A new OLE specification has just arrived from Microsoft, and it covers a much wider range of new OLE features than I had anticipated. The revisions include changes to some existing aspects of OLE, such as object rendering, as well as some completely new features of great importance. I've provided a quick feature summary at the end of this note. Doug Wilson, Scott Kliger and I will be in Redmond on Monday for a semi-open design review with Microsoft and other ISV's. Depending on the timing for the rollout of these features and their possible introduction into Microsoft apps, we should consider an accelerated effort to incorporate some in our Win 95 offerings. I have a suspicion (not backed by hard facts) that we'll see these features in MS Office around the time that we ship next year. If we want to compete on that basis, both Aswan and the app groups will have some hard work to do.

At this point, we have only one copy of the spec, and it's glue bound. I'll try to tear it apart and run it through the copier ASAP, but we'll have trouble distributing it to non-Cambridge sites in time for a useful review prior to Monday. The spec is 163 pages long, representing only changes to the existing 400 page OLE reference. It's very unfortunate that we have received this spec so shortly before the design review; a number of factors contributed to the delay, most of them Lotus' fault. I'll discuss some of the reasons at the end of this note. .

I've spoken to Joe this morning, and it's too late for him to attend the meeting with us. Scott, Doug and I will do the best review we can and arrange for followup contacts with Microsoft over the next few weeks.

Noah

Highlights of the new OLE specification

I've just skimmed the spec for a few minutes--here are some of the new features that stand out:

- Enhanced Undo/Redo

* Non-rectangular objects implemented by regions intersected with hWnds: there will be some new GDI features to support this in win32 (specifically, attaching a clipping region to an hWnd and asking GDI to construct a region consisting of the pixels touched during a set of GDI ops.)

* New border space negotiation protocol

* Drag and drop onto inactive embeddings

* Persistent object handler architecture allows the system to get at the persistent representation of an object, perhaps while the usual handler is actively manipulating the object. (This may be good news for our Bento strategy--we'll have to see.)

* Flicker free menu transitions when clicking between objects with similar menu structures.

* Program driven print requests

* Multiple views per object: Used for

    - Page breaks

    - Pagemaker-like discontinuous text flows in a page layout (e.g. wrap from newpaper column 1 to column 3 dynamically)

IBM 7510376987
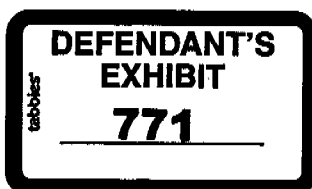
EXHIBIT 18

- Split screen?
- New support to optimize embedding of TrueType fonts in a compound document (anything for Type 1?)

* Spell checking, text search and replacements
* Reconciliation, Versioning and differencing for environments with replication (are we seeing pieces of Exchange and/or Cairo here?)
* Accessibility enhancements for persons with disabilities
* Multimedia object support
* New OLE Interfaces, each with several new methods (partial list)

- ISetCursorInactice, IOleInPlaceObject2, IOleInPlaceSite2, IViewObject3, IViewObject3Sink , IDropInactive, IClassEmulate, IPersistFile2, IPrint, IContinueCallback, IOleViewSequenceElement, IEmbeddedTTFont,IText, ITextNav, IRichText, ITextEvents, IOleHighlight, ISpellDict

Why we got the spec so late

Unfortunately, most of the reasons that we didn't get the spec on time are Lotus' problem, not Microsoft's:

* Fax machines at Lotus are unattended and we switch our fax numbers regularly. The announcement of the design review was faxed to me at a fax machine that MS uses for some of their communication with us around Dec. 8; I received it in early January after someone found it near the fax machine. I strongly recommend that we come up with a better system for distributing fax's at Lotus.

* Microsoft dropped the ball a little bit by not accurately tracking my changing fax number, but since it has changed 3 or 4 times in the last 2 years, I'm not sure I can blame them. It's changing again in mid-Feb. when we do yet another office shuffle.

* I applied to the review in early January, and Microsoft appears to have sent the spec within a few days. It's priority mail and is postmarked Jan. 5. I found it in my mail bin this morning. I don't know whether the mail room misrouted it, US mail was slow, or whether for some other reason it didn't reach my bin or I didn't find it. A more orderly and reliable means of delivering mail would be useful.

In this particular case, our administrative inefficiencies have cost us an important opportunity to involve more of our lead architects in the early review of this important material. If there's anything I can do to work with those who might want to improve the distribution of fax's and mail, please let me know.

Noah