From: bens
Sent: Thursday, April 13, 1995 10:05 AM
To: Adam Rauch; John Ludwig
Subject: FW: Internet (aka Web Windows)

From: Rick Rashid
To: bens; danli
Cc: paulma
Subject: RE: Internet (aka Web Windows)
Date: Thursday, April 13, 1995 10:00AM

I think the key points here are:

1) Today the Web is not a friendly place to write "interactive applications". Browsers (e.g Netscape's) will addres this by adding APIs and they are alreaddy beginning to do this at a dizzying rate (e.g RealAudio). We have to do someth about this or the Browser becomes an OS-Independent "Shell" and the Browser APIs become the application platform interface.

2) We have a critical asset: access to a huge ISV community and a collection of time tested APIs and tools for building applications.

3) How can we leverage our assets to create a Web-based API for interactive applications?

My first cut at this was to say: how about just adapting our API for the Web? Obviously the Citrix people have done part this as have the teleconferencing people (e.g. the PictureTel code we just bought).

Dan Ling has separately pointed out that we could develop a new or at least "related" API -- perhaps based on the use of cached, downloaded, digitally signed (for security) OCXs with a Web protocol for interacting with them.

If you take the controls idea forward you could accomplish a great deal with relatively straightforward work. We could, for example, provide OCXs for 3D animation using our Rendermorphics assets, 2D animation using our DirectDraw assets, 3 sound, etc. along with a lot of more obvious traditional controls which could be interacted with over the net. We could ev distributed CDs full of controls for ISVs to use and users to put in their machines to avoid downloading. We could create whole "Web Controls" infrastructure with specialized versions of VB and VC++ just for Web apps and special NT mechanisms for invoking apps, security hooks, etc.

-Rick

| From: Dan Ling
| To: Rick Rashid
| Subject: FW: Internet (aka Web Windows)
| Date: Thursday, April 13, 1995 9:33AM
|
| Continuing to point out the pitfalls: Note Ben's comment at
| the very end that Window's apps don't look cool ..... the
| apps that look cool (e.g. Encarta etc.) aren't the ones our
| ISVs know how to make. So we have a complex infrastructure to
| make not so cool looking apps. I think we need to accelerate
| the new cool things e.g. 3D graphics with animation, video,
| audio etc. rather than focus on the vanilla text-based Windows
| apps. But if we focus on the new stuff rather than the old

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| stuff.....shouldn't we just design the app to be remoted
| rather than messing with the Windows event queue??
| Dan
| ———
| From: Paul Maritz
| To: Ben Slivka; John Ludwig; Dan Ling; Rick Rashid
| Subject: FW: Internet (aka Web Windows)
| Date: Thursday, April 13, 1995 9:03AM
|
| X-Exchange-Message-ID: C=US;A= ;P=MICROSOFT;I=RED-10-MSG950413090347CNX00D400
|
| Bens - you may want to see if rashid and dan ling can spend few
| minutes with you to brainstorm. I would be happy to join, but don't
| let me be the bottleneck. I am meeting with Rick at 2pm today - if
| we get done early, I may try to give you a call.
|
| Probably the easiest thing to do would be to call up Citrix and ask
| them to actually set up a live demo. Their stuff supposedly works
| over whatever LAN one has (and thus over TCP/IP), so it is a
| question of getting a copy of their client code up here (which
| supposedly works only over DOS now), getting it set up over TCP, and
| connecting thru to a server of theirs in Florida.
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| Ed Iacobucci's email address is edi@citrix.com. He has been telling
| Rick that a "beta is in the mail" for weeks now.
|
|
| ———
| From: bens
| Sent: Thursday, April 13, 1995 12:59 AM
| To: johnlu; paulma
| Subject: RE: Internet (aka Web Windows)
|
| Having pooh-poohed this idea in paul's office, I now back peddle and
| agree that we should post-haste determine the feasibility of this stuff.
| As paul suggests, there are two key issues:
| 1) lag between mouse/key events on client and visible response on
| client from server -- this is the problem that lead the OS/2 PM
| folks to dismiss X-Windows as not high enough quality for a PC.
| ==> We could do a simple system hook (I believe) to insert
| random delays in sending mouse &keyboard events on a
| local system, and this would be a very close approximation.
| 2) while GDI commands may be quick to transmit, when the app gets into
| blitting mode, then you're in "download the gif" hell. Think about
| toolbar buttons, images in dialogs, etc.
| ==> Again, we could model this by hooking BitBlt and StretchBlt
| and introducing a variable delay that is linear in the size of the
| bitmap. If this delay provide problematic, we'd have to get into
| the client-side image caching business (ala the persistent
| cache we have in our Internet Explorer for gif, jpg, html, etc.)
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| We should get some smart USER (scottlu) & GDI folks together and
| talk about this stuff, but only after someone has sat down and watched
| the Citrix stuff in action.
|
| Now, having said that, let me point out that our existing Windows UI is
| pretty ugly -- grey buttons, black text, few graphics. Even if we do
| Remote Windows, web pages simply look cooler...
| —bens
|
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|
|

From: Rick Rashid
Sent: Thursday, April 13, 1995 1:22 PM
To: johnlu
Cc: bens; danli; paulma
Subject: RE: Internet (aka Web Windows)

I suspect Netscape would resist Window's specific extensions. One approach to that would be to define a controls "protocol" which would allow equivalent controls to be built for and used on other platforms, but that doesn't serve our interests quite as well. Also, they have a lot of motivation to not cooperate with us. Just as they are a threat to us, we ar threat to them. Our best interest is served by effectively eliminating the special browser and special server model altoget and making the Window's desktop the "browser" and Windows NT the "server".

-Rick

| From: John Ludwig
| To: Rick Rashid
| Subject: RE: Internet (aka Web Windows)
| Date: Thursday, April 13, 1995 10:50AM
|
| X-Exchange-Message-ID: C=US;A= ;P=MICROSOFT;I=RED-10-MSG950413105014FZX00E500
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|
| i like the controls idea. that is all that the realaudio and vrml
| players are -- new controls. we should just get a huge mass of
| windows controls out there fast. i like it too because it gives
| netscape a way to adopt out controls and thus be our ally, instead
| of forcing them to be our enemy across the board.
|
| ---
| From: Rick Rashid
| Sent: Thursday, April 13, 1995 10:39 AM
| To: johnlu
| Subject: FW: Internet (aka Web Windows)
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| From: Rick Rashid
| To: Dan Ling; Ben Slivka
| Cc: Paul Maritz
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