Plaintiff's Exhibit

5613 B

Comes v. Microsoft

Erik Stevenson

From:

Brad Silverberg

To: Subject: davidcol FW: "shells"

Date:

Tuesday, November 02, 1993 8:00PM

From: Christopher Graham

To: bobmu; bradsi; chrisgr; chrisp; jimall; johnlu; paulma

Subject: FW: "shells"

Date: Thursday, October 21, 1993 3:50PM

Here are my comments on your memo.

Here are some additions. To the list of repository viewers, add:

Elmer (Word/Office Doc Lib)

Principal Data Objects:

Documents

Principal Views:

Tree view, list view, content view,

etc.

Author of views:

Some fixed, could be extensible.

interfaces used (current):

Chicago shell ext.

FAT, indexed by Jet

Data store FrmsTech.

n/a n/a

Interfaces exported

Elmer should use the same tree view and view architecture as Ren. Maybe it could use a DAO mapping layer to access it's "repository", which is a combination of FAT and QJet. This would make it upward compatible to Cairo.

Office would also provide views to preview documents, and maybe to explore into their internal hierarchy without opening them.

Comments on proposed simplifications:

- (iii) I don't see a need to collapse Navigator and Ren into one project, as long as they both use DAO to access storage and the same architecture (I assume component control) for plugging in their views. Both Ren and Navigator would be Explorer views.
- (iv) The target platform for Office 95 will be Chicago, since London won't be available until 1996, and Cairo probably won't be a universal upgrade. However, we only want to create one version of Office for both Chicago and Cairo. Also, the Chicago explorer is not sufficient for either Ren's or Office's requirements. Therefore it would be good to create an enhanced Cairo-compatible explorer in this time frame into which Ren, Elmer and Office views could plug.
- (vi) Since it's important that Ren ship with Integrated Office, it should only use component forms if Integrated Office (and VBA) do. I'm still not confident that component forms will be nailed down in time
- (viii) It would be great if views developed for Ren and Office would just work in Cairo.

Comments on obstacles:

1. Office needs a PIM, so we need Ren in the early 95 time frame. We can't have Ren dependent on Cairo, although it would be great if Ren were compatible with any Cairo interfaces that were known and stable when Ren ships.

Here are come additional comments on Brian's comments:

- I'm skeptical that CDE would be ready for Office on Chicago in early 95. We'll use whatever VBA's authoringg environment will be at that time.
- I'd be concerned that forking Ren development into versions for Cairo and Office would defocus work on Ren for Office.

A final note: I'm concerned about the usability of the basic design of the tree view in the Explorer. Apparently Chicago was also concerned enough that they de-emphasized it in their ui. It would be too bad to try to support all kinds of user activities by extending a suboptimal design.

I think there may be better alternatives for hierarchical browsing and finding things, and if so I'd like to use these in an Explorer in the Office time frame. This is the framework that various views would plug into. We have been talking with the ren group about this, and have recently made promising progress. Hopefully, if we find a solution, Cairo could also adopt the same ui.

- Chris

From: Brian MacDonald

To: Bob Muglia; Brad Silverberg; Christopher Graham; Chris Peters; Jim

Ailchin; John Ludwig; Paul Maritz

Subject: RE: "shells"

Date: Tuesday, October 19, 1993 5:41PM

This is pretty much in line with what the Ren group would like to do. Ren does not want to define a totally new set of interfaces for ISVs. We would like to have exactly the Cairo interfaces, but as a minimum want to be on the path to Cairo.

To clarify the table, Ren views are end user editable and customizeable but lack a great authoring environment like CDE. Cairo views are NOT end user editable or truly customizeable but have a great authoring environment. CDE represents a great capability against Notes that Ren/Office lacks. Views like a Calendar view are not really possible in Cairo except in a static uninteresting way (no editing implies no appt/item creation, no drag-drop to move calendar items, etc.). Cairo lacks a mechanism for enumerating the available columns in a table and is therefore of limited help for the end user to customize a grid on a new set of objects.

We need a plan that can sync up Ren and Cairo to the full functionality of what views should be (editable, customizeable, authorable). Full support of DAO implies fixing the things Cairo lacks but doesn't help Ren have a great authoring environment.

For Marvel, I think the big dependency is on EMS and not Capone. Ren is, however, attempting upward compatibility with the Capone extension mechanism. Marvel on Ren should be in good shape. We have been talking with their development manager, Jeff Lill. Their plan is to have a minimal version for Capone that can get Chicago users registered on-line and have a small set of services without an extensive UI (they don't have a lot of time pre-Chicago to do more). Their big exciting version that can really compete with Prodigy / Compuserve would be

based off of Ren. Having CDE for making view writing for this easier would be great. I don't think we want to restrict what they are doing for v1.0 though because getting those Chicago people registered and names collected will be important.

Adam doesn't really consider Navigator a shell. He agrees that Navigator can be cast as an interesting view for Ren/Cairo, esp. if we did the DAO support.

I think the big question is what do we have for the Integrated Office timeframe of June '95? I think we need have the following:
-- A more Cairo-like Explorer. This could possibly be exactly the Cairo explorer, an upgrade of Chicago's Explorerr or an upgrade of Ren's Chicago upgrade to match Cairo in look and feel.
-- DAO layers on top of MAPI, FAT and JET. Getting OFS across would probably be too late, but we want to give the illusion of a unified store to the user, at least in views. Whoever did the Explorer would be logical for the DAO to FAT layer. Jet does DAO-JET. MAPI or Ren does DAO-MAPI.

- A CDE environment for Integrated Office.
- -- Convergence on a set of Cairo interfaces outside of the DAO domain. Essentially, we need a mini-Cairo for the Office timeframe.

With regards to your obstacles:

- 1) I don't know of anyone who has told us not to help Systems, just that helping Office is clearly super-important. Our conflict with wanting to ship in '94 may be resolved by forking off an Integrated Office team this summer.
- 2) Navigator, as stated, they can just become a Ren/Cairo view.
 3) If Cairo doesn't use DAO as a "native interface" that probably implies negative things for moving CDE down. It probably also means that Ren/Office couldn't benefit from Cairo implemented views (because I assume there would not be an OFS to DAO layer!)
- I assume there would not be an OFS to DAO (ayerl)
 4) Chicago probably shouldn't be distracted now from shipping a great product on time. Maybe the interfaces pre-Cairo/Memphis are something only pushed by Office -- its an Office thing not a Chicago thing.
 5) General scepticism. If we can pull together a plan for this that we all agree on, that should sway some naysayers. I suggest we put together a group of people to look at the Cairo in the Integrated Office timeframe problem and try to reach an agreement.

Other obstacles:

A DAO to MAPI layer is non-trivial. We probably would rather have the MAPI implementation teams (LMS/EMS) make some changes to enable this. There would be pushback on any extra work at this point.

Getting groups supercommitted to doing the DAO mapping layers could be hard.

Anyway in summary the Ren team looks forward to cooperating to get the synergy going. The benefits could be big -- ISVs can look at the installed base of Office and do views for that that will benefit Cairo as well, etc.

---Brian

From: Paul Maritz

To: Bob Muglia; Brad Silverberg; Brian MacDonald; Christopher Graham;

Chris Peters; |Jim Allchin; John Ludwig |Subject: "shells" |Date: Tuesday, October 19, 1993 6:19AM

< < File Attachment: SHELLS.DOC> >

Erik Stevenson

From: To:

Brad Silverberg

Subject:

davidcol; joeb FW: "shells"

Date:

Tuesday, November 02, 1993 8:01PM

From: Brian MacDonald

To: bradsi

Cc: bobmu; chrisgr; chrisp; jimall; johnlu; paulma Subject: RE: "shells"

Date: Monday, October 25, 1993 3:59PM

Can you be specific about the ways in which Chicago's explorer is "not sufficient" for either Ren or Office? Especially if we succeed in making the Chicago interfaces upwardly compatible with Cairo?

Chrisgr asked me to respond to your mail above.

I haven't seen the full plan for making the Chicago interfaces more aligned with Cairo. What comes out of that could change the story.

In the current situation, we didn't have our requirements in to the Chicago shell team early enough to avoid derailing Capone and Chicago. We were looking for interfaces that were OLE based and provided for a generic set of views to go against a set of stores. Chicago and Capone have been reluctant to be OLE based because of the 4 mg recruirement. We took a drop of the Explorer source and have worked a more Cairo-like set of interfaces on top of it. This may be work you want to take back.

There has been a another issue of the Explorer UI. The scope pane hasn't usability tested well and it is being demphasized in the Ut. For Ren and Office, we will need equivalent functionality that will need to be more easily accessible than the current POR for the scope pane in Chicago and needs to be less overwhelming (probably by allowing rooting, etc.) Ren and Office are still thinking about what the best solution is (probably some sort of rootable pop-up hierarchy browser).

The UI problem is there in Ren's shell and the Cairo Explorer. As part of our trying to synchronize our api and user interfaces where they overlap with Cairo we will be trying to address this. If there is a good solution then perhaps that could be pulled back into Chicago.

--Brian