

stylus input) to those features stored in the computer. We would add to this feature set to enable recognition of lower case (e.g. vertical height of the chars), but this would probably decrease the accuracy rate. Jeff said he thinks he knows how to do text recognition using ideas somewhat related to neural nets. This would take several years of development.

Although Grid's handwriting s/w might not be as full fledged as GO's, there would be many fewer conflicts of interest in working closely with Grid instead of GO. Grid is in the business of selling hardware, unlike GO who sees themselves more like Apple selling both hardware and the system software.

Grid wants to come up here around the first week in August to describe their handwriting s/w in gruesome detail and discuss other ways we might work with them on this project. They will also give us a demo of their machine.

- Lloyd

From jeffr Mon May 28 16:14:19 1990
To: billg mikemap
Subject: FYI-GO competition
Date: Mon May 28 16:14:18 1990
Mail-Flags: 0000

>From luist Mon May 28 15:40:01 1990
To: jeffr rice
Subject: Go and Momenta(?)
Date: Mon May 28 15:39:22 1990

I met a friend that just came from talking to GO and Momenta. Though she was under non-disclosure, she said a couple interesting things:

* If we still had any doubts: GO is trying to licence their operating system. Her words: "they want competition in the hardware side...they want as many people as possible to build the machines"

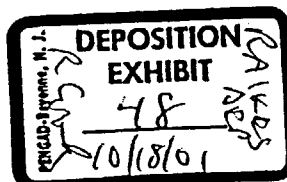
* About price: "it is a neat idea, but i have a hard time seeing many people paying so much money for it..." It sounds like it will be on the expensive side for a Grid like machine. For some reason she came out feeling they are equivalent (beyond the handwriting recognition side...), which is great news. GO will probably have a hard time positioning the machines (happy, Pradeep?).

* About the 'Momenta' machine: "well, its so far into the future that it probably won't be very interesting" what is this momenta company about?
:
luist.

From jeffr Wed Jun 6 17:47:58 1990
To: billg jonl mikemap
Subject: FYI-Momenta on GO
Date: Wed Jun 6 17:47:57 1990
Mail-Flags: 0000

>From pradeeps Wed Jun 6 16:04:07 1990
To: jeffr
Subject: Info on GO from Momenta meeting

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Cc: lloydfr pradeeps
Date: Wed Jun 6 16:04:05 1990.

Jeff - you may want to relay some of this to Billg:

Momenta claimed that IBM is giving \$7m to GO; of which \$700k is equity; \$6.3m is pre-paid royalty. This originated as a single customer deal - initiated because of an \$80m deal with an insurance industry IBM customer.

Other perceptions from Momenta about GO: GO is a software company (i.e looking for OEM licences). IBM is not restricting GO's ability to licence the GO OS to other OEM's. That there is a third unknown partner involved with IBM and GO. (My speculation: this could be Slate (no news there..) OR it could be Toshiba who is already supplying GO the integrated tablet and other h/w components. Toshiba could be a GO OS licensee..)

From jeffr Wed Jun 27 07:37:08 1990
To: billg mikemap
Subject: FYI-Intel and GO-ByronB's comments
Date: Wed Jun 27 07:37:08 1990
Mail-Flags: 0000

>From byronb Tue Jun 26 18:29:49 1990
To: carls jeffr rice
Subject: A few personal impressions from the mtg with Intel
Date: Tue Jun 26 18:28:12 1990

Taken a face value, the meeting resolved around the issue that they are hardware company want to purchase stylus/tablet technology CHEAPLY in order that they may manufacture these machines and we are a software company worried about the confusion caused to out OEMs by an apparent endorsement of GO software by intel.

It may be telling that first major issue brought up was Mike's apparent fondness for the GO folder paradigm. It makes me quite skeptical that their only focus is hardware. I assume their real worry is that they want to make sure that stylus based machines use intel silicon (they said so) and they don't want to dependent on Microsoft for the software (they weren't willing to say this). They brought up the telling and accurate analogy of Microsoft hypothetically investing in MIPS. So they could be hedging their bets on stylus software.

They seemed willing to do some sort of 'damage control' for the GO investment. They proposed an joint announcement by Intel/Microsoft saying that Intel is investing in hardware technology owned by GO and that Intel supports supports Win-H as the OS of choice for stylus based computers. They even proposed bringing in an OEM willing to announce an intel x86 win-h machine. This offer seemed insincere considering they want to sign with GO next week and that we told them we were not willing to announce Win-H until October.

While they would love to hear about what leads Lloyd can give them about other hardware technologies sources. It will not change their mind on GO; they will just view them as additional sources of technologies.

We did not convince them to not invest in GO. We probably convinced them that 1) the investment will give bad signals to OEMS 2) We are

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a serious contender and will be heavy competitor to GO 3) That our architecture (open, based on Windows) and positioning are sound.

What should we do? From my humble view point in the trenches ...
Reiterate through Bill our concern about confusing the market and OEMs and work with them on 'damage control' to see if they are serious on this. My read is the deal is as much as done with GO and from their point of view today's meeting was about learning more about what is going on in the notebook computer world and not about reconsidering Intel's investment.

Some impressions from the demo ...

When one of the intel guys tried the tablet (who admittedly had bad writing), I was embarrassed by the results, but he gave the comment he thought it was quite good. I got some genuine Wows! with the cursive demo (4 out of 6 words correct). This tells me one of three things:
1) Go is not as far along as we think. 2) They have not seen GO's handwriting yet (unlikely) or 3) They were being polite.

From jeffr Wed Jun 27 07:34:19 1990
To: billg byronb carls lloydfr marline pradeeps
Subject: Intel Stylus Technology/GO Corp.
Cc: mikemap nathanm paulma samf steveb
Date: Wed Jun 27 07:34:16 1990
Mail-Flags: 0000

Addition to Carls's mail:

They didn't say the investment in GO would be for hardware only. In fact, Paul Otellini specifically said that they might "have the GO operating environment on the shelf, and if an OEM (AT&T was the hypothetical OEM used) wants to buy it, they would sell it." I pointed out how potentially confusing that was, and Michael Aymar jumped in with a comment about how we did software for the Mac.

From carls Tue Jun 26 18:46:38 1990
To: billg byronb jeffr lloydfr marline pradeeps
Cc: mikemap nathanm paulma samf steveb
Subject: Intel Stylus Technology/GO Corp.
Date: Tue Jun 26 18:44:52 1990
Mail-Flags: 0000

We met today with the group of people at Intel that is pushing an investment in Go Corp. We attempted to dissuade them from that investment by seeking to find ways to meet their objectives without this investment and by explaining why we thought the investment would be a bad idea. In particular, we presented the Windows H project to them. We didn't succeed in convincing them not to invest, and they did not appear very open minded. One appropriate followup is probably for us to write a letter to Grove with a followup phone call by Bill.

Intel

Paul Otellini, VP, Assistant to the President
Mike Aymar, VP MCG, GM of SMD I
Tom Galvin, Finance Manager, Business Development MCG
Mike Bruck, Microsoft Liaison

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Microsoft: Jeffr, Pradeeps, Lloydfr, Marline, Byronb, Carls

Our objectives for the meeting were to:

- (i) present and demonstrate our WindowsH project to show that we have good stylus/handwriting technology; that it integrates with DOS & Windows; and that we are working with leading OEMs;
- (ii) to attempt to understand Intel's real objectives behind making such an investment; and
- (iii) attempt to dissuade them from the investment.

Intel believes that stylus computers represent a very important emerging market; they want to be sure that Intel participates in that market both by having Intel chips used in those computers as well as as a manufacturer of such computers. Go is not the only investment Intel has been pursuing in this area--there has already been one that has fallen through and they will consider more. I inferred from listening to them that Aymar, Galvin (who works for Harold Hughes), and Avram Miller (not present) are proponents of the stylus market opportunity, and are trying to get Intel into it.

We had told Intel that we think an investment in Go Corp would be a bad idea. These guys wanted to operate under the assumption that Intel would invest in Go, and how could we minimize or mitigate any damage--they were not very open-minded. This is understandable since they have been pushing the Go investment inside Intel and see us as an obstacle toward their objective. They had been told to come and see what we are developing and if it changes the rationale for investing in Go, but these guys clearly want to make the investment.

Lloyd, Pradeep and Byron gave a good presentation of what we are trying to achieve and how we will go about doing it. We covered how we are building on top of standard Windows and standard Windows apps, and that we are working with numerous OEMs. Byron's presentation on our character recognition software was particularly good--I think they were impressed that we are pushing the state of the art in this area.

We attempted to understand what their objectives were in making the investment. They gave the following:

- 1) They want to learn about the stylus market and technology
- 2) They want to license hardware technology for use by their systems division to make stylus computers to sell on an OEM basis
- 3) They want to be able to design silicon (chip sets) that OEMs will use in stylus computers; this investment will let them better understand what silicon to design
- 4) They want to make sure that the x86 is at the heart of stylus computers in general and the Go system in particular in case Go is successful.

It is not clear what technology it is that they hope to get from Go. They said something about a squishy tablet. When we asked them to list the technology they wanted, the list was:

- * display
- * stylus interface
- * small form factor technology
- * integrated tablets

And a key point they made is that they want access to this technology without having to give up any Intel technology (e.g. chip licenses). don't know enough about Go--someone tell me if I am wrong--but it

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seems unlikely to me that Go has such great hardware technology in these areas--it sounds like stuff you would get from Japan. We volunteered that we could help Intel to get access to the technology from someone else, and they asked us to follow up on that.

This is what they said. Unclear what the real motives are. The investment in Go would give them a license to Go's design as well as Go's software, including sublicensing rights.

As I mentioned, they weren't really interested in finding alternative ways to get stylus/tablet technology--they wanted to take the approach of saying: assume that Intel does invest in Go, how can we mitigate the impact? They say they are willing to position their investment as strictly a hardware technology investment, and issue an endorsement of Windows H. We did not pursue this discussion.

The points we made are:

- * Windows H builds on top of DOS and Windows and will run existing and new apps and be open to everyone
- * Establishing a new OS is hard and unlikely
- * Establishing a new hardware and OS standard divides our market, confuses customers and ISVs and is unnecessary
- * An Intel investment in Go will send a strong message to OEMs and ISVs and cause confusion
- * We are already working with key OEMs, and they will not be unhappy with this Intel activity
- * It is an anti-Microsoft move because it competes with our OSs and it weakens the Intel platform standard.
- * Finally--we'll help you to get the technology; we will deliver technology and OEMs making stylus computers using x86; you don't need to make the investment.

Their response is: they don't care about Go's operating system and whether or not it succeeds; they will work to reduce any impact on OEMs and ISVs by positioning it as a hardware-only investment; it isn't an OS thing so it's not anti-Microsoft; the Go platform can be made to run DOS; and this is a quick way to get technology.

We weren't making any progress, so we ended the discussion. If they are sincere about what their objectives are, then if we show them alternative sources for the technology, we ought to be able to persuade them from the investment.

I fear that either they have further motives, or this is another case where Intel has just decided to do "something", which means put money into something they think helps x86. Without considering how OEMs are going to feel, how we are going to feel, or whether it really makes any sense at all. Just throw money at it. Sounds like the Bell Technology deal. Or some of Intel's Unix work.

Aymar asked a lot of questions about application software, and how users locate documents and files and things; how they navigate through "folders" etc. I think he thinks of Windows as being too complicated. I don't know if he has seen some demos of Go software that look easier to use, but that is my impression. That makes me think they must also be interested in Go's software and just not telling us. I would have to assume that reducing their dependence on Microsoft is also in their minds.

There are 2 next steps:

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- 1) See if we have some stylus/tablet technology sources we can introduce them to. We need to decide if we want to do this, since they could then try to sell Go's technology to them, or otherwise interfere in our work with OEMs. If we want to do this, we need to get this moving by the end of this week. Billg--give your input on email. If yes, Lloyd/Pradeep own the followup to identify tech. sources.
- 2) Write a letter from Billg to Grove and follow up with a phone call. I'll draft a letter. Send it out on Email for comment tomorrow.

From tomos Mon Jul 16 04:52:30 1990

To: lloydfr

Subject: Summary report of Intel Team in Japan

Cc: billg carls jeffr makon mikemap pradeeps samf tomos

Date: Mon Jul 16 20:42:04 1990

Mail-Flags: 8000

Subject: Intel Stylus Survey Team in Japan.

Followings are summary report for the above mentioned team's activities in Japan. I coordinated meetings with Kyocera, Wacom and Seiko Denshi for their survey of stylus technology. Prior to those meetings, I had a preliminary discussion with them on 7/11 at the hotel to get their objectives of survey in Japan.

1. Team members and visiting schedule.

Mike Moon	Consultant, Strategic Technology OEM Microcomputer Platform Division
Kathryn Harrington	Technology Planning OS & APPs OEM Microcomputer Platform Division
Tom Gablin	Finance Manager, Business Development Microcomputer Component group

Mike is the boss of the team and he knows the latest stylus technology and trend. He is the key person to create a report to Grove. He knows the fact that GO is using Wacom's stylus pad for their product under development when I asked the question. Kathryn is software oriented person who want to know hardware from Hand Writing Recognition software(HWR) point of view. She made several questions related required functions for better recognition rate and she showed much interest in Sony Palmtop when I saw it to her. She might be a key person for WIn-H discussion scheduled in Redmond on 7/17. Tom has his interest in possibility to expand market of Intel's microprocessor through stylus computer including development of co-processor for HWR. >From these point of view, Intel's team will create their report from several point of view not from one point of stylus technology.

2. Objectives of their survey in Japan.

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Mike indicated their objectives of survey in the preliminary meeting.

Intel has interest in stylus computer itself as the possible new computer in the future which will expand market opportunity of Intel's microcomputer. They want to establish the platform of microcomputer in this product segment same as they succeeded in PC. >From this point of view, they want to know following points to be reported to Grove prior to the meeting on 7/20.

I will finish this report now. If you have questions, please call me at the office, I will be the office 9:00-9:30AM Japan time then will be out of office.

Regards

Tom

From johnsa Tue Jul 17 12:07:09 1990
To: billg jonl lloydfr mikehal mikemap steveb tonya
Subject: ibm/go announcement
Date: Tue Jul 17 12:05:13 1990
Mail-Flags: 0000

lee reisswig just called to inform us that there will be an announcement today that ibm and go are engaged in a joint project to pilot certain pen based applications. if the pilot works out it could lead to jointly developed products. ibm is licensing certain go technology. the Q & As will attempt to address the DOS issues as follows:

Q. Why endorse a new platform to support notebook computers as opposed to enhancing existing platforms?

A. the go platform has been optimized to make it natural for the user to write with a pen. it will be easy to exchange data between the go platform and those platforms that run on the desktop.

Q. Will the go applications run on dos or os/2?

A. No.

He will send us a copy of the press release.

From jeffr Tue Jul 17 22:20:45 1990
To: mikemap
Subject: Go ancmt - GRID's questions..
Date: Tue Jul 17 22:20:44 1990
Mail-Flags: 0000

>From pradeeps Tue Jul 17 14:54:22 1990
To: jeffr lloydfr
Subject: Go ancmt - GRID's questions..
Cc: billg
Date: Tue Jul 17 14:54:20 1990

I just spoke to Alan Lefkof (Pres, Grid Systems). GO is announcing their machine tomorrow. (I don't know if this is a separate, but related event to the IBM press release described in Johnsa's email). Alan wanted to know what was going to be our response and what he should say about Win-H.

He didn't have much data on the announcement, except that IBM will endorse and licence the s/w (not h/w) and that three ISV's will be there: Slate, Pensoft (a 2 man flaky operation) and either Lotus or Borland. We think it's Borland. (Dan Bricklin is coming West this week for the announcement, I guess, not for a board meeting).

Aln Lefkof plans to say that Grid has a large account focus which requires open architectures and adherence to standards. MS-DOS is the standard today. As new standrads emerge, Grid will look at them. He does not plan to say anything about Win-H unless we decide that we are going to. Even then, he is concerned that he would be forced to talk about unannounced hardware if he said that Grid is making a machine which will run Win-H.

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I've told him that I will talk to Jeffr and get back to him with our party
ne.

From jeffr Tue Jul 17 21:59:19 1990
To: billg mikehal mikemap rice sarahch steveb w-connib w-pamed
Subject: FYI-GO says....
Date: Tue Jul 17 21:59:16 1990
Mail-Flags: 0000

>From mcimail?TO: __Gregory_Stikeleather#__EMS: _MCI_Mail#__MBX: _0004262752 Tue
To: Jeffr
Subject: GO Press Briefing
Date: Tue Jul 17, 1990 6:15 pm EST

From: Gregory Stikeleather
EMS: MCI Mail
MBX: 0004262752
Handling: LETTER
Message-Id: 21900717231512/0004262752NB1EM

Dear Jeff,

Congratulations on your promotion to Vice President of Office Systems. It is certainly clear outside of Microsoft the key role you have played in building the Applications Division, and we here at GO are pleased to see you acknowledged for your work.

Everything is proceeding well here; in fact, we are conducting a press briefing this week that outlines part of our strategy. We wanted you to hear this directly from us. These are the four major points of the briefing:

1. GO is developing a new operating environment designed for pen-based computers.
2. This environment is available for license to computer manufacturers wishing to enter the market.
3. We have completed an agreement with our first licensee, IBM.
4. There is already substantial support from independent software companies, VARs, and corporate customers.

I am sending you press releases that you should receive tomorrow.

Jerry sends his regards.

Sincerely,

Greg Stikeleather
Manager of Advocacy

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From lloydfr Wed Jul 18 23:15:50 1990
To: billg carls jeffr johnsa mikehal mikemap rice sarahch steveb tonya
w-connib w-pamed

Subject: GO News
Date: Wed Jul 18 23:13:12 1990
ail-Flags: 8000

UPf 07/18 2304 IBM licenses pen-based computer technology

By BRIAN ROONEY
UPI Business Writer

SAN FRANCISCO (UPI) -- IBM Corp. gave an important endorsement Wednesday to an emerging technology that allows computer users to enter data with pen-like writing devices.

The nation's largest computer company announced it was the first licensee of a pen-based computer operating system developed by Go Corp. of Foster City, Calif., a 3-year-old startup company.

IBM said it intended to create computers operated by pens on a flat screen. The computers will be able to easily exchange information with other IBM and IBM-compatible personal computers.

Insurance examiners, architects and other mobile professionals could use the portable machines on the job and later transfer the information into their primary computers.

The technology "will make using a computer as easy as writing on a piece of paper," said James Cannavino, IBM vice president and general manager of its Personal Systems division.

Cannavino said it was too early to tell when IBM would introduce its first pen-operated computers or how much they would cost.

Because of IBM's size in the computer industry, its endorsement could make Go's technology the standard for pen-based computers, just as IBM's licensing of Microsoft Corp.'s DOS operating system made it the standard for personal computers in the 1980s.

Go Corp. said it would make its technology available to any manufacturer that wanted to license it. IBM also invited other manufacturers to adopt the Go system.

Software developers Lotus Development Corp., Borland International, WordPerfect Corp., Slate Corp. and PenSoft Corp. already have announced plans to develop software applications for Go's operating system.

Companies that are developing their own pen-based machines adopted a wait-and-see approach to Go's system.

"I think IBM's endorsement of the whole stylus-based computing market is nothing but good news for people building these types of devices," Rizzo said. "It is way too soon to make any kind of rational statement about whether it will be a standard."

Grid Systems Corp., the first U.S. company to introduce a pen-operated computer last fall, said it would let the marketplace set the standard but would consider licensing Go's technology if necessary.

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