

1 THE COURT: I know you all are working very hard on  
2 lots of things, but the jury is confused about the acronyms,  
3 and to the extent that you can give them some glossary of  
4 terms, they would appreciate it.

5 MR. JOHNSON: Unfortunately, we tried, Your Honor,  
6 and it has not been a successful effort. We will try again.

7 THE COURT: Okay. Well, maybe if they have things  
8 about specific ones, we will have them ask you and then we'll  
9 try to come up with an answer.

10 THE CLERK: Are we ready?

11 THE COURT: Oh. Oh. In terms of the -- I don't  
12 care, but it may be for completeness of the record, the  
13 figures, which really aren't exhibits, and nobody said they  
14 should be exhibits, maybe they ought to be marked for  
15 identification so that they are -- so that the record  
16 reflects what was being shown on the screen. Thank you.

17 MR. JOHNSON: Sure.

18 (Jury brought into the courtroom.)

19 THE COURT: We talked but giving you all a glossary,  
20 and that may not turn out to be possible, so I know that  
21 there are all kinds of acronyms being used in terms. If you  
22 could tell Theresa specific ones that you're having questions  
23 about, then I can go over those, at least, with counsel and  
24 try to answer -- tell you what they are or maybe have them  
25 explain what they say. So, that's not as perfect as having a

1 general glossary, but there is an awful lot of information to  
2 absorb, so if you've got questions, tell Theresa.

3 What's an API? Without giving -- what's that mean?

4 MR. JOHNSON: Application programming interface.

5 May I proceed, Your Honor?

6 THE COURT: Yes.

7 MR. JOHNSON: Thank you very much.

8 Mr. Goldberg, if you would put up figure 8, please.

9 A technical glitch, Your Honor, momentarily.

10 THE COURT: I'm curious, but will refrain from  
11 asking whose product you're using.

12 MR. JOHNSON: It's right there. It's on the screen,  
13 Your Honor.

14 THE COURT: Oh, good. That figured.

15 Q. BY MR. JOHNSON: All right, Mr. Harral, can you tell us  
16 what this is a picture of?

17 A. This is a picture of the -- we had looked at the file  
18 viewer in Windows 3.1. This is the next generation of the  
19 file viewer. It's what they call the explorer. It let's you  
20 look at your different places on your disk and other things  
21 for further information, as well as some other things.

22 Q. So, is this the explorer for Windows 95?

23 A. It is.

24 Q. Have you ever heard of the term NameSpace extension  
25 API's?

1 A. Yes, I have.

2 Q. Generally, can you tell us what was this functionality?

3 A. NameSpaces are what the explorer -- or what Windows 95  
4 is showing to you. Your -- when you go into the -- into  
5 Windows 95, and you are looking for your documents or  
6 settings or other things, NameSpaces are where those things  
7 could be stored or found. So, when we looked at the -- at  
8 the background, and it had my computer, and I said you could  
9 put documents there, that's a NameSpace.

10 It's a place where things live. And places can have  
11 other places inside of them. So the -- so every place inside  
12 of Windows is a NameSpace. They use that term because they  
13 didn't want to call them -- I'm telling you how I interpreted  
14 this. They didn't want to call them files because you may be  
15 looking at mail messages. You may be looking at on the web,  
16 some place. And it would have been misleading to have used a  
17 term that would make you think of only living on your disk.

18 And so those are NameSpaces. NameSpace extensions,  
19 then, are how you plug in new places. So, if I wanted to let  
20 you see your e-mail messages in your inbox, right off of your  
21 desktop, I would try to extend the NameSpaces and make it so  
22 that my mail system would put those things on your desktop.  
23 So that's a name -- in general, NameSpace extensions allow  
24 you to add in things into the -- into the view that you have  
25 for the desktop.

1 Q. Okay. And can you describe that with your pointer with  
2 reference to what is shown on the screen?

3 A. Okay. So, I talked about different -- here's our C  
4 drive again, and here's the different file folders, and  
5 here's the D drive. So these are -- these are real drives,  
6 traditionally in DOS. So these traditionally in the file  
7 system and in DOS, we think about these as the floppy drive  
8 and the hard drives.

9 But one of the great things here is that now we're  
10 trying to bring all these things, all these different places  
11 together because, really, all I want, is I want my documents,  
12 or whatever I'm working on. I don't want to care which place  
13 they are. And so they brought these things together. We  
14 have this thing called the network neighborhood. That is a  
15 NameSpace because it's bringing all those network places we  
16 talked -- that I talked about before in one place.

17 And that's significant because, in -- in companies  
18 that WordPerfect had dealt with, there were actually many  
19 network providers, so, Novell that I mentioned was one.  
20 Banyan VINES was another company that was a network provider,  
21 and people would choose which network they had and purchase  
22 that. The nice thing about network neighborhood is that you  
23 could even be running both of those networks, but here you  
24 could just see the network places and not care which network  
25 you were on.

1           So we're moving more towards what -- what is the  
2 information you want to find and less worried about how am I  
3 getting there.

4           The recycle bin here is another place. The recycle  
5 bin actually lives on all of these drives, but they are  
6 giving you a single view that, when I delete something, it's  
7 going to go here, and you don't care which drive it's on. If  
8 you want to go and bring it back, you can. So that's the  
9 importance. The NameSpace is hiding this complexity and  
10 giving you a view that is more useful for what you want to  
11 do.

12           Briefcase, down here, that's also a NameSpace  
13 that -- it looks like a regular folder, but it's going to  
14 give you an additional feature that you're not used to  
15 previously in DOS, which is, it might be also linked to a  
16 document out on your network, and it might be actually  
17 bringing a copy down so when you close down your laptop and  
18 get off the network you can still see that document.

19           And so just these different concepts here, different  
20 features that may be had been available in a number of places  
21 before, but now bring them together in a way that people can  
22 find the information without having to worry about programs  
23 and network technologies and things like that.

24 Q.       The pane on the left-hand side, that you were pointing  
25 to there, does that have a name?

1 A. This -- we usually -- well, I usually call it -- it's  
2 the tree view because it's like a tree, but there's a lot of  
3 names I guess it could be.

4 Q. Why do you call it a tree?

5 A. Because a computer software term, are about when you  
6 link information together, they call them trees and because  
7 you take one element and you tie other elements to it, so  
8 when you draw it out on a white board, like software people  
9 are often known -- wanting to do, it branches out and so it  
10 looks like a tree. It's a graph of the different places and  
11 how they connect.

12 Q. And what about the pane on the right? What would you  
13 call that?

14 A. Well, this is the content view. So, what we're doing  
15 is -- these two are tied. The tree over here is -- I can go  
16 and manipulate these pieces, these little plus signs, I  
17 can -- here you can see I opened up this C drive so I can see  
18 these pieces here on the D drive. It's got a little plus. I  
19 haven't opened it up, so I can't see it. So I can manipulate  
20 this. And this little program file is open. It has a little  
21 open folder. What they are trying to convey here is, they  
22 have pressed on this program files, and then this view is  
23 linked to this tree and so it's actually showing me what is  
24 inside of this folder over here. So the two have a  
25 relationship to each other.

1 Q. So, what would a third-party developer use these  
2 NameSpace extension API's to do?

3 A. Well, so, based upon what I think my customers might  
4 want, I am interested in working with my files. If my  
5 brother were working on a graphics, he might have over here  
6 in this view, he might have all of his documents that he's  
7 working on for ads for different agencies. But if he is  
8 often working on bringing these document graphics library --  
9 you can purchase hundreds of thousands of images. A company  
10 might do that if they are in advertising.

11 And if I wanted to have those easily accessible,  
12 then the goal, from my experience and perspective, is I want  
13 people to be able to live here because that's what we are  
14 trying to do. We are trying to make it so that you don't  
15 know the technologies, you just see your information, and so,  
16 I am trying to -- if I am working on documents, I want to  
17 find them here and so there might be something in here called  
18 my documents, and I want to go down and get my documents.

19 Well, I'm also -- if I have a graphics library, and  
20 they put that out on a server, a database, so that you can  
21 easily go in there and you can say the database is a tool  
22 that can store information, but it keeps statistics about  
23 information. So if you wanted to say, I want to find all the  
24 pictures that have hats in them, different kinds of hats,  
25 you -- in a graphics library, if it were in a database, you

1 could go in and ask it a question, and if it had stored that  
2 information, you could quickly find all the pictures that  
3 have hats in it.

4 Well, you don't have a database on your C drive,  
5 necessarily. It might be stored on the network somewhere  
6 where everybody can get at it. You don't want all that on  
7 your laptop because you wouldn't have room for anything else.  
8 And so you what you might do is you might then say, well,  
9 fine, I'm going to put a NameSpace, an extra one, down here.  
10 Maybe I have a thing called my images or graphics. And  
11 that -- that would look like a little thing down here like  
12 recycle bin. I mentioned recycle bin doesn't live on one  
13 disk. It's actually a bunch of disks, whatever ones you want  
14 it to keep files for.

15 I could have another one down here that would --  
16 actually, when we go and click on it, this pane here wouldn't  
17 be -- the view here wouldn't be showing you files, it would  
18 actually go out to the database and say, get me a list of all  
19 the graphics and it might fill this out. And the point here  
20 is that we are bringing all of the things that you're after  
21 into the same place where you got the documents and so the  
22 whole focus here is to bring everything you want into this  
23 one way of doing things so that it's very easy and  
24 predictable to the user.

25 Q. So, was adding new NameSpaces to the Explorer important



1 to Novell's development of products for Windows 95?

2 A. It was a -- it was a key element of moving into Windows  
3 95.

4 Q. And why do you say that?

5 A. Working for the shared code, we were in the business of  
6 drawing out pieces of work that WordPerfect Corporation and  
7 Novell had done and putting them in a -- understanding that  
8 we weren't -- we weren't the only tool out there. We -- if  
9 you wanted to -- if you wanted to go and get maybe documents  
10 off the web, okay, we didn't necessarily have a tool to do  
11 that. There were other tools at WordPerfect. We might  
12 encounter things that weren't part of our product.

13 So we were in -- we were constantly in shared code  
14 looking at ways that would solve needs of our customers, and  
15 we knew that those things didn't have to do always with us  
16 and that were -- but this is -- these are the tools that the  
17 customers wanted and so that's why we broke out the spell  
18 checker. If somebody licensed the shared code, they would  
19 have a spell checker in them. They could put it in their  
20 product.

21 We were in the business of providing features to  
22 people that weren't necessarily WordPerfect. And so,  
23 wherever people were going to live, we were wanting to put  
24 those features where they would live. And so, we were  
25 looking at the Windows 95 shell, and bringing all this

1 information together in one place, meant that people were  
2 going to want to live here because it was very consistent in  
3 how it presented information. It was very consistent in how  
4 it acted, and so we wanted to -- to evolve our product to  
5 Adopt these ways of looking at it.

6 Anybody who moved to Windows 95, they were basically  
7 saying, I want to work this way.

8 And so now the question is --

9 MR. TULCHIN: Objection, Your Honor.

10 THE COURT: Sustained.

11 MR. TULCHIN: I don't know how he can speak for all  
12 people.

13 THE COURT: Sustained.

14 Q. BY MR. JOHNSON: You can't speak for all people.

15 A. Sorry. So, our customers wanted -- if they bought  
16 Windows 95 --

17 MR. TULCHIN: Same objection, Your Honor. Sorry to  
18 interrupt.

19 THE WITNESS: Sorry.

20 MR. TULCHIN: Unless he has this information. I  
21 apologize.

22 MR. JOHNSON: And, Your Honor, I think he's familiar  
23 with his customers.

24 THE COURT: Well, let's find out.

25 MR. JOHNSON: Okay.

1 Q. BY MR. JOHNSON: Go ahead, Mr. Harral, talking about  
2 the customers at WordPerfect here.

3 A. The customers of WordPerfect and the support questions  
4 that we had to field for them.

5 Q. Okay. Go ahead.

6 A. Okay. That, for the ones that were speaking for  
7 customers of WordPerfect Corporation that were telling us  
8 that they would want to move to Windows 95, their base --  
9 they are buying into this technology. They are going to be  
10 living this way. And so, for us to be able to bring forward  
11 features that they have come to expect in us -- they stayed  
12 with our company because we continued to provide those things  
13 that they wanted. We weren't breaking the work that they had  
14 done before.

15 So, we knew that, in the -- in the shared code, we  
16 needed to be able to evolve our technologies to work in these  
17 places in the same ways that every other shell extension was  
18 working.

19 Q. Okay. And what sorts of new NameSpaces did Novell plan  
20 to add to this tree view?

21 A. So the NameSpaces and shell extensions that we were  
22 planning to add are -- our presentations product had a  
23 graphical library that was a database. And we wanted to  
24 present it as in the view so that they could see those  
25 pictures directly. We had a document management system that

1 we were were also putting out with our product. That also  
2 puts documents in the database and so we would want it to  
3 be -- we would want them to see them as these files. We  
4 wouldn't want them to have to go and do something different  
5 than they were presenting here.

6 We had a mail product, and the mail group was  
7 interested in having their -- your e-mail messages presented.  
8 Or another concept was, you might go to a NameSpace, and all  
9 it would show you were all the attachments of your -- of your  
10 e-mail, so you wouldn't have to go hunt through your e-mails  
11 to find where's that, you know, picture, that Grandpa sent.  
12 You could -- it would then just go and show you just the  
13 things that were attached. You knew that's where it was at,  
14 it was in my mail, so you could -- so it would filter the  
15 information so you could get to what you wanted.

16 Those are some of the NameSpaces that we were  
17 looking at.

18 Q. So, if you -- if you added these new NameSpaces to the  
19 Windows Explorer, would they be available for users in other  
20 places?

21 MR. TULCHIN: Objection. Leading, Your Honor.

22 THE COURT: Yeah. That's okay. Go ahead. He's not  
23 suggesting the answer. Go ahead.

24 THE WITNESS: Okay. Because the shared code had  
25 partners outside of WordPerfect, and because we realized that

1 we had conversion technologies of being able to -- we could  
2 open up WordPerfect documents and save them. We could open  
3 up Word documents and save them. We could open up Word Star  
4 documents and save them. We could open up different  
5 graphical formats. We were about dealing with people's  
6 information beyond our products, and so we had every  
7 intention of putting the shared code technologies into the --  
8 onto the customer's computer in a way that they weren't just  
9 going to search for WordPerfect documents in WordPerfect. If  
10 they wanted to do a search, they could search an entire  
11 system for all the WordPerfect and Word documents and Word  
12 Star and everything else that they wanted to.

13 The question isn't about WordPerfect's products at  
14 that point. It's about, what do users want to do, and can we  
15 give them the tools to provide that?

16 So, every extension that we were planning on using,  
17 if you wanted to put your clip art inside of your Word Pad  
18 Editor, which, you know, is a product that let's you write  
19 text, right out of Windows 95 -- you know, it ships with the  
20 operating system -- you could still grab WordPerfect's clip  
21 art that you, you know, were familiar with and drag it over,  
22 and it would put it inside of Word Pad. So all of the shared  
23 code technologies were intended to go into the operating  
24 system for using every single product installed on the  
25 platform.

1 MR. JOHNSON: Mr. Goldberg, could you put up figure  
2 9, please.

3 Q. BY MR. JOHNSON: Mr. Harral, could you tell us what  
4 this is.

5 A. This appears to be the common open dialog box for  
6 Windows 95.

7 Q. And you spoke of it being the common file open dialog.  
8 What do you mean by that?

9 A. The operating system tries to provide -- just like  
10 shared code, and more so, it provides things that are -- are  
11 commonly done with programs. Lots of programs open files.  
12 Lots of programs create directories. Lots of programs need  
13 you to type in something to search. And so, the operating  
14 system, for two reasons that -- you know, at least two  
15 reasons that I can enumerate, would provide common -- these  
16 common things so that every program can use them.

17 It -- it helps the developers get product to market  
18 more quickly. And, at the same time, because it's easier for  
19 them to use, it imposes the standards of the operating  
20 system. So, because you -- I want -- I go into Word Pad to  
21 type. I want the open dialog to have the same behavior and  
22 look as going into another product and so this is the way,  
23 this is a way that the operating system can help all of the  
24 applications, all the programs that run on it to have a  
25 common way that they feel and a common way that they act.

1 Q. So, if WordPerfect had used the NameSpace extension  
2 API's to add a new NameSpace, would those new NameSpaces show  
3 up here in this common Windows 95 file open dialog?

4 A. Yes.

5 Q. And can you point to where they would show up, these  
6 new NameSpaces Novell had created?

7 A. Well, so here we see the my network places. And that  
8 is a NameSpace. We see the desktop, and that is a NameSpace.  
9 And so, you can install NameSpaces. This one is underneath  
10 this other one, so that they don't have to always be at the  
11 top. You can install them where they are convenient for the  
12 user to find. But they would -- so, if I were -- just off  
13 the top of my head, I could pick a place and I could put them  
14 at the same places underneath my network places there might  
15 -- there would be another one here that I could put in, which  
16 might be my e-mail documents, for example.

17 Q. And would it have been important or not for  
18 WordPerfect's new NameSpaces to appear in this Windows common  
19 file open dialog?

20 MR. TULCHIN: Leading, Your Honor. Objection.

21 THE COURT: Sustained.

22 MR. JOHNSON: Let's take a look at figure 10,  
23 Mr. Goldberg.

24 Q. BY MR. JOHNSON: Mr. Harral can you tell us what this  
25 is?

1 A. This looks like -- it could be -- well, it's similar.  
2 This looks like the file open in Windows 95, although it  
3 could be the file manager. They are very similar.

4 Q. For what product?

5 A. For WordPerfect Office, so PerfectOffice 3.0, I think,  
6 on Windows 95.

7 Q. Okay. So, this is the file open dialog, then, for  
8 WordPerfect?

9 A. Uh-huh.

10 Q. How does this differ from the common file open dialog?

11 A. Okay. So, well, going -- actually going from top down,  
12 the first thing is the menu. This is -- in the previous  
13 dialog, there were all of these buttons that were pointing  
14 out with view and network and things like that. The features  
15 of the file open dialog for WordPerfect were very robust, and  
16 so, at the top, there is the menu. There are lots of options  
17 in there because those features need to be brought forward.  
18 The tool -- the tool bar down next is -- and what we're doing  
19 is we're moving all of the features from that older style  
20 into the way that people are used to seeing them in Windows  
21 95.

22 But now we have commonly used features right at the  
23 top there because we're -- this is, again, if you are -- if  
24 you're a user that wants to live in the Windows shell, you're  
25 going do to these things in the Windows shell. If you're a



1 person, you know, coming from WordPerfect that you are used  
2 to living in the open dialog, we don't want them to have a  
3 diminished capacity or experience, and so we are now evolving  
4 the open dialog so that it does not lose those features that  
5 they have come to expect.

6           That's why we're -- you can see, under -- sorry. I  
7 should go to this now. So, after the tool bar, we have  
8 different features that you might be looking for, finding  
9 files, finding content. There was no preview inside of the  
10 Windows 95 dialog. There is one here because we had that  
11 coming forward, information just being provided. Here's our  
12 tree view, which is like we had in the open dialog. Here's  
13 the list of the files. But we still have that list of  
14 commonly used places because that's what people have come to  
15 expect. So, we can't -- going forward, we've got the task of  
16 adopting what is new and innovative, and, at the same time,  
17 not losing all the people that have made an investment in our  
18 product in the past, to help them come forward and be  
19 comfortable and productive in this environment through our  
20 products.

21 Q.       So, Mr. Harral, if WordPerfect then used the NameSpace  
22 extension API's provided by Microsoft to add new NameSpaces,  
23 would they appear in this file open dialog of WordPerfect?

24 A.       Yes, they would. Wherever we had placed them. And  
25 they would have appeared in the common open dialog. They

1 would also appear here.

2 Q. So they would appear both places?

3 A. Yes. That is correct.

4 MR. JOHNSON: Mr. Goldberg, could we take a look at  
5 image 11.

6 Q. BY MR. JOHNSON: So, we have circled in red here what  
7 you identified here earlier as the tree view. Using the  
8 NameSpace extension API's, would WordPerfect have been able  
9 to include the new NameSpaces being offered by Microsoft that  
10 you looked at earlier, network neighborhood, recycle bin and  
11 my briefcase?

12 A. They would appear here as well.

13 Q. And why was that important?

14 A. Because, as I said before, people who are buying  
15 Windows 95 are adopting what it's bringing. They are buying  
16 it. When people buy Mackintosh, they want that experience.  
17 When people buy Windows 95, they are asking for that  
18 experience. They -- Windows 95, in every application, is  
19 going to have the ability to show the network neighborhood,  
20 the recycle bin, the -- you know, if they have a briefcase,  
21 or whatever other ones come along. If you have a -- you have  
22 a place where you have archived your files, so that they  
23 are -- because you don't use them very often -- we call them  
24 compressed folds. And if you have those, you can't  
25 usually -- you need a program to open those up. They can

1 appear as NameSpaces so you that think they are just regular  
2 files so it doesn't get in the way. All of those can be  
3 NameSpaces, and a person using Windows 95, they are going to  
4 expect to find those things and how they behave. What  
5 happens when I press my mouse on them? What happens when I  
6 press, this, you know, the enter key on my keyboard when I'm  
7 on that?

8 All of those -- all of those behaviors are  
9 standardized in this operating system, and to be inconsistent  
10 with that would be to induce confusion with the user of a  
11 product. And so, if they could find my network neighborhood  
12 out on the desktop and they could access the files through  
13 network neighborhood and map drive, so basically find places  
14 on the network and move things around on the network, and  
15 when they come into WordPerfect, they better be able to find  
16 network neighborhood because they have learned how to use it.

17 We are not trying to teach them a new way. We are  
18 trying to leverage the knowledge so they can get on and do  
19 what they want to do.

20 Q. And does the WordPerfect's file open dialog here also  
21 have a contents pane, as you described earlier on the common  
22 file open dialog?

23 A. Yes, the pane on the right here, would be the contents  
24 pane.

25 Q. So when you clicked on one of the new NameSpaces, would

1 the contents appear in that pane?

2 A. Just the same as it would inside of the Windows 95  
3 Explorer.

4 Q. A little earlier, you were pointing at those tabs at  
5 the top that say open, find file, find content, find by form.

6 Let's go to figure 12, Mr. Goldberg.

7 Which has brought up the tab, find file. Could you  
8 tell us about that.

9 A. One of the technologies that WordPerfect made great use  
10 of what was they called Quickfinder. They employed people  
11 who were -- who had a lot of knowledge about file, search and  
12 linguistics, and so this is the presentation of the  
13 Quickfinder inside of the file open dialog box.

14 Q. And was Quickfinder a differentiation feature compared  
15 to Microsoft's Word?

16 A. I am unaware in Word of a find feature like  
17 Quickfinder, where we could -- you could traverse all -- you  
18 know, traverse the documents on your machine regardless of  
19 whether they were WordPerfect documents or not or whether  
20 they were even -- in Windows 95, you had -- you had to teach  
21 it about your file and so that it could -- so it could show  
22 you, oh, this is a Word document, or this is a graphical  
23 document. You have to teach it about these documents.

24 The Quickfinder ignored those boundaries and would  
25 actually go in -- so you could name the files whatever you

1 wanted to, which is a good thing, because when -- when DOS  
2 came along, there were no restrictions about how you could  
3 name your document, and as -- as these -- as the operating  
4 system evolved, you would program -- programs would try to  
5 recommend the way that people would name documents, but we  
6 understood that people had lots of documents that didn't  
7 conform to that. And so our technologies, in WordPerfect,  
8 were made to try and -- if I wanted to find all of the  
9 WordPerfect documents that were -- were written last year and  
10 had something to do with, or had mountain or landscape or  
11 something in it like that, then I could do a search, and it  
12 would not ignore any -- any documents just because it said  
13 that they were -- you know they belonged to AMI Pro or it  
14 could even say that it was graphic, even if it was really --  
15 it had been misnamed, it would still find that and so, yes,  
16 we felt that this was very much a differentiating technology.

17 MR. JOHNSON: And if you would go to figure 13.

18 Q. BY MR. JOHNSON: That's bringing up the find content  
19 tab. What was that?

20 A. So, in the find file, they are actually looking at the  
21 file names and the find content and actually looking at the  
22 text inside of the -- inside of the document.

23 Q. So is this another aspect of Quickfinder?

24 A. It is.

25 A. MR. JOHNSON: And what about the next image,

1 Mr. Goldberg.

2 Q. BY MR. JOHNSON: This find by form, is that also  
3 another aspect of Quickfinder?

4 A. It is. What you're -- inside of files, you can do  
5 things -- there's information that you could store that  
6 doesn't print in your file. You can know who was the last  
7 person that edited the file, what were their initials. You  
8 could have notes about the file that would maybe show up when  
9 you were doing the file open but, you know, things that you  
10 were using to catalog the information and make it easy for  
11 you to find but is not supposed to be there when you print  
12 the document or when you show it to people.

13 And this is a find that is going to -- if I were to  
14 tell it to find by form, and I said mountain, it could look  
15 in the WordPerfect document in the notes, and it could say,  
16 well, is mountain here? But it could also look inside of a  
17 picture that you took, and if you had inside the picture --  
18 there are tags you can put on the picture that say where you  
19 took the picture or you could put your own notes, and it  
20 could look in picture for mountain, too, just across whatever  
21 files it was looking at.

22 Q. So, in doing these searches, if you had used the  
23 NameSpace extension API's to add all these new NameSpaces,  
24 both Microsoft's and WordPerfect's new NameSpaces, would a  
25 user have been able to search through all those NameSpaces

1 for this information?

2 A. Yes. The nice thing about the NameSpaces is that they  
3 were -- they were giving the programmers also, not just the  
4 users, but the programmers a way to look at all of these  
5 files in a common way. So, Quickfinder here, if it wanted to  
6 go look for graphics that had mountain in it, it could go and  
7 look at files on the disk, but if it was a NameSpace, they  
8 would go and went and looked at the database that had images  
9 in it, it could still -- to it, it just looked like a  
10 collection of graphics, and it would just go into it. It  
11 wouldn't know if there was a database on the back end that  
12 was, you know, shuffling and searching and pulling things  
13 out.

14 And so the NameSpaces were a great enabling  
15 technology, even within the applications as well.

16 Q. Mr. Harral, during the Microsoft's opening in this  
17 case -- that's when Microsoft's lawyer talks to the jury  
18 about what the case is all about -- he described what he  
19 thought, quote, the NameSpace extensions are all about, close  
20 quote.

21 He described two ways in which ISV's could launch  
22 their applications, including putting a shortcut to their  
23 applications in the start menu or putting a shortcut icon on  
24 the desktop. Microsoft's attorney told the jury yesterday  
25 that -- or two days ago. Excuse me -- that what Novell says

1 it wanted, what Novell says it was entitled to through the  
2 NameSpace extensions was a third way, a way that would allow  
3 users to get to WordPerfect and Quattro Pro from the Windows  
4 Explorer, close quote.

5 Is that an accurate description of the functionality  
6 of the NameSpace extensions?

7 A. For what we intended, it was not an accurate  
8 representation. It -- there -- you can do those things that  
9 were stated, but to -- at this point, we are not launching  
10 applications. It's not about applications. It's about user  
11 information. That's what an object-oriented operating system  
12 is about. So, people concentrate on what they want to do.

13 The briefcase, for example, synchronizes. It's not  
14 considered an application. It's -- it is -- it is a feature  
15 that happens there to move information around. The user is  
16 never presented that they are even really dealing with  
17 another application. If WordPerfect had moved its clip art  
18 libraries out to a NameSpace, then all we were doing was  
19 giving people the ability to see those files. If people had  
20 created their own clip art library, like a third-party  
21 developer, you know, you wouldn't even know that WordPerfect  
22 was there at that point.

23 This was about getting our operating system  
24 technologies that we had built up on top of operating systems  
25 to people so that they could use them everywhere. And from



1 the shared code group, if the person here were a WordPerfect  
2 developer, he would give a different answer because, inside  
3 of a company, each person who is speaking, they have the  
4 intent of working on the software and the pieces that they  
5 are charged with, but from a shared code perspective it  
6 was -- we had no intention -- we weren't owned by a product.  
7 We weren't owned by an application. We could work with other  
8 people outside of the company.

9 Our intent was that when we sold licenses to  
10 somebody outside the company, just as much as inside that,  
11 when they installed our products, if we were putting  
12 technology on that computer, it was going to work everywhere  
13 so that we could get wherever they lived, it was there.

14 Q. Did Microsoft promote the functionality given by the  
15 NameSpace extension API's to WordPerfect?

16 A. Yes, they did.

17 Q. Did WordPerfect have a goal in mind with respect to the  
18 time of release of its Windows 95 products?

19 A. Yes, it did.

20 Q. And what was that goal?

21 A. To ship within 90 days of the release of Windows 95.

22 Q. Have you ever heard of the first wave program?

23 A. Yes.

24 Q. And what was that?

25 A. For applications that were working with Microsoft and

1 criteria that were set forth, that they would meet that  
2 criteria, whatever. I don't have the criteria here to  
3 enumerate, but there was criteria set forth about how the  
4 application would behave and what it was supposed to -- what  
5 technologies it would try to take advantage of in Windows 95,  
6 and it would release within a certain time frame of the  
7 release of 95.

8 Q. So there was a goal for first wave participants with  
9 respect to time of release?

10 A. Yes.

11 Q. Okay. And was that consistent with WordPerfect's own  
12 goal in that respect?

13 A. Yes.

14 Q. Was WordPerfect a participant in the first wave  
15 program?

16 A. Yes, it was.

17 Q. We talked about evangelism events in general. Did  
18 Microsoft ever visit WordPerfect to specifically promote its  
19 Windows 95 operating system?

20 A. I was aware of one time that they did that.

21 Q. So you personally met with Microsoft?

22 A. I personally met with Microsoft representatives for  
23 Windows 95 adoption.

24 Q. Mr. Harral, could I turn your attention to Plaintiff's  
25 Exhibit 105, which is in the binder in front of you.

1 Mr. Harral, have you seen this before?

2 A. I have seen this paper before.

3 Q. And did you attend this meeting with Microsoft in 1993?

4 A. Yes, I did.

5 Q. And do you recall the purpose for Microsoft's visit on  
6 this particular occasion?

7 MR. TULCHIN: Objection, Your Honor, for the witness  
8 testifying as to Microsoft's purpose. Maybe he can testify  
9 as to what he was told.

10 THE COURT: Just rephrase the question.

11 MR. JOHNSON: Sure, Your Honor.

12 Q. BY MR. JOHNSON: Do you have any understanding of  
13 Microsoft's purpose in visiting WordPerfect on this  
14 particular occasion?

15 A. There were -- there were at least two discussions.  
16 There were many people there. There were two discussions  
17 that I would state were key for what we were talking about.  
18 One was the general adoption of Windows 95, but, secondly,  
19 the purpose that we were told, for this meeting, was to go to  
20 the next level and how we could be a great Windows 95  
21 application. And so that -- that centered around a couple of  
22 things.

23 One was that we would adopt the look and feel of  
24 the -- of the new operating system. And that meant that, if  
25 they had -- like I mentioned before, if they had a way that

1 you wanted to pick a color, we were using their way of doing  
2 it. If you were clicking some place with your mouse, would  
3 it do the same thing that they were wanting it do in other  
4 places? And then -- so that was one side of it.

5 The second side was, we were then -- especially in  
6 the shared code group, we had these technologies and so the  
7 question kind of from the representatives there was what are  
8 you planning to do? And it was kind of. It was a forum and  
9 so we talked about the things that we felt would allow us to  
10 bring our technologies and make them congruent with the way  
11 that Windows 95 was trying to approach its users.

12 We could see that there were -- the shell was the  
13 main thing that they were going to see, and so there were  
14 other things that were being rewritten that were useful to  
15 programmers underneath; how it managed the memory of the  
16 machine and how it talked to its graphics card and stuff like  
17 that. But we were focused on, what were the people who  
18 bought this product, how were they going to interact with it.

19 And so, we talked at length with these  
20 representatives about the document management system that we  
21 had, so that we could service it so that it would be a part  
22 of Windows 95, it would work the same way, basically as like  
23 the briefcase is represented. We had our clip art  
24 libraries. We had -- we mentioned the fact that we wanted to  
25 that hook in Quickfinder and how we could do that.

1           There were representatives -- as I said, we  
2 didn't -- we didn't own all of the pieces of the shared code.  
3 Some of those came from other places, and we would ship them  
4 out. We didn't own the Quickfinder, but we were the one that  
5 distributed the Quickfinder to everybody. So, there were  
6 other representatives from other teams that were also there  
7 and interested, and they also talked about some of the ways  
8 that they could add ability to the Windows 95 shell when our  
9 products were installed. --

10           So, searching, the viewers that we had, having  
11 previews. We were interested in having -- putting our  
12 viewer -- when you go and touch your files, the viewer could  
13 be there so you could say, well, I want to see what this file  
14 looks like without having to launch an application and so  
15 that -- you know, because it takes a long time sometimes to  
16 launch applications when we are just trying to look for  
17 something. So, being able to go around and look for things,  
18 that would be something we were interested in.

19           They had property sheets that gave you more  
20 information on the files that you looked through. And so we  
21 wanted to make sure that we would be able to -- the  
22 information that were putting in our file open dialog, when  
23 we gave this information, we wanted to make that available as  
24 well. So there were a number of technologies and people  
25 interested at WordPerfect and even inside shared code.

1 Q. Well, what, if any, connection is there between adding  
2 these functionalities to Windows 95 and the NameSpace  
3 extension API's?

4 A. That was -- the NameSpace extensions and the shell  
5 extensions would be the way we would have to hook this in, so  
6 that anybody who was living in the shell, as opposed to  
7 living in our products, could find and utilize the features  
8 that we were giving them in.

9 Q. This e-mail, this Exhibit 105, is actually from a  
10 Microsoft -- a Mr. David Cole talking about the visit with  
11 you all. And he states in that e-mail that the Microsoft  
12 developers went to WordPerfect last Thursday to talk to you  
13 about what Microsoft thought a good Chicago application was.

14 Now, do you recall any of those discussions?

15 A. I do recall this meeting.

16 Q. And can you tell us about anything in particular, with  
17 respect to what they thought a good Chicago app was?

18 A. I described some of the things that we were going to  
19 do. They felt that those were necessary. They were very  
20 excited that -- they appeared trepidatious, a little bit,  
21 coming into the meeting, and I think they were surprised  
22 about how excited we were that we could -- because we weren't  
23 talking about -- we weren't talking about how WordPerfect  
24 just was going to be a good app, but we were talking about  
25 how we were going to enhance the user experience in general.

1           And they appeared excited that -- it's the hope of  
2 every -- every developer that I have dealt with, that when  
3 you work on something, that, one, you understand that the  
4 people are going to use it in a hundred more ways than you  
5 ever thought that they would and that those ways are more  
6 useful than they ever envisioned. And you are excited when  
7 you see that that comes to pass. And then that was the kind  
8 of excitement that was in the room there, that, you know,  
9 they're working on the Windows shell. They are trying to get  
10 it out. They are trying to make this leap.

11           And when we were talking together, then we are  
12 telling them, yeah, there are things that we can do here.  
13 There are features that we can add. There are ways that  
14 we can expose what we do and change what we are doing so that  
15 it conforms to what you are trying to -- to present to the  
16 users through this new interface and new way to look at  
17 information, that PC users did not traditionally have. So  
18 they were very excited -- we were all very excited about  
19 these possibilities.

20 Q.       In the second paragraph, Mr. Cole writes that these  
21 guys will bet on Chicago, and they have never had any doubts  
22 about that.

23           Do you think Mr. Cole correctly described  
24 WordPerfect's attitude toward Chicago?

25 A.       Yes. It was -- Chicago was -- as far as a

1 where-people-lived kind of approach to a program, Chicago was  
2 exactly the kind of forum that we needed to be able to get  
3 our technologies out of just being part of a WordPerfect  
4 application and getting them to where they were usable by our  
5 customers everywhere, no matter how they decided to work.

6 Q. Mr. Cole writes, further on in this e-mail, quote: "It  
7 was interesting to see how enthusiastic WordPerfect was about  
8 Chicago, much in contrast with the ho-hum attitude of our own  
9 apps group." Close quote.

10 Strictly with respect to what Mr. Cole said about  
11 WordPerfect, do you agree that WordPerfect was enthusiastic  
12 about Chicago?

13 A. We were very enthusiastic about it.

14 Q. Now, looking a little further down in this e-mail,  
15 Mr. Cole states that they, meaning WordPerfect, were very  
16 happy about us deciding to document the shell extensions.

17 Do you recall being told by Microsoft at this  
18 meeting that they had decided to document the shell  
19 extensions?

20 A. Yes. It was one of the reasons for the meeting, was  
21 gathering the -- and even -- and we would not have had more  
22 than half of the conversation if that was not happening.

23 Q. So, half of the conversation concerned these NameSpace  
24 extension API's?

25 A. Yes.



1 Q. Did Mr. Cole accurately describe your feelings as being  
2 happy regarding Microsoft's decision to document the shell  
3 extensions?

4 A. We were -- we were ecstatic.

5 Q. From your years working in the software industry, do  
6 you have any understanding of why an operating system vendor  
7 would provide you with these API's?

8 A. Because -- so, going back to my experience, I've  
9 worked -- I've worked on other operating systems, and I can  
10 say that, on every operating system that I have worked on,  
11 that their success was greatly determined by not the  
12 operating system but by the applications that were written on  
13 that operating system. So, it's not that you -- you know, on  
14 the Mackintosh, you might like the pretty graphics, but if  
15 you can't edit a document in a way that's comfortable,  
16 it's -- okay, it's a pretty door stop at that point.

17 The extensions are -- were key for us in being  
18 able -- the extensions were key for us being able to provide  
19 to the users all these features.

20 Q. Mr. Cole goes on and says that he explained, quote,  
21 "conceptually how the extensibility would work and what  
22 controls they'd have." Close quote.

23 Do you recall that discussion with Mr. Cole?

24 A. Yes.

25 Q. And would this have included the functionality provided

1 by the NameSpace extension API's?

2 A. They discussed how they would work and that we would  
3 have the information at a later time to be able to deal with  
4 the details. So, at that point, they were demonstrating what  
5 they were -- what they were doing and planned to do and that  
6 we would continue the discussion later on to get the  
7 information so that we could -- we could further explore how  
8 we would have -- what we would have to do to be able to get  
9 our technologies onto the Windows 95 platform.

10 Q. Mr. Cole goes on to say, quote, "Since they just  
11 acquired a document management system, I forgot from who, I  
12 assume they will want to plug that in, plus WP Mail and other  
13 parts of WPOffice, too."

14 Can you tell us or do you know what Mr. Cole was  
15 talking about here?

16 A. Yes. He was talking about most -- the technologies  
17 that I have mentioned in shared code, and he mentions a  
18 couple of the others from -- from other applications that --  
19 as part of shared code, we were -- I was asked many times,  
20 and being a liaison with Microsoft, I would consult with the  
21 other teams as well. So, as we would -- as we would move  
22 forward, we would discuss with each other about collectively  
23 how we should move technologies forward because it wasn't  
24 just a single product. We were trying to make all the  
25 products move forward in the same direction.

1           And so here he's mentioning the technologies we've  
2 talked about in the shared code, WP Mail, if we had a  
3 separate mail group, and we talked to them quite often  
4 because they had a -- they had different needs than  
5 WordPerfect did but still congruent needs with utilizing the  
6 shell extensions. And the document management system was a  
7 separate application as well, but we needed to integrate it  
8 in as well.

9           So the shared code team always had those ties to the  
10 other applications, so those are all the things that I see  
11 mentioned here.

12 Q.       Do you happen to know the name of the document  
13 management system? Apparently Mr. Cole forgot from who you  
14 had obtained the document management system.

15 A.       We obtained it from a company called Soft Solutions,  
16 and that document management system later went into the  
17 WordPerfect Suite.

18 Q.       And would the NameSpace extensions have allowed you to  
19 plug in, in Mr. Cole's words, that document management system  
20 into both the WordPerfect product and the Windows 95 product?

21 A.       Yes.

22 Q.       You talked a little bit about WP Mail. Do you happen  
23 to know what WP Office refers to?

24 A.       That's a general term for the collection of products  
25 that we have, but, specifically, when they talk about the

1 parts of WordPerfect Office, that would be name extensions.  
2 Most of that would have been shared code.

3 Q. Mr. Cole goes on to say in the next paragraph that he  
4 anticipates that WordPerfect will have a very exploitive  
5 Chicago app ready close to when Chicago ships. Close quote.

6 Mr. Harral, was that WordPerfect's goal?

7 A. Yes.

8 Q. We've already discussed that Microsoft told you at this  
9 meeting that they had decided to document the NameSpace  
10 extensions. Was there -- what, if any, suggestion was given  
11 to you from these Microsoft representatives that they might  
12 change their mind?

13 A. There wasn't any indication given at this meeting that  
14 they would change their mind.

15 Q. What, if any, suggestion was given to you from these  
16 Microsoft representatives that this was a tentative decision,  
17 subject to change?

18 A. There was not that indication given. In fact, when --  
19 leading up to the discussion about NameSpaces, as I said,  
20 they talked about how Windows 95 was going to change the way  
21 that people looked at PC's, the PC, personal computer.  
22 They -- to lead into the discussion about how we could add  
23 technologies to Windows 95, they demonstrated the NameSpaces  
24 that we had been talking about here, that they had done or  
25 talked about, the network neighborhood and the recycle bin.

1 I don't recall the briefcase being available at that time. I  
2 don't think it -- at least in the demonstration that they  
3 talked about, that wasn't, but we talked about these other  
4 ones.

5 So they demonstrated they were using those same  
6 technologies to build the Windows 95 platform, and we  
7 would be able to as well.

8 Q. Mr. Harral, I'd like you to now turn your attention to  
9 Plaintiff's Exhibit 113. Are you familiar with this  
10 document?

11 A. I am familiar with this document.

12 Q. And how did you become familiar with it?

13 A. I -- the document was distributed amongst developers  
14 and evangelists and managers at WordPerfect, a meeting that  
15 was held where the information was discussed. I was not able  
16 to attend the meeting, and it was distributed to everybody  
17 from the participants in that meeting.

18 Q. I'd like to turn your attention to the page -- and  
19 there's these little things called Bates numbers at the  
20 bottom of the pages. In this case, it's an NOV Bates number.  
21 And the page I want you to go to is ending 373, which is, I  
22 guess, the third page. That might have been easier to say.

23 This slide states, in the first bullet point, that,  
24 quote, "We are providing new controls you can and should  
25 use." Do you recall Microsoft encouraging WordPerfect and

1 other ISV's to use these new controls?

2 MR. TULCHIN: Sorry, Your Honor. I thought he just  
3 said he didn't attend the meeting when this was discussed.

4 THE COURT: Yeah. Establish a little more  
5 foundation.

6 MR. JOHNSON: Sure.

7 Q. BY MR. JOHNSON: Mr. Harral, in the meeting you did  
8 have with Microsoft that we talked about earlier, did they  
9 encourage WordPerfect and the other -- WordPerfect to use  
10 these new controls being offered in Windows 95?

11 A. Yes. That was the first part of our discussion.

12 Q. And did these new controls make it possible for  
13 WordPerfect to extend the shell, as shown in this, as  
14 indicated in the third bullet point on this page?

15 A. The new controls that they are referring to would be  
16 the common controls that they would want people to use. I  
17 don't know if those controls would directly cause them to  
18 reference the shell extensions.

19 Q. Okay. Let's turn to controls number 4 at the page  
20 Bates stamped 378. Are you on the page Bates stamped 378?

21 A. Yes. Oh, 37 -- sorry.

22 Q. It's on the screen, too, if you'd rather look at it  
23 there.

24 A. Okay.

25 Q. Does this page describe some of the NameSpace extension

1 API functionality?

2 MR. TULCHIN: Objection. Leading, Your Honor.

3 THE COURT: It's harmless. Go ahead.

4 THE WITNESS: This control is -- the way they  
5 represent it here -- the representation that they are given  
6 with this new control is that of the file viewing NameSpaces.

7 Q. And do you have any understanding of what they mean  
8 here by: Useful for custom container implementations?

9 A. They are showing, in the tree view here, that -- being  
10 able to organize information, and you would be able to add to  
11 the -- the things that were here and even the behavior of how  
12 it worked. So, you know, talking about custom containers,  
13 you might want to put your own content in here. You might  
14 want to -- for example, one thing that's custom is, like,  
15 while I'm in this place, there's this little indication here  
16 that says that's being shared with other people who are on my  
17 computer. And that's a customization of this particular view  
18 that's particular to browsing files.

19 And so that would -- those kind of extensions, being  
20 able to add to what they had originally intended here.

21 Q. Okay. Would you now turn to the page Bates stamped  
22 389, which contains the title Shell Extensibility. And  
23 drawing your attention to the forth bullet point, Explorer UI  
24 integration. Does this have anything to do with NameSpace  
25 extension functionality we've been talking about?

1 A. Yes, it does.

2 Q. Can you explain to the jury what the connection is?

3 A. Okay. Explorer UI integration. There's two things  
4 about a shell extension that have to be done. One is, you  
5 need to be able to plug your information into the shell so  
6 that it's available to everything else. The second thing is,  
7 you need a place to be able to present it to people so they  
8 can interact with it, so they can click on the files and they  
9 can move them around and drag them to other places and it  
10 behaves.

11 The Explorer UI, that was when we were looking at  
12 the Windows 95 desktop, so the background there and then the  
13 views that come down from it. Those are not just -- there  
14 are shell extensions there, but there are also those shell  
15 extensions, or those NameSpaces are communicating with the  
16 shell and saying, I've got ten things you need to put up in  
17 the view. And they are not allowed to drag them around. It  
18 would control that. But, if they press the copy button, I  
19 will let that happen. Those kind of things.

20 It's coordination between the desktop and this  
21 extension to let them act with each other so that when the  
22 user tries to perform these commonly done tasks that it  
23 behaves properly and so that's what they mean by UI. UI is  
24 user interface integration. You had an application that  
25 displayed a collection of file-like objects -- the ones we



1 are talking about are file-like objects -- create your own  
2 custom container and display it in the folder Explorer  
3 hierarchy.

4           So basically they are talking about how not only are  
5 you able to create these places, but you are going to be able  
6 to have some control over how they get presented to people.  
7 And that's important because, if I had a collection of files,  
8 and on the file system they were named with little short,  
9 tiny cryptic names, but I wanted to present long names to  
10 them, this would give me the ability to present those names  
11 in ways that people were used to seeing them in WordPerfect  
12 and could understand them. And so that's how you could do it  
13 in a way that is custom for that particular place.

14 Q.       Turning to the next page of this presentation, Bates  
15 stamped 390, does this slide have anything to do with the  
16 NameSpace extension API functionality we've been discussing?

17 A.       Yes. It says that -- it talks about applications, it  
18 says. It talks about application displays a pseudo folder,  
19 electronic mail document management. Pseudo folder. What  
20 they are saying is that it's something that looks like a  
21 folder in window browsing, because these are regular folders,  
22 but this here, that may actually be the link to the database,  
23 and these folders under here may actually just be names of  
24 how you organized your pictures when you stored them.

25           And so when it says pseudo or false folder, this is

1 basically saying they are presenting it as if it's something  
2 in their regular view, but it's actually not. It's something  
3 that's being presented with a custom view, like the previous  
4 slide said.

5 Q. So, did WordPerfect have any plan to display such  
6 pseudo folders for, for instance, as shown here, electronic  
7 mail and document management system?

8 A. Yes. Yes.

9 Q. Were those two of the things that, in fact, you had  
10 talked to Mr. Cole about during his visit a month earlier, in  
11 November of 1993?

12 A. Yes, we did.

13 Q. Let's turn to another page of this presentation, 393.  
14 It's entitled Ten Keys For Making a Great Windows Chicago  
15 Application UI, which I think you've told us was user  
16 interface. One of the keys, number 4, says "Use the common  
17 dialog file open or recreate its NameSpace accurately  
18 including network browsing and links." Can you explain that  
19 one to the jury?

20 A. Yes. So, we already looked at the common open dialog,  
21 and talked about how it represented the new things that were  
22 inside of the Windows 95 interface, the shell. So -- and we  
23 talked about how using those common dialogs -- I talked about  
24 how using those common dialogs would -- would allow for each  
25 application that was built to have a common way that people

1 could use their files and their documents and their  
2 information so that they could -- they could -- not have to  
3 relearn everything.

4           And this -- this number 4 item is pointing out,  
5 rightly so, that, in order for this operating system to  
6 succeed and have the applications that are consistent and  
7 leveraging all of the learning that people are going to do to  
8 run this, if you're going to get outside of using the things  
9 that are provided by the operating system, the open dialog  
10 the save dialog, the create folder dialog, the pick font  
11 dialog, whatever it happens to be, if you are not going to  
12 use those, then it's saying you need to recreate it  
13 accurately.

14           And that's because it's very disconcerting -- an  
15 example is, I work on Macintoshes and on PC's, and I have  
16 found it extremely annoying when I am running a Windows  
17 application on my Macintosh because it behaves differently,  
18 and I know how things are supposed to work, and it seems like  
19 the differences get in the way. Likewise, if I were running  
20 a Macintosh program on a Windows environment, the -- how  
21 you -- I can't size the window from every side. You go down  
22 in the corner. And when I close the application, the little  
23 box is in a different place. All of those little things get  
24 in the way.

25           And so they are pointing out the importance, here,

1 that it has to be consistent. You will confuse your user if  
2 there are things missing or that behave differently and so  
3 they are making sure that these applications succeed by  
4 pointing out that you've got to be able to conform to the  
5 whole way that Windows 95 is -- is communicating to the users  
6 of how you work in this environment.

7 Q. Now, did you ever have any discussion with Microsoft  
8 whether WordPerfect planned to use Microsoft's common file  
9 open dialog in its applications?

10 A. We did have that discussion, and we were -- we were  
11 interested in doing that. Anything that -- as I said before,  
12 shared code was a third of the application, effectively.  
13 That's a lot. And we had lots of things that we were looking  
14 at, you know, our plans for things that people needed in our  
15 product. And so, in shared code, if we can stop supporting  
16 something, then we can go on and do something else. We have  
17 plenty to do. But we also know that we have to maintain what  
18 we've done or we don't have any customers.

19 And so, if we could use the file, a common file  
20 dialog, if there was a way we could stop doing as much of the  
21 work that we had, and use it, we would do it. But if we  
22 needed to write one of our own to preserve the expectations  
23 of our customers, then we would do it. Whatever they needed,  
24 that's what we were going to do. So we were extremely  
25 interested in using the common dialog. If there was a way we

1 could use it and also give people what they expected from us,  
2 that was definitely the path that we wanted to take.

3 Q. And was that possible?

4 A. When we had this discussion, yes, that was possible.  
5 The question would be in the details of whether we would be  
6 able to do that or not. But, yes, the file open dialog, we  
7 had talked about that we -- there was a program, application  
8 program interface, an API, that we would be able to use that  
9 would allow for customization of those common dialogs. As I  
10 said, again, we didn't have the actual API's in that meeting,  
11 but they said that those would be provided later so that we  
12 would have the details of that.

13 Q. Did Microsoft provide Beta versions of Windows 95 to  
14 first wave participants?

15 A. They provided them to us.

16 Q. And what is a Beta?

17 A. In software development, the Beta is a point in your  
18 program where you are done writing your product to the point  
19 where you are not -- you're going to allow a large,  
20 controlled group to work with it. Before Beta -- so I've got  
21 to explain something backing up. Before Beta, there is  
22 Alpha. Alpha is usually released to specific people that  
23 know that you have most of the product there, or maybe all of  
24 it, with some problems, and you are evaluating, in an outside  
25 group, how -- the expectations that they had when you told

1 them about it, is it meeting their expectations? So it's  
2 a test of controlled people.

3 Then, when you go to Beta, you basically have  
4 consumed the Alpha input. You have worked out that input of  
5 people who are outside of your company and your -- you know,  
6 they don't have your blinders on them. So you're getting --  
7 you're probing a wider group of people, and then you've  
8 integrated that. When you go out to Beta, you're  
9 basically -- at that point, Beta in the industry is: I'm  
10 letting you all see this now. Now you're going to -- you're  
11 going to use it because we are trying to find the bugs, the  
12 things that are not -- that are breaking, where we are really  
13 saying most everything isn't changing at this point, but the  
14 Beta is to hammer out the problems; not, at that point, to do  
15 new features or change features.

16 Q. Do you recall when you received the first Beta from  
17 Windows 95?

18 A. I do not know when WordPerfect received the first Beta.  
19 I received the first Beta at the Chicago -- at the developer  
20 conference.

21 Q. And do you recall the milestone that that Beta was?

22 A. That was M6, as I recall.

23 Q. Did Microsoft, in addition to providing the Beta,  
24 provide any documentation for the NameSpace extension API  
25 functionality with this M6 Beta?

1 A. They did provide documentation for the extensions. It  
2 was the first time that I was able to go through. When --  
3 there's two kinds of documentation with software. There's  
4 the -- and I mentioned some before, with our libraries. You  
5 have the documentation that people read to know how they want  
6 to use the libraries or the features or the API's. Then,  
7 there is the description that the company produces, any  
8 company, when they are doing a library, that the compiler of  
9 the machine or the program will be able to read.

10 And a programmer can look at either one of these and  
11 get some information out of them. The person documentation  
12 is much more descriptive. It has -- it might have samples.  
13 It might have recommendations. The machine documentation is  
14 going to tell you basically how to tie it together. And  
15 so -- and so in the M6 Beta, there was some electronic  
16 documentation for people, and there were the header files  
17 that we could use that would give the exact definitions for  
18 the program, of how to tie it together.

19 Q. If you would take a look at Plaintiff's Exhibit 181 in  
20 your folder there. Can you explain to the jury what this is?

21 A. This is that machine computer documentation that I was  
22 referring to.

23 Q. And does this have anything to do with the NameSpace  
24 extension API functionality?

25 A. It -- you -- yes. The -- traditionally,

1 the documentation for the computer can be quite lengthy in  
2 some operating systems. It can be hundreds of thousands of  
3 lines, and so they traditionally will split it up into pieces  
4 so that you only need to include what you do. This -- this  
5 printout here is for the computer documentation for just the  
6 shell NameSpace extensions.

7 Q. And can you explain to the jury, looking through this  
8 document, just generally, not too much detail, please, about  
9 the functionality of each of the API's identified in this  
10 document?

11 A. I can try. Most of them. So. Okay. So, you're not  
12 going to see what I'm looking at, so I'll look over here.  
13 Can we move down to the bottom of the page? It says, right  
14 there -- this piece. Okay. So, the first -- this first  
15 piece, it's the shell. It's an item. We talked about how  
16 people wanted to view folders and files and places in  
17 databases. Where are my graphics stored? I don't care  
18 whether it's a file or a folder.

19 What that means, then, is that I need some way to  
20 name those things so that the computer can uniquely identify  
21 that's different than -- so, if I have a picture in the  
22 database, and I have the same picture on my local machine,  
23 even though it's the same file, I need to be able to know  
24 which one you're pointing at and which one you want.

25 So this first definition talked about an item ID and



1 ID list. It's a definition to capture that unique location.  
2 It's kind of like an address on your house. This is your  
3 full address on your letter. How can I find your doorstep?  
4 And they are storing inside of this definition, here's your  
5 full address, from what country you're in, all the way down  
6 to how many steps it is to your door.

7 Okay. So, the next page.

8 MR. JOHNSON: Have we got the next page?

9 THE WITNESS: This will get faster. Okay. The icon  
10 text menu down there. Second half. When you're in the  
11 shell, you can -- so, I'm not familiar with the operating  
12 systems you know, so we'll just go from there. On most  
13 operating systems now, you have a mouse, and you can use a  
14 curser with the mouse. If you move the mouse, you can go up  
15 to different items or files or things, and you can click with  
16 one or the other button.

17 If you press with your left mouse, the left button,  
18 you're usually telling it, I want to do that. If you press  
19 with the right button, you are saying, I want to interact  
20 with it. You are not telling it to do something yet. I want  
21 to see what my options are. The icon text menu brings --  
22 that's called a context menu, and it shows features or  
23 options that you can do.

24 So, on a folder in Windows 95, it might say, you  
25 know, mail this out to somebody. Or it might say, delete it.

1 It let's you choose. This is the way, underneath, how a  
2 NameSpace extension would expose its context menu for its  
3 items.

4 So the next page. And the next page. Okay. In the  
5 Windows 95 shell -- yeah. That one. Next line, please. So  
6 in the Windows 95 shell, there are NameSpaces. That's the  
7 shell extension. There are things called property sheets.  
8 We talk about being able to show for a document -- do you  
9 know want to know who typed it or when it was edited last?  
10 That's information that you put on a property sheet.

11 If you were to go to a document in Windows 95 and  
12 right click and say properties on it, then that would be  
13 something that would come up. That's a shell extension. If  
14 you have a folder, one of those pseudo folders I talked  
15 about, that's a shell extension because, in Windows 95, they  
16 call it the shell, so everything that's the shell, it's some  
17 piece of that desktop. And all of those things, whether it  
18 is the control panel for setting your settings or what  
19 printers I have or what devices I have or which mouse do I  
20 have, all of those are shell extensions. This is how you  
21 initialize for the shell, how it starts you up.

22 So let's go to the next one. So, this next one,  
23 those property sheets here is how you would get those  
24 property sheets up for the -- in the shell, showing that  
25 information about the document or the graphic. Okay.

1 IPersistFolder. That's okay. It's a short one. That's  
2 fine. IPersistFolder. When I'm inside of the -- when I'm  
3 inside of the shell and you click around and you move your --  
4 the little pictures around, you want them to stay there.  
5 Okay? You don't want them to migrate to places that you  
6 can't find them. You have arranged them the way you want, so  
7 persisting is talking about saving out the information you  
8 did.

9 If you told it to hide one or you --

10 THE COURT REPORTER: If you wanted to what?

11 THE WITNESS: So you didn't see it any anymore. I'm  
12 talking too fast. I'm sorry. We had this same problem  
13 during the deposition, didn't we, that I talked too fast?

14 Anyways. Whatever you do in that view, that's your  
15 information. You wanted it to be there. So, it's going to  
16 keep it. So this is a directive for it to save all your  
17 information out. It also is -- it's -- it also is going to  
18 give you access to some of those objects because I can show  
19 you the objects, but then the question is, once I get the  
20 object, can I actually -- you have shown it to me, and that's  
21 good for the user, but that doesn't mean the program can  
22 touch it. The program has to be able to go to that picture  
23 and read out all that information because just because you  
24 can show a picture that says you've got one there, that's not  
25 interesting to you. You want to be able to actually edit it

1 or do something with it.

2 It's talking about binding here. That's being able  
3 to go down -- it's taking the object that the shell has and  
4 says, I'm going to give you the real thing. I'm going to get  
5 it out of the database. I'm going to get it off the network,  
6 those places.

7 Q. Mr. Harral, there's so many of these. Let's just go to  
8 a few I'd like you to hit.

9 A. Thank you.

10 Q. On page 9 and 10 --

11 THE COURT: And then we'll break for lunch.

12 Q. BY MR. JOHNSON: On page 9 and 10 you've got one called  
13 IShellBrowser.

14 A. Okay.

15 Q. If we can get that one up. Can you tell us about that  
16 one?

17 A. Okay. IShellBrowser is when -- okay. So the shell, we  
18 talked about the shell, the Windows 95 shell. When the  
19 shell -- that desktop that comes up, that's letting you  
20 browse, letting you look at the things that are on the  
21 desktop. Then I click on my computer and it goes up and it  
22 says, okay, here's one of your disk drives. And I click on a  
23 disk drive, and it says, here's all your files. And I can  
24 keep going through it. These are all browsers because it's  
25 letting you browse your -- when we talk about internet

1 browsers, it's letting you browse the internet. Well, the  
2 shell is letting you browse your computer, and that might  
3 include the internet, it might include all sorts of -- all  
4 the NameSpaces are available now.

5           When a NameSpace comes up, the NameSpace knows how  
6 to present the things that it knows, but it doesn't know  
7 anything about where -- where it's supposed to put them. It  
8 doesn't know. It's the browser that knows. The browser  
9 says, I've got this space on your screen, and I'm going to  
10 put the things in here. It controls all of the places where  
11 things go. And then, that shell extension, the NameSpace is  
12 going to say, well, here's the things you need to put on it.  
13 Go do it.

14           The IShellBrowser is the API that is given to the  
15 shell extension to broker displaying those things on your  
16 desktop or in those windows underneath the desktop.

17 Q.       Okay. And then the -- I'm going to mispronounce this,  
18 I know. ICommanddigBrowser on page 12. If we could get to  
19 that one?

20 A.       Okay. ICommdigBrowser. It stands for the common  
21 dialogs. Okay. This -- just like -- just like the  
22 IShellBrowser, is the way that a NameSpace could negotiate  
23 for displaying its items, its folders or files, or whatever,  
24 to the person using the system. If we wanted, then, to  
25 enhance the way that the common dialogs worked, because you

1 can just display the common dialog and just have it give you  
2 back the file names, but if you wanted to enhance the common  
3 dialogs, this interface is similar to the browser in that now  
4 I'm negotiating for the space on the common dialog. If I  
5 wanted to change it so that it could resize on all sides, I  
6 could do that, or if I wanted to make it so it could drag and  
7 drop items off of the dialog onto the desktop -- I have done  
8 that before. I'm going along and I realize, oh, it's not  
9 here. And so I go on and it's not where I want it to be, and  
10 so I might go and find it -- it's -- I want to go and find  
11 it, and I might find it in the browser and drag it out there.  
12 You know, it's unrelated to me opening the file.

13 So this is the interface that's like the shell  
14 browser that lets me modify how the program would present the  
15 common dialog. Okay.

16 Q. Then IShellView on pages 13 -- I think it's on page 13.

17 A. Thanks. Okay. The shell view is -- now that I have a  
18 place in the browser to put my -- my view of things, the  
19 shell view is what the NameSpace extension does to draw the  
20 information. So, once it's negotiated with the browser, the  
21 IShellBrowser, which is the shell where can I draw my things  
22 and under what conditions can I do that? The IShellView is  
23 the browser coming back to me and saying, oh, your window  
24 just came to the front. You need to show it. You need to  
25 draw all those things you said you were going to draw or, oh,

1 so something went over the top of you, you need to change how  
2 you're coloring things so that people don't think that they  
3 are touching your window anymore, they are touching this  
4 other one.

5 And so all of that -- all of that control that the  
6 browser has to make sure that people don't get confused, this  
7 is the NameSpace talking to the desktop telling it what's  
8 displayed.

9 Q. Okay. And just one more. IShellFolder, page 15.

10 A. Okay. So we talked -- I talked about the -- how we  
11 draw things. Once we have drawn those things and you select  
12 a file, IShellFolder is a way to take that -- those shell  
13 items we talked about in the beginning, and you can go back  
14 to the shell folder. And now this is how I go and say, okay,  
15 I want that thing or I want to delete it or I want to do  
16 something with it.

17 And so this is the program. I showed you there --  
18 this is how the program interacted with the IShellFolder,  
19 what the program then uses to be able to do the work that we  
20 told it to do with the other pieces.

21 Q. Now, Mr. Harral, I know you didn't get through all of  
22 those, there are a lot of them, but do each of these, then,  
23 represent an API provided by Microsoft to you?

24 A. Yes.

25 MR. JOHNSON: Your Honor.

1 THE COURT: Thank you.

2 Why don't we -- I think your lunch is here a little  
3 early. I hope it's there now. We'll break for 20 minutes or  
4 so, maybe a few minutes longer, and then we'll pick up at 12  
5 and then we'll have an hour and a half of testimony after.

6 And let me stay here with counsel and Mr. Harall for  
7 just a second.

8 (The jury leaves the courtroom.)

9 THE COURT: I want to ask you a couple questions,  
10 and I don't want to do it in front jury, because, A, I  
11 don't -- sometimes jurors draw wrong inferences from the fact  
12 that a Judge is asking questions. Secondly, I don't think  
13 that -- many of my questions are not good, and even if they  
14 are good, they are not well asked. And they are not meant to  
15 be trick questions, sir, but I have got to understand some  
16 things about this case.

17 As I understand your testimony, at least parts of  
18 your testimony, you and your fellow developers at Novell were  
19 very excited about Windows 95. It was technological  
20 breakthrough. It was a whole new operating system, a whole  
21 new -- not a whole new operating system, it was something  
22 that was a real breakthrough in the industry?

23 THE WITNESS: Yes.

24 THE COURT: And I can understand why you think that  
25 the withdrawal of the API's, the NameSpace extensions hurt



1 you, Novell, and the consumer, but, in the short run, at  
2 least, talking through the time that Windows 95 is marketed,  
3 at least in that period, from your point of view -- and I'm  
4 not asking you to speak for Novell generally, but from your  
5 point of view, Microsoft was hurting itself, wasn't it,  
6 because it was making Windows 95 less desirable because it  
7 was not allowing the enhancements that you would have brought  
8 to the product?

9 THE WITNESS: Yes. I -- the enthusiasm that we saw  
10 when we talked with the Microsoft representatives were that  
11 they understood -- we had just -- I'll back up a second. We  
12 had just come off of the OS/2 operating system to Windows.  
13 We had done the transition. And in -- one of the major  
14 reasons we felt that OS/2 didn't do as well and Windows did  
15 was because Windows had applications that -- and features  
16 that people could use. It was useful for business.

17 And so, anything that brings to the operating system  
18 the features that people want, enhances their ability to stay  
19 on that operating system.

20 THE COURT: So, therefore, in the short run, at  
21 least, by withdrawing the API's, Microsoft was hurting it's  
22 own product and perhaps reducing its market share?

23 THE WITNESS: That was confusing to me, because  
24 that's exactly how I saw that.

25 THE COURT: Okay. Thank you.

1 I'll take a short recess. And, incidentally --  
2 thank you very much.

3 In terms of that deposition, I absolutely -- I think  
4 I agree with Novell. I certainly did until I read the rule  
5 that the counter designations should not be read, but now  
6 that I've read the rule, it's not quite just context. It  
7 is -- I'm supposed to let in -- that, in fairness, should be  
8 considered with the party introduced.

9 That's a slightly broader standard than I thought it  
10 was, which was going to understanding the question. One  
11 could say: Look, it's fair. We're talking about the same  
12 document. It's just different parts of the same document,  
13 and, in fairness, everything that was asked about that  
14 document should be asked. Also fairness as to the Micro  
15 issue of fairness.

16 The macro issue of fairness is, I have obviously --  
17 over Mr. Tulchin's understandable objection, I will have  
18 Novell -- and I think appropriately -- sort of put things in  
19 at different times. And I postponed Mr. Taskier and keeping  
20 him from reading those wonderful findings. I have allowed  
21 the deposition to -- the video to be given at different  
22 times. I think that's the right decision. In terms of macro  
23 fairness, rather than bringing this in truncated fashion,  
24 that was -- if it was related to the document being asked  
25 about -- it's not totally unrelated -- and since I'm allowing

1 testimony to try to come in in an untruncated fashion, my  
2 preference would be -- I haven't ruled yet, but my preference  
3 would be to allow that portion designated by Microsoft to  
4 come in.

5           So if you all will talk about it. And I understand  
6 exactly where Novell is coming from on that, but the  
7 standards are slightly different than I thought, and one  
8 could even just say, just looking at the document, this is  
9 part of the document. In fairness, it all should be read.

10           Frankly, more important -- at least important is the  
11 fact -- the way I am not allowing evidence to be presented  
12 in a non-truncated fashion. So just take that into account  
13 and talk about it at the end of the day.

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(Short recess.)