Jeida IC-Cards and a new standard for advanced power management techniques slated for inclusion in both Dos and Windows.

3. Projects

The Windows release strategy is to deliver a series of incremental Windows 3.x releases which will meet today's customer needs while advancing us incrementally toward Windows 4.0, which is Information at Your Fingertips*. Each successive Windows release will contain a mix of features; some features are intended to meet today's customer needs, other features are intended to move us toward Windows 4.0, many features will serve to do both.

The DOS release strategy is to get DOS 5.0 shipped, then solidify DOS 6.0 plans.

a) **Windows 3.10**: The main purpose of this release is to address today's needs of our customers and thus accelerate acceptance. Features such as the improved File Manager and Program Manager, True Type outline fonts, the Task Switch API, better network support, and performance improvements are features targeted at meeting today's customer needs. We will also begin moving the technology forward by adding features like the DDE Manager, the Object Linking and Embedding libraries, more drag/drop in the shell, and the Registration API. These features are clearly targeted at moving us toward the Windows 4.0 world. This version of Windows will also be ROM-able and contain Power Management features needed to be successful in laptop/portable market. Roughly, 80% of the effort spent on Win 3.1 is meeting todays customer needs, and 20% moving the technology forward. Since so much of this release is focused on meeting today's customer needs, it's critical that we get this release done in Q1-Q2 CY91.

b) **Windows 3.20**: Right now, this is a theoretical release. What Win 3.20 is depends on the Win 4.0 schedule. Many issues are being addressed in Windows 3.10, but there are remaining areas of the product which need to be fixed or enhanced. Fixing the printing interface, making the control panel a group, and great network support are key features. To move the technology forward, full drag/drop API, standard color model, merged File Manager and Program Manager are a few of the features being considered in additional to a full 32bit API (see "Win32" below). Roughly, 60% of the effort spent on Win 3.20 is meeting todays customer needs, and 40% moving the technology forward. The actual percentages depend on what we do with the "Win32" work.

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c) "Win 32": This project centers around creating a 32 bit version of Windows for the Intel platform, which includes a 32 bit device driver interface. The Windows APIs will be "stretched" to 32 bits adding preemption, protection, multiple threads, and security. This effort will at minimum result in an SDK which ISVs can use to begin writing apps for Windows 4.0. It's also possible that the 32bit Windows core could be put into one of the incremental Windows releases; Win 3.20, or possibly a Win 3.30 not mentioned in this memo. It will certainly be the foundation for Windows 4.0. 16bit -> 32bit thunks will be included to allow today's 16 bit Windows apps to run on this core. It's also likely 32bit -> 16bit thunks will be written to allow 32bit Windows apps to run on top of today's large Windows 3.0 installed base. This would give 32bit Windows ISVs a place to sell their apps and re-coup development costs. Creating 32bit -> 16bit thunks could also allow ISVs to start porting to 32bits more quickly as this is less of a development effort than stretching the Windows core to 32bits. The target schedule for "Win 32" won't be known for another month or so.

d) Windows 4.0: This project is focused on developing the technology needed to move us into the world of "Information at Your Fingertips"®, which is Windows 4.0. This includes; the new data oriented shell (vs app oriented), a new data oriented model for apps, full 32bit Windows API with preemption, protection, security, and multiple threads. Content indexing, some document library services and a new data storage model are also included. These components are "portable" and will be used by NT Windows on OS/2 3.0. Approximately 80% of the Windows 4.0 effort is moving the technology forward and 20% on meeting specific customer requests. It's undetermined at this time whether this release will require DOS 6.0 or not. Windows 4.0 is targeted for release in late 1993.

e) DOS 5.0: This has been called the most significant release of DOS ever. It is intended to replace both DOS 4.xx and 3.3x in the OEM channel. We will also introduce DOS 5 as an Upgrade available in the retail channel. DOS 5's primary feature is reduced memory overhead for 286/386 and 486 based machines. In these machines the DOS kernel will locate itself into the High Memory Area as well providing direct support for loading TSRs and device drivers into high memory. DOS 5.0 provides support for EMS, XMS and VCPI standards and still operates cooperatively in the Win 3 Enhanced Mode environment. DOS 5 includes the ability to task switch between DOS applications and provides a completely revamped visual shell which features a Win 3 like interface. The Quick Basic Interpreter, a new full screen editor, Undelete and a file search utility are also part of this offering. DOS 5 ships Q1 CY91.

f) DOS 6.0: This product is still in the design stages but will introduce advanced concepts never before seen in DOS. DOS 6 will enhance the windows environment both for DOS apps as well as windows apps. In short, DOS 6 and Windows will be as close as two products can get without actually being the same product. DOS 6 will continue the work started in DOS 5 to clear the real mode address space for use by DOS applications. It will include IFS support, Asynch I/O, Lazy writing and a new device driver model to support these new functions. The utility set will be reworked to provide more visual interfaces and to make the DOS environment a "Safe place to work".

D. Windows Release Strategy for the other MS groups

It's worth spending a minute clarifying the Windows release plans for a few other groups at Microsoft.

1. OS/2 Business Unit
There are 2 separate Windows efforts in the OS/2 group.

a) OS/2 2.0: This group is focused on creating the Binary Compatibility Layer (BCL) and the Software Migration Kit (SMK). The BCL is a layer which will run unmodified Windows applications on top of OS/2 2.0. The SMK is a tool kit which can be used to quickly port a Windows application to take advantage of OS/2 specific features.

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b) OS/2 3.0: This group is focused on creating portable Windows. Initially they are targeting to ship a portable 32 bit version of Windows using the Windows 3.1 shell. After that release, they will use the portable "Information at Your Fingertips"* components build by the Windows 4.0 team in the DOS/Win BU to create and ship portable Windows 4.0.

2. Network Business Unit

Although the product plans are unclear at this time, the goals of the Network business unit for their Windows efforts are clear.

a) Make Windows networking great
b) Remote administration
c) Find a low-end networking solution, IE network in a box.

The DOS/Windows team obviously needs to work cooperatively with the Network business unit to achieve these goals.

3. Multimedia Systems Group

This group is focused on releasing Multimedia Windows. Multimedia Windows is based on Windows 3.0 and contains the required extensions for rich sound and video needed for Multimedia applications.

4. Handwriting Windows

Handwriting Windows is currently being developed in the MS applications group. There are a number of features being added to Windows 3.1 to support this effort. This group is targeting to release a Handwriting Windows SDK in Q1 CY91.

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