

Microsoft Memo

Microsoft Confidential

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To: Aniko Somogyi, Bob Lagier, Bob Safir, Dennis Abbe, Dennis Austin, Harris Meyers, Judy Caserta, Kathi Baker, Keith Sturdivant, Lewis Levin, Pam Miller, Rick Hawes, Robert Lotz, Sharon Meyers, Tom Rudkin, Tuan Nguyen

From: Bob Gaskins

Subject: Results of Microsoft's Graphics Business Unit after Our First Year

Copies: Bill Gates, Jon Shirley, Mike Maples, Jeff Raikes

It is now just slightly more than one year since the beginning (last July 31st) of the new Graphics Business Unit of Microsoft in Silicon Valley. This overview of the first year's results provides a convenient summary of what we have all, together, accomplished in that period of time. Of course, everything mentioned here was really accomplished by some individual GBU person, and in reading over this history you'll be able to identify who accomplished what; but for this purpose, I have deliberately suppressed all the individual names, using "we" collectively throughout, so that we can get a view of the performance of the Business Unit as a whole, the way it might appear to an outsider who didn't know us.

As will be clear, I think that we as a group have a lot to be proud of in our first year's results. We have laid the foundation to continue to grow as an important part of Microsoft, and to create innovative and exciting products during our succeeding years.

Over the past year, we have:

- Retained 100% of our PowerPoint people
- Closed down all of our old business affairs
- Created a new operations and administrative framework for the unit
- Hired 11 new people (plus 1 offer outstanding, to make a total of 19)
- Created the definition of the PowerPoint 2.0 color product

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- Established working relationships with many device manufacturers
- Negotiated the development and marketing agreement with Genigraphics
- Completed development of the Mac version of PowerPoint 2.0
- Written and done the print production on all manuals for Mac PP 2.0
- Tested the Mac PowerPoint 2.0 product (software, templates, and manuals)
- Accomplished substantial development on a Windows version of PP 2.0
- Prepared full marketing materials for the Mac PP 2.0 introduction
- Accomplished a successful PR tour and launch of the Mac PP 2.0 product
- Located, negotiated for, and leased a first-class facility for our expansion
- Shipped \$5M in Macintosh PowerPoint in 12 months through July 88.

Less tangibly, we have also retained much of the goodwill enjoyed by PowerPoint as a "hot" product and transferred it to the Microsoft GBU. Repeatedly on the press tour introducing Mac PP 2.0 we heard comments along the lines of 'looks like Microsoft has been great for you, you're still out front.' Jim Seymour published his similar remark in the July 88 MacUser: "Say what you will about Microsoft, they did right by PowerPoint" (p. 72).

It is always possible to imagine aspects which could have gone even better, but it is much easier to see any number of very real disasters which have been avoided. Like any new enterprise, the GBU was vulnerable to mishaps or mistimings which could cripple or destroy an entire undertaking, but these we have successfully escaped. The Microsoft Graphics Business Unit is now successfully started along its path as part of the Microsoft organization.

The remainder of this note discusses each of the accomplishments listed above in more detail.

Retained 100% of the PowerPoint people

At the beginning, we hoped to retain in the business unit the entire PowerPoint group. Seven employees were offered and accepted positions with the business unit. These were the people who had played key roles in PowerPoint's creation and initial market success.

As of today, all these people are here and still playing major roles in the (now much larger) business unit. This has provided the core around which to grow, and the continuity to achieve early results. If this group had not remained intact and able to function together immediately, our success would have been unlikely.

Closed down all of our old business affairs

Beginning in August 1987, we had to vacate part of our space which we no longer wanted, as well as offsite storage which had built up over four years. All the stored material was disposed of by sale or by donation. Real estate lease terminations and payments had to be negotiated. We had previously leased almost all of our furniture, equipment, and fixtures to conserve cash. Each of these lease agreements had to be renegotiated, involving taking inventory, showing equipment to potential buyers, negotiation of a buyout figure, and disposal.

We got in and paid as many of our payables as possible during August, and collected as much of our receivables as possible. During this same period we got finance started in Redmond, and orchestrated a transition. We had Arthur Young prepare July 31 financials and final tax returns and payments, then transferred the task to Redmond. We cleared up all the outstanding employee advances and travel expenses, cancelled all the company credit cards, etc.

All of the old business records were sorted into 76 large crates, accompanied by an inventory list and an audio tape describing the contents of each box. These were shipped to Redmond. All of the PowerPoint product and raw materials were shipped to Redmond. The other products, for which Microsoft lacked licenses, were destroyed in the presence of legal witnesses to assure no future liability to authors. All equipment was organized in the warehouse, unneeded equipment was sold, all broken equipment was either repaired or sold. A physical inventory for tagging Microsoft assets was taken.

Everything with the old name on it was replaced immediately with Microsoft material. Signs were ordered from Redmond, and local companies contracted to hang them or paint them.

All customer support calls were coming to this location. We arranged for equipment and answering services to screen them, and direct callers to the proper company for the product in question. Over the year the volume of calls to the old numbers has dropped, and we have finally (in April) discontinued all referrals.

We eventually got all the old bank accounts closed, including those CD accounts which were really deposits guaranteeing various lease commitments. We found and retrieved all the deposits with various suppliers. All invoices were evaluated and approved for payment. A multitude of inquiries and claims from customers had to be individually discussed and approved or disapproved. By the end of October, we negotiated a mutually-satisfactory settlement with Nashoba.

All of these activities had to be undertaken at this location, by GBU people. We had good advice from headquarters in Redmond, particularly from Dave Neir who spent three days with us in the first week as Microsoft; but we were the people who had

to actually accomplish all this closing down. Fortunately, everything was closed successfully.

Created a new operations and administrative framework for the unit

At the same time, we needed to build up a new operations and administrative framework for ourselves. We started by getting a business license at City Hall, and set up connections to accounts payable and accounts receivable at Redmond. We got Microsoft letterhead, envelopes, and business cards printed. We transferred all the periodical subscriptions to the MS library, and set up information about library resources in Redmond. We set up a courier pack system to exchange information every night between ourselves and the mailroom in Redmond.

We transferred employee benefits information (insurance deductibles, vacations, etc.) to Redmond, got everyone enrolled in the new benefits programs, answered a million questions about them, and got new American Express cards for everyone.

The old phone system was worthless. We evaluated alternative suppliers of PBX equipment, including costs of retrunking to provide direct inward dialing, and settled on Centrex service from Pacific Bell plus a smart console to operate behind Centrex. Wiring plans were prepared, and a contractor was located to do the wiring on our side of the termination blocks. (We got advice—by phone, only—from the Redmond telephone consultants, but handled all of the evaluation, selection, site planning, qualifying of installers, and supervision of installation ourselves.)

With good help from Redmond, (a team sent down from Veca) we added Ethernet wiring to the offices. We also installed data wiring for email, and a mail server with a remote bridge to the networks in Redmond. We installed a dedicated line from our location to Redmond. This served our IBM-compatible machines. For Macs, we researched and installed PhoneNet Star Controllers, which have since been installed in Redmond in some places as well, with AppleTalk servers. All this has worked pretty well, but it still takes a fair amount of time to work with the servers and networks—and we have never had a tech or junior person tasked to do that.

As we grew, we built out the former sales and service areas into additional offices, uniform with the ones we had. We drew up construction plans, got bids from contractors, and supervised the construction. Again, we got advice from Redmond but of course we were the ones who did the work. We also invested substantial time working with our landlord to maintain our facilities better—to repair lights, spray olive trees and cut back landscaping blocking vision at our driveway, repair leaky ceilings during the rainy season, and so forth.

Required computer equipment has been ordered successfully—Compaq's come partly configured through Redmond, Mac's through Businessland. Of course, installing them, checking them out, and repairing them is be done locally.

All of our operations are today running much more smoothly than they ever did before. People, by and large, have what they need, when they need it. In this we have been very successful.

Hired 11 new people (plus 1 offer outstanding, to make a total of 19)

Recruiting has been a high priority. We have gotten prospects partly from ads, partly from applications, but mostly through our own local contacts. It turns out that there are a number of people in Northern California who would like to work for Microsoft, but who are not willing to move to Seattle. At first, of course, we had to overcome doubts that things might not work out, and that Microsoft in that case might immediately close the business unit—that sort of thing has happened all too often to people in other companies around here. These doubts were heard on the part of prospects last summer, but have died away as we have grown and have shipped the Mac product. Our new location with its strong implications of permanence should put such doubts completely to rest.

An important and correct decision was to have us do our own hiring, here. On good people we need to move fast, and if prospective employees are to believe that they will not be encumbered with a distant bureaucracy, that must be demonstrated in the hiring procedure. Of course, it does take time to screen people, schedule them, interview them, sell them, explain benefits, and so forth—and again, all these responsibilities must be handled by us.

We are hiring strong and experienced people, building up our organization now with the people who will play important roles in it for years to come. The arrival of each new person exacts a considerable overhead of orientation in so small a group as ours, so we have tried to batch new people and balance recruiting with the need to get work accomplished and product shipped.

I am very satisfied with the high quality of the people we have hired in the past year, and pleased that we have been able to attract the people we wanted. In every case our prospects have had competing offers—from top-tier competitors—and have chosen Microsoft GBU. Our work has not been slowed appreciably for lack of people. The first-year authorized headcount for the business unit was a total of 19. Today we have 18 people on board and one offer out, which totals exactly 19. So our recruiting has certainly been successful.

Created the definition of the PowerPoint 2.0 color product

At the beginning, we knew that the market strategy of the next PowerPoint would be to extend our capabilities from overheads to include color 35mm slides, but no one knew exactly what that would entail—Apple had not even released the palette manager code, for example.

On 20 October 1987, we agreed with Bill on what the spec for the new version should be. After implementing part of this, and seeing some early versions of Cricket Presents demonstrated, we decided in January to extend the color features still further based on things we had learned from Genigraphics in the meantime.

As it happened, we were the only developer to commit to using the Palette Manager early, and so we are the only product able to do on-screen such high-end effects as shaded color backgrounds. We pioneered color menus, users' ability to change the colors on menus, and context-sensitive varying of color backgrounds on sub-menus. PowerPoint 2.0 became the only package to ship with the Genigraphics color palette. We designed and included in the product over 5,000 color schemes chosen by Genigraphics' artists, and a new approach to remapping some colors (but not all colors) throughout a presentation. As Jim Seymour writes in *MacUser*, our 2.0 product "...virtually reinvents how color *ought* to be used in software."

The PowerPoint 2.0 spec was for a very innovative product, requiring lots of challenging and difficult invention to complete. We did not punt and take a safe but dull course, instead we laid the foundations for long-term product superiority and are staking out what looks like a commanding market position. The PowerPoint 2.0 spec is for the Windows version as well as the Mac version. The early acclaim earned by the Mac version testifies to our success here.

Established working relationships with many device manufacturers

As we prepared a product for the Mac which made use of all 16.8M colors, we found ourselves needing to work with a lot of device manufacturers whom Microsoft had not worked closely with before. Despite our small group, we have carried on technical and marketing discussions with about a dozen such manufacturers, supplying lots of information to help them work well with us.

A number of these have become real strategic partners. Kodak's new presentations business unit is packing a demo copy of PowerPoint in its first 5,000 LCD projection palettes to be shipped, and using PowerPoint in all its advertising and promotion (even sending a PowerPoint demo of the LCD palette to all dealers). We worked with Kodak to standardize our slide-show controls as the standard set to be built into its infra-red remote control shipping next month, so we are already fully

compatible with it—and featured, to the exclusion of other software, in their press announcement.

With Mirus, the film-recorder start-up funded in part by Apple's Strategic Investment Group, we have worked very closely. We are the only package which does the full color and shaded backgrounds that they are capable of imaging (they pay a price in time for their fidelity, so they need the PowerPoint capabilities to show why). We have saved them from some technical blunders, and have done valuable testing. In return, their President has recently committed a (nearly priceless) first-production unit of their device to help us demonstrate to Peat Marwick last week how PowerPoint can out-perform Cricket (Peat Marwick is currently making a major adoption decision between PowerPoint and Cricket).

Matrix, the standard manufacturer of film recorders, has profited from ongoing technical discussions with us. We are the only product which currently works really well with them, so in their last distribution to customers they are recommending PowerPoint and explicitly not recommending Cricket. Their present strategy is to change their software to read our output format directly, further enhancing our compatibility.

For Hewlett-Packard's much-delayed PaintJet, we have already participated in the design of their driver and committed testing resources of our own to speed their work. This has prevented their giving up and using Cricket drivers out of sheer frustration.

These vital strategic efforts are on-going. We are already working on Windows drivers and compatibility with the same group of people, as well. This sort of thing takes a lot of time from a small group, but is clearly an essential part of the task. We have committed the time (and travel) to succeed here.

Negotiated the development and marketing agreement with Genigraphics

Of all the partners, the most important is Genigraphics—the household name in professional slides. In August 1987 we systematically evaluated the players in professional slide-making equipment and services. Genigraphics was clearly the leader—twice its closest competitor in hardware sales, ten times its closest competitor in service sales. It has 24 service centers in all major U.S. cities, the only such company to have more than four. Genigraphics is the standard of quality in most F500 and government accounts, but up till now it had been slower than its competitors in reacting to the new personal computer technology.

We approached Genigraphics starting in August 1987, and prepared for presentation on November 17 a comprehensive proposal on how we might work together. Finding enthusiasm, we drew up a contract and reached a final agreement on

Christmas eve (the language was written by us, then blessed by legal before the 14 Jan 1988 press conference where we announced). The basic terms of the joint development and marketing agreement provide that Microsoft will supply guidance in the design of drivers and imaging software, and that Genigraphics will develop and own this software. Microsoft agrees to bundle the Genigraphics driver with PowerPoint and Genigraphics agrees to permit us to do so at no charge. This is an exclusive arrangement, which we will not extend to any other presentation services company and Genigraphics will not extend to any other microcomputer software company. (Genigraphics can distribute its driver through other channels, but not bundled in other people's boxes. Microsoft can inform customers of other services, but not bundle their drivers in our boxes.) Microsoft and Genigraphics will each promote the other as the vendor of choice, and cooperate on major accounts selling in the many large accounts which we have in common. All of this covers Macintosh, Windows, and Presentation Manager on the same exclusive basis.

This will ultimately be a most important agreement, for us and for our customers. We have learned a tremendous number of technical insights through working with the Genigraphics engineering group in Syracuse, things we might never have worked out for ourselves. (From talking to Genigraphics' competitors, we learn that many of them have never figured out how Genigraphics does some of its effects.) We have also had the advantage of having their artists prepare our color schemes.

We have provided copies of our sales materials to all Genigraphics sales offices, and they are now training everyone on PowerPoint. The operators in the service centers are having a national contest for the best artwork done in PowerPoint. We will speak at the Genigraphics national sales conference in August, with a demo of PowerPoint. A number of our Microsoft sales reps have already been contacted by their local Genigraphics counterparts to participate in joint sales calls. (Their major customers and our major Mac customers overlap considerably.)

Both the agreement and the vast amount of time invested in working with Genigraphics will pay off in benefits for Microsoft and PowerPoint. This represents a major success for the Graphics Business Unit.

Completed development of the Mac version of PowerPoint 2.0

The Mac version of PowerPoint 2.0 was released to manufacturing on 23 May 1988 (completed the previous Friday, May 20).

The predicted dates of release to manufacturing during development, taken from status reports filed every two weeks during this period, are as follows:

<i>Date of Status Report</i>	<i>Predicted Release Date</i>	<i>Tolerance</i>
—up to 26 October 1987:	15 Feb 1988	-0/+8 weeks
—beginning 26 October 1987:	11 Apr 1988	-0/+4 weeks
—beginning 29 January 1988:	02 May 1988	-0/+2 weeks
—on 25 April 1988:	09 May 1988	-0/+1 weeks
—on 06 May 1988:	13 May 1988	-0/+1 weeks
—on 20 May 1988:	RELEASED	NA

The first date ever proposed was February 15, -0/+8 weeks. Following the spec finalization with Bill on October 20, we calculated a schedule for the real product and in the status report for October 26 gave a new release date of 11 April 1988, -0/+4 weeks. (Hence, in October the date of April 11 + 4 weeks would have been May 09, or just two weeks earlier than what was achieved seven months later.) This release date was carried until January 29, following the decision to include more color features, when it was revised to May 02 -0/+2 weeks. (Hence, in January the date of May 02 + 2 weeks would have been May 16, or just one week earlier than what was achieved four months later.) The final unexpected slip of one week was caused by Apple's having assured us that various of their fatal bugs would be fixed in system 6.0, but finding out in the last week that they were not fixed by Apple; workarounds for those problems added a full calendar week not previously thought necessary.

I have not compared this forecasting record with other projects within Microsoft, but my impression is that it is very good. At the end of October, as soon as we had decided for the first time exactly what to do, we knew within two weeks when everything had to be done the following May. This means that all related activities could go forward without major uncertainties caused by schedule slip.

Amusingly enough, one of our problems was in convincing manufacturing and corporate communications to work to these schedules. They were utterly convinced that we would slip substantially on our dates, based on their experiences with other projects. Despite our assurances, they thought they could generalize about software projects. As it turned out, corporate communications was almost a month late in completing some of our introduction material. Manufacturing, despite the fact that all components but software were in inventory by May 06 and despite constant communications about when a disk would arrive, was unable to work our manufacturing into their schedule until almost a month after our release.

(We requisitioned 100 copies of the boxes, manuals, labels, etc. out of inventory when they arrived in early May. So, when we found out that manufacturing would slip, we duped discs to make up 100 sets of unassembled parts and shipped them from here to our beta sites, field sales offices, influential commentators, and large customers. This saved the day, and it was lucky we could do it since we hadn't expected it to be necessary.)

One indication of development quality is speed of internationalization. We're told by international that the Z version of PowerPoint 2.0 has already shipped from Dublin, on July 15. The rest of the schedule is as follows (these are ship dates, with all product materials as well as software translated and localized):

Mac	PowerPoint 2.0	Z version	ships from Dublin	15 Jul 88
Mac	PowerPoint 2.0	French	ships from Dublin	10 Nov 88
Mac	PowerPoint 2.0	FrCan	ships from Dublin	28 Nov 88
Mac	PowerPoint 2.0	Swedish	ships from Dublin	01 Dec 88
Mac	PowerPoint 2.0	German	ships from Dublin	08 Dec 88
Mac	PowerPoint 2.0	Italian	ships from Dublin	08 Dec 88
Mac	PowerPoint 2.0	Dutch	ships from Dublin	15 Dec 88

This is great news, because PowerPoint is truly an international product and the sooner we can get it out, the better. In both the quality of development and its predictability, we have succeeded.

Wrote and did the print production on all manuals for Mac PP 2.0

All writing and editing of the manuals for PowerPoint 2.0 was done here. Manuals were written in Microsoft Word, put through multiple review cycles in our office (including development and Q.A. people as well as marketing), then put into Aldus PageMaker on the Macintosh. Final pages were proofed on a LaserWriter and imaged on a Linotronic, and the colored titles and call-outs were lifted onto an overlay by hand. The pages were then stripped together by the printer (R.R. Donnelley, in Indiana), and printed and bound by them.

We of course used the case binding (like a hard-bound book) we pioneered with PowerPoint 1.0 and which our customers like so much, with the special gluing technique which makes the pages lie flat. With the bigger book this time (400 pages) this works even better than before. The comparatively low cost of goods for PowerPoint is largely attributable to this binding method—it is cheaper than either cased wire-O or 3-ring binders, can be done on high-speed equipment, and looks much more expensive than perfect binding, though it is not. (It is true that we must make schedules and keep to them, and it is true that we must go to Indiana for a press check. We believe the results are worth it.)

We used four-color process illustrations throughout, and since this was a first we had to figure out how to do it and locate a supplier. Eventually we succeeded in defining the process, and found a local supplier who (with our help) could take a screen dump on disk and return color-separated film already screened and sized to be stripped in. This made full-color illustrations no more trouble than black and white, though for the first few months they appeared to be highly mysterious.

Beyond the main manual, we did the same for the Quick Reference Guide, Templates Guide, Genigraphics Phase I booklet, and SmartScrap booklet (all saddle-stitched for quicker print turnaround and lower cost). All our product components were completed, printed in full color, bound in case binding or stitched, and shipped to be in inventory at Redmond by May 06, two weeks before final software was released.

We have received lots of positive response to the manuals, both their appearance and their usability. "Nearly flawless," says Bill Coggshall, who is also responsible for the remark that providing software manuals in hard-cover books gives the impression that "Microsoft is really sure about what it's doing, like somebody who works the New York Times crossword puzzle in ink." Despite this look, our cost of goods is no higher. Here again, we really succeeded.

Tested the Mac PowerPoint 2.0 product

All testing of Mac PowerPoint 2.0 was done in our group. Test plans and configurations were put together by the Q.A. people on our staff, who then led a group of contract people in carrying them out. Development people and others helped out as possible. (We are still small enough to be episodic in our demand for testers, so we utilize the migrant laborers of Northern California, experienced people who move around among the major software companies as independent contractors. This lets us have enough people for release periods, without having a large permanent staff.)

The close relations between development and testing really turned out to be useful. A Q.A. person, looking over a developer's shoulder at a new feature, would say "let me have a copy of that." Two hours later, a list of a dozen problems and questions would be back, and they could be fixed even before the module was checked in, while all the details of what had been done were fresh. This promotes really close teamwork between development and testing.

Testing some color features was difficult, since we were shipping before any of the film recorders was complete and debugged. We got Genigraphics to simulate our shading algorithms on their equipment, and expose hundreds of frames using our colors to try to be sure that "banding" would not be a problem. Just a couple of weeks ago—almost two months after our release—we saw for the first time a difficult shaded background sent by PowerPoint to a Genigraphics camera. It looks great!

We had a number of demanding beta sites (plus a much larger set of undemanding sites, really seeding sites), and kept in regular contact with them to elicit problems. Nevertheless, an analysis after shipment shows that no bug was first reported by a beta site. All the beta manuals and beta disks were produced and manufactured here, and shipped from here.

In the two months since release, we have become aware of several small bugs which were unknown at that time—all through internal users at Microsoft. None of these would motivate an unscheduled update. Just after release, we sent to Product Support the list of support issues which had been revealed by testing. The first update to that list occurred a couple of weeks ago, with a personal visit to see how product support is going, see what additional information they need, and collect problems.

Testing was finished very late on Friday night, May 20, and the disks (three of them) were handed to manufacturing in Redmond on Monday morning May 23 at 9:00 AM and never touched by us again. This was another area of success.

Accomplished substantial development on a Windows version of PP 2.0

Our aim in our Windows development is to make programs which are as good as our Mac versions. Many Windows applications seem slow, clunky, and are kind of ugly looking; we seek to avoid that.

Having done little Windows development previously (as a group), we entered upon the Windows version of PowerPoint 2.0 with more uncertainty than for the Mac version. Our first guesses were that a version of 2.0 could be shipped in the last calendar quarter of 1988. For some time, now, our schedules have been saying February 15, and a major rescheduling for the program review on July 22 shows a March 15 date. The schedules have so far proved really quite good, with most tasks taking about the predicted time.

We have taken the PowerPoint code (by now, the completed 2.0 Mac code) and are rewriting it in C for Windows. It is intended that this code will form the basis of a "core engine" for all future versions. A substantial part of the code works now, including almost all the drawing. Text will be one of the last things completed, since we are rewriting a completely new text module. (On Mac we have used CoreEdit, licensed from Apple, and problems with it have accounted for much of the unplanned time on Mac 2.0. It also will not permit us to work with Kanji. The new text module will be used in both Windows and Mac, and will permit us to use 16-bit characters for Kanji.)

Color had seemed difficult to do well, but in the last couple of weeks we have completed a demo program with a module which fields the Palette Manager calls from the Mac version, and sets the correct escape sequence for the 8514/A (using the existing 8514 driver, not a new one) to provide great full-color shaded backgrounds (automatic dithering on EGA). Thus, this problem seems to have yielded, and we now have good confidence that we can use almost all of our Mac color techniques on Windows for a comparable effect.

At a program review with Bill on July 22 we were able to demonstrate a considerable part of the function of the Windows version. Presentations can be created,

saved, and re-opened. Multiple presentations can be opened at one time. Multiple slides can be created, and viewed (the slider custom control works). Cut, Copy, Paste and Undo work within a slide and between slides. Metafiles from other applications can be pasted from the clipboard. Items can be drawn or pasted on the Master Slide, and appear correctly (and selectively) on the other slides in the presentation. Drawing tools (line, rectangle, roundtangle, circle/oval) work, as do framed, filled, drop shadows, patterns, and line styles, and all of these work with snap-to grids, snap-to guides, and constraints, at multiple scales. File dialogs work, using SDM. Files work correctly over networks. Metafiles can be read, most of the other standard formats can be read, and there is support for the Aldus dynamic readers which give access to CGM, DFX, and other file formats. We can print to printers of varying resolution and aspect ratio. Many other functional areas are partially completed.

The user interface decisions have been reconciled almost entirely with our other Windows applications, leaving fairly small open issues. The revised spec distributed at the review showed the agreed changes in user interface, and those changes had already been factored into the schedule. We distributed a full schedule which shows that with all activities commencing in earnest in August, we'll be able to release the Windows version for shipment the middle of next March.

This means that we should have our Windows 2.0 product ready to ship in the same time frame as Opus, Omega, and Whimper, and thus be able to take advantage of the bandwagon effect of 'all Microsoft's great applications come out for Windows.' This looks like success to me.

Prepared full marketing materials for the Mac PP 2.0 introduction

Since we were left without another senior marketing person at the beginning, it was arranged that for an interim (August-December) marketing tasks would be handled out of Redmond, while we concentrated on getting other things going. During that time, we would recruit a Marketing Manager and take the responsibility back in January of 1988. This happened as scheduled; a former product manager for Word and Excel at Redmond accepted our offer in November, and took over in January of 1988 after relocating to Sunnyvale.

We actually took the initiative at the GBU to get the version 1.01 product release out (this was about the same as 1.0, but with Microsoft logos on the software, the printed materials, and the boxes). New mechanicals were done here, and the print and manufacturing orders were placed from here with R. R. Donnelley doing turnkey manufacturing and delivering finished shrinkwrapped product on pallets to Redmond for shipping.

Marketing (including advertising, PR, promotions, and sales programs) were handled at Redmond through December. This meant that starting in January, the

Graphics Business Unit really concentrated on the marketing materials for the 2.0 version of the product.

We were one of the very first products handled by the new ad agency, Ogilvy & Mather. We met with them and with Corporate Communications here, and continued to work directly with O&M. When they needed screens for the ads, we found a way to get them Scitex scanner tapes of screens dumped in San Francisco. O&M decided to continue the Columbus theme for advertising and collateral which we had originated for the version 1.0 PowerPoint. They hired artists to make a new Columbus sample presentation, and we had the artists come up to Sunnyvale to imbibe the spirit of what we wanted done, and get Columbus material from us. The results were pretty good.

We also worked with Corporate Communications on the brochures, and all the parts of the introduction kit. On the whole, things went well. We had not expected, however, how much work would fall on us; in the end, we found it quicker to just write some things ourselves. We had better knowledge of how and where to get slides and color output of all kinds, so we found ourselves producing all the samples and art here (with the help of Genigraphics) and providing it to Corporate Communications. The introductory kits were particularly nice, with slide viewers containing 10 sample slides. We had identified the viewer and produced the original slides, but CorpCom did a great job of getting the duplicates, monogramming the viewers, and getting them stuffed.

We created sets of templates, and a guide to their use, all done locally by ourselves. In addition we created further templates containing recommended color schemes from Genigraphics for 35mm slides, overheads, and video. We added our own color clip-art of Macs, and slides (all drawn entirely in PowerPoint), and a set of about thirty very striking Color Special Effects, done locally by us based on models from Genigraphics. We also created self-running demo presentations, in PowerPoint, for both monochrome and color Macintoshes. These are shipped on the product disks, so everyone with a product has the self-running demo. (The color version, Presenting PowerPoint, is truly striking—about 60 images in about 128K of space, based on very elaborate designs by Genigraphics.)

Entirely apart from all these materials, we also prepared locally a 57-slide set of 35mm slides all about PowerPoint. (These are done in the same format used for the Presenting PowerPoint presentation on the product disk, so they look familiar to anyone who has seen that.) These slides contain a great many screen dumps from PowerPoint, so that an adequate product demo can be given with only a 35mm slide projector.

During this same period, we also prepared the Genigraphics Phase I brochures, on-disc templates, and fulfillment kits. Genigraphics prepared the mechanicals for the brochures, but we actually got the materials bid and printed from here. We designed (with Genigraphics) the templates, got diskette labels printed, and had the disks duped and assembled locally, then sent them on to Redmond for fulfillment.

The marketing materials for PowerPoint 2.0 look to me to be at least as well done, and as timely, as for other Microsoft products, and reactions have been good. This is certainly an area of success.

Accomplished a successful PR tour and launch of the Mac PP 2.0 product

The two activities which we consider most important are (1) communication to our sales force and through them to our customers, and (2) visible continuing Public Relations activities. We undertook both of these in earnest with the preparations for the Mac 2.0 product.

It was decided to rely on personal visits to editors rather than on an event of some kind. East Coast and West Coast tours were staged late in April. To assure best results, we hand-carried Mac II's with the correct displays to all the appointments, ready to go with no installation required. Somewhat to our surprise, in virtually every case editors sat still for two hours or more of demonstration. In retrospect, this was not so surprising—they were seeing the most impressive color they had ever seen on a Mac II. We took the trouble to go back and review the category and its advantages, as well as the new features. This was a good idea, because the category of desktop presentations was vastly better-known this Spring than it had been the year before.

We got great coverage, with color pictures of our slides or our screens in prominent places in most of the weeklies. It was the visit on this tour which prompted Jim Seymour's report in *MacUser* for July that "PowerPoint 2.0 is, simply put, the most impressive combination of power, elegance, and ease of use, I've ever seen in a piece of business software." We felt that this made the trip to Texas worthwhile.

Press kits for the PowerPoint introduction were prepared in Redmond. We prepared kits locally, ourselves, for the sales force (all laser-printed), with our category backgrounder, PowerPoint's positioning, a summary of features and benefits, and a competitive comparison to Cricket Presents. We have tried to send something to the sales force every week—one week it was faxes of a great review, with a hand-written note on top from the product manager. And, we've tried to record a message for the ASR's each week by voicemail. At introduction time, we made tours through our sales offices, demonstrating Mac 2.0 and making customer calls with people from the office. This has resulted in great coverage in the Ingram and MicroD distributor news letters. One effect of this attention is that we now get email steadily from Microsoft field sales people around the country.

We also prepared a demo script for the 2.0 product, with sample files, EPSF art to paste in, and sampler presentations showing the range of PowerPoint capabilities. To accompany this, we made a special system disk which contains all the fonts, DA's, etc., necessary to run the demo perfectly, and which will not switch-launch. This valuable set of disks means that a PowerPoint demo can be run on any Mac II with predictable

(and beautiful) results. We made up labels, duplicated disks, and distributed the demo disk set and script to the sales force.

When the product manager returned from doing the Kick-Off sales meetings around the country, she reported that in every location she got detailed and knowledgeable questions about PowerPoint and its competitors from lots of sales people. This indicates that we have succeeded in getting a share of mind for our product with our sales force, which has to be counted as a success.

Located, negotiated for, and leased a first-class facility for our expansion

Jon announced at the beginning that we would move in a year, and so we planned for this early (our old facility of 6,000 square feet would be filled up with our first year's recruiting goal—and it is—and there is no expansion space).

Beginning in November, we searched the local real estate market for a suitable location. Our problem was simple: we were small now, but we wanted expansion room to grow substantially. We wanted to establish a Microsoft presence, and not have to move repeatedly as we grow. Yet, it is difficult to justify economically holding large amounts of unused space in an expensive market like ours.

We prepared requirements documents, and our local brokers went up to the Redmond campus for a tour to see the Microsoft style of doing facilities and our standards, plus our requirements for furniture, network cabling, etc. In January a list of 21 local sites was drawn up. We evaluated them all against our requirements (location, traffic, access, aesthetics, availability dates, etc.) and the Redmond facilities team came down and did likewise, coming to a unanimous first choice by them and by us: the Quadrus complex on Sand Hill Road in Menlo Park.

This location is the old Saga headquarters campus, lovingly built by the Saga founders who intended to spend their whole working lives there—prior to a hostile takeover by Marriott a couple of years ago. There is mature natural landscaping and integration of buildings into the site which strongly resembles the Redmond campus, more so than about any site around here. The buildings are built narrowly along hills, so they lend themselves to our pattern of 9 x 12 private offices with a high proportion of outside offices. The whole campus with four buildings was purchased from Marriott for \$36 million by the Kaiser Family Foundation, and is being developed as "Quadrus" with a restaurant, health club, meeting facilities, large conference rooms, outdoor exercise facilities, and so forth. We have leased as our permanent home 2460 Sand Hill Road, which is a building of 32,000 square feet somewhat apart from the other three buildings. This building requires some rehabilitation before we can move into it, so we were able to work out a very advantageous deal.

For the first year, while rehabilitation is underway, we'll be lodged rent-free in one of the other buildings, one which we can utilize pretty much as it is but which does not have expansion space. (We'll be able to start using our final phone number and street address immediately). Then we'll move into 20,000 square feet of the adjacent permanent building, at one-half rent for the first 14 months (this is in addition to the first year of free rent). We have a one-year option after that to expand into the remaining 12,000 square feet (the third floor) of that same building, thus taking it all. Finally, we have an option to take half or all of an unbuilt fifth building (18,000 square feet), which could be started in a couple of years or so. In this way, we can step up our commitments gradually over four or five years while controlling a total of 50,000 square feet of space in a great location. Beyond the space we're paying for, the same complex has large indoor/outdoor meeting areas available for us to use; these would make great places to have customer events and even press announcements, close by our own support systems.

Our average net cost in the first 5 years under the lease we have signed (working out how much space we occupy for how long at what price) is \$2.02 a square foot. For comparison, the net cost of our current building in Sunnyvale rises to \$1.31 per square foot under our present lease. The going rate in Palo Alto and Menlo Park is about \$3.00 a square foot, with a further premium for larger spaces which are rare. So, our rather complex deal is quite a bargain. Expenses are fixed and capped during our lease term at a reasonable rate.

The location on Sand Hill Road overlooks the Stanford Campus (and the whole bay beyond), but is out of the downtown Palo Alto traffic congestion. It is the only developed spot anywhere near the midway point of the length of the valley along Interstate 280. (Sand Hill is 45 minutes south of San Francisco, 20 minutes north of Saratoga, and directly reached by a bridge from across the Bay.) We will be as close to Apple as we are now (just about 10 minutes). The area is bordered by undeveloped land which is partly Stanford trust and in any case likely to remain undeveloped for the foreseeable future. Our nearby neighbors are IBM Research, Olivetti Research, the Linus Pauling institute, Addison-Wesley publishers, and the well-known venture-capital complex at 3000 Sand Hill Road. There could not be a better location for accessibility coupled with privacy and natural beauty, so this will be a decisive recruiting enhancement. The location is appropriate for a top-tier company like Microsoft in Silicon Valley.

With good help from the facilities people in Redmond, it still took a great deal of our time here to put the deal together. The problems of busy schedules in Redmond and a fast-moving market here meant that we attended a lot of sessions ourselves, drew plans, described our requirements to the architects doing the rehabilitation, and spent many, many hours maintaining our credibility so the space would not disappear before we could get action. (Virtually all the space at Quadrus is now gone, and the price has already been raised for tenants coming after us. In any case, there was only one opportunity to build the web of options which gives us expansion room.) This project

was a major consumer of our time, but a very important project for the future of the Graphics Business Unit.

We expect to move into the new building in early September. Again, the overhead of the move (build-out, cabling, moving, telephone installation, equipment, and so forth) will be a task mostly for our local group. On the other hand, since we'll be able to get our final phone numbers and use our final address right from the start, the business about changing buildings in a year will be easy to deal with.

We held our shipping party for Mac PowerPoint 2.0 (for employees and for our suppliers, vendors, and contractors) at the new site on July 15, which was the first time everyone had had a chance to see the site. It met with general approval.

Ten years from now, we at Microsoft may well look back at this deal and say that it was the most memorable success of the first year of the Graphics Business Unit—securing the right spot for a growing Microsoft presence in Silicon Valley.

Shipped \$5M in Macintosh PowerPoint in 12 months through July 88

Year-end FY88 worldwide numbers show total sales of \$4,536,915 for all the versions of Macintosh PowerPoint, 1.01 and 2.0. This is equivalent to about 23,500 units worldwide in the eleven months ending June 88. July sales (U.S.) were over 2,800 units, or \$549,000, making a total of over 26,000 units for the first full year, and a total of over \$5,000,000 in sales for the first 12 months. But the sales profile for the year is far from uniform.

Only 5,600 domestic units were sold as Microsoft in the six months August–January. This is really incomprehensibly bad—the product was only three months old, had a great previous sales record, had no competition, had good Apple backing, good PR, and was steadily receiving excellent reviews. A new ad was hastily put together, and run to little effect. A promotion with 3M was organized, but delayed by lack of resources in getting out to dealers until late. Training for the sales force seemed to be very difficult to get done. (All this was during the period when marketing was being done in Redmond.)

Sales improved with the training of the sales force (December) and the selection of PowerPoint as a buy-in product. Sales picked up for the buy-in months of February, March, and April. With a target of between 5,000 and 6,000 units for the period, we actually shipped about 6,700 domestic units in these three months, and booked 700 more units. Sales were about 2500 units in February, 2250 in March, and about 2,000 in April—when we ran out of the 1.01 product, with a shippable backlog of 700 units at the end of April. (In each of these three months, PowerPoint was one of the Microsoft top 10 revenue products.) The backlog continued to build in May, and built still further in

June—we shipped 8,277 domestic units of version 2.0 in June. (We shipped about 2,800 domestic units during July.)

The real story, I think, is fewer than 6,000 total units in the six months of August–January, as against more than 20,000 total units for the six months February–July. There is of course a demand for the new version, but sales of the product were growing substantially long before the new version was announced or shipped.

Focusing on the year-end number, we can wish that the sales performance of the Graphics Business Unit had been better—there were hopes that we would sell 40,000 units of PowerPoint during the first year. But at least we can be pleased that during the last six months we have in fact achieved the rate we were looking for.

During the six-month period August–January, sales went forward at an annual rate of about 12,000 units per year (about 1,000 units per month worldwide). This was the period when responsibility for marketing, advertising, PR, and communications to the sales force was being executed by hand-picked Apps Marketing people in Redmond (a Macintosh Group Product Manager part-time, a nearly-full-time experienced Product Manager, and a nearly-full-time Associate Product Manager). This shows how hard it was to get the sales effort under way. These Redmond folks expected to succeed, and were surprised when they did not. It is almost certain that they did better than we could have done at that time.

But since responsibility for all those marketing tasks returned to the GBU, for the six-month period February–July, sales have gone forward at an annual rate of slightly over 40,000 units per year (about 3,350 units a month worldwide). This is slightly greater than the rate we hoped for. The period includes the introduction of the 2.0 product, but even before that sales had improved to a rate of almost 30,000 units per year for the months of February, March, and April, while we were selling the same old 1.01 version.

I certainly believe that this must be considered a success on the part of the people in the Graphics Business Unit—and even more noteworthy in view of the low level to which sales had fallen during the first six months.

Summary

Thus, in each and every one of these areas, it seems to me, the Graphics Business Unit can mark up a success for its first year. In recruiting, there is obvious success. In the areas of product definition, in software development—both Macintosh and Windows, in QA, in manuals, in product marketing, there is demonstrated success. In the operations and administrative areas of closing down our old business and opening up a new Microsoft unit, plus locating a new facility, there is clear success. In working

with other companies, in launching our new product, and in getting sales up to hoped-for levels during the last six months, we have succeeded as well.

It could always be argued that any one of these areas could have been even more successful, and that would always be true. But the most important achievement was to have at least passed the threshold of success in *every one of* these areas. A failure in any area could have led to failure in our overall objective. If we had not retained our key people, or if we had failed in our recruiting, then we would have been delayed. If any single one of our product areas had failed, we would have failed to get our Mac product out, with dramatic negative consequences. If any of our operations areas had not been successfully handled, we could have been hopelessly tied up. If we had not successfully launched our new product and gotten sales up, we would have lost.

The challenge was to succeed well enough in *all* of these areas so that we could build up some momentum and thus become a less fragile and more resilient business unit of Microsoft. I believe that this has in fact been achieved, and constitutes the true success of the Graphics Business Unit in its first year.

The decision to structure us as a Business Unit with a clear mission was an essential ingredient of the success—long lines of authority up to the giant departments of Applications in Redmond would have certainly failed. Another vital ingredient was the very strong results-oriented culture at Redmond—we have spent a full year being pleasantly astonished at the willingness of every group we work with at headquarters to go far out of its way to get things done for us. With a less responsive headquarters group, it would have been very easy to fail.

But far and away the most important ingredient of our success was the people in the Graphics Business Unit. I believe that they set a standard of achievement, even within a company so strong as Microsoft. Every person in the Graphics Business Unit can take satisfaction in substantial personal accomplishment, along with pride in our results together as a business unit.