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Sent: Thursday, April 13, 1995 2:40 AM
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Subject: Microsoft Face to Face Summary

Text item: Text_1

Bottom-Line:

- Based on W95 experience MS finds that they need to own all drivers
- Expect no real cooperation from MS on NSP or media; input/education is welcome, of course
- At Games developer's conference focus on "Design scalable games for Pentium" message; DON'T make a half-hearted attempt to push Native audio without a compelling ISV story (current POR). MS messages are tuned for this audience; we'd come across defensive at best
- Bill, let's do the Native Audio press release before GDC; it won't harm our MS relationship :-)

Gerald

Details:

We met with Carl Stork, Marshall Brumer, and Eric Engstrom for 3 hours. WinHEC clearly opened their eyes regarding the scope of NSP. They are upset with us being in "their" OS space - no surprise there. Interestingly, they have evolved their thinking on what their "space" needs to be.

1-MS moving towards vertical integration of driver SW.

In short, they feel they need to own ALL driver software "to the metal" i.e silicon - a significant shift from owning the core OS and allowing innovation at the driver/HW level. A recurring theme was that nobody but MS is qualified to do good driver SW. In their mind, W95 was delayed by 9 months by 3rd party driver dependence. What this means for the games SDK is that they are focusing only on the ISV (API) aspect and all but ignore the IHV (HAL/DDI) aspect. They intend to provide ALL drivers for all interesting HW - a fallacy given the horizontal nature of the PC industry. Nonetheless, they are serious. (If they follow through with this, innovation at the HW level would grind to a halt since silicon vendors would need to rely on MS to get driver support for their new stuff. The good news is that IHVs would have to flock to Intel supported open NSP DDIs as the only way to innovate without depending on MS driver support for their widget.)

2- Cooperation - NOT!
Stork openly admitted that MS has completely missed the boat on developing a compelling state of the art media subsystem for Windows95. But this is high priority for W96/97. He eluded to an upcoming reorg that may combine Osborne's and Ludwig's team to develop the next generation media architecture (nothing concrete yet but it will build on the Games SDK). Intel is welcome to provide input - but they own it down to the silicon :-)

3- Games Developers Conference

I don't expect MS to openly attack NSP at the GDC, BUT their thrust is clearly counter NSP. Eric went as far to insist that "any DSP

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regardless how poor in performance is better than doing processing on the host - since the game is left with all of the CPU" (something games ISVs are very vocal about). Amusingly, Direct Audio has an NSP-like SW emulation layer if the HW does not support a certain feature. This is not an inconsistency in their mind, of course, since MS will provide this SW.

We should be watching out for a games-enabled ISA card/reference design from MS that provides advanced audio, 3D, and 2D support. Performance is achieved the old-fashioned way: lots of acceleration and memory behind a slow ISA bus.

4- DCI primary surface support makes it into W95; offscreen gets rearchitected later

According to Engstrom the offscreen aspect of DCI1.0 cannot be reliably supported in W95 - they were not paying attention when DCI 1.0 was implemented. (I'm sure he is totally objective here given that DCI1.0 was done by his predecessor jointly with Intel) He claims the DCI drivers provided by IHVs are buggy and violate the WIndows programming model. He is paying lip-service to MS providing a Direct Video incarnation of the DCI 1.0 draw handler to support off-screen surfaces in the future but since video is not part of the games SDK this remains at risk. And, NO, Intel cannot help since this code has to be integral to W95.

Games SDK Schedule (I expect this to change)
Beta 1 GAmes Dev Conference
Beta 2 July
FCS September