

# **EXHIBIT O**

Unknown

**From:** Brad Struss  
**Sent:** Thursday, September 22, 1994 11:32AM  
**To:** Steve Madigan; Paul Maritz; Joe Belfiore; Darryl Rubin; Brian MacDonald  
**Subject:** ISV status on Namespace Browsers/explorer extensibility

Below is a summary Scotthe pulled together from a couple of weeks ago of what ISVs current thoughts are. Only 3 ISVs have begun actual work (2 of them utility ISVs who expect to break), the rest are in the "plan to do so" stage. When Scott was speaking to most of these people on the phone, he had to educate them some on what these different terms meant. Also, a large part of the interest from ISVs doing this is because MS is doing it w/ Capone & Marvel.

Here's summary of more specific feedback we've gotten from Lotus & WordPerfect since Scott compiled his data:

Lotus - Alex Morrow (architect) is not aware of any work currently going on to implement IShellFolder, IShellView. Others we've talked to also indicate that it's in the "plan to do stage". They've asked no questions of any technical depth on these interfaces which is another indication that no work or active investigation is ongoing. For common dialogs, current plan has been to use the standard dialog extensibility and not roll their own. This may change.

Wordperfect - They have not begun any work on IShellFolder, IShellView, etc. If Capone integrates into the Explorer then they will also ("we'll figure it out if it's not documented"). If capone does not, they will just create a standalone email application. For common dialogs, current plan is to use the MS dialogs, but I don't believe they've investigated this enough to know for sure.

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 From: Scott Henson

Here's how the shell integration API's affect our software development plans:

## [ MICROSOFT ]

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- => The Chicago shell team will make use of everything (no surprise)
- => The Chicago Networking Team - including Remote Access - (namespace browser and explorer extensions, briefcase reconcilers, property sheet handlers, context menu handlers)
- => Elseware Company - provides the Font Folder in Chicago - (namespace browser and explorer extensions, property sheet handler)
- => Office Team (gave the Chicago team the code for docfiles and continues to work on it. The document management group is using IShell Folder, IShellLink, and maybe more to do file open and save dialogs. They do something to do drag/drop of binder pages and are also using the appbar stuff - I assume to have multiple system toolbars.)
- => Capone - the InfoCenter - (They will do everything. They were able to do their work on other platforms - the Mac, NT, and Win 3.1, by taking the shell source code and modifying it to their needs)
- => Marvel - Online Service - (they extend the namespace and the explorer)
- => Access (doing a file system view = namespace browsers, shell extensibility, the works)
- => Ren - our PIM group - (Originally Implemented totally as a shell extension. Now they are looking at briefcase reconcilers and the hot debate right now is namespace and explorer extensibility)

The following companies have voiced an interest in the namespace extensions and shell extensibility in general:

COMPANY	HAVE THEY STARTED WORK?
Oracle	YES (Their forms division)
Symantec	YES (They are in deeper than anyone)
Stac Electronics	YES (Very Heavy Usage)
DCA	YES (Details coming via e-mail)

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Word Perfect | VERY LIKELY (but detailed info will be difficult to get)  
 Lotus | VERY LIKELY (but detailed info will be difficult to get)  
 Corel | NO - INVESTIGATING  
 Compuserve | NO - INVESTIGATING  
 Prodigy | NO - INVESTIGATING  
 America On-Line | NO - INVESTIGATING  
 Legent | NO - INVESTIGATING  
 NCSA (Mosaic) | NO - INVESTIGATING  
 NetSoft | NO - INVESTIGATING  
 Attachmate | NO - INVESTIGATING  
 FutureSoft | NO - INVESTIGATING  
 Saber Software Corp. | NO - INVESTIGATING

... and these ISVs were asking lots of questions on Compuserve ...

Parson's Technology  
 Visionware  
 XSoft (Xerox)  
 Northern Telecom  
 AEG Software Technik (GmbH and Co.)

Here are the detailed reports company-by-company:

[ ORACLE ]

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- \* PRODUCT: Oracle Forms Package
- \* HAVE THEY STARTED WORK? YES
- \* PLANNED USAGE OF SHELL EXTENSIONS: What they want to do use the explorer as a generalized front-end for Chicago. Their main development is not focused on doing Chicago Explorer Extensions - they would actually market this as an augmentation to their stand-alone product at the time Chicago ships.
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

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 Tray Extensibility | Not Important  
 File Viewers | Have not yet looked at it  
 Briefcase Reconcilers | No plans to write a reconciler  
 Copy Hook Handlers | Very Important (A lot of work done)  
 Context Menu Handlers | Very Important (A lot of work done)  
 Property Page Handlers | Very Important (A lot of work done)  
 Icon Handlers | Very Important (A lot of work done)  
 Namespace/Explorer Extensibility | Very Important (A lot of work done)

[ SYMANTEC ]

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- \* PRODUCT: Norton Desktop and Utilities for Chicago (the Central Point Group will do quite a bit as well)
- \* HAVE THEY STARTED WORK? YES
- \* PLANNED USAGE OF SHELL EXTENSIONS: The will essentially replace the Chicago Desktop
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

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 Tray Extensibility | Yes - the desktop people are  
 File Viewers | Not Started but ideally would like  
 | to use the work done in the  
 | existing product  
 Briefcase Reconcilers | No plans to write a reconciler  
 Copy Hook Handlers | Very Important (A lot of work done)

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Context Menu Handlers | Very Important (A lot of work done)  
 Property Page Handlers | Very Important (A lot of work done)  
 Icon Handlers | Very Important (A lot of work done)  
 Namespace/Explorer Extensibility | Very Important (A lot of work done)

COMMENT: They made the comment that this was not a big surprise - that they simply expected to break from release to release - that's the nature of utility vendors.

[ STAC ELECTRONICS ]

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- \* PRODUCT: Stacker for Chicago (and other Chicago projects)
- \* HAVE THEY STARTED WORK? YES
- \* PLANNED USAGE OF SHELL EXTENSIONS: Their entire UI is based on Explorer Extensions and NameSpace Browsers
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

Tray Extensibility	NO
File Viewers	NO - They would like to use what is there
Briefcase Reconcilers	YES - (Another Project not Stacker)
Copy Hook Handlers	NO (Might in the Future)
Context Menu Handlers	YES
Property Page Handlers	YES
Icon Handlers	YES
Namespace/Explorer Extensibility	YES (Their entire UI)

COMMENTS: They realize that the core of their product is not the UI but they would really like to see the API's stay compatible as long as possible.

[ DCA ]

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- \* PRODUCT: SNA Connectivity
- \* HAVE THEY STARTED WORK? YES (Based on Feedback from one of their development managers Delaine Campbell)
- \* PLANNED USAGE OF SHELL EXTENSIONS: They will create a folder that shows 3270 terminal sessions
- \* TECHNOLOGY BREAKDOWN: Waiting on details

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

Tray Extensibility	n/a at this time
File Viewers	n/a at this time
Briefcase Reconcilers	n/a at this time
Copy Hook Handlers	Likely based on initial feedback
Context Menu Handlers	Likely based on initial feedback
Property Page Handlers	Likely based on initial feedback
Icon Handlers	Likely based on initial feedback
Namespace/Explorer Extensibility	Likely based on initial feedback

[ WORDPERFECT ]

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- \* PRODUCT: No Feedback on which one
- \* HAVE THEY STARTED WORK? Very Likely Based on Tom Creighton's feedback below.
- \* PLANNED USAGE OF SHELL EXTENSIONS: Not Known
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

Tray Extensibility	n/a
File Viewers	n/a
Briefcase Reconcilers	n/a
Copy Hook Handlers	Likely based on speculation
Context Menu Handlers	Likely based on speculation
Property Page Handlers	Likely based on speculation
Icon Handlers	Likely based on speculation
Namespace/Explorer Extensibility	Likely based on speculation

COMMENTS: A detailed survey was sent to WordPerfect but the results are unlikely to be very informative. Tom made the comment that there would "be hell to pay in the press" if we changed the interfaces from the initial release of Chicago to the next release. They will try to get feedback to us but they don't want to tip their hand.

[ LOTUS ]

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- \* PRODUCT: No Feedback on which one
- \* HAVE THEY STARTED WORK? Unknown at this point
- \* PLANNED USAGE OF SHELL EXTENSIONS: Not Known
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

Tray Extensibility	n/a
File Viewers	n/a
Briefcase Reconcilers	n/a
Copy Hook Handlers	Likely based on speculation
Context Menu Handlers	Likely based on speculation
Property Page Handlers	Likely based on speculation
Icon Handlers	Likely based on speculation
Namespace/Explorer Extensibility	Likely based on speculation

[ COREL ]

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- \* PRODUCT: CorelDraw!
- \* HAVE THEY STARTED WORK? NO
- \* PLANNED USAGE OF SHELL EXTENSIONS: for Document Management with Ventura
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

Tray Extensibility	Not Interested
File Viewers	Might provide some filters
Briefcase Reconcilers	Not Now
Copy Hook Handlers	Likely
Context Menu Handlers	Likely
Property Page Handlers	Likely
Icon Handlers	Likely
Namespace/Explorer Extensibility	Likely

COMMENTS: Corel is anxiously awaiting our strategy on this so they can decide how deep to dive into the shell extensions.

[ COMPUSERVE ]

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- \* PRODUCT: WinCIM for CompuServe On-Line Service
- \* HAVE THEY STARTED WORK? NO
- \* PLANNED USAGE OF SHELL EXTENSIONS: Not as their main app but more likely as an add-on
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

Tray Extensibility	Maybe
File Viewers	Will use what is there
Briefcase Reconcilers	No Plans
Copy Hook Handlers	Likely
Context Menu Handlers	Likely
Property Page Handlers	Likely
Icon Handlers	Likely
Namespace/Explorer Extensibility	Likely

COMMENTS: CompuServe as well as the rest of the On-Line community don't feel that shell extensions should be their core product. The user-interface that they have designed is where they hold value.

[ PRODIGY SERVICES COMPANY ]

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- \* PRODUCT: PRODIGY On-Line Service
- \* HAVE THEY STARTED WORK? NO - They were in the porting lab last week for evaluation purposes
- \* PLANNED USAGE OF SHELL EXTENSIONS: Very Unclear
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

Tray Extensibility	Maybe
File Viewers	Not sure
Briefcase Reconcilers	No Plans
Copy Hook Handlers	Likely
Context Menu Handlers	Likely
Property Page Handlers	Likely
Icon Handlers	Likely
Namespace/Explorer Extensibility	Likely

[ AMERICA ONLINE ]

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- \* PRODUCT: America Online
- \* HAVE THEY STARTED WORK? NO
- \* PLANNED USAGE OF SHELL EXTENSIONS: Unclear at this point
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

Tray Extensibility	Maybe
File Viewers	Will use what is there
Briefcase Reconcilers	No Plans
Copy Hook Handlers	Likely
Context Menu Handlers	Likely
Property Page Handlers	Likely
Icon Handlers	Likely
Namespace/Explorer Extensibility	Likely

## [ LEGENT ]

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- \* PRODUCT: Paradigm
- \* HAVE THEY STARTED WORK? NO
- \* PLANNED USAGE OF SHELL EXTENSIONS: To expose ticker objects that represent system events and failures
- \* TECHNOLOGY BREAKDOWN:

## SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

SHELL EXTENSION TECHNOLOGY	PLAN FOR IMPLEMENTATION
Tray Extensibility	NO
File Viewers	NO
Briefcase Reconcilers	NO
Copy Hook Handlers	Interested
Context Menu Handlers	Interested
Property Page Handlers	Interested
Icon Handlers	Interested
Namespace/Explorer Extensibility	Interested

COMMENT: I essentially explained most of this to Legent and they said "Wow! Think of the possibilities!" This indicates to me that they are concentrating mostly on their Win32 port from UNIX and have not yet thought about this aspect of their application.

## [ NCSA ]

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- \* PRODUCT: Mosaic - Internet Browser
- \* HAVE THEY STARTED WORK? NO - Mostly Read the Docs
- \* PLANNED USAGE OF SHELL EXTENSIONS: To allow for quick connect to Internet hosts and to keep a hot list of favorite places on the Internet
- \* TECHNOLOGY BREAKDOWN:

## SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

SHELL EXTENSION TECHNOLOGY	PLAN FOR IMPLEMENTATION
Tray Extensibility	NO - not yet
File Viewers	NO
Briefcase Reconcilers	NO
Copy Hook Handlers	POSSIBLY
Context Menu Handlers	YES This is important
Property Page Handlers	YES This is important
Icon Handlers	YES This is important
Namespace/Explorer Extensibility	POSSIBLY - This depends on what we are doing with the internet shortcuts

COMMENTS: NCSA is working with Wassef with regard to internet shortcuts. They mentioned that Carrie Schwartz has implemented basic drag and drop with respect to internet resources. From numerous discussions it sounds as if we are in negotiations with these folks to do an internet browser for the Chicago Frosting Pack.

## [ NetSoft ]

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- \* PRODUCT: SNA Connectivity Software
- \* HAVE THEY STARTED WORK? NO
- \* PLANNED USAGE OF SHELL EXTENSIONS: 3270 sessions "hidden" as files/directories
- \* TECHNOLOGY BREAKDOWN:

## SHELL EXTENSION TECHNOLOGY | PLAN FOR IMPLEMENTATION

SHELL EXTENSION TECHNOLOGY	PLAN FOR IMPLEMENTATION
Tray Extensibility	NO

File Viewers | YES (4 stars)  
 Briefcase Reconcilers | YES (3 stars)  
 Copy Hook Handlers | NO  
 Context Menu Handlers | Yes (3 stars)  
 Property Page Handlers | Yes (3 stars)  
 Icon Handlers | NO  
 Namespace/Explorer Extensibility | Yes (5 Stars)

COMMENTS: They made the comment that although they had not yet started work, that this was very important to them.

[ Attachmate ]

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- \* PRODUCT: SNA Connectivity Software
- \* HAVE THEY STARTED WORK? NO
- \* PLANNED USAGE OF SHELL EXTENSIONS: To show legacy system through an installable file system and this would in turn be shown through namespace and explorer extensions
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY	PLAN FOR IMPLEMENTATION
Tray Extensibility	NOTE SURE - INTERESTING
File Viewers	Hoping they don't have to
Briefcase Reconcilers	NO
Copy Hook Handlers	Yes this is very important
Context Menu Handlers	Yes this is very important - Have to do this
Property Page Handlers	Yes
Icon Handlers	Yes
Namespace/Explorer Extensibility	Yes

COMMENTS: This product relies on Extra! but is not the core product.

[ FutureSoft ]

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- \* PRODUCT: SNA Connectivity Software
- \* HAVE THEY STARTED WORK? NO
- \* PLANNED USAGE OF SHELL EXTENSIONS: To show legacy systems in a folder hierarchy view
- \* TECHNOLOGY BREAKDOWN:

SHELL EXTENSION TECHNOLOGY	PLAN FOR IMPLEMENTATION
Tray Extensibility	NOT NOW
File Viewers	They will be providing their own filters
Briefcase Reconcilers	NO - Seems like an artificial   abstraction - we would like to see   it go away.
Copy Hook Handlers	Yes
Context Menu Handlers	Yes
Property Page Handlers	Yes
Icon Handlers	Yes
Namespace/Explorer Extensibility	Yes - Deep into this - have not   started but have designed a UI.

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COMMENTS: They realize that Cairo os in Object-Oriented OS and based on OLE. If the components to extend the shell are similar then it will make their lives much, much easier. The biggest concern they have is that they will



be able to use the same product on both Operating Systems. They want to be less of an application from the user's point of view and more of a network.