Pen Windows

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FROM: Connie Ballmer/Waggener Edstrom

DATE: January 16, 1991

SUBJECT: Pen Windows Press Tour -- Trip Report

CC: Sarah Charf, Marty Taucher

We have completed our first press tour for Pen Windows. Jeff Raikes, Lloyd Frink and Pradeep Singh met with nearly 30 publications and analysts. The objective of our visits was to blunt the coverage that Go will soon receive after its January 22 announcement, to set expectations for this technology, and to clarify Microsoft's strategy for pen-based computing.

I. SUMMARY

These meetings were well timed; interest in pen-based computing is very high in the press. I rate these meetings incredibly successful for these reasons:

Coverage
GO Corporation will most certainly have to share its coverage with and be tempered by the promise of Pen Windows. There will be a rash of articles beginning this week (a few attached) and next and we believe most will be neutral at best for Go.

OS?
I feel we successfully answered the BIG QUESTION about why a new OS isn't needed. Most consider Windows a great platform for pen apps, many seem to appreciate both approaches, and a couple are still enamored with Pen Point.

Education
GO had clearly been out trying to reposition Pen Windows, especially on the West Coast; we corrected many misconceptions. We also got people thinking about the other benefits of pen-based computing beyond handwriting recognition (HWX).

GO Corporation
We were able to learn a lot more about GO's strategy and positioning of its technology and Microsoft's, which will help us better formulate our response.

Expectations
We made it clear that this technology will not really take off in '91 or even '92, that the hardware and recognition engines have a long way to go before the average Joe will be happy. Left a clear message of "We're patient and in this for the long term."

Reactions ranged from "pen-based computing will be *the* bust of 1991" to "this technology will singlehandedly change personal computing." The most common questions were:

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- What about GO's assertion that a new OS is needed for great pen-based computing?

- What are the target markets for this technology?

- What will the hardware look like? (lots of discussion of form factor)

- How do you see the evolution of its adoption, vertical to horizontal?

- When will it reach the general PC users (many think it will be '95)?

- Will gestures mirror the standard copyediting symbols (every journalist asks this)?

- When will this ship?

- When I draw shapes, will Pen Windows snap them into nice neat lines (like an org chart)?

- Will Microsoft make pens like it does mice?

We could get dinged on our handwriting recognition. In many meetings the recognition was not working well and we also encountered some difficulties when trying to run DOS apps. As much as we tried to emphasize that it was very early software, the press will probably say Microsoft too has a long way to go before it ships something the average person can use.

II.   WHAT WE SAID (a brief recap of the key points we made)

Jeff gave an overview of three areas of focus in the Pen Win unit -- creating the UI controls and gestures, building a great HWX module, and designing apps to take advantage of the pen. He gave examples of the various platforms for pen-based computing (next generation portable, clipboards, and the desktop). He also offered scenarios for who would use pen-based computing and why. We then gave a short demo of the notebook applet for Pen Win as well as unmodified DOS and Win apps running under Pen Win. We usually left them with names of 5 OEMs and 6 or so ISVs who will publicly acknowledge their Pen Windows development.

Key points we stressed:

- This is not a product announcement because we have no firm delivery date, product or price, but are here to answer any questions you might have.

- Multiple approaches are good. We are not at war with GO but believe that both our efforts, along with those of other vendors, will help this industry take off.

- The pen will not replace the keyboard. Compatibility with the desktop will be key for a long long time.

- You don't have to rewrite the OS to take advantage of the pen.

- New and innovative metaphors for pen-based computing can be built in Windows.

- Mere data compatibility is not enough if you're trying to transfer data across two _different_ operating systems; it's hard enough within the same OS.

- Other vendors will be able to plug their own HWX engines into Pen Windows -- Microsoft believes in freedom of choice.

- People are not keyboard phobic as much as system phobic. They will be disappointed if they think this is a solution for non-typists.

- This technology/industry will take awhile, will not be the big boom or '91 or even '92.

III. WHAT GO'S BEEN SAYING

GO will hold a developers conference on January 22 in San Francisco and has invited the press to attend portions of it. The hour long press conference portion advertises Pen Point licensees (note plural) up on the podium. GO will also demonstrate at the Boston Computer Society on January 23. Slate will be on stage with them in both locations as their premier ISV.

GO has certainly been creating FUD about building on top of an existing OS (is slow, memory hog, stifles innovation, etc.) GO has emphasized its object oriented OS and that it will help developers write smaller and better applications which will be better suited for notebook configurations. Slate told us they had to rewrite many of the Go objects.

People pointed out that Microsoft is more focused on apps compatibility and GO is more focused on data compatibility and on the "penness" of software. And GO seems focused on the notebook-only PCs (less concerned about integration with the desktop) and so is perceived as a provider for vertical markets.

We also stopped to visit Slate, who seems to be treating Pen Win and Pen Point very even handedly. We also received the GRID press release for GO's press conference, which is incredibly even handed, even mentions support for Pen Windows in the second paragraph. We can't figure out who GO Corporation has to solely endorse their approach. We informally gave Ann Winblad a demo. She said GO does have a very nice object oriented system, but she is predicting that GO will be "fried", that it won't get another round of funding very easily and is cursed by having to wait on IBM to deliver the first GO machine. Ann is heavily involved with Slate and is clearly leaning on them to work well with Pen Windows.

We also think that Go's HW prototype is partially responsible for the positive reactions. Our demo configuration of a tablet hooked up to a portable PC is clearly not as slick as seeing the demo run on a sexy notebook system.

IV.   WHO SAID WHAT? (brief recap of highlights per meeting)

Technologic Partners -- Dick Shaffer and Jack Wilson

Dick thinks the pen will be very useful when using apps like Excel or Word. Dick's main reservation about Pen Win lies in his existing frustration with DOS/Windows (he's a Mac user). Thinks the inefficiencies in learning a DOS/Win app will be baggage for Pen Win, but seemed happy with having Pen Win preinstalled or in ROM. He is waiting to see what IBM and Compaq have to say and thinks the price point will really hold this technology back. He assigned his CA partner Jack to write the article on pen-based computing for the newsletter. Jack was much more skeptical about building on top of Windows, and seems to be taking a real wait-and-see attitude.

PC Magazine -- group of 9

As always, many good questions here. Bill Machrone was most vocal and very skeptical about any general PC user demand for pen-based computing. He sees it now as technology for technology-sake or for vertical markets only. He drew the analogy with the noisy calculators that car salesman bang on when trying to look productive and close a deal; thinks that notebook computers will become wizzy closure tools for verticals. He's not down on Pen Windows and is excited to get his first notebook computer, but will probably wait before endorsing this for his general readers.

ABC Business World -- Gary Kaye

Set your VCR's for Sunday morning, January 20. This news show will feature a 5 minute segment on pen-based computing. They filmed Jeff's interview and Lloyd's demo, which both went great. Gary has filmed many companies for this segment, all of which need to be edited down into 5 minutes, so who knows what will be shown. Gary has been courted heavily by GO Corporation and afterwards told us that "Pen Win is nice, but GO's stuff really blew me away." He wouldn't go into detail, but we think he was probably reacting to their prototype and overall integration of the system. We'll see.

TIME Magazine -- Phil Elmer-Dewitt

Phil is very interested in pen-based computing but will probably wait to cover it until some of the hardware actually ships. He hadn't yet talked with GO so asked us for our view of what GO was doing, along with a few other basic questions. He was positive and eagerly showed us the Go conference invitation, but is pretty non-commital.

Gartner Group -- group of 7

This was a very lively incredibly argumentative group, seemingly for the sake of arguing, and are stuck on the benefits of GO's zero-based approach versus building on top of Windows. Doug Cayne, head of their PC group, argued that Windows isn't necessarily the best UI approach -- "prior to the Mac, people didn't know any better than the C prompt either, they often don't know what's needed until it appears." Cearly said extensions to Windows make sense, but that some different metaphor is likely to be needed and that lots of testing was needed to determine what the best will be. Lots of

other questions about form factor, role of the desktop versus notebook PC, etc. They surmise that Pen Win is at least 3 years away from commercial viability.
**They would like a Pen Windows SDK when possible.

PC Computing -- John Dickinson, Chris Shipley, Dave DeJean

They are firm believers in the need for a keyboard and mouse option on notebook PCs, although thinks the pen is the ultimate pointing device (said makes Ballpoint look bad). They think we're more constrained by lack of great hw form factor than by pen-based software. John thinks it's crucial that users are able to input on a notebook PC in either landscape or portrait, Windows must adapt to this. They said they were pleasantly surprised by how pens fit in with Windows. John's March column will feature pen-based computing and Chris wrote a news analysis for March.

PC Week -- group of 11

They were immensely curious about Pen Win and thrilled that we were talking to them on the record (see attached article). They asked many of the regular questions. Beth did point out that the "multiple approaches" schpiel didn't make sense since developers would be forced to choose one or the other. We also saw Russell Glitman in California who said that Pen Windows makes the most sense because it's building on what people already have. Russell was particularly interested in HWX and had spent a lot of time with CIC.
*The labs guys want to get a Pen Win SDK.

SoftLetter -- Jeff Tarter

Although we expected him to slam Pen Windows, he was surprisingly supportive and complimentary. Jeff firmly believes in the need for keyboards and hates demos that only emphasize pen-input. Said he was very skeptical but gradually began to see the real potential behind pen-based computing, although it's a ways away. Jeff was primarily hung up on what makes a new metaphor (long discussion on why the IAYF is too inhibited by the document and desktop metaphor), and Raikes gently lead him down the path that says you can build new metaphors (i.e. for pen software) in Windows to go beyond the desktop metaphor. So he was supportive, but clearly his Microsoft biases have not disappeared.

IDC -- Aaron Goldberg, Mary Conti-Lofreddo, Nancy McSharry, Bruce Stephans

As with all the analyst firms who need to educate their clients on pen-based computing, IDC (McSharry) will soon publish a report on pen-based computing. So they focused on the size of the market and timing (they too predict 1995 before it reaches general PC users). Aaron commented that he has seen much more interest in pen-only computers versus those compatible with the desktop among the IDC clients like Frito Lay. He also thinks that "pen-based computing has the potential to really change PC users lives." Nancy said she couldn't decide if apps compatibility was important enough to justify using an existing OS or not. She also said that GO is obviously nervous and is scrambling to get another round of funding.

Computer Reseller News -- Joel Shore
InformationWEEK -- Will McClatchy

Joel is really into Windows and so asked some good questions. He asked whether Microsoft is throwing so much technology at developers that they won't be able to assimilate it all. Also asked if Pen Win would run on OS/2.

Will is NOT familiar with pen-based computing, and we were pretty concerned that his main question was on the overlap of systems and apps at Microsoft and whether the Pen Win group was evidence of this? Asked if Microsoft is in a position to create API's that are more advantageous to Microsoft Apps versus its competitors. It seemed like he was working on a Microsoft The Bully story, and just looking for material for that.

Canopus Research -- Will Zachman

Will seemed fairly skeptical and disinterested and made the statement that pen-based computing will be THE bust of 1991. The thinks it will be an OEM war as notebook vendors race to get their machine out first; they will chose whichever OS is done first and requires the least power/memory. He thinks it makes sense to build on top of Windows and said GO will win only if pen-based computing is centered in niche price sensitive markets. On GO's bragging about its corporate customers, Will said that any corporation that has already made any application decisions about pen-based computing are idiots because the software isn't anywhere near being done. The rest of the dinner was focused on his favorite topic.-- Windows and OS/2, and why Microsoft must get interested in OS/2 2.x or UNIX on the desktop will pick up momentum. He is consumed with this and with the degradation of IBM.

Infoworld -- group of 9

We were very disappointed that *Infoworld* had run its inaccurate front page story on Pen Windows the week before we met with them, so spent this meeting going over that article to set the record straight. They wouldn't voice whether they thought a new OS was needed or not and are taking a wait and see attitude. Our demo wasn't working too well, as the resulting article mirrors (attached).

Dr. Dobbs Journal -- Jon Erickson and Ray Valdez

Great meeting as these two were some of the most knowledgeable we had met with. Jon is starting a newsletter on pen-based computing and Ray had actually been through the GO developers program. They are grappling with whether pen-based computing will be for vertical (GO would win here) or horizontal markets (Pen Win dominant). Horizontal problem is that the average user's expectations are too high to be happy with this for many years. They don't think GO will be successful with many vertical developers who are the most conservative and price sensitive and won't want to relearn a new OS. Ray thinks a whole new OS is overkill for vertical markets and said the GO OS is very complex to learn. Jon asked if a pen application is running under Pen Win, can it automatically search and throw out the code that's not needed given the environment it's running in to maximize resources? GO had clearly been telling him about the advantage of its efficient, small OO operating system. They encouraged Microsoft to keep moving, the perception is that the industry is waiting to see what Microsoft has to offer before committing or delivering.

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Dataquest -- Andy Seybold, Peter Francis, Marshall Mosely, Steve Lair

This group has the GO religion. Andy was "blown away by GO" and said he was a non-believer in pens before GO convinced him that it makes sense to build a new OS. Andy said Pen Windows makes sense for *him* and anyone who uses a computer, but for those who don't, Pen Point is much more intuitive because its users don't have to learn the desktop metaphor (gee, has he stopped to think about how big the market is for those who do have a computer now???). Marshall sees it as a well balanced war; GO isn't constrained by Windows' mouse and keyboard interface and has a better designed system, but Microsoft has the huge Windows momentum behind it.

San Jose Mercury News -- Rory O'Connor

He has been following this technology for awhile and is fairly skeptical about the viability of HWX. He asked if Microsoft isn't getting into the trouble Apple tried to avoid by letting the applications get so extensible that they lose the UI consistency? Said GO can make a good case for its approach. And finally asked how the notebooks would hold up, noting that his daughter had already crashed some pixils in her MagnaDoodle from hard use.

Creative Strategies -- Tim Baiarin

Tim has been following this market for seven years and has spent time with all the key players. He thinks pen-based computing and multimedia are the tools to finally bring PCs to the masses and thinks Pen Windows' evolution will make this happen. Thinks it's key to start with a mainstream approach. Tim was great, very supportive of Pen Windows as reflected in his statement "GO's approach doesn't reflect market reality" (because it's too risky and costly for developers). Said GO is focusing too much on portable market and ignoring the needed integration with the desktop. He will write his report on pen-based computing in March.

Computerworld -- Jim Daly

Jim was not knowledgeable at all and didn't really seem to get it. He asked very basic questions but didn't seem too excited.

Business Week -- Richard Brandt, Barbara Buell

A weird meeting, they are skeptical about this technology because they're too focused on HWX above all other benefits of pen-based computing -- "this is neat but do you honestly expect people to use this to write memos?" GO had done a good job here. We spent most of the time rebutting the need for a new OS. Barbara especially couldn't believe that all of GO's arguments weren't gospel. She thought it is hard for Win developers to adapt applications to Pen Windows, that Pen Win would be slow, and said "Jerry said DOS/Windows doesn't have the sophistication to take us toward cursive." They were also working on a laptop article and wanted to know how pen-based computing would affect this market and if the Japanese had any advantages over the U.S.

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Lempesis Report -- Bill Lempesis

Bill used to be an analyst at Dataquest and left to start his own newsletter on portable and pen-based computing. For a guy who's supposed to be focused on this stuff, he was surprisingly quiet and unexciteable. Asked a few basic questions.

Wall Street Journal -- Greg Zachary

We had a quick meeting with Greg, who said he isn't anxious to cover pen-based computing or GO for awhile anyway because the Journal already covered GO's announcement with IBM (and Greg clearly thought that was a bust). He is waiting for some hardware to ship. He was one of the only people we met with who grabbed the pen and wanted to play with it himself. He was happy just putzing around with it.

New York Times -- Andy Pollock

Ever the skeptic, Andy also wanted to try the technology out for himself. He wanted to determine how far along this technology is now to guage when the average PC user will be able to use it. Of course, when an untrained guy like Andy or Greg tried to use it, Pen Windows didn't do well. He tried to figure out how much of his trouble was merely bugs in early software or just limitations of the system. So Andy's article will clearly include a strong caveat about users having to wait many many years. He also was one of the few people who asked why the Microsoft Apps guys are doing this instead of the Win group.

PC World -- Roberta Fuerger, Rich Landry

This was a very good meeting because Rich did the best job of anyone of challenging Pen Windows versus Pen Point and forced us to be concise. His 3 key points/questions were:

- What about the requirements of compact storage that GO will satisfy due to its OO system? Argued that OO apps are much smaller (used Geos word processor as example) and that Pen Win apps will be much larger because Windows' transition to OO is moving slowly. How will you make your apps small enough? Windows and four apps on my desktop PC take up a lot of space. I won't be able to use them on my notebook, will need new and different apps. He did agree that GO had not yet solved the issue of apps compatibility between two OS's.
  **Jeff should respond to him with more data about actually how much smaller OO apps are.

- GO has a more dynamic approach to docking its portable to the desktop and plugging into various networks. Currently you must reboot the system or reinstall many net drivers to work with various networks when using DOS/Win on a portable. Said that this might not be such

an issue in OS/2 because it's more network ready and doesn't compromise system resources like Windows does. He failed to notice that most people wouldn't have the need to work with more than one network.
**Jeff needs to get back to Jeff to give him a better description of how this works in Windows.

- How can you have the same app on the desktop and a notebook which is nicely tailored to both the pen and keyboard? (after he saw our demo, he was satisfied that this is possible).

PC World will do a short news article on Pen Win in an upcoming issue and a longer feature on pen-based computing in May.

Personal Workstation -- Jim Forbes, Shane Rau, Doug

Jim emphasized that GO is being careful not to position this as an OS war, that it's just the uneducated reporters that are creating this perception. Otherwise, a good but fairly basic meeting. Jim thinks that pen-based computing has the opportunity to redefine how people work with PCs.

Esther Dyson

We didn't actually meet with her on this trip since she was in Seattle in November. She just completed her pen-based computing article for RElease 1.0 Per Pradeep's latest talk with her, she was very kind to Pen Windows. Her only criticism we can't argue with -- that a new OS is required precisely because disruption and rethinking caused by a totally new OS will foster the creation of the next generation of killer apps. Otherwise she acknowledges that Microsoft can do as well with the pen as PenPoint, that we will get similar OO stuff from the mainstream OS work; that Microsoft is the better business to bet on.

/CB:jh