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From mathems Mon May & 15:43:15 1989
To: billg joachimk paulma: petern richard/ russw steveb Subject: Windows, Dos: and OS/2
Date: Mon May 08 15:37:37 1989

The single most important issue for Win vs OS/2 is the question of the IBM Dos/Win merge - all else pales in comparison. I think that we should do it but with some careful controls as explained below.

What I would propose is:

- Do the deal with IBM to bundle Dos and Win I. I believe that we can se them on it, and keep the product decent.
- 2. Remove 386 features from Dos/Win merge. The content of the Dos/Windows bundle is win 3/286, minus the desktop apps, plus Dos. I believe that bundling the 386 stuff NVDM, paging ANY of it, would be a potential fatal mistake, as explained below. The protected mode and large memory features of Win 3/286 would remain it is still a hot product.
- 3. Encourage OEM bundle early. The data of the IBM release is apparently 90, but what we should do is arrange that key OEMs like Coapag effectively start the thing NUCH sooner as 500n as we humanly can. This would obviously not be exactly the same as the IBM stuff it migh just be the Win J/286 packaged product taped to a Dos package. I thin that it is important to get OEMs, or at least Compaq, to "spritually" g on the bandwagon soon. This is a lever on IBM, and it gets the ball rolling sooner. We might take some heat from IBM at letting Compaq bundle our Win J/286 while we work with them to integrate it with Dos, but it is well worth it.
- 4. Don't ship Win 1/186 at all. We would cancel the present plans for Win 386 it would not ship. The 286 version would come out as planned. 8 late 90 early 91 we could bundle the 386 version with Dos , or do a special thing for Bluegrass, without killing OS/2.
- 5. Windows for the 286, and the home, OS/2 is for the 386, and the office. The initial positioning would be that OS/2 2.0 is the 386/486 product and Windows is the 286 product. This is extremely clear to people, and easy to understand. Later, when IBM has its home machines, this would be refined to Windows being the home PC operating environmen and OS/2 the office environment. This is discussed more below.
- Continue to do technical work to make OS/2 both good, and positioned as the high end GUI offering. This is beyond the scope of this memo, but clearly has to be done.

This gives you the outline. There are lots of very important things that a not included above, but this is an interesting thing to start discussing. Here is my rationale behind the points.

1. Do the deal with IBM to bundle Dos and Win).

The main challanges here are to:

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- Convince them its a good idea financially. This is probably not hard.
- Overcome the "stategic" objection, and the "necessity" to port all of their stuff to it.

The latter issue, as raised by Larry Loucks is the big one. The way to overcame their objections is to:

- Emphasize that this is Nor fundamentally different from Dos it
 is a very low end offering. The "home versus office" positioning should
 help here.
- In particular, any plan that they had for Dos STILL WORKS. Larry's point about needing to port all of their stuff is bogus. OS/2 is still the strategic GUI environment. This is an enhansement of Dos. Just because you add a neat feature to Dos does NOT sean that you necessarily have to support it. This is not just playing with words it is perfect valid for IBM to say that you can only tie in to their distributed SAA world from character mode with Dos/Windows.
- This is a good way to build interoperability in the user interface with Dos, give it a saxy new feature, and allow it to be compatibile wit a set of exisiting popular applications. It does not change the fact that Dos is the fundamental operating system.
- 2. Remove 356 features from Dos/Win merge.

The primary points behind this are:

- If Windows is bundled with Dos, it does not HEED to have this feature in order to win. I don't think that you'll lose a single sale i you take it out, with one exception which is one we want to encourage losing a Dos sale to OS/2.
- It is an incredible risk to OS/2 to put a bunch of sexy features into Dos. End users do not need to think very hard to day to decide to buy Dos - adding this stuff makes it very hard to justify taking the plunge with OS/2.
- ISVs see that there is little benefit to supporting OS/2 supporting only Dos/Windows gets them almost all of the important technical features, AND has the huge sales.
- Having the 286/366 positioning is VERY important. This is discussed nor below.

The question of limiting Windows functionality is controversial mainly because we all have an intuitive feeling that somehow its their birthright ship any feature they manage to implement. From a marketing and business perspective this is bogus - features belong in one product or another for market and competitive reasons alone. There is no justification for having 186 specific stuff (NVDM, paging) in a serged Dos/Windows product - it is n going to increase sales to any significant extent when compared to the COMPIDENTIAL

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enormous boon of being bundled with Dos. The only thing it does is remove reason to buy OS/2.

We only have one shot with something as dramatic as bundling Windows with Dos - there will be no chance to start over or correct. If we pick group a 0S/2 suffers it will be too late to do anything about it.

Encourage OEM bundle early.

There are two reasons for this - get the Dos/Windows bandwagon and revenue rolling early, and to provide a stick to best IBM with. If we can get IBM to announce the Dos/Win merge early, and we have a packaged product all set to go, we could get a lot of OEMs started very soon. Even without the IBM announcement we could probably do this with a bunch of hints and winks.

The "stick" side of it is as follows - we want there to be a quality product in the market so that they won't delay the intro of Dos/Win and they won't fuck the product up too much. This is discussed more below.

4. Don't ship Win 3/386 at all.

This is an extention of point 2 above, which says that we don't ship the 18 version in the interim. This deprives us of several months of revenue, but this is a tiny sum compared to what we'll rake in from the Dos/Win bundle. The negative is all of the stuff that is listed above - we threaten OS/2, w confuse ISVs etc. The risk of this stuff is just too great when you compar it to the very small return.

The Porst problem however is that it would make it painfully obvious that ν deliberatly limited Windows. Having a full featured Win 3/186 come out for 6 ~ 9 months, then disappear and have only 286 stuff bundled with Dos would look funny.

If you really care about the missed revenue, consider that we also would remove the desktop apps from the product, which we could sell retail. Although the revenue per copy is smaller, the volume on this product is goi to be pretty good once Dos/Win is shipping at the rate of 10 million/year.

5. Windows is 286, OS/2 is for the 386.

I think that it is incredibly important for people to have a VERY clear notion of our positioning. The suddle approach works fine with IEM, but no with end users and the industry at large. Defining a market niche is a lot like picking a border between countries - the international borders that wo best have a range of masty sountsins in between, next come rivers and the worst are artificial lines drawn on the map. The Swiss have survived on th for centuries.

I think that almost everbody can understand a 286 vs 186 positioning. Besid being clear and a high visibility issue, it helps explain what our sales numbers will be. Fast 286s are very strong right now, but nobdy seriously CONFIDENTIAL

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expects the 286 to last long term, or think that there is no reason to move to the 386. The same conceptual picture is what we want to push for Window and OS/2 - Windows is a practical near term thing, but OS/2 certainly is th future. We want ISVs to think that a move away from OS/2 is a neo-luddite move away from 32 bits, paging and the obvious future.

Note that this positioning is reinforced when we roll out the 1860 version OS/2. Then we change the message slightly to say that OS/2 is the 12 bit system for advanced processors (186, 486, 1860 ...), and Windows is the 16 bit system. As mentioned above, we would put 186 features, particularly MVD into Dos/Windows, but not until late 90 or 91. The OPC and low end IBM machines helps use the home versus office argument as another twist to the basic positioning.

I think that it is hard to over estimate the value of having a clear and ear to understand message for the market. The vague "low and/ high end" message doesn't cut it because it requires people to understand the feature set too much - why is one low end? What are the differences? Of course there are n many differences today, but that is NOT the point here - even if there were lots of technical differences you do NOT want to have to rely on this to explain the message. The 285/385 debate on the other hand is widely know, due in part to the money spent by Intel, AMD and various OEMs to tout their machines, and because there is lots of coverage in PC magazines about this every machine review. Even people that don't know what the numbers mean will see that most computers have the numbers in their name. I don't know the technical differences between a Hercedes 190 and a 560, but it is a safe be that the one with the higher number costs a hell of a lot sore and is faste

Objections

Here is my reply to the obvious objections and problems that this would raise:

1. IBH would mess up Windows, so what gets bundled is poor quality.

This is certainly possible, but I think that we are in an excellent position to combat this:

- There is not too much time for them to do the messing. This is one reas to get Windows bundle deals going early, and to keep the pressure on the to not slip the thing.
- The main thing that they would screw with is the shell (CUA stuff). I believe that we can argue the low end/money issues/market need/threat th we'll do it ourselves enough that they do mess with the core of Windows.

One way to combat any bad stuff in the shell is to put (and/or theatening to put) a good shell in the desktop apps retail package.

Another great threat is to use Compaq and others as a lever to keep them from screwing around too much. There once was a time when Compaq and others wanted EXACTLY what ISM had, even if it was worse. An interestin change in the market is that Compaq, and a coulpe of others to a lesser extent, are feeling their oats and would be interested in taking a stand coulpe of the company in the company

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This is Steve's MCA vs EISA example, but restricted to a much safer top: like different shells. If IBM fucked with Windows too cuch, ve'd let Compaq ship the old shell, or encourage them to make their own. The thre of this is the main weapon of course.

 I think that the IBM relationship is important enough that it is worth the pain involved in getting them involved.

One alternative - just having Compaq do it - would be disasterous. The MCA versus EISA kind of debate would be TERRIBLE if it was directed against CS/2. I don't want Compaq poking fun of the supposed advantages of OS/2 over their system (Mindows) the way that they have with MCA. The way we have allowed the features to converge this would be a BIG mistake - sople would conclude that OS/2 was a bag of hot air. We just can't let any strong OEM have a good reason to attack OS/2 and that is exactly what we would be doin if we let Compaq bundle and IBM not.

 The OS/2 message would get drowned out in the roar of Windows success.

This is a serious issue. The question hinges on what matters more to ISVs and end users. - the absolute number of OS/2 sales, or the relative strength of OS/2 versus other platforms. If we do the right positioning, I think th this move will actually increase the absolute number of OS/2s sold in 90, b relative to Dos/Windows it will be small.

I think that the key thing to note here is that most serious PC ISVs are pushing the limits of the hardware today, and vill recognize that they must push for the 186 features - paging today and 32 bit API tomorrow - or risk not being competitive. They vill certainly want to take the 05/2 1.1 versi of their PM app and port it to Windows, but they can't JUST do that if we a hard core about making 05/2 compelling at every point in time. One good thing about identifying Windows vs 05/2 as 286 vs 386 is ISVs, or any software person, will be very hard pressed to say "yes, my 286 app vill bea any competitor that is 386 specific". That would be crazy. The Dosywindow sales numbers will cause people to target Windows when they might not have otherwise, but the 386 positioning means that people can't ignore 05/2 unle they only have a low end business.

 OS/2 will never catch Dos/Windows, and thus never be a per system product.

Yes, it is true that for several years we will not catch the combination. Beating them combined is much harder than doing it separatly - there is synergy in the combination.

If we follow the plan above, get 05/2 technically on track, and follow up 2 with a good fully 32 bit system, then I think that we CAN get 05/2 to dominate on the 186DX and 486, and get per system deals restricted to those processors. Dos/Windows would be per system on 286 and 3865X. Note that we do NOT have to beat Windows across the board - just have a strong niche. A 32 bit apps become popular we will ride the coattails of the 386 hardware a eventually dominate.

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Incidentally, one good thing about the i860 machine is that OS/2 will start off life as a per system deal. That will be the main condition on having peolpe use our hardware plans (phrased appropriatly for legal reasons).

Benefits

The good points of this approach are:

- The MONEY! This obviously will give tremendous systems revenue.
- It also should give great apps revenue this is something like a 5X-10X increase in the total number of platforms on which we can sell ou apps. Our success may not be completely linear in the market size, but it sure helps.

Those two are huge and obvious wins, and are the main reason to do this. T strategic side is:

- Many ISVs who would have followed up their PM app with a UNIX version will now focus on Windows! This is going to soak up a lot of bandwidth for PC industry ISVs, which is a good thing for us.
- As long as Dos/Windows and OS/2 have some technical differences
 which are signifigant to end users, strength in the low end will drive
 both ISVs and users towards OS/2.
- We put a bullet in the head of our would be competitors on Dos like DRI, Desqview, dos extenders etc.
- Our apps division gets a tremendous amount of power, which is indirectly helpful to OS/2 if we channel it properly (getting 32 bit versions early etc).

None of these strategic factors would be worth a damn if we killed OS/2 in the process. On the other hand, if we can position Dos/Windows as described above we can avoid killing OS/2 and still reap the things above as benefits.

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