

DX 82

Defendant's
Exhibit
82

Bill Gates

From: Bill Gates
To: Brian Fleming
Subject: FW: Shell Extensions
Date: Tuesday, November 08, 1994 6:41AM

Basically we gave up because of marvel and paul will check into the add on pack..

From: Paul Maritz
To: Bill Gates
Subject: RE: Shell Extensions
Date: Monday, November 07, 1994 5:56PM

I met on Friday with DRG and JoeB to review following:

1. In M7, the Chicago Shell has been changed to force apps that use the iShellFolder interfaces to open into a separate window, ie. appear to be separate apps.
2. There were 4 groups using these interfaces (Capone, Marvel, Stac, Symantec). Capone, Stac, Symantec have found ways to not use them. However, the MARVEL guys have said that there is no way they can move off the current interfaces and still have chance of shipping with Win'95.
3. Based on this stance by MARVEL, we will not disable the interfaces, but will not document the iShellFolder in regular documentation, but we will have them documented in a resource kit so that if someone really, really does want to use them they can. I feel that if Marvel is using them, we have to say that in theory someone else could have done likewise. However we will tell ISVs that there is no guarantee that these API's will not get broken if future and we do not recommend their use as a result. If someone does use them, because the interfaces have been doctored to force app to open into a separate window, the legacy case can be handled relatively straightforward way by simply starting a copy of current explorer and then starting the app in same process.
4. I am not up to speed on details of O'Hare - will find out.

From: Bill Gates
To: Paul Maritz
Subject: FW: Shell Extensions
Date: Tuesday, November 08, 1994 5:32AM

I am a little confused by what is going on in this whole area.

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DX 84

From bradstr Sat Nov 12 12:09:43 1994
 X-MSMail-Message-ID: 5013706C
 X-MSMail-Parent-message-ID: DFFFA38A
 X-MSMail-Conversation-ID: D521F5CB
 From: Brad Struss <bradstr@microsoft.com>
 To: billg
 Date: Sat, 12 Nov 94 12:01:19 PST
 Subject: CEO Dinner Talking points
 Cc: doughe, jonl, rogerh

Here are suggested talking points we've pulled together for your talk at Sunday nights CEO dinner.

Attendees fall into 3 categories: top productivity isvs targeting win95 (firstwave), key education title vendors targeting win95, and key hardware vendors creating PnP hardware. Confirmed attendees are at very bottom of this mail.

Main Objective

The objective of this talk is to keep these ISVs/IHVs invigorated to get their products to market as committed (w/in 90 days of ship) and to thank them for their support as early adopters. Hit the importance of making the 60-90-day window to get products to ship (or sooner for hardware vendors). Microsoft will be there in that timeframe. Tell ISVs that we're still on track for Q1 RTM and are still confident we will have a release in first half on 95, but of course will not ship it until ready. Emphasize the size of the launch of Windows 95 and how that will create this huge wave for them, and that our co-marketing is geared on the apps that do make that timeframe. Marketing opportunities include electronic catalog on CD version and "bus" ad for logo/product advertising---ie MS ad followed by 3rd party ads for their win95 products. Win95 represents great opportunity for joint success as users move forward.

Additional details/points:

1. Thank you to early Windows 95 partners/adopters for strong commitment to Windows 95.
 - There will be 125+ ihvs/oems/isvs showing products being designed for windows 95 on the show floor.
 - 80 PnP hardware devices shipping today. Just completed PnP press tour - editors were very impressed & surprised with how well it worked and how many devices there already were.
 - The WPP in early 95 will be the "1.0" release to 400k people. This is the time to be in beta. Final ship will be the ".1" release.
2. Highlight a couple ISVs in booth:
 - Visio showing localized Win95-J 32-bit version in 3rd party booth (will have Win95-J version running back of room). Emphasize worldwide aspect of launch. They are also showing a NT/PPC version on show floor.
 - Elastic Reality - 32-bit (Win32s) product ported over from SGI. Morphing/special effects packaged used for movies/commercials. Has been used for Chrysler commercials. Also showing a NT/PPC version on showfloor
 - MS, Lotus, and WP all showing win95 products on the show floor, plus many other top isvs/oems/ihvs (see list below)
3. Update on Win95: Just released to M7 to 48000 beta testers, most stable release yet. Many interesting new features:
 - Focusing on making transition very easy for existing users with a guided tour to help both new users and Windows 3.1 users learn the Windows 95 user interface and an integrated Windows 3.1 help system to aid Windows 3.1 users in operating in Windows 95

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- Autoplay (we will have a machine in room with 32-bit WinDoom and 32-bit Freddie Fish both using Autoplay)
- Proactively address/position Marvel being in the box. AOL, Compuserve, and Prodigy will have representatives in the audience. All three are moving forward with 32-bit/ole enabled clients. AOL is showing in 3rd party section of the MS booth.

4. Win NT PPC (will have PPC 604 machine with pre-release version of Word & Excel in back of room).

- Comment on MS App planned availability.
- Comment Win NT support for new hardware platform moto-ibm-apple announced.
- The demo machine in the room is an IBM PPC 604 system. Great chance to show ISVs that IBM *is* behind NT. IBM did the port, IBM's delivering the hardware. FYI: Roy Clauson (IBM Kirkland) will be in the audience.
- Over 30 native NT/PPC apps demoing at Fall Comdex
- Around 12 PPC OEMs demoing new hardware running NT/PP
- NT/PPC is up and running on a FirePower (OEM) dual-604 SMP machine

5. Vision

- talk about what comes post win95
- talk about importance of BackOffice. Lots of opportunities to hook client software. Hosting Server PDC in January. Server PDC is focused on moving any remaining NLMs and getting all the server apps on our platform.

6. Q&A

Issues to be prepared to address:

1. The namespace extensions were initially pulled from Win95 and ISVs were informed of this change. In general they've been ok with this. Just recently, because Marvel could not completely stop using them and still ship on time, the decision was made to provide documentation for these as "dead" api. "Dead" means not supported after Win95 v1 and not part of sdk (available by request). The semantics of these APIs has also changed slightly. Apps that use these will come up in a new explorer window and the left hand pane will only represent the heirarchy that the applications presents (previous semantics allowed apps to show their heirarchy along with filesystems and run in the same window).

ISVs have not been informed that a "dead" api doc will become available yet. If the question comes up, we should say:

- it looks like we'll provide some documentation for these in the next couple weeks, but that ISVs are strongly discouraged from using them since they will break in future win95 releases & on all NT releases.
- if ISVs want to duplicate the look & feel of the explorer, they should look at the "Chicoapp" sample on MSDN, not these interfaces

2. MS Exposition on Win95 CD. Although a CRN article came out that hinted that Exposition (and 16-bit office) would be on the Win95 CD & WPP CD, ISVs & the infoworld/pcweek press have not picked up on this yet. Doubtful that this will come up, but we should be prepared to answer just in case.

Top 3rd party ISVs showing in MS Booth
America Online
ARCADA Software
AT & T Multimedia Software Solutions
Attachmate Corporation
Avid Technology
Byte by Byte
CHEYENNE SOFTWARE, INC.
Colorado Memory Systems
Comshare

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Corel Corp
DCA
DELRINA CORPORATION
EASTMAN KODAK
Elastic Reality
Hillgrave Inc.
Humongous Entertainment
IMRS
Intergraph
Macromedia
MEDIAMATICS INC.
Micosoft Office '95
Micro Focus
Micrografx, Inc.
ORACLE CORPORATION
Powersoft Corporation
SAS Institute Inc.
Shapeware Corp
Shiva Corp
Softkey
Software Publishing Corporation
Stac Electronics
SYMANTEC

Top OEMs/IHVs showing in MS 3rd Party Booth

3Com
ADAPTEC
ADVANCED MICRO DEVICES
AT&T Global Information Solutions
Cirrus Logic, Inc.
Creative Labs, Inc.
Crystal Semiconductor
Dell Computer Corporation
FUTURE DOMAIN CORPORATION
GATEWAY 2000
HEWLETT-PACKARD
IBM
Intel
Madge Networks
Maxtor Corporation
NEC Technologies
New Media Corporation
Oak Technology
Philips Consumer Electronics
S3 Incorporated
Sierra Semiconductor
Texas Instruments
Toshiba America Information Systems, Inc.
Vadem
Xircom Inc.

Latest list of confirmed attendees:

Sundi Sundaresh Adaptec
Jerry Barber Adobe Systems
John Nicol & Eric Zocher Adobe Systems
John Borgoine Advanced Micro Devices
Peter Shaw AGE Logic, Inc.
Steve Case America OnLine Inc.
Tim Barwick & Mike Jaffe America OnLine Inc.
Barry Horn Attachmate Corp.
Paul Larsen Attachmate Corp.
Tim Williams Attachmate Corp.
Robert Wenig Autodesk, Inc.
Kenneth Gardner Borland International
Michael Maia Cirrus Logic

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Steve Pollack Claris Corp.
 Larry Slotnick Claris Corp.
 Bob O'Brien Computer Associates International, Inc.
 Eid Eid Corel Systems
 WH Sim Creative Labs
 John Sosoka Davidson & Associates
 Jan Davidson Davidson and Associates
 Todd Mavis DCA (Digital Communications Associates, Inc.)
 Jim Linder DCA (Digital Communications Associates, Inc.)
 Rick Szatkowski DCA (Digital Communications Associates, Inc.)
 Mark Skapinker Delrina Technology Corporation
 Marc Camm Delrina Technology Corporation
 John Lowry Discis Knowledge Research
 Donna Stanger and Scott Clough Edmark
 Jack Allweiss Future Domain
 Doug Burgum Great Plains Software
 Dennis Hayes Hayes Microcomputer Products, Inc.
 Paul Curlander Lexmark International, Inc.
 Alex Morrow Lotus Development Corporation
 Jim Manzi Lotus Development Corporation
 Babara Nelson Maxtor Corporation
 Grant Wickes Micrografx, Inc.
 Paul Grayson Pam Sculz Herman DeLatte Micrografx, Inc.
 Edward M. Dua Morgan Interactive
 Philip Lui Music Pen
 Yee-Ping Wu Music Pen
 Steve Muench Oracle Corp.
 Joe Duncan Oracle Corp.
 Paul Swigert Prodigy
 Jim Beall Prodigy
 Dr. James Goodnight SAS Institute, Inc.
 Mark Cates SAS Institute, Inc.
 Jeromy Jaech Shapeware
 Peter Mullen Shapeware
 Ken Williams Sierra On-Line
 Alexander Hoag Softkey International
 Kevin O'Leary Softkey International
 Bill Breck SPC Corporation
 Jack Noonan SPSS Inc.
 Gary Clow Stac Electronics
 Tom Dilatush Stac Electronics
 Enrique Salem Symantec Corp.
 Gordon Eubanks Symantec Corp.
 Jack Tseng Tseng Labs
 Adrian Rietveld WordPerfect Corporation
 Dave Moon WordPerfect Corporation
 Roy Clauson IBM - NT/PPC porting center
 George Grayson

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DX 92

Patti Solomon

From: Doug Henrich
 To: Bill Gates
 Subject: FW: 12/15/94 First Wave Status Report & Issues
 Date: Friday, December 16, 1994 3:56PM

From: Brad Struss

To: Bob Muglia; Brad Chase; Brad Silverberg; Cameron Ferroni; Cameron Myhrvold; David Williams (POSD); David Cole; Dennis Adler; Doug Henrich; Developer Relations Staff; George Moore; Janine A Harrison; Jim Allchin; Mike Maples; Paul Maritz; Roger Heinen; Rogers Weed; Teri Schiele
 Cc: Christopher Lye; Dan Fay; Darby Williams; Dave Berry; Deborah Epstein-Celis; Denise Shephard; Dhiren Fonseca; Jerry Drain; James Plamondon; James Kramer (DRG); Marshall Goldberg; Mark Brown; Peter Plamondon; Sara Williams; Scott Henson; Shawn Morrissey; Stan Murawski; Tammy Steele; Tim McCaffrey
 Subject: 12/15/94 First Wave Status Report & Issues
 Date: Thursday, December 15, 1994 1:51PM

>> Thanks to those on the cc: line for all their efforts with the First Wave ISVs
 * MICROSOFT CONFIDENTIAL: For Systems Division and Sr. Management Only*

Issues

Ship date change is the only current issue. We plan to proactively call the FirstWave ISVs next week to discuss the new dates with them. The main goal will be prevent ISVs from delaying their 32-bit products in favor of a 16-bit release in H1. We expect ISV reaction to be mixed. ISVs who are a little behind such as WP will welcome the extra time while those hoping for initial product revenue in Q2 such as Symantec & Corel will be more concerned.

ISV Status-----
Selected Top ISV/App Status:

* Adobe (Pagemaker)

We've seen an internal demo that was very stable and fast. The biggest issue right now is if we can exploit the Pagemaker group's efforts due to corporate policy which denies them to announce/demo product too far in advance of it shipping. This may change under the Adobe umbrella.

Thinking (to their 3rd party add-ins) still an issue - lots of work to be done still. Scotthe met with HP about their 32-bit TWAIN support and they too are facing thinking issues with trying to integrate with 16-bit TWAIN sources. This problem affects MS (especially Publisher) as well.

* Borland (Paradox)

Had good meeting with VP Richard Gorman and his Development Director in November. Richard plans to be very aggressive in supporting the full "Win95 Logo" requirements in a Win95 release soon after Windows 95 ships. They are currently supporting OLE2 in their recent 16-bit release, so the tough stuff is done. There appears to be little risk to reach Richard's goal.

* Lotus

Although Lotus recently announced that they would also do 16-bit updates of their products (PC Week 12/5), they may actually be re-evaluating Win32s based upon recent questions. Their 32-bit work seems to be moving along well. Lotus demo'd 32-bit versions of 1-2-3, AmiPro and Freelance in one of their Comdex booth theaters. The products showed off Win95 common dialogs, context menus, tab dialogs, and ole in-place editing. They have also started localization work and usability testing. Purchased 800 WPP kits for their beta sites. 32-bit Freelance goes into beta this month.

* Powersoft

Plans to release version 4.0 in the next week or two for both Windows 3.1 (16-bit) and Windows NT (32bit). This release will support the same level of OLE support as VB3 (DnD, automation, container, etc.). They surmise that we will ship in June/July and this works perfectly for their Windows 95 planning since they have a Mac version due in Q1 and a Unix version due in Q2. They Mac work is currently being done with Altura. They do not like the Altura solution and are investigating VC++ for the Mac

On OLE, they are frustrated that every implementation seems to be a little different. They would like to get a beta version of Word & Excel for Windows 95 to look at their OLE implementation

* Symantec (utilities)

Undocumenting the shell integration API was a blow to them. They've looked at creating a stand alone application, but have not yet committing to do one (they initially did, but they've balked since then). We've heard different things from different people in their group, but have yet to get the official word on if they plan to use the undoc'd API or not. Either way, they are committed to shipping as closely to Windows 95 RTM as they can. They showed with us at Comdex: Norton Utilities, Norton AntiVirus, and PC-Anywhere. PC-Anywhere is not a full Win95 app just yet, they still use a lot of 16-bit code. It seemed to run well on Win95 though.

* Wordperfect

WP demonstrated their Windows 95 product in a corner of their booth at Comdex. They also let us use a copy of it for theater demos, although we only used it one of the days. The moving out of Windows 95 dates is good news to them since their most recent expected ship date for WP for Win95 was September. They've had a number of questions regarding multithreading and OLE. The planned OLE changes for M8 will help them in this regard. They continue to be very supportive in the press regarding Windows 95 and the logo.

Looking at the rough categories from this months report, there has been very little change:

Highly Likely to Ship:	18 (was 18)	
Likely to Ship:		18 (was 17)
Risky but Possible or Neutral:	6 (was 7)	
Unlikely or Worse:	1 (was 1)	
Dropped		1 (Symantec Timeline couldn't come close to meeting dates)

FirstWave ISV Status report:

<< File Attachment: DECEMBER.DOC >>

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PerfectFit 95:

Open File Dialog -- Function and Issues

July 11, 1995

This main purpose of this document is to provide a functional description of the Open Dialog for Storm. It lists function and behavior, and most important, a consensus of Open Dialog functionality. This document was necessary to alleviate differences of opinion of how this dialog would be implemented. Coding will occur from the information provided by this document (this document supersedes the User Requirements section of the Design Document). The format is a rough outline based on the current user interface design (the tabbed version). Contact Joe Martel 2-7056 if you have any questions concerns. Eventually this document will be placed in the FileSystem Spec document of Steve Giles.

History (recent at the top)

(tent. July 13, 1995. Updated doc with Resolution meeting items. Final Doc)

-- July 11, 1995. Resolution meeting

-- July 10, 1995. Sent out last pass comments.

-- July 03, 1995. Sent out 2nd pass consolidation, Scheduled Resolution meeting.

-- June 30, 1995. Compile 2nd pass responses

-- June 28, 1995. Sent out 1st pass consolidation

-- June 26, 1995. Compiled 1st pass responses from Lorrie, Bruce T, Joe, Grant, Heidi, Steve Giles.

-- June 15, 1995. Merged this with Jack's functional document (Sans font) he delivered yesterday.

-- June 14, 1995. Created this document to list issues and function from which to code.

-- June 12, 1995. Trying to understand the functionality of the dialog. In talking to Steve Giles, Jack, and Bruce different answers, some brainstorm attempts and general lack of overall functional design occurs. Steve and Bruce do not have the time to provide a functional spec. We need a functional description (document not verbal) to code from. Jack is willing to provide a skeleton for a high level functional spec.

-- June 09, 1995. Tom C. Instructed all not to pursue the alternative design. This has already been decided and we will not pursue anything other than the current design.

-- June 02, 1995. Jack Young called a meeting describing a proposal for the dialog. Gary Gibb, Steve Giles, Bruce Tiejn, ... attended. The meeting participants seemed interested in it and the group proceeded to evaluate and tweak its design. Bruce brought up the current proposal (tabbed dialog). Jack is going to pursue this through usability. It was also recommended that we have a base set of scenarios (derived from usability and CD teams) from which we could judge the various proposals and the iterative adjustments to the design.

Scenarios

1. Open a file with a name I know. File:Open. [Dialog brought up.] Type the name in, hit return. [The document should be opened into the app from which the Dlg was launched. If the dialog is not associated with an app the app associated with the specified object would be launched (DAD context)]

1.a. [If the document wasn't found, a message box indicates the problem as is currently done. No exit from Dlg.] Maintain current functionality (ie flags)

2. Open a file with a name I "think" I know. As in 1, but 1.a. is exercised because I didn't know the right name. Well I know that the document is a WordPerfect document and I know part of the name or some content. I go to Find by Name or Content and want to limit the search to *.wpd. (We saw a large number of users who know the type of document because they "live" in their apps, and want to limit finding by that type of document).

3. Open a file with a name I know, but I don't know where it is.

4. Open a file with content I know, but unknown name.

Dialog Box

1. Sizing functions
 - a. Minimizable, Maximizable
 - b. Sizable
 - i. There is a set minimum size (not user modifiable) for the Dlg and the tabs fit within this.
 - ii. The List (the main element of the dialog), grows or shrinks with the Dlg size.
 - (1) Scroll bars are present as needed.
 - (2) The scroll bars do not get truncated.
 - iii. Other elements, toolbar/status bar, may be truncated by the software, (not the user). Each tab determines its minimum useful size. When it reaches that size, it no longer continues to re-size its controls smaller, thus causing them to be truncated or not visible.
 - iv. Sizing control at bottom corner.
2. Modal nature
 - a. ~~If the Dlg is invoked from an app, it~~ The Dlg is closed after the user hits Open or Cancel button. This is true of apps like WP, QP, ... as well as for other apps like DAD. The Dlg will not live after Open/Cancel. ~~—If the Open Dlg is invoked stand alone (ie not from a standard App; WP, QP, PR,...) it should change to make Launching the associated app the default. (This is mentioned elsewhere) Jack: What is the difference between a and b? Or why are they the opposite of each other?~~
 - b. The Dlg may be launched by the app, and the Dlg is not closed until the users hits Close or Cancel. If the user hits the Open button, the Dlg will communicate (callback) to the app the selected objects. This will handle QF's need to have an ever present Find Dlg like Explorer.
 - c. The calling app would close the Open Dlg ~~when~~ if the calling app closes down while the Dlg is up.
3. Tabbed
 - a. There will be three tabs on the dialog.
 - i. Open
 - ii. Find by Name
 - iii. Find by Content
 - b. Stickiness of the Open Dialog tabs should be an App decided issue. When the Open Dialog is 'invoked' the App must set which tab should be the default tab. If the App chooses not to specify a preference, by default they get the Open tab.
 - i. The App will be able to Query the Open Dlg to find the last tab the user was using.
 - ii. The state for each tab is remembered (sticky) during the Dlg session so If the user moves between tabs the state of the tab does not change unless the user changes it and the controls on that tab are preserved for that Dlg instantiation. (The App may choose to preserve these states for the life of the App, but it's the App's responsibility).
 - c. The tabs are independent of each other.
 - i. The controls (Look In...) would not transfer from tab to tab.
 - ii. The Preview setting would transfer from tab to tab since it set in the menu and should affect all children (tabs).
 - iii. The tabs are independent. This means one tab's state does not affect the other and has no knowledge of another tab. (This means if the user changes the "Look In" field in one tab and then goes to another tab, the user's setting would not be reflected). Some menu items affect how certain controls appear (like preview window) because those are global to the Dlg settings. **Question:** Jack: Is it wise to make it so the Look In doesn't reflect the changes from tab to tab? Should the Look In control be off the tabs so it only needs to be changed once? What is the users intent? How can we best address it? (Joe: If we decide to change Look In to be global we should pull this control off the tab and make to a child of the Dlg not the tab.)
 - d. ~~Proposed:~~ There is no mechanism to add additional tabs by third parties. However, products like SoftSolutions will be able to be visible via ODMA functionality. ~~Jack: Can~~

~~third parties add additional tabs?~~

4. Menu
 - a. File (changes depending upon what object is selected)
 - i. Open, New, Create Shortcut, Delete, Rename, Properties, Close. Sharing, Send To, Print, and Open With, Printing of the Lists will be supported depending on the item selected and its attributes.
 - b. Edit
 - i. Undo, Cut, Copy, Paste, Paste Special, Select All, Invert Selection ,Paste Shortcut (depending on the item selected and container attributes.)
 - c. View
 - i. Toolbar, Status Bar, Large Icons, Small Icons, List, Details, Explorer View, Arrange Icons, Line Up Icons, Refresh, Options. *(Priority 2: Provide Sort Order menu item to show how it is sorting [i.e. alphabetical, descending]. Changing the sort order is already supported).* Jack: Arrange Icons in Win95 actually does a type of sort.—Is that what you're saying is a priority 2?
 - d. Preview
 - i. No Preview, Formatted, Contents, Information/Properties, Preview on Demand
 - e. QuickList
 - i. Add to QuickList, Edit/Modify QuickList, QuickList Items, Print QuickList
 - f. Latest
 - i. Latest includes both files and locations (directories) Default to 10 entries each. User (application) can override the default number of files and default number of locations. Each is separately changeable.
 - g. Help
 - i. Help Topic, About OpenPerfect.
 - ii. Deena Tripp, x27442 Bldg E. will write the help file.
 - iii. Help file includes help on the QF component when it is available.
 - iv. The common error message for the Open dialogs such as "no viewer found/avail" documented in the help section for OPENPERFECT and then give the user options on how to resolve the error (installing the viewers or ignore the message).
5. Status Bar
 - a. Located at the bottom of the dialog upon demand from the View menu. (Global, so affects all tabs)
 - b. Shows Counts of items, sizes, dates, descriptive name, etc. (maintain currently functionality).
 - c. Sort Order will be shown on Status bar.
6. From a secondary mouse click support same as Explorer (ie: format, copydisk, etc.)
7. Sticky
 - a. The dialog does not remember what its state is in between invocations . It is up to the App to remember and set state if it desires.
 - i. Parameters to Open have a default setting that is programmed. If a parameter is not specified (null) by the App, the default is utilized. The default is not modifiable by the App at run time, but it can be overridden.
 - (1) Controls that are parameter driven are: Look In, Type, Name, Name List, Dlg Title, Conversion list, latest list, Open button name, Open As Copy button name.
 - (a) The App already receives values from controls: Look In, Name, Ok button, Copy Button is already passed back.
 - (b) Some controls can be queried since they may be modified (edited or chosen from a list) by the user: Type.
 - ii. Properties of the Dlg are sticky. They consist of the Sort, Column Order, List Display Mode, Dlg Dimensions, Default Tab. The App can set and query these values. The user can affect all of these values. These properties are sticky, they are preserved for the life of the P Open Dlg component, across instantiations of the Dlg, and across P

- instantiations. This means these values are preserved forever until the user or App changes them.
- iii. Set Directory as Default is no longer available from the Open Dlg. It may however, be supported by the App by querying the Dlg for the LookIn value and remembering this.
 - iv. The Network, rename & remove directory functions may be accessible depending on App and Namespace control.
8. Recently MS has standardized it's Office apps on a Explorer-like Open Dlg standard. The MS DLG has both good and bad points. It doesn't appear to be more functional than our design and the UI is not necessarily better from initial responses from developers. We will not worry about modifying our design in this respect.
 9. Drag and drop will be supported from the Dlg to the desktop, and from view to view (like the Explorer).
 10. The preview will be a simple child control of the Dlg. *(Future, Priority 2. The preview will support the capability to be "torn off" of the Open Dialog and then it would become a stand alone viewer, no longer a part of the Open Dialog (ie. If the Open is closed down, the viewer would remain). This provides the capability for the user to then size the view and scroll through or search in the view, copy from the doc, etc. When the mouse is over the preview, it might change to a hand, to indicate the capability of "tearing off" the view. When it is torn off, another preview of the currently selected file appears in its place. Thus multiple independent tear off views might exist and supported by a separate process.)* **Question:** Jack should we use Envoy technology for the viewer? When a document is saved Envoy would print to a place in the doc file an image of the document. In the open Dlg the Preview would be the Envoy viewer. This would give searching capabilities. It would also allow for easy "tearing off" for full window viewing. What do you think? Joe: This seems independent of the Dlg. If the viewer component utilizes Envoy we should handle without additional work. Tearing off presents another set of issues like longevity beyond the Open Dlg..
 11. Much of the functionality specified for Save(As) would be the same as for Open.
 - a. Provide a control to select the save format.
 12. Much of the functionality specified for Select Directory would be the same as for Open..

Browse Tab

1. The name field has initial focus. If a single, valid filename is specified, the "enter key" opens or saves.
2. Look In
 - a. Will work the same as the Win95 control except for the following:
 - i. The path will be displayed (i.e., if you have a folder structure named "c:\work\project 1", the current control displays only "project 1". The proposal is that it would display as "c:\work\project 1". This will give the user reference).
 - (1) If the entire path won't fit in the field truncate using existing functionality -- "Squash it"
 - ii. The trail will show when the list is dropped. Currently when the down arrow on the list box is pressed the top item in the list is the folder that is current. In the perfect world the trail back to the drive will show (i.e.


```
c:
  <--- This would be at the top of the list
  c:\work
    c:\work\files <---instead of this
  d:
  e:
  z:
```
 - b. Look In traversal will work like the standard Open Dlg LookIn control.
3. Of Type Control
 - a. This control (as mentioned above) has values (a list) passed in as a parameter. If not specified, the default will be shown. Reading the list of registered types from the system will be the default (the registry - the set of possible values is determined by the Name Space - file system, GroupWise, etc). For the file system, this list would change anytime a new file type was registered or unregistered. The calling App has control via both mechanisms (registry, parameter passed)
 - b. If a filter is typed in the Name Control the Type Control changes to reflect the filter/type if its unique, otherwise it may show *.*. Copy existing functionality of the Common Open Dlg

- here.
4. Listview Control
 - a. The List Control is the same as the Win95 List Control, including the launching of applications, with the noted exceptions below. There is always a Listview control. Additionally, the user can specify that he/she also wants a Treeview, resulting in an Explorer like view.
 - i. It can be changed to an Explorer type view by using the context menus, the View menu or by dragging the left edge of the List box to the right. Dragging the divider in the Explorer view to the left will change the view back to the list control.
 - ii. Its width will change depending on the showing of the Preview Control. When the Preview Control is set to No Preview the List Control takes up the full width of the dialog.
 - iii. It is sticky for the Dlg. If you change it to a specific type of view, the next time you enter the dialog the list will still have that type of view (under App control).
 - iv. Traversing up the hierarchy can be accomplished via the LookIn "Up a Folder" icon or via Treeview.
 - v. First letter Name search will function in the list as in Win95 (keystroke delay causes first letter look up otherwise it does a full name search based on the sequence of characters typed in rapid succession. ~~Won't full name search like exists in Win95 function?~~)
 - vi. This split view (tree and list) will be accessible as a separate component.
 - b. Items in the list are selected by the conventional methods and may be subject to the App's flags (i.e. an App may not allow multiple selections):
 - i. Mouse
 - (1) mouse only:
 - (a) Single
 - (b) Multiple item, Contiguous.
 - (2) key and mouse
 - (a) Multiple items, Contiguous
 - (b) Multiple items, Non-Contiguous.
 - ii. Keyboard
 - (1) Single
 - (2) Multiple items, Contiguous
 - (3) Multiple items, Non-contiguous?
 - iii. With an item selected current non-obvious keyboard functionality (~~f8 = copy, f7 = move, del = delete, ins = create/new~~) **will no longer** be supported. We will however support Win95 standard keyboard functionality (i.e. cut, copy, paste: ctrl c,v,x...) **Question:** Jack: Why not? What good does it to Copy, Move, or Delete when nothing is selected? Are you removing all file management via the keyboard? Lorrie: What is the "compelling" reason for loss of functionality for the keyboard user in this release? Explorer's UI for File Management is far from User Friendly. Is cutting our current keyboard user interface out really necessary? Many users of our Word Processor are KEYBOARD users to the extreme. They despise the "rodent", their fingers never (or very seldom) leave the keyboard. Our overall keyboard interface in "File Open" was enhanced considerably in 2.x SC right after our initial Beta due to users suggestions and requirements. Bruce: In Win95, the Shell has a "new" set of keyboard commands to accomplish the same task - Ctrl C = copy to clipboard, Ctrl X = Cut to clipboard, Ctrl V = Paste from Clipboard, Del = delete, and File|New creates a directory or file. Although it seems somewhat un-natural, this extends the standard Windows clipboard keystrokes from Editing documents, etc. to the file system. I don't know that MS did the best thing when they did this, but it is now the Win95 standard. (Copy is especially a problem because there is no apparent action. It needs to show some kind of action to indicate that something happened) (By the way, I never knew about F8 & F7, or INS.. in our 16 bit open - they certainly aren't obvious). Joe: loss of functionality may be realized by users who do wildcard-type renames, though they can still accomplish this, perhaps more obviously in a drag and drop metaphor.
 - c. Selecting an item in the list.
 - i. Places its' name or names in the Name control (maintain current functionality)
 - ii. Preview the doc if preview is up.

- iii. Places it's 'info' on the status bar,
 - (1) In single, places it's info there.
 - (2) If multiple objects places number of objects and total size.
 - (3) If object contains a WordPerfect "Document Summary" that info is also placed on status.
 - (4) Right mousing on the file entry itself would allow the same functionality we have now - Cut, copy, rename, print, create shortcut, include all Explorer functionality, etc.
 - d. Pressing the backspace key while in the list control moves you back a level. Backspace while in the name control does a backspace as expected.
 - e. The default view for this tab is the List View. It is sticky.
5. Name Control
- a. ~~Proposal~~-Default text for this control: File Name. The text for this control will be a parameter and under App control. *(Future: address file/folder paradigm naming issues as a priority 2.) Jack: Can this text be modified by the calling App? What if it isn't a file name?*
 - b. This is an editable field. It includes the file name and optional path. There is no 'history' combo box (this functionality is accessible from the "Latest" menu. Jack: **Question**: Why no history? Why do you have the path? Shouldn't it just be the name? Joe: Perhaps we should reexamine this decision. MS Office makes use of this "reuse" control. If we do use this control, why should the "Latest" menu item survive? Colin: 2) I would rather see a pop-down list of recently opened files in under the combo box than have the list in a menu (Latest). I argue that this is a better solution simply because it is a more commonly used solution to the problem.
 - c. Maintain file encryption functionality. Don't allow actions that aren't allowed (viewing an encrypted file requires password verification).
 - d. The name of a file can be typed. If a file exists that has that name, , the file is opened. Keep current functionality.
 - e. A full path, name, and extension can be typed and the file will be opened. UNC and paths that are too long are supported. Full path and filename with a terminating period overrides default extension (those flags again)
 - f. If a value causes multiple files to be valid then those files are displayed in the list, from which one may now be chosen to act upon. If just a name is typed and there are multiple files matching that name (ie. "All Files and Folders (*.*)") but they have different extensions, then a dialog will come up explaining that there are multiple files and to choose one from the list (same as the Common Open Dlg). If no files were hit, no action (open) is valid. *(Priority 2: This does seem to work awkwardly in the Common Dlg, perhaps we can find a better way for this to work).* Jack: ~~I just thought I would let you know that I don't like the way the common open works in this regard.~~
 - g. Multiple (contiguous and non-contiguous) selection will be possible, as is currently. .
 - h. Dot dot (..) Would move back a folder. \ would go to root. Also ".\" supported. Three \\ converted to \\ for (NDS). Netware: ..., .., will be supported.
 - i. UNC's would be accepted and converted if necessary.
 - j. Standard ANSI extended chars will be supported if user does not have an international version.
 - k. Macro naming functionality **will not** be supported. This was utilized for naming of macros (i.e. ctrlc.wcm) and may have greater problems co-existing with windows keyboard mapping (cut/copy/paste...) ~~(conflicts with Win95-usage (ctrl-a means select all...)).~~ **Question**: Jack: Not so. Ctrl-A only works when I'm in the List. If I'm in the Name field Ctrl-A only beeps. Lorrie: What this means to the user is that they will no longer be able to type control+shift+key (or control+key) while in the filename edit control for either saving or playing a macro. This functionality is currently supported by a flag used only by the WP macro developers (to the best of my knowledge). I do not like to see us lose functionality, however I'm not in a position to know if this is used functionality by customers or just a good ol' carry over from the 5.x DOS days that is seldom used today. I think we can afford to lose it, but...can we? Another point is since is it a flag only used by some (not global in any way that I'm aware of) then that application developer can control it...so why lose functionality? Does cutting this really buy us much? I realize that we need to make cuts to make our ship dates, but is this item something we can afford to cut? I think it is, but...I'm not the expert. Scannon: I'm opposed to eliminating this capability because it is an easy way for the user to get "single key" macros. The only other way is to go through the keyboard editor, which makes it hardly worth the effort on his part. I can understand the need to support the Win95 standard usage of keys, and in those cases I believe the Win95 definition should take precedence. But we made it clear in the requirements meetings for the Open Dialog that we wanted this feature preserved. It doesn't seem like it is that much work to do it (at least it wasn't in 16-bit code). Joe: Having talked to Steve we realize that this suage is now somewhat archaic and potentially very confusing to

users in the Win95 environment. Currently we ship 2 such macros, one for FROM To in the equation editor, and one for macro command inserter. Steve agreed we remove this functionality and if we get a lot of heratache during beta, reconsider rmaifications of adding this back in.

6. Preview Control
 - a. At the right hand side of the dialog and just above the Cancel Button there would be a Preview Control.
 - b. It could be turned off, show a preview of formatted text, show the contents of a document, or display properties and information about the document.
 - c. The default would be preview contents.
 - d. It would look like a paper with a drop shadow behind it.
 - e. Right Clicking on the Preview would allow for expanding it to full screen or Opening the document. Right mouse should also allow to display in hex, to copy to clipboard, to print, to change display font, etc. (Maintaining current functionality.)
 - f. The image for the Formatted Preview could come from a bitmap image stored in the doc file, the SCC viewers that are being modified to accomplish this task, or if a formatted view was not available then a message in the place would say something like, "No Preview Available for this
 - g. Clicking on the preview when the Preview menu item is set for Preview on Demand would preview the selected item. Moving to a different item would not clear the Preview. Clicking on the preview would update the preview window with the selected item. (Priority 2: Provide an indicator that the preview window is not in sync with the list. Maybe gray the frame, content,... some UI that says it's "dusty") -Jack: Wouldn't this be confusing.—Shouldn't moving to another item clear the view until it is clicked again?
 - h. If the user moved focus from the filename/object to preview, focus should stay in the previewer until user moves it. The file name should remain highlighted, but not focused. Must be able to move focus to and from preview using the keyboard. Name needs to remain "king" especially when Saving.
 - i. The control has a label "Preview: Formatted", etc depending on the mode being previewed.
 - j. The Preview settings follow through on all tabs (because the menu is global)
 - k. The types of files previewed would be dependent on the Components installed by the user (application) and which CV drivers were present CV drivers by default include ASCII, wp60/61, envoy viewer and those specific to the user's application.
 - l. First Entry in the list is NOT highlighted (for Preview). ~~Jack: Why?~~
(Rationale: The original design specifies that on entry to the Dlg the first file will be highlighted. This seems to me to be a huge difference from the way Open works now. Does this not work? Is this a compelling change? By highlighting the first file (something must be selected to view it), the user will have his focus changed from a name to enter to the first file in the list. Right now if the user hits return at the Open Dlg instantiation nothing happens. In the first-entry-selected method, the user upon hitting return will open that file. Was it the users intent to open the first file in the list? Furthermore, there may be a speed hit for "distant" files in remote namespaces.)
 - m. View pane visible by default.
 - n. Maintain file encryption functionality. Don't allow actions that aren't allowed (viewing an encrypted file requires password verification). Password verification is the apps responsibility. **Question:** Colin: 1) How do the apps ask for a password, or are all password related functions up to the individual apps?
7. Open Button
 - a. Push button that:
 - i. Opens a selected item
 - ii. ~~Or Launches a selected application. As for un-registered file types, each name space would need to handle the issues of selection of an application (the shell already handles this for the file system— If the user goes and opens a doc that may not know what app it belongs to (e.g. DAD open doing an Open on *.bt), the application associated with the file type in the registry is launched.— If a doc has no associated app, there is a standard system dialog that gets displayed, allowing the user to select an app, or define a new association For new association use groupwise or explorer functionality ("always use..." check box.)— The app would keep that association somewhere for future use And is under app control not the FS. Bruce: Or Launches the associated application. Each name space needs to handle determining what the associated application is (the shell already handles this for the file system, using the registry &~~

registered file types). For un-registered types (no associated application), the name space needs to display a dialog allowing the user to select an app (or specify an association - whatever makes sense for that Namespace), or define new associations (similar to the one used by GroupWise, or the Explorer - include an "always use..." check box.) The Namespace would store this association somewhere (probably the registry) for future use. ~~(The idea here is different than that expressed in the draft.~~ The App does not control (or know) the App<=>Type association, the namespaces does. The Namespace is what decides what the associated App is, and how to launch it, therefore it must handle un-registered types or new associations. This is the way the shell works, and all other namespaces need to work the same way. (Joe: In the future, there may be the occasion where the App may want to make the determination and under its control do some morphing of targeted data. Perhaps this info though could be passed to the Namespace. In Tapestry the concept of visualization applied to unchanging content may utilize this type of implementation : A spreadsheet task (App) may visualize some data as a chart , or as a spreadsheet)

- iii. Enters a Folder or moves up a level by utilizing the Name field as a folder navigator (.. , \).
Jack: How does the Open Button move you up a level?
- iv. Opens/launches the file specified by a complete path and name typed in the name control.
- v. Sends a message to the associated app specifying the item to be opened/launched.
- vi. Dialog then closes down.
- b. The default button.
- c. The text for the button is app specified as a parameter (with a default).
- d. Stickiness of the Dlg is specified above and is under app control.
8. Open As Copy
 - a. Push button that:(similar to Open Button above but)
 - i. Sends a message to the calling app or associated app that the item should be opened as copy.
 - ii. Since the Open As Copy button title is under app control, it may change it and interpret the button to mean what ever it likes (i.e. Macro on Disk...)
9. Cancel button
 - a. Push button that cancels the Open dialog and settings that the user made (functionality similar to Open above).
 - b. **Jack: Does it Cancel all changes?— Makes it not sticky?—**
10. Mini-Toolbar Control (Common Open Dialog, 4 buttons). These buttons will not exist on the tool bar. This also alleviates confusion to the user by making the view modes more local to the tab and not on a global toolbar.
 - a. Always on the dialog. Can not be removed.
 - b. Contains the following four buttons that exist on the common Open Dlg.
 - i. Move Up A Level
 - ii. New Folder
 - iii. List View
 - iv. Detail View
11. Most of the intended File Management functions will exist via the menu, drag-drop.

Find by Name Tab

1. Look In Control (Same as Above)
2. Include Subfolders Control
 - a. Allows a Find to begin at the point indicated in the Look In control and include the subfolders
 - b. Include subfolders defaults to checked.
 - c. This does not carry over to other tabs. Each tab is independent
3. Type Control
 - a. This tab will NOT have a Type Control. This will only be available from Advanced Find.
4. Named Control
 - a. This field is used to enter the name of the file or item to search for.
 - b. Contains a history of name search criteria, which is not the same as the list maintained for the

- Name field at the bottom of the dialog. The last ten entries are stored in this list
- c. This is an editable combo box
 - d. This field is blank on entry.
5. List Control
- a. The List Control is the same as the Win95 List Control, including the launching of applications, with the following exceptions.
 - i. It can be changed to an Explorer type view by using the context menus, the View menu or by dragging the left edge of the List box to the right. Dragging the divider in the Explorer view to the left will change the view back to the list control.
 - ii. Its width will change depending on the showing of the Preview Control. When the Preview Control is set to No Preview the List Control takes up the full width of the dialog.
 - iii. It is sticky. If you change it to a specific type of view, the next time you enter the dialog's tab the list will still have that type of view.
 - b. Selecting an item in the list places its' name in the Name control (not the Named control). The first item is not automatically selected. ~~Jack: Which name control? Both name controls?~~
 - c. It will default to the detail view. It does not support tree view.
 - d. It will be empty when entering this tab until a Find is performed.
6. Name Control
- a. Same as Above
7. Preview Control
- a. Same as Above
8. Open Control
- a. Same as Above
 - b. Not the default button when entering the Tab.
 - c. Becomes the default button after a successful Find.
9. Open As Copy
- a. Same as Above
10. Cancel button
- a. Same as Above
11. Mini-Toolbar Control
- a. Same as Above
12. Find Now/Stop Button
- a. Would begin a find using the default QuickFinder Index of the Area selected in the Look In, modified by the Subfolder Control and any text or pattern in the Named Control. It would Find only items whose name match.
 - b. Matches are put in the List Control as they are found.
 - c. When a Find is in progress the button title changes to Stop Finding. When it is pressed the Find process ends and displays results to that point. For this time frame, there will not be a "resume search" capability. This button is the Find button of the Find tab (we have dismissed the advanced Find Dlg when we do the Find there).
13. Reset Button. This resets ALL search criteria back to defaults (same as when the tab was activated for the first time. Resets ALL search criteria of a Find (any changes to Look In, SubFolders, or Named...) to the launch state of this Dlg's tab.
14. Advanced Find Button
- a. Advanced Find will be implemented as another Dlg that is brought up over the open Dlg.
 - b. The user fills out the complex query. Once he hits the Find button, the advanced Dlg exits
 - c. The results of the advanced Dlg are communicated to the Open Dlg Find tab. The results are displayed in the Open Dlg tab context as results are found. . If the user pressed Stop, they

remain in the Open Dialog, NOT IN THE ADVANCED FIND DIALOG.

- d. The result pane will change to show the advanced find information (similar to detail view).
- e. The Open Dlg Find tab screen will change to show as much of the query as possible in the available controls. The user can alter only these parameters of the advanced find from the tab.
- f. Since each tab is independent, EVERYTHING on the tab (and the hidden advanced settings) is preserved when bouncing among tabs.

Find by Content Tab

Same as above except:

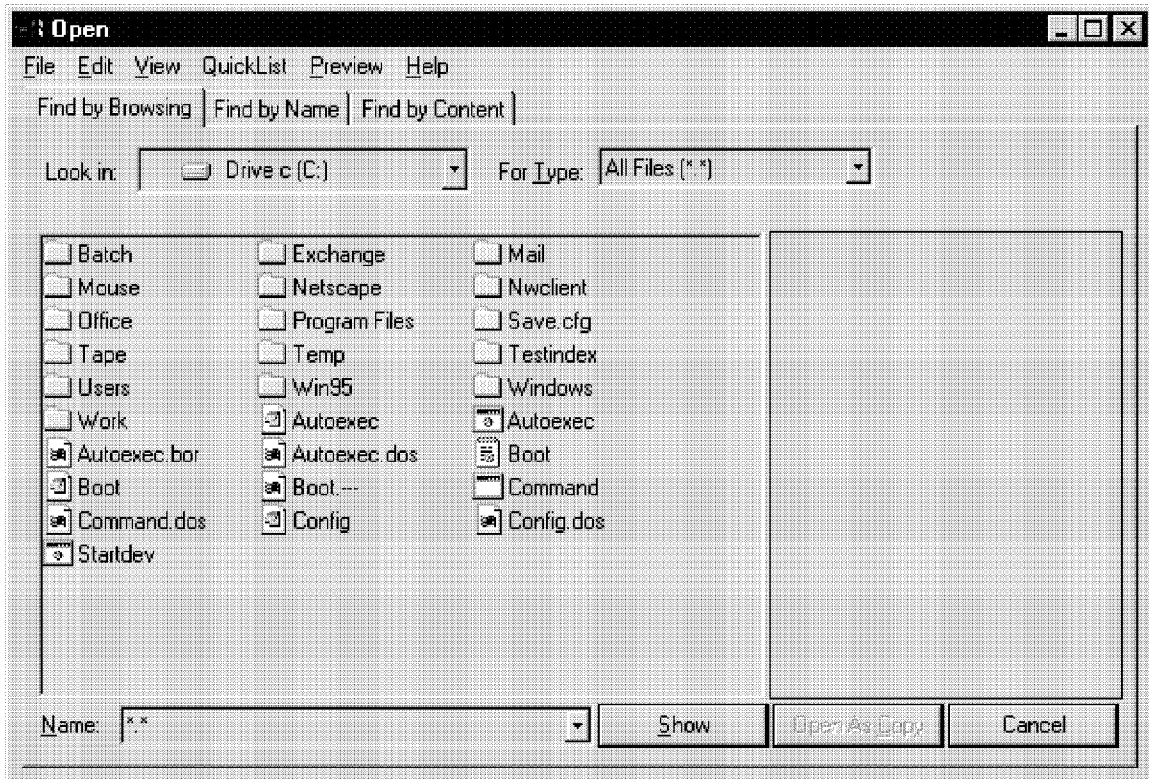
1. Containing word(s) Control
 - a. This is an editable combo box
 - b. When you enter this tab this field has nothing in it and it is selected.
 - c. This field is used to enter the content to search for.
 - d. The last ten content based queries entries are stored in this list.
2. Include other forms of the words check box
3. Preview Control.
 - a. Default view mode is Content.
 - b. The user can navigate and search. .

Misc.

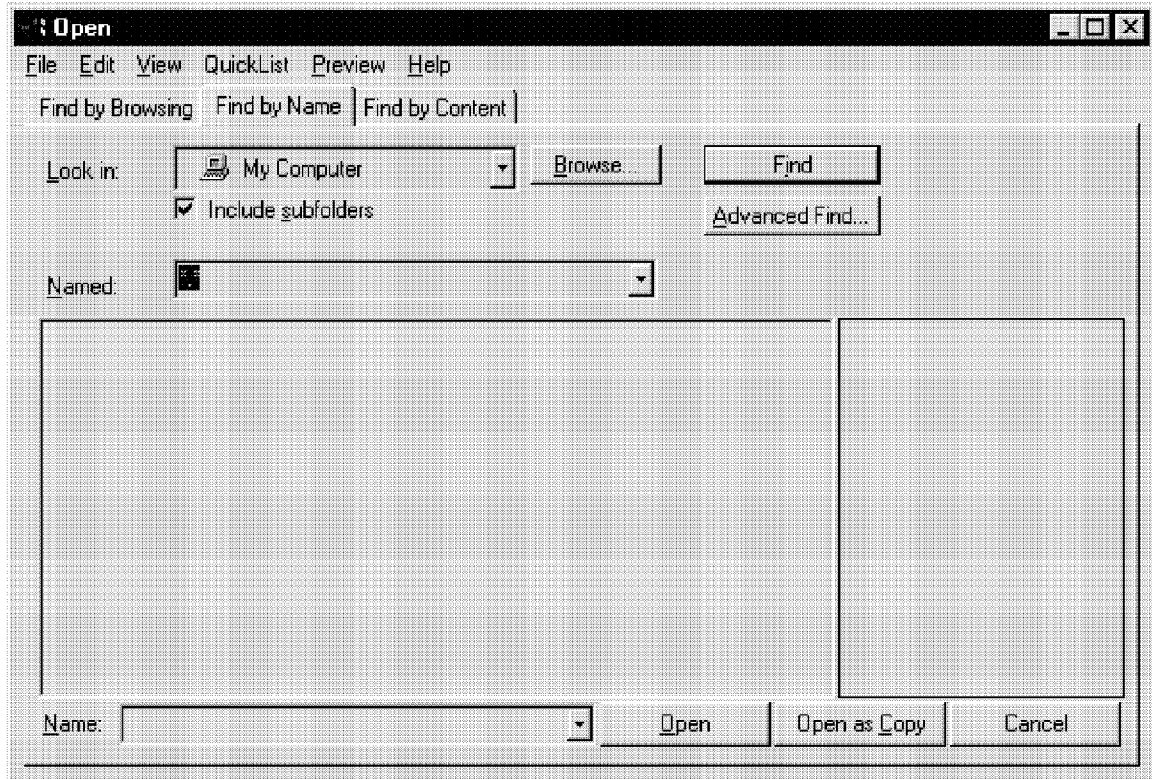
1. Logicals (These are important to Paradox...)
 - a. User can type in (use) logicals in the Name control.
 - b. The user can only create logicals in Regedit or the System Policy Editor. **Question:** Jack: Is this going to meet the need of Paradox? Have you spoken with them?
 - c. Logicals may show up in the Quicklist if the user captures one.
 - d. Logicals are not otherwise visible, nor can they be chosen in the Dlg. Regedit or the System Policy Editor (if we ship one) will “see” logicals.
 - e. The expansion of a logical happens internally in the FS. The result of this expansion is seen only by the user if the expansion results in one and only one tangible hit. (For example if logical <gtype>=*.bmp and *.bmp is a registered type it would be selected in the Type field.)
 - f. A new item “multiple hit” would show up if the expansion results in multiple hits for the various control (LookIn, Type). (For example If <gtype>=*.bmp;*.wpg and both these are registered types we cannot select both so the “Multiple Hit” item would be selected.) (In the future: multiple item hits as well as specifying multiple item queries will be supported by something like the Tapestry concept to allow multiple Namespaces, Type to be chosen within the LookIn, Type controls)
 - g. For Save and Select Directory allow both single and multiple hits, depending on the app
2. Select Directory
 - a. Support Select Directory functionality by limiting to the Open Tab and only allowing selection of directory functionality.
 - b. Explorer like view should be default.
3. Common Open Dialog
 - a. We will support Common Open Dialog functionality within our Open wrapper.
 - b. The installation default would be the PF Open Dialog. The user specifies to use the Common Open Dlg or the Novell PF Open Dialog at Custom installation. It cannot be changed anywhere else.
4. Custom Installation must support choosing of the Open Dialog component.

5. Display of Hidden System files will function as expected when set within WIN95 properties and under Namespace control.
6. OLE automation issues for macro recording will be supported. Details are pending.
7. There will be a button (some UI) to allow the users to: "Return Control to DMS". This would be on the Dlg only if ODMA is enabled. (This provides access to Softsolutions type of services)
8. **Question:** Rick: The far east uses an Input Method Editor (IME) to compose far east characters. In the past this has been implemented in the Windows Editor so that all the Windows Editor controls automatically had the IME support. It seems that this is changing and either going with the expanded Win95 edit control (one that handles WP characters) to FRED (RTF edit control). If everyone uses the same Windows editor, which FRED is suppose to be, then each APP/COM does not have to worry about the IME support. Otherwise, each APP/COM has to implement the IME entry.
9. **Question:** It has been proposed to give access to the Dlg menu to Namespace providers. This way they may alter the menu to suit their particular needs. One of the major users of this will be the QuickList function. Users of this functionality (apps) will be restricted to the types of modifications they may make to the menu to preserve the Open Dlg functionality since it assumes certain layout of the menu.

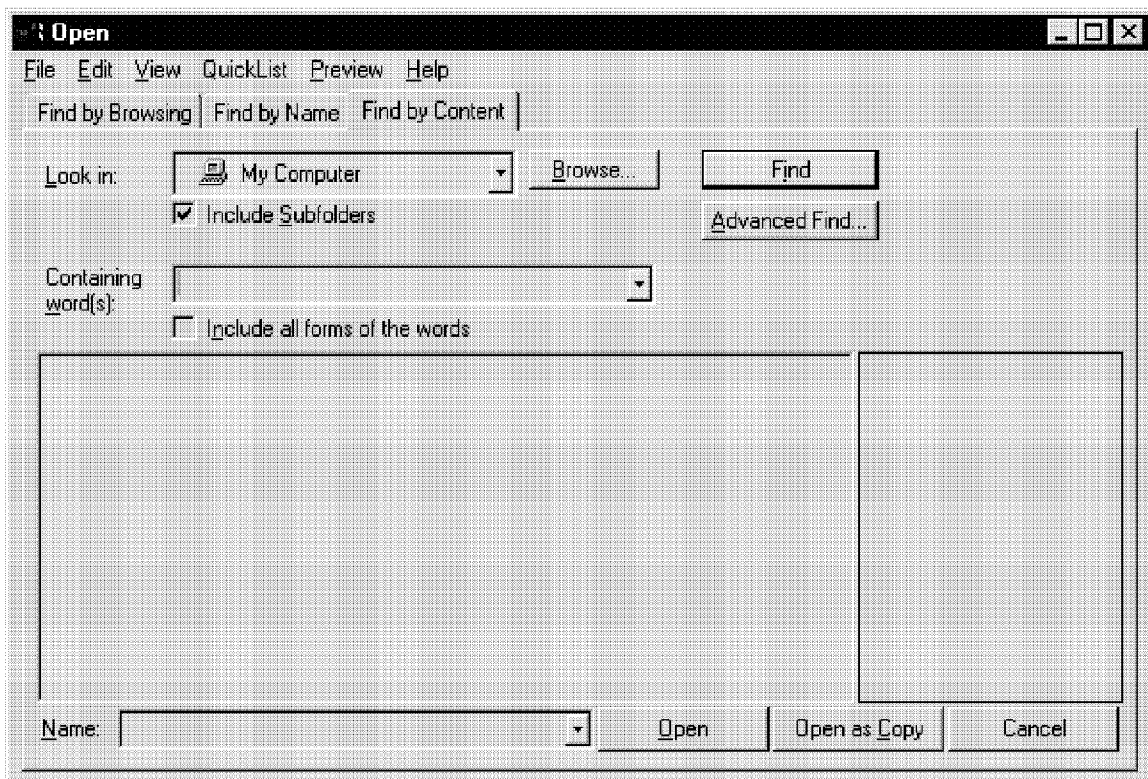
Open: Open. *Sample dialogs only. Some of the items here do not match the Function Doc.*



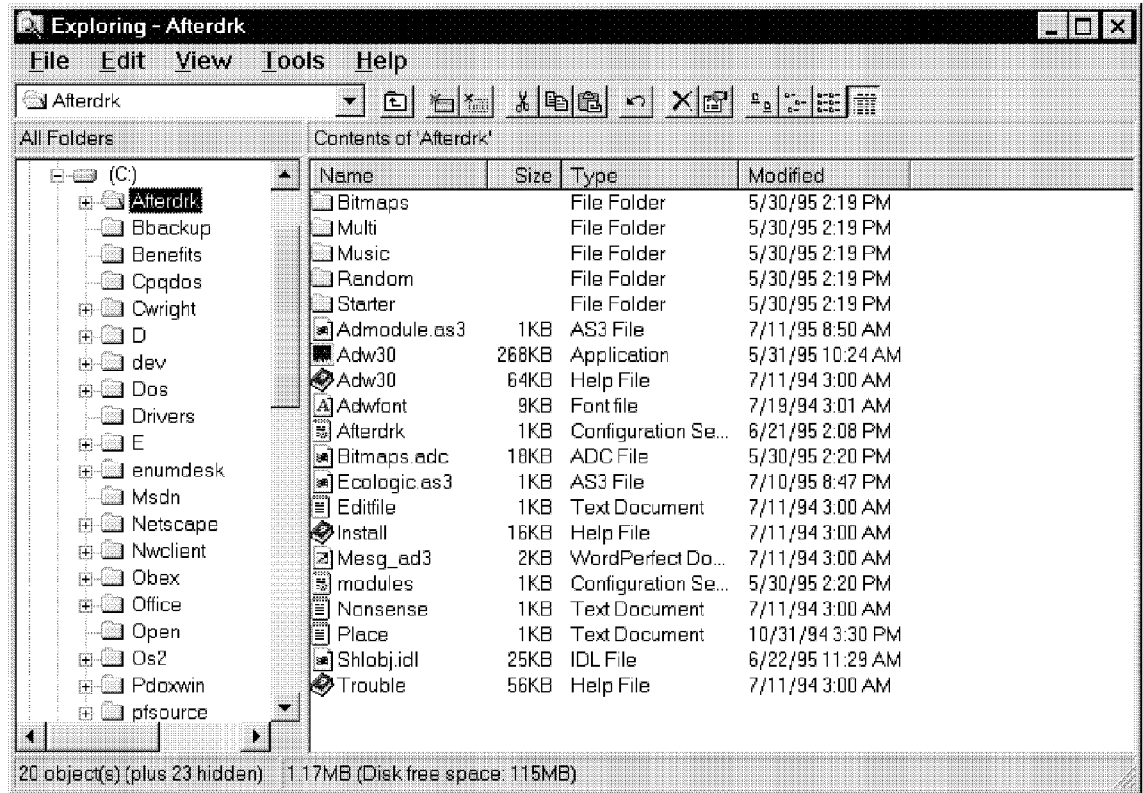
Open: Find by Name *Sample dialogs only. Some of the items here do not match the Function Doc.*



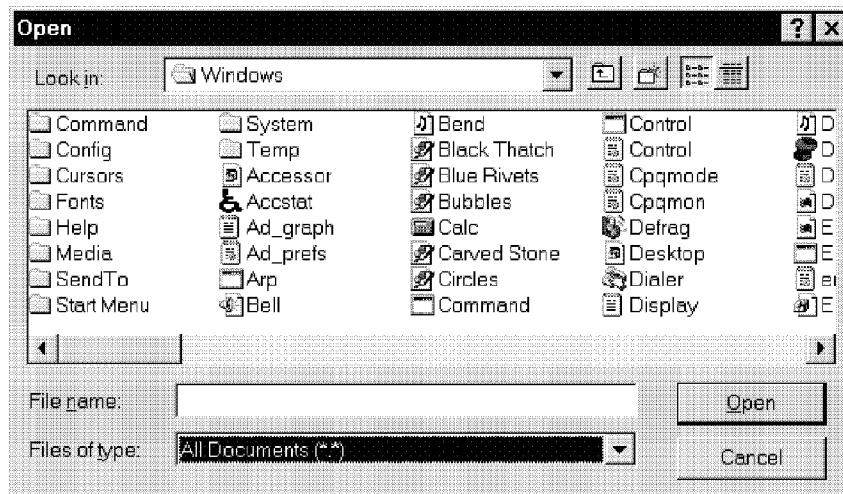
Open: Find by Content. *Sample dialogs only. Some of the items here do not match the Function Doc.*



Explorer



Win95 Common Open



DX 131A

From: Joe Belfiore[SMTP:joeb@MICROSOFT.com]
Sent: Thursday, March 21, 1996 10:54 AM
To: 'Andrew Schulman'
Subject: RE: Creating namespaces?

Sorry it's taken me a little while to get back to you... been recovering from the PDC. :)

We have a preliminary doc that we've been giving to people who ask for it, and we're getting this cleaned up and putting together sample code to post on the web and ship in the April MSDN.

Here's the doc itself, I'll pass along the samples next week when they're ready, and we will have both of these on the web within a couple of weeks as well. (I'll let you know the URL once it's set up.)

If you have comments or questions on the doc, please let me know.

Thanks!

PS - the letter of explanation below has been going out with the doc. This gives the background as to why these have been "b-list" in the past (we want to reduce the possibility of shell extensions getting written that run in process and take down the shell + the other shell extensions), and explains the solution we're adopting in order to publish these more widely.

>Dear ISV,

>

>It has come to Microsoft's attention that a number of ISVs have been

>trying to reverse engineer the Windows 95 Shell Extension mechanisms in
>order to integrate their application with the Windows Explorer. Due to
>some architectural limitations of the current design, Microsoft
>originally chose not to publish these mechanisms until the design could
>be changed to work robustly on both Windows 95 and Windows NT. With
>the upcoming beta release of Windows NT, these limitations have been
>addressed, and the extension mechanisms will be published. The
>following document discusses the limitations, and the solutions
>available to ISVs both today and with the upcoming release of Windows
>NT.

>
>Limitations with the Current Implementation.

>
>With the current implementation of the Windows 95 shell, all of the
>applications that make up the shell run in the same process. I.E. The
>Desktop (which includes the taskbar), My Computer, Network
>Neighbourhood, the Briefcase, the Recycle Bin, and any other instances
>of the explorer that are launched are run in a single process. What
>this means is that if any of the above applications fail, they will
>bring down the entire shell, including all of the shell extensions, and
>the desktop. Under the current extension mechanism, that means that
>any outside application that was written as a shell extension via
>IShellView and IShellFolder, would also have the capability to bring
>down the the entire shell, or be brought down if another shell
>extension failed.

>
>There is a solution to this in Windows 95, and that is to allow
>applications that are written as shell extensions to run as "rooted".
>I.E. each one runs in its own process. There are still drawbacks to
>this approach for ISVs as it means they cannot appear in the same tree
>view as the rest of the filesystem, and they can't display their files
>in the right pane of the same window as the rest of the file system.
>While this is acceptable for most ISVs, there exists a class of
>applications which really need to be integrated into the shell. As
>well, there is a performance penalty in launching a rooted application
>rather than just loading the view in process.

>
>Solution to the Current Limitations.

>
>In order to allow ISVs the greatest flexibility, Microsoft has decided
>to rearchitect the processes slightly. The current plan is to separate
>the Desktop/taskbar process from the rest of the explorer extensions
>that live in the shell namespace. This means that the desktop will be
>one process, and My Computer, Network Neighbourhood, the Briefcase etc
>will all live in another process (referred to as the primary explorer).
> Because they are known and trusted processes, it is acceptable for
>them to run together. Now, if a shell process goes down, the desktop
>and taskbar will still be active, and you can relaunch the other
>applications easily.

>
>What does this mean for an ISV?

>
>An ISV still has three choices, write their own application (using the
>sample code provided), run rooted, or integrate fully into the primary
>explorer.

>
>A) Write your own. Sample code has been provided with this document,
>and in the SDK which provides the Windows explorer UI to an
>application. ISVs are strongly encouraged to use this solution
>wherever possible. It gives you the UI you want, while allowing you to

>modify the programming interface to suit the needs of your application.
 >It also allows you to tune your entire application for performance,
 >and strip out any unnecessary portions of the full blown explorer. You
 >also never have to worry about another application bringing down your
 >application.

>
 >B) Run "Rooted". In the case that you don't want to do your own, but
 >you do not need to appear in the namespace itself, then you should run
 >rooted. This will mean that you appear in the right hand pane of the
 >explorer, and if a user clicks on your application, it will launch
 >another instance of the explorer process for your application. You
 >have to adhere to the standard interface that we provide for the
 >Explorer, but you do not have to worry about other applications
 >bringing you down.

>
 >C) Run as part of the Namespace. If your application absolutely cannot
 >run rooted, you are willing to risk being taken down at any time by
 >another application, and you are willing to be extra careful testing
 >your application to make sure you are not going to take anyone else
 >down, then go ahead and run as part of the name space. In this
 >situation it is imperative that you are not dependant on the fact that
 >you are running in the same process as the rest of the shell,
 >especially in terms of data access. You should definitely not be using
 >any data structures that are part of the shell. At some point in the
 >future we plan to fully remote IShellFolder and IShellView which would
 >mean that at that time you will no longer be running in-process,
 >although your application will have no way of knowing that. As long as
 >you don't depend on inproc behaviour today, your application will
 >continue to work tomorrow.

>
 >Other notes:
 >With the next NT release which supports this functionality, all of the
 >interfaces that contain strings have been overloaded with Unicode -
 >e.g. IContextMenu::GetCommandString(... GCS_HELPTEXTW), etc.
 >
 >Remember that in order to get the Windows 95 Compatible Logo, you must
 >also test on NT. It is especially important that you test your shell
 >extensions on NT as well.

>

>-----
 >From: Andrew Schulman[SMTP:andrew@ora.com]
 >Sent: Wednesday, March 13, 1996 6:26 PM
 >To: Joe Belfiore
 >Subject: Creating namespaces?

>
 >Joe,

>
 >Brad Silverberg gave me your name and email address, suggesting you
 >could tell me where to find documentation on how to create namespaces
 >in
 >Win95. Not APIs to browse existing namespaces, but APIs for creating
 >new ones. Brad insisted to me that these have been documented, but I
 >(and others) haven't been able to find any doc. Could you help me out?

>A
 >URL would be great, but some pointer to a specific MSDN doc or whatever
 >would be great too.

>
 >Thanks much,

>Andrew Schulman
>Senior Editor, O'Reilly & Associates
>andrew@ora.com
><http://www.ora.com/windows/>
>
>

DX 155

Our conclusion today was to recommend you send the letter to Brad and see how he responds. If Microsoft either modifies the program generally, or cuts Novell its own deal, then we have what we want: use of the logo without the NT compatibility requirement. If the response is "No", then we proceed without the logo and decide how to position our decision. We certainly have good arguments to support a decision not to support the logo program: 1) NT's APIs are not the same as Windows 95's APIs, 2) achieving NT compatibility would require substantial additional development, and 3) Novell's development plans do not include NT in the immediate future. Consequently, we are choosing not to participate in the logo program. At this point, our inclination is to take the lower profile approach. There is sufficient interest in the press and among other ISVs that our decision will very quickly become known publicly.

A couple of cautions: We should take care not to discuss this with other ISVs or otherwise attempt to dissuade them from supporting the logo program as such activities could violate antitrust law. We should also take care not to give inconsistent messages as we speak with the press or in public forums. My recommendation is that, until we have heard from Brad and have decided what tack to take on this issue, we refrain from publicly challenging the logo program.

I believe Glen will give you more details of today's discussion and confirm my recommendation that the letter be sent. If you have any questions, please let me know.

NL2 0000121

NOV-25-000120

DX 157

From: Todd Titensor
To: WPCORP1.CORP.GSJONES, WPCORP1.CORP.RYANR
Date: 2/2/95 3:27pm
Subject: Win95 Logo Requirements - Issues w/ NT

Ryan, Greg:

Below is the beginning of a cover message to the attached document that we are planning to send to Brad Silverberg, VP of Operating Systems at MS regarding the NT requirement for Win95. As you may be aware, Bob F. has stated (in a meeting with the QP team, Mark, Glen, Bruce) that he does not accept the NT requirement and if it is not removed from the logo requirements list we will simply not support the logo. In an effort to inform Microsoft of this and make a formal request that it be removed, our plan is as follows:

1. Send the attached doc. to Brad S. and request a conf. call to discuss it
2. Formally request that the NT requirement be removed

How this meeting goes will determine our next step. Our intent is to go through the process of directly voicing our concerns and requesting this change with MS before going public, if in fact we decide to do that at some point.

Advice requested: Are there any legal issues you see with the preface message (below - which Mark will modify/augment) and / or the attached document? Is there any legal wording you'd suggest or areas of concern that we should be aware of?

As you know, we've signed something (?) committing to the First Wave program. Under this agreement, we've stated that we will ship WPWin (doesn't apply to other apps) within 90 days of their gold master. RTM for them is June, our plan is to ship WPWin (RTM) Sept. 15th. We should be on schedule this if all goes well.

Please advise.

Todd

Dear Brad,

Attached is a document describing many of the technical issues or concerns we have identified in our efforts to support Windows NT as part of the Windows 95 Logo requirements. Much of what is outlined requires significant work to ensure that our applications "degrade gracefully" on NT and are compatible with both platforms. All of what is outlined requires additional resources and time in both development and testing. Our choice would be to expend these resources and effort in other areas.

We feel the Windows NT requirement is excessive and not in line with our goals and objectives at this time and ask that it be removed from the Win95 compliance list.

Thanks for you attention to this letter and request.

Sincerely,
Mark Calkins

CC: WPCORP1.CORP.GLENM, WPCORP1.CORP.MCALKINS, WPDEV.B...

NL2 0000425

DX 161

Erik Stevenson

From: Brad Silverberg
To: jimal; 'smtp:bobmu'; paulma
Subject: FW: WP vist
Date: Thursday, November 18, 1993 9:38AM

fyi

From: davidcol
To: bradsi; bradstr; dennisad; georgem; jefft; joeb
Cc: davidcol; doughe; johnlu; marionho; robp
Subject: WP vist
Date: Monday, November 15, 1993 5:48AM

Jeff, Bradstr, and I went to WordPerfect last Thursday to talk to them about what we thought a good Chicago app was and what barriers they would have to doing one close to the time Chicago shipped. Overall, the visit was good. There were around 10 WP guys, (VP dev lead types) sitting around a table so it was much more intimate than the Borland visit. They weren't nasty at all, in fact had good feedback and decent questions.

These guys will bet on Chicago, they've never had any doubts about that. They want to create a single binary that exploits Chicago and supports NT. (exactly what we want) However, they need to fo think about this before they can concretely identify any barriers. The kind of help the KNOW they need is help with sample code, help with style guide issues, good docs, etc. They thought a private forum on compuserve might be good, email contacts would be great too. We need to decide how to support these guys. They will have a separate win16 version which they'll keep on the market until they don't need to anymore. It was interesting to see how enthusiastic WP was about Chicago, much in contrast with the ho-hum attitude of our own apps group.

Bradstr was going to get email names of all the guys and who does what. I think it would be good for us to establish decent relations with these guys.

They were very happy about us deciding to document the shell extentions. I explained conceptually how the extensibility would work and what controls they'd have. Since they just aquired a document management system (I forget from who) I assume they will want to plug that in, plus WP mail and other part of WP office too. I'm sure they will also supply shell property sheets for their docs too.

They use the char versions of the MS tools, so the M5 PDK is exactly what they need to get started and they will. There were lots and lots of other areas that they liked a bunch; the shell, move/copy for the transfer model (I said it was still open), new help features, (especially jumping from help into an app), but I won't get into it all here. I anticipate that WP will have a very exploitive Chicago app ready close to when Chicago ships.

Here are some other notes and action items I wrote down: (most of the nits came from Tom Crux(?) who is their shared code dev lead, worth getting to know for lots of reasons, not the least of which he would be the one to directly support Appware if that was going to happen for WP)

- interested in shipping a good viewer with Chicago. I said we would be very interested if it was 50-80 kb. They wanted to know if there'd be a good viewer for word in the box. we need to followup on this in a few weeks.

- would like to see a global key/local key scheme for the registry. global keys are set centrally by a net admin. Apparently they have done this sort of thing privately for wordperfect. They would be willing to share their requirements and how they went about doing it since this is all shipping stuff. Ropb or Johnlu should talk with them. Bradstr, please give rob and john the name of the correct WP guy to talk with.
- mentioned multithreaded MFC, or rather lack of.
- thought we should allow property browsing in the shell. IE lock down a property window, then select random docs and see it's properties. I think we are going to do this as part of the viewer UI.
- they call the winnet apis directly since they have their own fileman and will probably continue to do so. they want to make sure we document these at least in the ddk. would like to have docs written which describe better how apps call winnet, but not a requirement.
- complained that help only allowed for max index size of 9000. marionho?
- thought help should allow OLE embeddings. great idea, no time to get it done..
- shell needs to allow extending the find command. at minimum allow apps to extend the menu to search other stores. We should also allow a simple global that just returned results in separate results windows for each type of thing being searched. I think this would be pretty easy. Joe, we should think about this some more. I bet we can do something really cool that simple. What does the mac do for searching across mail and files?
- wanted different sprites. partially transparent thing that moved around on the window. they have a "coach" thing which moves around and points things out. apparently it's really really hard. they thought they heard davidw say he did this for Chicago. george?
- they want to set a global search path in Windows and not force the system to reboot. An app search path would be great, but they thought we didn't need that much. Basically just add to the global search path from in Chicago would be great. Perhaps we should have a WindowsPath= and it was just appended to the dos path when we searched. george?

DX 172

To: GW-POSTMASTER.INFORMATION.SYSENG, PROVO.SLC.JOHN EPENETER,
From: Scott Nelson
CC: GLENM, TODDTR, DAVEL, WPCORP2.PUBD.GRAZ
Subject: Re: Your Response -Forwarded -Reply -Reply -Reply -Reply
Date: Friday, April 7, 1995 3:09 PM

Paul:

Thank you for your message expressing concerns about incompatibilities between PerfectOffice 3.0 and Win95. The purpose of my response is to help you understand our position.

First, PerfectOffice 3.0 released in December of 1994, when the only Win95 betas that were available were still very unstable and quite frankly, were still changing. Back then, we allocated no resources to test our Win95 compatibility nor from a development perspective did we try to add code which provided Win95 compatibility. I think its safe to say that other groups in the company have done likewise. To assume that PerfectOffice 3.0 would run without any hitches under the current or previous betas is wrong--especially since we have made no effort to do such or made claims that it would. Even MS apps don't run flawlessly under Win95.

Second, we are now at a point where Win95 development is our highest priority. Over the last several months development has been busy coding for Win95 and testing has been testing current products to ensure Win95 compatibility. We have discovered many problems--many of them are system problems. The good news is that the cooperation between Microsoft and Novell has been very good. The problems are being addressed and fixed. In fact, over the next couple of weeks our developers and testers will visit Redmond once again to make sure that we are making continued progress. The end result will be a 16-bit version of PerfectOffice 3.0 that runs very nicely under Win95.

Third, some of the ways that you described PerfectOffice's current behavior under Win95 were pretty harsh--in fact exaggerated. I know of others who are running PerfectOffice 3.0 with few problems under Win95. The point is, we understand the problem and there is a professional way to log problems and concerns through testing, bug databases, etc. There is no need to send out a message that condemns the products which, at this stage of the game, were never intended to run under Win95.

I hope this message helps. As you talk to customers and with other individuals inside the company you'll take a different approach. We are working very hard to insure success of our 16-bit apps under Win95.

Scott Nelson
Product Marketing Director, NBA

DX 211

Project Proposals for "Storm"

- Time frames are the critical decision to be made for finalizing the Storm strategy. The trade off is the quality of the product solutions that can be provided versus the time frame for critical buying decisions.
- The following table outlines three proposals.
- Following the tables are likely results of pursuing these solutions
- Our recommendation follows
- See Appendix A for the details of the Storm research and proposals.

Proposal ONE (primarily a WIN95 strategy for Sept. 30 1995)	
PROBLEMS	ADVANTAGES
<p>1) This results in an aggressive time frame with a lot of release overhead for a minimal amount of real development time.</p> <p>Design : 1 ½ months Development: 3 ½ months Release overhead: 3 ½-4 months Suite overhead: ½ month</p>	<p>1. This is about four months after MS Office is scheduled to ship and five months after WIN95 is scheduled to ship. Many analysts believe we must have a solution within three months or at the latest within six months to be competitive on WIN95. This is aggressive yet possible with great effort and we would not risk being perceived as "late" to a key platform "again".</p>
<p>2) QP believes this is barely achievable with all their resources and with no additional functionality. Currently, they are not receiving the best critical reviews and by focusing on another short term date they believe that QP will fall significantly behind in the standalone competitive race and we will be killed in the market. They feel that an additional three months would help them compete effectively. They also believe a 4-month beta is needed for a significant release such as a WIN95 new product.</p>	<p>2. We probably can include enough items from our four key areas to at least tell a story and show some direction for our office product. These four areas are: WIN95 products, network capabilities, more seamless work process, and some best of breed enhancements on the WP and GW products.</p>
<p>3) PR and shared code are in a very similar situation to QP from a development standpoint. They are nervous about that date and would have to make significant corner-cutting moves to make the date. They also recommend three additional months of development.</p>	<p>3. We would be close enough in timing to ride and shout with the WIN95 wave that will sweep our industry. According to marketing our industry has never seen the likes of the WIN95 advertising campaign and we must be on this wave or we will be crushed by it. This is still difficult with a Sept. 30 date but with some clever marketing we can show and present enough to stay a contender in the market.</p>
<p>4) WP is only on target for this date if the other pieces they rely on are there on time (such as Shared Code, Draw and Chart). The WP team is the best prepared because of advance work and significant resources but they still feel the schedule is aggressive but achievable.</p>	<p>4. Some teams will be able to do some parallel development efforts and release a more significant upgrade the following year.</p>

<p>5)GroupWise is tentatively planning on an Oct. 1, 1995 release for WIN95. This is one month later than the business application goal. They would prefer to delay this release to focus more on the 16 bit release.</p>	
<p>6)Office will be competing with a significant upgrade to MS Office and Lotus Smart Suite. Both of these products have had 15 month or greater development cycles (as opposed to our proposed nine month cycle) because they already had a suite on the market. We assume that they will raise the bar of expectation with their next release.</p>	

Proposal TWO (Solution Driven Strategy for Jan 1996)

PROBLEMS	ADVANTAGES
<p>1)This is about seven months after MS Office is scheduled to ship and eight months after WIN95 is scheduled to ship. Many analysts believe we must have a solution within three months or at the latest within six months to be competitive on WIN95. Perhaps we have "missed" the market. The party is over.</p>	<p>1. A more significant development time frame before the release overhead is incurred. Design : 2-2 ½ months Development: 5 ½ - 6 months Release overhead: 3 ½-4 months Suite overhead: ½ month</p>
	<p>2) We can include many items from our four key areas to show direction and to capture market share. These four areas are: WIN95 products, network capabilities, more seamless work process, and significant best of breed enhancements on all products. Basically we can deliver double (or more) the improvements in the products with the additional three months.</p>
	<p>3) PR and shared code can do meaningful upgrades that are needed in our competitive market. This would include items such as common scripting, more modular shared code, reusable charting pieces for QP and PR.</p>
	<p>4) The WP team has many ways to provide greater solutions for their customers. They have significant contextual inquiry data that suggests areas of improvement that would be doable with a longer time frame.</p>

	5) GroupWise would fit into this time frame.
	6) Office will be able to see some of the most significant upgrades to MS Office and Lotus Smart Suite. We may even be able to address and minimize some of their most significant advances. We will have almost as much time as our competitors with their 15 months or greater development cycles. We should be able to raise the bar over what they will provide.
	7) This would be in a similar time frame to the Netware 4.2 release. We could play up our synergies with this platform. We are establishing our ties to Netware and that we will always be leading edge with networking solutions.

Proposal Three (WPWin Sept 1995 then the rest later April 1996)	
PROBLEMS	ADVANTAGES
1) The following groups would still have a very aggressive time frame with a lot of release overhead: Shared Code, PR Draw, PR Chart, QuickFinder, WP Design : 1 ½ months Development: 3 ½ months Release overhead: 3 ½-4 months Suite overhead: ½ month	1. This would buy additional time for QP and GroupWise.
2) We could send an unwanted message that we are not a suite player.	2. We could show that we will be WIN95 players with our biggest product. We could capture significant standalone sales with at least that product.
3) By pushing WP first, it will actually delay the Perfect Office release for WIN95 by approximately the 3-4 months of overhead required for a release since projects such as Shared Code will have two releases.	3. Perhaps this will buy enough time for us to make significant progress on other products for the suite.

Most likely conclusions from the three options

Option 1

- We release October 31, 1995 because development is getting better at making dates but they still are one month late (typically development has been two or more months late). WP competes favorably in the WIN95 standalone market. QP and PR will be considered one major release behind their competitors. Perfect Office

will have a somewhat better networking story but will still be considered a little late and mostly a rev behind because of QP and PR. The marketing team will pre-promote the product and most customers will wait until we release to do the major upgrade on WIN95 suites. However, we will lose many customers because we will lose the competitive reviews. There is a greater risk of lost quality due to the aggressive schedule and if we shipped with poor quality we would destroy all credibility in the market. Prediction of market share for perfect office by the end of 1996 is 15%.

Option 2

- We release Jan 31 1996 (three months later than option 1) with a much better solution both in quality and scope than option 1. We can make waves with marketing vaporware for much of the time but we will still lose some early adopters for WIN95. WP will be able to address the most significant advances made for Word 95 and have significant advantages of their own to be considered a rev ahead of the competition. QP will be able to severely blur any difference between the spreadsheet products and have some additional strengths to compete head to head with 1-2-3 and Excel. PR will make similar advances and at least make all competitive reviews take note. Groupwise will deliver many significant enhancements that will be a real differentiator and make our network story solid. Perfect Office will win many of the head to head competitions but will be noticeably absent from early reviews. Prediction of market share for Perfect Office by the end of 1996 is 25%.

Option 3

- We release WPWin in Sept 1995. WP competes favorably in the WIN95 standalone market. Perfect Office will not release until April 31, 1996 (six months later than option 1) and it will not be as good as the option 2 product. WP, Shared Code and PR will have double the overhead and have difficulty accomplishing many of the more meaningful changes needed to compete. QP and GroupWise will have better Best-of-Breed solutions than even in option 2 but WP and PR will suffer along with our seamless strategy due to shared code overhead. QP might pursue the option of shipping in the same time frame as Option 2. This will also be very difficult on testing because of new combination testing and may result in some loss of product quality. Prediction of market share for Perfect Office by the end of 1996 is 5% because we are so late and we have become a standalone provider only.

Recommendation:

Option 2 is the best option. This allows us to produce and sell the next great solution. To be competitive long-term in this aggressive market we must make better solutions for our customers and to do this we need to spend the requisite time developing them. Lotus and MS opted to create 32 bit solutions early this year at the expense of having additional 16 bit releases. They are allocating significant development time between releases to allow significant advances. To compete with these forces we must at least allocate similar time frames. We have a great opportunity to leverage the most extensive research ever done in advance at this company, the tapestry research. This research began over a year ago and has found many customer needs that we can satisfy with Storm. These findings can give us a complete work solution that will give us a significant competitive advantage. If we do not utilize this research now then our competitors will have opportunities to discover these same solutions. We can be competitive in the long-term and win market share with this option.

APPENDIX A

Introduction

Storm is the code name for our Perfect Office release to follow the PO 3.0 product that is shipping Dec. 1994. This is a large and growing market and a pending release of WIN95 are driving the need for this product.

Our goal for storm product development is to understand customers' needs and provide the best solutions for those needs.

Background

We understand our customers because we have always made it our top priority. In the early years WordPerfect listened to our customers by actually working with them. As we grew, we introduced the best customer support in the industry. Not only has this helped us solve customers' problems in shipping products but it also allows us to understand user needs and incorporate those in the next product release. With Perfect Office 3.0 we added state-of-the-art usability studies to make our products easy to use and task oriented like customers really work. With Storm we have taken the next step in understanding our customers through a process called "Contextual Design" (CD). We have gone out and sat down to observe our customers at work in their own businesses. We have taken extensive notes and observations to really understand users' intents. Storm is the first release in a progression toward solving seamlessly and completely what our customers need.

Project Scope

4) The platform of the future for most of our customers is WIN95. Customers need solutions that take advantage of this operating system and work seamlessly in this environment. The top priority for Storm is to run seamlessly on this OS.

5) The most significant needs we have observed through CD is better tools for people working together. All work we observed is collaborative and it is an area that has only been minimally addressed in current offerings by integrating the software packages. What people really need is to connect people to people NOT program to program. Our next priority for Storm is to help people work together by providing a communications centric work place. This includes services such as a universal in/out box, an activity log, post-its for those frequent interruptions, a shared address book (shared by the network, mail, word processing, spreadsheets etc.), and document routing. The other aspect of helping people work together is to help the system administrators who manage the network and communications. These services include an enhanced Install (Network ease of use, centralized distribution, metering/licensing) and Remote management of a workstation setup.

6) The next user need is to streamline the current work process (make it seamless) to make users more productive. This data gathered through CD and customer support has led to the following priorities: Reuse existing objects, Scripting, Additional Vertical Solutions, More UI consistency to make it easier to learn and an extensive help system (overhaul).

Detailed Initial Product and Priorities

Our solution - 1) Win95 solution 2) Applications that connecting people to people (Networking) 3) Streamline the work based on user intent

	WIN95	Network	Seamless - Remove speed bumps	Best of Breed
Common to all applications	<ul style="list-style-type: none"> -32 bit application -Shell Integration -Full UNC -Long Filenames -Win NT -OLE 2.0 Automation -Mail enabled 	<ul style="list-style-type: none"> -Shared address book integration -Routing support -Installation -Centralized distribution -metering/licensing -Notes FX -Common Database/common query -Activity log (API) -Support DMI -Internet access 	<ul style="list-style-type: none"> -Scripting -Speed -Common dialogs print, open, font, save, table format, search/replace, insert object, alerts, Tab dialog support -Single Chart -Object Reuse -Menu Consistency -PerfectFit toolbar -Single level undo 	<ul style="list-style-type: none"> -Help System -International support issues (2 byte)
2nd Priority	<ul style="list-style-type: none"> -Plug and play -Intelligent briefcase consolidation -SDI Model -enhanced metafiles 	<ul style="list-style-type: none"> - Remote management setup of workstation -Flexible Licensing -SMS Hermes/back office -Runtime profiling and configuration optimization -Conference enabled/HT, GT 	<ul style="list-style-type: none"> -Common inspectors -Consistent coaches -Shared spell checker - Consistent selection of text graphics, other objects -Gallery Previews for templates QuickTasks, on-line help, etc. -Adaptive interfaces -Valet/Expert Save project or work place 	<ul style="list-style-type: none"> -Galleries and PYCBYC -Project notebooks integration of applications into a common notebook (or similar) metaphor, higher level integration -SR-API, speech API speech aware -Pen aware -Combine SKU's for example FC and French -Windows NT support (QP) Power PC -App that runs well on

	WIN95	Network	Seamless - Remove speed bumps	Best of Breed
Storm Top Priority	<ul style="list-style-type: none"> - Work seamlessly in WIN95 	<ul style="list-style-type: none"> -Communication Centric - Integrate with world (Notes, Database - System Admin easy -Novell inside 	<ul style="list-style-type: none"> -Common UI -Scripting -PerfectOffice Developers Kit -Application functionality available via OLE automation 	<ul style="list-style-type: none"> -Stand alone calendar
Storm 2nd Priority		<ul style="list-style-type: none"> -Annotation layers -Parts Bin -APSN print server -Shared place -Digital Signatures -Corsair integration -Filters and morphology -Object manager -Routing by roles -Groups as objects -Data, directory, sharing -Simultaneous editing/viewing -Partial document Protection -Conference enable applications -Routes as objects 	<ul style="list-style-type: none"> - PerfectScript enable QPW, Envoy, IC Paradox? (Record only?) -Enhance VB support -VAB Integration -Gather user data for right QuickTasks solution -Common bit map editor (OLE Component), common org. chart editor (OLE component) -Common equation editor -Common database access -Integrated data query -Standard data interface for tables -Standard data interface for 	<ul style="list-style-type: none"> -Extend windows '95 tray with DAD capabilities -Check for goodness -Better front end to QT's thru enhanced help system -Integrated To-Do -Intelligent Objects -Common desktop -Document revision tracking -Anticipator -Cross document searching and indexing (QuickFinder, Envoy) -Consolidated search for info -Text reduction -Org. charts; more useful

	WIN95	Network	Seamless - Remove speed bumps charting	Best of Breed
		<ul style="list-style-type: none"> -Management tools eg: preference management easier/flexible setup -Hierarchical settings for user/group -Resource accounting -Group discussions (ALA Notes) -Replace OBEX for store-and-forward -Use of custom messages to enhance universal in box -TSAPI Telephony -Create network quick tasks 		<ul style="list-style-type: none"> -WP Doc --> PR via linguistics -Sample custom solutions for PerfectOffice Developers Kit -Vertical Applications -Small business suite -Legal, Education... -More perfect links support other E-Mail products in quick tasks
WP				<ul style="list-style-type: none"> - Weight reduction
WP 2nd Priority		<ul style="list-style-type: none"> -E-mail create in WP 		<ul style="list-style-type: none"> -Interaction points - Guidelines - Casper ghost cursor -Floating status -Change character stream model
QP			common chart UI /features	<ul style="list-style-type: none"> -faster db access - direct ODBC support - improved DB access/analysis under Network.

QP 2nd Priority	WIN95	Network -Shared access to files on network -MHS Netware service for message routing -Tapi support	Seamless - Remove speed bumps -Common properties for scripting	Best of Breed -Drag and drop enhancements -Type lib support -Shared name space for scripting -3 state controls -Drawing enhancements -Integrate data pivot -Data sharing with Informs -Outlining -Auditing support -Intelligent tables/improved SS Model building tools -Mapping -Mixed notebook page types (QP) SS, objects, scripts -Improved UI builder -UI objects have OCX support -Integrate IC with Groupwise -Excel file conversion (--1-2-3 macro conversion --1-2-3 file conversion
GW		-Shared address book -Communications Center -Routing support -Universal in/out box -Composite Calendar		

	WIN95	Network	Seamless - Remove speed bumps	Best of Breed
GW 2nd Priority		<ul style="list-style-type: none"> -Rules that fire custom code in Groupwise -Desktop gateway for E-Mail (CIS, Internet, etc.) 		
PR			One Charting engine/chart types	<ul style="list-style-type: none"> -Hot buttons for on-screen shows -Multiple masters per slide show
PR 2nd Priority		-Slide show playback on network	--Easier selection of objects	<ul style="list-style-type: none"> -Remote access -Gallery of animated text effects -Customizable figure gallery -Image database; gallery data objects -Global font change -Global search/replace -Password protect -Slide show summary -Global spell check -Bar Graphics - clipart as bars -Chart options more flexible placement of titles legends and labels -Data import multi source chart -Drag numbers to chart -Predefined color schemes -Scan and then trace -Direct video support w/o OLE

	WIN95	Network	Seamless - Remove speed bumps	Best of Breed
				<ul style="list-style-type: none"> -Sound volume control during shows -Advanced multimedia timing -Rehearsal timing -Advanced presenter tools -Animation; predefined/create own
Envoy				-Extended print interface support
Envoy 2nd Priority		-WWW-enabled linkes		<ul style="list-style-type: none"> -Message thread -Envoy extensions (component plug-in architecture) -Extended font embedding
Shared Code		PerfectScript IDE	-PerfectOffice Developers Kit	
SC 2nd Priority			Help System	
OLTG				
2nd Priority				
Network Team		-Activity log -Post-its -Install -System Admin		
2nd Priority				

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	WIN95	Network	Seamless - Remove speed bumps -Common print interface	Best of Breed
Print Team		-Print faster on a network -APSN ties		

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Product Cost

Resource Estimation

Team	1st Priority	Additional Resources
Perfect Office Specific - Tapestry	6	
Perfect Office Specific - Network	6	
Perfect Office Specific -Print	8	
Perfect Office Specific -QuickTasks/3rd party	10	
Perfect Office Specific -Conversions	7	
WPWin	59	
QP	30	
PR	41	
GroupWise	45	
Shared Code	20	
OLTG	5	
Envoy	3	
Marketing	30	
Documentation	10	
Testing	60	

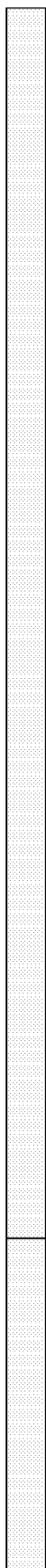
TOTALS	340
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Estimated Schedule

Nov	Pre-investigation phase complete- Project Plan Complete
Dec	Investigation phase complete (Dec 15) - MRD draft - Timeline of Tasks projected - Product Requirements Doc (SRS) - Feature Specification
Jan	
Feb	Commitment Phase Complete by (Feb 15) (Design complete) - Design docs on each enhancement
Mar	
Apr	Testing begins - Code Complete
May	
Jun	Build Phase Complete - Begin Validation Phase 1st of month - Beta for Individual Products Middle of month - Beta for Storm
Jul	
Aug	
Sep	RTM for Individual Product
Oct	RTM for Storm

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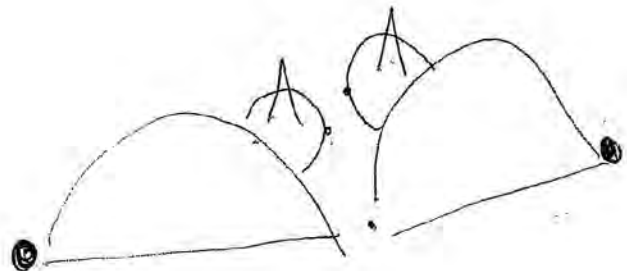
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DX 213

Quarterly Review

Defendant's
Exhibit
213

**WordPerfect, The Novell Applications Group
Quarterly Review Background
Q1 1995**



**WordPerfect, The Novell Applications Group - Q1 1995
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Section I - Agenda

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Section II - Quarterly Review Action Item Review Table (Action Items from Q4 1994 Review)

**Quarterly Action Item Review Table
WordPerfect, The Novell Applications Group**

Action Item	Owner/ Responsibility	Completion Date	Status	Comments
General - Future quarterly reviews should be formatted the following way: Deviations, Issues, Action Plans, Executive Assistance. Focus on items that are off plan.	All GMs	Q2 Review	■	
General - Need to define a way to measure the effect we have on competitors' and our own products because of actions that we initiate (e.g. product preannouncement, retail promotions, campaigns, channel promotions, acquisitions). Is there a POS information available to help monitor this?	All GMs		●	Divisions working with market research group to see if there is a service available that will measure channel sales through information on a quarterly basis. It looks positive that we will be able to get this in the future. SPA data could be used, but it is not available on a timely basis and would be one quarter behind.
General - Division PMM's need to communicate product marketing plans to the different organizations (sales, operations, corporate marketing) in advance of any marketing campaign.	Marketing V.P.s	Ongoing	●	Division marketing V.P.s are working with the various organizations.
General - Ensure at the beginning of the product life cycle that there is enough funding to carry the product throughout its life cycle. Maintaining an effort is as important as launching the effort.	All GMs	Ongoing	●	Implementation of PLC process is in its initial stages. However, this will be adopted with products in process.
General - Freeze the code early on and do a great job of prioritizing what will make the product "jump off the shelf." Some things that are not may not be the most expensive to implement, but instead capture the imagination. Find ways to determine the maximum benefit from the effort spent.	All GMs		●	Part of implementation of PLC, which is in process.
General - For the next quarterly review, provide a group level financial overview and a financial overview for each division.	David Grow	Q2 Review	■	
General - GM's to gain a better understanding of both direct and indirect COGS. This will help in finding ways to reduce COGS. Need to work with operations on this issue.	All GMs	On going	●	This has been a slow process. Group did not receive any COGS financial information until 2/27/95. Divisions are working with finance to identify problems, as well as, understand details. This process is going to be on going for a significant period of time.
Consumer - Need to work with sales to create a stock balancing process to price-protect the retailer.	Jeff Mallett			
Consumer - Establish a proposal/process model so that items can be passed off to the sales organization to open to new areas of distribution (e.g., Good Times, Wal Mart, Tandy). A good financial analysis for these new areas of distribution must be provided that includes all costs.	Jeff Mallett			
Consumer - Consider focusing efforts on the US marketplace right now. This provides a realistic focus for the team. Focus is the most important thing you have.	Jeff Mallett			
Consumer - Ensure that you do an effective job of product weeding. The consumer business is a "hit" business, and the products that aren't a hit must be "mercilessly shot" unless the product fills a strategic place in the line (e.g., math product in the education line).	Jeff Mallett			

Status ■ = Action item completed this quarter
Status ● = Action item not completed this quarter

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Action Item	Owner/Responsibility	Completion Date	Status	Comments
Bus Apps - Review royalty commitments (areas where we license technology from others) to assess what can be eliminated.	Mark Calkins		●	Have identified all royalty commitments per product. Now reviewing needs and how to eliminate licensed technology that is not needed. For example, determined Q+E drivers are not necessary in future. Now designing products to not use these drivers to save \$300K per year.
Bus Apps - To reduce COGS, consider cutting documentation further. Any actions need to based on research. One alternative may be a mail-in card to receive documentation.	Mark Calkins		●	Reviewing all secondary information on current user needs for documentation. Also looking at doing primary research to determine customer needs. There are strong customer feelings here and we do not want to cut documentation just to cut COGS. Presentation did dramatically cut documentation this last release and they are getting strong negative comments because of it.
Bus Apps - Evaluate Unix OEM opportunities. Bob offered to approach his contacts at HP, Sun, and IBM on prospects of bundling WordPerfect for Unix.	Mark Calkins		●	Working on OEM deal with Data General. Working with Novell OEM sales team to plan attack for HP, IBM and Sun. Plan to have Bob F. make high level executive contact.
Bus Apps - Generate a database strategy and alternatives for the suite. With Borland's financial problems we need to ensure we have a sound strategy.	Mark Calkins		●	In discussion with alternate database vendors, such as Oracle, to evaluate technology and relationship opportunity. Goal is to find potential alternate to Paradox, if support for Paradox becomes an issue in the future.
Bus Apps - Need to work with industry analysts who report numbers lower than others. Show them other analysts higher figures and ask why the discrepancy exists.	Mark Calkins		●	In discussion with alternate database vendors, such as Oracle, to evaluate technology and relationship opportunity. Goal is to find potential alternate to Paradox, if support for Paradox becomes an issue in the future.
Groupware - Evaluate how quickly the standard media configuration for GroupWise (software and documentation) can become CD.	Dave Moon	Completed	■	Two phases: First phase is repackaging current product -- happening for combined region CD's in Europe and with GroupWare Bundle CD (Q2). Second phase is making sure next generation product is CD - based.
Groupware - Need to evaluate international markets to identify growth opportunities. Emerging countries that have significant growth potential need to have adequate product and promotional spending.				<i>Have identified which markets we will focus on this year.</i>
Groupware - Make sure sales knows product release schedule. This could help minimize returns by avoiding a push of large quantities of product into the channel just before a product revision.	Willie Tajada		■	Program to inform Sales of which products we will be pushing the following quarter has been put in place. GroupWare Newsletter, first edition, has been released. This will be published monthly and will help inform sales and resellers of product schedules. Custom mail message goes out weekly to inform SE's, NMM's about product schedules and issues.

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 Status ■ = Action item completed this quarter
 Status ● = Action item not completed this quarter

** Send update to Dave Moon.*

Action Item	Owner/Responsibility	Completion Date	Status	Comments
Groupware - Need to get sales personnel trained on all Groupware products.		4/1/95		GroupWare Sales Kit being rolled out as part of the channel rollout during March-- targeted towards our sales force. Extensive training being done with our sales offices during March (22 cities) and with resellers during April (26 cities). More work needed to extend use of SoftSolutions and InForms internally, especially among sales force.
Groupware - Need to work with education to assess what it would take to move GroupWise educational materials from May to March. Can the Groupware division contribute budget funds to this effort?	Steve Adams Bob Young			
Shared Services - Need to have automated testing tools that cover branch/path relationships.				
Shared Services - Need to leverage the lab that will test NLM's, and places of Netware, NLM's, Groupware and Bus Apps.				
Shared Services - Need to enlist Byron Brown's help to accelerate ISO 9000 into the Group.				
Shared Services - Need a more methodical approach to track ease of use.				

Status ■ = Action item completed this quarter
 Status ● = Action item not completed this quarter

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Section III - Quarterly Business Fundamental Summary Table

**Quarterly Business Fundamental Summary Table
WordPerfect, The Novell Applications Group**

Prepared by: David Grow	Date: 2/23/95				Year: FY 95											
	Business Fundamental				Business Applications				GroupWare				Consumer Products			
	Q1 Actual	Q1 Target	Q1 Status	Q1 Trend	Q1 Status	Q1 Trend	Q1 Status	Q1 Trend	Q1 Status	Q1 Trend	Q1 Status	Q1 Trend	Q1 Status	Q1 Trend		
<i>Financial Fundamentals</i>																
Revenue (\$/%)	\$145.2/100%	\$146.3/100%	●	↑	■	↑	●	↑	●	↑	●	↑	●	↑		
Direct COGS - Materials (\$/%)	\$21.3/15%	\$20.5/14%	●	N/A	●	N/A	●	N/A	■	N/A	■	N/A	■	N/A		
Direct COGS - Royalties (\$/%)	\$1.7/1%	\$2.0%	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Direct COGS - Intangible Amortization (\$/%)	\$4.5/3%	\$4.5/3%	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A		
Direct Gross Margin (\$/%)	\$117.7/81%	\$121.1/83%	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Indirect COGS (\$/%)	\$5.8/4%	\$4.3/3%	●	N/A	●	N/A	●	N/A	■	N/A	■	N/A	■	N/A		
Operations Expense (\$/%)	\$5.0/3%	\$4.3/3%	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Service Expense (\$/%)	\$19.0/13%	\$19.0/13%	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A		
Total COGS (\$/%)	\$57.4/39%	\$52.9/36%	●	↓	●		●		●		●		●			
Total Gross Margin (\$/%)	\$87.8/61%	\$93.4/64%	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Direct Expense - Marketing (\$/%)	\$14.3/10%	\$18.9/13%	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A		
Direct Expense - Product Development (\$/%)	\$26.4/18%	\$25.9/18%	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Total Direct Expense (\$/%)	\$40.7/28.0%	\$44.8/31%	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A		
Indirect Expense - Sales (\$/%)	\$20.8/14%	\$20.8/14%	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A		
Indirect Expense - MDF (\$/%)	\$5.5/4%	\$4.3/3%	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Indirect Expense - Corporate Marketing (\$/%)	\$5.0/3%	\$5.1/3%	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A		
Indirect Expense - Corp. Product Development (\$/%)	\$6.7/5%	\$6.2/4%	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Indirect Expense - General & Administrative (\$/%)	\$11.9/8%	\$12.1/8%	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A		
Total Indirect Expense (\$/%)	\$49.0/34%	\$48.1/33%	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Operating Profit (\$/%)	(\$2.3)/(2%)	(\$7)/(1%)	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Net Profit (\$/%)	(\$1.5)/(1%)	(\$5)/(1%)	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A	●	N/A		
Capital Expenditures (\$)	\$4	\$1.0	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A	■	N/A		

Trend ↑ = Favorable trend from prior quarter
Trend ↓ = Unfavorable trend from prior quarter

Status ■ = Actual is within tolerance limits of Target
Status ● = Actual is not within tolerance limits of Target

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Prepared by: David Grow	Date: 2/23/95			Year: FY 95			Consumer Products		
	Business Fundamental			Business Applications		GroupWare			
	Q1 Actual	Q1 Target	Q1 Status	Q1 Trend	Q1 Status	Q1 Trend	Q1 Status	Q1 Trend	
Other Fundamentals									
Permanent Headcount (number of individuals)	1,045	1,062	■	↑	■	↑	■	↑	■
Product Delivery Schedule - PO 3.0 WIN	10/15/94	12/15/94	●				N/A	N/A	N/A
Product Delivery Schedule - Presentations 3.0 WIN	10/15/94	12/15/94	●				N/A	N/A	N/A
Product Delivery Schedule - WP 6.1 WIN	10/1/94	11/15/94	●				N/A	N/A	N/A
Product Delivery Schedule - WP 6.0c DOS	1/15/95	2/10/95	●				N/A	N/A	N/A
Product Delivery Schedule - Wp 6.0 UNIX (SCO, Intel, HP and IBM)	9/30/94	11/10/94	●				N/A	N/A	N/A
Product Delivery Schedule - Storm	N/A	Old- 9/30/95 New- 12/30/95					N/A	N/A	N/A
Product Delivery Schedule - Informs 4.1	3/31/95	3/10/95	●				●		
Product Delivery Schedule - SoftSolutions 4.1	N/A	4/15/95							
Product Delivery Schedule - GroupWare Bundle (CD)	N/A	4/30/95							
Product Delivery Schedule - Collabra Share and GroupWare /Collabra Bundle	7/31/95	3/31/95	●						
Product Introduction Deliverables - WP 6.1 WIN	As planned								
Product Introduction Deliverables - PO 3.0 WIN	As planned								
Product Introduction Deliverables -									
Product Introduction Deliverables -									
Market Share Product A (% in \$/units)									
Market Share Product B (% in \$/units)									
Market Share Product C (% in \$/units)									
Market Share Product D (% in \$/units)									
SEI Maturity Index (SEI 1 to 5 scale)									
Software Reliability During Development Cycle - Defect Density (defects per 1,000 lines of non-commented code)									
Software Reliability Post Shipment - Customer Found Defects (number of level 1, 2 and 3 defects)									

Trend ↑ = Favorable trend from prior quarter
Trend ↓ = Unfavorable trend from prior quarter

Status ■ = Actual is within tolerance limits of Target
Status ● = Actual is not within tolerance limits of Target

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Prepared by: David Grow	Date: 2/23/95				Year: FY 95		GroupWare		Consumer Products	
	NAG				Business Applications		Q1 Status	Q1 Trend	Q1 Status	Q1 Trend
Business Fundamental	Q1 Actual	Q1 Target	Q1 Status	Q1 Trend	Q1 Status	Q1 Trend				
Pride of Ownership (% of customers that would recommend product)										
ISO 9000 Certification										
Employee Satisfaction (improvement from initial baseline survey)	N/A	N/A	N/A	N/A	N/A	N/A				

Trend ↑ = Favorable trend from prior quarter
 Trend ↓ = Unfavorable trend from prior quarter

Status ■ = Actual is within tolerance limits of Target
 Status ● = Actual is not within tolerance limits of Target

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Section IVA - Quarterly Business Fundamental Detail Table - Business Applications

Quarterly Business Fundamental Detail Table
Business Applications

Prepared by: Mark Calkins	Date: March 6th		Quarter/Year: Q1 1995		Product Group/Division: Business Apps
	Q1 Actual	Q1 Target	Δ Fav/ (UnFav)	Q1 Growth %	
Business Fundamental					
<i>Financial Fundamentals</i>					
Revenue (\$/%)					
Perfect Office	\$ 38.4	\$ 30.8	\$ 7.6	100%	<ul style="list-style-type: none"> Numerous products unfavorable to Q1 '95 due to strong Q4 sales push and Q1 focus on new product releases. WP Dos variance: a) strong Q4 '94 channel buy-in; b) delay in 6.0c release (Feb 95); c) lack of international support; d) held off marketing expenses. QP variance: a) delay in international localization; b) changes in stand-alone market dynamics; c) sales support.
WP Win	\$ 66.7	66.3	0.4	31%	
WP Dos	7.5	13.1	(5.6)	(57%)	
WP Mac	4.7	1.4	3.3	(19%)	
WP Unix	2.5	1.6	0.9	(10%)	
QP Win/Dos	5.6	14.5	(8.9)	(30%)	
Presentations Win/Dos	1.0	0.3	0.7	(16%)	
Electronic Pubs	0.6	0.6	0.0	(25%)	
Other	6.6	1.8	4.8	(55%)	
Gross Revenues	133.6	130.4	3.2	28%	
Rebates/Other	(7.4)	(6.7)	(0.7)		
Net Revenues	\$ 126.2	\$ 123.7	\$ 2.5		
Direct COGS - Materials (\$/%)	\$20.2/16.0%	\$16.5/13.3%	(\$3.7)	N/A	<ul style="list-style-type: none"> Int'l materials costs significantly over budget (Japan, U.K., Spain). Investigating reasons. PO promotional pricing (lower ASP's). WP 6.1 high percent of upgrades.
Direct COGS - Royalties (\$/%)	\$0.8/0.6%	\$0.0/0.0%	(\$0.8)	N/A	<ul style="list-style-type: none"> Royalties costs not budgeted.
Direct COGS - Intangible Amortization (\$/%)	\$4.5/3.6%	\$4.5/3.6%	\$0.0	N/A	
Direct Gross Margin (\$/%)	\$100.7/79.8%	\$102.7/83.0%	(\$2.0)	N/A	
Indirect COGS (\$/%)	\$5.3/4.2%	\$3.6/2.9%	(\$1.7)	N/A	<ul style="list-style-type: none"> Specific allocation of obsolescence/scrap significantly over budget (WP 6.0a, etc.) due to shipping lot of product at end of Q4 that was to be obsolete 2 weeks into new quarter. General allocation based upon materials costs and revenues which were both over budget.
Operations Expense (\$/%)	\$4.5/3.6%	\$3.6/2.9%	(\$0.9)	N/A	<ul style="list-style-type: none"> General allocation based upon materials costs and revenues which were both over budget.

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Prepared by: Mark Calkins	Date: March 6th		Quarter/Year: Q1 1995		Product Group/Division: Business Apps	
	Q1 Actual	Q1 Target	Δ Fav/ (UnFav)	Q1 Growth %		Analysis of Deviations
Business Fundamental						
Service Expense (\$/%)	\$14.8 11.7%	\$14.9 12.1%	\$0.1	N/A		
Total COGS (\$/%)	\$50.1 39.7%	\$43.1 34.9%	(\$7.0)	N/A		
Total Gross Margin (\$/%)	\$76.1 60.3%	\$80.6 65.1%	\$(4.5)	N/A		
Direct Expense - Marketing Headcount (\$/%)	\$2.8	\$2.9	\$0.1 4%	N/A		
Direct Expense - Marcom (\$/%)	\$6.1	\$9.5	\$3.4 36%	N/A	<ul style="list-style-type: none"> Int'l Mkt favorable \$2.1 due to delay in product release and organization issues. Domestic favorable \$1.3 due to delay in marketing programs per Corp. Marketing request. 	<ul style="list-style-type: none"> Will carry over some domestic (\$1.1M) and international (\$1M) marketing budget to second quarter to begin PerfectOffice launch.
Direct Expense - Product Development (\$/%)	\$16.0	\$15.8	(\$0.2) (1%)	N/A	<ul style="list-style-type: none"> Due to delay in planned RIF's (First of November to Middle of December). 	<ul style="list-style-type: none"> Gradual reduction in development salaries phased over the year. Outsourced Unix development to SDC.
Total Direct Expense (\$/%)	\$24.9	\$28.2	\$3.3	N/A		
Indirect Expense - Sales (\$/%)	\$18.2	\$18.0	(\$0.2) (1%)	N/A		
Indirect Expense - MDF (\$/%)	\$4.8	\$3.7	(\$1.1) (30%)	N/A	<ul style="list-style-type: none"> Novell Corp. MDF unfavorable variance (alloc. of distribution revenues). 	<ul style="list-style-type: none"> Work with channel marketing to obtain better understanding of MDF spending.
Indirect Expense - Corporate Marketing (\$/%)	\$4.3	\$4.3	\$0.0 0%	N/A		
Indirect Expense - Corporate Product Development (\$/%)	\$5.8	\$5.4	(\$0.4) (7%)	N/A	<ul style="list-style-type: none"> Timing of localization costs. 	<ul style="list-style-type: none"> Work with Operations to better plan localization expenses.
Indirect Expense - General & Administrative (\$/%)	\$8.6	\$8.6	\$0.0 0%	N/A		
Total Indirect Expense	\$41.7	\$40.0	(\$1.7) (5%)			

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Prepared by: Mark Calkins	Date: March 6th			Quarter/Year: Q1 1995		Product Group/Division: Business Apps
	Q1 Actual	Q1 Target	Δ Fav/ (UnFav)	Q1 Growth %	Analysis of Deviations	
Business Fundamental						
Operating Profit (\$/%)	\$9.5	\$12.4	(\$2.9) (23%)			
Capital Expenditures (\$)	\$0.4	\$0.6	\$0.2			
Channel Inventory (\$)	N/A	N/A	N/A	N/A		
Total Assets (\$)	N/A	N/A	N/A	N/A		
EVA (\$)	N/A	N/A	N/A	N/A		
ASP/List Price (%)	N/A	N/A	N/A	N/A		
Other Fundamentals						
Permanent Headcount (number of individuals)	413	426	13	N/A	<ul style="list-style-type: none"> Delay in QP development additions -- hired 6 of 17 (11). Difficult to find good developers. Delay in international marketing additions -- hired 5 of 7 (2) 	<ul style="list-style-type: none"> Continue hiring efforts for Quattro Pro development and international marketing.
Product Delivery Schedule WordPerfect 6.1 for Windows	10/1/94	11/15/94	45 days late		<ul style="list-style-type: none"> Product delayed due to quality and performance problems. 	<ul style="list-style-type: none"> Implement product life cycle and more realistic estimate of development timeline. Minimize low priority development activity to focus on high priorities.
Product Delivery Schedule PerfectOffice 3.0 for Windows	10/15/94	12/15/94	60 days late		<ul style="list-style-type: none"> Underestimated suite integration and installation development. 	<ul style="list-style-type: none"> Same as above.
Product Delivery Schedule Presentations 3.0 for Windows	11/1/94	1/10/95	70 days late		<ul style="list-style-type: none"> Delayed due to PerfectOffice delays. 	<ul style="list-style-type: none"> Same as above.
Product Delivery Schedule WordPerfect 6.0c for Dos	1/15/95	2/10/95	25 days late		<ul style="list-style-type: none"> RTM on Jan 12, but Operations put on hold until Q2 due to PerfectOffice. 	
Product Delivery Schedule WordPerfect 6.0 for Unix (SCO, Intel, HP and IBM)	9/30/94	11/10/94	40 days late		<ul style="list-style-type: none"> Delayed due to pre-announced reduction in force to group and work on outsourcing development. 	<ul style="list-style-type: none"> Get development outsourcing finalized and functional.

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Prepared by: Mark Calkins	Date: March 6th		Quarter/Year: Q1 1995	Product Group/Division: Business Apps	
	Q1 Actual	Q1 Target			Δ Fav/ (UnFav)
Business Fundamental					
Product Delivery Schedule Storm		Old: 9/30/95 New: 12/30/95	90 days	<ul style="list-style-type: none"> Analysis of Deviations QP will not be ready to ship until the end of the year. PerfectFit Technology makes it difficult to split up product release. Implementing PLC has given more realistic dates to hit quality and other key objectives. 	<ul style="list-style-type: none"> Actions Implementing small interim for PerfectOffice 16-bit to give Q4 revenue boost and have Windows 95 compatibility. Monitor Windows 95 availability.
Product Introduction Deliverables - WordPerfect 6.1 for Windows	As planned				
Product Introduction Deliverables - PerfectOffice 3.0 for Windows	As planned				
Market Share PerfectOffice	N/A			<ul style="list-style-type: none"> Quarterly data not available. 	<ul style="list-style-type: none"> Working on identifying market research service to give quarterly share information.
Market Share WordPerfect	N/A				
Market Share Quattro Pro	N/A				
Market Share Presentations	N/A				
SEI Maturity Index (measured on SEI scale of 1 to 5)	N/A			<ul style="list-style-type: none"> Unclear how to obtain data. 	
Software Reliability During Development Cycle- Defect Density (measured on defects per 1,000 lines on non-commented code)					
Software Reliability Post Shipment - Customer Found Defects (measure on number of level 1,2 and 3 defects)					
Pride of Ownership - % of Customers that Would Recommend Product	N/A			<ul style="list-style-type: none"> Unclear how to obtain data. 	
ISO 9000 Certification Status	Define PLC for Storm	Define PLC for Storm			

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Prepared by: Mark Calkins		Date: March 6th		Quarter/Year: Q1 1995		Product Group/Division: Business Apps	
Business Fundamental	Q1 Actual	Q1 Target	Δ Fav/ (UnFav)	Q1 Growth %	Analysis of Deviations		Actions
Employee Satisfaction (measurable improvement from initial baseline survey)	N/A	N/A	N/A	N/A	<ul style="list-style-type: none"> Data unavailable. 		<ul style="list-style-type: none"> Waiting for survey results.

Novell Business Applications Division - Issues

Executive Staff Help	Issue	Action to Improve	Executive Assistance
Localization resources outside division. Concern about ownership and responsibility to meet deadlines. Product quality of international versions is lower than it should be.		Better enable product for localization.	Recommend moving enablers into division.
Division has no involvement in product forecasts, yet is held responsible for indirect COGS.		Work with Operations to establish a product forecasting process that involves the division.	Give partial responsibility to divisions for forecasting.
Manufacturing quality is poor since outsourcing.	<i>fulfillment</i>	Work with Operations.	Monitor outsourcing partners for appropriate corrective action.
Channel sell through and understanding of MDF planning/spending information not available.		Continue to work closely with Channel Sales.	Make sell through and MDF planning information a priority.
Concern about increase in service costs post RIF.		Work closely with Customer Support to reduce support costs.	Make identifying service costs per product a priority.
International support is currently very poor.		Work closely with Customer Support to improve.	Make fixing international support a priority.
Borland stability and impact on Paradox future.		Working closely with Borland to integrate Paradox for Windows 95 with Storm Evaluating other options: new strategic partner or other acquisition opportunities.	Evaluate Paradox acquisition.

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Section IVB - Quarterly Business Fundamental Detail Table - GroupWare Division

Quarterly Business Fundamental Detail Table
GroupWare Division

Business Fundamental	Date: March 3, 1995		Quarter/Year: Q1 FY95		Product Group/Division: NAG/GroupWare Division	
	Q1 Actual	Q1 Target	Δ	Q1 Growth %		Analysis of Deviations
Financial Fundamentals						
Revenue (\$/%)						
(Net Revenues)						
GroupWare	9.9	11.3	(1.4)		The revenue budget planned for a 5% allocation from the Perfect Office Suite which is not reflected in these numbers. After the allocation, GroupWare net revenues would be increased by approximately 2.5 million. 1.9	Channel rollout program (22 city tour) scheduled for March to help increase "pull" through channel.
Informis	.5	.9	(.4)			
SoftSolutions	3.1	2.5	.6			
Other	1.4	.9	.5			
Total	14.9	15.6	(.7)			
Direct COGS - Materials (\$/%)	0.5	2.6	2.1		Material costs are understated by approximately \$500,000. Even after this correction cgs would be under budget by 1.5 million. The cgs budgeting model did not consider all the non product related revenue associated with GroupWare products in the form of additional licenses and volume license programs.	This is a trend we feel will continue because of our SKU reduction efforts-- region based CD's in Europe will significantly reduce COGS for int'l sales.
Direct COGS - Royalties (\$/%)	0.4	0.1	(0.3)		Royalties were not identified specifically by finance in the budgeting process. GroupWare's largest royalty in the first quarter was SCC.	SCC contract is being renegotiated given greater usage of their viewers across business units.
Direct Gross Margin (\$/%)	14.0	12.9	1.1			
Indirect COGS (\$/%)	0.4	0.4				
Operations Expense (\$/%)	0.3	0.5	0.2		Operations expense is allocated on material expense and revenue. Due to GroupWare's small material expense compared to budget, there is a favorable actual to budget based on the allocation method.	
Service Expense (\$/%)	3.7	3.5	(0.2)		Service expense is the second highest line item for GroupWare after direct product development. The unfavorable variance is due to service expense related to MHS.	MHS service expense should be reclassified as NSG expense (Dana). We receive no revenue allocation for Global MHS sales.
Total COGS (\$/%)	5.3	7.1	1.8		Favorable Cogs variance is mainly due to favorable material expense	

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Prepared by: Dave Moon	Date: March 3, 1995			Quarter/Year: Q1 FY95		Product Group/Division: NAG/GroupWare Division
	Q1 Actual	Q1 Target	Δ	Q1 Growth %	Analysis of Deviations	
Business Fundamental						
Total Gross Margin (\$/%)	9.6	8.5	1.1			
Direct Expense - Marketing Headcount (\$/%)	1.7	2.0	0.3		Direct marketing includes the marketing direct shared allocation of 300,000. Marketing has spending was delayed due to the hiring freeze	
Direct Expense - Marcom (\$/%)	1.7	1.9	0.2		Spending was restrained in Qtr 1 and put off until Qtr 2	
Direct Expense - Product Development (\$/%)	7.8	7.7	(0.1)		Development expense includes GroupWares allocation of Shared Services of 2.9 million. RIF's didn't occur until late in the first quarter.	
Total Direct Expense (\$/%)	16.5	18.7	2.2			
Indirect Expense - Sales (\$/%)	2.1	2.3	0.2		Sales expense would be increased with the allocation of any revenues associated with the Perfect Office Suite.	
Indirect Expense - MDF (\$/%)	0.6	0.4	(0.2)		No control over.	We'd still like to find out how sales is spending our MDF dollars (as it applies to our products).
Indirect Expense - Corporate Marketing (\$/%)	0.6	0.6				
Indirect Expense - Corporate Product Marketing (\$/%)						
Indirect Expense - Corporate Product Development (\$/%)	0.7	0.7				
Indirect Expense - General & Administrative (\$/%)	2.6	2.5	(0.1)			
Total Indirect Expense	6.6	6.5	0.2			

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Prepared by: Dave Moon		Date: March 3, 1995		Quarter/Year: Q1 FY95		Product Group/Division: NAG/GroupWare Division	
Business Fundamental	Q1 Actual	Q1 Target	Δ	Q1 Growth %	Analysis of Deviations	Actions	
Operating Profit (\$/%)	(8.2)	(9.6)	1.4		We were glad to see we lost less money than we thought we would!		
Capital Expenditures (\$)							
Channel Inventory (\$)	N/A	N/A	N/A	N/A			
Total Assets (\$)	N/A	N/A	N/A	N/A			
EVA (\$)	N/A	N/A	N/A	N/A			
ASP/List Price (%)	N/A	N/A	N/A	N/A			
Other Fundamentals							
Permanent Headcount (number of individuals)	280.0	285.0	5.0		We had headcount reductions occurring through January (11). Some of these people received compensation through the end of 1st quarter.	We have additional marketing headcount additions that will occur 2nd quarter (field marketing personnel).	
Product Delivery Schedule InForms 4.1 - Current vs. Original (measured in number days variance)	3/31/95 (Q2)	3/10/95 (Q2)	(21.0)		General product stability. Novell IS is now putting 4.1 into production use in the company-- some problems were uncovered and have been addressed.		

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Prepared by: Dave Moon		Date: March 3, 1995		Quarter/Year: Q1 FY95		Product Group/Division: NAG/GroupWare Division	
Business Fundamental	Q1 Actual	Q1 Target	Δ	Q1 Growth %	Analysis of Deviations	Actions	
Product Delivery Schedule SoftSolutions 4.1 - Current vs. Original (measured in number days variance)		4/15/95 (Q2)			SoftSolutions 4.0a DSS and SEM NLM's were put on hold at end of first quarter due to major bugs in product and general product instability.	<p>Letters to resellers and customers have been sent assuring of our support and indicating product schedules, including channel and internal communications. Weekly updates being posted to BBS.</p> <p>10 additional resources allocated to fixing product bugs and provide complete QA cycle for the product. Testing in SuperLAB is in progress.</p> <p>User conference scheduled for April 17, 1995.</p> <p>Entire management team is now well experienced in being threatened by law firms.</p>	
Product Delivery Schedule GroupWare Bundle on CD - Current vs. Original (measured in number days variance)		4/30/95 (Q2)				<p>Represents first stage integration among GroupWise, SoftSolutions, and InForms.</p> <p>Will include integration macros, forms, views, and QuickTasks.</p> <p>Will not include Collabra Share until July 1995</p>	
Product Delivery Schedule Collabra Share and GroupWare/Collabra Bundle	7/31/95 (Q2)	3/31/95 (Q2)	(120.0)		Originally planned to ship Collabra 1.0 product. 2.0 version will ship end of June from Collabra, and conflict in product lifecycle would have created channel problems, communication problems, perception problems. Delay will allow quicker release of full 2.0 version for GroupWise with appropriate integration and client/server capabilities.	<p>Fix Collabra strategic relationship so it will work long term.</p> <p>Shift resources at Collabra to 2.0 product to accelerate GroupWise/Collabra 2.0 product (done).</p> <p>Promotional mailing with 1.0 product to build potential 2.0 customers.</p>	
Product Introduction Deliverables - NetWare Integration Pack (measured in number of days variance)	1/25/95	1/15/95	(10.0)				
Product Introduction Deliverables - GroupWise Enhancement Pack (measured in number of days variance)	3/10/95 (Q2)	12/94	(70.0)		Not enough emphasis give-- not a high priority item.		
Market Share GroupWise (percent of target segments in units and dollars)							
Market Share SoftSolutions (percent of target segments in units and dollars)							
Market Share InForms (percent of target segments in units and dollars)							

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Prepared by: Dave Moon		Date: March 3, 1995		Quarter/Year: Q1 FY95		Product Group/Division: NAG/GroupWare Division	
Business Fundamental	Q1 Actual	Q1 Target	Δ	Q1 Growth %	Analysis of Deviations	Actions	
SEI Maturity Index (measured on SEI scale of 1 to 5)	1.0						
Software Reliability During Development Cycle- Defect Density (measured on defects per 1,000 lines on non-commented code)							
Software Reliability Post Shipment - Customer Found Defects (measure on number of level 1,2 and 3 defects)							
Pride of Ownership - % of Customers that Would Recommend Product							
ISO 9000 Certification Status							
Employee Satisfaction (measurable improvement from initial baseline survey)	N/A	N/A	N/A	N/A		Hold initial survey Q2.	

GroupWare Division -- Issues

Issues	Action Items	Help Needed from Executive Staff
<p>Collabra Share. Critical technology for our future and current strategic relationship will not work long-term. Novell needs to either invest significantly in an equity position in Collabra in order to tie up the relationship and allow them to do the development we need, or they need to invest in GroupWare Division the dollars needed to build similar technology for the long-term.</p>	<p>High level meeting with Collabra management to discuss management (3/14/95) Renegotiate a more strategic partnership and agreement. Convince Collabra to build product for NetWare (NLM's), Unix, and double-byte languages.</p>	<p>Bob to help put pressure on Collabra board? Help from Strategic Relations group to make this a priority.</p>
<p>FileNet (workflow) and Kodak Imagery (imaging) relationships. Both negotiations are at an impasse. We will not take responsibility for "cleaning up" NSG obligations if it is not a profitable agreement and relationship for NSG. Revenues from workflow and imaging were allocated for 3Q and 4Q and may be at risk.</p>	<p>Propose terms to FileNet and Imagery that are profitable for us. Look at other providers of workflow technology. Bandwidth-- focus on workflow and Collabra. Other partnering relationships will take second priority.</p>	<p>Potential \$4 million obligation to NSG (FileNet) and potential liability from other partners who built to announced IMS specification from Kodak/NSG.</p>
<p>Outsourcing of Unix development. Staffing in India for development of Unix gateways.</p>	<p>Finish negotiations with Clarity and STD for outsourcing of Unix client development. Continue working with OEM sales on agreements with Unix platform providers (DG, etc.) to provide up front royalties for Unix clients to pay for development.</p>	
<p>Localization efforts for GroupWare products. We feel powerless-- we have clearly shown that monies exist, even within their reduced budget, for the bulk of our projects, but the majority of our projects are still "on-hold". International sales for NSG (26% in Q1) will continue to suffer without localized 4.1 level product. We were approximately 1.2% under budgeted international revenues.</p>	<p>Continuing to coordinate to try and "free up" highest priority localization projects.</p>	<p>Need executive staff help to grease the wheels here and get things rolling!</p>
<p>Major Market Sales Programs -- want GroupWare products to be categorized (discounts and volumes) in same light as NetWare systems products, rather than applications products. Bundle with PerfectOffice creates is somewhat of a problem, but not really an issue for additional licenses. Everyone basically qualifies for VLA under applications model, which depresses our ASP for GroupWare. MLA is fine with us (about 5% of our revenue). But CLA and VLA are the bulk of our customers and discount (under applications model) is so low that there is no margin left for channel for our products. Sales says we don't have to participate in CLA and VLA programs with our SKUs-- seems less desirable than reclassifying us like NetWare models.</p>	<p>Somehow need to convince sales groups doing pricing that it is ok to put us in the discount/volume model that NetWare enjoys, either that or raise prices from CAP model.</p>	
<p>Service and Support for GroupWare products is poor. Significant customer complaints. Getting busy signals (because we have been maxed out with hour-long queues). Our own people can't get through to get questions answered. Support is our second largest expense item already (24% of revenues Q1). Infrastructure (through reseller and SE's in sales offices) for GroupWare does not exist like it does for NetWare. Problems come direct from end-user to our support organization.</p>		
<p>Revenue allocations from PerfectOffice. We need to understand what impact PerfectOffice has on our profitability.</p>	<p>Conduct research to assess what impact really is.</p>	

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<p>Eclipse product development dependencies on NDS and Tuxedo.</p> <p>Eclipse will require NDS but not use it natively. Cataloging services in NDS still a requirement for us. Cross-platform is a requirement for us as well.</p> <p>We want to leverage Tuxedo client/server technology in Eclipse-- until it is on NetWare and integrated with NDS we cannot use it.</p>	<p>Make NDS and Tuxedo part of the same business unit, independent of the OS groups.</p>
<p>MHS. We're "hanging out" with NetWare 4.1 messaging -- no quick fix.</p>	<p>Developing a converged MTA-- have put it on an accelerated development schedule (Fall '96) so it will be available for NW 4.1 before Eclipse.</p>
<p>Our need to support NT. Our partners don't want to write NLM's. Customers are demanding NT versions of SoftSolutions and GroupWise from us. Both are relatively close-- would only take a little effort to really productize-- should we? Only as a defensive product?</p>	<p>MTA "in the red box" will support GroupWise natively-- need to find out when we can synch up with NetWare box and what marketing opportunities that would afford us.</p>
<p>Was Ken's philosophy that we need to be profitable THIS YEAR on \$100M revenue as a GroupWare division the right philosophy for Novell long-term as a groupware provider??? Lotus is spending like crazy.</p> <p><i>over time</i></p>	<p>Build a business case for NT servers. (Return won't come this fiscal year)</p>
<p>TSAPI doesn't work -- how are we supposed to support it?</p>	<p>Things we would spend additional investment on: -- 30 demo machines for GroupWare for sales offices -- 26 machines for GroupWare demos for traveling seminar for hands on product training. -- advertising dollars -- Unix, Mac clients -- workflow and conferencing development and technology</p>
<p><i>Need to schedule separate mtg w/ w/ Bob to review Eclipse strategy. and review them</i></p>	<p>Working with IAMG to make sure we integrate our voice-mail work with their API's and partners, but running into problems.</p>

WordPerfect, The Novell Applications Group - Q1 1995

Section V - Quarterly Hoshin/Breakthrough Objective Review Table

Quarterly Hoshin/Breakthrough Objective Review Table
 WordPerfect, The Novell Applications Group

Prepared by: David Grow		Date: March 1, 1995	Quarter/Year: Q1 FY95		Product Group: MAG
No.	Objective/Strategy (Owner)	Actual Compared to Goal/Performance Measure	Status	Analysis of Deviations	Implications for Future Quarters
1.1	Achieve 1995 sales, revenue, expense, people and profit targets.	See section III - Quarterly Business Fundamental Summary table	●	See section IV - Quarterly Business Fundamental Detail Table	See section IV - Quarterly Business Fundamental Detail Table
1.2	Develop effective business plans for each business.	1 - Group Hoshins for 1995 due to Divisions by February 6, 1995. Completed 2 - Division Hoshins for 1995 due to Ad by February 28, 1995. In process 3 - Business plans for 1996, 1997, 1998 to be developed using outline provided by business planning department. within the following time table: Division drafts due March 31, 1995 Group draft due April 13, 1995 Division final due May 19, 1995 Group final due June 1, 1995 Business plans in process 4 - Budget and hoshins for 1996 to be completed by September 30, 1995. To be completed during Q3 and Q4	■		

** need to get our Hoshin table to Dave Grow.*

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Status ■ = Objective/strategy is on track
 Status ● = Objective/strategy is not on track

Prepared by: David Grow		Date: March 1, 1995	Quarter/Year: Q1 FY95		Product Group: NAG
No.	Objective/Strategy (Owner)	Actual Compared to Goal/Performance Measure	Status	Analysis of Deviations	Implications for Future Quarters
2.7	Ship a high quality, high performance, competitive PerfectOffice Suite. Keep it competitive with a strong and timely Windows 95 offering.	<p>1 - Ship high quality, high performance PerfectOffice Suite in Q1 1995. PO30 shipped December 1994</p> <p>2 - Ship a high quality, high performance Windows 95 Suite in Q1 1996. in process</p> <p>3 - Ship high quality, high performance Windows 95 stand alone applications (WordPerfect, Quattro Pro, Presentations, GroupWise and Envoy). in process</p> <p>4 - Increase network integration of suite. in process</p> <p>5 - Expand linguistic technologies in all appropriate products.</p> <p>6 - Develop a plan for loss of InfoCentral as a suite component by the end of Q3 95.</p> <p>7 - Achieve 20% market share for unit sales of new suite shipments during FY 95.</p> <p>8 - Maintain WordPerfect current unit sales market share for new shipments during FY 95.</p> <p>9 - Increase QuattroPro unit sales market share for new shipments by two points for FY 95.</p> <p>10 - Enable all new products to be localized to JFIGS within 60 days of product introduction.</p>	■		
2.8	Integrate GroupWise and NetWare NDS to create the premier Groupware offering and a strong competitor to Notes.	<p>1 - Ship enhancements, integrations and additional add-on Groupware solutions in Q2 that help us more effectively compete with Lotus Notes.</p> <p>2 - Achieve a first or second market share for unit sales for each Groupware product by FY 95.</p> <p>3 - Establish task force with NetWare and integrate GroupWise and NetWare NDS by <u>10/96</u>.</p>			

Handwritten notes:
 Integrate GroupWise and NetWare NDS to create the premier Groupware offering and a strong competitor to Notes.
 (Circled in the original document)

Status ■ = Objective/strategy is on track
 Status ● = Objective/strategy is not on track

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Prepared by: David Grow		Date: March 1, 1995	Quarter/Year: Q1 FY95		Product Group: NAG
No.	Objective/Strategy (Owner)	Actual/Compared to Goal/Performance Measure	Status	Analysis of Deviations	Implications for Future Quarters
2.9	Add new users and consumer distribution with MainStreet.	<p>1 - Achieve a minimum of _____ unit sales for Consumer products for FY 95.</p> <p>2 - In partnership with the sales organization develop and implement a consumer product distribution plan by the end of Q2 95.</p>			
2.18	Make substantial advances in product generation efficiency.	<p>1 - Develop and implement new product life cycle for all new development projects by the end of FY 95.</p> <p>2 - By the end of Q2 95, develop and document a process that evaluates standards for acceptance of consumer titles based on revenue expectations, performance and strategic direction. Weed out current titles that do not meet the standards established.</p> <p>NAG has begun the process of developing a new product life cycle for new development projects. The goal is to have this process in place by the end of FY 95. We are working closely with Byron Brown and his staff in developing and implementing standards and processes that are used throughout Novell.</p>	■		
3.1	Establish a baseline with an employee survey. Make substantial progress in three worst categories in FY 95.	<p>1 - In partnership with HR, administer employee survey in Q2.</p> <p>2 - Based on results of employee survey identify three worst categories and improve these areas by year end.</p> <p>3 - Administer second employee survey in Q4 to monitor progress of three worst categories.</p> <p>Employee survey administered during the week of March 6th. When the results are completed, division GMs will develop and implement a plan to address three worst categories within their division.</p>	■		

Status ■ = Objective/strategy is on track
 Status ● = Objective/strategy is not on track

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Prepared by: David Grow		Date: March 1, 1995	Quarter/Year: Q1 FY95		Product Group: MAG
No.	Objective/Strategy (Owner)	Actual Compared to Goal/Performance Measure	Status	Analysis of Deviations	Implications for Future Quarters
4.2	Each product group and functional area will create and implement a continuous improvement plan.	<p>1 - Working with the corporate continuous improvement team develop a continuous improvement plan for each division and a quality matrix which will enable managers to measure against the plan.</p> <p>2 - Implement the continuous improvement plan.</p> <p>3 - During 1995, show improvement for each product.</p> <p><u>Development of continuous improvement plan is in its early stages. Each division has the assignment to develop a plan and matrix for their organization during Q2 FY95. Group goal is to have the group plan documented by the end of FY95.</u></p>	■		
4.3	Improve the product development process to leadership in quality, time to market, globalization, and match to verified unmet customer needs.	<p>1 - During Q2 95, prioritize localization projects to maximize revenues and strategic direction. In process.</p> <p>2 - During FY 95, develop all new projects so they are double byte enabled.</p> <p>3 - Reduce documentation on products, taking into consideration cost of sales, localization and customer expectations. In process. Also working to move GroupWare products to CD format.</p> <p>4 - Develop and administer a customer survey for all significant products by the end of FY 95.</p> <p>5 - Implement product life cycle process on all NAG projects by the end of FY 95. <u>PLC process plan currently being</u></p>	■		

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 Status ● = Objective/strategy is not on track

Prepared by: David Grow		Date: March 1, 1995	Quarter/Year: Q1 FY95		Product Group: NAG
No.	Objective/Strategy (Owner)	Actual Compared to Goal/Performance Measure	Status	Analysis of Deviations	Implications for Future Quarters
4.5	Achieve ISO 9000 certification for all applicable product lines.	<p>1 - Establish a ISO 9000 task force with representation from each division in Q2 95.</p> <p>2 - Gain an understanding of ISO 9000 and how it effects each division by July 31, 1995.</p> <p>3 - Develop a plan and time line for the business application and Groupware divisions to achieve ISO 9000 certification.</p> <p>4 - Determine the need for ISO 9000 certification for the consumer products division by July 31, 1995.</p> <p><u>Development and implementation of ISO 9000 is in its preliminary stages. At this time there are no indications that the group will not achieve the above goals on a timely basis.</u></p>	■		
5.2	Determine which relationships are truly strategic to Novell. Make these relationships exemplary and reduce effort of those relationships that are not.	<p>1 - Identify all current NAG relationships by May 31, 1995.</p> <p>2 - Prioritize relationships based on strategic direction and financial return on investment (ROI) by division. To be completed by April 30, 1995.</p> <p>3 - Focus efforts on the most strategic partnerships.</p> <p><u>Each division GM has been delegated the responsibility to complete this position on their respective division. At this time there are no indications that the group will not achieve the above goals on a timely basis.</u></p>	■		

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Status ■ = Objective/strategy is on track
 Status ● = Objective/strategy is not on track

Prepared by: David Grow	Date: March 1, 1995	Quarter/Year: Q1 FY95		Product Group: NAG
		Actual	Analysis of Deviations	
<p>No. Objective/Strategy (Owner)</p> <p>5.3 Clear conflicting partnerships</p>	<p>Compared to Goal/Performance Measure</p> <p>1 - Identify all conflicting partnerships related to NAG by March 31, 1995.</p> <p>2 - Develop a plan to eliminated these partnerships. Legal and corporate strategic relations teams should be involved in developing this plan. Plan completed by July 31, 1995.</p> <p>3 - Implement plan in Q4 95.</p> <p><u>Each division/GM has been delegated the responsibility to complete this position for their respective division. At this time, there are no indications that the group will not achieve the above goals on a timely basis.</u></p>	<p>Status</p> <p>■</p>	<p>Analysis of Deviations</p>	<p>Implications for Future Quarters</p>

Status ■ = Objective/strategy is on track
 Status ● = Objective/strategy is not on track

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[Insert Product Group Name] - Q1 1995

Section VI - Other

[This section should include an analysis of any significant issues requiring executive staff assistance that have not been addressed in other sections.]

DX 219

Notes from Storm Coordination Meeting February 2, 1995

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Dates:

Next version of WP to ship 9/15. This will include PerfectFit, Draw, Chart, Printing, QuickFinder, etc.

Next version of PO Standard to ship 11/30. This will include WP, QP, PR, Envoy, and a license for GroupWise client.

Next version of GroupWise will ship a month or so later.

Dates "set" by Bob Frankenburg. Perception in channel is almost as important as what we have. Thus vital to release WP ASAP so that we can that our flagship product is ready on WIN 95 platform.

As dates were discussed Steve Wietzel said "all I ask is that this year my developer's will get a two-week vacation" Apparently vacations were canceled last year -- lots of joking about accruing time and not getting to use it.

TimeLine:

Goal is to have every group using TimeLine to manage the project. Within two weeks all of the development group's TimeLine's will be on the network. Marcus Lunt is training folks and making sure the places information is stored on the database are set up and communicated. Decision made to put design templates (and other templates) along with sample documents out on LIBWIN so that everyone always pulls down the latest template. Contact Marcus Lunt for license information to TimeLine (or talk directly with Linda Terrill), access to files, training, etc.

Code Names and Person(s) In Charge:

Bruce Brereton - Lead Developer
 Storm - PO - Gary Gibb and Todd Titensor - Marketing
 Thunder - WP - Steve Wietzel - Developer
 - Quattro Pro - Murray Low
 Lightning
 - Presentations - Shawn Reid
 Flash - Envoy - Dallas Powell
 Wind - PerfectFit - Tom Creighton - Developer
 Online Tools - Dennis Wilken
 Typhoon? - GroupWise - Rich Hume
 PO Select - Eric Meyers - Developer
 Interworks - Nolan Larsen, Jack Young, Randy Bliss - Developers
 Network Suite - Larry Barker

If you would like to attend development coordination meetings send an e-mail to the person listed above. I will continue to attend product marketing coordination meetings and distribute the notes.

Other Personnel Notes:

Documentation - Heather Nibley - Susan Zeller Project Manager - Linda Baker
Jack Young and Nolan Larsen are now the same - work closely together. Jack will remain our contact for Useability Lab. Right now there isn't anyone running it -- no admin, etc. But if we want to use the facility he is our point of contact.

Product Notes:

Number one priority for Storm is to be WIN 95 compatible.

Paradox is critical to future. (James, thanks for the questions.)

Implementing a few of the findings and research from Rosseau and other similar teams. To meet aggressive development schedule many of the Rosseau findings will be saved for next version.

InfoCentral will rev to v. 1.5 in April. A few interface issues change. The engine remains the same.

Exploring possibility of handling file and directory capabilities through Chicago folders.

Their best guess is that WIN 95 will slip and ship just in time for Comdex. Kind of hoping so since that will give us a bit more time to "polish" product.

Quattro Pro folks still working on International versions of QP 6.0. Expect to finish that by end of March and then will begin on next version of QP.

PO Select will include Paradox, Appware (v 1.2 will release in Brainshare time frame - March - will still work with current version of PO - v 2.0 will release this fall), Personal Netware.

Another category (not named yet) may include InfoCentral, InForms, PeachTree, TimeLine.

Are not sure yet whether QP and PR slide shows will change to be the same or whether they will remain as they are. (James, they appreciated this question!)

To know the proper way to refer to each product (is it WPWin 6.1 or WordPerfect for Windows 6.1 or ??) contact Todd Titensor or Chris Grazioplene.

Catherine's Action Items:

Send notes to Chuck, Alan, James, Kristi, Quinn, Pauline, Bryce, Kristen

Kari contact Marcus Lunt

Contact Heather - find out when and how writers in Doc. Services are getting information...

Get access to WPC21. Read MRD. Find out what .WBS Project means.

Contact Byron Brown to see who is representing Novell Education in the Strategy Council meetings for ISO 9000.

DX 221

From: Bruce Brereton
To: BU-Staff, BU-Mgrs
Date: 3/1/95 5:59am
Subject: *** Product Dates ***

** Confidential **

In an effort to make sure we are all in-sync with our product dates, I'm sending this message out to our group leaders. Please forward this with your teams. As you know, our current "plan of record" is that we would ship our Win95 products as follows:

- WP: September 15th
- Storm: November 30th (the Suite and the standalone products)

After further discussion and an analysis of several options, we feel it will be much better to have WP (which then implies PerfectFit, WPDRAW, and many other components) on the same schedule as Storm. Also, the QP team have examined their product deliver timeframe and feel December 30th is a more realistic date. THEREFORE, after reviewing this with Mark, Glen and others, we have moved **the Storm RTM date back by one month (to December 30th) and have put WP on the same time-line as Storm.**

Some Additional Comments:

1. We still have several assignments that are not yet covered (we are short by about 10 people). So we are looking at doing some relocations of our staff (a few assignments will be temporary and some will be permanent). I'll be working with the various development directors to come up with the best proposals and we'll be surveying our teams to see if there is any interest in the specific open positions. Also, we are committed to help out the QP team in any way we can (most likely PerfectFit and Win95 kinds of things). So please be aware that some of you will be asked to travel to Scotts Valley for short trips and may work on QP for some amount of time while here in Orem (FWIW, their location is beautiful).
2. We will be moving forward on an new release of the 16-bit PerfectOffice product (to be called 3.1). The intent of this release is to provide better Win95 support and to include a few enhancements. Eric Meyers will be coordinating this project and we do not expect this to be a major development effort. Also, we feel there should be no documentation changes (unless we choose to include a small flyer of the product differences). This release is targeted for July 15th.
3. We feel it is essential that we "sync" up many of our products to the July and December dates. This would include: all the products that ship with the Suite, the WP/SGML edition, and the other Windows versions of Envoy. WPDOS, WPMac, Select, and the Internet Professional edition, can be on a different schedule, however we realize the above date changes may effect these other products.
4. We are still very committed to delivering concurrent international releases of our products (including double-byte releases). Steve Tippetts' teams are spearheading this and I'd like each of you to continue to work diligently on this goal.
5. Given some of the recent changes with the ComponentWare group and now these additional staffing changes (mentioned in #1), we will be looking at some slight office moves. We are hoping to keep these to a minimum and we will probably not

have this finalized until mid-March.

6. Even though the dates have moved back (and for some teams it is significant), THIS DOES NOT MEAN WE WANT NEW FUNCTIONALITY. You should stay with the basic features you were planning on for Storm. We want this additional time to be used to insure better integration of the QP product, allow us to componentize more of our PerfectFit code, and (MOST IMPORTANTLY) insure we deliver a BUG-FREE and SPEEDY product. I know coding to make speed improvements can effect the software just as much as adding new functionality, so there will need to be a balance in what we do. Given these changes the Storm code complete date will be in about August. Let's take from right NOW until then to do our very best at following the Product Life Cycle and planning out our products in advance (having marketing, customer support, testing, documentation, and our development teams working together). If we do this, then from September to December we are just "fine tuning" the product. My hope is still that we can all have a nice summer vacation. Maybe the testing teams go in July (after the interim ships) or August, and the developers go in August (or maybe earlier, since I'm assuming many will be code complete with their individual pieces sooner than August), etc. I know things will probably change a lot between now and then, but work with your team leader on this item.

thanks, Bruce

***** Please remember this is confidential information *****

CC: MCalkins, GlenM, Dave, Stewart, Toddtr, Scooter, D...