Paul Maritz
From: Jim Allchin (Exchange)
Sent: Thursday, March 13, 1997 11:07 AM
To: Paul Maritz
Cc: Kay Barber-Eck; Tina Brusca (Exchange)
Subject: to discuss with you today in our 1:1 (long)

Trident

I have been pushing on innovation for Windows as you know. I had a review 2 days ago on what we could do with Trident if it was integrated more tightly into the system. The review was bad.

- Trident has very serious size problems.
  CreateDialog today is 55 code pages + 42 data pages + stack.
  MFC: CDialog-DoModal today is 82 code pages + 102 data pages + stack.
  Trident: Create PropSheet: today is 384 code pages + 445 data pages + stack.

  The static code increase between NT4 and current NT5 builds (with only the changes from IE4 included) is 1.5MB larger. If that wasn't bad enough, another issue is that the overhead per instance (process) looks like it will be very high. There were not enough facts to prove this in the review, but there are indications that the amount of process data will be very large. (Another fact regarding this. There are 278KLOCs in Trident – as a comparison the win95 shell in NT is only 237KLOCs. The point is, there is a lot of code.)

  Obviously, we have a very very serious size problem.

- Trident has robustness and security problems. In my review I was told there was a shared heap. This is exactly the thing that had to be removed from the win95 shell port for NT 4. This is a bunch of work. In addition, the major list of issues holding back the IDW work continues to be IE4. There are just too many bugs and problems being found.

- There are a number of weakness that will keep Trident from being used in a number of places in the system. For example, IIS won't be able to use it because even though there are OLE interfaces Trident requires a frame with a hwnd so trying to use Trident to build dynamic pages on the server won't be possible.

So, here's the situation. Trident needs lots of work just to be equal to what we have today. No one is doing this work. We cannot do this work. I think it may be 6 months of work with quite a few developers from the review.

The Shell.

None of this work will get us competitively ahead. The list of things possible if there was a solid base is starting to take shape, but even then I don't know who is going to do the work. Both the Memphis and NT team are totally frustrated with the IE 4 situation: the code quality is lower than we can take, they are being driven to different objectives on when they have to fix bugs in Memphis or NT, the end-user experience isn't designed with migration in mind, our features we must have are not being done (this is a really bad situation), and finally, the code size/performance issues are serious. Given what I am seeing we are not on a path to have Memphis this year.

The options are:

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- create a shell team here. This will fail since no one here wants to just fix their code again. This will be the 3rd time. Bobday has already left. johnc, etc. have told me personally they will leave if they are just expected to fix another group's bugs, etc. again. They say "you committed they would do the right thing and they aren't. Either make them or give us control of the pieces we need." They say having two source trees is a nightmare and they have tried to check things in the IE 4 environment and they are told they cannot because IE is trying to get a beta, etc. so progress here stops The objectives are just different.
- force a change in priority on the IE 4 team. You may not want to do this, but it could solve the problem. However, the change would have to be real, visible, and immediate for it to make a difference in our schedules.
- drop IE 4 from Memphis and NT 5. There is a strong push to do this. We are wasting hundreds of people's time on builds that don't work, etc. Frankly, we may have to do this anyway to make progress. If we drop it, then we know we must either go out without IE 4 in the final or we have to be honest in that both systems will take perhaps a 1/2 year slip because we would have to fix the quality/performance/size later and go through beta tests much later.
- Move the Shell -- but not the browser -- to the OS team. This was my recommendation before as you know. It may not be the thing you want to do for other reasons, but it is the right thing to do for the OS (both Memphis and NT). IE 4 would just plug into the environment. Both teams could make progress then. I still think it makes sense.

We have to do something. It is not going to work the way things are today. I will be forced to do something this next week. It has dragged on too long. I must do something for the group as a whole to continue to make progress. If I had to make the call today the only thing I can do is remove IE 4 from both systems and press on. At least then we can make progress. The cost of removing it is not free, but once removed progress would be steady. I would have them move the win95 shell forward with the features we need for ZAW and simplicity.

Headcount.

Next week you will see headcount requests from each of my directs for the remainder of FY97. I think the number will end up to be around 100+. Yes, I'm serious. It will be broken down into new projects and you will be able to just cut them if you want. It includes things like Hydra, NT EE, Windows Club, Memphis cool Utilities, etc. I have been very hard core about headcount. I think you know that. We have to loosen up and we have to do it now. We have many projects that will generate significant $s in the coming years that are not staffed appropriately (e.g., SAM). I have been trying to rob and pay for it and I think we have finally hit the wall. I am counting on you to be able to approve whatever headcount you decide is best in the meeting. I don't want this issue to linger. I have set the meeting up as a decision meeting since people are so in trouble right now. If you want to have norm get early data, please do so. Greg furman is pulling it together.

What's worse is that the numbers that will be requested for FY98 will be much higher. We have more time to discuss this and I haven't been through a scrub, but you should brace yourself for seeing larger numbers than ever before for FY98. You can of course just say "no". What I will do however is cut projects. In addition, we are foolish in having so many contractors. They should be fulltime. We pay more and end up retraining people over and over. What we're doing today isn't good business.

C, APIs, and Colusa.

I am a huge supporter of ensuring we move the C world along and not leave them to be eaten by the Java beast. Given this, the question is how this will get done. The OS team here wants to take ownership for making this happen. I am not hardcore one way or another. However, I do have a major problem about ANY of this working reporting to Bens. I do not support this. If

you want some other team to do this work, then you should move it to the tools group away from Ben. If fact, I don't understand why Ben's work isn't in the tools area anyway. The team wants to do it here because they say they can integrate this support directly in the OS and get advantages. They are working through what those advantages would be right now.

Storage unification and BPA

Progress is happening on both fronts. Unfortunately, progress is not fast enough especially related to the storage issue. I met with David a day ago and I'm not sure what to do. I will continue to press on this harder.

HOME/Consumer.

There should be some review meetings set up regarding an overall strategy for attacking this. I haven't seen anything personally yet, but I will ensure we make some overall progress on this over the next 2 months.

jim