Bill Gates

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052-6399

Tel 206 882 8080
Telex 160520
Fax 206 93MSFAX

Microsoft Memo

TO: Executive Staff - Steve Ballmer, Frank Gaudette, Mike Maples, Jim Allchin, Mike Appe, Susan Boeschen, Mike Brown, Richard Fade, Gary Gigot, Rob Glaser, Pete Higgins, Joachim Kempin, Jon Lazarus, Paul Maritz, Bob McDowell, Nathan Myhrvold, Mike Murray, Bill Neukom, Daniel Petre, Jeff Raikes, Darryl Rubin, Brad Silverberg, Chris Smith, Patty Stonesifer, Bernard Vergnes

Board of Directors - Paul Allen, Dave Marquardt, Bob O'Brien, Gary Reed, Jon Shirley

Tom Corddry, Dave Cutler, Pam Edstrom, Dave Fulton, Sam Furukawa, Bob Gaskins, Aaron Getz, Chris Graham, Karen Hargrove, Bruce Jacobsen, Michel Lacombe, Lewis Levin, Dave Moore, Bob Muglia, Peter Neupert, Chris Peters, Rick Rashid, Tom Reeve, Greg Riker, John Sabol, Steve Shaiman, Charles Simonyi, Rolf Skoglund, Charles Stevens, Marty Taucher, Vijay Vashee, Hank Vigil, Melissa Waggener, Christian Wedell, Greg Whitten

FROM: Bill Gates

DATE: October 30, 1992

SUBJECT: Our Competitors' Good Work

Confidential/Proprietary for Microsoft Internal Use Only

Our key competitors today are the same as they were two years ago. Digital Research has merged with Novell, turning two key competitors into one larger competitor. IBM is more of a competitor now than they were then, but we always considered that a possibility. The only startups that are positioned directly against us are GO and General Magic. Kaleida and Taligent are competitors but part of IBM/Apple.

New global competition has not emerged outside of the United States. In some local markets, where programming talent is very inexpensive, there is local competition. Examples are Taiwan, Russia, China, India and Israel. In most countries, even Japan, our competition is less and less local software companies.

I expect major new competitors in system software or office productivity software will come as technology redefines products and we broaden our scope to intelligent office and home entertainment devices. Possibilities include AT&T, Philips, SONY, Nintendo, SEGA, SMSG, Matsushita and many other large companies. When we can, we will try to cooperate, rather than compete, with these companies.

Let's consider the surprisingly good things that our current competitors have done over the last several years.

Microsoft®

IBM

IBM abandoned OfficeVision, rather than continuing to sink money and reputation into it. Instead, they are referring their customers to a good work group solution involving cc:Mail and Notes.

IBM was willing to work with Apple, despite their hardware competition. They positioned this partnership as the leading light in new businesses including RISC and digital consumer electronics. The PowerPC will become the highest volume non-Intel processor very soon. Both companies were very smart to allow Kaleida and Taligent to have the benefit of IBM/Apple backing with very little of the overhead.

IBM pioneered high speed networking technology through their National Science Foundation work. They have a startup focused on high speed digital delivery to offices and homes. IBM has recognized the importance of multimedia and is funding innovative work. They are also working with SONY on DataDiscman and Intel on DVI.

IBM is reducing its overhead rapidly. They have not given up leadership of the PC business. They still ship over 2.5 times as many PCs as the next largest PC company. They still have the best research. They still control lots of corporate customers. And because the market doesn't expect high profitability, they can continue to invest in many new areas.

The most impressive thing they have done is to avoid having OS/2 humiliated. They have kept it alive as a viable platform for a large number of corporations and as a secondary development target for a large number of ISVs. They have done this through their volumes and by positioning the product as better technology. They have been able to create the feeling that OS/2 has a future, coming together with the Mach kernel and AIX. Users shouldn't want to buy a poor operating system which will not run future Windows application and which is sold from a hardware vendor. OS/2's viability is causing problems for our applications group. Lotus tries to make us look unresponsive to customer needs (Royal Bank) because of our lack of support for this platform. During 1993, we need to correct the impression that OS/2 is a viable platform and reinforce the fact that it will not run mainstream applications.

NOVELL

Novell continues to grow its share of the networking business without increasing its overhead. Novell continues to very effectively use its IBM relationship to make Netware the only safe choice. However, IBM is now focusing on DCE and recognizing that Netware hurts OS/2.

Novell decided to fix Netware Lite and offer it for almost nothing. Most importantly, Novell will ship Netware 4 during 1993. This product will define security and directory. We need to make sure we don't give up client control of these APIs. Novell could try to control the server database, mail, and image management business. But they have so far shown no signs of doing so.

They have not had much impact on the desktop. Their two choices are to develop a competing platform or to clone our platform. They will probably merge Netware, DR-DOS, and Univel into a consistent set of offerings. The key to coming up with a competing platform is ISVs, and Novell has been very weak in this area. In the future it will be more difficult to clone our platform. There are rumors of Windows clone work at startups. All of these rumors should be investigated carefully.

Novell still hasn't come up with a management succession plan, which means they could merge with another competitor.

SUN

We haven't competed much in the past and I don't know how much we will in the future. Their technology and high-end position makes them one of the most interesting companies for comparison. They bought a company (Praxsys) working on a Windows clone, which we need to investigate. It is too early to know how much following SOLARIS on Intel is likely to get, and I think it will actually hurt SUN hardware sales.

SUN has continued to do excellent software development. A great example is their 'Distributed Objects Everywhere' plan. I'm surprised they still haven't shipped the equivalent of NextStep, but I expect them to sometime in 1993.

Their volumes have grown only modestly, and their latest chip (Viking) has delivered less performance than they hoped for. HP and IBM are finally giving them some competition, although their lead in applications is still substantial.

Wayne Rosing, head of SUN research, gave an amazing speech at Seybold indicating SUN needs to build $150 entertainment machines in order to stay in business. Nagel, from Apple, responded that SUN couldn't even build a connector for $150. Perhaps there is an alliance behind this strategy.

WordPerfect

Even though we invested in doing better support than WordPerfect, they continue to enjoy the reputation of offering the best support. WordPerfect has been able to gain almost 40% of US sales of Windows Word-processing with a very weak product. They will ship a strong product in early 1993. Their Mac sales have continued to be quite weak. WordPerfect will do some kind of joint marketing deal with Borland. WordPerfect will continue to try and branch out into new products and use low prices to try to build volume. We can replace WordPerfect in word-processing only by really outrunning them in technology, and making Office more attractive.

LOTUS

CC:Mail. They lead in this category and make money with a lot less people than Microsoft. We can overcome this only by creating technical synergy between different product groups and making Windows for Workgroups a huge success.

Notes. By some metrics, Notes is today's most exciting software product. The payback to customers on many of their projects using this product is very high. Notes 3.0 will be even better, with a tools approach, full text searching, multi-platform support, third party add-ons and increased openness. Notes is essentially a combination of system and tools software, more than it is an application. Once again, technical synergy is our only hope of combating Notes. Our development tools and storage products must be enabled for easy workgroup development, so that we can compete with Notes before Cairo.

123 & AMI & Freelance & Organizer & Japan & Multiplatform. Lotus has more best-reviewed products than any other company. They expanded beyond spreadsheets without paying much money, and it was smart. They are pricing their software to gain share. The have out-marketed us in Japan, where we had previously been head-to-head. If they can ship a new 1-2-3 that wins reviews, they would be very strong in productivity software. Their profitability expectations are so low they can be incredibly aggressive. They understand portable computing and are working with a number of companies in this area. Multi-platform support is a huge positioning advantage for them. We have to have more technical synergy to combat their excellence. We also need a stronger story on multi-platform by emphasizing our Mac work and coming up with a way for Windows applications to run on popular UNIX platforms.

BORLAND

Borland made a technical advance by re-engineering Quattro and Paradox in C++. We must still come up with complex ways of connecting an object-oriented macro language to our current non-object oriented product.

Borland was willing to take the pain of being late. Although Quattro Pro is not as good as Excel, it is a strong first effort. Borland understands technical synergy - all of their products work against their object hierarchy and data store. They own their high-end data store (Interbase) and are extending it in innovative ways. Unless we move towards more technical synergy, Borland will have a better product line.

Borland doesn't seem to understand the role of interpretive languages nor the importance of keeping their Dbase customers happy. Borland has a lot fewer smarter people than Microsoft, but they focus all of them on their key technologies in key products, rather than scattering them around and inventing the future.

Borland has avoided the overhead of multi-platform support, but will almost certainly move to use it against us in the future by positioning their tools as ecumenical. Borland will do new releases every 8 months or so and hype this with claims that they can do it because of object orientation. We will have to use interpretive extensibility of our products to do the same, despite the overhead this entails.

Borland attacks the corporate market with flexibility and low price, and they attack the broad market with great PR (mostly garbage but effective) and direct mail. The cost structure and profit expectations on Borland allow them to be extremely aggressive.

APPLE

Marketing. On the desktop, Mac is Windows' strongest competitor by far. The world perceives the Mac as far more usable that the PC. If Apple just had a 12% share spread over the entire market, they would not be as strong as they are now. Instead they have over 50% share of some areas, such as education, publishing, Hollywood, ad agencies and other emerging areas. At Agenda 93, half of the participants said they primarily use a Macintosh. At Seybold shows, the attenders are even more Mac focused. Digital World was overwhelmingly Macintosh oriented. Their position in the education market alone will guarantee that the users of the current home and future office products will prefer Macintosh. We need to understand the education market much better. Apple has done an excellent job of making their prices reasonable. They successfully executed on

MS 0081867
CONFIDENTIAL

a strategy of convincing Wall Street that their profit model had to change to be a long term player.

Mac Technology. Apple did a great job on the PowerBook. Macs are viewed as very innovative, even though they really only have usability and sound over Windows, and Windows has OLE and higher speed machines over the Mac. Quicktime is a nice architecture that we will only partly provide in 1992. I don't understand how competitive the OLE 2 equivalent of AppleEvents will be. Our home software group believes the idea behind the Mac's consumer shell is an important one. It is unclear how Quickdraw GX and multitasking can be smoothly integrated into the Mac system.

Claris. Claris did a strong job on ClarisWorks, while we did a poor job on MacWorks. Apple can discriminate against Microsoft in bundling and in technology and still have productivity software via Claris. I doubt Claris will be strong off of the Macintosh, and I doubt they will make money, but they will continue to challenge us on the Mac with lower priced software.

Consumer/Newton. Apple is viewed as the leader in defining new consumer devices. Their announcements were done extremely well. The poster from the Newton announcement was beautiful and showed many possible forms of the product. These included an 'inventory taking' watch-like device, a kids product like the My First Sony line, an intelligent screen phone/fax, a family note center, a notebook that can project onto a chalkboard, an architect's sketch pad with ultrasonic measuring device and other instruments, a 3x5 note taker with pen and headphone, and a GPS version with maps and databases. Newton has an advanced data storage structure. It takes mode-less input and routes it to the appropriate location by collaborating with the applications. Even our research group has not focused on these two areas. Apple is allied with Sharp. Apple is now talking about selling Newton as a companion product to Macs and PCs in such focused areas such as sales and medicine.

CD. Despite our early work and innovation in CD based software, Apple could take a lead in this area. Apple has worked closely with Kodak on PhotoCD and believes it will build CD demand. If Script-X from Kaleida has good tools, and the Sweet Pea work done with Toshiba provides a cheap player for homes and kiosks, and their CD Performas take off, they could be a stronger draw for CD developers than Windows. Allowing Kaleida to be a separate company promoting the future publishing format is smart in terms of setting a standard, although I think if it is successful it will backfire on them in the long run by eliminating the opportunity for hardware differentiation. We will need a major evangelism effort to be re-ignited in CD software coupled with a tool or set of tools that makes particular types of titles, such as art-walks, catalogs, and enhanced music titles to be turned out very inexpensively. It is still not clear how these tools will be built.

Taligent. Taligent is another forward looking effort on Apple's part. They have a lot of smart people focusing on both the user interface and the programming interface to a built-from-scratch object-oriented system. By supporting many of these benefits in an evolutionary system, Cairo is our answer to this thrust.

WHG/jg

MS 0081868
CONFIDENTIAL