

Microsoft Windows 3.0

Marketing Plan

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SUMMARY

Today Microsoft Windows is viewed by many as the defacto GUI for DOS based PCs. And, International Data Corporation lists the product as the leader, with a 42% share, of the PC Windowing Software Market. However, a close examination of Windows' product sales throughout fiscal year 1989 show a slight downward trend. To combat this trend and increase product sales we have attempted to capitalize on several key changes within the personal computing industry.

- The migration to GUI on the desktops is becoming a given in large and medium size businesses.
- Today's hardware platforms are ideal for supporting Windows and Windows applications.
- Momentum in the developer community continues to provide significant growth in the availability of Windows applications.

The trade, OEMs, developers, and customers are showing renewed interest in the product and sales have started to strengthen in recent months. However, as a 3.5 year old product, Windows carries functional limitations and marketing "baggage" that hobbles its ability to truly achieve critical mass.

- Windows baggage
 - Perceived as "big and slow" due to poor memory utilization and performance
 - Image as a single application environment from the proliferation of runtime versions and memory restrictions
 - Low visibility of Windows applications
 - Customer uncertainty of Windows versus OS/2 PM positioning
- Poor usability
 - difficult installation
 - non-graphical user shell with incomplete functionality
 - substandard documentation
 - poor interoperability in network environments
- Lack of key applications for target markets

Microsoft Windows 3.0 addresses the majority of these roadblocks head on, providing the most significant upgrade to the Windows environment ever made. Coupled with focused marketing programs and the product's growing momentum, version 3.0 provides the opportunity to solidify Windows' position as the graphical windowing environment for the DOS world. Specifically, the long term marketing objective is: DOS=Windows. Marketing programs throughout the remainder of the fiscal year will support this objective by focusing on the following activities:

- Impactful introduction of Windows 3.0 into all sales channels to gain awareness, address objections, and motivate purchase.
 - OEM endorsement and promotion of Windows as the strategic environment for DOS systems
 - Enterprise wide adoption in large and medium size businesses
 - Rapid update of the Windows installed base
- Establish Windows' viability and counter the real/perceived barriers to adoption within the target markets/audiences.
- Concise communications of Windows position in the marketplace.

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MARKET OVERVIEW - Situation Analysis

The movement to GUI

Graphical user interfaces (GUIs) have come a long way since the Xerox Star and Apple Lisa. Credibility has been building every since the introduction of the Apple Macintosh in early 1984. By the end of 1987,

- * The Macintosh had become an accepted professional productivity tool in the Fortune 1000 with large corporations accounting for a significant percentage of Macintosh sales.
- * The IBM/Microsoft joint announcement of OS/2 with Presentation Manager positioned this GUI to be the defacto standard of the near future.
- * Microsoft Windows sales were experiencing a strong boost with the enhanced functionality of the 2.0 version of the product and its growing reputation as the "OS/2 Presentation Manager equivalent" for DOS based systems.
- * And numerous vendors formally committed to integrate UNIX GUI into their product lines.

For users, software developers, and hardware vendors, the momentum to "go GUI" was on! Today, while some players have taken a back seat in the marketplace, the GUI trend is approaching critical mass.

- * Currently, the Macintosh installed base is over 2,380,000 units. IDC projects this number to top 3,447,000 by CY 1989 year end with a run rate of over 870,000 units per year.
- * Over 10,000 OS/2 PM SDKs and IBM toolkits and shipped world wide to developers involved in OS/2 PM application development. Major vendors such as Lotus Development Corporation, Borland, and Ashton-Tate have stated their commitment to provide OS/2 PM programs in the near future.
- * Over 4.5 million licenses of Microsoft Windows have been distributed worldwide to date. And International Data Corporation estimates an installed base of over 2.5 million.
- * IBM's announcement of OfficeVision, their first SAA compatible applications, validates the movement towards a common user interface and environment.
- * Even the various UNIX camps are leaning towards standardization on consistent and graphical interfaces.

Not only has Windows contributed to the GUI momentum, but it has also enjoyed considerable success and market share because of the trend. Windows is viewed by many as the defacto standard GUI for the DOS platform, and for good reason.

- * The Worldwide Retail run rate for fiscal year 1989 averaged over 36,000 units per month.
- * For this same time period, end-user sales were accompanied by average monthly shipments of 1060 units of the Windows Software Development Kit (SDK).
- * Over 500 Windows applications are currently available meeting horizontal and vertical requirements.

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- Corporate accounts are showing growing interest in the product not only for users, but as a viable development environment for internal systems.

Customers no longer question *whether* to adopt GUI, but simply *when* and *how*. In focus groups conducted by Temple, Barker and Sloane, senior level decision makers from large businesses were asked about their plans for migrating their organizations to GUI. Their response?

"We feel that it's something we've got to be doing because we think that's where the world is going to be. And so we pick our places, and we get started, and we get successful."

"Destinations are the same; the journey may be different, but we're all going the same way."

"I think something like this will evolve, at least in our company. And the speed at which it moves once the first few people get it, as if other people say hey, that's great, I'd like it. It sort of catches. It becomes like a sort of craze..."

"We're developing OS/2 applications. We're actually doing the user interface, taking the existing systems we have now, and adapting them to a common user access type orientation using the SAA guidelines."

"... in the next five years we're all going to be in the graphical world."

GUI and DOS

While the migration to GUI continues to gather momentum, the successes must be viewed relative to the backdrop of DOS. With an installed base of over 30 million copies (representing 81% of the workstation desktops) and 10,000 plus DOS applications, this character based, single tasking operating environment still reigns. The human and organizational reluctance to change slows the migration to alternative operating environments. In addition, application and system vendors reluctant to give up hard won market share for their DOS products (perhaps until their GUI products are well positioned), continue to bolster the operating environment and extend its viability to customers.

- Large installed bases of character based applications are continually supported by new releases, further wedding the users to their current standards. Why spend the dollars to move and train users on a completely new, graphical application when the current one can still be pushed just a bit farther?
- The current push in DOS extender technology and cooperation lets users break the 640K barrier — the bane of the DOS operating system.
- The proliferation of task switchers and multitaskers, such as Double DOS and DESQview, allows users to obtain functionality gains beyond the original design of the hardware or the operating system.

Several other market trends have helped to break through this inertia and ease the migration path to GUI: hardware platforms, developer momentum.

- Today's hardware platforms are ideal for GUI environments and graphical based applications. The 80286 and 80386 based PCs provide the processing power to drive large, complex graphical based applications. Today, these systems are the entry level in corporate accounts (CAs) and many medium size businesses.

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IBM PC & Compatibles: Units shipped (in 1000s) and growth rates for 1988 and 1989 by CPU class.

Vendor & Model	1988				1989			
	US	Growth	WW	Growth	US	Growth	WW	Growth
(IBM PC & Compatibles)								
8088/86	2,383	-21.9	3,307	-21.2	1,350	-43.3	2,050	-38.0
80286	3,952	39.3	5,330	42.3	4,285	8.4	6,050	13.5
80386SX	100	100.0	125	100.0	725	625.0	1,000	700.0
80386	890	258.9	1,150	271.0	1,495	68.0	2,135	85.7
80486	0	0	0	0	45	100.0	60	100.0
Total	7,325	19.4	9,912	20.1	7,900	7.8	11,295	14.0
68000	1,075	20.1	1,600	28.0	1,250	16.3	2,000	25.0
Other	1,100	-41.7	2,475	-29.8	675	-38.6	1,400	-43.4
Total	9,500	6.5	13,987	7.3	9,825	3.4	14,695	5.1

Source: International Data Corporation, 1989

According to Dataquest, approximately 90% of all 80286 based systems and 100% of 80386 based systems ship with hard drives. The average memory configuration for 80286s is 1MB and over 11,149,000 80286s are installed with this memory configuration or higher. 80386s average 2MB with an installed base of 4,795,000 systems at this level or higher. VGA is rapidly eclipsing EGA as the video standard.

- Momentum in the developer community continues to provide significant growth in the availability of GUI applications. Many developers are eager to take advantage of the new market opportunities and fearful of being too slow to adapt to new technology (i.e. - no one wants to be another VisiCalc). As noted above, over 500 Windows applications are currently available including offerings in all areas of "office automation" - word processing, spreadsheet, DBMS, graphics, communications, email, and project management.

The current Windows product and the marketplace

We have attempted to capitalize on the market situation and trends to maintain and even build momentum for Windows. However, as a three and a half year old product Windows continues to carry some "baggage" in terms of market perception.

- In the early days, application selection was very lean. Today, users still perceive limited application availability. Raising the visibility and viability of the numerous and quality applications that are available has proved a difficult task for us, and for the ISVs.

The application set, especially in the key OA categories such as word processing, needs to be broader and deeper. For enterprise wide adoption by CAs, one of the key applications categories has been PC to mainframe communications, especially 3270. Until just recently, the Windows applications currently available in this category offered only a subset of the functionality required and the DOS applications are either incompatible with the Windows environment or present almost insurmountable usability problems.

- We originally positioned Windows as appropriate for the 8088/86 based PC where performance never proved acceptable to users. The product still bears the reputation of being big and slow today.

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- The link with OS/2 Presentation Manager (PM) has been a mixed blessing. Its contribution to the GUI momentum has definitely helped build interest in Windows.
- Initially, however, we positioned Windows as a stepping stone to OS/2 PM, the strategic platform for the future. Customers perceived that Windows was not strategic to us and were therefore reluctant to make it strategic for themselves, planning instead to move directly to OS/2 PM. Unfortunately, several market factors have slowed the widespread adoption of OS/2 PM. With Windows viewed as non-strategic and OS/2 PM viewed as not yet viable, many customers have remained with the status quo - DOS.

More recently, Windows has been positioned as a very viable platform for today and one that easily coexists with OS/2 PM, easing the migration to the future. The overlap in functionality between the two environments, especially with the release of Windows 3.0, supports this positioning. But the message must be carefully and concisely delivered to avoid further confusion which could result in continued inertia.

- The Windows "runtime" has been a necessary evil. Windows applications that include the runtime can run out of the box and do not depend upon the presence of Windows. This option has allowed ISVs to market their product with reduced concern for the size of the installed base of Windows users. Providing this option free of charge has also assisted us in marketing the Windows environment to the development community.

The runtime has outlived its usefulness for Windows and the Windows ISVs. This single application environment does not allow users to realize the strong productivity and usability benefits of the full environment (e.g. - task switching and multitasking, data sharing and exchange, etcetera). Many runtime users don't even understand that they do not have the full Windows product. They perceive Windows as simply the look and feel of a particular application. Hence, the user's motivation to purchase the complete product is significantly minimized. Windows application sales are affected as well. Without moving to full Windows, the user's motivation to purchase additional Windows applications, over their character based counterparts, is reduced.

- The current Windows product carries a relatively complex installation procedure on even standalone PCs. Configuration and optimization when networks and/or DOS applications are involved can be even more confusing. Novice users often give up before even completing installation and never experience the benefits of the environment. System coordinators will push harder to make the system work, but even they will turn away when faced with changing memory addresses, calculating page frames with different switch settings, and chasing elusive network incompatibilities.

The effect is twofold. Windows bears the reputation of being incompatible with networks. And, the resulting body of Windows users are generally the PC market's subset of gurus. In their recent study, Griggs and Anderson found a greater likelihood of finding technical users among Windows users (67%) than among MS-DOS users overall (13%). The Windows promise of delivering the "next generation of applications" and a GUI captures the interest of the PC market innovators and early adopters. These users are also often the power users and are technically equipped to complete the necessary configuration and optimization requirements. This limited audience appeal translates directly to limited product acceptance.

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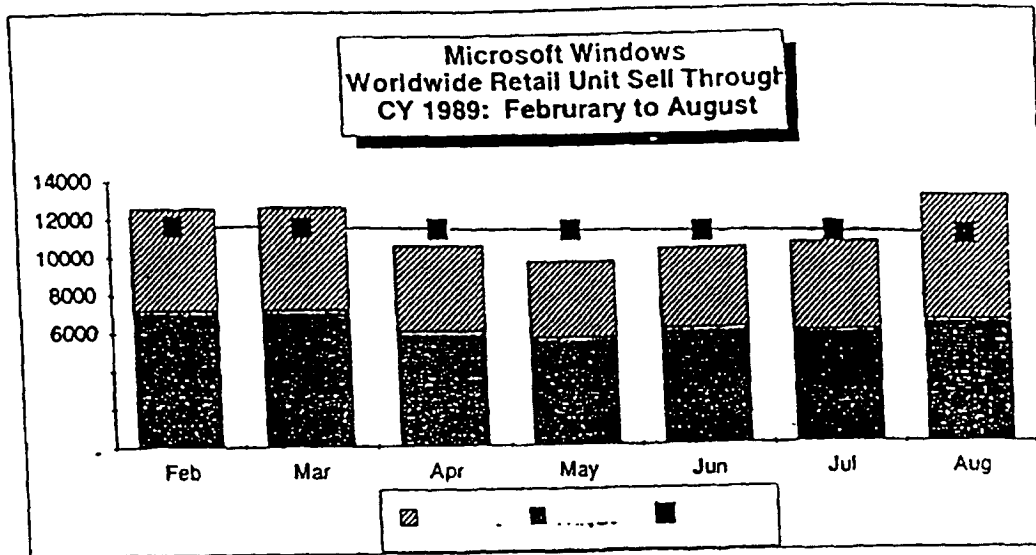
The results? Windows product shipments and sales throughout fiscal year show a slight downward trend. A number of corporate accounts are showing a renewed interest in the product and even installing Windows and Windows applications in various departments, but enterprise wide adoption is rare. Currently, none of the OEMs who license Windows, strongly promote customer installation and utilization of the product. There is a legitimate question as to how many people really use the product - moving Windows from the category of software to "shelfware."

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Summary

The following roadblocks are inhibiting widespread adoption of the Windows environment. Enhanced product functionality coupled with focused marketing programs are required to overcome these roadblocks and allow Windows to truly achieve critical mass.

1. Windows baggage:
 - poor memory utilization and performance
 - image as a single application environment
 - low visibility of Windows applications
 - uncertainty of Windows versus OS/2 PM positioning

2. Poor usability:
 - difficult installation
 - non-graphical user shell with incomplete functionality
 - substandard documentation
 - poor interoperability in network environments

3. Lack of key applications for target markets:
 - 3270
 - strong word processing contenders
 - depth of selection in key OA categories

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Enter Windows 3.0!

Microsoft Windows 3.0 addresses these roadblocks head on, providing the most significant upgrade to the Windows environment ever made. Building on the product's momentum, version 3.0 will move Windows from the realm of the power users and early adopters to the mainstream.

- Windows 3.0 exploits the protect mode of the 80286 and 80386 processors to provide more memory for applications. The Windows 3.0 memory manager provides Windows applications direct access to extended memory (and virtual memory on 80386 based systems). Multiple mega applications can now be run simultaneously with performance improvements over the Windows 2.X environment.

Note: Previous versions of the Windows environment have been available in two different products for the different processor environments (Windows/286 and Windows/386). With version 3.0 users can still use the Windows environment across a broad range of systems, yet the product is merged into a single program — Microsoft Windows — that automatically configures to take advantage of the processor type and available memory. Reference the Windows 3.0 Retail Product Brief for additional information.

- Windows 3.0 significantly enhances the graphical user interface. On screen visuals feature better utilization of color and subtle design enhancements. The Program Manager, File Manager, and Task List replace the MS-DOS executive. This exciting new user shell provides consistency with OS/2 Presentation Manager and presents information in a more graphical, object oriented manner. All program and file management tasks can be easily performed in the Windows environment, many using direct manipulation of icons. /
- Windows 3.0 provides improved usability. The new Setup program stays in DOS just long enough to load key Windows files to the hard disk. The majority of the program is a very visual, Windows application (complete with help screens) to ease the user through the installation and into the new environment. Once completed, the user steps into their customized desktop with a bit of Windows experience already under their belt. Should reconfiguration (of even monitor and keyboards) ever be necessary, the Setup program may be easily accessed from the Program Manger without the need to return to DOS.

Windows' new "network awareness" provides users with convenient access to resources beyond the PC on their desk. Setup walks the user through establishing standard network accesses to file and print servers. Then, once in the Windows environment, users can easily connect and disconnect from these and other network resources as needed.

Completely rewritten user documentation features a new organization and extended information on advanced topics. For users preferring to set the documentation aside, on-line help is available in all Windows desktop applications, including the new shell. We've included this help engine in the Windows SDK, allowing developers to supply consistent, on-line help with their applications as well.

- Each of the desktop applications has undergone a complete user interface review and received general cleanup and optimization. Some of the desktop applications have also received significant enhancements to their usability and functionality.

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- Control Panel now presents configurable items in logical function groups. Each function group is represented by new icons and, where possible, selections can be made by direct manipulation. Users no longer need to edit the cryptic WIN.INI file.
- Terminal has expanded to support VT52, VT100, TTY, XKERMIT, XMODEM and additional Hayes, Multitec, and Trail Blazer modem models. The inclusion of a file transfer program allows send/receive of both text and binary files. A scripting language assists in developing auto-login routines.

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- **Paintbrush** replaces the current paint program and features color, enhanced editing capabilities for cut/copy, flood and fill, and the zoom mode.
- **Calculator** is now a full featured scientific calculator capable of calculations in binary, octal, decimal, or hexadecimal. It also carries out statistical operations.

Other minor changes have also been made to Calendar, Cardfile, Clock, Microsoft Write, Notepad, and Reversi. In addition to the Program and File Manager which make up the new Windows shell, two new desktop applications have been added:

- **Recorder** is a simple macro recorder which captures mouse and keystrokes for playback.
- **Solitaire** is an electronic version of the popular card game. The back of the deck may be customized for user preference.

Windows 3.0 development tools

To bolster Windows application and driver development, both the SDK and the DDK have been dramatically improved.

- * The Windows version 3.0 SDK features rewritten documentation, a new set of sample source code, and improved resource editing tools. New APIs will allow developers to effectively exploit the color palette, new objects, the on-line help engine, etcetera. Key to developers, however, will be the new protected mode memory model. With ample memory, developers can concentrate on utilizing the new feature set to build visually and functionally rich applications.
- * The Windows version 3.0 DDK is now truly a product. Like the SDK, it has complete documentation and sample source code. This development kit, in combination with the architectural changes to the Windows product, will help IHVs more rapidly produce high quality device drivers.

The Windows 3.0 product line removes the functional objections hindering product acceptance. Strong positioning and communications of these features, plus complementary marketing programs will enable us to effectively address:

- * The roles of DOS/Windows and OS/PM, allowing users to standardize *today* on the Microsoft GUI.
- * Low visibility and perceived viability of the Windows applications currently available and the exciting new products soon to be released.

Version 3.0 provides the opportunity to solidify Window's position as the graphical windowing environment for the DOS world.

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MARKETING OVERVIEW - Channels

OEM

What better means of delivering the Windows environment to the user than integrated with the user's new PC? Such hardware/software bundles would make the GUI/Windows decision automatic and transparent to the user. It also removes the hurdles of inertia and product installation.

Thirty-six OEMs currently license Windows. While these OEMs are contractually obligated to pay for a minimum commitment each year, there is no guarantee that Windows actually ships with each system, or gets installed and used. Many OEM accounts are not yet believers in the Windows environment and therefore do not aggressively bundle and promote the product to their customers. Yet OEMs are seeking a means to compete effectively with the Apple Macintosh and provide some level of value added over the other PCs available. Windows 3.0 can assist in growing the OEM's competitive advantage.

To leverage the Windows 3.0 opportunity with OEMS we must focus on the following:

- * Obtain Windows license/bundling agreements with the key OEM "hold outs" (i.e. - IBM and Compaq). With all OEMs, make Windows the standard that DOS is today.
- * Encourage all OEMs to aggressively bundle and promote Windows to the best of their ability. (The best and most straight forward means is to ship Windows preinstalled on the hard drive of their PCs.) As OEMs are unaccustomed to marketing software, they must be sold on the value-adding benefits of Windows as a component of their PC systems.
- * Support Microsoft OEM marketing in assisting OEMs who can use Windows to a competitive advantage in special marketing situations. For example, Zenith's marketing requirements in the educational market relative to the Macintosh, or WANG and AT&T's interest in providing complete and integrated OA solutions.

While focusing on the above, the following OEM requirements must be considered.

- * GUI is essential to their image as providers of contemporary, leading-edge products. GUI is also required to meet Macintosh competition head on. The new Windows shell provides the level of visualness required. Its consistency with OS/2 PM and IBM's CUA/SAA provides an easy migration to future operating environments.
- * Users are demanding powerful, robust systems. OEMs need software that makes their products look good. Windows 3.0 enables users to fully exploit power built into today's systems.

Microsoft Sales Force

The sales force is a valuable resource for selling into our key target markets for Windows. But today these reps have limited product knowledge (although rapidly growing) and are ill equipped from both a product and strategies perspective to handle product comparisons, objections on RAM Cram, 3270, network support, etcetera.

Windows 3.0 itself will provide significant relief for this channel. Accompanying marketing programs must focus on:

- * Communicating the benefits of the Windows environment.

- Communicating the improvements of Windows 3.0 over 2.X.
- How Windows 3.0 meets the requirements of the various target audiences.
- Differentiating Windows 3.0 from OS/2, the Apple Macintosh, and competition such as DESQView.

Resellers

The reseller channel represents approximately 38% of total domestic Windows business today. Distributor and Franchisor volume accounts for approximately 60% of total retail business with Dealers (LVD's, Major Chains, Corporate Account Reseller's, etc) contributing approximately 40%.

The breakdown by product is as follows:

	Distributors/Franchisors	Dealers (LVD Major Chains, Corp Acct resellers)
Windows/286:	60.1%	39.9%
Windows/386:	58.87%	41.13%

Windows is broadly distributed relative to other Microsoft products. When compared with PC-Excel, Windows/286 has approximately 138% greater breadth of distribution. From January 1988 to October 1988, an average of 1028 indirect dealers purchased at least 1 copy of Windows/286, vs 432 indirect dealers for PC-Excel.

Unfortunately, the majority of these dealers do not know how to position or sell Windows. They do not know where to place the product in their store or what products to position it against when queried by prospects.

- *Is it an integrated software product?*

Should it go on the shelf with Enable, Ability, Symphony?

- *Is it productivity software (i.e. - "a better Sidekick)?*

Should it be sold against Sidekick?

- *Is it a multitasking/task switcher product?*

Should it be sold against DESQview?

Windows, as a GUI environment, is all of these things. But dealers cater to a wide range of users, many of which are unsophisticated and uneducated about Windows. The customer's interaction with computers is often limited to character based (DOS) environments. The concept of GUI, its benefits and advantages, is completely foreign to them.

Windows often does poorly when a dealer must position it to unsophisticated users in comparison to products that are really designed to be a Sidekick or an Enable or a DESQview. It takes a visual experience for these customers to see the advantage of Windows and Windows applications. To effectively sell Windows, the dealers need our assistance.

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- We must educate the dealers on positioning the product against its perceived competitors. The USSMD trimester promotions provide opportunities for communicating and reinforcing this product positioning message.

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- A visual sales tool, such as a self running demonstration would assist dealers in illustrating the product features and benefits. The tool must be easy for the dealer to setup and simple for the casual user to brows.
- Sales displays and promotions that pull together multiple Windows applications inform prospects of the range and type of applications available to them through Windows. They also provide an opportunity to really sell the benefits of the consistent GUI and the multiple application environment.

ISVs/IHVs

While these third party developers are not a Microsoft channel per se, they can function effectively as evangelists and sales representative for the Windows environment. They look to Microsoft for marketing support and partnership. We look to them to produce and market products which help us achieve the necessary breadth and depth of applications needed for a standard operating environment.

Marketing programs must:

- Validate our current ISV's/IHV's decision to "go Windows" and convince additional developers to move to the environment.
- Build and maintain the partnership relationships with these vendors.
- Raise the visibility of these vendors and their products, thereby raising a wareness of the Windows environment.

MARKETING OVERVIEW - Target Markets

Corporate Accounts (large businesses)

According to Future Computing and IDC, 28% of the PC installed base is in Corporate Accounts (CAs). Widespread adoption of products in CAs can be the forerunner to acceptance and adoption in smaller businesses and the home market. While OEM bundles provide an easy means for *delivering* Windows to CAs, it is still essential that we communicate the organizational and end-user product benefits to promote enterprise wide *utilization* and *standardization* on Windows and the Microsoft GUI.

Primary application requirements within CAs include word processing, spreadsheet, DBMS, 3270, and network connection. Secondary applications vary in each CA depending on the industry addressed and departmental specifics. CAs are also looking to Windows as a development environment for mission critical applications.

In evaluating the current Windows product, CAs site the following objections and concerns:

- Insufficient memory for loading applications, especially in network and PC to mainframe communication environments
- Poor performance relative to non-Windows applications
- Very limited 3270 options
- Poor network support, including lack of network distribution and usage licenses
- Difficult and confusing installation, configuration, and optimization

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- Substandard GUI.
- Confusion about positioning DOS/Windows versus OS/2 Presentation Manager
- Limited number of Windows applications available.

Even a year ago, the minimum hardware required to properly support the Windows environment would have been a major concern with CAs. Today, CAs still maintain a large number of 8088/86 based systems but they are less concerned with maintaining these system's viability on their users desktops. Many CAs simply state that they now recognize that they must be at a minimum of 80286 to support all the various applications their users require. Hence, they are finding other ways of using these machines (e.g. - print servers, terminal emulation for primary task users, etcetera). The 80286 based systems now represent the largest segment of their installations and most CAs indicate they are purchasing only 80386 based PCs. For compatibility and support purposes, most Corporate Accounts purchase "name brands" as opposed to clones.

Medium and Small Businesses

The Department of Commerce (1988) reports that 59% of the 4.8 million PCs sold in 1988 were to small and medium sized businesses. And, 99.8% of all businesses have less than 500 employees. Not only is this a big market potential but, with the migration of OS/2 PM onto the desktops of large businesses, the medium and small businesses will become the primary market for DOS/Windows.

In the past, this market has not been a priority focus and a target, but we have achieved some penetration through advertising and marketing programs designed for the reseller channel. We will continue to work with the newly formed Small/Medium Business Marketing group to increase our share of this market. Short term plans include:

- Continuing research to understand this market.
- Leveraging the Trimester programs to reach this market through the reseller channel.
- Maintaining an awareness of the impact of advertising and communications on this market so that programs and materials can be appropriately used to penetrate these accounts.

Target Vertical Markets

Within USSMD, programs and resources are already in place to assist in successfully marketing to several vertical markets. Education and Government are the most strongly established at this time. We will work closely with USSMD (especially the newly formed Small/Medium Business Marketing group) to use the current programs and consider/develop programs for other vertical markets.

Education

With an installed base of over 6 million PCs -- 33% of the nation's total -- the Education industry is one of the largest single computer markets in the world. Education is also one of the fastest growing: for seven years it has consistently grown at a 30% compounded annual rate. Our current and potential OEMs take a keen interest in this substantial market. It is critical that we understand and meet the requirements of the Education industry and allow Windows to be perceived as the "partner of choice" for OEMs targeting this large market.

Several requirements and characteristics of this market must be considered:

- Education still has a very large base of 8088/86 class machines that they wish to continue supporting. Very inexpensive 80286s and 80386SXs are being considered for future purchases and are very adequate platforms for Windows. Aggressive bundles with OEMs will allow us to target the this new system business.

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- Educational installations are almost always heterogeneous, multi-vendor environments. They are decentralized and depend heavily on networking - typically TCP/IP. Customers in this segment are concerned about the lack of hardware, software, and networking standards in the industry. When considering a product and its vendor, they look for adherence to existing standards and a commitment for the future. They also look for flexible interfaces as a means to smoothly integrate these multi-vendor systems. Intuitive and consistent interfaces are key for reducing training and support costs and enabling the automation of additional users.

Through the new Program and File Managers, system coordinators gain the friendly interface and flexibility they're looking for. Windows 3.0 consistency with OS/2 PM and adherence to IBM's CUA/SAA demonstrates our commitment to providing an easy migration to the future via standards.

- Most users in education are novices -- their first priority is to teach, research, or learn. They do not have the time or the background to become PC gurus. The new Windows Setup program combined with the enhanced user interface will get these users started quickly (and correctly) and make on going operations more intuitive.

Government

Government is really a subset of the Corporate Account market and currently represents about 3 to 5% of our business. With an understanding of government purchasing procedures and focused attention on the key "accounts," the programs designed for Corporate Account marketing can effectively be used to obtain government business.

A central procurement agency/authority works closely with the central information management organization to establish the list of products that can officially be purchased by all government installations. This product selection process is essentially always initiated with the issuance of an RFP. It is critical that the Microsoft personnel supporting this bid process have long leads on new product information. There are several risks or downsides to bid participation:

- Product specifications may have to be altered to meet government requirements. These changes may or may not be in line with general market requirements and established product schedules.
- The government has its own timetables. Additional marketing/sales resources may be required to support the transition from one version of our product to another while a bid is still on the street.
- Hardware vendors and contractors actually win the bids - not software vendors. Hence, we lose control of the distribution and support of the product. An example is Zenith's continued shipment of Windows version 1.X with every Z248 to the DoD through December of 1988. This outdated version of the product has left a very bad taste for Windows in DoD's mouth. Specifically, the product is perceived as "not working well" and having a limited set of applications. Because of this, we must position Windows 3.0 versus Windows 1.X for the government market.

Once a product is approved by the central organization it still must be "sold" to information service divisions of government installations. Direct mail campaigns, tradeshow presence, and newsletters assist in this bottom up selling cycle. Primary applications for users include word processing, spreadsheet, DBMS, drawing and presentation graphics, and communications. Secondary applications include email, desktop publishing, CAD, analysis, stats, languages.

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Government installations do a greater amount of internal development than CAs. However, this is mostly at the mid- and high-range level, not for the PC desktop. Those government installations that are doing desktop development (like the CIA) can be successfully managed/supported within the framework of corporate developer programs. They, like our corporate developers, are asking for the following:

- * Microsoft Bulletin Board
- * Technical Newsletter
- * More SEs, especially those with development expertise
- * Developer seminars

MARKETING OVERVIEW - Target Audiences

Computing Professionals

This audience includes DP/MIS professionals and micro managers. They are concerned with organizational requirements and productivity, and are looking for the following:

- * Minimized training and support costs (and strong technical support for the products named as enterprise standards)
- * Network compatibility and host connectivity
- * Smooth migration
- * Safe decisions as validated by their peers and the trade
- * Product reliability
- * Value and convenient pricing and distribution schemes
- * Products that promote user productivity and keep their users happy

Power Users

Power users and gurus know DOS extremely well and are literate with a number of different applications. They love technology for its own sake and are quick to implement and see the benefit of new features and functionality. We can count on these users to scrutinize Windows 3.0 to determine, from a technology perspective, how the Windows baggage has been addressed.

These individuals are very influential users whose recommendations will reach the computing professionals and the general end users in an organization. Focusing our initial marketing programs and communications on this audience will assist us in gaining awareness and acceptance with other, less knowledgeable audiences.

General End Users

These individuals are concerned with their own personal requirements and productivity and are looking for the following:

- * Technical and philosophical compatibility with the way they are doing their work today
- * Personal productivity gains
- * Products that make their job easier
- * Fast startup and easy recall
- * An easy migration path
- * Easily accessed and responsive product support services

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General end users also appreciate products that add enjoyment to the task and/or environment. This audience can be broken into several groups.

Non-users have the product but don't use it. They may have received it bundled with their hardware and are simply unaware they have it or have not yet had the opportunity to install the product. Other users in this class attempted to install, configure, and use the program but were unsuccessful. Not only do the latter not use the product, but they may also have a very negative impression of Windows. The challenge with these users is to gain awareness of the benefits of the Windows product and the enhancements included with Windows 3.0. We must regain consideration and motivate them to purchase and use the update.

Part-time users have the runtime version of Windows. They may not even be aware that they do not have the full Windows product nor understand the benefits associated with it. Awareness of the benefits of the full Windows product is key along with consideration and purchase of the full product.

Full users have successfully installed the product and use it for running one or more applications. These are the users who are most likely to encounter functional difficulties or limitations with the current version of the product. It is important that this audience become aware of the enhancements in Windows 3.0 and rapidly purchase the update.

POSITIONING

Product Positioning

Microsoft Windows 3.0 meets the demand for a powerful GUI operating environment on the PC which has been demonstrated by the success of the Macintosh. Windows 3.0 is an icon-based, menu-driven multitasking operating environment for the PC. Windows serves as a complete file and program management system, providing a graphical view of all the information stored on the PC, and allowing the user to quickly navigate the PC using a mouse or keystrokes. It allows the sharing of data between applications, automatic updating of files or graphics via Dynamic Data Exchange (DDE), integration of text and graphics, and utilizes a WYSIWYG display. Windows 3.0 supports both Windows and DOS applications.

Windows 3.0 runs on PCs using Intel 80286, 80386 family, or higher processors. It also requires a hard disk, a graphics board/display, and one megabyte of RAM. All of these items are standards on today's PCs.

Windows 3.0 has the capability to load and execute a virtually unlimited number of Windows and DOS applications on 80286 and higher PCs. This is done by utilizing not only conventional and expanded memory, but also by providing Windows applications with direct access to extended memory in the protected mode of the processor, plus virtual memory on 80386 and higher based PCs.

Included with Windows 3.0 are desktop accessories which make it possible to perform more daily tasks without leaving your PC. These desktop accessories include an executive word processor, color painting, asynchronous communications, a rolodex cardfile with automatic dialing capabilities, an electronic notepad, a scientific calculator, plus games and utilities.

Windows 3.0 is part of a family of operating system, including OS/2 with Presentation Manager (OS/2 PM), which provide a consistent graphical interface. The availability of Windows allows corporations to take advantage of this advanced productivity-enhancing interface today. When they choose to move to

OS/2 PM for greater functionality, power and speed, they will not be burdened with the productivity lags normally associated with a new operating system.

Windows 3.0 is optimized for the one megabyte of RAM commonly available on 80286 and higher based PCs. It is the ideal operating environment for the 80286 based system. It is also an ideal environment on the 80386 machine for those who do not need or want the added power or functionality of OS/2 PM. For those who do, Windows 3.0 will be a transitional product.

Windows 3.0 is the host environment for over 500 applications. The availability of these applications and the compatibility of Windows with today's most popular PC configurations, makes Windows today's preferred operating environment for the PC.

Consumer Positioning

The following consumer positioning will be used to drive marketing and advertising efforts in the short and long term:

"The ease, capacity and functionality of Microsoft Windows 3.0 DOS graphical operating system is so extraordinary that it will instantly transform the way you use your PC."

This positioning is intended to convey the breakthrough aspect of Windows 3.0. It is important to do so in order to stimulate and capitalize on the excitement that will be generated by the product. Windows 3.0 is breakthrough because:

- * Its GUI operating environment and visual shell give the user a totally visual and natural way to organize and use the PC.
- * It gives the user access to all of the memory and functionality of the PC, enabling an entirely different kind of computing, limited now only by the extent to which the user chooses to use the PC, not by the constraints of the operating system.

Key messages

1. For consumers:

- * The marketplace and Windows have matured. Today, Windows is a viable environment for the PC user.
 - GUI is accepted as the standard for the PC operating environment.
 - A full breadth of Windows applications are now available.
 - Today's hardware is "GUI ready."
- * Don't be left behind. Catch the new wave of personal computing.
 - Tap into the power of the graphical based, feature rich applications available today. Be ready for the innovations of tomorrow.
 - Break the 640K barrier -- run even mega applications simultaneously.
 - Expand the limits of DOS and exploit the hardware on your desktop.
- * Transition to the future, now.
 - GUI is accepted as the standard for the PC operating environment.
 - Windows GUI is consistent with OS/2 Presentation Manager (PM) and CUA.
 - Windows lets you maximize the benefits of each step you make with your hardware platform, easing the migration to OS/2 PM.

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2. For OEMs:

- Windows exploits (even flaunts) the power of your hardware while simplifying it's use. Users need never even see DOS, they can boot directly into the Windows GUI environment.
- Windows aesthetically complements your hardware design, raising market appeal.
- Windows GUI moves your product into the new standard for personal computing.
- Windows provides a competitive advantage — maintaining the flexibility of the PC platform through support of a broad range of devices while providing all the benefits of a GUI.
- Windows lets your users break the 640K memory barrier which is especially important while memory prices are still high.

3. ISVs/OEMs

- Windows lets your application break the 640K memory barrier.
 - Your application will run with superior performance.
 - The multiple application environment provides room for your application on the user's electronic desktop.
- Windows provides a healthy and viable market for today and tomorrow.
 - Over 3 million copies of Windows have been sold.
 - A broad range of Windows applications are available.
- Windows gives your application(s) the look and performance of the future.

Positioning with Windows version 2.XX

Windows 3.0 represents a dramatic improvement to the complete environment and provides significant benefits to the user and to organizations. Specifically, Windows 3.0:

- *Provides more memory for applications.* The Windows memory manager now provides Windows applications direct access to extended memory (and virtual memory on 80386 based systems) via the protect mode on 80286 and 80386 based systems. Multiple, mega applications can now be run simultaneously with excellent performance.
- *Significantly enhances the graphical user interface* through better utilization of color and the incorporation of subtle design enhancements to on screen visuals. The Program Manager, File Manager, and Task List replace the MS-DOS executive as the user shell. This new shell is completely consistent with OS/2 Presentation Manager and presents information in a more graphical, object oriented manner, supporting direct manipulation.
- *Provides network compatibility and "awareness."* Beginning with the new Setup program, Windows recognizes the installed network and assists the user in configuring network resources into their environment. Day to day network access and interaction is enabled by network drivers which allow the user to connect and disconnect from file servers and printers without ever leaving Windows. The new, intelligent Windows Print Manager replaces the Spooler and allows the user to manipulate files queued to both network and local printers.
- *Improves user support features.*
 - The Windows 3.0 Setup program is itself a graphical application, familiarizing the new user with the Windows user interface and environment.
 - Windows 3.0 also features completely rewritten and restructured documentation designed to support new and experienced Windows users.

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- On-line Help is now available throughout the product. Accessible either as a menu item or through the F1 key. Windows 3.0 also features "plain English" error messages to assist the user in taking the appropriate action.
- * Enhances and expands the set of desktop applications included with the Windows product.

Positioning with OS/2 Presentation Manager

The Microsoft Graphical User Interface (GUI) is embodied in both Windows and the OS/2 PM. Hence, the momentum and acceptance of both products contributes directly to the establishment of the Microsoft GUI as the standard on the desktop, in the workgroup, and across entire enterprises. With the acceptance of the Microsoft GUI, the decision to utilize MS-DOS/Windows and/or OS/2 PM can be driven appropriately by user and organizational application and usage requirements.

Windows provides an optimum environment for DOS based PCs while running on more modest hardware requirements. OS/2 PM provides a higher end set of capabilities and is the strategic platform for the long term. As organizations move to more widespread adoption of OS/2 PM at the desktop, Windows will begin to migrate to alternative, lower end markets such as education (students), small businesses, and the home.

Today, the selection and utilization of Windows can work compatibly with a parallel implementation of OS/2 PM or lay the ground work for a smooth and efficient migration to PM. Windows facilitates the migration to OS/2 PM, for developers and users, in several ways.

Developers

- * The Windows environment trains/prepares developers for the PM programming model and thereby assists in removing a technical barrier to the rapid development of PM applications. The availability of more applications accelerates the utilization and acceptance of OS/2 PM.
- * Many developers have been leery of Windows 2.X due to memory concerns and the resulting performance problems. They've also been hesitant to write for OS/2 PM because of the relatively small installed base. Windows 3.0 solves the memory and performance problems and the combined Windows 3.0 and OS/2 PM market provide significant motivation for developer's to "go GUI." There are those who may not perceive the step to OS/2 PM as viable today. However, once on the GUI bandwagon with Windows, its a much easier step to OS/2 PM.

Users

- * A strong and viable Windows product accelerates the acceptance of Microsoft system software and the Microsoft GUI. This translates directly to acceptance of OS/2 PM as a viable operating environment.
- * Windows provides an interim step between DOS and OS/2 - a step that keeps the customer moving forward. Windows 3.0 will run on a 1MB configuration but will run even better on a 2MB configuration. In other words, Windows 3.0 will let users take full advantage of any additional memory added to their configuration. Today, users perceive Microsoft system software as requiring XMB of memory. Windows 3.0 will promote the perception that Microsoft system software lets users fully utilize the memory they install on their systems. This will assist in breaking down objections to the minimum memory requirements for OS/2 PM.
- * Windows 3.0 keeps the customer from straying to competitive GUIs (or staying with DOS and its "extenders"). Today, going from 1 to 2MBs on a Macintosh provides the user with a big improvement. Not so with DOS, and OS/2 doesn't run well on a 2MB system. Windows 3.0, with its protected mode memory management, fills the niche between DOS and OS/2 and keeps the customer on the Microsoft GUI track.

OVERVIEW OF THE COMPETITION

Inertia

Many users are satisfied with their current operating environment (probably DOS) and see no reason to bother with change. To win against inertia the customer needs to realize *significant* benefits over their current means of operation and over the cost and inconvenience associated with the change. Version 3.0 presents the opportunity to sell customers that previously may not have seen enough benefits in the Windows environment to motivate change.

- Windows' GUI and task switching/multitasking capabilities can be used to convince the user that while they have may have no additional functional requirements, they can improve productivity and ease-of-use while reducing training and support costs for the same task set.
- Windows GUI and adherence to CUA offers the user a migration path to the "inevitable future" while maintaining compatibility with the products and the work style they are using today.

DOS Supplements

Many users are finding that their application and work style requirements are frequently running into limitations with the DOS operating system. A number of products seek to extend the viability of the operating system by offering more capabilities. In a general comparison to Windows, each competitor offers some excellent functionality. The main disadvantage is that they only offer a subset of the functionality provided by the Windows environment. The key to selling against these DOS supplements is to elevate and expand the customer's set of requirements. Then demonstrate how Windows meets those new requirements to the exclusion of the competition.

International Data Corporation (IDC) includes Windows in this set of DOS supplements or "windowing software" and estimates the total potential PC windows software market at approximately \$163 million for calendar year 1990, up 10% over 1989. Unit volumes are projected to grow approximately 20% over 1989 according to IDC projections. IDC's unit and revenue numbers for Microsoft are fairly accurate when compared with actual data adding credibility to the numbers shown below for non-Microsoft products.

PC Windowing Software Market Share: Worldwide revenues for 1988

Company	Product	IDC Revenues	Share
Microsoft	GUI	\$59,847,500	46%
	Windows	\$55,000,000	42.6%
	OS/2 PM	\$4,847,500	3.8%
Quarterdeck	DesQview	\$28,500,000	22.1%
DRI	GEM	\$19,600,000	15.2%
Tandy	Deskmate	\$14,750,000	11.4%
IGC	VM386	\$480,000	0.4%

Source: International Data Corporation, 1989

- Quarterdeck Office System's DESQview (accompanied by the QEMM expanded memory manager) is currently the leading Windows competitor in this category. The product offers similar capabilities to

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Windows: multitasking, multiple windows, expanded memory management. Its major advantages over Windows are its small size and very fast performance for character based applications. The main disadvantage for DESQview is its character based interface and poor support for graphic applications.

Windows 3.0 will help significantly in the battle with DESQview. With the protect mode memory manager, the size and performance issue will be substantially reduced. The enhancements to the Windows interface will widen the gap between DESQview's CUI and Windows' GUI.

- Digital Research's GEM Desktop and Tandy's Deskmate provide a graphical user environment but nothing more — no multitasking or task switching, no memory management or interprocess communications. Both products have very limited application support. GEM was popular in 1985 and 1986 but no longer represents any real competition for Windows. Tandy targets Deskmate for the low-end home market and may be viewed as a competitor for that non-target (for FY 1990) market.
- VM/386 by Intelligent Graphics Corporation is a multitasker designed specifically for 80386 based PCs. The product does an excellent job of supporting multiple virtual machines (VMs) for concurrent operations of DOS applications. However, that's all the product does and it requires a very technical user. Windows/386 3.0 does not add the VM customization capabilities offered by VM/386 but it does meet the majority of users needs for multitasking DOS applications. Once again, elevating the customers requirements beyond multitasking DOS applications will mean a win against VM/386 (even with version 2.X).

DOS Extenders

DOS extenders assist in breaking the 640K barrier by allowing programs to run in the 32-bit protected mode on 80386 based systems but still use DOS for I/O. Lotus 1-2-3 rel. 3.0, and Paradox/386 incorporate DOS extenders to provide additional memory for code and data. Customers standardizing on these products may view DOS extenders as the answer to the DOS memory limitations they're experiencing.

DOS extenders can solve the "RAM cram" problem for a particular application. However, they do not provide any of the additional benefits provided by the Windows environment. With Windows 3.0, the protect mode memory manager solves the memory problem for all Windows applications while providing a number of other benefits such as multitasking and the ease-of-use and productivity gains of GUI. As when selling against inertia and DOS expanders, it is important to elevate and expand the customer's set of requirements to a complete operating environment.

Currently in the development process for Windows 3.0 we are exploring several means of cooperating with DOS extender technology. We are committed to making Windows compatible with applications using this technology and allowing users to access them from within the Windows environment.

Alternative Operating Environments

When selling against alternative operating environments it is critical that Windows be correctly and consistently positioned. Alternative environments typically provide very similar functionality. Hence, a strategic sell which positions Microsoft, Windows, and often the breadth of our application and system software lines may be necessary.

- The success of the Apple Macintosh is well known and has, in fact, contributed greatly to the success of Windows and other GUI products. Today the Macintosh is a stable platform with a broad base of applications from which to choose. This has assisted Apple in overcoming some of the entry barriers to the corporate marketplace. In addition, the typical Macintosh user's almost "religious" zeal for the product locks in new system and peripheral sales for Apple.

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Hence, the Windows sale must come at a higher organizational level where the concerns for connectivity, open architectures, and cost can be found. Currently, specific limitations of the Macintosh include:

- Limited connectivity (although improving)
- High price/performance ratio in comparison to 80386 based systems
- Closed/proprietary architecture
- For users, no multitasking and a poor keyboard interface

Windows 3.0's network awareness, reduced system requirements, and broad device support will hold a strong appeal to purchasers and decision makers in corporate accounts. Windows 3.0 also offers a rich feature set and a visually competitive interface. After viewing Windows 3.0 a system coordinator for Bank of America (and self proclaimed Apple bigot) stated:

"... the interface is MUCH better than the Macintosh. Plus we'll get the compatibility we need and the features our users need."

While individual and organization preferences will vary, the new Windows 3.0 interface assures system coordinators that their users will be getting a strong graphical windowing environment.

- Hewlett Packard's New Wave is an extension to Windows providing an Object Management Facility and a Desktop interface. The New Wave interface allows users to be task oriented in their interactions with the computer as opposed to the current tool oriented approach of Windows, OS/2 PM, and the Macintosh. However, New Wave is not truly a Windows application but an added layer bundled to create a complete environment, customers view it as an alternative to Windows, and therefore -- competition.

Even with the current version of Windows we are generally successful in selling against New Wave's very heavy system requirements, slow performance, lack of specific New Wave applications, and unreleased status. The visual interface enhancements in the new Windows 3.0 shell, coupled with the reduced system requirements and excellent performance will strengthen our position against new Wave.

- The Gartner Group estimates that only 5000 NeXT systems will be manufactured by Next, Inc. in 1989 and that the majority of these will be installed in educational institutions, at ISVs for development and evaluation, and in the press. The product, its current positioning, and target market represent little competition for Windows during the next 8 to 12 months.

WINDOWS MARKETING OBJECTIVES

The long term marketing objective is for Windows to be the interface for the DOS operating system. That is: DOS=Windows. To achieve this objective, we will concentrate on the following supporting objectives within the Windows 3.0 timeframe.

- High quality, impactful introduction of Windows 3.0 into all sales channels.
- Obtain a minimum of two key OEMs (e.g. - IBM, Compaq, Zenith) endorsing Windows as the strategic environment for DOS systems. This may be evidenced by

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- pre-installing the Windows software on the hard drive so that Windows is the default operating environment or,
- strong promotions and well planned and executed marketing programs to gain organizational and user standardization on the Windows operating environment.
- Rapid update of Windows installed base from
 - versions 1.X and 2.X to Windows 3.0 and
 - the runtime (SAE) version to the full version of Windows 3.0.
- Concise communications of Windows position in the marketplace.
- Establish Windows' viability and counter the real/perceived prior weaknesses through
 - raising the visibility of all Windows applications, especially with corporate accounts
 - the availability of Windows 3.0 compatible network operating systems from the key network vendors (i.e. - Microsoft, IBM, Novell, Banyan, 3Com, UB)
 - the availability and strength of a minimum of two, full-functioned, Windows based 3270 applications
 - all targeted ISV Windows applications (as defined by ISV Account Manager) marked or reved for 3.0 within one quarter following the first shipment of Windows 3.0
 - 50% of all known Windows applications marked or reved for 3.0 within 6 months following the first shipment of Windows 3.0

WINDOWS BUSINESS OBJECTIVES

The following chart presents unit/revenue forecasts for Windows 3.0 Retail product during fiscal year 1990, with significant shipments beginning in February. [Note: Windows 2.X unit/revenue numbers for FY 1990 are not included in this forecast summary.]

Windows 3.0 Retail Forecast, FY 1990

Product	Cost	SRP	Average			Unit	Revenue
			Unit/Rev.	GM%	GM%	Forecast	Forecast
Windows 3.0 5.25"	\$12.04	\$149.00	\$77.48	\$65.44	84.46%	95,500	\$7,299,340
Windows 3.0 3.5"	\$14.64	\$149.00	\$77.48	\$62.84	81.10%	51,500	\$3,990,220
Update, 5.25"	\$11.83	TBD	N/A	N/A	N/A	56,000	N/A
Update, 3.5"	\$14.47	TBD	N/A	N/A	N/A	24,000	N/A

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MARKETING PROGRAMS

Windows 3.0 announcement activities and ongoing marketing programs will be focused on achieving the key marketing and business objectives listed above. Programs will include the activities listed below. (Please see the following for additional information and specific: Windows 3.0 Introduction Plan - Rich Abel; Windows 3.0 Communications Plan - Jean Thompson; Windows Advertising Plan - O&M.)

- Marketing support to targeted OEM accounts.

There are a number of OEM accounts that have the potential to be very successful with Windows in key markets such as Education. Working with the OEM marketing group we will target these accounts to provide focused training and marketing/sale support, enabling them to promote Windows as a standard operating environment. Activities may include product bundles with customized Windows environments and joint marketing/sales promotions in addition to product training.

- An aggressive update plan for users and developers.

The update plan for Windows 3.0 will provide attractively priced updates for current users of the full Windows product and runtime users. A straightforward pricing scheme, not tied to purchase dates and version numbers, will assist in removing the inertia caused by confusion and pricing objections.

- ISV cooperative marketing programs.

The Windows Software/Hardware Directory and the Windows Shopping Catalog will be continued with Windows 3.0. Coordinated PR and advertising will also help raise the visibility of current and new Windows applications. Also under evaluation are promotions and sales displays that will draw the currently dispersed Windows applications together in the retail stores.

- USSMD has already developed trimester sales programs for the retail channel. Complimentary programs for Corporate Accounts will be developed by Corporate Account marketing, Windows marketing, and the Windows Application marketing groups.
- Cooperative system sales training for the field plus focused marketing programs to position the Microsoft GUL.

ASSUMPTIONS

- Windows 3.0 product line (retail, SDK, DDK) will ship within the first quarter of calendar year 1990.
- The retail product will execute with good performance on 1MB systems with excellent performance on 2MB systems even running multiple large applications.
- Availability of a full suite of 3.0 compatible applications at ship date.
- Availability of several 3rd party, full-featured 3270 products for the Windows environment.

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- Windows 3.0 compatibility with the key network environments - LAN Manager, Microsoft Networks, Novell, Banyan.

PRICING AND UPDATES

Suggested Retail Pricing

SKU	Price
Microsoft Windows 3.0, 5.25-inch	\$149
Microsoft Windows 3.0, 3.5-inch	\$149
Microsoft Windows SDK 3.0, dual media	\$500
Microsoft Windows DDK 3.0 5.25-inch	\$295
Microsoft Windows DDK 3.0 3.5-inch	\$295
Update to Windows 3.0, 5.25-inch	TBD
Update to Windows 3.0, 3.5-inch	TBD

Update Plan

One of the key marketing objectives is to promote a rapid migration from the current versions of the product and the runtime, to the full versions of Windows 3.0. Windows 3.0 addresses the majority of our current user's concerns and requirements. A satisfied, and happy user base brings a great deal of positive PR to the Windows product. A positive product image contributes directly to increased sales.

In order to quickly move our current Windows customers to the full version of 3.0, we will provide update procedures that are simple, straightforward, and inexpensive for the user. Eliminating the confusion typically surrounding cutoff dates, pricing, etcetera will assist in breaking through user inertia to order the update.

- Update pricing is not segregated by version numbers, date of original product purchase, or original configuration (i.e. Windows, Windows/286, or Windows/386). There will be *one* update price to move to Windows 3.0.
- In the past, free updates have been offered to those users purchasing a product during the period between product announcement and delivery. Windows 3.0 will not be pre-announced. Therefore, a very limited free update period will be established.
- Update programs will be coordinated with ISVs to enable Windows runtime users to update to the full version of Windows 3.0 conveniently and inexpensively.

A complete plan outlining the update program will be forthcoming.

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TIMING AND AVAILABILITY

Notification to Windows developers begins	February
Developer's Pre-release materials ship	late March through RTM
Technical Beta Test begins	late July
Sneak previews begin	September
Expanded Beta Program begins	November
Corporate Preview Program begins	December
Retail Release to Manufacturing (RTM)	January
Announcement	TBD
SDK and DDK RTM	February

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WINDOWS 3.0 RETAIL - Product Brief

Name: Microsoft Windows
Version: 3.0
Pricing: \$149.00
Ship date: January, 1989

Functionality Levels and CPU/RAM Requirements:

386 Enhanced Mode

Processor required: Intel 80386 family or higher
RAM required*: 640K conventional + 1024K
extended

Provides the broadest range of functionality for 80386 based PC users. The protected mode of the CPU is utilized to provide Windows and Windows applications with direct access to extended memory. Plus, a portion of the hard disk can be allocated as virtual memory, allowing Windows to page Windows application code and data to disk. Users can also take advantage of the virtual machine capabilities of the processor when executing DOS applications from within Windows. Each DOS application is provided its own 8086/8088 class "machine." This means these applications can be multitasked (via time slicing) with other DOS applications and run as icons, in a window, or in full-screen mode. These virtual machines may also be paged to disk to provide more efficient memory utilization.

Standard Mode

Processor required: Intel 80286 or higher
RAM required*: 640K conventional + 256K
extended

Standard mode also utilizes the protected mode of the CPU to provide Windows and Windows applications with direct access to extended memory. Multiple DOS applications can be loaded in full-screen mode and users may context switch between them. Neither virtual memory or machines and their accompanying functionality sets are not available in this mode.

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Real Mode

Processor required: Intel 8086/88 or higher
RAM required*: 640K conventional

Protected mode, virtual memory or machines and their accompanying functionality sets are not available in this mode. Multiple DOS applications can be loaded in full-screen mode and users may context switch between them.

*Windows provides intelligent memory management of all available conventional, expanded, and extended memory.

Other System Requirements:

- MS-DOS or PC-DOS 3.0 or higher
- Hard disk with [TBD]MB available storage
- One 1.2MB 5.25" or one 720K 3" floppy drive (360K 5.25" diskettes are available)
- Graphics adapter/display: CGA, EGA, IBM VGA, 8514/A, Hercules Graphics, or compatibles

Options:

- Microsoft Mouse or compatible
- Hayes compatible modem for communications

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SOFTWARE DEVELOPMENT KIT - Product Brief

Name: Microsoft Windows Software Development Kit (SDK)

Version: 3.0

Price: \$500.00

Ship date: February, 1989

System Requirements:

- PC using Intel 80286, 80386 family or higher processor
- 640K conventional, plus 384K extended for use by CodeView debugger
- MS-DOS or PC-DOS 3.0 or higher
- Hard disk with [TBD]MB available storage
- One 1.2MB 5.25" or one 720K 3" floppy drive
- Graphics adapter/display: CGA, EGA, VGA, 8514/A, Hercules Graphics, or compatibles
- Secondary monochrome adapter card and monitor for use by CodeView debugger
- One of the following languages: Microsoft C Optimizing Compiler 5.1 or higher, Microsoft Macro Assembler 5.0,
- Microsoft Mouse or compatible (required for some development tools)
- Microsoft Windows version 3.0

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DEVICE DRIVER KIT - Product Brief

Name: Microsoft Windows Device Driver Kit

Version: Version 3.0

Price: \$295

Ship date: February, 1989

System Requirements:

- PC using Intel 80286, 80386 family or higher processor
- 640K conventional, plus 384K extended for use by CodeView debugger
- MS-DOS or PC-DOS 3.0 or higher
- Hard disk with (TBD)MB available storage
- One 1.2MB 5.25" or one 720K 3" floppy drive
- Graphics adapter/display: CGA, EGA, VGA, 8514/A, Hercules Graphics, or compatibles
- Secondary monochrome adapter card and monitor for use by CodeView debugger
- One of the following languages: Microsoft C Optimizing Compiler 5.1 or higher, Microsoft Macro Assembler 5.0,
- Microsoft Mouse or compatible (required for some development tools)
- Microsoft Software Development Kit version 3.0
- Microsoft Windows version 3.0

MSC 00775195

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